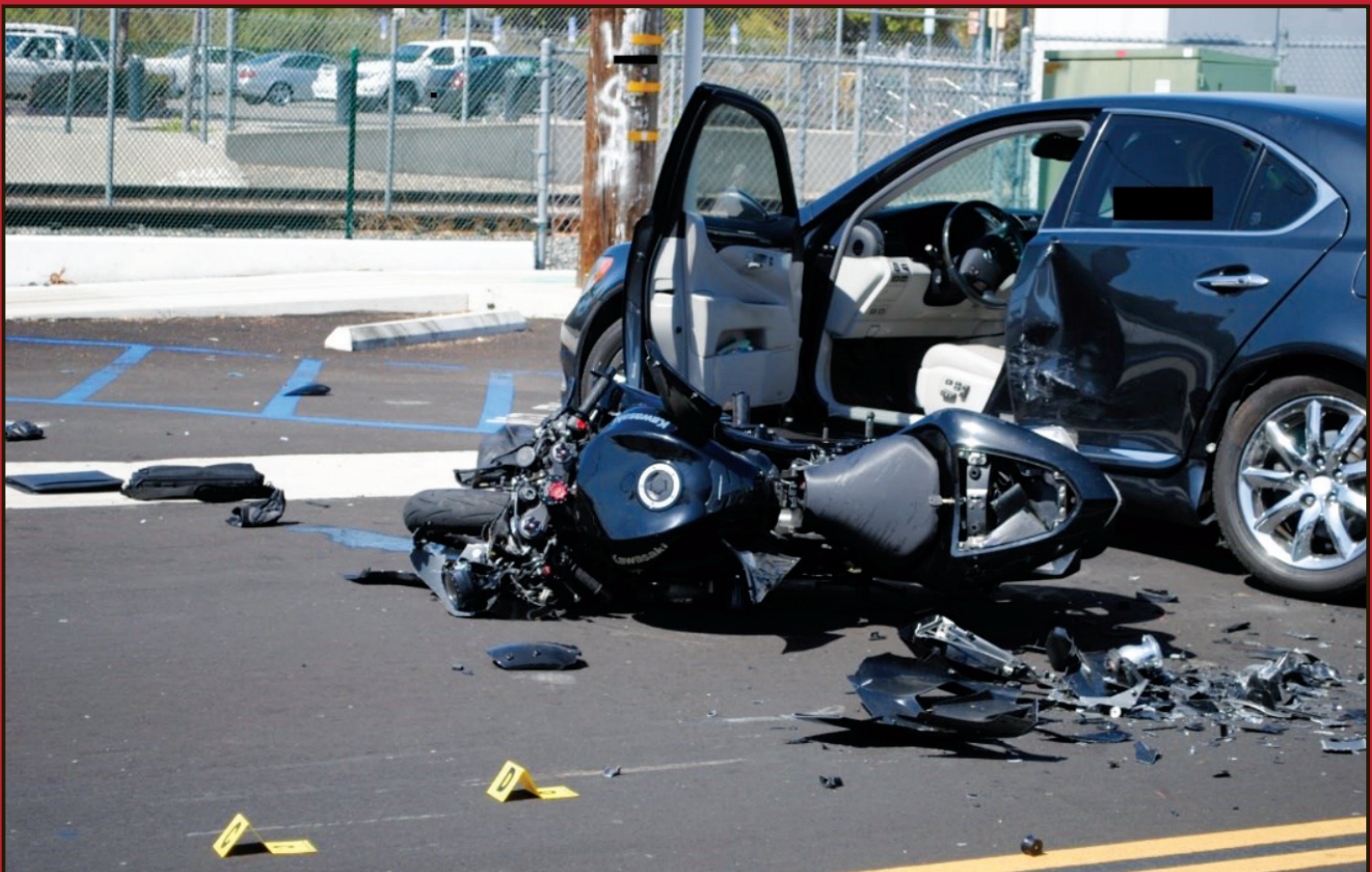


Motorcycle Crash Causation Study: Volume 1—Data Collection and Variable Naming

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FOREWORD

The Motorcycle Crash Causation Study, conducted through the Federal Highway Administration Office of Safety Research and Development, produced a wealth of information on the causal factors for motorcycle crashes, and its corresponding Volumes provide perspectives on what crash-countermeasure opportunities can be developed. This study used a crash- and control-case approach developed from the Organisation for Economic Cooperation and Development protocols, which as discussed in this report, has provided insights into more than 1,900 data elements that may be associated with motorcycle-crash causation. The research team produced a final report along with a 14-volume series of supplemental reports that provide an overview of the study and a summary of its observations, the data-collection forms and coding definitions, a tabulation of each data element collected from each form, and selected comparisons with previous studies. It is anticipated that readers will select those Volumes and data elements that provide information of specific interest.

This document, *Volume 1—Data Collection and Variable Naming*, describes the data naming conventions, lists 2,600 uniquely named variables produced in the database, and provides a means for users to identify variables of interest. This report will be of interest to individuals involved in traffic safety, safety training, crash and injury reduction, and roadway design and policy making, as well as to motorcycle- and safety-equipment designers, crash investigators and researchers, motorcycle and automotive manufacturers and consumers, roadway users, and human-factors specialists.

Brian P. Cronin, P.E.
Director, Office of Safety and Operations
Research and Development

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16. Abstract The purpose of this study was to gather data on motorcycle crashes by intensive post-crash investigations and control motorcycle observations and interviews conducted in Orange County, CA. The study developed a dataset that researchers can access and use to investigate additional research questions. The database provides data from 351 injury crashes and 702 paired control observations. Of the crashes observed, 82 were single-vehicle crashes, and 269 were multiple-vehicle crashes involving a total of 294 other in-transit vehicles and 11 parked vehicles. Forty crashes resulted in fatalities with 22 single-vehicle-crash and 18 multiple-vehicle-crash fatalities observed. The study compiled observations on rider, passenger, and other-vehicle driver demographics; environmental factors; factors contributing to the crash; motorcycle and other-vehicle parameters; injuries sustained; and clothing/safety equipment used. For crashes, the research team compared observations for crash and control riders, passengers, and motorcycles and other vehicles involved in the crashes. Within the crash observations, the study compiled and compared the data for single- and multiple-vehicle crashes, fatality and non-fatality crashes, along with selected previous studies and elements of the National Automotive Sampling System (NASS)/General Estimates System (GES) and Fatality Analysis Reporting System (FARS) databases. ⁽¹⁻³⁾ The data are available in SAS® and Excel™ formats along with a Coding Manual defining all codes used. ⁽⁴⁾			
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SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
AREA				
in ²	square inches	645.2	square millimeters	mm ²
ft ²	square feet	0.093	square meters	m ²
yd ²	square yard	0.836	square meters	m ²
ac	acres	0.405	hectares	ha
mi ²	square miles	2.59	square kilometers	km ²
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft ³	cubic feet	0.028	cubic meters	m ³
yd ³	cubic yards	0.765	cubic meters	m ³
NOTE: volumes greater than 1000 L shall be shown in m ³				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
ILLUMINATION				
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m ²	cd/m ²
FORCE and PRESSURE or STRESS				
lbf	poundforce	4.45	newtons	N
lbf/in ²	poundforce per square inch	6.89	kilopascals	kPa
APPROXIMATE CONVERSIONS FROM SI UNITS				
Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
AREA				
mm ²	square millimeters	0.0016	square inches	in ²
m ²	square meters	10.764	square feet	ft ²
m ²	square meters	1.195	square yards	yd ²
ha	hectares	2.47	acres	ac
km ²	square kilometers	0.386	square miles	mi ²
VOLUME				
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m ³	cubic meters	35.314	cubic feet	ft ³
m ³	cubic meters	1.307	cubic yards	yd ³
MASS				
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
TEMPERATURE (exact degrees)				
°C	Celsius	1.8C+32	Fahrenheit	°F
ILLUMINATION				
lx	lux	0.0929	foot-candles	fc
cd/m ²	candela/m ²	0.2919	foot-Lamberts	fl
FORCE and PRESSURE or STRESS				
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in ²

* SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380. (Revised March 2003)

MOTORCYCLE CRASH CAUSATION STUDY REPORT SERIES

This Motorcycle Crash Causation Study (MCCS) research report series is comprised of a final report supplemented by 14-volumes. This document is Volume 1. Each Volume is a description of a data-collection form or protocol used in the MCCS, and any reference to a Volume in this series will be referenced in the text as “MCCS Volume 1,” “MCCS Volume 2,” and so forth. A list of the Volumes is as follows:

Volume	Title	Report Number
1	Data Collection and Variable Naming	18-040
2	Coding Manual	18-039
3	Crash Form Data Tabulation	Unpublished, available on request
4	Environment Form Data Tabulation	Unpublished, available on request
5	Contributing Factors Form Data Tabulation	Unpublished, available on request
6	Motorcycle Rider and Control Rider Forms Data Tabulation	Unpublished, available on request
7	Motorcycle Passenger and Control Passenger Forms Data Tabulation	Unpublished, available on request
8	Motorcycle Mechanical and Control Motorcycle Mechanical Forms Data	Unpublished, available on request
9	Motorcycle Dynamics Form Data Tabulation	Unpublished, available on request
10	Injury Form Data Tabulation	Unpublished, available on request
11	Other Vehicle Driver Form Data Tabulation	Unpublished, available on request
12	Other Vehicle Form Data Tabulation	Unpublished, available on request
13	Helmet Form Data Tabulation	Unpublished, available on request
14	Study Comparison Report	Unpublished, available on request

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LIST OF ABBREVIATIONS

ABS	antilock braking system
BAC	blood alcohol content
CD	compact disc
CF	Crash Form/center front
CM	Control Motorcycle Mechanical Form
CP	Control Motorcycle Passenger Form
CR	Control Motorcycle Rider Form/center rear
DID	Daido
DOT	department of transportation
EF	Environment Form
EL	entire left side
EMS	emergency medical services
ER	emergency room/entire right side
FARS	Fatality Analysis Reporting System
FCI	Functional Capacity Index
FF	Contributing Factors Form
FHWA	Federal Highway Administration
GES	General Estimates System
GPS	global positioning system
HF	Helmet Form
IF	Injury Form
ISS	injury severity score
LC	left center
LF	left front
LR	left rear
LT	left turn
MC	Motorcycle
MCCS	Motorcycle Crash Causation Study
MD	Motorcycle Dynamics Form
MM	Motorcycle Mechanical Form
MP	Motorcycle Passenger Form

MR	Motorcycle Rider Form
MV	motor vehicle
N/A	not applicable
NASS	National Automotive Sampling Survey
NC	no direct contact to motorcycle
OD	Other Vehicle Driver Form
OECD	Organisation for Economic Cooperation and Development
OV	Other Vehicle Form/other vehicle
PAR	Police Accident Report
PDOF	principal direction of force
POI	point of impact
POR	point of rest
RC	right center
RF	right front
RR	right rear
RT	right turn
SAS	Statistical Analysis Software
TC	top center
TF	top front
TR	top rear
UC	undercarriage center
UF	undercarriage front
UR	undercarriage rear
USDOT	United States Department of Transportation
VIN	vehicle identification number

DATA-COLLECTION FORMS

The Federal Highway Administration (FHWA) conducted this Motorcycle Crash Causation Study (MCCS) to identify and evaluate factors that may contribute to the rising toll of motorcycle crash-related fatalities and injuries in the United States. Data were collected on 351 police-reported, motorcycle-involved, injury-producing crashes. Whenever possible, trained investigators responded to notifications of crashes and began data collection while first responders were present at the scene of the crash. Data collection was executed using 14 data-collection forms. These forms each contain a series of questions (herein referred to as variables) and designated spaces for entering the responses. Responses were selected from a series of codes, and each series provided either a complete set of possible responses or a list of anticipated responses and the ability to enter additional data in a text field. The screen capture in figure 1 is an example of a logically complete set of anticipated responses to the variable asking which day of the week the crash occurred. The full form is available in appendix A-1.

1. Day of Week Crash Occurred

- (1) Monday
- (2) Tuesday
- (3) Wednesday
- (4) Thursday
- (5) Friday
- (6) Saturday
- (7) Sunday

Source: FHWA.

Figure 1. Screen capture. Example of a logically complete set of anticipated responses.

In this example, only seven responses are possible, all of these responses are listed, and the single digit representing the appropriate day of the week would be entered on the space provided. For other variables, the possible responses are too numerous to list, and so, the data would be entered directly in the spaces provided on the form, such as in the case of the odometer reading of a motorcycle. The screen capture in figure 2 is an example of such a variable. The full form is available in appendix A-8. For unusual situations, guidance was provided in each variable (regarding the odometer reading, for instance, if the odometer were broken or missing, a response could not be obtained).

8. Odometer Reading in Miles

(000001–999996) actual number of miles
(999999) unknown

Source: FHWA.

Figure 2. Screen capture. Odometer reading in miles.

For many variables, while it was possible to enumerate most of the possible responses with a high degree of confidence, the data-collection forms provided the investigator the ability to either select from the coded responses or to select a response code. In unusual cases, for instance,

“(98) other (specify)” would be selected and the data added into a text field. The screen capture in figure 3 is an example of this type of variable. The full form is available in appendix A-12. Only in cases when a written response for the variable was required would the investigator enter data in the associated text field; this saved time in data entry, assured consistent responses, and provided a verification that the list did not include the needed response/code. Periodically, the entries in the text fields were reviewed and the Coding Manual (MCCS Volume 2) and data-collection forms were updated.⁽⁴⁾

14. What Was Your Trip Destination?

- (01) home
- (02) work, business
- (03) recreation/social
- (04) school
- (05) errand, shopping
- (06) family, friends, relatives
- (07) meals, restaurant, café, etc.
- (08) transport someone
- (09) medical/dental
- (10) bar/pub
- (11) religious activity
- (12) personal business/obligations
- (13) no destination, joy riding
- (98) other (specify) _____
- (99) unknown

Source: FHWA.

Figure 3. Screen capture. Trip Destination.

Each of the 14 data-collection forms are provided in appendix A. These forms and their corresponding abbreviations, which were used for naming purposes (discussed further in the section Data Naming and Coding: Conventions and Identification of Data Elements for Research) are as follows:

- Crash Form (CF).
- Environment Form (EF).
- Contributing Factors Form (FF).
- Motorcycle Rider Form (MR).
- Control Motorcycle Rider Form (CR).
- Motorcycle Passenger Form (MP).
- Control Motorcycle Passenger Form (CP).
- Motorcycle Mechanical Form (MM).
- Control Motorcycle Mechanical Form (CM).
- Motorcycle Dynamics Form (MD).
- Injury Form (IF).
- Other Vehicle Driver Form (OD).
- Other Vehicle Form (OV).
- Helmet Form (HF).

Whenever two or more forms contained the same variables, which often occurred with the pairs of crashed and control riders, passengers, and motorcycles, the enumerated responses were identical so that the responses were consistently coded and readily tabulated and compared. Volumes 3 through 13¹ of this study provide the tabulations and comparisons of the data collected on the various forms. The 14 Volumes provide example data comparisons to previous and national studies.^(4,5)

¹Volumes 3 through 14 are available through FHWA on request.

DATA NAMING AND CODING: CONVENTIONS AND IDENTIFICATION OF DATA ELEMENTS FOR RESEARCH

Within the study, variable naming conventions were employed to enable identification of similar data elements. Within the SAS® and Excel™ data, variable names were developed as concatenations of acronyms and abbreviations to enable researchers to quickly and easily associate data elements that may be needed to address their research interests. All variable names were limited to 32 characters or fewer by the SAS® software. The general format of variable names concatenated the form acronym with the three-digit variable number and a variable descriptor developed using block codes. For example, the variable that tallies the number of motorcycle passengers involved in the crash is variable 8 of the Crash Data-Collection Form and would be designated as CF008_MCPASSENGERCOUNT.

On the data-collection forms (see appendix A of this Volume), the team endeavored to enumerate and define the most likely responses. As not all of the possible responses could be explicitly enumerated or would be applicable in all situations, three codes were provided: “not applicable,” “other (specify),” and “unknown.” These three codes always ended with the digits 97, 98, or 99, respectively. Whenever the format for the data entry required more than two digits, additional preceding 9s (997, 9997, 99997, ...) were included to assure data consistency. The “other (specify)” code (all 9s followed by an 8 entered into the response field) was provided to capture unanticipated responses in text. To capture such unanticipated responses, a two-level response format was used. Whenever a field investigator encountered a situation in the field that was not included in the list of anticipated responses, the investigator would enter a series of 9s ending with an 8 to designate that a text field would be used to enter the data. Data elements that were used to hold these text data appended the characters “TXT” to the block code. For example, if an investigator encountered a rider with an unusually colored helmet, in response to variable 30 of the Motorcycle Rider Data-Collection Form, he or she would first record “98” for the variable MR030_HELMETCOLOR and then a text description/designation of the color in the MR30_HELMETCOLORTXT field. As the study unfolded, whenever the same TXT response began to appear repeatedly, the response was added to the enumerated list of responses on the data-collection form and to the Coding Manual (MCCS Volume 2).⁽⁴⁾ This enabled the responses to be included in and improve the strength of the statistical analyses (see Volumes 3 through 14² for tabulation and statistical comparisons of the observed data). A full list of all data names used in the study is provided in appendix B of this Volume.

This data naming structure was established in order to assist researchers in the identification of data items of interest and provide a means of grouping and exploring the relationships of (possibly) related data elements so that their individual and collective interaction/influence on crash potential can be developed. For example, in a study on conspicuity, one might wish to generate a list of data elements related to color. The following is a list of the 72 data elements with the first two letters providing the data form/entity identification, the next three numbers

²Volumes 3 through 14 are available through FHWA on request.

indicating the variable number on the data form, and the descriptor following the underscore providing a description of the data element that includes the character string “COLOR”:

- CM014_HF007.
- CM014_MCCOLOR.
- CM014_MCCOLORTXT.
- CP008_HELMETCOLOR.
- CP008_HELMETCOLORTXT.
- CP009_FACESHIELDCOLOR.
- CP009_FACESHIELDCOLORTXT.
- CP042_CLOTHINGCOLORTORSO.
- CP042_CLOTHINGCOLORTORSOTXT.
- CP042_CLOTHINGCOLORWAISTDOWN.
- CP042_CLOTHINGCOLORWAISTDOWNTXT.
- CP042_COLORFOOTWEAR.
- CP042_COLORFOOTWEARTXT.
- CP042_COLORGLOVES.
- CP042_COLORGLOVESTXT.
- CP044_COLOROFLENS.
- CP044_COLOROFLENSTXT.
- CR016_HELMETCOLOR.
- CR016_HELMETCOLORTXT.
- CR017_FACESHIELDCOLOR.
- CR017_FACESHIELDCOLORTXT.
- CR068_CLOTHINGCOLORTORSO.
- CR068_CLOTHINGCOLORTORSOTXT.
- CR068_CLOTHINGCOLORWAISTDOWN.
- CR068_CLOTHINGCOLORWAISTDOWNTXT.
- CR068_COLORFOOTWEAR.
- CR068_COLORFOOTWEARTXT.
- CR068_COLORGLOVES.
- CR068_COLORGLOVESTXT.
- CR071_COLOROFLENS.
- CR071_COLOROFLENSTXT.
- HF007_HELMETCOLOR.
- HF007_HELMETCOLORTXT.
- HF008_MR086.
- HF008_FACESHIELDCOLOR.
- HF008_FACESHIELDCOLORTXT.
- MM010_MCCOLOR.
- MM010_MCCOLORTXT.
- MP011_HELMETCOLOR.
- MP011_HELMETCOLORTXT.
- MP012_FACESHIELDCOLOR.

- MP012_FACESHIELDCOLORTXT.
- MP046_CLOTHINGCOLORTORSO.
- MP046_CLOTHINGCOLORTORSOTXT.
- MP046_CLOTHINGCOLORWAISTDOWN.
- MP046_CLOTHINGCOLORWAISTDOWNTXT.
- MP046_COLORFOOTWEAR.
- MP046_COLORFOOTWEARTXT.
- MP046_COLORGLOVES.
- MP046_COLORGLOVESTXT.
- MP048_COLOROFLENS.
- MP048_COLOROFLENSTXT.
- MR030_HELMETCOLOR.
- MR030_HELMETCOLORTXT.
- MR031_FACESHIELDCOLOR.
- MR031_FACESHIELDCOLORTXT.
- MR083_CLOTHINGCOLORTORSO.
- MR083_CLOTHINGCOLORTORSOTXT.
- MR083_CLOTHINGCOLORWAISTDOWN.
- MR083_CLOTHINGCOLORWAISTDOWNTXT.
- MR083_COLORFOOTWEAR.
- MR083_COLORFOOTWEARTXT.
- MR083_COLORGLOVES.
- MR083_COLORGLOVESTXT.
- MR086_COLOROFLENS.
- MR086_COLOROFLENSTXT.

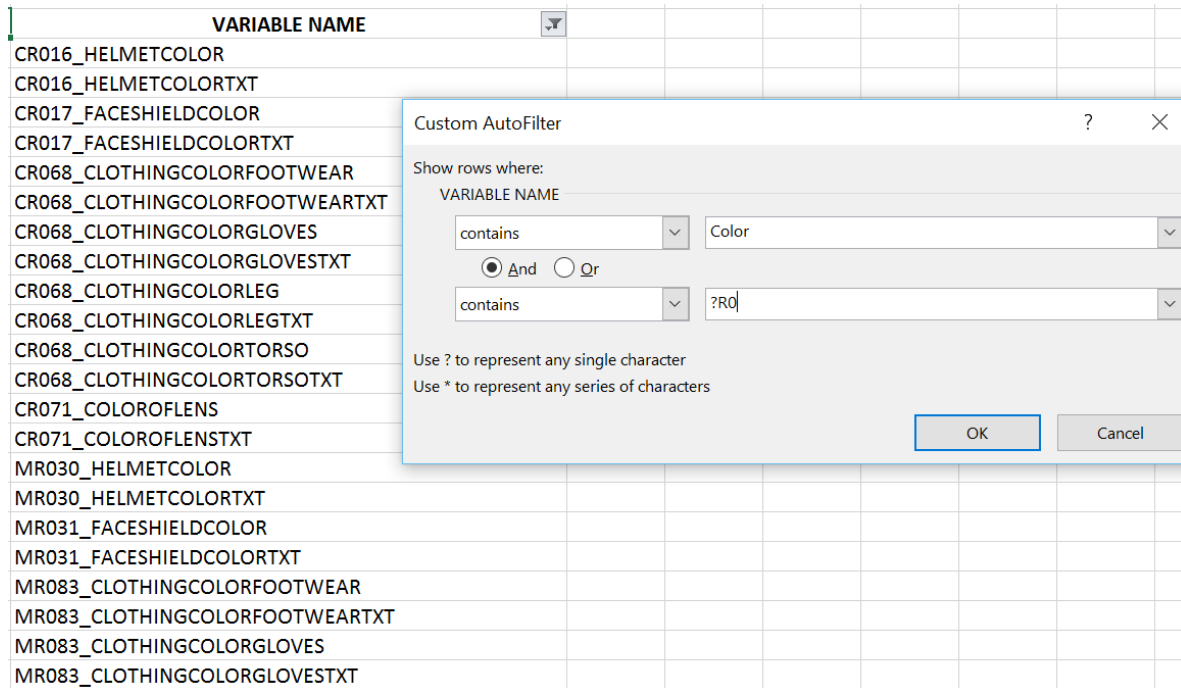
Within the dataset, separate records are available and numbered consecutively to distinguish the multiple entities when more than one is associated with a particular crash. For example, each injury is included as a separate record. Whenever the rider, passenger, and other crash-involved individual were injured in the same crash, a separate Injury Data-Collection Form was used to collect the data for each individual. Each form for the crash is identified by the crash number and the injured individual's unique identifier, and the individual/multiple injuries are each uniquely/serially numbered and identified in the data. This allowed grouping of the data for the crash as well as for each individual as needed in the analysis.

In a similar vein, some variables collected multiple responses. For example, a rider may hold multiple licenses or endorsements, such as motorcycle, auto, chauffer, etc., or perform multiple pre-departure motorcycle checks, such as for tire inflation, worn cables, fluids, etc. For variables that received multiple responses, a numerical designator was added to each response so it could be identified individually. For example, a motorcycle rider may have up to four licenses, the data elements of which would be named MR091_LICENSETYPE1, MR091_LICENSETYPE2, MR091_LICENSETYPE3, and MR091_LICENSETYPE4.

The list of data elements provided in this Volume may be searched visually or by using document/text filters, or for those researchers wishing to work directly with the case data (see

next section of this document, Procedures for Obtaining Electronic Study Files/Data for instructions on how to access the data), searchable lists in Excel™ can be obtained and used. By filtering the data-element names, for example, using the text filters in Excel™, one can easily find the variables of interest, especially in Volumes 3 through 14 of this study.

An example of a search for data elements related to color for both crash and control riders using text filters in Excel™ is illustrated in figure 4. Note that the “AND” option and the wild card, “?”, are used to limit the search to variable names that contain “COLOR,” and MR0 and CR0 are specified to search only for the MR and CR and variables 01 through 99.



Source: FHWA.

Figure 4. Screen capture. Example of a search for data elements related to color for both crash and control riders.

All of the data-collection forms are provided in appendix A. A complete list of all data-element names in Volumes 3 through 13 and in the SAS® and Excel™ data files is provided in appendix B.

PROCEDURES FOR OBTAINING ELECTRONIC MCCS FILES AND DATA

Instructions for obtaining copies of the data from the MCCS or copies of the final report and corresponding Volumes are provided on the FHWA MCCS website.⁽⁶⁾

DATA AVAILABLE ON REQUEST

Electronic versions of the data gathered during the MCCS are available to researchers in SAS® and Excel™ formats. The complete dataset or selected subsets of the crash and control data collected during the study are available upon request to FHWA as outlined on the website.⁽⁶⁾ Data from each of the 14 data-collection forms are available in SAS® and Excel™ formats as well as metadata files of all variables and how cases were classified for grouping and analysis in the study. MCCS Volume 2, a coding manual defining all response codes and their interpretations and meanings, is also available.⁽⁶⁾

APPENDIX A. DATA-COLLECTION FORMS

A-1. CRASH DATA-COLLECTION FORM

The following form is a blank form.

Crash Form

Case Number _____

1. Day of Week Crash Occurred

- (1) Monday _____
- (2) Tuesday _____
- (3) Wednesday _____
- (4) Thursday _____
- (5) Friday _____
- (6) Saturday _____
- (7) Sunday _____

2. Time of Day Crash Occurred

24-hour clock _____ : _____

3. First Harmful Event for Motorcycle

- (01) collision with other motor vehicle _____
- (02) collision with fixed object _____
- (03) collision with nonfixed object _____
- (04) collision with pedestrian/cyclist/nonmotorist _____
- (05) noncollision _____
- (98) other event (specify) _____
- (99) unknown event or object _____

4. If This Case Is a MC vs. MC, Provide Matching Case Number

5. Presence at Crash Scene CODE UP TO FOUR

- (00) not on scene _____
- (01) nothing present _____
- (02) crash vehicles present _____
- (03) police present _____
- (04) EMS present _____
- (05) motorcycle rider present _____
- (06) motor vehicle driver(s) present _____
- (07) motorcycle passengers present _____
- (08) motor vehicle passengers present _____
- (09) nonmotorists present _____
- (98) other present (specify) _____
- (99) unknown _____

6. How Many Other Vehicles Were Involved in the Crash?

- (00) none _____
- (01) one _____
- (02) two _____
- (03) three _____
- (04) four or more _____
- (96) noncontact with other vehicle _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

7. How Many Pedestrians Were Involved in the Crash?

- (00) none _____
- (01) one _____
- (02) two _____
- (03) three _____
- (04) four or more _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

8. Number of Passengers on the Motorcycle

- (00) none _____
- (01) one _____
- (02) two _____
- (03) three _____
- (04) four _____
- (05) five _____
- (06) six _____
- (99) unknown _____

9. Are there Any Fatal Injuries?

- (00) no _____
- (01) yes _____
- (99) unknown _____

10. Crash Configuration

- (01) head-on collision of MC and OV
- (02) OV into MC impact at intersection; both vehicles proceeding straight ahead, paths perpendicular
- (03) MC into OV impact at intersection; both vehicles proceeding straight ahead, paths perpendicular
- (04) OV turning left in front of MC, MC proceeding in either direction perpendicular to OV path
- (05) OV turning right in front of MC, MC proceeding in either direction perpendicular to OV path
- (06) MC and OV traveling in opposite directions, OV turns in front of MC, crossing MC path, OV impacting MC
- (07) MC and OV traveling in opposite directions, OV turns in front of MC, crossing MC path, MC impacting OV
- (08) MC turning left in front of OV, OV proceeding in either direction perpendicular to MC path
- (09) MC turning right in front of OV, OV proceeding in either direction perpendicular to MC path
- (10) MC overtaking OV while OV turning left
- (11) MC overtaking OV while OV turning right
- (12) OV impacting rear of MC
- (13) MC impacting rear of OV
- (14) sideswipe, OV and MC traveling in opposite directions
- (15) sideswipe, OV and MC traveling in same directions
- (16) OV making U-turn or Y-turn ahead of MC
- (17) other MC/OV impacts
- (18) MC falling on roadway, no OV involvement
- (19) MC running off roadway, no OV involvement
- (20) MC falling on roadway in collision avoidance with OV
- (21) MC running off roadway in collision avoidance with OV
- (22) other MC accidents with no OV or other involvement
- (23) MC impacting pedestrian or animal
- (24) MC impacting environmental object
- (98) other (specify) _____
- (99) unknown

11. Light Conditions

- (01) daylight, bright
- (02) daylight, not bright
- (03) dusk, sundown
- (04) night, lighted
- (05) night, not lighted
- (06) dawn, sunup
- (07) night, continuous illumination
- (08) night, spot illumination
- (98) other (specify) _____
- (99) unknown

12. Ambient Temperature

PLUS (+) OR MINUS (-) DEGREES FAHRENHEIT

+/- _____

- (999) unknown

WEATHER AT TIME OF CRASH

13. Weather Description

- (01) clear
- (02) cloudy, partly cloudy
- (03) overcast
- (04) drizzle, light rain
- (05) moderate or heavy rain
- (06) snow
- (07) sleet, freezing rain
- (08) hail
- (98) other (specify) _____
- (99) unknown

14. Wind Description

- (00) none, calm
- (01) light
- (02) moderate
- (03) strong
- (04) light with gusts
- (05) moderate with gusts
- (06) strong with gusts
- (07) variable
- (98) other (specify) _____
- (99) unknown

15. Wind Direction With Respect to Motorcycle Path

- (00) none, no wind
- (01) left crosswind
- (02) headwind
- (03) right crosswind
- (04) tailwind
- (98) other (specify) _____
- (99) unknown

A-2. ENVIRONMENT DATA-COLLECTION FORM

The following form is a blank form.

Environment Form

Case Number _____

Vehicle Number _____

TRAFFICWAY DEFINITION

1. Type of Land Development

Same Side of Street _____

Other Side of Street _____

- (01) urban industrial
- (02) commercial/business
- (03) housing: apartments
- (04) housing: single-family homes
- (05) urban school
- (06) urban park
- (07) rural farming, ranching, etc.
- (08) rural wilderness
- (09) rural school
- (10) rural park
- (98) other (specify) _____
- (99) unknown

2. Relation to Junction

- (00) nonjunction _____
- (01) at-grade intersection area
- (02) interchange area
- (98) other (specify) _____
- (99) unknown

3. Type of At-Grade Intersection/Alley or Driveway

- (00) not at intersection _____
- (01) four-leg intersection, not skewed
- (02) four-leg intersection, skewed
- (03) T-intersection
- (04) Y-intersection
- (05) alley, driveway
- (06) offset intersection
- (07) intersection as part of interchange
- (08) roundabout or traffic circle (specify) _____
- (09) multileg (five-leg or more) intersection (specify) _____
- (10) rail/light-rail crossing _____
- (98) other (specify) _____
- (99) unknown

ROADWAY VEHICLE WAS TRAVELING

4. Trafficway Description

- (01) two-way, undivided _____
- (02) two-way, with a continuous left-turn lane
- (03) two-way, divided, no median barrier
- (04) two-way, divided, with median barrier
- (05) one-way
- (98) other (specify) _____
- (99) unknown

5. Roadway Function

- (00) none _____
- (01) interstate/freeway mainline
- (02) freeway entrance ramp
- (03) freeway exit ramp
- (04) freeway transition (freeway to freeway)
- (05) freeway frontage road
- (06) principal arterial, nonfreeway
- (07) minor arterial
- (08) collector
- (09) local road/street
- (10) construction detour
- (11) parking area, off-street
- (12) alley
- (13) driveway
- (14) round about or traffic circle (specify) _____
- (15) overpass mainline
- (16) overpass entrance ramp
- (17) overpass exit ramp
- (18) underpass mainline
- (19) underpass entrance ramp
- (20) underpass exit ramp
- (21) dedicated bicycle/moped path separated from ordinary vehicular traffic roadway
- (22) dedicated bicycle/moped path not separated from ordinary vehicular roadway
- (23) unseparated HOV lane
- (24) separated HOV lane
- (98) other (specify) _____
- (99) unknown

6. Posted Speed Limit in MPH

- (01-96) actual speed limit in miles per hour _____
- (97) not applicable, no posted speed limit
- (98) other (specify) _____
- (99) unknown

7. Number of Through Lanes

- (01–08) number of lanes _____
- (97) not applicable
- (99) unknown _____

8. Lane in Which the Vehicle Was Traveling

- (01–09) actual lane number _____
- (10) right-turn only
- (11) left-turn only
- (12) vehicle traveling opposite intended traffic, any lane
- (13) lane splitting
- (97) not applicable, vehicle not in a lane
- (98) other (specify) _____
- (99) unknown

9. Lane Width in Feet/Inches

- _____ feet _____ inches
- (01–96) actual number of feet and inches
- (97-97) not applicable, vehicle not in a lane
- (99-99) unknown

10. Travel-Way Width in Feet/Inches

- _____ feet _____ inches
- (01–96) actual number of feet and inches
- (97-97) not applicable, vehicle not in a lane
- (99-99) unknown

ROADWAY SURFACE

11. Type of Surface

- (01) concrete _____
- (02) asphalt
- (03) brick
- (04) stone
- (05) gravel
- (06) dirt
- (07) metallic
- (98) other (specify) _____
- (99) unknown

12. Surface Condition

CODE UP TO FOUR; INPUT 00 FOR REMAINING RESPONSES

- (00) none _____
- (01) dry _____
- (02) wet _____
- (03) snow _____
- (04) slush _____
- (05) ice/frost _____
- (06) water (standing, moving) _____
- (07) mud, dirt _____
- (08) sand _____
- (09) gravel _____
- (10) oil _____
- (11) debris (tire tread, construction materials, tree limbs, etc.) _____
- (12) loads dropped from another vehicle _____
- (98) other (specify) _____
- (99) unknown

13. Surface Special Features

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) none _____
- (01) surface cracking (longitudinal, transverse) _____
- (02) spalling (breaking up, splintering) _____
- (03) potholes _____
- (04) ruts _____
- (05) bump _____
- (06) ripples, ridges _____
- (07) pavement edge drop _____
- (08) overbanding and tar snakes (specify) _____
- (09) bitumen repair (specify) _____
- (10) tram/train rails _____
- (11) rumble strips _____
- (12) grooved pavement _____
- (13) steel plates _____
- (14) speed bumps/humps _____
- (15) bridge grating _____
- (16) expansion joints _____
- (98) other (specify) _____
- (99) unknown

14. Vertical Alignment

- (01) level _____
- (02) upgrade _____
- (03) crest vertical curve _____
- (04) downgrade _____
- (05) sag vertical curve _____
- (98) other (specify) _____
- (99) unknown

15. Horizontal Alignment

- (01) straight _____
- (02) curve right
- (03) curve left
- (04) corner right
- (05) corner left
- (06) reverse curve right: turn to right, then left, resuming approximate original direction
- (07) reverse curve left: turn to left, then right, resuming approximate original direction
- (08) other (specify) _____
- (09) unknown

16. Horizontal Curve Data

- Radius of Curvature _____ feet
- Chord _____ feet
- Middle Ordinate _____ feet
- Superelevation Rate _____ %
- Length of Horizontal Curve _____ feet
- (0000) no curve
- (0001-9996) actual curvature
- (9998) other (specify) _____
- (9999) unknown

TRAFFIC CONTROLS ON PATH OF TRAVEL

17. Exclusive Turn-Lane Presence and Type of Signal Phasing

- (00) no exclusive turn lane, no traffic signal _____
- (01) no exclusive left-turn lane, permissive LT signal phasing
- (02) no exclusive left-turn lane, protected/permissive LT signal phasing
- (03) no exclusive right-turn lane, permissive RT signal phasing
- (04) no exclusive right-turn lane, protected/permissive RT signal phasing
- (05) exclusive left-turn lane, protected-only LT signal phasing with leading green
- (06) exclusive left-turn lane, protected-only LT signal phasing with lagging green
- (07) exclusive left-turn lane, protected/permissive LT signal phasing with separate signal face
- (08) exclusive left-turn lane, protected/permissive LT signal phasing with shared signal face
- (09) exclusive right-turn lane, protected-only RT signal phasing with leading green
- (10) exclusive right-turn lane, protected-only RT signal phasing with lagging green
- (11) exclusive right-turn lane, protected/permissive RT signal phasing with separate signal face
- (12) exclusive right-turn lane, protected/permissive RT signal phasing with shared signal face
- (13) exclusive turn lane, no traffic signal
- (98) other (specify) _____
- (99) unknown

18. Type of Traffic Control

- (00) no traffic control (skip to # 22) _____
- (01) yield sign
- (02) stop sign
- (03) three-way, four-way, all-way stop
- (04) traffic control signal
- (05) traffic officer
- (06) construction personnel
- (07) gate, toll gate
- (08) pedestrian crossing
- (09) traffic calming/speed bumps
- (10) traffic advisory signage (specify) _____
- (11) traffic warning signage (specify) _____
- (12) traffic signal, actuated, two-phase
- (13) traffic signal, actuated, multiphase
- (14) traffic signal, pre-timed, two-phase
- (15) traffic signal, pre-timed, multiphase
- (16) traffic control signal, midblock pedestrian crossing
- (17) flasher red
- (18) flasher yellow
- (98) other (specify) _____
- (99) unknown

19. Was Traffic Control Functioning Properly?

- (00) no, nonoperational _____
- (01) yes
- (02) operational, but malfunctioning (e.g., signal-turn timing is incorrect)
- (97) not applicable, no traffic control
- (98) other (specify) _____
- (99) unknown

20. Traffic Control Visible to Vehicle Operator?

- (00) no _____
- (01) yes
- (97) not applicable, no traffic control
- (98) other (specify) _____
- (99) unknown

21. Traffic Control Violated by Vehicle Operator?

- (00) no _____
- (01) yes
- (97) not applicable, no traffic control
- (98) other (specify) _____
- (99) unknown

22. Traffic Density at Time of Crash

- (00) no other traffic _____
- (01) light traffic
- (02) moderate traffic
- (03) heavy traffic, traffic moving
- (04) heavy traffic, congested roadway
- (98) other (specify) _____
- (99) unknown

23. Visibility Limitation Due to

- (00) not significantly limited _____
- (01) dust
- (02) smoke
- (03) smog
- (04) fog
- (05) precipitation
- (06) glare
- (07) windscreen/visor condition (specify) _____
- (08) misaligned/obscured roadside curved mirror
- (98) other (specify) _____
- (99) unknown

24. Direction of Traffic in Lane Adjacent to Vehicle

Right Side _____
 Left Side _____

- (00) no adjacent lane
- (01) same direction
- (02) opposite direction
- (03) both directions
- (04) bike lane
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

25. Parked Vehicle Presence in Lane Adjacent to Vehicle

Right Side _____
 Left Side _____

- (00) no parked vehicles
- (01) parallel parked vehicles
- (02) angle parked vehicles
- (03) loading zone, parked vehicles
- (97) not applicable, no adjacent lane
- (98) other (specify) _____
- (99) unknown

26. Shoulder and Sidewalk Presence in Area Adjacent to Vehicle Lane of Travel

Right Side _____
 Left Side _____

- (00) no shoulder or sidewalk
- (01) shoulder (specify) _____
- (02) sidewalk (specify) _____
- (03) concrete median
- (98) other (specify) _____
- (99) unknown

PAVEMENT MARKINGS, LONGITUDINAL

27. Longitudinal Pavement Markings At the Edge of the Lane Traveled By the Vehicle

Right Side _____
 Left Side _____

- (00) no markings
- (01) centerline, skip-dash, yellow
- (02) centerline, solid, yellow
- (03) centerline, solid double, yellow
- (04) lane line, skip-dash, white
- (05) lane line, solid, white
- (06) edge line, left, yellow
- (07) edge line, right, white
- (08) left-turn lane lines, combination of solid and skip-dash, yellow
- (09) turn arrow symbols, thru, left, or combination of the two
- (97) not applicable, no adjacent lane
- (98) other (specify) _____
- (99) unknown

28. Pavement Markings Material

Right Side _____
 Left Side _____

- (00) no markings
- (01) paint
- (02) thermoplastic
- (03) raised markers
- (04) tape
- (97) not applicable, no adjacent lane
- (98) other (specify) _____
- (99) unknown

29. Delineator Presence

Right Side _____
 Left Side _____

- (00) no delineator
- (01) delineator
- (97) not applicable, no adjacent lane
- (98) other (specify) _____
- (99) unknown

30. Roadside Environment

Right Side _____
 Left Side _____

- (01) level ground, no remarkable features
- (02) grass, ground cover
- (03) shrubbery
- (04) dirt, soft soil, sand
- (05) gravel preparation
- (06) sidewalk
- (07) paved or topped surface
- (08) trees, posts
- (98) other (specify) _____
- (99) unknown

31. Roadside Fixed Objects

Right Side _____
Left Side _____

- (00) none
- (01) wall, building, tunnel, etc.
- (02) ditch or low-lying area (specify) _____
- (03) trees
- (04) impact attenuator/crash cushion
- (05) bridge pier or support
- (06) bridge rail
- (07) culvert (specify) _____
- (08) curb (specify) _____
- (09) embankment foreslope (specify; slope = 1V:xH) _____
- (10) embankment transverse-slope (specify; slope = 1V:xH) _____
- (11) cut slope, backslope
- (12) guardrail
- (13) concrete traffic barrier
- (14) other traffic barrier
- (15) utility pole, light support
- (16) traffic sign support
- (17) other post, pole, or support
- (18) fence
- (19) mailbox
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

32. Stationary View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event
CODE UP TO THREE

- (00) none
- (01) buildings
- (02) signs
- (03) vegetation, trees, bushes, walls, vegetation covered fences
- (04) crest vertical curve
- (05) blind horizontal curve
- (06) stationary or parked vehicles
- (07) barricades
- (98) other (specify) _____
- (99) unknown

33. Mobile View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event

- (00) none
- (01) vehicles: automobiles
- (02) vehicles: light trucks and vans
- (03) trucks and busses
- (04) vehicles: special purpose equipment, construction, cranes
- (05) farm and/or agricultural equipment
- (06) people, pedestrians
- (07) animals
- (98) other (specify) _____
- (99) unknown

WORK ZONE-RELATED

34. Was This Crash Work-Zone Related?

- (00) no (skip to # 37)
- (01) yes
- (99) unknown

35. Location of Crash Within Work Zone

- (01) before the first work-zone warning sign
- (02) advance warning area
- (03) transition area
- (04) activity area
- (05) terminal area
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

36. Type of Work Zone

- (01) lane closure
- (02) lane shift/crossover
- (03) work on shoulder or median
- (04) intermittent or moving work
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

FIRST HARMFUL EVENT

37. Location of First Harmful Event

- (01) on roadway
- (02) shoulder
- (03) median
- (04) roadside nonmedian
- (05) gore area
- (06) separator (between arterial and frontage road)
- (07) parking lane or zone
- (08) off roadway, location unknown
- (09) outside trafficway
- (98) other (specify) _____
- (99) unknown

38. If First Harmful Event Is a Noncollision

- (01) overturn
- (02) fire/explosion
- (03) immersion
- (04) jackknife
- (05) cargo/equipment loss or shift
- (06) fell/jumped from motor vehicle
- (07) thrown or falling object
- (97) not applicable, event is a collision
- (98) other (specify) _____
- (99) unknown

39. If First Harmful Event Is a Collision With Nonfixed Object

- (01) motor vehicle in transport _____
- (02) railway/light-rail vehicle
- (03) pedestrian
- (04) pedalcycle
- (05) motorcycle
- (06) animal
- (07) not applicable
- (08) other (specify) _____
- (09) unknown

40. If First Harmful Event Is a Collision With a Fixed Object

- (01) impact attenuator/crash cushion _____
- (02) bridge overhead structure
- (03) bridge pier or support
- (04) bridge rail
- (05) culvert
- (06) curb
- (07) ditch or low-lying area
- (08) embankment, foreslope
- (09) embankment transverse-slope
- (10) cut slope, backslope
- (11) guardrail (nonterminal end)
- (12) guardrail (terminal end)
- (13) concrete traffic barrier
- (14) other traffic barrier
- (15) trees
- (16) utility pole, light support
- (17) traffic sign support
- (18) traffic signal support
- (19) other post, pole, or support
- (20) fence
- (21) mailbox
- (22) wall, building, tunnel, etc.
- (23) parked motor vehicle
- (24) work-zone equipment
- (25) paved surface/ground
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

41. Pedestrian Involvement

- (00) none (skip to # 44) _____
- (01) yes, pedestrian involved in precipitating event
- (02) yes, pedestrian involved in collision with motorcycle or motorcyclist
- (99) unknown

42. Location of Pedestrian at Precipitating Event

- Pedestrian 1 _____
- Pedestrian 2 _____
- Pedestrian 3 _____
- (00) no pedestrian involvement in precipitating event
- (01) in crosswalk
- (02) jaywalking
- (03) darting from roadside
- (04) passenger entering or leaving automobile
- (05) passenger entering or leaving public transportation
- (06) darting from roadside near school
- (07) entering or leaving transportation near school
- (97) not applicable, pedestrian not involved in crash
- (98) other (specify) _____
- (99) unknown

43. Location of Pedestrian at Impact

- Pedestrian 1 _____
- Pedestrian 2 _____
- Pedestrian 3 _____
- (00) pedestrian not impacted
- (01) in crosswalk
- (02) jaywalking
- (03) darting from roadside
- (04) passenger entering or leaving automobile
- (05) passenger entering or leaving public transportation
- (06) darting from roadside near school
- (07) entering or leaving transportation near school
- (97) not applicable, no pedestrian involved
- (98) other (specify) _____
- (99) unknown

44. Animal Involvement

- (00) none (skip to # 46) _____
- (01) small dog, less than 20 pounds
- (02) big dog
- (03) cat
- (04) bird
- (05) cow
- (06) horse
- (07) deer
- (08) sheep
- (09) squirrel
- (10) elk
- (11) moose
- (98) other (specify) _____
- (99) unknown

45. Was Animal Struck?

- (00) no, animal not struck _____
- (01) yes, animal involved in precipitating event
- (02) yes, animal struck by motorcycle, or involved with motorcyclist
- (97) not applicable, no animal involved
- (99) unknown

**CONTRIBUTING ENVIRONMENTAL FACTORS
SUMMARY**

46. Roadway-Design Factors

- (00) no design issue _____
- (01) roadway-design issue present but not a contributing factor
- (02) roadway-design issue was the precipitating event
- (03) roadway-design issue was the primary contributing factor
- (04) roadway-design issue was a contributing factor
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

47. Roadway-Maintenance Factors

- (00) no maintenance issue _____
- (01) roadway-maintenance issue present, but not a contributing factor
- (02) roadway-maintenance issue was the precipitating event
- (03) roadway-maintenance issue was the primary contributing factor
- (04) roadway-maintenance issue was a contributing factor
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

48. Traffic-Control Factors

- (00) no traffic-control issue or malfunction _____
- (01) traffic-control issue or malfunction present, but not a contributing factor
- (02) traffic-control issue or malfunction was the precipitating event
- (03) traffic-control issue or malfunction was the primary contributing factor
- (04) traffic-control issue or malfunction was a contributing factor
- (97) not applicable, no traffic controls
- (98) other (specify) _____
- (99) unknown

49. Traffic Hazard, Including Construction and Maintenance Operations

- (00) no temporary traffic hazard or obstruction _____
- (01) temporary traffic obstruction present but not a contributing factor
- (02) temporary traffic obstruction was the precipitating event
- (03) temporary traffic obstruction was the primary contributing factor
- (04) temporary traffic obstruction was a contributing factor
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

50. Weather-Related Problems

- (00) no weather-related problem _____
- (01) weather-related problem was the precipitating event
- (02) weather-related problem was the primary contributing factor
- (03) weather-related problem was a contributing factor
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

51. Effect of the Visual Background of the Other Vehicle Along this Vehicle Driver's/Rider's Line of Sight at Time of Precipitating Event

- (00) visual background of motor vehicle made no contribution to conspicuity of the vehicle _____
- (01) visual background had a positive effect on vehicle conspicuity, vehicle was more noticeable
- (02) visual background had a negative effect on vehicle conspicuity, vehicle was less noticeable
- (03) no other vehicle involved in crash
- (97) not applicable, view obstructed by foreground
- (98) other (specify) _____
- (99) unknown

A-3. CONTRIBUTING FACTORS DATA-COLLECTION FORM

The following form is a blank form.

Contributing Factors Form

Case Number _____

ENVIRONMENT FACTORS–MOTORCYCLE

1. Roadway Design Issue

- (00) roadway design issue present but not a contributing factor _____
- (01) roadway design issue was the primary pre-crash factor
- (02) roadway design issue was a contributing factor
- (97) not applicable, no roadway design issue
- (98) other (specify) _____
- (99) unknown

2. Roadway Maintenance Issue

- (00) roadway maintenance issue present but not a contributing factor _____
- (01) roadway maintenance issue was the primary pre-crash factor
- (02) roadway maintenance issue was a contributing factor
- (97) not applicable, no roadway maintenance issue
- (98) other (specify) _____
- (99) unknown

3. Traffic Controls Issue or Malfunction

- (00) traffic controls issue or malfunction present, but not a contributing factor _____
- (01) traffic controls issue or malfunction was the primary pre-crash factor
- (02) traffic controls issue or malfunction was a contributing factor
- (97) not applicable, no traffic control issue or malfunction
- (98) other (specify) _____
- (99) unknown

4. Temporary Traffic Obstruction Including Construction

- (00) temporary traffic obstruction present but not a contributing factor _____
- (01) temporary traffic obstruction was the primary pre-crash factor
- (02) temporary traffic obstruction was a contributing factor
- (97) not applicable, no temporary traffic obstruction
- (98) other (specify) _____
- (99) unknown

5. Weather-Related Problem

- (00) weather-related problem made no contribution to crash causation _____
- (01) weather-related problem was the primary pre-crash factor
- (02) weather-related problem was a contributing factor
- (97) not applicable, no weather-related problem
- (98) other (specify) _____
- (99) unknown

6. Visual Background of OV Along MC Rider's Line of Sight Prior to Crash

- (00) visual background of OV made no contribution to conspicuity of OV _____
- (01) visual background had a positive effect on vehicle conspicuity, OV was more noticeable
- (02) visual background had a negative effect on vehicle conspicuity, OV was less noticeable (masked)
- (97) not applicable, no other vehicle involved
- (98) other (specify) _____
- (99) unknown

7. Did Insect Presence Affect Rider?

- (00) insects were present but had no effect on rider _____
- (01) small insects affected rider vision and attention, no eye protection
- (02) insect contamination of eye protection, face shield or windscreen
- (03) rider or passenger sustained insect bite or sting
- (97) not applicable, no insects
- (98) other (specify) _____
- (99) unknown

MOTORCYCLE VEHICLE FACTORS

8. MC Tire Size

CODE FRONT TIRE(S) AND REAR TIRE(S)

Front _____
Rear _____

- (01) original equipment
- (02) not original equipment, but specified size
- (03) proper rim size, oversize section
- (04) proper rim size, undersize section
- (05) improper rim size, too large
- (06) improper rim size, too small
- (98) other (specify) _____
- (99) unknown

9. MC Tire-Inflation Pressure

CODE FRONT TIRE(S) AND REAR TIRE(S)

Front _____

Rear _____

- (01) tire apparently sustained complete deflation during crash events
- (02) tire inflation within 15 percent of recommended pressure post-crash
- (03) tire inflation between 16 and 39 percent of recommended pressure post-crash
- (04) tire grossly underinflated, greater than 40 percent below recommended pressure post-crash
- (05) tire grossly overinflated, greater than 40 percent above recommended pressure post-crash
- (98) other (specify) _____
- (99) unknown

10. Crash Causation Related to MC's Front Tire or Wheel Condition

- (00) no wheel or tire condition related rear to crash causation _____
- (01) tire puncture flat caused loss of control
- (02) tire beads unseated and caused loss of control
- (03) gross underinflation contributed to loss of tire traction and caused loss of control
- (04) gross overinflation caused loss of traction and caused loss of control
- (05) gross error of inflation contributed to stability problem and caused loss of control
- (06) massive loss of inflation due to valve failure
- (98) other (specify) _____
- (99) unknown

11. Crash Causation Related to MC Suspension Condition

- (00) suspension condition made no contribution to crash causation _____
- (01) deteriorated suspension caused control distress, limiting collision avoidance
- (02) deteriorated suspension caused unstable dynamics, resulting in a loss of control
- (97) not applicable, rigid suspension
- (98) other (specify) _____
- (99) unknown

12. Crash Causation Related to MC Frame Condition

- (00) frame condition made no contribution to crash causation _____
- (01) cracked or broken frame caused loss of control
- (02) loose motor-transmission mounting bolts or screws caused loss of control
- (03) general frame deterioration caused uncontrolled dynamic response
- (98) other (specify) _____
- (99) unknown

13. Crash Causation Related to MC Cornering Clearance

- (00) cornering clearance made no contribution to crash causation _____
- (01) exhaust system grounded out first
- (02) foot pegs, foot rests grounded out first
- (03) side stand not retracted, grounded out first
- (04) side stand retracted but grounded out first
- (05) center stand grounded out first
- (06) accessory or cargo grounded out first
- (07) saddle bag/luggage carrier grounded out first
- (08) accessory or cargo limited ground clearance
- (09) passenger weight or extremities limited ground clearance
- (98) other (specify) _____
- (99) unknown

14. Crash or Injury Causation Related to MC Seat

- (00) seat made no contribution to crash causation _____
- (01) seat came loose, distracted rider and contributed to crash causation
- (02) seat came loose, caused rider loss of control, and contributed to crash causation
- (03) seat cover material slippery, caused rider displacement and loss of control
- (04) seat cover treated with slippery preservative, which contributed to crash causation
- (05) seat cover and cushion severely deteriorated, which contributed to crash causation
- (98) other seat condition that contributed to crash causation (specify) _____
- (99) unknown

15. Crash/Injury Causation Related to MC Gas-Tank Design/Orientation

- (00) gas tank made no contribution to crash or injury causation _____
- (01) gas tank came loose, distracted rider and contributed to crash causation
- (02) gas tank design affected the rider's post-crash trajectory
- (03) gas tank design contributed to rider's pelvic injuries
- (98) other gas tank condition that contributed to crash or injury causation (specify) _____
- (99) unknown

16. Crash Causation Related to MC Drive-Chain, Belt, or Shaft Condition

- (00) drive chain, belt or shaft condition made no contribution to crash causation _____
- (01) chain or belt broken or derailed, drive failure related to crash causation
- (98) other (specify) _____
- (99) unknown

17. Crash or Injury Causation Related to MC Exhaust-System Condition

- (00) exhaust system made no contribution to crash or injury causation
- (01) hot exhaust system caused contact burns resulting in control loss
- (02) hot exhaust system components were fire ignition source, resulting in control loss
- (03) exhaust system noise prevented motorcyclist from hearing critical traffic sounds
- (04) exhaust system noise caused motorcyclist fatigue and inattention (as claimed by rider)
- (97) not applicable, no exhaust system
- (98) other (specify) _____
- (99) unknown

18. Motorcycle-Vehicle Failure, Crash Causation-Related Defect

- (00) no motorcycle vehicle failure
- (01) tire or wheel failure
- (02) brake failure
- (03) steering failure
- (04) power transmission failure
- (05) electrical failure
- (06) suspension failure
- (07) vehicle structural failure, other than suspension, tire, or wheel
- (98) other (specify) _____
- (99) unknown

19. Was MC Pre-Crash Fire Cause of Crash?

- (00) pre-crash fire was present and it was not the cause of the crash
- (01) yes, pre-crash fire was present and it was the cause of the crash
- (97) not applicable, no pre-crash fire
- (98) other (specify) _____
- (99) unknown

20. Did MC Cargo/Luggage Contribute to Crash Causation?

- (00) cargo/luggage was present, but made no contribution to crash causation
- (01) cargo/luggage came loose, caused rider loss of control and contributed to crash causation
- (02) cargo/luggage interfered with controls, caused loss of control and contributed to crash causation
- (03) cargo/luggage interfered with controls, prevented successful collision avoidance action
- (04) cargo/luggage entrapped in rear suspension or wheel and contributed to crash causation
- (05) cargo/luggage entrapped in front suspension or wheel and contributed to crash causation
- (06) cargo/luggage against motor and exhaust system, heat damage or fire caused rider distraction and contributed to crash causation
- (07) cargo/luggage container began to spill contents, distracted rider and contributed to crash causation
- (97) not applicable, no cargo/luggage
- (98) other (specify) _____
- (99) unknown

MOTORCYCLIST HUMAN PERFORMANCE CONTRIBUTING FACTORS

21. Rider Unsafe Acts in This Crash

- (00) no unsafe acts
- (01) major unsafe act; likely to cause crash
- (02) moderate unsafe act; likely to cause traffic conflict
- (03) minor unsafe act; possible to cause traffic conflict, indicator of unsafe condition
- (98) other (specify) _____
- (99) unknown

22. Did MC Rider's Attention Failure/Distracted or Stress Contribute to Crash Causation?

- (00) attention failure/distracted/stress present but did not contribute to crash causation
- (01) attention failure/distracted/stress contributed to crash causation
- (97) not applicable, no attention failure/distracted/stress
- (99) unknown

23. Did MC Rider's Lane Choice Contribute to Crash Causation?

- (00) lane choice made no contribution to crash causation
- (01) lane choice contributed to crash causation
- (97) not applicable, no lane choice
- (99) unknown

24. Did MC Rider's Traffic Scan Contribute to Crash Causation?

- (00) traffic scan made no contribution to crash causation
- (01) traffic scanning error contributed to crash cause
- (97) not applicable, no traffic present to scan
- (99) unknown if traffic scan was proper, or unknown if traffic scan

25. Did MC Rider's Visual Obstructions Contribute to Crash Causation?

- (00) view obstructions were present but did not contribute to crash causation
- (01) view obstructions were present and contributed to crash causation
- (97) not applicable, no view obstructions
- (99) unknown if view obstructions were present, or unknown if view obstruction contributed to crash

26. Did MC Rider's Hazard-Detection Failure Contribute to Crash Causation?

- (00) temporary traffic obstruction present but did not contribute to crash causation
- (01) temporary traffic obstruction present and contributed to crash causation
- (97) not applicable, no temporary traffic obstruction
- (99) unknown if temporary traffic obstruction present, or unknown if obstruction contributed to crash causation

27. Did MC Rider's Faulty Traffic Strategy Contribute to Crash Causation? _____

- (00) traffic strategy made no contribution to crash causation
- (01) traffic strategy contributed to crash causation
- (97) not applicable, no other traffic present
- (99) unknown if strategy was faulty, or unknown if faulty strategy contributed to crash causation

POST-CRASH

28. Did Motorcycle Speed as Compared to Surrounding Traffic Contribute to Crash Causation? _____

- (00) speed was unusual or unexpected but made no contribution to crash causation
- (01) slow or exceedingly high speed difference caused or contributed to crash causation
- (97) no unusual speed or no surrounding traffic
- (99) unknown if speed was appropriate, or unknown if improper speed contributed to crash causation

29. Did Motorcycle's Position With Respect to Other Traffic Contribute to Crash Causation? _____

- (00) no, position relative to other traffic made no contribution to crash causation
- (01) yes, position relative to other traffic contributed to crash causation
- (97) not applicable, no other traffic
- (99) position relative to other traffic not known, or unknown if relative position contributed to crash causation

30. Was There a Motorcyclist's Loss of Control That Contributed to Crash Causation? _____

- (00) no loss of control
- (01) ran wide on turn, ran off road, under cornering
- (02) lost wheelie
- (03) low speed wobble
- (04) high speed wobble
- (05) weave, no pitch
- (06) pitch weave, low speed
- (07) pitch weave, high speed cornering
- (08) end-over, endo, reverse wheelie
- (09) over braking/slide out
- (98) other (specify) _____
- (99) unknown

31. Did Motorcyclist's Control Unfamiliarity Contribute to Crash Causation? _____

- (00) control unfamiliarity present, but not a contributing factor
- (01) yes, evidence of control unfamiliarity as a contributing factor
- (97) not applicable, no evidence of control unfamiliarity
- (99) unknown

32. Did Motorcyclist's Skills Deficiency Contribute to Crash Causation? _____

- (00) skills deficiency present, but not a contributing factor
- (01) skills deficiency present as a contributing factor
- (97) not applicable, no evidence of skills deficiency
- (99) unknown

33. Did Motorcyclist's Vehicle-Handling Unfamiliarity Contribute to Crash Causation? _____

- (00) no, vehicle handling unfamiliarity present, but not a contributing factor
- (01) yes, vehicle handling unfamiliarity present as a contributing factor
- (97) not applicable, no evidence of vehicle unfamiliarity
- (99) unknown

34. Did Motorcyclist's Control Operations Interfere With Driving Tasks? _____

- (00) no interference
- (01) yes, directed attention away from traffic conflict
- (02) yes, directed attention away from temporary traffic obstruction
- (03) yes, directed attention away from traffic controls
- (97) not applicable, no control operation immediately prior to the crash
- (98) other (specify) _____
- (99) unknown

35. Did Motorcyclist Fail to Avoid the Crash Due to: _____

- (00) no failure by the motorcyclist
- (01) potential hazard detection failure
- (02) impairment resulted in potential hazard detection failure
- (03) incorrect reaction to potential hazard
- (04) incorrect action due to impairment
- (05) potential hazard detected, reaction time failure
- (06) potential hazard detected, reaction time failure due to impairment
- (98) other (specify) _____
- (99) unknown

36. Was Evasive Action the Proper Choice for the Situation? _____

- (00) no, evasive action was not the proper choice for the situation
- (01) yes, evasive action was the proper choice for the situation
- (97) not applicable, no evasive action
- (99) unknown

37. Was the Action Properly Executed?

- (00) no, evasive action was not properly executed _____
- (01) yes, evasive action was properly executed
- (97) not applicable, no evasive action
- (98) other (specify) _____
- (99) unknown if evasive action was taken or if evasive action was properly executed

38. Motorcyclist Failed Collision Avoidance Due to:

- (00) no avoidance or evasive action failure _____
- (01) decision failure, wrong choice of evasive action
- (02) reaction failure, poor execution of evasive action
- (03) inadequate time available to complete avoidance action
- (04) loss of control in attempting collision avoidance
- (98) other (specify) _____
- (99) unknown if there was a collision avoidance or unknown cause for failed collision avoidance

MOTORCYCLIST EXPERIENCE DEFICIENCY

39. Did Motorcyclist Experience Language Barriers or Difficulty With Sign Comprehension?

- (00) language problems, sign comprehension problems present but did not contribute to crash causation _____
- (01) language problems or sign comprehension was contributing cause factor
- (97) not applicable, no language distress or sign comprehension problem present
- (98) other (specify) _____
- (99) unknown

40. Did Motorcyclist’s Traffic-Knowledge Deficiency Contribute to Crash Causation?

- (00) traffic knowledge deficiency present but did not contribute to crash causation _____
- (01) traffic knowledge deficiency contributed to crash causation
- (97) not applicable, no evidence of deficiency in traffic knowledge or strategy
- (99) unknown

41. Did Motorcyclist’s Vehicle Control–Skill Deficiency Contribute to Crash Causation?

- (00) vehicle control skill deficiency present but did not contribute to crash causation _____
- (01) inadequate vehicle control skills contributed to crash causation
- (97) not applicable, no evidence of vehicle control skill deficiency
- (99) unknown

MOTORCYCLIST PERSONALITY EVALUATION

42. Did Motorcyclist’s Aggressive Attitude Contribute to Crash Causation?

- (00) aggressive attitude present but not a cause or contributing factor _____
- (01) yes, aggressive attitude contributed to crash causation
- (97) not applicable, no aggressive attitude observed
- (99) unknown

43. Did a Situation Incompatibility Contribute to Crash Causation?

- (00) situation incompatibility present but did not contribute to crash causation _____
- (01) situation incompatibility contributed to crash causation
- (97) not applicable, no situation incompatibility present
- (99) unknown

44. Did Motorcyclist’s Compensation Failure Contribute to Crash Causation?

- (00) compensation failure present but not a contributing factor in crash causation _____
- (01) compensation failure did contribute to crash causation
- (97) not applicable, no compensation failure
- (99) unknown

MOTORCYCLIST RISK TAKING TENDENCY

45. Did Motorcyclist’s Unsafe Act Contribute to Crash Causation?

- (00) unsafe act occurred but did not contribute to crash causation _____
- (01) yes, unsafe act contributed to crash causation
- (97) not applicable, no unsafe act
- (99) unknown

46. Did Motorcyclist’s Alcohol/Drug Involvement Contribute to Crash Causation?

- (00) alcohol/drug involvement present but did not contribute to crash causation _____
- (01) yes, alcohol/drug involvement contributed to crash causation
- (97) not applicable, no alcohol/drug involvement
- (99) unknown

47. Were Motorcyclist’s Previous Recorded Violations Related to Current-Crash Contributions?

- (00) unrelated violations on record _____
- (01) record of violations for actions similar to those in crash
- (97) not applicable, no violations on record
- (99) unknown

48. Were Motorcyclist's Previous Crashes Related to Current-Crash Contributions? _____

- (00) previous crashes present but are unrelated to this crash
- (01) record of previous crashes similar to this crash
- (97) not applicable, no previous crashes
- (99) unknown

MOTORCYCLIST'S PERSONAL PROTECTIVE EQUIPMENT

49. Did Upper-Extremities and Upper-Torso Coverage Reduce or Prevent Injury? _____

- (00) equipment present, but had no effect on injury prevention
- (01) yes, equipment present and reduced injury
- (02) yes, equipment present and prevented injury
- (03) no injury producing contact in region of equipment
- (04) equipment not present and injury occurred
- (97) not applicable, no upper torso/extremity coverage
- (98) other (specify) _____
- (99) unknown

50. Did Lower-Extremities and Lower-Torso Coverage Reduce or Prevent Injury? _____

- (00) equipment present, but had no effect on injury prevention
- (01) yes, equipment present and reduced injury
- (02) yes, equipment present and prevented injury
- (03) no injury producing contact in region of equipment
- (04) equipment not present and injury occurred
- (97) not applicable, no lower torso/extremity coverage
- (98) other (specify) _____
- (99) unknown

51. Did Footwear Reduce or Prevent Injury? _____

- (00) footwear present, but had no effect on injury prevention
- (01) yes, footwear present and reduced injury
- (02) yes, footwear present and prevented injury
- (03) no injury producing contact in region of footwear
- (04) footwear not present and injury occurred
- (97) not applicable, no footwear coverage
- (98) other (specify) _____
- (99) unknown

52. Did Gloves Reduce or Prevent Injury? _____

- (00) gloves present, but had no effect on injury prevention
- (01) yes, gloves present and reduced injury
- (02) yes, gloves present and prevented injury
- (03) no injury producing contact in region of gloves
- (04) gloves not present and injury occurred
- (97) not applicable, no gloves
- (98) other (specify) _____
- (99) unknown

53. Did Eye Coverage Reduce or Prevent Injury? _____

- (00) eyewear present, but had no effect on injury prevention
- (01) yes, eyewear present and reduced injury
- (02) yes, eyewear present and prevented injury
- (03) no injury producing contact in region of eyewear
- (04) eyewear not present and injury occurred
- (97) not applicable, no eyewear coverage
- (98) other (specify) _____
- (99) unknown

54. Did Eye or Face Protection Contribute to Crash Causation? _____

- (00) protection worn but had no effect on pre-crash events
- (01) no detrimental effect on vision or attention, no failures to detect temporary traffic obstruction or traffic challenge
- (02) eye and face protection was deteriorated, reduced critical vision of temporary traffic obstruction or traffic challenge
- (03) absence of proper eye and face protection caused detection failure of temporary traffic obstruction or traffic challenge
- (04) no injury producing contact in region, equipment may or may not have been present
- (97) not applicable, none worn
- (98) other (specify) _____
- (99) unknown

55. Did Helmet Reduce or Prevent Injury? _____

- (00) helmet worn but injury occurred to head
- (01) helmet worn, but no effect on head injury
- (02) yes, equipment present and reduced injury
- (03) yes, equipment present and prevented injury
- (04) no injury-producing contact in region
- (97) not applicable, no helmet present (skip to # 59)
- (98) other (specify) _____
- (99) unknown

56. Did Helmet Contribute to Crash Causation? _____

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (99) unknown

57. What Was the Effect of the Helmet? _____

CODE UP TO TWO; INPUT 00 REMAINING RESPONSES

- (00) no effect
- (01) helmet reduced attention to traffic and driving tasks
- (02) discomfort from helmet use interfered with driving tasks
- (03) fatigue from helmet use interfered with driving tasks
- (04) helmet prevented hearing critical traffic sounds
- (05) helmet limited peripheral vision
- (06) interfered with detection of traffic hazard
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

58. If Helmet Was Ejected During Crash, What Was the Cause?

- (00) helmet not ejected _____
- (01) ejected due to loose fastening
- (02) ejected due to too large helmet, poor fit
- (03) ejected due to retention system failure
- (04) ejection due to helmet shell failure
- (05) ejection due to helmet impact damage
- (06) ejection due to facial injury (i.e., jaw bone)
- (07) ejection due to roll-off, defective helmet design
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

EFFECT OF APPAREL ON CRASH CAUSATION

59. Conspicuity Contribution

- (00) no apparent contribution of upper or lower torso garment _____
- (01) bright color upper and lower torso garment enhanced conspicuity
- (02) bright upper torso garment enhanced conspicuity
- (03) dull or dark upper and lower torso garment decreased conspicuity
- (04) dull or dark upper torso garment decreased conspicuity
- (97) not applicable, no apparel worn or no OV involvement
- (98) other (specify) _____
- (99) unknown

60. Did Apparel Contribute to Comfort, Fatigue, or Attention?

- (00) apparel made no apparent contribution to comfort, fatigue or attention _____
- (01) apparel protected rider from adverse weather, reduced fatigue and preserved attention
- (02) apparel uncomfortable, contributed to fatigue and inattention
- (03) apparel very uncomfortable, distracted rider from driving tasks
- (97) no apparel worn
- (98) other (specify) _____
- (99) unknown

61. Did Apparel Contribute to Control Interference?

- (00) apparel did not interfere with motorcycle controls _____
- (01) apparel interfered with motorcycle control, caused distraction from traffic
- (02) apparel interfered with control, caused loss of control and crash
- (97) no apparel worn
- (98) other (specify) _____
- (99) unknown

MOTORCYCLE PASSENGERS

If No MC Passenger, Skip to # 70

62. Did MC Passenger Contribute to Crash Causation?

- (00) passenger present but did not contribute to crash causation _____
- (01) yes, passenger lost hold and caused rider loss of control
- (02) passenger fell from motorcycle and contributed to crash causation
- (03) passenger interfered with motorcycle balance, caused rider loss of control
- (04) passenger interfered with motorcycle controls and contributed to crash causation
- (05) passenger lower extremities entrapped in rear suspension or wheel and contributed to crash causation
- (06) passenger action distracted motorcycle rider and contributed to crash causation
- (97) not applicable, no passenger
- (98) other passenger action that contributed to crash causation (specify) _____
- (99) unknown

63. Effect of Rider/Passenger Interaction on Injury Causation
CODE UP TO TWO RESPONSES

- (00) passenger present but no interaction between rider and passenger _____
- (01) rider/passenger interaction increased rider injuries
- (02) rider/passenger interaction decreased rider injuries
- (03) rider/passenger interaction increased passenger injuries
- (04) rider/passenger interaction decreased passenger injuries
- (05) rider/passenger interaction had no effect on either rider or passenger injuries
- (97) not applicable, no passenger
- (99) unknown

64. Did MC Passenger's Upper-Extremities and Upper-Torso Coverage Reduce or Prevent Injury?

- (00) equipment present, but had no effect on injury prevention _____
- (01) yes, equipment present and reduced injury
- (02) yes, equipment present and prevented injury
- (03) no injury producing contact in region, of equipment
- (04) equipment not present and injury occurred
- (97) not applicable, no upper torso/extremity coverage
- (98) other (specify) _____
- (99) unknown

65. Did MC Passenger's Lower-Extremities and Lower-Torso Coverage Reduce or Prevent Injury? _____

- (00) equipment present, but had no effect on injury prevention
- (01) yes, equipment present and reduced injury
- (02) yes, equipment present and prevented injury
- (03) no injury producing contact in region of equipment
- (04) equipment not present and injury occurred
- (97) not applicable, no lower torso/extremity coverage
- (98) other (specify) _____
- (99) unknown

66. Did MC Passenger's Footwear Reduce or Prevent Injury? _____

- (00) footwear present, but had no effect on injury prevention
- (01) yes, footwear present and reduced injury
- (02) yes, footwear present and prevented injury
- (03) no injury producing contact in region of footwear
- (04) footwear not present and injury occurred
- (97) not applicable, no footwear coverage
- (98) other (specify) _____
- (99) unknown

67. Did MC Passenger's Gloves Reduce or Prevent Injury? _____

- (00) gloves present, but had no effect on injury prevention
- (01) yes, gloves present and reduced injury
- (02) yes, gloves present and prevented injury
- (03) no injury producing contact in region of gloves
- (04) gloves not present and injury occurred
- (97) not applicable, no gloves
- (98) other (specify) _____
- (99) unknown

68. Did MC Passenger's Eye Coverage Reduce or Prevent Injury? _____

- (00) eyewear present, but had no effect on injury prevention
- (01) yes, eyewear present and reduced injury
- (02) yes, eyewear present and prevented injury
- (03) no injury producing contact in region, of eyewear
- (04) eyewear not present and injury occurred
- (97) not applicable, no eyewear coverage
- (98) other (specify) _____
- (99) unknown

69. Did MC Passenger's Helmet Reduce or Prevent Injury? _____

- (00) helmet worn but injury occurred to head
- (01) helmet worn, but no effect on head injury
- (02) yes, equipment present and reduced injury
- (03) yes, equipment present and prevented injury
- (04) no injury producing contact in region
- (97) not applicable, no helmet present
- (98) other (specify) _____
- (99) unknown

OTHER-VEHICLE FACTORS

70. Other-Vehicle Number _____

- (00) no other vehicle involved in crash (skip to # 105)
- (01-09) other-vehicle number

71. Other-Vehicle Roadway Design Issue _____

- (00) roadway design issue present but not a contributing factor
- (01) roadway design issue was the primary pre-crash factor
- (02) roadway design issue was a contributing factor
- (97) not applicable, no roadway design issue
- (98) other (specify) _____
- (99) unknown

72. Other-Vehicle Roadway Maintenance Issue _____

- (00) roadway maintenance issue present but not a contributing factor
- (01) roadway maintenance issue was the primary pre-crash factor
- (02) roadway maintenance issue was a contributing factor
- (97) not applicable, no roadway maintenance issue
- (98) other (specify) _____
- (99) unknown

73. Other-Vehicle Traffic Controls Issue or Malfunction _____

- (00) traffic controls issue or malfunction present, but not a contributing factor
- (01) traffic controls issue or malfunction was the primary pre-crash factor
- (02) traffic controls issue or malfunction was a contributing factor
- (97) not applicable, no traffic control issue or malfunction
- (98) other (specify) _____
- (99) unknown

74. Other-Vehicle Temporary Traffic Obstruction Including Construction? _____

- (00) temporary traffic obstruction present but not a contributing factor
- (01) temporary traffic obstruction was the primary pre-crash factor
- (02) temporary traffic obstruction was a contributing factor
- (97) not applicable, no temporary traffic obstruction
- (98) other (specify) _____
- (99) unknown

75. Other-Vehicle Weather-Related Problem _____

- (00) weather-related problem present, but made no contribution to crash causation
- (01) weather-related problem was the primary pre-crash factor
- (02) weather-related problem was a contributing factor
- (97) not applicable, no weather-related problem
- (98) other (specify) _____
- (99) unknown

76. Visual Background of Motorcycle Along OV Driver's Line of Sight Prior to Crash _____

- (00) visual background of motorcycle made no contribution to conspicuity of motorcycle
- (01) visual background of motorcycle made motorcycle more noticeable
- (02) visual background of motorcycle had negative effect on vehicle conspicuity, motorcycle was less noticeable
- (97) not applicable, no OV involved
- (98) other (specify) _____
- (99) unknown

77. Other-Vehicle Failure, Crash Cause-Related Defect _____

- (00) OV present but had no apparent defects or failure
- (01) OV failure present but made no contribution to crash causation
- (02) OV tire or wheel failure contributed to crash causation
- (03) OV brake failure contributed to crash causation
- (04) OV steering failure contributed to crash causation
- (05) OV power transmission failure contributed to crash causation
- (06) OV electrical failure contributed to crash causation
- (07) OV suspension failure contributed to crash causation
- (08) OV structural failure, other than suspension, tire, or wheel contributed to crash causation
- (97) not applicable, no OV involved
- (98) other (specify) _____
- (99) unknown

78. Did Other-Vehicle Passengers Contribute to Crash Causation? _____

- (00) passenger(s) present but they made no contribution to crash causation
- (01) passenger activities distracted driver and contributed to crash causation
- (02) passenger interfered with vehicle control and contributed to crash causation
- (03) no passengers
- (97) not applicable, no OV involved
- (98) OV passenger action that contributed to crash causation (specify) _____
- (99) unknown

79. Did OV Driver's Attention Failure/Distracted or Stress Contribute to Crash Causation? _____

- (00) attention failure/distracted/stress present but did not contribute to crash causation
- (01) attention failure/distracted/stress contributed to crash causation
- (97) not applicable, no attention failure/distracted/stress
- (99) unknown

80. Did OV Driver's Lane Choice Contribute to Crash Causation? _____

- (00) no, lane choice made no contribution to crash causation
- (01) yes, lane choice contributed to crash causation
- (97) not applicable, no lane choice
- (99) unknown

81. Did OV Driver's Traffic Scan Contribute to Crash Causation? _____

- (00) traffic scan made no contribution to crash causation
- (01) traffic scanning error contributed to crash cause
- (97) not applicable, no traffic present to scan
- (99) unknown if traffic scan was proper, or unknown if traffic scan

82. Did OV Driver's Visual Obstructions Contribute to Crash Causation? _____

- (00) view obstructions were present but did not contribute to crash causation
- (01) view obstructions were present and contributed to crash causation
- (97) not applicable, no view obstructions
- (99) unknown if view obstructions were present, or unknown if view obstruction contributed to crash

83. Did OV Driver's Hazard-Detection Failure Contribute to Crash Causation? _____

- (00) no, temporary traffic obstruction present but did not contribute to crash causation
- (01) yes, temporary traffic obstruction present and contributed to crash causation
- (97) not applicable, no temporary traffic obstruction
- (99) unknown if temporary traffic obstruction present, or unknown if obstruction contributed to crash causation

84. Did OV Driver's Faulty Traffic Strategy Contribute to Crash Causation? _____

- (00) traffic strategy made no contribution to crash causation
- (01) traffic strategy contributed to crash causation
- (97) not applicable, no other traffic present
- (99) unknown if strategy was faulty, or unknown if faulty strategy contributed to crash causation

85. Did OV's Speed as Compared to Surrounding Traffic Contribute to Crash Causation? _____

- (00) no, speed was slow or exceedingly high but made no contribution to crash causation
- (01) yes, slow or exceedingly high speed difference caused or contributed to crash causation
- (97) no unusual speed or no surrounding traffic
- (99) unknown if speed was appropriate, or unknown if improper speed contributed to crash causation

86. Did OV's Position With Respect to Other Traffic Contribute to Crash Causation?

- (00) no, position relative to other traffic made no contribution to crash causation
- (01) yes, position relative to other traffic contributed to crash causation
- (97) not applicable, no other traffic
- (99) position relative to other traffic not known, or unknown if relative position contributed to crash causation

87. Did OV Driver's Control Unfamiliarity Contribute to Crash Causation?

- (00) control unfamiliarity present, but not a contributing factor
- (01) yes, evidence of control unfamiliarity as a contributing factor
- (97) not applicable, no evidence of control unfamiliarity
- (99) unknown

88. Did OV Driver's Skills Deficiency Contribute to Crash Causation?

- (00) skills deficiency present, but not a contributing factor
- (01) skills deficiency present as a contributing factor
- (97) not applicable, no evidence of skills deficiency
- (99) unknown

89. Did OV Driver's Vehicle-Handling Unfamiliarity Contribute to Crash Causation?

- (00) vehicle handling unfamiliarity present, but not a contributing factor
- (01) vehicle handling unfamiliarity present as a contributing factor
- (97) not applicable, no evidence of vehicle unfamiliarity
- (99) unknown

90. Did OV Driver's Control Operations Interfere With Driving Tasks?

- (00) no interference
- (01) yes, directed attention away from traffic conflict
- (02) yes, directed attention away from temporary traffic obstruction
- (03) yes, directed attention away from traffic controls
- (97) not applicable, no control operation immediately prior to the crash
- (98) other (specify) _____
- (99) unknown

91. Did OV Driver Fail to Avoid Crash Due to:

- (00) no failure by the other-vehicle driver
- (01) potential hazard detection failure
- (02) impairment resulted in potential hazard detection failure
- (03) incorrect reaction to potential hazard
- (04) incorrect action due to impairment
- (05) potential hazard detected, reaction time failure
- (06) potential hazard detected, reaction time failure due to impairment
- (98) other (specify) _____
- (99) unknown

92. Was Evasive Action the Proper Choice for the Situation?

- (00) no, evasive action was not the proper choice for the situation
- (01) yes, evasive action was the proper choice for the situation
- (97) not applicable, no evasive action
- (99) unknown

93. Was the Action Properly Executed?

- (00) no, evasive action was not properly executed
- (01) yes, evasive action was properly executed
- (97) not applicable, no evasive action
- (98) other (specify) _____
- (99) unknown if evasive action was taken or if evasive action was properly executed

94. OV Driver Failed Collision Avoidance Due to:

- (00) no avoidance or evasive action failure
- (01) decision failure, wrong choice of evasive action
- (02) reaction failure, poor execution of evasive action
- (03) inadequate time available to complete avoidance action
- (04) loss of control in attempting collision avoidance
- (98) other (specify) _____
- (99) unknown if there was a collision avoidance or unknown cause for failed collision avoidance

95. Did OV Driver Experience Language Barriers or Difficulty With Sign Comprehension?

- (00) language problems, sign comprehension problems present but did not contribute to crash causation
- (01) language problems or sign comprehension was a contributing cause factor
- (97) not applicable, no language barrier or sign comprehension problem present
- (98) other (specify) _____
- (99) unknown

96. Did OV Driver's Traffic-Knowledge Deficiency Contribute to Crash Causation?

- (00) traffic knowledge deficiency present but did not contribute to crash causation
- (01) traffic knowledge deficiency contributed to crash causation
- (97) not applicable, no evidence of deficiency in traffic knowledge
- (99) unknown

97. Did OV Driver's Vehicle Control-Skill Deficiency Contribute to Crash Causation?

- (00) vehicle control skill deficiency present but did not contribute to crash causation
- (01) inadequate vehicle control skills contributed to crash causation
- (97) not applicable, no evidence of vehicle control skill deficiency
- (99) unknown

98. Did OV Driver's Aggressive Attitude Contribute to Crash Causation?

- (00) aggressive attitude present but not a cause or contributing factor _____
- (01) yes, aggressive attitude contributed to crash causation
- (97) not applicable, no aggressive attitude observed
- (99) unknown

99. Did Situation Incompatibility Contribute to Crash Causation?

- (00) situation incompatibility present but did not contribute to crash causation _____
- (01) situation incompatibility contributed to crash causation
- (97) not applicable, no situation incompatibility present
- (99) unknown

100. Did OV Driver's Compensation Failure Contribute to Crash Causation?

- (00) compensation failure present but not a contributing factor in crash causation _____
- (01) compensation failure did contribute to crash causation
- (97) not applicable, no compensation failure
- (99) unknown

RISK TAKING TENDENCY EVALUATION

101. Did OV Driver's Unsafe Act Contribute to Crash Causation?

- (00) unsafe act occurred but did not contribute to crash causation _____
- (01) yes, unsafe act contributed to crash causation
- (97) not applicable, no unsafe act
- (99) unknown

102. Did OV Driver's Alcohol/Drug Involvement Contribute to Crash Causation?

- (00) alcohol/drug involvement present but did not contribute to crash causation _____
- (01) yes, alcohol/drug involvement contributed to crash causation
- (97) not applicable, no alcohol/drug involvement
- (99) unknown

103. Were OV Driver's Previous Recorded Violations Related to Current-Crash Contributions?

- (00) unrelated violations on record _____
- (01) record of violations for actions similar to those in crash
- (97) not applicable, no violations on record
- (99) unknown

104. Were OV Driver's Previous Crashes Related to Current-Crash Contributions?

- (00) previous crashes present but are unrelated to this crash _____
- (01) record of previous crashes similar to this crash
- (97) not applicable, no previous crashes
- (99) unknown

SUMMARY

105. Primary Crash-Contributing Factor

- (01) motorcycle rider perception failure _____
- (02) motorcycle rider comprehension failure
- (03) motorcycle rider decision failure
- (04) motorcycle rider reaction failure
- (05) OV driver perception failure
- (06) OV driver comprehension failure
- (07) OV driver decision failure
- (08) OV driver reaction failure
- (09) motorcycle failure, including mechanical failure and defect
- (10) pre-existing motorcycle maintenance-related problem
- (11) OV failure, including mechanical failure and defect
- (12) pre-existing other-vehicle-maintenance-related problem
- (13) roadway design defect
- (14) roadway maintenance defect
- (15) traffic control problem, temporary traffic obstruction
- (16) view obstruction, mobile or stationary
- (17) roadside environment factor, including animal and pedestrian involvement
- (18) adverse weather
- (19) another vehicle, not involved in the collision, but made some maneuver which might have been a primary contributing factor or contributing factor
- (20) other-vehicle, post-crash motions from immediate prior collision
- (21) OV avoiding a different collision
- (22) motorcycle avoiding a different collision
- (23) motorcycle rider failure, unknown type
- (24) OV driver failure, unknown type
- (98) other (specify) _____
- (99) unknown

106. Crash Contributing Factors

CODE UP TO THREE; PUT CONTRIBUTING-FACTOR CODE IN FIRST TWO SPACES AND THE CONFIDENCE LEVEL IN THE THIRD SPACE

____ _
____ _
____ _

Confidence Level

- (A) definite contributing factor (95-percent confidence level)
- (B) probable contributing factor (80-percent confidence level)
- (C) possible contributing factor (less than 80-percent confidence level)

Contributing Factor

- (01) motorcycle rider perception failure
- (02) motorcycle rider comprehension failure
- (03) motorcycle rider decision failure
- (04) motorcycle rider reaction failure
- (05) OV driver perception failure
- (06) OV driver comprehension failure
- (07) OV driver decision failure
- (08) OV driver reaction failure
- (09) motorcycle failure, including mechanical failure and defect
- (10) pre-existing motorcycle maintenance-related problem
- (11) OV failure, including mechanical failure and defect
- (12) pre-existing other-vehicle-maintenance-related problem
- (13) roadway design defect

- (14) roadway maintenance defect
- (15) traffic control problem, temporary traffic obstruction
- (16) view obstruction, mobile or stationary
- (17) roadside environment factor, including animal and pedestrian involvement
- (18) adverse weather
- (19) another vehicle, not involved in the collision, but made some maneuver which might have been a primary contributing factor or contributing factor
- (20) OV post-crash motions from immediate prior collision
- (21) OV avoiding a different collision
- (22) motorcycle avoiding a different collision
- (23) motorcycle rider failure, unknown type
- (24) OV driver failure, unknown type
- (25) motorcycle rider physical or physiological failure (heart attack, seizure, etc.)
- (26) motorcycle rider drug and/or alcohol involvement
- (27) motorcycle rider experience or exposure to similar situations
- (28) motorcycle rider conflicting behaviors or pre-occupation
- (29) motorcycle rider unsafe acts or risk taking behavior
- (30) OV driver physical or physiological failure (heart attack, seizure, etc.)
- (31) OV driver drug and/or alcohol involvement
- (32) OV driver experience or exposure to similar situations
- (33) OV driver conflicting behaviors or pre-occupation
- (34) OV driver unsafe acts or risk taking behavior
- (98) other (specify) _____
- (99) unknown

A-4. MOTORCYCLE RIDER DATA-COLLECTION FORM

The following form is a blank form.

Motorcycle Rider Form

Case Number _____

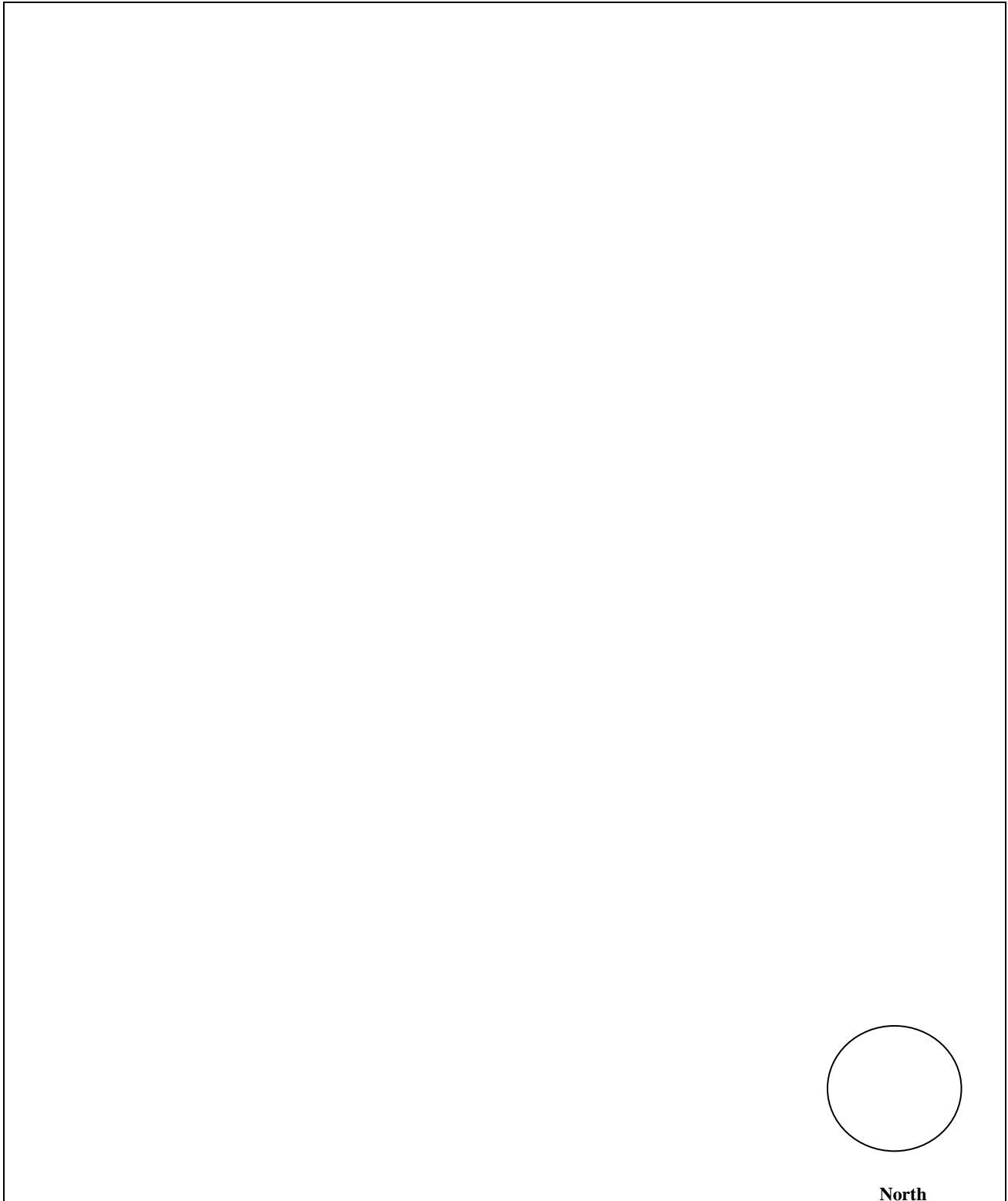
Source: **Rider** **Surrogate**

RIDER'S DESCRIPTION OF CRASH EVENTS AND RELATED FACTORS

SPECIFIC QUESTIONS TO ASK INTERVIEWEE

CRASH DIAGRAM

Use this diagram to aid in relating interview crash-trajectory data to identifiable objects in the environment.



PRE-CRASH DATA

1. How Were You Operating Your Motorcycle Immediately Prior to the Crash?

- (00) stopped in traffic, speed was zero
- (01) moving in a straight line, constant speed
- (02) moving in a straight line, throttle off
- (03) moving in a straight line, braking
- (04) moving in a straight line, accelerating
- (05) turning right, constant speed
- (06) turning right, throttle off
- (07) turning right, braking
- (08) turning right, accelerating
- (09) turning left, constant speed
- (10) turning left, throttle off
- (11) turning left, braking
- (12) turning left, accelerating
- (13) stopped at roadside or parked
- (14) backing up in a straight line
- (15) backing up, steering left
- (16) backing up, steering right
- (17) making a right U-turn
- (18) making a left U-turn
- (19) making a right Y-turn
- (20) making a left Y-turn
- (21) changing lanes to left
- (22) changing lanes to right
- (23) merging to left
- (24) merging to right
- (25) entering traffic from right shoulder, median, or parked
- (26) entering traffic from left shoulder, median, or parked
- (27) leaving traffic, turn out to right
- (28) leaving traffic, turn out to left
- (29) passing maneuver, passing on right
- (30) passing maneuver, passing on left
- (31) crossing opposing lanes of traffic
- (32) traveling wrong way, against opposing traffic
- (33) stripe-riding, filtering forward between lanes, longitudinal motion only
- (34) filtering forward between lanes, lateral motion only
- (35) filtering forward between lanes, both longitudinal and lateral motion
- (36) collision-avoidance maneuver to avoid a different collision
- (37) negotiating a curve, constant speed
- (38) negotiating a curve, throttle off
- (39) negotiating a curve, braking
- (40) negotiating a curve, accelerating
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

2. Where Were You Looking at the Start of the Crash Sequence?

- (01) looking straight ahead
- (02) looking right
- (03) looking left
- (04) looking rearward
- (05) looking at own motorcycle
- (98) other (specify) _____
- (99) unknown

3. Were Your Motorcycle Brakes Functioning Before the Crash?

- (00) no
- (01) yes
- (98) other (specify) _____
- (99) unknown

4. Did You Have Your Hands/Fingers Positioned on the Front Brake Prior to the Crash Event?

- (00) no
- (01) yes
- (97) not applicable, no front brake or brake lever
- (98) other (specify) _____
- (99) unknown

5. In Which Lane Were You Traveling Just Before the Precipitating Event?

- (01) lane one (right curb lane)
- (02) lane two
- (03) lane three
- (04) lane four
- (05) designated right-turn lane
- (06) designated left-turn lane
- (07) lane splitting
- (08) wrong way in opposing traffic
- (97) not applicable, not in a travel lane
- (98) other (specify) _____
- (99) unknown

6. What Was Your Travel Speed Just Before the Precipitating Event?

- (00) stopped
- (01-95) actual miles per hour
- (96) 96 mph or greater
- (98) other (specify) _____
- (99) unknown

7. What Were the Lateral Movements of Your Motorcycle Immediately Before Impact?

- (00) no movement/avoidance
- (01) lane departure, left side
- (02) lane return, left side
- (03) lane departure, right side
- (04) lane return, right side
- (05) road departure, left side
- (06) road return, left side
- (07) road departure, right side
- (08) road return, right side
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

8. What Collision-Avoidance Actions Were You Taking (If Any)?

CODE UP TO FOUR

- (00) no avoidance actions
- (01) braking
- (02) downshifting
- (03) releasing brakes
- (04) steering left
- (05) steering right
- (06) accelerating
- (07) laid the bike down
- (08) use of horn
- (09) flashing headlamp
- (10) drag feet
- (11) jump or bail out
- (12) disengaged clutch
- (98) other (specify) _____
- (99) unknown

9. Did You Lose Control of the Motorcycle?

- (00) no loss of control (skip to # 11)
- (01) capsized or fell over
- (02) braking slide out, low side
- (03) braking slide out, high side
- (04) cornering slide out, low side
- (05) cornering slide out, high side
- (06) ran wide on turn, ran off road
- (07) lost wheelie
- (08) low-speed wobble
- (09) high-speed wobble
- (10) weave, no pitch
- (11) pitch weave, low speed
- (12) pitch weave, high-speed cornering
- (13) end over, flying W
- (14) continuation, no control actions
- (15) lost stoppie
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

10. Was there Any Control Loss Due to Weather, Roadway, or Mechanical Problems?

- (00) no control loss due to weather, roadway, or mechanical problems
- (01) yes, control loss due to weather
- (02) yes, control loss due to mechanical problems
- (03) yes, control loss due to both weather and mechanical problems
- (04) yes, control loss due to roadway problems
- (05) yes, control loss due to roadway and weather problems
- (06) yes, control loss due to roadway and mechanical problems
- (07) yes, control loss due to all three
- (98) other (specify) _____
- (99) unknown

RECOGNITION OR DECISION

If Not a Multivehicle Crash, Code 97 for # 11 Through 13

11. Where Was the Other Vehicle Coming From in Relation to You?

- (01) 180 degrees opposed (oncoming)
- (02) from left front
- (03) from left
- (04) from left rear
- (05) from right front
- (06) from right
- (07) from right rear
- (08) from behind
- (09) directly in front
- (97) not applicable, no other vehicle
- (98) other (specify) _____
- (99) unknown

12. Was Your Line of Sight to the Other Vehicle Clear?

- (01) yes, clear
- (02) no, view obstructed by road curvature
- (03) no, view obstructed by roadway grade
- (04) no, view obstructed by roadside objects (e.g., shrubs, vehicles, buildings)
- (05) other vehicle in blind spot of mirror
- (08) obscured by traffic
- (97) not applicable, no other vehicle
- (98) other (specify) _____
- (99) unknown

13. Was Your View to the Other Vehicle Obscured?

- (00) no, not obscured
- (01) yes, obscured by sun glare
- (02) yes, obscured by headlight glare
- (03) yes, obscured by other glare (specify) _____
- (04) yes, obscured by darkness
- (05) yes, obscured by nighttime and color of vehicle
- (06) obscured by dust, smoke, smog, or fog
- (07) obscured by condition of windshield or eyewear (dirt, condensation, etc.)
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

SITUATION

TRIP INFORMATION

14. What Was Your Position on the Motorcycle at the Time of the Collision? _____

- (00) not on motorcycle
- (01) normal seating position
- (02) standing on footrests, foot pegs
- (03) seated, head down
- (04) shoulder check, left
- (05) shoulder check, right
- (06) dismounting, jumping to side
- (07) dismounting, jumping upward
- (08) dragging feet, foot down
- (09) abnormal seating position
- (10) standing on seat
- (98) other (specify) _____
- (99) unknown

15. Were You Distracted by Any of the Following? _____

- (00) attentive and not distracted
- (01) looked but did not see distractions
- (02) by other occupants (specify) _____
- (03) by moving object in vehicle (specify) _____
- (04) while talking or listening to cellular phone/intercom/shortwave radio (specify location and type of device) _____
- (05) while dialing cellular phone/intercom/shortwave radio (specify location and type of device) _____
- (06) while adjusting climate controls
- (07) while adjusting radio/cassette/CD (specify) _____
- (08) while using other device/controls integral to vehicle (specify) _____
- (09) while using/reaching for device/object brought into vehicle (specify) _____
- (10) sleepy or fell asleep
- (11) distracted by outside person/object/event (specify) _____
- (12) eating or drinking
- (13) smoking-related
- (14) while listening to or adjusting GPS device
- (96) distracted, details unknown
- (98) other (specify) _____
- (99) unknown

16. Where Did Your Trip Begin Today? _____

- (01) home
- (02) work, business
- (03) recreation/social
- (04) school
- (05) errand, shopping
- (06) family, friends, relatives
- (07) meals, restaurant, café, etc.
- (08) transport someone
- (09) medical/dental
- (10) bar/pub
- (11) religious activity
- (12) personal business/obligations
- (98) other (specify) _____
- (99) unknown

17. Did You Do Any Safety or Maintenance Checks on Your Motorcycle Before Leaving for This Trip?
CODE UP TO FOUR _____

- (00) none
- (01) exterior, visual inspection only
- (02) checked fluids
- (03) checked lights
- (04) checked brakes
- (05) checked tire pressure
- (98) other (specify) _____
- (99) unknown

18. What Was Your Trip Destination? _____

- (01) home
- (02) work, business
- (03) recreation/social
- (04) school
- (05) errand, shopping
- (06) family, friends, relatives
- (07) meals, restaurant, café, etc.
- (08) transport someone
- (09) medical/dental
- (10) bar/pub
- (11) religious activity
- (12) personal business/obligations
- (98) other (specify) _____
- (99) unknown

19. About How Many Miles Would the Trip Have Been One Way? _____

- (001) 1 mile or less
- (002-995) actual number of miles
- (996) 996 miles or greater
- (997) not applicable
- (999) unknown

20. How Frequently Do You Travel This Road on/in Any Vehicle?

- (01) first time
- (02) daily use (i.e., once per day)
- (03) weekly use (i.e., once per week)
- (04) monthly use (i.e., once per month)
- (05) quarterly (i.e., once per quarter)
- (06) annually (i.e., once per year)
- (07) less than annually
- (99) unknown

21. How Long Had You Been Riding Today Prior to the Crash?

USE ZEROS TO FILL IN BLANKS

_____ hours _____ minutes

- (00-96) hours
- (00-59) minutes
- (97-97) not applicable
- (98-98) other (specify) _____
- (99-99) unknown

22. How Many Miles Had You Ridden Before the Crash Occurred?

- (001) 1 mile or less
- (002-995) actual number of miles
- (997) not applicable, not yet begun trip
- (998) other (specify) _____
- (999) unknown

HELMET DATA

23. At the Time of the Crash, Were You Wearing a Helmet?

- (00) no
- (01) yes (skip to # 26)
- (02) helmet available but not used
- (98) other (specify) _____
- (99) unknown

24. What Is Your Reason for Not Wearing a Helmet?

- (01) not required by law
- (02) no expectation of accident involvement
- (03) helmets too expensive
- (04) helmets are inconvenient and uncomfortable
- (05) helmets reduce traffic awareness, limit hearing and vision
- (06) helmets are ineffective in reducing head injury
- (07) helmets cause neck injury
- (08) helmets cannot be used, physical or religious reasons
- (09) do not own a helmet
- (10) forgot to bring helmet today
- (97) not applicable, rider is wearing a helmet
- (98) other (specify) _____
- (99) unknown

25. Do You Ever Wear a Helmet?

- (00) no (skip to # 37)
- (01) yes (skip to # 35)
- (02) occasionally (skip to # 35)
- (97) not applicable, rider is wearing a helmet
- (98) other (specify) _____
- (99) unknown

26. Was Your Helmet Properly Adjusted on Your Head?

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

27. Was Your Helmet Securely Fastened to Your Head?

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

28. What Type of Helmet Is It?

- (00) not a motorcycle helmet
- (01) half/police motor vehicle, motorcycle helmet
- (02) open-face motor vehicle, motorcycle helmet
- (03) full-face motor vehicle, motorcycle helmet
- (04) novelty or beanie helmet
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

29. What Is the Type of Helmet Coverage?

- (01) partial coverage
- (02) full coverage
- (03) full-facial coverage, integral chin bar but no face shield
- (04) full-facial coverage, removable chin bar
- (05) full-facial coverage, retractable chin bar
- (06) full-facial coverage, integral chin bar and face shield
- (07) open-face helmet with flat wraparound face shield
- (08) open-face helmet with bubble-type face shield
- (09) open-face helmet with visor/face shield combo
- (10) open-face helmet with removable gravel guard
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

30. What Is the Predominant Color of Your Helmet?

- (01) no dominating color, multicolored _____
- (02) white
- (03) yellow
- (04) black
- (05) red
- (06) blue
- (07) green
- (08) silver, grey
- (09) orange
- (10) brown, tan
- (11) purple
- (12) gold _____
- (13) chrome, metallic _____
- (97) not applicable, no helmet _____
- (98) other (specify) _____
- (99) unknown _____

31. What Is the Color of the Face Shield?

- (01) clear _____
- (02) green
- (03) grey, smoke
- (04) amber, yellow
- (05) blue
- (06) reflective (any color)
- (97) not applicable, no face shield
- (98) other (specify) _____
- (99) unknown _____

32. Do You Own This Helmet?

- (00) no _____
- (01) yes _____
- (97) not applicable, no helmet _____
- (98) other (specify) _____
- (99) unknown _____

33. How Well Does This Helmet Fit?

- (01) acceptable fit _____
- (02) too large, too loose
- (03) too small, too tight
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown _____

34. Was the Helmet Retained in Place On Your Head During the Crash?

- (00) no helmet _____
- (01) no, helmet ejected from head during pre-crash time period
- (02) no, helmet ejected from head during crash
- (03) no, helmet ejected from head after collision
- (04) yes, helmet retained in place through to completion of crash
- (05) yes, helmet moved on head but was retained
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown _____

35. What Percentage of Time Do You Wear Your Helmet When Riding?

CODE 000-100 PERCENT

- (000-100) percent helmet worn _____
- (997) not applicable, no helmet
- (999) unknown _____

36. Under What Conditions Do You Usually Wear Your Helmet?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- (00) never uses helmet _____
- (01) mostly on long trips _____
- (02) mostly in high-speed highway or freeway traffic _____
- (03) in adverse weather _____
- (04) usually, but not in hot weather _____
- (05) always _____
- (97) not applicable, no helmet _____
- (98) other (specify) _____
- (99) unknown _____

IMPAIRMENT

37. Do You Have Any of the Following Permanent Physical Conditions?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no _____
- (01) vision reduction or loss _____
- (02) hearing reduction or loss _____
- (03) respiratory, cardiovascular condition _____
- (04) paraplegia _____
- (05) amputee _____
- (06) neurological, epilepsy, stroke _____
- (07) endocrine system, diabetes, digestive system _____
- (08) infirmity, arthritis, senility _____
- (98) other (specify) _____
- (99) unknown _____

38. At the Time of the Crash, Were You Experiencing Any of the Following?
 CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no
- (01) fatigue
- (02) hunger
- (03) thirst
- (04) elimination urgency
- (05) muscle spasm, cramp, itch
- (06) headache, minor malaise, fever
- (07) siesta syndrome (tired in afternoon)
- (98) other (specify) _____
- (99) unknown

39. Were You Concerned About Any of the Following Issues on the Day of the Crash?
 CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no problems
- (01) conflict with friends, relatives, divorce, separation
- (02) work-related problems
- (03) financial distress
- (04) school problems
- (05) legal, police problems
- (06) reward stress
- (07) traffic conflict, road rage
- (08) death of family or friend
- (98) other (specify) _____
- (99) unknown

40. How Many Hours of Sleep Did You Have in the 24 Hours Prior to the Crash?

- (00) no sleep
- (01-24) number of hours slept
- (98) other (specify) _____
- (99) unknown

41. Did You Drink Any Alcohol or Take Any Drugs or Medications in the 24 Hours Prior to the Crash?

- (00) no (skip to # 44)
- (01) alcohol use only (skip to # 44)
- (02) drug/medication use only
- (03) combined alcohol and drug/medication use
- (98) other (specify) _____
- (99) unknown

42. What Is the Type of Drugs Other Than Alcohol?

- (00) no drugs other than alcohol
- (01) stimulant
- (02) depressant
- (03) drugs taken, type unknown
- (04) multiple drugs taken
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

43. What Is the Source of the Drugs Other Than Alcohol?

- (00) no drugs other than alcohol
- (01) prescription
- (02) nonprescription, over the counter
- (03) illegal
- (97) not applicable
- (99) unknown

RIDING/DRIVING EXPERIENCE

44. Are You the Owner of This Motorcycle?

- (00) no (skip to # 47)
- (01) yes
- (98) other (specify) _____
- (99) unknown

45. Where Did You Purchase This Motorcycle?

- (01) dealership (store front or internet)
- (02) family, friend, or neighbor
- (03) newspaper ad or internet ad
- (04) motorcycle was a gift
- (97) not applicable, rider does not own this motorcycle
- (98) other (specify) _____
- (99) unknown

46. How Long Have You Owned the Crash-Involved Motorcycle?

USE ZEROS TO FILL IN BLANKS

- (00-00) less than 2 weeks
- (00-11) months
- (00-96) years
- (97-97) not applicable, rider does not own this motorcycle
- (98-98) other (specify) _____
- (99-99) unknown

47. How Long Have You Operated a Street Motorcycle?

USE ZEROS TO FILL IN BLANKS

- (00-00) less than 2 weeks
- (00-11) months
- (00-96) years
- (97-97) not applicable
- (98-98) other (specify) _____
- (99-99) unknown

48. How Long Have You Operated the Crash-Involved Motorcycle?

USE ZEROS TO FILL IN BLANKS

_____ years _____ months

- (00-00) this is the first time
- (00-11) months
- (00-96) years
- (97-97) not applicable
- (98-98) other (specify) _____
- (99-99) unknown

49. What Is the Average Number of Days per Year That You Ride Motorcycles?

- (001-365) actual number of days per year
- (997) not applicable, first time
- (998) other (specify) _____
- (999) unknown

50. About How Many Miles per Year Do You Ride a Motorcycle?

- (00000) none
- (00001-99995) actual number of miles
- (99996) 99,996 miles or greater
- (99998) other (specify) _____
- (99999) unknown

51. What Kind of Motorcycle Training Have You Had?

- (00) none (skip to # 53)
- (01) State-recognized entry-level motorcycle course
- (02) experienced-rider course
- (03) high-performance/competitive-track course
- (04) self-taught
- (05) taught by family and/or friends
- (98) other (specify) _____
- (99) unknown

52. In What Years Have You Taken Any Formal Motorcycle Training?

BEGIN WITH MOST RECENT COURSE AND WORK BACKWARD; CODE UP TO THREE, THEN SKIP TO # 54

- (1900-2100) actual year of training
- (9997) not applicable
- (9999) unknown

53. Please Tell Me the Reason for Not Taking Motorcycle Safety Training?

- (01) not offered
- (02) enrolled for future date
- (03) tried unsuccessfully to enroll
- (04) not interested/do not need it
- (05) cost
- (97) not applicable, took training
- (98) other (specify) _____
- (99) unknown

54. How Old Were You When You First Began to Ride a Street Motorcycle?

CODE THE ACTUAL AGE

- (00) never rode before or barely ever ride
- (01-96) actual age
- (98) other (specify) _____
- (99) unknown

55. Were there Years in Which You Did Not Ride a Motorcycle?

- (00) no (skip to # 57)
- (01) yes
- (97) not applicable, never rode before
- (98) other (specify) _____
- (99) unknown

56. How Many Years Was Your Most Recent Hiatus?

- (00) never stopped riding
- (01-96) actual number of years
- (97) not applicable, never rode before
- (98) other (specify) _____
- (99) unknown

57. When You Ride or Drive, What Is the Percentage of Time You Ride a Motorcycle Versus Driving Another Type of Vehicle?

INDICATE PERCENTAGE OF TOTAL RIDING/DRIVING TIME FOR EACH CATEGORY

Motorcycle _____
 Other-Vehicle Type _____
 100%

- (000) first-time use
- (001-100) percent
- (997) not applicable
- (999) unknown

58. When You Ride a Motorcycle, What Is the Percentage of Time You Use It For Each of these Categories?
INDICATE PERCENTAGE OF TOTAL RIDING/DRIVING TIME FOR EACH CATEGORY

Recreation _____
Basic Transportation _____
100%

- (00) first-time use
- (001–100) percent
- (997) not applicable
- (999) unknown

59. How Long Have You Been Driving Any Kind of Motor Vehicle?

_____ years _____ months

- (00-00) less than 2 weeks
- (00–11) months
- (00–96) years
- (97-97) not applicable, never operated a motorcycle
- (99-99) unknown

60. How Many Miles per Year Do You Drive a Car or Truck?

- (00000) none
- (00001–99995) actual number of miles
- (99996) 99,996 miles or greater
- (99998) other (specify) _____
- (99999) unknown

61. Have You Had Any Car or Truck Driver Training?

- (00) no training
- (01) self-taught
- (02) taught by friends and/or family
- (03) official driver-training class
- (04) voluntary driver’s education
- (05) compulsory driver’s education
- (06) professional training for commercial license
- (07) compulsory motor-vehicle training ordered by judge, police, etc.
- (98) other (specify) _____
- (99) unknown

62. How Many Moving Traffic Convictions Have You Had in the Previous 5 Years?

CODE THE TOTAL NUMBER OF MOVING TRAFFIC CONVICTIONS—ANY VEHICLE

- (00) none
- (01–96) actual number of convictions
- (99) unknown

63. How Many Motorcycle Moving Traffic Crashes Have You Had in the Past 5 Years?

CODE THE TOTAL NUMBER OF PREVIOUS MOTORCYCLE CRASHES

- (00) none
- (01–96) actual number of crashes
- (99) unknown

64. How Many Car or Truck Traffic Crashes Have You Had in the Past 5 Years?
CODE THE TOTAL NUMBER OF PREVIOUS CAR OR TRUCK CRASHES

- (00) none
- (01–96) actual number of crashes
- (99) unknown

65. How Much Experience Do You Have Riding With Passengers on a Motorcycle?

- (00) never carry passenger(s)
- (01) first time carrying passenger(s)
- (02) very little experience
- (03) moderate experience
- (04) extensive experience
- (97) not applicable
- (99) unknown

66. How Much Experience Do You Have Riding With Cargo/Luggage?

- (00) no experience with cargo/luggage
- (01) first time
- (02) seldom carries similar cargo/luggage
- (03) frequently carries similar cargo/luggage
- (04) always carries similar cargo/luggage
- (97) not applicable
- (99) unknown

RIDING HABITS

67. Are You a Motorcycle Club Member?

- (00) no
- (01) yes
- (99) unknown

68. Were You Riding With Other Motorcyclists at the Time of the Crash?

- (00) no (skip to # 72)
- (01) yes
- (98) other (specify) _____
- (99) unknown

69. How Many Other Motorcycles Were in the Group?

- (00) none, no group
- (01–95) actual number of motorcycles
- (96) 96 motorcycles or greater
- (98) other (specify) _____
- (99) unknown

70. Was the Group Riding in a Specific Formation?

- (00) no group
- (01) single file
- (02) staggered
- (03) side by side
- (04) no formation (skip to # 72)
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

71. If in a Formation, Where Was Your Motorcycle Placed in That Formation?

- (00) not in formation
- (01) front area
- (02) middle area
- (03) rear area
- (07) not applicable
- (98) other (specify) _____
- (99) unknown

PROTECTIVE CLOTHING/GEAR WHEN RIDING

72. What Kind of Clothing Was on Your Upper Body?

- (00) none (skip to # 74)
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (08) armored leather
- (98) other (specify) _____
- (99) unknown

73. Was This Upper-Body Clothing Motorcycle Oriented?

- (00) no
- (01) yes
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

74. What Kind of Clothing Was on Your Lower Body?

- (00) none (skip to # 76)
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (98) other (specify) _____
- (99) unknown

75. Was This Lower-Body Clothing Motorcycle Oriented?

- (00) no
- (01) yes
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

76. Were You Wearing an Inflatable Safety Vest?

- (00) no
- (01) yes
- (98) other (specify) _____
- (99) unknown

77. What Kind of Shoes or Boots Were You Wearing?

- (00) no shoes or boots, barefoot (skip to # 80)
- (01) light sandal
- (02) medium street shoe, loafer
- (03) athletic, training shoe
- (04) heavy shoe or boot
- (05) reinforced work boot or motorcycle boot
- (98) other (specify) _____
- (99) unknown

78. Did This Footwear Go up Over Your Ankle?

- (00) no
- (01) yes
- (97) not applicable, no footwear worn
- (98) other (specify) _____
- (99) unknown

79. Was the Footwear Motorcycle Oriented?

- (00) no
- (01) yes
- (97) not applicable, no footwear worn
- (99) unknown

80. What Kind of Gloves Were You Wearing?

- (00) none (skip to # 82)
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (98) other (specify) _____
- (99) unknown

81. Are the Gloves Motorcycle Oriented?

- (00) no _____
- (01) yes, full-fingered
- (02) yes, shorties
- (97) not applicable, no gloves worn
- (98) other (specify) _____
- (99) unknown

82. Is Any of This Clothing Retroreflective?

CODE UP TO THREE RESPONSES

- _____
- _____
- _____
- (00) no retroreflective clothing or gloves
- (01) upper body (shirt/jacket/vest)
- (02) lower body (pants/shorts)
- (03) gloves
- (04) special arm bands or similar items
- (97) not applicable, no clothing or gloves worn
- (98) other (specify) _____
- (99) unknown

83. What Is the Clothing Color of the Following?

- Upper-Body Clothing _____
- Lower-Body Clothing _____
- Footwear _____
- Gloves _____

- (01) no dominating color, multicolored
- (02) white
- (03) yellow
- (04) black
- (05) red
- (06) blue
- (07) green
- (08) silver
- (09) orange
- (10) brown
- (11) purple
- (12) gold
- (13) grey
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

84. Are You Required to Wear Corrective Lenses When Riding/Driving?

- _____
- (00) no
- (01) yes
- (98) other (specify) _____
- (99) unknown

85. What Kind of Eye Protection Were You Wearing at the Time of the Crash?

- _____
- (00) none (skip to # 87)
- (01) clear, nonprescription glasses
- (02) clear, prescription glasses
- (03) nonprescription sunglasses
- (04) prescription sunglasses
- (05) goggles, nonprescription
- (06) goggles, prescription
- (07) industrial safety glasses
- (98) other (specify) _____
- (99) unknown

86. What Color Was the Eye-Coverage Lens?

- _____
- (01) clear
- (02) green
- (03) grey, smoke
- (04) amber, yellow
- (05) blue
- (06) reflective (any color)
- (97) not applicable, not wearing eye coverage
- (98) other (specify) _____
- (99) unknown

87. Were You Injured in This Crash?

- _____
- (00) no injuries (skip to # 89)
- (01) yes
- (99) unknown

88. What Kind of Medical Treatment Did You Receive?

- _____
- (00) no treatment
- (01) on-scene emergency care only
- (02) treated and released at hospital/trauma center
- (03) admitted to hospital/trauma center
- (04) walk-in clinic
- (05) private physician
- (97) not applicable, no injury
- (98) other (specify) _____
- (99) unknown

BACKGROUND INFORMATION

89. How Old Were You at the Time of the Crash?

- _____
- (01-96) actual age
- (99) unknown

90. What State/Country Issued Your Current Driver's License?

- (00) no license _____
- (01) Canada _____
- (02) California _____
- (03) other State (list) _____
- (04) military _____
- (97) no license required (49cc scooter) _____
- (98) other (specify) _____
- (99) unknown _____

91. What Kind of Operator's License Is It?
CODE UP TO FOUR; INPUT 00 FOR REMAINING RESPONSES

- (00) no license held _____
- (01) learner's permit only _____
- (02) motorcycle license _____
- (03) automobile license _____
- (04) commercial license _____
- (05) motorcycle driver and competition license _____
- (06) license to transport people _____
- (07) heavy-truck license _____
- (08) no license required (49cc scooter) _____
- (98) other (specify) _____
- (99) unknown _____

92. What Year Was/Were the License(s) Issued?
LISTED IN THE SAME ORDER AS LICENSES IN # 91

- (1900-2100) year of issuance _____
- (9997) not applicable _____
- (9999) unknown _____

93. How Many Times Have You Acquired a Motorcycle Learner's Permit?

- (00) never _____
- (01-96) actual number of times _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

94. How Long Have You Held a Motorcycle License?
USE ZEROS TO FILL IN BLANKS

- _____ years _____ months
- (00-00) less than 2 weeks
- (00-11) months
- (00-96) years
- (97-97) not applicable, no license held
- (98-98) other (specify) _____
- (99-99) unknown

95. Are You of Hispanic or Latino Origin?

- (00) no _____
- (01) yes _____
- (02) refused to answer _____
- (98) other (specify) _____
- (99) unknown _____

96. What Is Your Race?
CODE UP TO THREE; INPUT 97 FOR REMAINING RESPONSES

- (01) White _____
- (02) Black or African American _____
- (03) Asian _____
- (04) Native Hawaiian or other Pacific Islander _____
- (05) American Indian or Alaska Native _____
- (06) refused to answer _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

97. What Is Your Height?

- _____ feet _____ inches
- (01-12) actual number of feet and inches
- (09-99) unknown

98. What Is Your Weight in Pounds?

- (001-996) actual weight in pounds _____
- (999) unknown _____

99. What Is Your Gender?

- (01) male _____
- (02) female _____
- (99) unknown _____

100. How Much Formal Education Have You Had?

- (00) no formal schooling _____
- (01) less than high school diploma _____
- (02) high school diploma or GED _____
- (03) partial college/university _____
- (04) college/university graduate _____
- (05) graduate school, advanced degree, professional degree _____
- (06) specialty/technical school _____
- (98) other (specify) _____
- (99) unknown _____

101. What Is Your Current Occupation?

- (01) management
- (02) business and financial
- (03) computer and mathematical
- (04) architecture and engineering
- (05) life, physical, and social sciences
- (06) community and social services
- (07) legal
- (08) education, training, or library
- (09) arts, design, entertainment, sports, or media
- (10) healthcare practitioners and technical jobs
- (11) healthcare support
- (12) protective services
- (13) food preparation, serving, and related
- (14) building and grounds maintenance
- (15) personal care and services
- (16) sales and related
- (17) office and administrative support
- (18) farming, fishing, or forestry
- (19) construction or extraction
- (20) installation, maintenance, or repair
- (21) transportation and material moving
- (22) military
- (23) full-time student
- (97) not applicable, not in workforce at present
- (98) other (specify) _____
- (99) unknown

102. Are You Married?

- (01) single
- (02) married
- (03) separated
- (04) divorced
- (05) widowed
- (06) cohabitating
- (98) other (specify) _____
- (99) unknown

103. How Many Children Do You Have?

- (00) none
- (01) one
- (02) two
- (03) three
- (04) four
- (05) five
- (06) six or more
- (98) other (specify)
- (99) unknown

104. Blood Alcohol Concentration (BAC)?

CODE RESULTS IN mg/100 ml

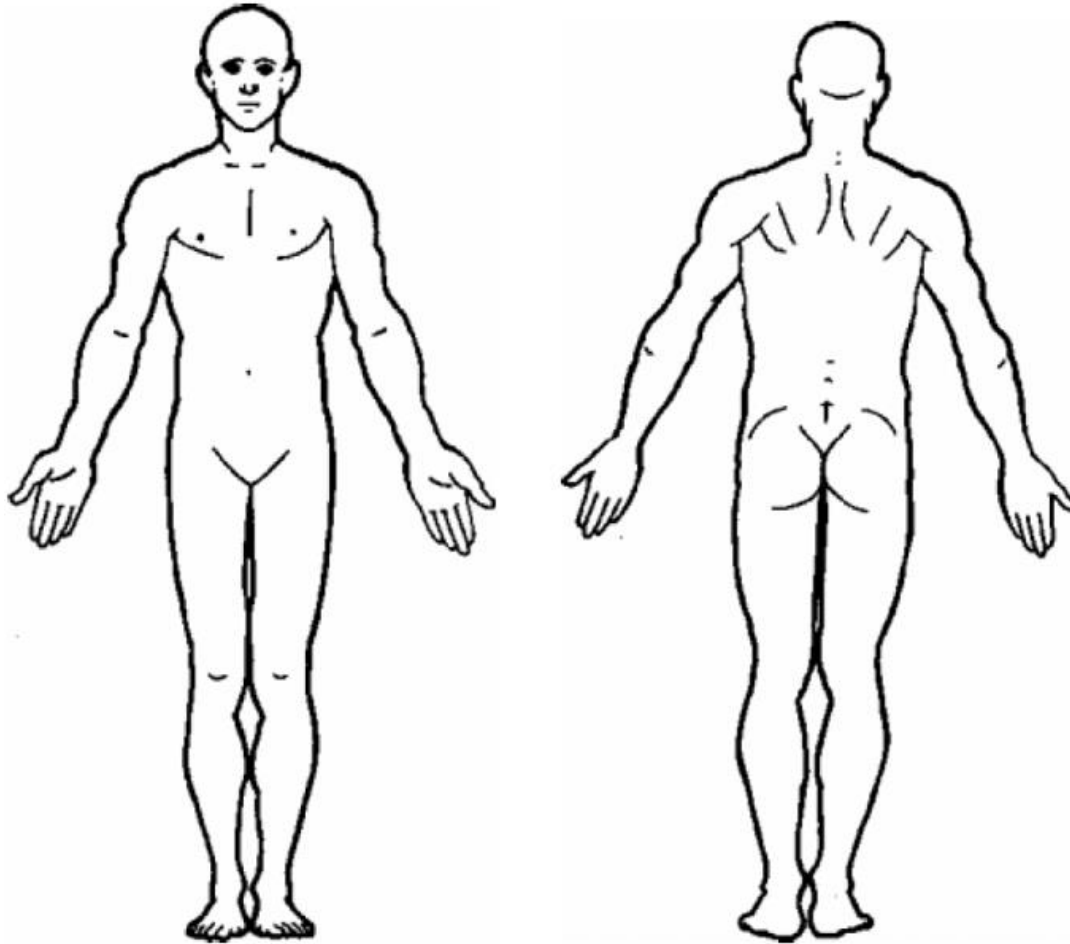
- (000) negative BAC
- (001–900) test results in mg/100 ml
- (995) BAC tested, results not known
- (996) BAC not tested
- (998) other (specify) _____
- (999) unknown

105. Source of BAC Information

- (00) not tested
- (01) breath testing
- (02) unknown if tested
- (03) tested, results unknown
- (04) tested, results not available
- (05) official records/ER/autopsy/PAR
- (98) other (specify) _____
- (99) unknown

INJURY DATA—SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs, and neurological deficits), and source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

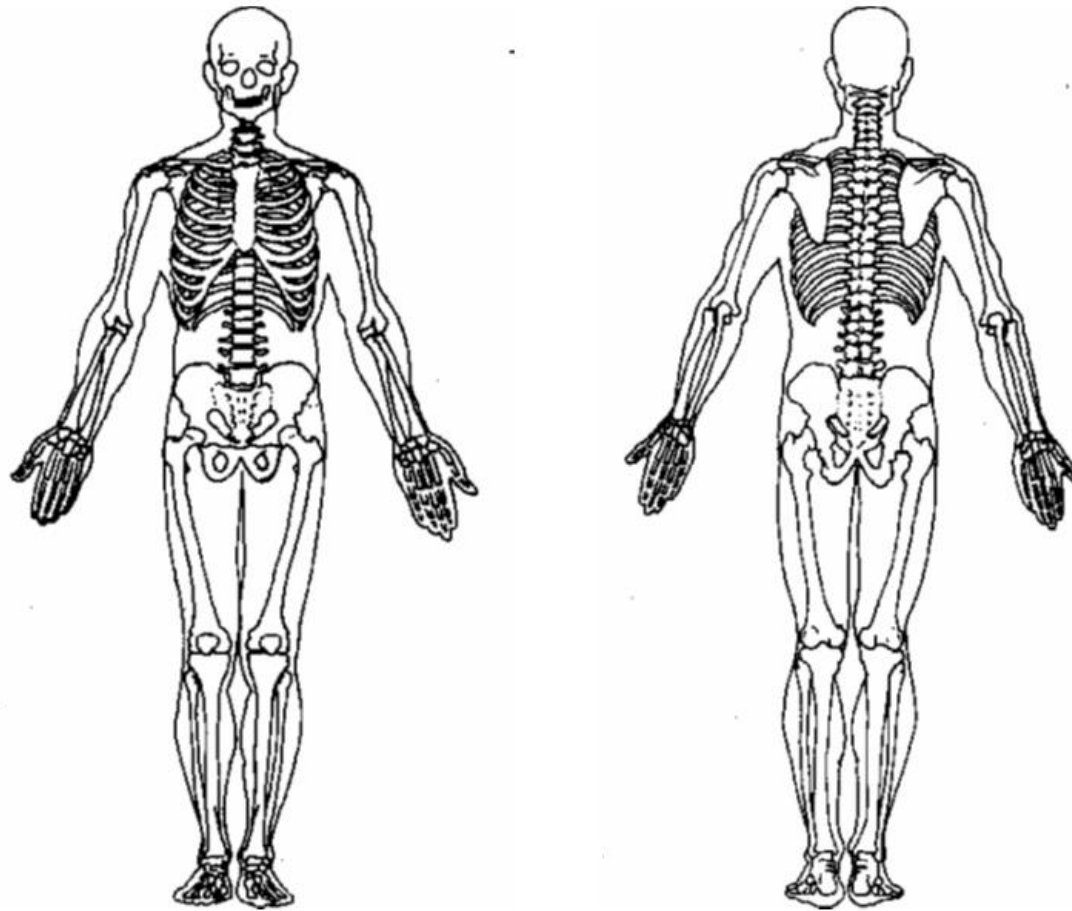


Source: OECD.

Figure 5. Illustration. Motorcycle rider—front and back of human body.

INJURY DATA—SKELETAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs, and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

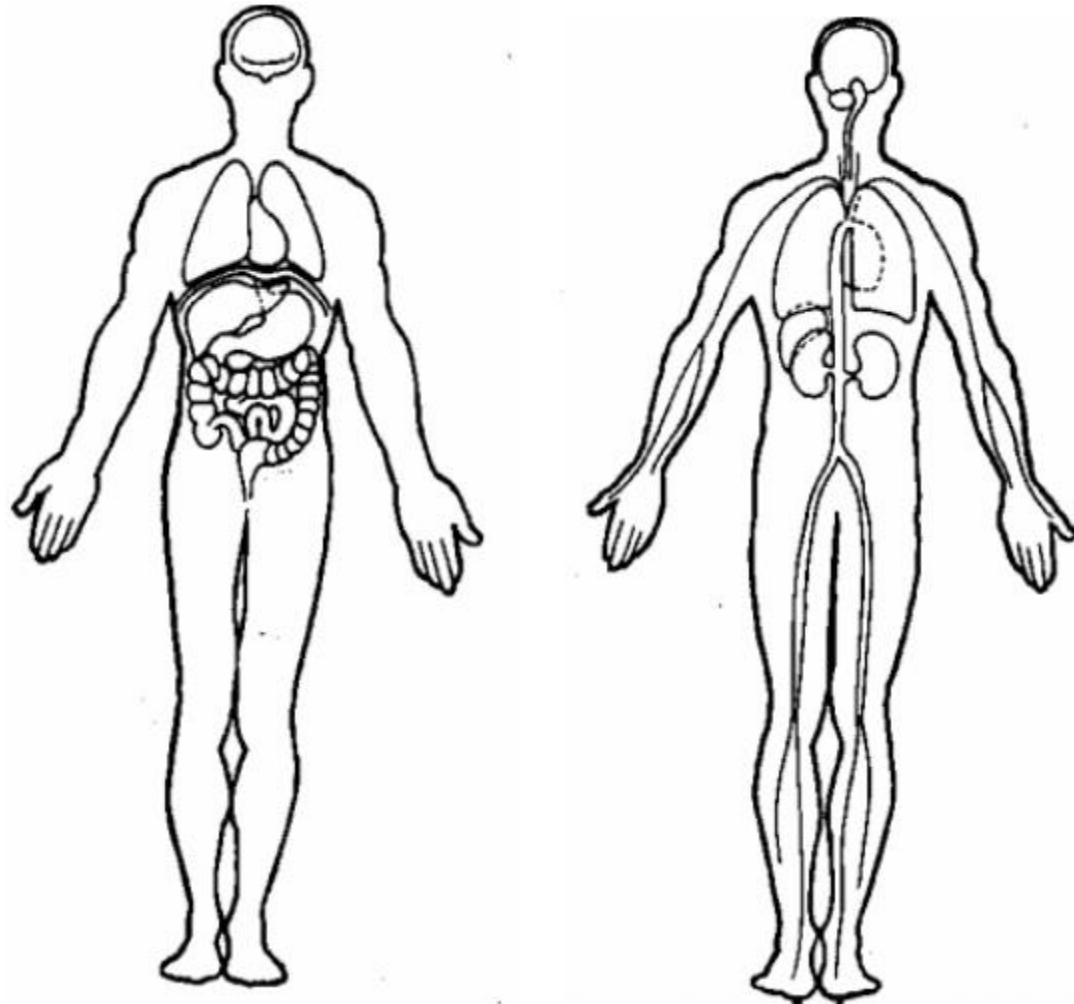


Source: OECD.

Figure 6. Illustration. Motorcycle rider—front and back of human body with skeleton.

INJURY DATA—INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).



Source: OECD.

Figure 7. Illustration. Motorcycle rider—front and back of human body with internal organs.

A-5. CONTROL MOTORCYCLE RIDER DATA-COLLECTION FORM

The following form is a blank form.

Control Motorcycle Rider Form

Case Number _____

Control MC Rider Number _____

TRIP INFORMATION

1. Where Did Your Trip Begin Today?

- (01) home _____
- (02) work, business _____
- (03) recreation/social _____
- (04) school _____
- (05) errand, shopping _____
- (06) family, friends, relatives _____
- (07) meals, restaurant, café, etc. _____
- (08) transport someone _____
- (09) medical/dental _____
- (10) bar/pub _____
- (11) religious activity _____
- (12) personal business/obligations _____
- (98) other (specify) _____
- (99) unknown _____

2. Did You Do Any Safety or Maintenance Checks on Your Motorcycle Before Leaving for This Trip? CODE UP TO FOUR

- (00) none _____
- (01) exterior visual inspection only _____
- (02) checked fluids _____
- (03) checked lights _____
- (04) checked brakes _____
- (05) checked tire pressure _____
- (06) checked chain _____
- (98) other (specify) _____
- (99) unknown _____

3. What Was Your Trip Destination?

- (01) home _____
- (02) work, business _____
- (03) recreation/social _____
- (04) school _____
- (05) errand, shopping _____
- (06) family, friends, relatives _____
- (07) meals, restaurant, café, etc. _____
- (08) transport someone _____
- (09) medical/dental _____
- (10) bar/pub _____
- (11) religious activity _____
- (12) personal business/obligations _____
- (98) other (specify) _____
- (99) unknown _____

4. About How Many Miles Will the Trip Be One Way?

- (001) 1 mile or less _____
- (002-995) actual number of miles _____
- (996) 996 miles or greater _____
- (997) not applicable _____
- (999) unknown _____

5. How Frequently Do You Travel This Road on/in Any Vehicle?

- (01) first time _____
- (02) daily use (i.e., once per day) _____
- (03) weekly use (i.e., once per week) _____
- (04) monthly use (i.e., once per month) _____
- (05) quarterly (i.e., once per quarter) _____
- (06) annually (i.e., once per year) _____
- (07) less than annually _____
- (99) unknown _____

6. How Long Have You Been Riding Today Since Your Trip Departure?

USE ZEROS TO FILL IN BLANKS

_____ hours _____ minutes

- (00-24) hours _____
- (00-59) minutes _____
- (97-97) not applicable _____
- (98-98) other (specify) _____
- (99-99) unknown _____

7. How Many Miles Have You Gone Since Your Trip Departure?

- (001) 1 mile or less _____
- (002-995) actual number of miles _____
- (996) 996 miles or greater _____
- (997) not applicable, had not yet begun trip _____
- (998) other (specify) _____
- (999) unknown _____

8. What Was Your Travel Speed Just Before You Stopped for This Interview?

- (00) stopped _____
- (01-95) actual miles per hour _____
- (96) 96 mph or greater _____
- (98) other (specify) _____
- (99) unknown _____

HELMET DATA

9. When You Were Just Riding, Were You Wearing a Helmet?

- (00) no _____
- (01) yes (skip to # 12) _____
- (02) helmet available but not used _____
- (98) other (specify) _____
- (99) unknown _____

10. What Is Your Reason For Not Wearing a Helmet?

- (01) not required by law _____
- (02) no expectation of accident involvement _____
- (03) helmets are too expensive _____
- (04) helmets are inconvenient and uncomfortable _____
- (05) helmets reduce traffic awareness, limit hearing and vision _____
- (06) helmets are ineffective in reducing head injury _____
- (07) helmets cause neck injury _____
- (08) helmets cannot be used, physical or religious reasons _____
- (09) do not own a helmet _____
- (10) forgot to bring helmet today _____
- (97) not applicable, rider is wearing a helmet _____
- (98) other (specify) _____
- (99) unknown _____

11. Do You Ever Wear a Helmet?

- (00) no (skip to # 22) _____
- (01) yes (skip to # 20) _____
- (02) occasionally (skip to # 20) _____
- (97) not applicable, rider is wearing a helmet _____
- (98) other (specify) _____
- (99) unknown _____

12. Was/Is Your Helmet Properly Adjusted on Your Head?

- (00) no _____
- (01) yes _____
- (97) not applicable, no helmet _____
- (98) other (specify) _____
- (99) unknown _____

13. Was/Is Your Helmet Securely Fastened to Your Head?

- (00) no _____
- (01) yes _____
- (97) not applicable, no helmet _____
- (98) other (specify) _____
- (99) unknown _____

14. What Type of Helmet Is It?

- (00) not a motorcycle helmet _____
- (01) half/police motor vehicle, motorcycle helmet _____
- (02) open-face motor vehicle, motorcycle helmet _____
- (03) full-face motor vehicle, motorcycle helmet _____
- (04) novelty or beanie helmet _____
- (97) not applicable, no helmet _____
- (98) other (specify) _____
- (99) unknown _____

14(A). Conformity to Which Qualification?

CODE ALL THAT APPLY; INPUT 97 FOR REMAINING RESPONSES

- (01) no standards labeled _____
- (02) ISO _____
- (03) ECE-22-02 _____
- (04) ECE-22-03 _____
- (05) ECE-22-04 _____
- (06) E04 (EU) _____
- (07) BS6658A _____
- (08) BS6658B _____
- (09) JIS-A _____
- (10) JIS-B _____
- (11) JIS-C _____
- (12) FMVSS 218 _____
- (13) SNELL M85 _____
- (14) SNELL M90 _____
- (15) ANSI Z90.1 _____
- (16) CSA D230 _____
- (17) TUV _____
- (18) DGM (Italy) _____
- (19) NF (France) _____
- (20) ASA (Australia) _____
- (21) CEN _____
- (22) FIM _____
- (23) SEI _____
- (24) M6.1 (Malay) _____
- (25) NZS (1214, 1215) _____
- (26) SSA # 9 (Singapore) _____
- (27) USDOT _____
- (98) other (specify) _____
- (99) unknown _____

15. What Is the Type of Helmet Coverage?

- (01) partial coverage
- (02) full coverage
- (03) full-facial coverage, integral chin bar but no face shield
- (04) full-facial coverage, removable chin bar
- (05) full-facial coverage, retractable chin bar
- (06) full-facial coverage, integral chin bar and face shield
- (07) open-face helmet with flat wraparound face shield
- (08) open-face helmet with bubble-type face shield
- (09) open-face helmet with visor/face shield combo
- (10) open-face helmet with removable gravel guard
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

16. What Is the Predominant Color of Your Helmet?

- (01) no dominating color, multicolored
- (02) white
- (03) yellow
- (04) black
- (05) red
- (06) blue
- (07) green
- (08) silver, grey
- (09) orange
- (10) brown, tan
- (11) purple
- (12) gold
- (13) chrome, metallic
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

17. What Is the Color of the Face Shield?

- (01) clear
- (02) green
- (03) grey, smoke
- (04) amber, yellow
- (05) blue
- (06) reflective (any color)
- (97) not applicable, no face shield
- (98) other (specify) _____
- (99) unknown

18. Do You Own This Helmet?

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

19. How Well Does This Helmet Fit?

- (01) acceptable fit
- (02) too large, too loose
- (03) too small, too tight
- (04) contour mismatch
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

20. What Percentage of Time Do You Wear Your Helmet When Riding?

CODE FROM 001-100 PERCENT

- (000) never wear a helmet (skip to # 22)
- (001-100) percent helmet worn
- (997) not applicable, no helmet
- (999) unknown

21. Under What Conditions Do You Usually Wear Your Helmet?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- (00) never uses helmet
- (01) mostly on long trips
- (02) mostly in high-speed highway or freeway traffic
- (03) in adverse weather
- (04) usually, but not in hot weather
- (05) always
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

IMPAIRMENT

22. Do You Have Any of the Following Permanent Physical Conditions?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no
- (01) vision reduction or loss
- (02) hearing reduction or loss
- (03) respiratory, cardiovascular condition
- (04) paraplegia
- (05) amputee
- (06) neurological, epilepsy, stroke
- (07) endocrine system, diabetes, digestive system
- (08) infirmity, arthritis, senility
- (98) other (specify) _____
- (99) unknown

23. When You Were Just Riding, Were You Experiencing Any of the Following?
 CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no
- (01) fatigue
- (02) hunger
- (03) thirst
- (04) elimination urgency
- (05) muscle spasm, cramp, itch
- (06) headache, minor malaise, fever
- (07) siesta syndrome (tired in afternoon)
- (98) other (specify) _____
- (99) unknown

24. When You Were Just Riding, Were You Concerned About Any of the Following Issues?
 CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no problems
- (01) conflict with friends, relatives, divorce, separation
- (02) work-related problems
- (03) financial distress
- (04) school problems
- (05) legal, police problems
- (06) reward stress
- (07) traffic conflict, road rage
- (08) death of family or friend
- (98) other (specify) _____
- (99) unknown

25. How Many Hours of Sleep Did You Have in the Past 24 Hours?

- (00) no sleep
- (01-24) number of hours slept
- (98) other (specify) _____
- (99) unknown

26. Did You Drink Any Alcohol or Take Any Drugs or Medications Within the Past 24 Hours?

- (00) no (skip to # 29)
- (01) alcohol use only (skip to # 29)
- (02) drug/medication use only
- (03) combined alcohol and drug/medication use
- (98) other (specify) _____
- (99) unknown

27. What Is the Type of Drugs Other Than Alcohol?

- (00) no drugs other than alcohol
- (01) stimulant
- (02) depressant
- (03) drugs taken, type unknown
- (04) multiple drugs taken
- (05) blood pressure/blood thinner
- (06) insulin/diabetes medication
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

28. What Is the Source of Drugs Other Than Alcohol?

- (00) no drugs other than alcohol
- (01) prescription
- (02) nonprescription, over the counter
- (03) illegal
- (97) not applicable
- (99) unknown

RIDING/DRIVING EXPERIENCE

29. Are You the Owner of This Motorcycle?

- (00) no (skip to # 32)
- (01) yes
- (98) other (specify) _____
- (99) unknown

30. Where Did You Purchase This Motorcycle?

- (01) dealership (store front or internet)
- (02) family, friend, or neighbor
- (03) newspaper ad or internet ad
- (04) motorcycle was a gift
- (05) salvage/junkyard
- (06) private party
- (97) not applicable, rider does not own this motorcycle
- (98) other (specify) _____
- (99) unknown

31. How Long Have You Owned This Motorcycle?

USE ZEROS TO FILL IN BLANKS

- (00-00) less than 2 weeks
- (00-11) months
- (00-96) years
- (97-97) not applicable, rider does not own this motorcycle
- (98-98) other (specify) _____
- (99-99) unknown

32. How Long Have You Operated a Street Motorcycle?

USE ZEROS TO FILL IN BLANKS

_____ years _____ months

- (00-00) this is the first time
- (00-11) months
- (00-96) years
- (97-97) not applicable
- (98-98) other (specify) _____
- (99-99) unknown

33. How Long Have You Operated the Motorcycle You Were Just Riding?

USE ZEROS TO FILL IN BLANKS

_____ years _____ months

- (00-00) this is the first time
- (00-11) months
- (00-96) years
- (97-97) not applicable
- (98-98) other (specify) _____
- (99-99) unknown

34. What Is the Average Number of Days per Year That You Ride Motorcycles?

- (001-365) actual number of days per year _____
- (998) other (specify) _____
- (999) unknown

35. About How Many Miles per Year Do You Ride a Motorcycle?

- (00000) none _____
- (00001-99995) actual number of miles
- (99996) 99,996 miles or greater
- (99998) other (specify) _____
- (99999) unknown

36. What Kind of Motorcycle Training Have You Had?

- (00) none (after all other responses, skip to # 38) _____
- (01) State-recognized, entry-level motorcycle course
- (02) experienced-rider course
- (03) high-performance/competitive-track course
- (04) self-taught
- (05) taught by family and/or friends
- (06) multiple courses
- (98) other (specify) _____
- (99) unknown

37. Please Tell Me the Reason for Not Taking Motorcycle Safety Training?

THEN SKIP TO # 39

- (01) not offered _____
- (02) enrolled for future date
- (03) tried unsuccessfully to enroll
- (04) not interested/do not need it
- (05) cost
- (97) not applicable, took training
- (98) other (specify) _____
- (99) unknown

38. In What Years Have You Taken Any Formal Motorcycle Training?

BEGIN WITH MOST RECENT COURSE AND WORK BACKWARD; CODE UP TO THREE

- (1900-2100) actual year of training
- (9997) not applicable
- (9999) unknown

39. How Old Were You When You First Began to Ride a Street Motorcycle?

CODE ACTUAL AGE

- (00) never rode before or barely ever rides _____
- (01-96) actual age
- (98) other (specify) _____
- (99) unknown

40. Were there Years in Which You Did Not Ride a Motorcycle?

- (00) no (skip to # 42) _____
- (01) yes
- (97) not applicable, never rode before
- (98) other (specify) _____
- (99) unknown

41. How Many Years Was Your Most Recent Hiatus?

- (00) never stopped riding _____
- (01-96) actual number of years
- (97) not applicable, never rode before
- (98) other (specify) _____
- (99) unknown

42. When You Ride or Drive, What Is the Percentage of Time You Ride a Motorcycle Versus Driving Another Type of Vehicle?

INDICATE PERCENTAGE OF TOTAL RIDING/DRIVING TIME FOR EACH CATEGORY

Motorcycle _____
Other-Vehicle Type _____
100%

- (000) first-time use
- (001-100) percent
- (997) not applicable
- (999) unknown

43. When You Ride a Motorcycle, What Is the Percentage of Time You Use It For Each of these Categories?

INDICATE PERCENTAGE OF TOTAL RIDING/DRIVING TIME FOR EACH CATEGORY

Recreation _____
Basic Transportation _____
100%

- (000) first-time use
- (001-100) percent
- (997) not applicable
- (999) unknown

44. How Long Have You Been Driving Any Kind of Motor Vehicle?

- _____ years _____ months
- (00-00) less than 2 weeks
 - (00-11) months
 - (00-96) years
 - (97-97) not applicable, never operated a motorcycle
 - (98-98) other (specify) _____
 - (99-99) unknown

45. How Many Miles per Year Do You Drive a Car or Truck?

- _____ , _____
- (00000) none, do not drive car or truck
 - (00001-99995) actual number of miles
 - (99996) 99,996 miles or greater
 - (99998) other (specify) _____
 - (99999) unknown

46. Have You Had Any Car or Truck Driver Training?

- _____
- (00) no training
 - (01) self-taught
 - (02) taught by friends and/or family
 - (03) official driver-training class
 - (04) voluntary driver's education
 - (05) compulsory driver's education
 - (06) professional training for commercial license
 - (07) compulsory motor vehicle training ordered by judge, police, etc.
 - (98) other (specify) _____
 - (99) unknown

47. How Many Moving Traffic Convictions Have You Had in the Previous 5 Years?
CODE THE TOTAL NUMBER OF MOVING TRAFFIC CONVICTIONS—ANY VEHICLE

- _____
- (00) none
 - (01-96) actual number of convictions
 - (99) unknown

48. How Many Motorcycle Moving Traffic Crashes Have You Had in the Past 5 Years?
CODE THE TOTAL NUMBER OF PREVIOUS MOTORCYCLE CRASHES

- _____
- (00) none
 - (01-96) actual number of crashes
 - (99) unknown

49. How Many Car or Truck Traffic Crashes Have You Had in the Past 5 Years?
CODE THE TOTAL NUMBER OF PREVIOUS CAR OR TRUCK CRASHES

- _____
- (00) none
 - (01-96) actual number of crashes
 - (99) unknown

50. How Much Experience Do You Have Riding With Passengers on a Motorcycle?

- _____
- (00) never carry passenger(s)
 - (01) first time carrying passenger(s)
 - (02) very little experience
 - (03) moderate experience
 - (04) extensive experience
 - (97) not applicable, no passenger
 - (99) unknown

51. How Much Experience Do You Have Riding With Cargo/Luggage?

- _____
- (00) no experience with cargo/luggage
 - (01) first time
 - (02) seldom carries similar cargo/luggage
 - (03) frequently carries similar cargo/luggage
 - (04) always carries similar cargo/luggage
 - (97) not applicable
 - (99) unknown

RIDING HABITS

52. Are You a Motorcycle Club Member?

- _____
- (00) no
 - (01) yes
 - (99) unknown

53. Were You Riding With Other Motorcyclists?

- _____
- (00) no (skip to # 57)
 - (01) yes
 - (98) other (specify) _____
 - (99) unknown

54. How Many Other Motorcycles Were in the Group?

- _____
- (00) none, no group
 - (01-95) actual number of motorcycles
 - (96) 96 motorcycles or greater
 - (98) other (specify) _____
 - (99) unknown

55. Was the Group Riding in a Specific Formation?

- _____
- (00) none, no group (skip to #57)
 - (01) single file
 - (02) staggered
 - (03) side by side
 - (97) not applicable
 - (98) other (specify) _____
 - (99) unknown

56. If in a Formation, Where Was Your Motorcycle Placed in That Formation?

- (00) not in formation _____
- (01) front area
- (02) middle area
- (03) rear area
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

PROTECTIVE CLOTHING/GEAR WHEN RIDING

57. What Kind of Clothing Was on Your Upper Body?

- (00) none (skip to # 59) _____
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (08) armored leather
- (98) other (specify) _____
- (99) unknown

58. Is This Upper-Body Clothing Motorcycle Oriented?

- (00) no _____
- (01) yes
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

59. What Kind of Clothing Is on Your Lower Body?

- (00) none (skip to # 61) _____
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (98) other (specify) _____
- (99) unknown

60. Is This Lower-Body Clothing Motorcycle Oriented?

- (01) no _____
- (01) yes
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

61. Are You Wearing an Inflatable Safety Vest?

- (00) no _____
- (01) yes
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

62. What Kind of Shoes or Boots Are You Wearing?

- (00) no shoes or boots, barefoot (skip to # 65) _____
- (01) light sandal
- (02) medium street shoe, loafer
- (03) athletic, training shoe
- (04) heavy shoe or boot
- (05) reinforced work boot or motorcycle boot
- (98) other (specify) _____
- (99) unknown

63. Does This Footwear Go up Over Your Ankle?

- (00) no _____
- (01) yes
- (97) not applicable, no footwear worn
- (98) other (specify) _____
- (99) unknown

64. Is the Footwear Motorcycle Oriented?

- (00) no _____
- (01) yes
- (97) not applicable, no footwear worn
- (99) unknown

65. What Kind of Gloves Are You Wearing?

- (00) none (skip to # 67) _____
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (98) other (specify) _____
- (99) unknown

66. Are the Gloves Motorcycle Oriented?

- (00) no _____
- (02) yes, full-fingered
- (03) yes, shorties
- (97) not applicable, no gloves worn
- (98) other (specify) _____
- (99) unknown

67. Is Any of This Clothing Retroreflective?
CODE UP TO THREE RESPONSES

- _____

- (00) no retroreflective clothing or gloves
 - (01) upper body (shirt/jacket/vest)
 - (02) lower body (pants/shorts)
 - (03) gloves
 - (04) special arm bands or similar items
 - (97) not applicable, no clothing or gloves worn
 - (98) other (specify) _____
 - (99) unknown

68. What Is the Clothing Color of the Following?

- Upper-Body Clothing _____
Lower-Body Clothing _____
Footwear _____
Gloves _____

- (01) no dominating color, multicolored
- (02) white
- (03) yellow
- (04) black
- (05) red
- (06) blue
- (07) green
- (08) silver
- (09) orange
- (10) brown
- (11) purple
- (12) gold
- (13) grey
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

69. Are You Required to Wear Corrective Lenses When Riding/Driving?

- _____

- (00) no
 - (01) yes
 - (98) other (specify) _____
 - (99) unknown

70. What Kind of Eye Protection Are You Wearing Now?

- _____

- (00) none (skip to # 72)
 - (01) clear, nonprescription glasses
 - (02) clear, prescription glasses
 - (03) nonprescription sunglasses
 - (04) prescription sunglasses
 - (05) goggles, nonprescription
 - (06) goggles, prescription
 - (07) industrial safety glasses
 - (08) contacts
 - (98) other (specify) _____
 - (99) unknown

71. What Color Is the Eye-Coverage Lens?

- _____

- (01) clear
 - (02) green
 - (03) grey, smoke
 - (04) amber, yellow
 - (05) blue
 - (06) reflective (any color)
 - (97) not applicable, not wearing eye coverage
 - (98) other (specify) _____
 - (99) unknown

BACKGROUND INFORMATION

72. How Old Are You?

CODE ACTUAL AGE IN YEARS

- _____

- (01–95) actual age in years
 - (96) 96 years or greater
 - (99) unknown

73. What State/Country Issued Your Current Driver's License?

- _____

- (00) no license
 - (01) Canada
 - (02) California
 - (03) other State (list) _____
 - (04) military
 - (97) no license required (49cc scooter)
 - (98) other (specify) _____
 - (99) unknown

74. What Kind of Operator's License Is It?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- _____

- (00) no license held
 - (01) learner's permit only
 - (02) motorcycle license
 - (03) automobile license
 - (04) commercial license
 - (05) motorcycle driver and competition license
 - (06) license to transport people
 - (07) heavy truck license
 - (97) not applicable
 - (98) other (specify) _____
 - (99) unknown

75. What Year Was/Were the License(s) Issued?

LIST IN THE SAME ORDER AS # 74

- _____

- (1900–2100) actual year
 - (9997) not applicable
 - (9999) unknown

76. How Many Times Have You Acquired a Motorcycle Learner's Permit?

- (00) never _____
- (01-96) actual number of times _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

77. How Long Have You Held a Motorcycle License?
USE ZEROS TO FILL IN BLANKS

- (00-00) less than 2 weeks _____ years _____ months
- (00-11) months _____
- (00-96) years _____
- (97-97) not applicable, no license held _____
- (98-98) other (specify) _____
- (99-99) unknown _____

78. Are You of Hispanic or Latino Origin?

- (00) no _____
- (01) yes _____
- (02) refused to answer _____
- (98) other (specify) _____
- (99) unknown _____

79. What Is Your Race?

CODE UP TO THREE; INPUT 97 FOR REMAINING RESPONSES

- (01) White _____
- (02) Black or African American _____
- (03) Asian _____
- (04) Native Hawaiian or other Pacific Islander _____
- (05) American Indian or Alaska native _____
- (06) refused to answer _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

80. What Is Your Height?

- (01-12) actual number of feet and inches _____ feet _____ inches
- (09-99) unknown _____

81. What Is Your Weight in Pounds?

- (001-995) actual weight in pounds _____
- (999) unknown _____

82. What Is Your Gender?

- (01) male _____
- (02) female _____
- (99) unknown _____

83. How Much Formal Education Have You Had?

- (00) no formal schooling _____
- (01) less than high school diploma _____
- (02) high school diploma or GED _____
- (03) partial college/university _____
- (04) college/university graduate _____
- (05) graduate school, advanced degree, professional degree _____
- (06) specialty/technical school _____
- (98) other (specify) _____
- (99) unknown _____

84. What Is Your Current Occupation?

- (01) management _____
- (02) business and financial _____
- (03) computer and mathematical _____
- (04) architecture and engineering _____
- (05) life, physical, and social sciences _____
- (06) community and social services _____
- (07) legal _____
- (08) education, training, or library _____
- (09) arts, design, entertainment, sports, or media _____
- (10) healthcare practitioners and technical jobs _____
- (11) healthcare support _____
- (12) protective services _____
- (13) food preparation, serving, and related _____
- (14) building and grounds maintenance _____
- (15) personal care and services _____
- (16) sales and related _____
- (17) office and administrative support _____
- (18) farming, fishing, or forestry _____
- (19) construction or extraction _____
- (20) installation, maintenance, or repair _____
- (21) transportation and material moving _____
- (22) military _____
- (23) full-time student _____
- (97) not applicable, not in workforce at present _____
- (98) other (specify) _____
- (99) unknown _____

85. Are You Married?

- (01) single _____
- (02) married _____
- (03) separated _____
- (04) divorced _____
- (05) widowed _____
- (06) cohabitating _____
- (98) other (specify) _____
- (99) unknown _____

86. How Many Children Do You Have?

- (00) none
- (01) one
- (02) two
- (03) three
- (04) four
- (05) five
- (06) six or more
- (98) other (specify)
- (99) unknown

88. Source of BAC Information?

- (00) not tested
- (01) breath test
- (02) blood test
- (03) urine test
- (04) unknown if tested
- (05) tested, results unknown
- (06) tested, results not available
- (98) other (specify) _____
- (99) unknown

87. Blood Alcohol Concentration (BAC)?

CODE RESULTS IN mg/100 ml

- (000) negative BAC
- (001–900) test results in mg/100 ml
- (995) BAC tested, results not known
- (996) BAC not tested
- (998) other (specify) _____
- (999) unknown

A-6. MOTORCYCLE PASSENGER DATA-COLLECTION FORM

The following form is a blank form.

Motorcycle Passenger Form

Case Number _____

Passenger Number _____

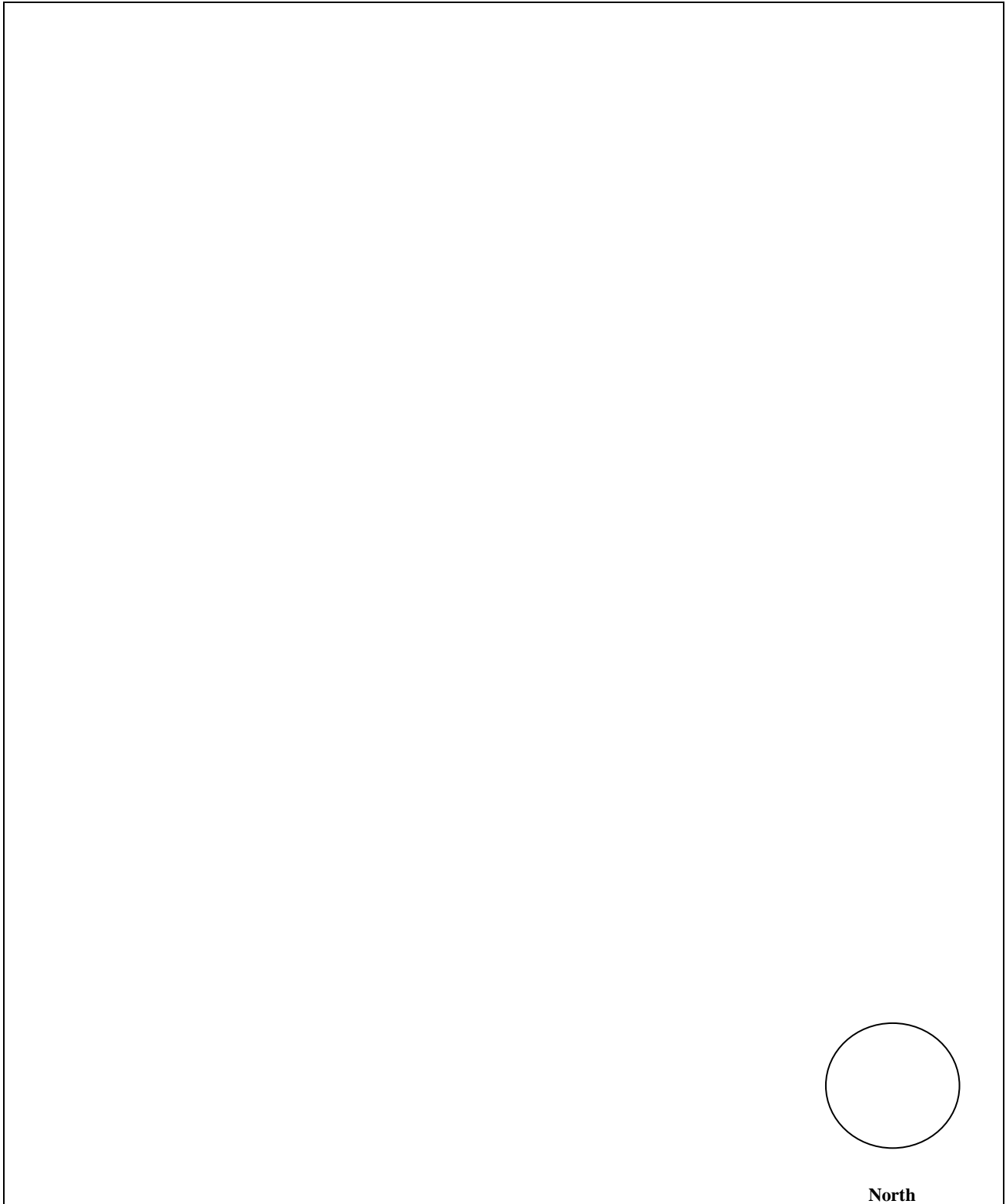
Source: **Rider** **Surrogate**

PASSENGER'S DESCRIPTION OF CRASH EVENTS AND RELATED FACTORS

SPECIFIC QUESTIONS TO ASK INTERVIEWEE

CRASH DIAGRAM

Use this diagram to aid in relating interview crash trajectory data to identifiable objects in the environment.



SITUATION

1. Where Were You Located Prior to the Crash?

- (01) immediately behind the motorcycle rider
- (02) immediately in front of the motorcycle rider
- (03) behind passenger in location 1
- (04) in front of passenger in location 2
- (05) dismounting, jumping to side
- (97) not applicable, unseated prior to the crash
- (98) other (specify) _____
- (99) unknown

2. Where Was Your Riding Position at the Time of the Collision?

- (01) normal, straddle-seated behind rider
- (02) riding with both legs on left side of motorcycle
- (03) riding with both legs on right side of motorcycle
- (04) straddle-seated on pillion behind rider
- (05) straddle-seated on tank ahead of rider
- (06) in sidecar
- (07) straddle-seated behind rider facing rear
- (98) other (specify) _____
- (99) unknown

3. Did Any of Your Actions Contribute to the Crash?

- (00) no, no action by passenger contributed to crash
- (01) yes, passenger weight contributed to loss of control during evasive action
- (02) yes, passenger lost hold or fell and contributed to rider loss of control
- (03) yes, passenger interfered with motorcycle balance and caused rider loss of control
- (04) yes, passenger interfered with motorcycle controls and contributed to crash
- (05) yes, passenger's lower extremities entrapped in rear suspension or wheel and contributed to crash
- (06) yes, passenger action distracted motorcycle rider and contributed to crash (specify) _____
- (98) other passenger action that contributed to crash (specify) _____
- (99) unknown

HELMET DATA

4. At the Time of the Crash, Were You Wearing a Helmet?

- (00) no
- (01) yes (skip to # 7)
- (02) helmet available but not used
- (98) other (specify) _____
- (99) unknown

5. What Is Your Reason For Not Wearing a Helmet?

- (01) not required by law
- (02) no expectation of accident involvement
- (03) helmets are too expensive
- (04) helmets are inconvenient and uncomfortable
- (05) helmets reduce traffic awareness, limit hearing and vision
- (06) helmets are ineffective in reducing head injury
- (07) helmets cause neck injury
- (08) helmets cannot be used, physical or religious reasons
- (09) do not own a helmet
- (10) forgot to bring helmet today
- (97) not applicable, passenger is wearing a helmet
- (98) other (specify) _____
- (99) unknown

6. Do You Ever Wear a Helmet?

- (00) no (skip to # 18)
- (01) yes (skip to # 16)
- (02) occasionally (skip to # 16)
- (97) not applicable, passenger is wearing a helmet
- (98) other (specify) _____
- (99) unknown

7. Was your Helmet Properly Adjusted on Your Head?

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

8. Was Your Helmet Securely Fastened to Your Head?

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

9. What Type of Helmet Is It?

- (00) not a motorcycle helmet
- (01) half/police motor vehicle, motorcycle helmet
- (02) open-face motor vehicle, motorcycle helmet
- (03) full-face motor vehicle, motorcycle helmet
- (04) novelty or beanie helmet
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

10. What Is the Type of Helmet Coverage?

- (01) partial coverage
- (02) full coverage
- (03) full-facial coverage, integral chin bar but no face shield
- (04) full-facial coverage, removable chin bar
- (05) full-facial coverage, retractable chin bar
- (06) full-facial coverage, integral chin bar and face shield
- (07) open-face helmet with flat wraparound face shield
- (08) open-face helmet with bubble-type face shield
- (09) open-face helmet with visor/face shield combo
- (10) open-face helmet with removable gravel guard
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

11. What Is the Predominant Color of Your Helmet?

- (01) no dominating color, multicolored
- (02) white
- (03) yellow
- (04) black
- (05) red
- (06) blue
- (07) green
- (08) silver, grey
- (09) orange
- (10) brown, tan
- (11) purple
- (12) gold
- (13) chrome, metallic
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

12. What Is the Color of the Face Shield?

- (01) clear
- (02) green
- (03) grey, smoke
- (04) amber, yellow
- (05) blue
- (06) reflective (any color)
- (97) not applicable, no face shield
- (98) other (specify) _____
- (99) unknown

13. Do You Own This Helmet?

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

14. How Well Does This Helmet Fit?

- (01) acceptable fit
- (02) too large, too loose
- (03) too small, too tight
- (04) contour mismatch
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

15. Was the Helmet Retained in Place on Your Head During the Crash?

- (00) no helmet
- (01) no, helmet ejected from head during pre-crash time period
- (02) no, helmet ejected from head during crash
- (03) no, helmet ejected from head after collision
- (04) yes, helmet retained in place to completion of crash events
- (05) yes, helmet moved on head but was retained
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

16. What Percentage of Time Do You Wear Your Helmet (When Riding as a Passenger)?

CODE 000–100 PERCENT

- (000–100) percent helmet worn
- (997) not applicable, no helmet
- (999) unknown

17. Under What Conditions Do You Usually Wear Your Helmet?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- (00) never uses helmet
- (01) mostly on long trips
- (02) mostly in high-speed highway or freeway traffic
- (03) in adverse weather
- (04) usually, but not in hot weather
- (05) always
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

IMPAIRMENT

18. Do You Have Any of the Following Permanent Physical Conditions?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no
- (01) vision reduction or loss
- (02) hearing reduction or loss
- (03) respiratory, cardiovascular condition
- (04) paraplegia
- (05) amputee
- (06) neurological, epilepsy, stroke
- (07) endocrine system, diabetes, digestive system
- (08) infirmity, arthritis, senility
- (98) other (specify) _____
- (99) unknown

19. At the Time of the Crash, Were You Experiencing Any of the Following?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no
- (01) fatigue
- (02) hunger
- (03) thirst
- (04) elimination urgency
- (05) muscle spasm, cramp, itch
- (06) headache, minor malaise, fever
- (07) siesta syndrome (tired in afternoon)
- (98) other (specify) _____
- (99) unknown

20. Were You Concerned About Any of the Following Issues on the Day of the Crash?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no problems
- (01) conflict with friends, relatives, divorce, separation
- (02) work-related problems
- (03) financial distress
- (04) school problems
- (05) legal, police problems
- (06) reward stress
- (07) traffic conflict, road rage
- (08) death of family or friend
- (98) other (specify) _____
- (99) unknown

21. How Many Hours of Sleep Did You Have in the 24 Hours Prior to the Crash?

- (00) no sleep _____
- (01-24) number of hours slept
- (98) other (specify) _____
- (99) unknown

22. Did You Drink Any Alcohol or Take Any Drugs or Medications in the 24 Hours Prior to the Crash?

- (00) no (skip to # 25) _____
- (01) alcohol use only (skip to # 25)
- (02) drug/medication use only
- (03) combined alcohol and drug/medication use
- (98) other (specify) _____
- (99) unknown

23. What Type of Drugs Other Than Alcohol?

- (00) no drugs other than alcohol _____
- (01) stimulant
- (02) depressant
- (03) drugs taken, type unknown
- (04) multiple drugs taken
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

24. What Is the Source of Drugs Other Than Alcohol?

- (00) no drugs other than alcohol _____
- (01) prescription
- (02) nonprescription, over the counter
- (03) illegal
- (97) not applicable
- (99) unknown

RIDING/DRIVING EXPERIENCE

25. How Long Have You Been Riding as a Passenger on the Crash-Involved Motorcycle?

- _____ years _____ months
- (00-00) less than 2 weeks
- (01-11) months
- (01-96) years
- (97-97) not applicable, no previous experience, first time
- (99-99) unknown

26. How Long Have You Been Riding as a Passenger in Any Kind OF Motor Vehicle?

- _____ years _____ months
- (00-00) less than 2 weeks
- (01-11) months
- (01-96) years
- (97-97) not applicable, no previous experience, first time
- (99-99) unknown

27. How Long Have You Ridden as a Passenger on Any Street Motorcycle

_____ years _____ months
(00-00) less than 2 weeks
(01-11) months
(01-96) years
(97-97) not applicable, no previous experience, first time
(99-99) unknown

28. What Is the Average Number of Days per Year You Ride as a Passenger on Motorcycles?

(001-365) actual number of days per year
(999) unknown

29. What Kind of Motorcycle Training Have You Had?

(00) none
(01) State-recognized, entry-level motorcycle course
(02) experienced-rider course
(03) high-performance/competitive-track course
(04) self-taught
(05) taught by family and/or friends
(98) other (specify) _____
(99) unknown

30. When You Travel as a Passenger, What Is the Percentage of Time You Ride on a Motorcycle Versus Riding as a Passenger in Another Type of Vehicle?

INDICATE PERCENTAGE OF TOTAL RIDING TIME AS A PASSENGER FOR EACH CATEGORY

Motorcycle _____
Other-Vehicle Type _____
100%

(000) first-time use
(001-100) actual percentage of time
(997) not applicable
(999) unknown

31. When You Ride a Motorcycle as a Passenger, What Is the Percentage of Time It Is for Each of these Categories?

INDICATE PERCENTAGE OF TOTAL RIDING TIME AS A PASSENGER FOR EACH CATEGORY

Recreation _____
Basic Transportation _____
100%

(000) first-time use
(001-100) actual percentage of time
(997) not applicable
(999) unknown

32. How Much Experience Do You Have Riding as a Passenger on Motorcycles?

(00) never rode as a passenger before
(01) very little experience
(02) moderate experience
(03) extensive experience
(98) other (specify) _____
(99) unknown

33. How Many Motorcycle Moving Traffic Crashes Have You Had as a Passenger in the Past 5 Years?

CODE THE TOTAL NUMBER OF PREVIOUS MOTORCYCLE CRASHES

(00) none
(01-96) actual number of crashes
(99) unknown

34. How Many Car or Truck Traffic Crashes Have You Had as a Passenger in the Past 5 Years?

CODE THE TOTAL NUMBER OF PREVIOUS CAR OR TRUCK CRASHES

(00) none
(01-96) actual number of crashes
(99) unknown

PROTECTIVE CLOTHING/GEAR WHEN RIDING

35. What Kind of Clothing Was on Your Upper Body?

(00) none (skip to # 37)
(01) light cloth garment (e.g., thin cotton)
(02) medium cloth garment (e.g., denim, nylon)
(03) heavy cloth garment (e.g., imitation leather)
(04) leather garment
(05) Kevlar
(06) armored nylon mesh
(07) off-road, molded body armor
(08) armored leather
(98) other (specify) _____
(99) unknown

36. Was This Upper-Body Clothing Motorcycle Oriented?

(00) no
(01) yes
(97) not applicable, no clothing
(98) other (specify) _____
(99) unknown

37. What Kind of Clothing Was on Your Lower Body?

(00) none (skip to # 39)
(01) light cloth garment (e.g., thin cotton)
(02) medium cloth garment (e.g., denim, nylon)
(03) heavy cloth garment (e.g., imitation leather)
(04) leather garment
(05) Kevlar
(06) armored nylon mesh
(07) off-road, molded body armor
(98) other (specify) _____
(99) unknown

38. Was This Lower-Body Clothing Motorcycle Oriented?

(00) no
(01) yes
(97) not applicable, no clothing
(98) other (specify) _____
(99) unknown

39. Were You Wearing an Inflatable Safety Vest?

- (00) no _____
- (01) yes _____
- (98) other (specify) _____
- (99) unknown _____

40. What Kind of Shoes or Boots Were You Wearing?

- (00) no shoes or boots, barefoot (skip to # 43) _____
- (01) light sandal _____
- (02) medium street shoe, loafer _____
- (03) athletic, training shoe _____
- (04) heavy shoe or boot _____
- (05) reinforced work boot or motorcycle boot _____
- (98) other (specify) _____
- (99) unknown _____

41. Did This Footwear Go Over Your Ankle?

- (00) no _____
- (01) yes _____
- (97) not applicable, no footwear worn _____
- (98) other (specify) _____
- (99) unknown _____

42. Was the Footwear Motorcycle Oriented?

- (00) no _____
- (01) yes _____
- (97) not applicable, no footwear worn _____
- (99) unknown _____

43. What Kind of Gloves Were You Wearing?

- (00) none (skip to # 45) _____
- (01) light cloth garment (e.g., thin cotton) _____
- (02) medium cloth garment (e.g., denim, nylon) _____
- (03) heavy cloth garment (e.g., imitation leather) _____
- (04) leather garment _____
- (05) Kevlar _____
- (06) armored nylon mesh _____
- (07) off-road, molded body armor _____
- (98) other (specify) _____
- (99) unknown _____

44. Are the Gloves Motorcycle Oriented?

- (00) no _____
- (01) yes, full-fingered _____
- (02) yes, shorties _____
- (97) not applicable, no gloves worn _____
- (98) other (specify) _____
- (99) unknown _____

45. Is Any of This Clothing Retroreflective?

CODE UP TO THREE RESPONSES

- (00) no retroreflective clothing or gloves _____
- (01) upper body (shirt/jacket/vest) _____
- (02) lower body (pants/shorts) _____
- (03) gloves _____
- (04) special arm bands or similar items _____
- (97) not applicable, no clothing or gloves worn _____
- (98) other (specify) _____
- (99) unknown _____

46. What Is the Clothing Color of the Following?

Upper-Body Clothing _____

Lower-Body Clothing _____

Footwear _____

Gloves _____

- (01) no dominating color, multicolored _____
- (02) white _____
- (03) yellow _____
- (04) black _____
- (05) red _____
- (06) blue _____
- (07) green _____
- (08) silver _____
- (09) orange _____
- (10) brown _____
- (11) purple _____
- (12) gold _____
- (13) grey _____
- (97) not applicable, no clothing _____
- (98) other (specify) _____
- (99) unknown _____

47. What Kind of Eye Protection Were You Wearing at the Time of the Crash?

- (00) none (skip to # 49) _____
- (01) clear, nonprescription glasses _____
- (02) clear, prescription glasses _____
- (03) nonprescription sunglasses _____
- (04) prescription sunglasses _____
- (05) goggles, nonprescription _____
- (06) goggles, prescription _____
- (07) industrial safety glasses _____
- (98) other (specify) _____
- (99) unknown _____

48. What Color Was the Eye Coverage Lens?

- (01) clear _____
- (02) green _____
- (03) grey, smoke _____
- (04) amber, yellow _____
- (05) blue _____
- (06) reflective (any color) _____
- (97) not applicable, not wearing eye coverage _____
- (98) other (specify) _____
- (99) unknown _____

49. Were You Injured in This Crash?

- (00) no injuries (skip to # 51)
- (01) yes
- (99) unknown

50. What Kind of Medical Treatment Did You Receive?

- (00) no treatment
- (01) on-scene emergency care only
- (02) treated and released at hospital/trauma center
- (03) admitted to hospital/trauma center
- (04) walk-in clinic
- (05) private physician
- (97) not applicable, no injury
- (98) other (specify) _____
- (99) unknown

54. What Year Was/Were the License(s) Issued?

LIST IN THE SAME ORDER AS # 53

- (1900–2100) actual year
- (9997) not applicable, no license
- (9999) unknown

55. Are You of Hispanic or Latino Origin?

- (00) no
- (01) yes
- (02) refused to answer
- (98) other (specify) _____
- (99) unknown

BACKGROUND INFORMATION

51. How Old Were You at the Time of the Crash?

CODE ACTUAL AGE

- (01–96) actual age
- (99) unknown

52. Where Did You Get Your Current Driver's License?

- (00) no license
- (01) Canada
- (02) California
- (03) other State (list) _____
- (04) military
- (97) no license required (49cc scooter)
- (98) other (specify) _____
- (99) unknown

56. What Is Your Race?

CODE UP TO THREE; INPUT 97 FOR REMAINING RESPONSES

- (01) White
- (02) Black or African American
- (03) Asian
- (04) Native Hawaiian or other Pacific Islander
- (05) American Indian or Alaska native
- (06) refused to answer
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

57. What Is Your Height?

- (01–12) actual number of feet and inches _____ feet _____ inches
- (09-99) unknown

53. What Kind of Operator's License Is It?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- (00) no license held
- (01) learner's permit only
- (02) motorcycle license
- (03) automobile license
- (04) commercial license
- (05) motorcycle driver and competition license
- (06) license to transport people
- (07) heavy-truck license
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

58. What Is Your Weight in Pounds?

- (001–996) actual weight in pounds _____
- (999) unknown

59. What Is Your Gender?

- (01) male
- (02) female
- (99) unknown

60. How Much Formal Education Have You Had?

- (00) no formal schooling
- (01) less than high school diploma
- (02) high school diploma or GED
- (03) partial college/university
- (04) college/university graduate
- (05) graduate school, advanced degree, professional degree
- (06) specialty/technical school
- (98) other (specify) _____
- (99) unknown

61. What Is Your Current Occupation?

- (01) management _____
- (02) business and financial
- (03) computer and mathematical
- (04) architecture and engineering
- (05) life, physical, and social sciences
- (06) community and social services
- (07) legal
- (08) education, training, or library
- (09) arts, design, entertainment, sports, or media
- (10) healthcare practitioners and technical jobs
- (11) healthcare support
- (12) protective services
- (13) food preparation, serving, and related
- (14) building and grounds maintenance
- (15) personal care and services
- (16) sales and related
- (17) office and administrative support
- (18) farming, fishing, or forestry
- (19) construction or extraction
- (20) installation, maintenance, or repair
- (21) transportation and material moving
- (22) military
- (23) full-time student
- (97) not applicable, not in workforce at present
- (98) other (specify) _____
- (99) unknown

62. Are You Married?

- (01) single _____
- (02) married
- (03) separated
- (04) divorced
- (05) widowed
- (06) cohabitating
- (98) other (specify) _____
- (99) unknown

63. How Many Children Do You Have?

- (00) none _____
- (01) one
- (02) two
- (03) three
- (04) four
- (05) five
- (06) six or more
- (98) other (specify) _____
- (99) unknown

64. Blood Alcohol Concentration (BAC)?

CODE RESULTS IN mg/100 ml

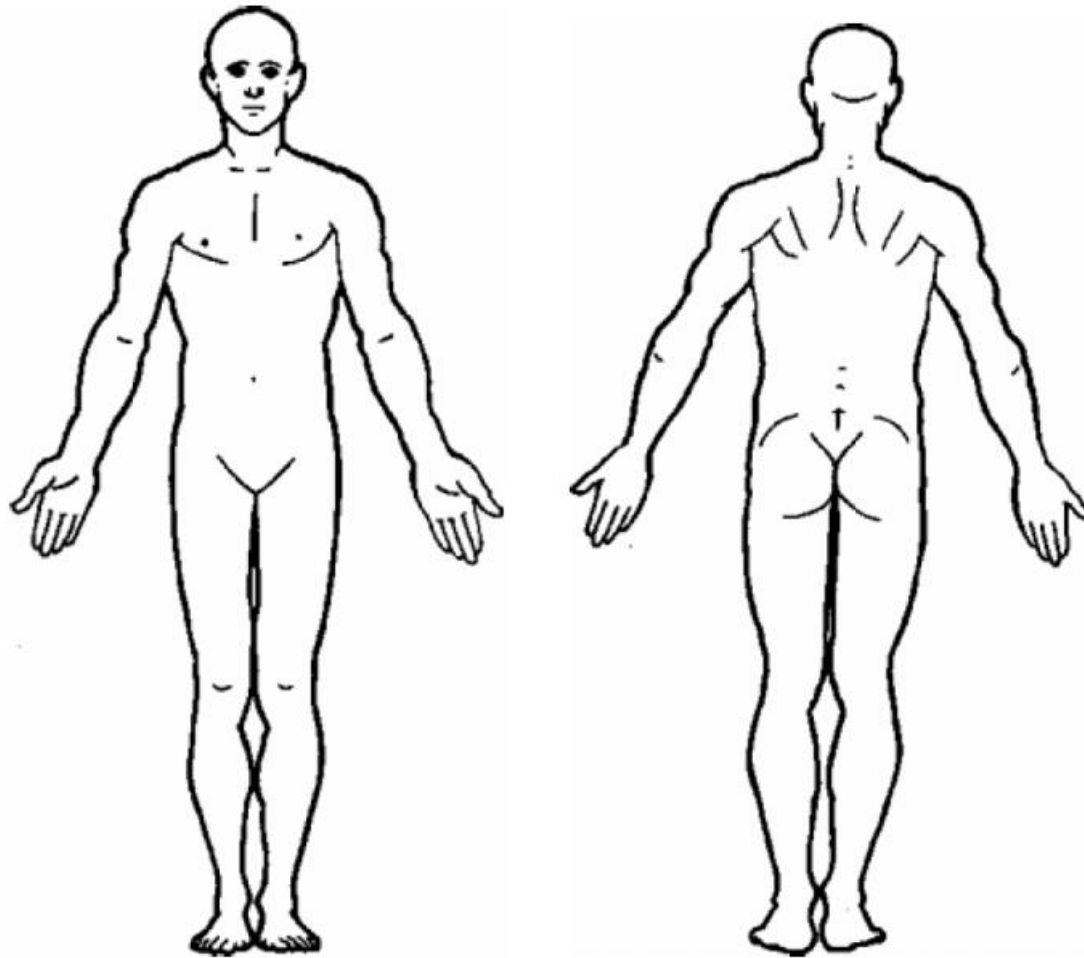
- (000) negative BAC _____
- (001–900) test results in mg/100 ml
- (995) BAC tested, results not known
- (996) BAC not tested
- (998) other (specify) _____
- (999) unknown

65. Source of BAC Information?

- (00) not tested _____
- (01) breath test
- (02) unknown if tested
- (03) tested, results unknown
- (04) tested, results not available
- (05) official records/ER/autopsy/PAR
- (98) other (specify) _____
- (99) unknown

INJURY DATA—SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

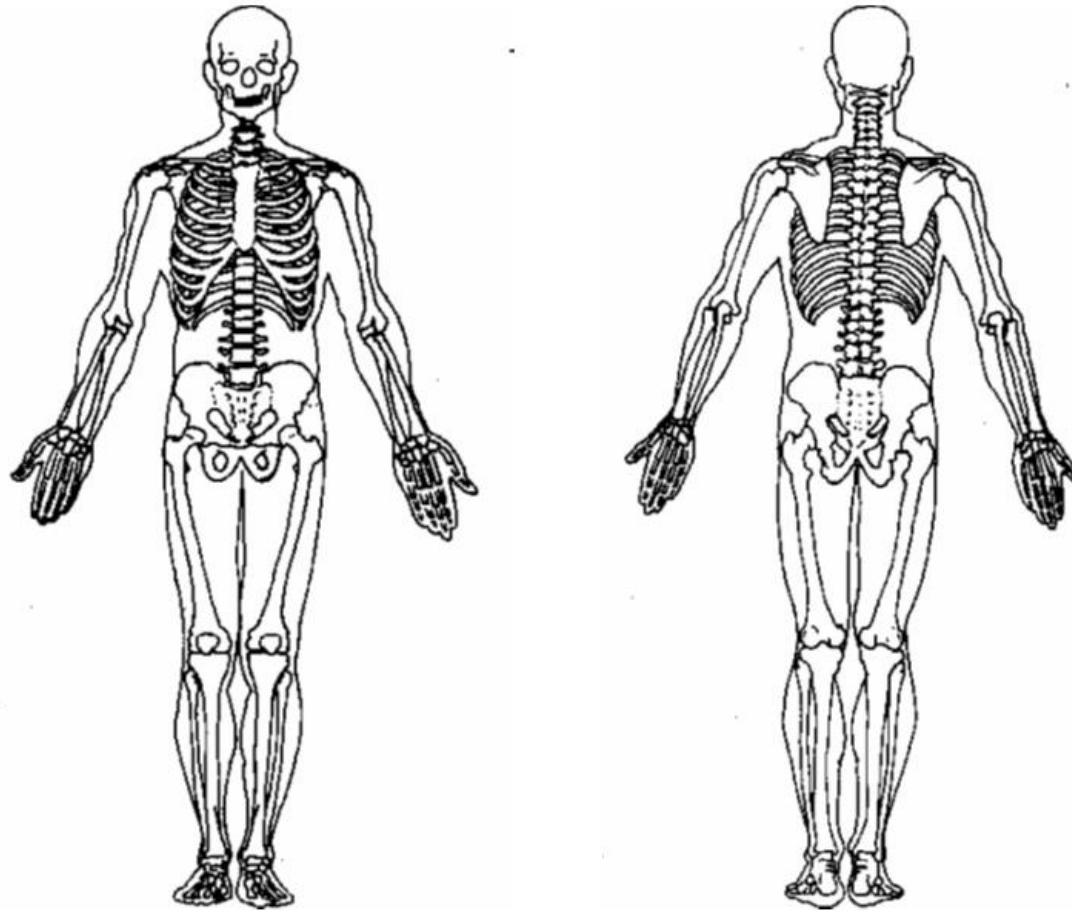


Source: OECD.

Figure 8. Illustration. Motorcycle passenger—front and back of human body.

INJURY DATA—SKELETAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

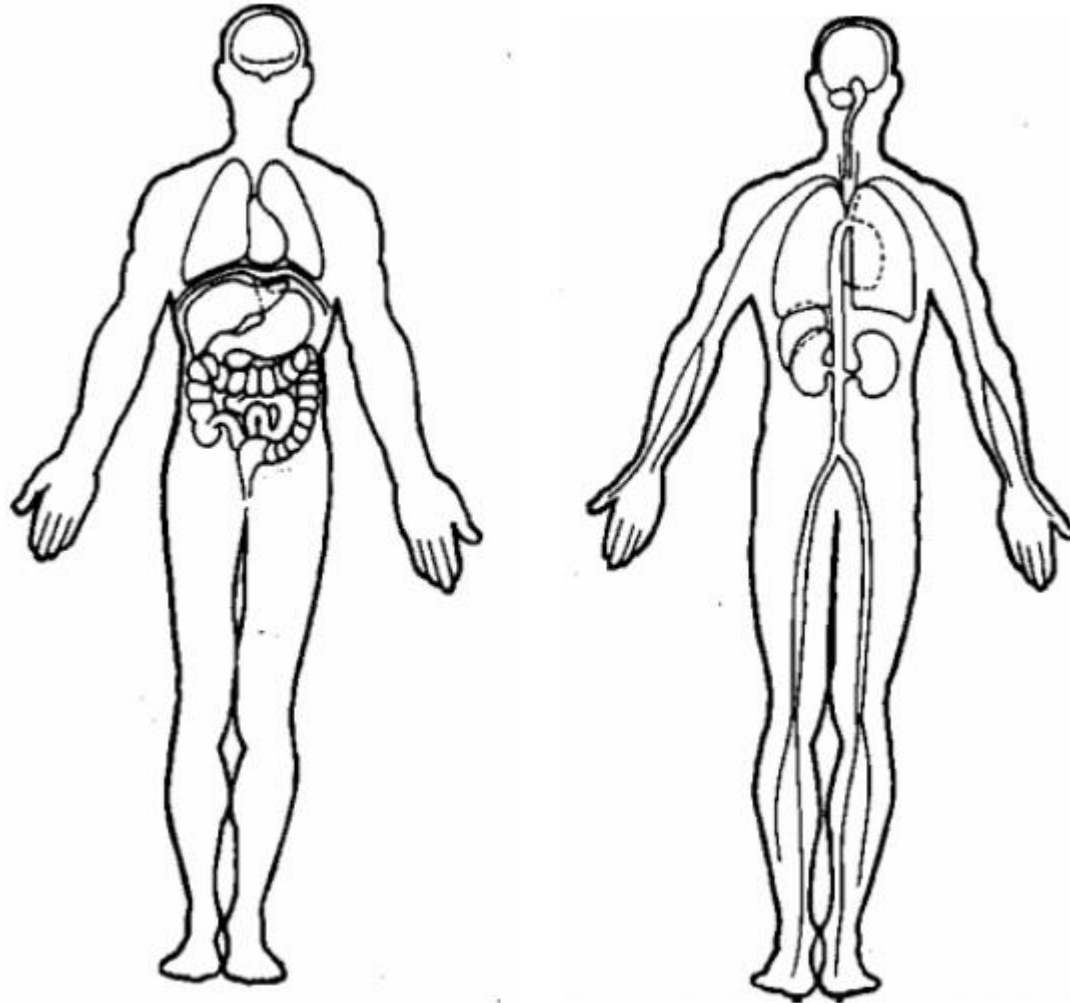


Source: OECD.

Figure 9. Illustration. Motorcycle passenger—front and back of human body with skeleton.

INJURY DATA—INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).



Source: OECD.

Figure 10. Illustration. Motorcycle passenger—front and back of human body with internal organs.

A-7. CONTROL MOTORCYCLE PASSENGER DATA-COLLECTION FORM

The following form is a blank form.

Control Motorcycle Passenger Form

Case Number _____

Control MC Passenger Number _____

HELMET DATA

1. Before This Interview, Were You Wearing a Helmet? _____

- (00) no _____
- (01) yes (skip to # 4)
- (02) helmet available but not used
- (98) other (specify) _____
- (99) unknown

2. What Is Your Reason for Not Wearing a Helmet? _____

- (01) not required by law _____
- (02) no expectation of crash involvement
- (03) helmets are too expensive
- (04) helmets are inconvenient and uncomfortable
- (05) helmets reduce traffic awareness, limit hearing and vision
- (06) helmets are ineffective in reducing head injury
- (07) helmets cause neck injury
- (08) helmets cannot be used, physical or religious reasons
- (09) do not own a helmet
- (10) forgot to bring helmet today
- (97) not applicable, rider is wearing a helmet
- (98) other (specify) _____
- (99) unknown

3. Do You Ever Wear a Helmet? _____

- (00) no (skip to # 14) _____
- (01) yes (skip to # 12)
- (02) occasionally (skip to # 12)
- (97) not applicable, passenger is wearing a helmet
- (98) other (specify) _____
- (99) unknown

4. Was/Is Your Helmet Properly Adjusted on Your Head? _____

- (00) no _____
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

5. Was/Is Your Helmet Securely Fastened to Your Head? _____

- (00) no _____
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

6. What Type of Helmet Is It? _____

- (00) not a motorcycle helmet _____
- (01) half/police motor vehicle, motorcycle helmet
- (02) open-face motor vehicle, motorcycle helmet
- (03) full-face motor vehicle, motorcycle helmet
- (04) novelty or beanie helmet
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

6(A). Conformity to Which Qualification? _____

CODE ALL THAT APPLY; INPUT 97 FOR REMAINING RESPONSES

- (01) no standards labeled _____
- (02) ISO _____
- (03) ECE-22-02 _____
- (04) ECE-22-03 _____
- (05) ECE-22-04 _____
- (06) E04 (EU) _____
- (07) BS6658A _____
- (08) BS6658B _____
- (09) JIS-A _____
- (10) JIS-B _____
- (11) JIS-C _____
- (12) FMVSS 218 _____
- (13) SNELL M85 _____
- (14) SNELL M90 _____
- (15) ANSI Z90.1 _____
- (16) CSA D230 _____
- (17) TUV _____
- (18) DGM (Italy) _____
- (19) NF (France) _____
- (20) ASA (Australia) _____
- (21) CEN _____
- (22) FIM _____
- (23) SEI _____
- (24) M6.1 (Malay) _____
- (25) NZS (1214, 1215) _____
- (26) SSA # 9 (Singapore) _____
- (27) USDOT _____
- (98) other (specify) _____
- (99) unknown

7. What Is the Type of Helmet Coverage?

- (01) partial coverage
- (02) full coverage
- (03) full-facial coverage, integral chin bar but no face shield
- (04) full-facial coverage, removable chin bar
- (05) full-facial coverage, retractable chin bar
- (06) full-facial coverage, integral chin bar and face shield
- (07) open-face helmet with flat wraparound face shield
- (08) open-face helmet with bubble-type face shield
- (09) open-face helmet with visor/face shield combo
- (10) open-face helmet with removable gravel guard
- (98) other (specify) _____
- (99) unknown

8. What Is the Predominant Color of Your Helmet?

- (01) no dominating color, multicolored
- (02) white
- (03) yellow
- (04) black
- (05) red
- (06) blue
- (07) green
- (08) silver, grey
- (09) orange
- (10) brown, tan
- (11) purple
- (12) gold
- (13) chrome, metallic
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

9. What Is the Color of the Face Shield?

- (01) clear
- (02) green
- (03) grey, smoke
- (04) amber, yellow
- (05) blue
- (06) reflective (any color)
- (97) not applicable, no face shield
- (98) other (specify) _____
- (99) unknown

10. Do You Own This Helmet?

- (00) no
- (01) yes
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

11. How Well Does This Helmet Fit?

- (01) acceptable fit
- (02) too large, too loose
- (03) too small, too tight
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

12. What Percentage of Time Do You Wear Your Helmet (When Riding as a Passenger)?

CODE 000-100 PERCENT

- (000-100) percent helmet worn
- (997) not applicable, no helmet
- (999) unknown

13. Under What Conditions Do You Usually Wear Your Helmet?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- (00) never uses helmet
- (01) mostly on long trips
- (02) mostly in high-speed highway or freeway traffic
- (03) in adverse weather
- (04) usually, but not in hot weather
- (05) always
- (97) not applicable, no helmet
- (98) other (specify) _____
- (99) unknown

IMPAIRMENT

14. Do You Have Any of the Following Permanent Physical Conditions?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no
- (01) vision reduction or loss
- (02) hearing reduction or loss
- (03) respiratory, cardiovascular condition
- (04) paraplegia
- (05) amputee
- (06) neurological, epilepsy, stroke
- (07) endocrine system, diabetes, digestive system
- (08) infirmity, arthritis, senility
- (98) other (specify) _____
- (99) unknown

15. When You Were Just Riding, Were You Experiencing Any of the Following?
 CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no
- (01) fatigue
- (02) hunger
- (03) thirst
- (04) elimination urgency
- (05) muscle spasm, cramp, itch
- (06) headache, minor malaise, fever
- (07) siesta syndrome (tired in afternoon)
- (98) other (specify) _____
- (99) unknown

16. When You Were Just Riding, Were You Concerned About Any of the Following Issues?
 CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- (00) no problems
- (01) conflict with friends, relatives, divorce, separation
- (02) work-related problems
- (03) financial distress
- (04) school problems
- (05) legal, police problems
- (06) reward stress
- (07) traffic conflict, road rage
- (08) death of family or friend
- (98) other (specify) _____
- (99) unknown

17. How Many Hours of Sleep Did You Have in the Past 24 Hours?

- (00) no sleep
- (01-24) number of hours slept
- (98) other (specify) _____
- (99) unknown

18. Did You Drink Any Alcohol or Take Any Drugs or Medications in the Past 24 Hours?

- (00) no (skip to # 21)
- (01) alcohol use only (skip to # 21)
- (02) drug/medication use only
- (03) combined alcohol and drug/medication use
- (98) other (specify) _____
- (99) unknown

19. Did You Take Any Type of Drugs Other Than Alcohol?

- (00) no drugs other than alcohol
- (01) stimulant
- (02) depressant
- (03) drugs taken, type unknown
- (04) multiple drugs taken
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

20. What Was the Source of these Drugs Other Than Alcohol?

- (00) no drugs other than alcohol
- (01) prescription
- (02) nonprescription, over the counter
- (03) illegal
- (97) not applicable
- (99) unknown

RIDING/DRIVING EXPERIENCE

21. How Long Have You Been Riding as a Passenger on This Motorcycle?

- (00-00) less than 2 weeks _____ years _____ months
- (00-11) months
- (00-96) years
- (97-97) not applicable, no previous experience, first time
- (98-98) other (specify) _____
- (99-99) unknown

22. How Long Have You Been Riding as a Passenger in Any Kind of Motor Vehicle?

- (00 00) less than 2 weeks _____ years _____ months
- (00-11) months
- (00-96) years
- (97-97) not applicable, no previous experience, first time
- (98-98) other (specify) _____
- (99-99) unknown

23. How Long Have You Ridden as a Passenger on Any Street Motorcycle?

- (00 00) less than 2 weeks _____ years _____ months
- (00-11) months
- (00-96) years
- (97-97) not applicable, no previous experience, first time
- (98-98) other (specify) _____
- (99-99) unknown

24. What Is the Average Number of Days per Year You Ride as a Passenger on Motorcycles?

- (001-365) actual number of days per year _____
- (999) unknown

25. What Kind of Motorcycle Training Have You Had?

- (00) none _____
- (01) State-recognized, entry-level motorcycle course
- (02) experienced-rider course
- (03) high-performance/competitive-track course
- (04) self-taught
- (05) taught by family and/or friends
- (98) other (specify) _____
- (99) unknown

26. When You Travel as a Passenger, What Is the Percentage of Time You Ride on a Motorcycle Versus Riding as a Passenger in Another Type of Vehicle?
 INDICATE PERCENTAGE OF TOTAL RIDING TIME AS A PASSENGER FOR EACH CATEGORY

Motorcycle _____
 Other-Vehicle Type _____
 100%

- (000) first-time use
- (001–100) actual percentage of time
- (997) not applicable
- (999) unknown

27. When You Ride a Motorcycle as a Passenger, What Is the Percentage of Time It Is for Each of these Categories?

INDICATE PERCENTAGE OF TOTAL RIDING TIME AS A PASSENGER FOR EACH CATEGORY

Recreation _____
 Basic Transportation _____
 100%

- (000) first time use
- (001–100) actual percent
- (997) not applicable
- (999) unknown

28. How Much Experience Do You Have Riding as a Passenger on Motorcycles?

- (00) never rode as a passenger before _____
- (01) very little experience
- (02) moderate experience
- (03) extensive experience
- (98) other (specify) _____
- (99) unknown

29. How Many Motorcycle Moving Traffic Crashes Have You Had as a Passenger in the Past 5 Years?
 CODE THE TOTAL NUMBER OF PREVIOUS MOTORCYCLE CRASHES

- (00) none _____
- (01–96) actual number of crashes
- (99) unknown

30. How Many Car or Truck Traffic Crashes Have You Had as a Passenger in the Past 5 Years?
 CODE THE TOTAL NUMBER OF PREVIOUS CAR OR TRUCK CRASHES

- (00) none _____
- (01–96) actual number of crashes
- (99) unknown

PROTECTIVE CLOTHING/GEAR WHEN RIDING

31. What Kind of Clothing Is on Your Upper Body?

- (00) none (skip to # 35) _____
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (08) armored leather
- (98) other (specify) _____
- (99) unknown

32. Is This Upper-Body Clothing Motorcycle Oriented?

- (00) no _____
- (01) yes
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

33. What Kind of Clothing Is on Your Lower Body?

- (00) none (skip to # 35) _____
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (98) other (specify) _____
- (99) unknown

34. Is This Lower-Body Clothing Motorcycle Oriented?

- (00) no _____
- (01) yes
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

35. Are You Wearing an Inflatable Safety Vest?

- (00) no _____
- (01) yes
- (98) other (specify) _____
- (99) unknown

36. What Kind of Shoes or Boots Are You Wearing? _____

- (00) no shoes or boots, barefoot (skip to # 39)
- (01) light sandal
- (02) medium street shoe, loafer
- (03) athletic, training shoe
- (04) heavy shoe or boot
- (05) reinforced work boot or motorcycle boot
- (98) other (specify) _____
- (99) unknown

37. Does This Footwear Go up Over Your Ankle? _____

- (00) no
- (01) yes
- (97) not applicable, no footwear worn
- (98) other (specify) _____
- (99) unknown

38. Is the Footwear Motorcycle Oriented? _____

- (00) no
- (01) yes
- (97) not applicable, no footwear worn
- (99) unknown

39. What Kind of Gloves Are You Wearing? _____

- (00) none (skip to # 41)
- (01) light cloth garment (e.g., thin cotton)
- (02) medium cloth garment (e.g., denim, nylon)
- (03) heavy cloth garment (e.g., imitation leather)
- (04) leather garment
- (05) Kevlar
- (06) armored nylon mesh
- (07) off-road, molded body armor
- (98) other (specify) _____
- (99) unknown

40. Are the Gloves Motorcycle Oriented? _____

- (00) no
- (01) yes, full-fingered
- (02) yes, shorties
- (97) not applicable, no gloves worn
- (98) other (specify) _____
- (99) unknown

41. Is Any of This Clothing Retroreflective?

CODE UP TO THREE RESPONSES

- (00) no retroreflective clothing or gloves
- (01) upper body (shirt/jacket/vest)
- (02) lower body (pants/shorts)
- (03) gloves
- (04) special arm bands or similar items
- (97) not applicable, no clothing or gloves worn
- (98) other (specify) _____
- (99) unknown

42. What Is the Clothing Color of the Following?

Upper-Body Clothing _____
 Lower-Body Clothing _____
 Footwear _____
 Gloves _____

- (01) no dominating color, multicolored
- (02) white
- (03) yellow
- (04) black
- (05) red
- (06) blue
- (07) green
- (08) silver
- (09) orange
- (10) brown
- (11) purple
- (12) gold
- (13) grey
- (97) not applicable, no clothing
- (98) other (specify) _____
- (99) unknown

43. What Kind of Eye Protection Are You Wearing Now? _____

- (00) none (skip to # 45)
- (01) clear, nonprescription glasses
- (02) clear, prescription glasses
- (03) nonprescription sunglasses
- (04) prescription sunglasses
- (05) goggles, nonprescription
- (06) goggles, prescription
- (07) industrial safety glasses
- (98) other (specify) _____
- (99) unknown

44. What Color Is the Eye-Coverage Lens? _____

- (01) clear
- (02) green
- (03) grey, smoke
- (04) amber, yellow
- (05) blue
- (06) reflective (any color)
- (97) not applicable, not wearing eye coverage
- (98) other (specify) _____
- (99) unknown

BACKGROUND INFORMATION

45. How Old Are You?

CODE ACTUAL AGE IN YEARS

- (01-96) actual age in years
- (99) unknown

46. Where Did You Get Your Current Driver's License?

- (00) no license _____
- (01) Canada _____
- (02) California _____
- (03) other State (list) _____
- (04) military _____
- (97) no license required (49cc scooter) _____
- (98) other (specify) _____
- (99) unknown _____

47. What Kind of Operator's License Is It?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- (00) no license held _____
- (01) learner's permit only _____
- (02) motorcycle license _____
- (03) automobile license _____
- (04) commercial license _____
- (05) motorcycle driver and competition license _____
- (06) license to transport people _____
- (07) heavy-truck license _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

48. What Year Was/Were the License(s) Issued?

LIST IN THE SAME ORDER AS # 47

- _____
- _____
- _____
- _____
- (1900–2100) actual year
- (9997) not applicable
- (9999) unknown

49. Are You of Hispanic or Latino Origin?

- (00) no _____
- (01) yes _____
- (02) refused to answer _____
- (98) other (specify) _____
- (99) unknown _____

50. What Is Your Race?

CODE UP TO THREE; INPUT 97 FOR REMAINING RESPONSES

- (01) White _____
- (02) Black or African American _____
- (03) Asian _____
- (04) Native Hawaiian or other Pacific Islander _____
- (05) American Indian or Alaska Native _____
- (06) refused to answer _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

51. What Is Your Height?

- _____ feet _____ inches
- (01–12) actual number of feet and inches
- (09-99) unknown

52. What Is Your Weight?

- (001–996) actual weight in pounds _____
- (999) unknown _____

53. What Is Your Gender?

- (01) male _____
- (02) female _____
- (99) unknown _____

54. How Much Formal Education Have You Had?

- (00) no formal schooling _____
- (01) less than high school diploma _____
- (02) high school diploma or GED _____
- (03) partial college/university _____
- (04) college/university graduate _____
- (05) graduate school, advanced degree, professional degree _____
- (06) specialty/technical school _____
- (98) other (specify) _____
- (99) unknown _____

55. What Is Your Current Occupation?

- (01) management
- (02) business and financial
- (03) computer and mathematical
- (04) architecture and engineering
- (05) life, physical, and social sciences
- (06) community and social services
- (07) legal
- (08) education, training, or library
- (09) arts, design, entertainment, sports, or media
- (10) healthcare practitioners and technical jobs
- (11) healthcare support
- (12) protective services
- (13) food preparation, serving, and related
- (14) building and grounds maintenance
- (15) personal care and services
- (16) sales and related
- (17) office and administrative support
- (18) farming, fishing, or forestry
- (19) construction or extraction
- (20) installation, maintenance, or repair
- (21) transportation and material moving
- (22) military
- (23) full-time student
- (97) not applicable, not in workforce at present
- (98) other (specify) _____
- (99) unknown

56. Are You Married?

- (01) single
- (02) married
- (03) separated
- (04) divorced
- (05) widowed
- (06) cohabitating
- (98) other (specify) _____
- (99) unknown

57. How Many Children Do You Have?

- (00) none
- (01) one
- (02) two
- (03) three
- (04) four
- (05) five
- (06) six or more
- (98) other (specify) _____
- (99) unknown

58. Blood Alcohol Concentration (BAC)?

CODE RESULTS IN mg/100 ml

- (000) negative BAC
- (001–900) test results in mg/100 ml
- (995) BAC tested, results not known
- (996) BAC not tested
- (998) other (specify) _____
- (999) unknown

59. Source of BAC Information?

- (00) not tested
- (01) breath test
- (02) unknown if tested
- (03) tested, results unknown
- (04) tested, results not available
- (98) other (specify) _____
- (99) unknown

A-8. MOTORCYCLE MECHANICAL DATA-COLLECTION FORM

The following form is a blank form.

Motorcycle Mechanical Form

Case Number _____

SPECIFICATIONS

1. Manufacturer

WRITE IN; DO NOT CODE

2. Model

WRITE IN; DO NOT CODE

3. Year

CODE THE FOUR-DIGIT YEAR

(1900–(current year + 1)) _____

(9999) unknown

4. Motorcycle Legal Category

(01) L1 vehicle _____

(02) L3 vehicle

(03) mofa

(98) other (specify) _____

(99) unknown

5. Motorcycle Type

(01) conventional street L1 or L3 vehicle (tank between knees),
without modifications _____

(02) conventional street L1 or L3 vehicle (tank between knees),
with modifications

(03) dual-purpose, on-road–off-road motorcycle

(04) sport, race replica

(05) cruiser

(06) chopper, modified chopper

(07) touring

(08) scooter

(09) step-through

(10) sport-touring

(11) motorcycle plus sidecar, left

(12) motorcycle plus sidecar, right

(13) off-road motorcycle, motocross, enduro, trials

(14) tricycle

(15) law enforcement

(98) other (specify) _____

(99) unknown

6. Motorcycle Weight

(0001–9996) actual weight, as specified by manufacturer, in pounds _____

(9999) unknown

7. Vehicle Identification Number

_____ X X X
(9999999999999999) unknown

8. Odometer Reading in Miles

(000001–999996) actual number of miles _____ , _____

(999999) unknown

9. Registered-Owner Category

(01) motorcycle rider _____

(02) motorcycle passenger

(03) operated with consent of owner

(04) dealer

(05) stolen

(97) not applicable, no registration available

(98) other (specify) _____

(99) unknown

10. Predominant Color of Motorcycle

(00) no dominating color, multicolored _____

(01) white

(02) yellow

(03) black

(04) red

(05) blue

(06) green

(07) silver, grey

(08) orange

(09) brown, tan

(10) purple

(11) gold

(12) chrome, metallic

(98) other (specify) _____

(99) unknown

11. Did the Motorcycle Have Any Retroreflective Parts, Material, or Paint?

(00) no, none _____

(01) yes

(98) other (specify) _____

(99) unknown

12. Motor Displacement

CODE IN CUBIC CENTIMETERS

(0001–9996) actual number _____

(9999) unknown

13. Number of Cylinders

CODE NUMBER OF CYLINDERS

- (01-96) actual number of cylinders
- (99) unknown

MECHANICAL PROBLEMS

14. Symptom of Problem

- (00) none
- (01) stopped in traffic
- (02) front-wheel lockup
- (03) rear-wheel lockup
- (04) power loss
- (05) speed-control problem
- (06) loss of control
- (07) uncontrolled acceleration or deceleration
- (08) motor stalled
- (09) front axle loose
- (10) rear axle loose
- (11) front-axle fixing loose
- (12) rear-axle fixing loose
- (13) loss of lighting
- (14) loss of electrical, other than lighting
- (98) other (specify) _____
- (99) unknown

15. Source of Problem

- (01) fuel starvation
- (02) electrical or ignition failure
- (03) mechanical failure of motor components
- (04) lubrication
- (05) cooling system
- (06) stuck or binding throttle
- (07) seized motor
- (08) transmission
- (09) clutch
- (10) lighting system
- (11) fuse, circuit breaker
- (12) missing axle security
- (13) axle bearings
- (14) front-fork pinch bolts
- (15) axle adjust screws and set nuts
- (97) not applicable, no mechanical problem
- (98) other (specify) _____
- (99) unknown

TIRES

16. Tire Size Measurement Units

- (01) inches
- (02) millimeters
- (03) alphanumeric
- (99) unknown

17. Front-Tire Measurement

_____ (999999999) unknown

18. Rear-Tire Measurement

_____ (999999999) unknown

19. Tire Manufacturer

- (A1) Avon
- (B1) Bridgestone
- (C1) Cheng Shin
- (C2) Continental
- (D1) Dico
- (D2) Dunlop
- (F1) Firestone
- (G1) Goodyear
- (H1) Hutchinson
- (I1) IRC
- (I2) ITP
- (K1) Kazan
- (K2) Kenda
- (M1) Metzeler
- (M2) Michelin
- (O1) Ohtsu
- (P1) Pirelli
- (S1) Skat Trak
- (S2) Shinko
- (98) other (specify) _____
- (99) unknown

Front _____
Rear _____

20. Rim Size, Front

_____. _____ x _____ inches
(0-96 x 0-96) actual size of front rim in inches
(9.99 x 99) unknown

21. Rim Size, Rear

_____. _____ x _____ inches
(0-96 x 0-96) actual size of rear rim in inches
(9.99 x 99) unknown

22. Rim Manufacturer

- (OE) original equipment
- (D1) Daido (DID)
- (D2) Douglas
- (E1) Enkai
- (E2) Excel
- (S1) Sun
- (T1) Talon Hubs
- (U1) Union
- (OT) other (specify) _____
- (99) unknown

Front _____
Rear _____

23. Tread Type

- (00) no tread pattern, slick
- (01) straight-rib tread pattern
- (02) block pattern, trials type
- (03) knobby pattern, motocross type
- (04) all weather, cross or dog-bone pattern
- (05) all weather, diagonal or diamond pattern
- (06) all weather, angle groove
- (07) racing design, minimum groove design
- (98) other (specify) _____
- (99) unknown

Front _____
Rear _____

24. Measured Tread Depth

CODE IN 32NDs

- (00-96/32nds) actual tread depth
- (99/32nds) unknown

Front _____/32nds
Rear _____/32nds

25. Inflation Pressure

ONLY TAKE PRESSURE IF CONFIDENT THE CRASH
DID NOT CAUSE LOSS OF PRESSURE; OTHERWISE
CODE 999

- (000) completely flat
- (001-100) PSI
- (999) unknown

Front _____
Rear _____

26. Braking Evidence on Tire

- (00) none
- (01) evidence of moderate braking
- (02) evidence of heavy braking without wheel lock up
- (03) evidence of heavy locked-wheel braking, one skid patch
- (04) evidence of heavy locked-wheel braking, multiple skid patches
- (98) other (specify) _____
- (99) unknown

Front _____
Rear _____

SUSPENSION

27. Suspension Type, Front

- (00) none, rigid wheel mount
- (01) telescoping tube, conventional lower-fork legs
- (02) telescoping tube, inverted fork legs
- (03) springer
- (04) girder
- (05) leading link, single- or double-sided
- (06) articulated multiple link
- (07) trailing link, single- or double-sided
- (08) telelever (BMW only)
- (09) lower suspension
- (98) other (specify) _____
- (99) unknown

28. Suspension Type, Rear

- (00) none, rigid wheel mount
- (01) conventional fork swing arm, double exterior tubular shocks
- (02) conventional fork swing arm, mono-shock
- (03) conventional fork swing arm, linkage-articulated mono-shock
- (04) one-sided swing arm, single exterior tubular shock
- (05) one-sided swing arm, mono-shock
- (06) one-sided swing arm, linkage-articulated mono-shock
- (07) lower suspension
- (98) other (specify) _____
- (99) unknown

29. Suspension Condition

- (00) no unusual condition; acceptable condition
- (01) excessive wear in joints, sliders, pivot bolts; excessive mobility
- (02) seals or dampers leaking; deteriorated damping
- (03) loose or missing fasteners, inadequate clamping; excessive flexibility
- (04) suspension elements damaged prior to accident events
- (05) not applicable
- (98) other (specify) _____
- (99) unknown

Front _____
Rear _____

BRAKE SYSTEM

30. Rider Brake-Control Type

- (00) none, not present
- (01) hand
- (02) foot
- (99) unknown

Lever/Pedal 1 _____
Lever/Pedal 2 _____

31. Rider Brake-Control Side

- (01) left
- (02) right
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

Lever/Pedal 1 _____
Lever/Pedal 2 _____

32. Brake Actuation at Lever or Pedal

- (01) hydraulic
- (02) mechanical
- (03) electric
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

Lever/Pedal 1 _____
Lever/Pedal 2 _____

33. Brake Control–System Type

Lever/Pedal 1 _____
Lever/Pedal 2 _____

- (01) independent front brake
- (02) independent rear brake
- (03) combined front and rear brakes, CBS
- (97) not applicable
- (99) unknown

34. Connection to Front Brake Includes

Lever/Pedal 1 _____
Lever/Pedal 2 _____

- (01) no proportioning valve
- (02) fixed proportioning valve
- (03) variable proportioning valve
- (97) not applicable
- (99) unknown

35. Connection to Rear Brake Includes

Lever/Pedal 1 _____
Lever/Pedal 2 _____

- (01) no proportioning valve
- (02) fixed proportioning valve
- (03) variable proportioning valve
- (97) not applicable
- (99) unknown

36. ABS

Front _____
Rear _____

- (00) no
- (01) yes
- (97) not applicable
- (99) unknown

37. ABS Type

Front _____
Rear _____

- (01) electro hydraulic
- (02) hydromechanical
- (03) all hydraulic, fluidic
- (04) all mechanical
- (05) pneumatic hydraulic
- (06) electromechanical
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

38. Brake Mechanism

Front _____
Rear _____

- (00) none, not present
- (01) caliper/shoe to wheel rim
- (02) drum, single-leading shoe
- (03) drum, double-leading shoe
- (04) single disc, single piston
- (05) single disc, multipiston
- (06) double disc, single-piston
- (07) double disc, multipiston
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

39. Brake-Mechanism Actuation

Front _____
Rear _____

- (01) hydraulic
- (02) mechanical
- (03) electric
- (04) electric regenerative
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

40. Were Brakes Operational Before Crash?

Front _____
Rear _____

- (00) no
- (01) yes
- (99) unknown

41. Do the Brakes Appear to be Defective?

Front _____
Rear _____

- (00) no
- (01) yes
- (99) unknown

42. Brakes Condition/Wear

Front _____
Rear _____

- (01) no significant wear
- (02) minimum wear to friction surfaces
- (03) moderate wear to friction surfaces
- (04) severe wear to friction surfaces, replacement and repair overdue
- (05) severe deterioration due to wear of friction surfaces
- (06) severe deterioration of operating system
- (07) brake components damaged prior to accident events
- (98) other (specify) _____
- (99) unknown

43. Brake Adjustment

Front _____
Rear _____

- (00) no maladjustment
- (01) improper adjustment, significant control action required for braking action
- (02) severe adjustment problem
- (03) inoperable due to sabotage
- (98) other (specify) _____
- (99) unknown

FRAME

44. Frame Type/Configuration

- (01) step-through, formed sheet metal _____
- (02) step-through, tubular frame
- (03) conventional tube-cradle type with single-down tube
- (04) conventional tube-cradle type with double-down tubes
- (05) backbone type, motor transmission mounted independently
- (06) backbone type, motor transmission integral with frame
- (07) perimeter frame, tube type
- (08) perimeter frame, extrusion-element type
- (09) monocoque, shell-only structure
- (98) other (specify) _____
- (99) unknown

45. Frame Material

- (01) steel _____
- (02) aluminum alloy
- (03) carbon-fiber composite
- (04) other composite
- (98) other (specify) _____
- (99) unknown

46. Reduction in Wheelbase

CODE IN INCHES AND TENTHS

- _____ . _____ inches
- (00.0–99.6) actual number in inches
 - (99.9) unknown

47. Did Front Wheel Displace Against Either the Motor or the Frame?

- (00) no _____
- (01) yes
- (97) not applicable
- (99) unknown

48. Steering-Stem Adjustment

- (01) secure, properly tightened _____
- (02) overly tightened, control interference
- (03) loose, contributes to control difficulty
- (04) very loose, control interference
- (98) other (specify) _____
- (99) unknown

49. Steering Damper Installed

- (00) none installed or not applicable _____
- (01) center steering pivot adjustable friction discs
- (02) tubular friction damper
- (03) hydraulic tubular damper, one side
- (04) hydraulic tubular damper, both sides
- (98) other (specify) _____
- (99) unknown

50. Is Rear Swing Arm Loose?

- (00) no _____
- (01) yes
- (97) not applicable
- (99) unknown

MISCELLANEOUS COMPONENTS

51. Is the Motorcycle Equipped With Pedals?

- (00) no _____
- (01) yes
- (99) unknown

52. Rider Foot Pegs, Footrest Type

- (00) none _____
- (01) rigid metal pegs, no covers
- (02) rigid metal pegs, rubber covers
- (03) metal folding pegs, no covers
- (04) metal folding pegs, rubber covers
- (05) rigid metal footrests, pegs, or footboards
- (06) folding metal footrests, pegs, or footboards
- (07) accessory highway pegs only
- (08) scooter footboards
- (98) other (specify) _____
- (99) unknown

53. Passenger Foot Pegs, Footrest Type

- (00) none _____
- (01) rigid metal pegs, no covers
- (02) rigid metal pegs, rubber covers
- (03) metal folding pegs, no covers
- (04) metal folding pegs, rubber covers
- (05) rigid metal footrests, pegs, or footboards
- (06) folding metal footrests, pegs, or footboards
- (07) accessory highway pegs only
- (08) scooter footboards
- (98) other (specify) _____
- (99) unknown

54. Side-Stand Type

- (00) none _____
- (01) original equipment, right side, metal end or pad
- (02) original equipment, right side, rubber catch pad
- (03) original equipment, left side, metal end or pad
- (04) original equipment, left side, rubber catch pad
- (05) accessory, installed right side
- (06) accessory, installed left side
- (98) other (specify) _____
- (99) unknown

55. Center-Stand Type

- (00) none
- (01) original equipment, installed
- (02) original equipment, removed
- (03) ride-off stand installed
- (98) other (specify) _____
- (99) unknown

56. Headlamp Assembly Type

- (00) none
- (01) single headlamp
- (02) double headlamp
- (03) single with auxiliary lights
- (04) double with auxiliary lights
- (98) other (specify) _____
- (99) unknown

57. Was Headlamp Illuminated at the Time of Crash?

- (00) no
- (01) yes, rider controlled
- (02) yes, always-on technology
- (98) other (specify) _____
- (99) unknown

58. Was Motorcycle Equipped With an Airbag?

- (00) no
- (01) yes, but airbag did not deploy
- (02) yes, airbag did deploy
- (99) unknown

59. Is Motorcycle Equipped With or Pulling Any of the Following?

- (00) no, not applicable
- (01) side car
- (02) trailer
- (03) training wheels
- (04) outrigger
- (98) other (specify) _____
- (99) unknown

60. Handlebar Type

- (01) original equipment
- (02) clip-on, not original equipment
- (03) clubman or racer
- (04) high-sweep or tiller-type touring
- (05) high rise
- (06) motocross, off-road
- (98) other (specify) _____
- (99) unknown

61. Handlebar Mounting

- (01) original equipment, solid
- (02) original equipment, rubber bushing
- (03) setbacks
- (04) dog bones
- (05) risers
- (98) other (specify) _____
- (99) unknown

62. Handlebar Construction

- (01) steel tube
- (02) aluminum alloy tube
- (03) titanium alloy tube
- (04) cast steel
- (05) forged steel
- (06) cast aluminum alloy
- (07) forged aluminum alloy
- (08) composite
- (09) cast steel with steel tube
- (98) other (specify) _____
- (99) unknown

63. Handlebar Measurements

CODE IN INCHES AND TENTHS

Width _____ . _____
 Rise _____ . _____
 Sweep _____ . _____

- (00.1–99.6) actual number
- (99.9) unknown

64. Seat Type

- (01) conventional straddle seat, one level
- (02) straddle type, two level, raised passenger
- (03) bucket, single seat
- (04) bucket, double seat, one level
- (05) bucket, double seat, raised passenger
- (06) single racer seat, tail fairing behind
- (07) single straddle seat, pillion pad behind
- (08) single pad, semibench type
- (98) other (specify) _____
- (99) unknown

65. Seat Fastening

- (00) no seat, not attached
- (01) one side hinged, other side latched
- (02) tank tongue, both sides tab and screw attachment
- (03) tank tongue with double-claw latch
- (04) forward hinge, button rest on frame, no latch
- (05) forward hinge, button rest with latch
- (06) multiple tab and screw attachment
- (07) bolted
- (98) other (specify) _____
- (99) unknown

FUEL TANK

66. Fuel-Tank Type

- (01) saddle
- (02) under seat
- (03) submerged in frame
- (04) perimeter mount
- (98) other (specify) _____
- (99) unknown

67. Fuel-Tank Material

- (01) steel
- (02) aluminum alloy
- (03) fiberglass composite
- (04) other composite
- (05) injection-molded plastic
- (06) injection-molded plastic covered by metal
- (98) other (specify) _____
- (99) unknown

68. Fuel Tank-Cap Type

- (00) none, cap missing, fuel filler open or stuffed with cloth, rag, rubber ball, etc.
- (01) external screw type, no cover
- (02) external screw type, covered
- (03) internal screw type, no ratchet, no cover
- (04) internal screw type, ratchet, no cover
- (05) internal screw type, ratchet, covered, or recessed
- (06) exposed bayonet type, no cover, no guard
- (07) covered, guarded, or recessed bayonet type
- (08) smooth with tank top surface, covered
- (09) smooth with tank top surface, no cover
- (10) monza, flip-up
- (11) press fit cap
- (98) other (specify) _____
- (99) unknown

69. Cap Retention

- (01) retained securely, no venting or fuel loss from cap
- (02) not retained, ejected completely from tank body
- (03) opened but remained attached to tank
- (04) displaced sufficiently to allow fuel loss
- (97) not applicable, cap missing, fuel filler open or stuffed with cloth, rag, rubber ball, etc.
- (98) other (specify) _____
- (99) unknown

70. Tank Retention

- (01) tank completely retained in motorcycle
- (02) partially separated, displaced from mounting
- (03) completely separated from mounting position
- (99) unknown

71. Tank Deformation

- (00) none (skip to # 74)
- (01) mild denting
- (02) moderate denting
- (03) severe damage
- (99) unknown

72. Deformation Source

- (00) no deformation
- (01) contact from motorcyclist's body
- (02) collision contact from other motorcycle components
- (03) collision contact with other vehicle
- (04) collision contact with roadway surface
- (05) collision contact with other objects in environment
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

73. Was There a Fuel-Tank Failure?

- (00) no (skip to # 75)
- (01) yes
- (99) unknown

74. Tank-Damage/Failure Type

CODE UP TO FOUR; INPUT 00 FOR REMAINING RESPONSES

- (01) denting or crushing from blunt impact
- (02) laceration or puncture from edge or sharp object
- (03) metal tank welds separated
- (04) metal tank welds defect
- (05) metal tank corrosion weakness
- (06) plastic tank material embrittlement
- (07) plastic tank mold defect
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

75. Was There a Fuel Spill or Leak?

- (00) no (skip to # 77)
- (01) minor leaks, little or no fire hazard
- (02) moderate leak or spill, some fire hazard
- (03) large quantity of fuel lost with severe fire hazard
- (98) other (specify) _____
- (99) unknown

76. Source of Fuel Spills or Leak

CODE UP TO FIVE; INPUT 00 FOR REMAINING RESPONSES

- (00) no leaks or spills
- (01) primary fuel tank
- (02) auxiliary fuel tank
- (03) fuel lines and fittings
- (04) fuel filter
- (05) exhaust
- (06) carburetor
- (07) fuel-injection system
- (08) fuel cap
- (09) fuel-tank vent
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

77. Did a Fire Occur?

- (00) no (skip to # 82)
- (01) yes
- (97) not applicable
- (99) unknown

78. When Did the Fire Occur?

- (01) pre-crash
- (02) during crash
- (03) post-crash
- (97) not applicable, no fire
- (98) other (specify) _____
- (99) unknown

79. The Fire Occurred How Long After the Crash?

CODE IN MINUTES

- (01-96) actual time in minutes
- (97) not applicable, no fire
- (98) other (specify) _____
- (99) unknown

80. Fuel Source for Fire

- (01) other vehicle or environment
- (02) primary fuel tank
- (03) auxiliary fuel tank
- (04) fuel lines and fittings
- (05) fuel filter
- (06) exhaust
- (07) carburetor
- (08) fuel-injection system
- (09) fuel cap
- (10) fuel-tank vent
- (97) not applicable, no fire
- (98) other (specify) _____
- (99) unknown

81. Ignition Source for Fire

- (01) other vehicle or environment
- (02) sliding motorcycle caused friction sparks
- (03) ignition system, high-tension sparks
- (04) violation of electrical system other than lights or lamps
- (05) lights, lamps
- (06) exhaust system
- (07) smoking materials
- (08) cargo, parcels
- (09) traffic-hazard flares
- (97) not applicable, no fire
- (98) other (specify) _____
- (99) unknown

DRIVELINE

82. Drive-Line Type

- (01) sprockets, exposed chain
- (02) sprockets, enclosed chain
- (03) belt
- (04) shaft
- (98) other (specify) _____
- (99) unknown

83. Drive-Chain, Belt, or Shaft Condition

- (00) no unusual condition, acceptable adjustment
- (01) excessively loose adjustment, excessive wear
- (02) drive chain or belt adjustment too tight
- (03) chain or belt broken
- (04) chain or belt derailed
- (98) other (specify) _____
- (99) unknown

84. When Did This Drive-Line Damage Occur?

- (00) no drive-line damage
- (01) pre-crash
- (02) during crash
- (03) post-crash
- (97) not applicable
- (99) unknown

85. Drive-Sprocket Condition

- (00) no unusual condition, acceptable condition
- (01) front-sprocket teeth worn but serviceable
- (02) front-sprocket teeth badly worn, hinders power application
- (03) rear-sprocket teeth worn but serviceable
- (04) rear-sprocket teeth badly worn, hinders power application
- (05) severe sprocket wear, related to chain or belt derailing, drive-line failure
- (97) not applicable, no sprockets
- (98) other (specify) _____
- (99) unknown

THROTTLE CONTROL

86. Does Throttle Control Work?

- (00) no
- (01) yes
- (99) unknown

87. Drum Condition

- (00) no drum damage
- (01) grip interference, binds in rotation
- (02) base-adjustment improper, binds in rotation
- (03) drum damaged prior to accident events, binds in rotation
- (04) cable-draw interference, binds in rotation
- (05) needs lubrication, binds in rotation
- (06) foreign matter in throttle base, binds in rotation
- (07) improper tightening of throttle base, rotation causes base rotation
- (97) not applicable, thumb-throttle or squeeze-throttle type
- (98) other (specify) _____
- (99) unknown

88. Condition of Cables

- (00) cables not damaged
- (01) bind due to bent sheath
- (02) bind due to corrosion, lack of lubrication
- (03) bind due to frayed wires
- (04) end collets loose
- (05) incorrect size causes malfunction
- (06) improper routing, steering causes throttle action
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

89. Condition of Throttle Plate/Slides

- (00) throttle plate/slides not damaged
- (01) carburetor damage prior to accident events caused binding, throttle sticking
- (02) throttle plate damage prior to accident caused throttle sticking
- (03) foreign object in induction system caused throttle malfunction
- (04) missing air cleaner allowed induction system contamination, sticking throttle
- (05) improper reassembly of carburetor after maintenance allowed sticking slide or throttle plate
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

90. Return-Springs Condition

- (00) return springs not damaged
- (01) external return springs missing, sticking throttle
- (02) carburetor internal slide springs missing or damaged
- (03) external throttle plate springs altered, weaker springs, sticking throttle
- (04) not applicable
- (98) other (specify) _____
- (99) unknown

EXHAUST SYSTEM

91. Exhaust-System Condition

- (00) no problems, good condition
- (01) worn or damaged
- (02) worn or damaged, excessive noise
- (03) performance equipment, noise level approximately same as original equipment
- (04) high performance equipment, excessive noise
- (98) other (specify) _____
- (99) unknown

Table 1. Example of blank motorcycle summary table—page 1.

Codes for Each Blank Cell (00) no (01) yes (97) not applicable (99) unknown	Equipped	Original Equipment	Aftermarket	Operational	Modified
Front crash bars					
Rear crash bars					
Engine guard					
Windscreen					
Fairing, handlebar or steering mounted					
Fairing, frame mounted					
Headlamps					
Headlamp nacelle					
Auxiliary headlamp					
Front position lamp					
Front reflector, yellow					
Front reflector, white					
Front reflector, red					
Front reflector, silver					
Front turn signals					
Speedometer					
Tachometer					
Handlebars					
Throttle					

Table 2. Example of blank motorcycle summary table—page 2.

Codes for Each Blank Cell (00) no (01) yes (97) not applicable (99) unknown	Equipped	Original Equipment	Aftermarket	Operational	Modified
Clutch lever					
Brake lever					
Right side rearview mirrors, posts					
Left side rearview mirrors, posts					
Front suspension					
Front fender					
Front brakes					
Seat					
Sissy bar/passenger back rest					
Side reflectors, yellow					
Side reflectors, red					
Side reflectors, silver					
Frame					
Grab rails/hand holds					
Fuel tank					
Auxiliary fuel tank					
Motor crankcase, cylinders					
Radiator					
Water hose					
Motor power enhancement					
Transmission case					
Oil tank					
Battery, battery box					
Rear brake pedal					
Shift lever					
Foot pegs, footrests					
Highway pegs/footrests					

Table 3. Example of blank motorcycle summary table—page 3.

Code for Each Black Cell (00) no (01) yes (97) not applicable (99) unknown	Equipped	Original Equipment	Aftermarket	Operational	Modified
Side stand					
Side stand interlock					
Centerstand					
Muffler/exhaust system					
Tank bag					
Luggage/cargo rack					
Parcel rack					
Saddle bags					
Rear position lamps					
Stoplamp					
Rear reflectors, yellow					
Rear reflectors, red					
Rear reflectors, silver					
Rear turn signals					
Rearsuspension					
Reartire/wheel					
Rear fender					
Rear brakes					
Tools, toolbox					
Side covers					
Trailer					
Side Car					

A-9. CONTROL MOTORCYCLE MECHANICAL DATA-COLLECTION FORM

The following form is a blank form.

Control Motorcycle Mechanical Form

Case Number _____

Control Motorcycle Number _____

Data Collected Using Which Method

- (00) control-data collection attempted, no data obtained
- (01) full stop interview and inspection at crash location
- (02) full stop interview but inspection refused
- (03) full stop interview refused, but inspection obtained
- (04) identification and telephone follow-up
- (05) remote observation at location: photography, video, or both
- (06) interview at nearby location (specify) _____
- (07) combination of stops and photography or video

4. Wind Direction With Respect to Motorcycle Path

- (00) none, no wind
- (01) left crosswind
- (02) headwind
- (03) right crosswind
- (04) tailwind
- (98) other (specify) _____
- (99) unknown

SPECIFICATIONS

WEATHER

1. Ambient Temperature

PLUS (+) OR MINUS (-) DEGREES FAHRENHEIT

+/- _____

(999) unknown

2. Weather Description

- (01) clear
- (02) cloudy, partly cloudy
- (03) overcast
- (04) drizzle, light rain
- (05) moderate or heavy rain
- (06) snow
- (07) sleet, freezing rain
- (08) hail
- (98) other (specify) _____
- (99) unknown

3. Wind Description

- (00) none, calm
- (01) light
- (02) moderate
- (03) strong
- (04) light with gusts
- (05) moderate with gusts
- (06) strong with gusts
- (07) variable
- (98) other (specify) _____
- (99) unknown

5. Manufacturer

WRITE IN; DO NOT CODE

6. Model

WRITE IN; DO NOT CODE

7. Year

CODE THE FOUR-DIGIT YEAR

Model Year _____

(1900-(current year + 1)) current data-collection year plus one
(9999) unknown

8. Motorcycle Legal Category

- (01) L1 vehicle
- (02) L3 vehicle
- (03) mofa
- (98) other (specify) _____
- (99) unknown

TIRES

20. Are the Tires Original Equipment?

- (01) yes _____
- (02) no, but are standard size _____
- (03) no, modified size _____
- (98) other (specify) _____
- (99) unknown _____

21. Tread Type

Front _____
Rear _____

- (00) no tread pattern, slick
- (01) straight-rib tread pattern
- (02) block pattern, trials type
- (03) knobby pattern, motocross type
- (04) all weather, cross or dog-bone pattern
- (05) all weather, diagonal or diamond pattern
- (06) all weather, angle groove
- (07) racing design, minimum groove design
- (98) other (specify) _____
- (99) unknown _____

22. Measured Tread Depth

CODE IN 32NDs

Front _____/32nds
Rear _____/32nds

- (00-96/32nds) actual tread depth
- (99/32nds) unknown

23. Are the Wheels Original Equipment?

- (01) yes _____
- (02) no, but are standard size _____
- (03) no, modified size _____
- (98) other (specify) _____
- (99) unknown _____

SUSPENSION

24. Is the Suspension Original Equipment?

- (00) no _____
- (01) yes, all original equipment
- (02) partially original equipment
- (98) other (specify) _____
- (99) unknown _____

25. Suspension Type, Front

- (00) none, rigid wheel mount _____
- (01) telescoping tube, conventional lower fork legs
- (02) telescoping tube, inverted fork legs
- (03) springer
- (04) girder
- (05) leading link, single- or double-sided
- (06) articulated multiple link
- (07) trailing link, single- or double-sided
- (08) telelever (BMW only)
- (09) lower suspension
- (98) other (specify) _____
- (99) unknown _____

26. Suspension Type, Rear

- (00) none, rigid wheel mount _____
- (01) conventional fork swing arm, double exterior tubular shocks
- (02) conventional fork swing arm, mono-shock
- (03) conventional fork swing arm, linkage articulated mono-shock
- (04) one-sided swing arm, single exterior tubular shock
- (05) one-sided swing arm, mono-shock
- (06) one-sided swing arm, linkage articulated mono-shock
- (07) lower suspension
- (98) other (specify) _____
- (99) unknown _____

BRAKE SYSTEM

27. Rider Brake-Control Type

Lever/Pedal 1 _____
Lever/Pedal 2 _____

- (00) none, not present
- (01) hand
- (02) foot
- (98) other (specify) _____
- (99) unknown _____

28. Brake Control-System Type

Lever/Pedal 1 _____
Lever/Pedal 2 _____

- (01) independent front brake
- (02) independent rear brake
- (03) combined front and rear brakes, CBS
- (97) not applicable
- (99) unknown

29. ABS

Front _____
Rear _____

- (00) no
- (01) yes
- (97) not applicable
- (99) unknown

FRAME

30. Has the Frame Been Modified?

- (00) no _____
- (01) yes _____
- (98) other (specify) _____
- (99) unknown _____

31. Frame Type/Configuration

- (01) step-through, formed sheet metal
- (02) step-through, tubular frame
- (03) conventional tube-cradle type with single-down tube
- (04) conventional tube-cradle type with double-down tubes
- (05) backbone type, motor-transmission mounted independently
- (06) backbone type, motor-transmission integral with frame
- (07) perimeter frame, tube type
- (08) perimeter frame, extrusion-element type
- (09) monocoque, shell-only structure
- (98) other (specify) _____
- (99) unknown

MISCELLANEOUS COMPONENTS

32. Is the Motorcycle Equipped With Pedals?

- (00) no
- (01) yes
- (99) unknown

33. Headlamp Assembly Type

- (00) none
- (01) single headlamp
- (02) double headlamp
- (03) single with auxiliary lights
- (04) double with auxiliary lights
- (98) other (specify) _____
- (99) unknown

34. Was Headlamp Illuminated Prior to Stopping for the Interview?

- (00) no
- (01) yes, rider controlled
- (02) yes, always-on technology
- (98) other (specify) _____
- (99) unknown

35. Is Motorcycle Equipped With an Airbag?

- (00) no
- (01) yes
- (99) unknown

36. Is Motorcycle Equipped With or Pulling Any of the Following?

- (00) no, not applicable
- (01) sidecar
- (02) trailer
- (03) training wheels
- (04) outrigger
- (98) other (specify) _____
- (99) unknown

37. Have the Handlebars Been Modified?

- (00) no, original equipment
- (01) clip-on, not original equipment
- (02) clubman or racer
- (03) high-sweep or tiller-type touring
- (04) high rise
- (05) motocross, off-road
- (98) other (specify) _____
- (99) unknown

38. Has the Seat Been Modified?

- (00) no
- (01) yes
- (98) other (specify) _____
- (99) unknown

39. Seat Type

- (01) conventional straddle seat, one level
- (02) straddle type, two level, raised passenger
- (03) bucket, single seat
- (04) bucket, double seat, one level removed
- (05) bucket, double seat, raised passenger
- (06) single racer seat, tail fairing behind
- (07) single straddle seat, pillion pad behind
- (08) single pad, semibench type
- (98) other (specify) _____
- (99) unknown

40. Has the Exhaust System Been Modified?

- (00) no
- (01) yes, performance equipment; noise level approximately same as original equipment
- (02) yes, high-performance equipment; excessive noise
- (98) other (specify) _____
- (99) unknown

41. Has the Windshield Been Modified?

- (00) no
- (01) yes
- (97) not applicable, no windshield
- (98) other (specify) _____
- (99) unknown

42. Is This Motorcycle Equipped With Crash Bars?

- (00) no
- (01) yes
- (02) previously equipped, but crash bars have been removed
- (98) other (specify) _____
- (99) unknown

43. Is This Motorcycle Equipped With Engine Guards?

- (00) no
- (01) yes
- (02) previously equipped, but engine guards have been removed
- (98) other (specify) _____
- (99) unknown

Table 4. Example of blank control motorcycle summary table—page 1.

Code for Each Blank Cell (00) no (01) yes (97) not applicable	Equipped	Original Equipment	Aftermarket	Operational	Modified
Front crash bars					
Rear crash bars					
Engine guard					
Windscreen					
Fairing, handlebar or steering mounted					
Fairing, frame mounted					
Headlamps					
Auxiliary headlamp					
Front position lamp					
Front reflector, yellow					
Front reflector, white					
Front reflector, red					
Front reflector, silver					
Front turnsignals					
Speedometer					
Tachometer					
Handlebars					
Throttle					
Clutch lever					
Brake lever					
Right side rear view mirrors, posts					
Left side rear view mirrors, posts					
Front suspension					
Front tire/wheel					

Table 5. Example of blank control motorcycle summary table—page 2.

Code for Each Blank Cell (00) no (01) yes (97) not applicable	Equipped	Original Equipment	Aftermarket	Operational	Modified
Front fender					
Front brakes					
Seat					
Sissy bar/passenger back rest					
Side reflectors, yellow					
Side reflectors, red					
Side reflectors, silver					
Frame					
Grab rails/hand holds					
Fuel tank					
Auxiliary fuel tank					
Motor crankcase, cylinders					
Radiator					
Water hose					
Motor power enhancement					
Transmissioncase					
Oil tank					
Battery, battery box					
Rear brake pedal					
Shift lever					
Foot pegs, footrests					
Highway pegs/footrests					
Side stand					
Side stand interlock					
Center stand					
Muffler/exhaust system					
Tank bag					

Table 6. Example of blank control motorcycle summary table—page 3.

Code for Each Blank Cell (00) no (01) yes (97) not applicable	Equipped	Original Equipment	Aftermarket	Operational	Modified
Luggage/cargo rack					
Parcel rack					
Saddlebags					
Rear position lamps					
Stoplamp					
Rear reflectors, yellow					
Rear reflectors, red					
Rear reflectors, silver					
Rear turnsignals					
Rear suspension					
Rear tire/wheel					
Rear fender					
Rear brakes					
Tools, toolbox					
Side covers					
Trailer					
Side Car					

A-10. MOTORCYCLE DYNAMICS DATA-COLLECTION FORM

The following form is a blank from.

Motorcycle Dynamics Form

Case Number _____

PRE-CRASH

1. Pre-Crash Motion Prior to Precipitating Event

- (00) stopped in traffic, speed is zero
- (01) moving in a straight line, constant speed
- (02) moving in a straight line, throttle off
- (03) moving in a straight line, braking
- (04) moving in a straight line, accelerating
- (05) turning right, constant speed
- (06) turning right, throttle off
- (07) turning right, braking
- (08) turning right, accelerating
- (09) turning left, constant speed
- (10) turning left, throttle off
- (11) turning left, braking
- (12) turning left, accelerating
- (13) stopped at roadside or parked
- (14) backing up in a straight line
- (15) backing up, steering left
- (16) backing up, steering right
- (17) making U-turn, right
- (18) making U-turn, left
- (19) making Y-turn, right
- (20) making Y-turn, left
- (21) changing lanes to left
- (22) changing lanes to right
- (23) merging to left
- (24) merging to right
- (25) entering traffic from right shoulder, median, or parked
- (26) entering traffic from left shoulder, median, or parked
- (27) leaving traffic or drifting to the right
- (28) leaving traffic or drifting to the left
- (29) passing maneuver, passing on right
- (30) passing maneuver, passing on left
- (31) crossing opposing lanes of traffic
- (32) traveling wrong way, against opposing traffic
- (33) stripe-riding, filtering forward between lanes, longitudinal motion only
- (34) filtering between lanes, lateral motion only
- (35) filtering forward between lanes, both longitudinal and lateral motion
- (36) collision-avoidance maneuver to avoid a different collision
- (37) negotiating a curve, constant speed
- (38) negotiating a curve, throttle off
- (39) negotiating a curve, braking
- (40) negotiating a curve, accelerating
- (41) wheelie
- (42) negotiating a curve, not further specified
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

2. Travel Speed

CODE IN MILES PER HOUR, WHOLE NUMBERS ONLY

- (000) stopped in traffic, speed is zero
- (001–996) actual speed in miles per hour
- (999) unknown

3. Travel Speed Confidence Interval

CODE IN MILES PER HOUR, WHOLE NUMBERS ONLY

- (plus (+) or minus (–) in miles per hour)
- (99) unknown

4. Line of Sight to Other Vehicle

CLOCK-FACE DIRECTION RELATIVE TO MOTORCYCLE CENTER LINE

- (01) 1 o'clock
- (02) 2 o'clock
- (03) 3 o'clock
- (04) 4 o'clock
- (05) 5 o'clock
- (06) 6 o'clock
- (07) 7 o'clock
- (08) 8 o'clock
- (09) 9 o'clock
- (10) 10 o'clock
- (11) 11 o'clock
- (12) 12 o'clock
- (97) not applicable
- (99) unknown

5. Pre-Crash Motion After Precipitating Event

USE THE SAME CODE AS # 1

6. Collision-Avoidance Action

CODE UP TO FOUR

- (00) none
- (01) braking
- (02) swerving
- (03) accelerating
- (04) countersteering
- (05) cornering
- (98) other (specify) _____
- (99) unknown

7. Braking Skid Marks on Roadway

- (00) none
- (01) skid marks from rear tire only
- (02) skid marks from front tire only
- (03) skid marks from both front and rear tires, front and rear equivalent and overlaying
- (04) long skid mark from rear tire, short terminal skid from front tire
- (05) light skid marks from both front and rear, no wheel lockup evidence
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

8. Length of Skid Marks on Roadway

Front Tire _____ feet _____ inches
 Rear Tire _____ feet _____ inches

- (000.00) none
- (000.01–999.96) actual length of skid marks in feet and inches
- (997.97) not applicable
- (999.99) unknown

9. Braking Skid-Mark Evidence on Roadway

- (00) none
- (01) dry roadway braking skid marks confirmed from crash motorcycle
- (02) wet roadway braking skid marks confirmed from crash motorcycle
- (03) deep water on roadway, aquaplaning most likely, no braking skid marks remaining
- (04) wet reverted rubber skidding in evidence, white steam-cleaned skid paths shown on roadway confirmed from crash motorcycle
- (05) braking skid-mark evidence most likely present but degraded by traffic after crash, no confirmation at scene examination
- (06) snow/ice on roadway, braking skid marks confirmed from crash motorcycle
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

10. Braking Tire-Striation Evidence

- (00) none, front or rear tire
- (01) rear tire only
- (02) front tire only
- (03) both front and rear tires
- (04) prolonged skid patch on rear tire only
- (05) prolonged skid patch on rear tire, braking striations on front tire
- (06) prolonged skid patch on rear tire, slide-out striations on front tire
- (07) prolonged skid patch on rear tire, slide-out striations on both front and rear tires
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

11. Swerve

- (00) no swerve
- (01) swerve to right, correct decision
- (02) swerve to right, incorrect decision
- (03) swerve to left, correct decision
- (04) swerve to left, incorrect decision
- (97) not applicable
- (99) unknown

12. Acceleration Evidence on Rear Tire

- (00) none
- (01) moderate slip striations and tread block–edge erosion
- (02) severe slip striations and tread block–edge erosion
- (03) extreme slip striations, tread block–edge erosion and tread-rubber reversion
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

13. Countersteering

- (00) no countersteering
- (01) countersteering proper, produced desired swerve
- (02) countersteering improper, produced undesired direction change
- (97) not applicable
- (99) unknown

14. Cornering Skid-Mark Evidence on Roadway

- (00) none
- (01) dry roadway, cornering skid marks confirmed from crash motorcycle
- (02) wet roadway, cornering skid marks confirmed from crash motorcycle
- (03) deep water on roadway, aquaplaning most likely, no cornering skid marks remaining
- (04) wet reverted rubber skidding in evidence, white steam-cleaned cornering skid paths shown on roadway confirmed from crash motorcycle
- (05) cornering skid-marks evidence most likely present but degraded by traffic after crash, no confirmation at scene examination
- (06) snow/ice on roadway, cornering skid marks confirmed from crash motorcycle
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

15. Cornering Tire-Striation Evidence

- (00) none
- (01) right cornering tire striations, rear tire
- (02) right cornering tire striations, front tire
- (03) right cornering striations, both front and rear tires
- (04) left cornering tire striations, rear tire
- (05) left cornering tire striations, front tire
- (06) left cornering tire striations, both front and rear tires
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

CRASH MOTION AT IMPACT

16. Motorcycle First Collision–Contact Code

- | | | | |
|-------------------|------------------------|---------------------------|----------------------------|
| (LF) left front | (CR) center rear | (TR) top rear | (98) other (specify) _____ |
| (CF) center front | (RR) right rear | (UF) undercarriage front | _____ |
| (RF) right front | (EL) entire left side | (UC) undercarriage center | (99) unknown |
| (LC) left center | (ER) entire right side | (UR) undercarriage rear | |
| (RC) right center | (TF) top front | (NC) no direct contact to | |
| (LR) left rear | (TC) top center | motorcycle | |

17. Object(s) Contacted
CODE UP TO THREE

First _____
Second _____
Third _____

Collision With Other Vehicle

- (01) other vehicle # 1
- (02) other vehicle # 2
- (03) other vehicle # 3

Collision With Fixed Object

- (04) tree (less than or equal to 4 inches in diameter)
- (05) tree (greater than 4 inches in diameter)
- (06) shrubbery or bush
- (07) embankment
- (08) concrete traffic barrier
- (09) other traffic barrier (includes guardrail) (specify) _____
- (10) impact attenuator _____
- (11) bridge
- (12) curb
- (13) fire hydrant
- (14) ground
- (15) ditch or culvert
- (16) building
- (17) wall
- (18) fence
- (19) nonbreakaway pole or post (less than or equal to 4 inches in diameter)
- (20) nonbreakaway pole or post (greater than 4 inches but less than or equal to 12 inches in diameter)
- (21) nonbreakaway pole or post (greater than 12 inches in diameter)
- (22) nonbreakaway pole or post (diameter unknown)
- (23) breakaway pole or post (any diameter)
- (24) paved roadway surface
- (25) roadway surface (other)
- (26) sidewalk
- (27) wooden post (any diameter)
- (28) other fixed object (specify) _____
- (29) unknown fixed object

Collision With Nonfixed Object

- (30) pedestrian
- (31) train
- (32) object fell from vehicle in transport
- (33) trailer, disconnected in transport
- (34) animal
- (35) cyclist or cycle
- (36) vehicle occupant
- (37) other nonmotorist or conveyance (specify) _____
- (38) other nonfixed object (specify) _____
- (39) unknown nonfixed object

Noncollision

- (40) overturn->rollover (excludes end-over-end)
- (41) rollover->end-over-end
- (42) fire or explosion
- (43) jackknife
- (44) other intraunit damage (specify) _____
- (45) noncollision injury _____
- (48) other noncollision (specify) _____
- (49) noncollision details unknown
- (97) not applicable
- (98) other event (specify) _____
- (99) unknown event or object

18. Motorcycle Impact Speed in MPH

(000) stopped in traffic, speed is zero _____
(001–996) actual impact speed in miles per hour
(999) unknown

19. Roll Attitude Angle in Degrees

INDICATE “+” RIGHT SIDE DOWN, OR “-” LEFT SIDE DOWN

+/- _____
(-090+090) roll attitude angle degrees
(997) not applicable
(999) unknown

20. Sideslip Angle in Degrees

INDICATE “+” CLOCKWISE OR “-” COUNTERCLOCKWISE RELATIVE TO THE MOTORCYCLE CENTERLINE

+/- _____
(000–359) sideslip angle degrees
(997) not applicable
(999) unknown

21. Relative Heading Angle

ANGLE OF OTHER VEHICLE X-AXIS RELATIVE TO MOTORCYCLE X-AXIS, REGARDLESS OF RELATIVE POSITIONS OF OTHER VEHICLE AND MOTORCYCLE

+/- _____
(000–360) relative heading angle degrees
(997) not applicable
(999) unknown

POST-CRASH

22. Principal Direction of Force (PDOF) in Degrees

(000) nonhorizontal force
(010–360) PDOF degrees
(997) not applicable
(999) unknown

23. Calculated Time From Precipitating Event to Impact
CODE IN SECONDS

_____ . _____
(00.00–60.00) calculated time in seconds
(99.99) unknown

24. Motorcycle Motion Code

- _____
(00) none, stopped at POI; POR and POI coincide
(01) stopped within 6 ft of POI
(02) rolled on wheels from POI to POR
(03) rolled on wheels from POI, then impacted other object at POR
(04) vehicle rollover from POI to POR
(05) skidded, slid from POI to POR
(06) skidded, slid from POI, then impacted other object at POR
(07) vaulted above ride height from POI, then rolled to POR
(08) vaulted above ride height from POI, then slid to POR
(09) vaulted above ride height from POI, then impacted other object at POR
(10) run over at POI
(11) run over, dragged from POI to POR
(12) caught by or landed on other vehicle; carried to POR, different from other vehicle POR
(13) engaged, entangled, or entrapped with other vehicle (other than run over); POR same as other vehicle POR
(14) vehicles did not separate; PORs are essentially same for motorcycle and other vehicle
(15) spun or yawed, sliding from POI to POR
(16) hit and run, rider departed scene of crash, with motorcycle, immediately after collision
(17) rider/passenger departed scene immediately after collision, but motorcycle is still at scene
(98) other (specify) _____
(99) unknown

25. Distance From POI to Motorcycle POR

CODE DISTANCE IN FEET AND INCHES
Distance Along POI Path:

+/- _____ feet _____ inches
offset: +/- _____ feet _____ inches

- (000.00–999.95) actual distance in feet and inches
(999.96) 999.96 feet or more
(999.99) unknown

26. Post-Crash Scrape Marks on Motorcycle

- _____
(00) none
(01) motorcycle down on right side, sliding high side first
(02) motorcycle down on right side, sliding low side first
(03) motorcycle down on right side, sliding front end first
(04) motorcycle down on right side, sliding rear end first
(05) motorcycle down on left side, sliding high side first
(06) motorcycle down on left side, sliding low side first
(07) motorcycle down on left side, sliding front end first
(08) motorcycle down on left side, sliding rear end first
(09) motorcycle tumbling, side over side
(10) motorcycle tumbling, end over end
(11) scrape marks with unknown motorcycle dynamics
(98) other (specify) _____
(99) unknown

27. Rider Motion Code

- (00) none, stopped at POI; POR and POI coincide _____
- (01) stopped within 6 ft of POI
- (02) tumbled and rolled from POI to POR
- (03) tumbled and rolled from POI, then impacted other object at POR
- (04) skidded, slid from POI to POR
- (05) skidded, slid from POI, then impacted other object at POR
- (06) vaulted above ride height from POI, then rolled to POR
- (07) vaulted above ride height from POI, then slid to POR
- (08) vaulted above ride height from POI, then impacted other object at POR
- (09) run over at POI
- (10) run over, dragged from POI to POR
- (11) caught by or landed on other vehicle; carried to POR, different from other vehicle POR
- (12) engaged, entangled, or entrapped with other vehicle (other than run over); POR same as other vehicle POR
- (13) did not separate from motorcycle, rode from POI to POR; POR same as motorcycle POR
- (14) hit and run, departed scene of crash immediately after collision
- (15) rider departed scene immediately after collision, but motorcycle is still at scene
- (98) other (specify) _____
- (99) unknown

28. Distance From POI to Rider POR
CODE IN FEET AND INCHES

- (000.00–999.96) actual distance from POI to rider POR in feet _____ inches _____
- (999.99) unknown

CONTRIBUTING MOTORCYCLE FACTORS

29. Passenger Motion Code

- (00) none, stopped at POI; POR and POI coincide _____
- (01) stopped within 6 ft of POI
- (02) tumbled and rolled from POI to POR
- (03) tumbled and rolled from POI, then impacted other object at POR
- (04) skidded, slid from POI to POR
- (05) skidded, slid from POI, then impacted other object at POR
- (06) vaulted above ride height from POI, then rolled to POR
- (07) vaulted above ride height from POI, then slid to POR
- (08) vaulted above ride height from POI, then impacted other object at POR
- (09) run over at POI
- (10) run over, dragged from POI to POR
- (11) caught by or landed on other vehicle; carried to POR, different from other vehicle POR
- (12) engaged, entangled, or entrapped with other vehicle (other than run over); POR same as other vehicle POR
- (13) did not separate from motorcycle, rode from POI to POR; POR same as motorcycle POR
- (14) hit and run, departed scene of crash immediately after collision
- (15) rider departed scene immediately after collision, but motorcycle is still at scene
- (97) not applicable, no passenger
- (98) other (specify) _____
- (99) unknown

30. Distance From POI to Passenger POR
CODE IN FEET AND INCHES

- (000.00–999.96) actual distance from POI to passenger POR in feet _____ inches _____
- (999.99) unknown

31. Post-Crash Crash-Scene Scrape Marks

- (00) none _____
- (01) made by motorcycle
- (02) made by other vehicle
- (03) made by motorcycle and other vehicle
- (98) other (specify) _____
- (99) unknown

32. Tire Size

Front _____
Rear _____

- (01) original equipment
- (02) not original equipment, but specified size
- (03) proper rim size, oversize section
- (04) proper rim size, undersize section
- (05) improper rim size, too large
- (06) improper rim size, too small
- (98) other (specify) _____
- (99) unknown

33. Tire Inflation Pressure Post-Crash

Front _____
Rear _____

- (01) tire deflated during crash events
- (02) tire inflation within 15 percent of recommended pressure
- (03) tire inflation between 16 and 39 percent of recommended pressure
- (04) tire grossly underinflated, greater than 40 percent below recommended pressure
- (05) tire grossly overinflated, greater than 40 percent above recommended pressure
- (98) other (specify) _____
- (99) unknown

34. Contributing Factor Related to Tire or Wheel

Front _____
Rear _____

- (00) no wheel or tire condition related to crash causation
- (01) tire mechanical failure caused loss of control
- (02) tire puncture/flat caused loss of control
- (03) tire beads unseated and caused loss of control
- (04) gross underinflation contributed to loss of tire traction and caused loss of control
- (05) gross overinflation caused loss of traction and caused loss of control
- (06) gross error of inflation contributed to stability problem and caused loss of control
- (07) wheel mechanical failure caused loss of control, including valve failure
- (98) other (specify) _____
- (99) unknown

35. Contributing Factor Related to Suspension Condition

Front _____
Rear _____

- (00) suspension condition made no to crash causation
- (01) deteriorated suspension caused control distress, limited collision avoidance
- (02) deteriorated suspension caused unstable dynamics, loss of control
- (97) not applicable, rigid suspension
- (98) other (specify) _____
- (99) unknown

36. Contributing Factor Related to Frame Condition

- (00) no contribution
- (01) cracked or broken frame caused loss of control
- (02) loose motor-transmission mounting bolts or screws caused loss of control
- (03) deteriorated steering head bearings/steering stem caused loss of control
- (04) deteriorated rear swing arm bearings caused loss of control
- (05) general frame deterioration caused uncontrolled dynamic response
- (98) other (specify) _____
- (99) unknown

37. Contributing Factor Related to Cornering Clearance

- (00) no contribution
- (01) exhaust system grounded out first
- (02) foot pegs, foot rests grounded out first
- (03) side stand not retracted, grounded out first
- (04) side stand retracted but grounded out first
- (05) center stand grounded out first
- (06) accessory or cargo limited ground clearance
- (07) passenger weight or extremities limited ground clearance
- (98) other (specify) _____
- (99) unknown

38. Contributing Factor Related to the Seat

- (00) no contribution
- (01) seat came loose, distracted rider
- (02) seat came loose caused rider loss of control
- (03) seat cover material slippery, caused rider displacement and loss of control
- (04) seat cover treated with slippery preservative, caused rider displacement and loss of control
- (05) seat cover and cushion severely deteriorated, caused rider displacement and loss of control
- (98) other (specify) _____
- (99) unknown

39. Contributing Factor Related to the Drive-Chain, Belt, or Shaft Condition

- (00) no contribution
- (01) chain or belt broken or derailed, drive failure was crash related
- (98) other (specify) _____
- (99) unknown

40. Contributing Factor Related to the Exhaust-System Condition

- (00) no contribution _____
- (01) hot exhaust system caused contact burns
- (02) exhaust-system components involved in contact impact injury
- (03) hot exhaust-system components were fire ignition source
- (04) exhaust-system noise prevented motorcyclist from hearing critical traffic sounds
- (05) exhaust-system noise caused motorcyclist fatigue and inattention (as claimed by rider)
- (06) exhaust system noise alerted other-vehicle driver of motorcycle presence, but could not avoid collision
- (07) not applicable, no exhaust system
- (08) other (specify) _____
- (09) unknown

41. Contributing Motorcycle-Vehicle Failure

- (00) no contribution _____
- (01) tire or wheel failure
- (02) brake failure
- (03) steering failure
- (04) power-transmission failure
- (05) electrical failure
- (06) suspension failure
- (07) vehicle structural failure, other than suspension, tire, or wheel
- (08) other (specify) _____
- (09) unknown

42. Was a Pre-Crash Fire a Contributing Factor?

- (00) no _____
- (01) yes
- (99) unknown

43. Was the Cargo/Luggage a Contributing Factor?

- (00) no contribution _____
- (01) cargo/luggage came loose, caused rider loss of control
- (02) cargo/luggage interfered with controls, caused loss of control
- (03) cargo/luggage interfered with controls, prevented successful collision-avoidance action
- (04) cargo/luggage entrapped in rear suspension or wheel
- (05) cargo/luggage entrapped in front suspension or wheel
- (06) cargo/luggage against motor and exhaust system, heat damage or fire caused rider distraction
- (07) cargo/luggage container began to spill contents, distracted rider
- (97) not applicable, no cargo or luggage
- (98) other (specify) _____
- (99) unknown

A-11. RIDER/OCCUPANT INJURY DATA-COLLECTION FORM

Case Number _____

Motorcycle or Motor Vehicle Number _____

Rider/Occupant Number _____

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the next page.

Table 7. Rider/Occupant Injury Form.

Source of Injury Data	Body Region	AIS 2005				Localizer 1	Localizer 2	1st Injury Source	2nd Injury Source	Injury Source Conf. Level 1	Injury Source Conf. Level 2	Occupant Direct/ Indirect Injury	FCI	ICD-9
		Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	Severity									
1___	2___	3___	4___	5___	6___	7___	8___	9___	10___	11___	12___	13___	14___	15___
16___	17___	18___	19___	20___	21___	22___	23___	24___	25___	26___	27___	28___	29___	30___
31___	32___	33___	34___	35___	36___	37___	38___	39___	40___	41___	42___	43___	44___	45___
46___	47___	48___	49___	50___	51___	52___	53___	54___	55___	56___	57___	58___	59___	60___
61___	62___	63___	64___	65___	66___	67___	68___	69___	70___	71___	72___	73___	74___	75___
76___	77___	78___	79___	80___	81___	82___	83___	84___	85___	86___	87___	88___	89___	90___
91___	92___	93___	94___	95___	96___	97___	98___	99___	100___	101___	102___	103___	104___	105___
106___	107___	108___	109___	110___	111___	112___	113___	114___	115___	116___	117___	118___	119___	120___
121___	122___	123___	124___	125___	126___	127___	128___	129___	130___	131___	132___	133___	134___	135___
136___	137___	138___	139___	140___	141___	142___	143___	144___	145___	146___	147___	148___	149___	150___

OCCUPANT INJURY CLASSIFICATION**Source of Injury Data** _____**Official Records**

- (1) autopsy records with or without hospital/medical records
- (2) hospital/medical records other than emergency room (e.g., discharge summary)
- (3) emergency room records only (including associated X-rays or other laboratory reports)
- (4) private physician, walk-in or emergency clinic

Unofficial Records

- (5) lay coroner report
- (6) EMS personnel
- (7) interviewee
- (8) other source (specify) _____

- (9) police _____

Body Region _____

- (0) other trauma
- (1) head
- (2) face
- (3) neck
- (4) thorax
- (5) abdomen
- (6) spine
- (7) upper extremity
- (8) lower extremity
- (9) external (skin) and thermal

Type of Anatomic Structure _____

- (0) whole area NFS
- (1) skin
- (2) vessels
- (3) nerves
- (4) organs, including muscles, ligaments, and tendons
- (5) skeletal
- (6) head, concussive injury
- (7) joints

Specific Anatomic StructureSEE AIS 2005 CODING MANUAL⁽⁷⁾

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two-digit numbers beginning with 00.

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 00.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Severity

- (1) minor injury
- (5) critical injury
- (6) maximum (untreatable)
- (9) injured,
 - (2) moderate injury
 - (3) serious injury
 - (4) severe injury
 - unknown severity

Localizer 1 and 2SEE AIS 2005 CODING MANUAL⁽⁷⁾

Localizer 1 _____

Localizer 2 _____

Injury Source 1st and 2nd

SEE INJURY-SOURCE CODES ON THE FOLLOWING PAGE

1st Injury Source _____

2nd Injury Source _____

Injury Source Confidence Level 1 and 2

Level 1 _____

Level 2 _____

- (1) certain
- (2) probable
- (3) possible
- (9) unknown

Occupant Direct/Indirect Injury

- (1) direct-contact injury
- (2) indirect-contact injury
- (3) noncontact injury
- (7) injured, unknown source

Functional Capacity Index (FCI)SEE AIS 2005 CODING MANUAL⁽⁷⁾

Injury Source 1st and 2nd**Motor Vehicle (MV) Front**

- (001) windshield
- (002) mirror
- (003) sun visor
- (004) steering-wheel rim
- (005) steering-wheel hub/spoke
- (006) steering wheel (combination of codes 004 and 005)
- (007) steering column, transmission selector lever, or other attachment
- (008) cellular telephone or CB radio
- (009) add-on equipment (e.g., tape deck and air conditioner)
- (010) left instrument panel and below
- (011) center instrument panel and below
- (012) right instrument panel and below
- (013) glove-compartment door
- (014) knee bolster
- (015) windshield, including one or more of the following:
front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) windshield, including one or more of the following:
front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) windshield, reinforced by exterior object (specify)

- (019) other front object (specify)

MV Left Side

- (051) left-side interior surface, excluding hardware or armrests
- (052) left-side hardware or armrest
- (053) left A (A1/A2)-pillar
- (054) left B-pillar
- (055) other left pillar (specify)

- (056) left-side window glass
- (057) left-side window frame
- (058) left-side window sill
- (059) left-side window glass, including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail
- (060) other left-side object (specify)

MV Right Side

- (101) right-side interior surface, excluding hardware or armrests
- (102) right-side hardware or armrest
- (103) right A (A1/A2)-pillar
- (104) right B-pillar
- (105) other right pillar (specify)

- (106) right-side window glass
- (107) right-side window frame
- (108) right-side window sill
- (109) right-side window glass, including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail
- (110) other right-side object (specify)

MV Interior

- (151) seat, back support
- (152) belt-restraint webbing/buckle
- (153) belt-restraint B-pillar or doorframe attachment point
- (154) other restraint-system component (specify)

- (155) head-restraint system
- (160) other occupants (specify)

- (161) interior loose objects
- (162) child-safety seat (specify)

- (163) other interior object (specify)

MV Airbag

- (170) airbag (driver side)
- (171) airbag (driver side) and eyewear
- (172) airbag (driver side) and jewelry
- (173) airbag (driver side) and object held
- (174) airbag (driver side) and object in mouth
- (175) airbag-compartment cover (driver side)
- (176) airbag-compartment cover (driver side) and eyewear
- (177) airbag-compartment cover (driver side) and jewelry
- (178) airbag-compartment cover (driver side) and object held
- (179) airbag-compartment cover (driver side) and object in mouth
- (180) airbag (passenger side)
- (181) airbag (passenger side) and eyewear
- (182) airbag (passenger side) and jewelry
- (183) airbag (passenger side) and object held
- (184) airbag (passenger side) and object in mouth
- (185) airbag compartment cover (passenger side)
- (186) airbag-compartment cover (passenger side) and eyewear
- (187) airbag-compartment cover (passenger side) and jewelry
- (188) airbag-compartment cover (passenger side) and object held
- (189) airbag-compartment cover (passenger side) and object in mouth
- (190) other airbag (specify)

- (195) other airbag-compartment cover (specify)

MV Roof

- (201) front header
- (202) rear header
- (203) roof left-side rail
- (204) roof right-side rail
- (205) roof or convertible top

MV Floor

- (251) floor (including toe pan)
- (252) floor- or console-mounted transmission lever (including console)
- (253) parking-brake handle
- (254) foot controls (including parking brake)

MV Rear

- (301) backlight (rear window)
 - (302) backlight storage rack, door, etc.
 - (303) other rear object (specify)
-

MV Adaptive (Assistive) Driving Equipment

- (401) hand controls for braking/acceleration
 - (402) steering control devices (attached to OEM steering wheel)
 - (403) steering knob attached to steering wheel
 - (404) replacement steering wheel (i.e., reduced diameter)
 - (405) joy stick steering controls
 - (406) wheelchair tie-downs
 - (407) modification to seat belts, (specify)
-
- (408) additional or relocated switches, (specify)
-
- (409) raised roof
 - (410) wall mounted head rest (used behind wheel chair)
 - (411) other adaptive device (specify)
-

Exterior of MV Occupant's Vehicle

- (451) hood
 - (452) outside hardware (e.g., outside mirror, antenna)
 - (453) other exterior surface or tires (specify)
-
- (454) unknown exterior objects

Exterior of Other MV

- (501) front bumper
 - (502) hood edge
 - (503) other front of vehicle (specify)
-
- (504) hood
 - (505) hood ornament
 - (506) windshield, roof rail, a-pillar
 - (507) side surface
 - (508) side mirrors
 - (509) other side protrusions (specify)
-
- (510) rear surface
 - (511) undercarriage
 - (512) tires and wheels
 - (513) other exterior of other motor vehicle (specify)
-
- (514) unknown exterior of other motor vehicle

Other Vehicle or Object in the Environment

- (551) ground
 - (552) utility pole
 - (553) building
 - (554) guardrail
 - (555) tree
 - (598) other vehicle or object (specify)
-
- (599) unknown vehicle or object

Noncontact Injury

- (601) fire in vehicle
 - (602) flying glass
 - (603) other noncontact injury source (specify)
-
- (604) air bag exhaust gases
 - (697) injured, unknown source

Injury Source Motorcycle

- (701) front crash bars
- (702) rear crash bars
- (703) engine guard
- (704) windscreen
- (705) fairing
- (706) headlamps
- (707) front reflector
- (708) front turn signals
- (709) instrument panel
- (710) GPS/navigation system
- (711) entertainment/radio/CD controls
- (712) cruise control
- (713) ignition/power control
- (714) intercom/two-way radio control
- (715) handlebar
- (716) throttle
- (717) clutch lever
- (718) brake lever
- (719) right-side rearview mirrors, posts
- (720) left-side rearview mirrors, posts
- (721) front suspension
- (722) front tire/wheel
- (723) front fender
- (724) front brakes
- (725) seat
- (726) sissy bar/passenger backrest
- (727) side reflectors
- (728) frame
- (729) grab rails/handholds
- (730) armrests
- (731) fuel tank
- (732) auxiliary fuel tank
- (733) radiator
- (734) battery, battery box
- (735) rear brake pedal
- (736) shift lever
- (737) foot pegs, footrests
- (738) highway pegs/footrests
- (739) side stand
- (740) center stand
- (741) muffler/exhaust system
- (742) drive chain/belt

(Continued on next page.)

- (743) drive shaft
- (744) tank bag
- (745) luggage/cargo rack
- (746) parcel rack
- (747) saddlebags
- (748) rear-position lamps
- (749) stop lamp
- (750) rear reflectors
- (751) rear turn signals
- (752) rear tire/wheel
- (753) rear fender
- (754) rear brakes
- (755) tools, toolbox
- (756) cupholder
- (757) side covers
- (758) trailer
- (759) side car
- (798) other motorcycle component (specify)

(799) unknown motorcycle component

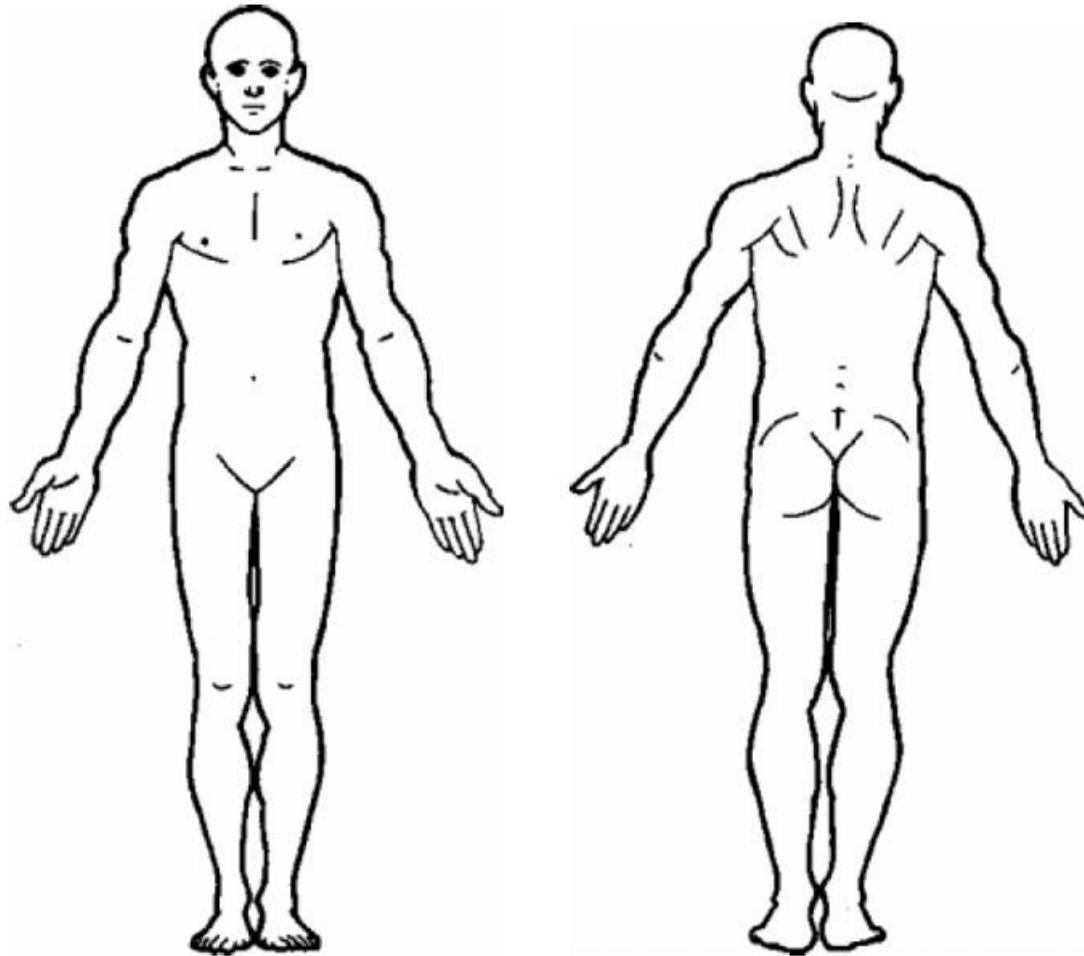
Other

- (996) helmet
- (997) not applicable
- (998) other (specify)

(999) unknown injury source

INJURY DATA—SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

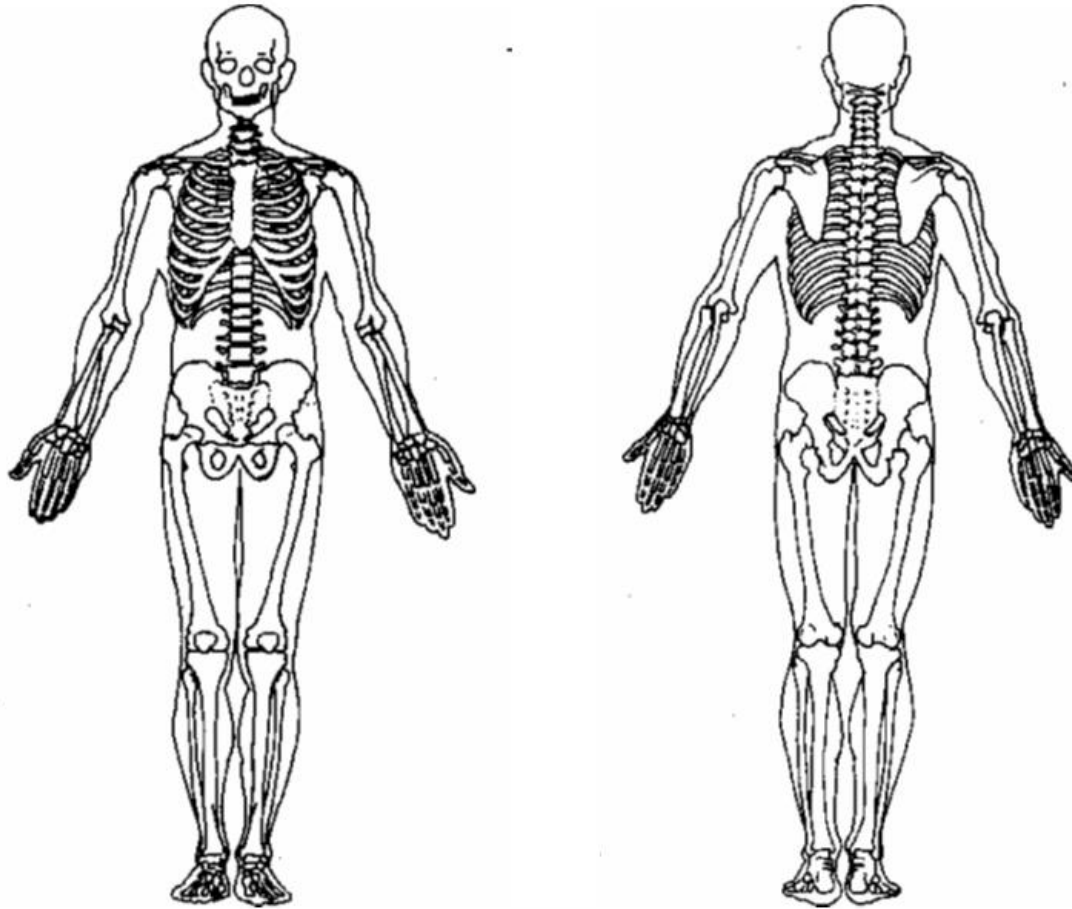


Source: OECD.

Figure 11. Illustration. Rider/occupant—front and back of human body.

INJURY DATA—SKELETAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

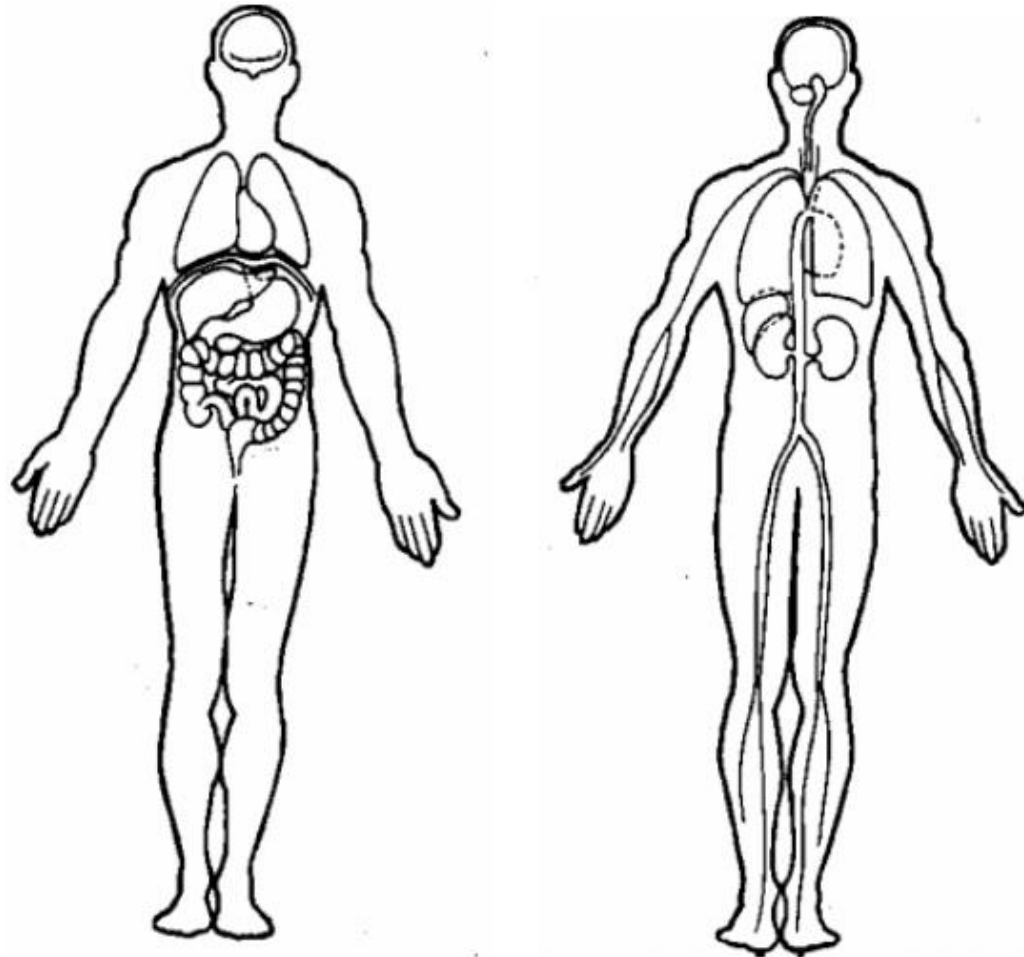


Source: OECD.

Figure 12. Illustration. Rider/occupant—front and back of human body with skeleton.

INJURY DATA—INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).



Source: OECD.

Figure 13. Illustration. Rider/occupant—front and back of human body with internal organs.

Table 8. Example of blank Injury Severity Score (ISS) worksheet.

ISS Region	Injury	AIS Code	Highest AIS in Three Worst Regions	Highest AIS Code Squared
Head				
Face				
Chest				
Abdominal/pelvic contents				
Extremities/pelvic girdle				
General (external)				
			157. Injury Severity Score:	

Note: ISS equals the sum of squares of the highest AIS (severity) code in each of the three most severely injured areas.

TRAUMA STATUS FORM

158. Trauma Status _____

- (00) no medical aid sought _____
- (01) first aid at scene only
- (02) treated at hospital/clinic and released
- (03) hospitalized (code number of days in # 159)
- (04) disabled, institutionalized
- (05) fatal, dead on scene
- (06) fatal, dead on arrival at hospital
- (07) fatal, other (code number of days until death in # 160)
- (08) treated at scene and transported to hospital NFS
- (98) other (specify) _____
- (99) unknown

159. Number of Days of Hospital Admission _____

- (00) not hospitalized
- (01–95) actual number of days
- (96) 96 days or more
- (98) other (specify) _____
- (99) unknown

160. Death Within How Many Days? _____

- (00) not fatal
- (01–30) actual number of days
- (98) other (specify) _____
- (99) unknown

A-12. OTHER VEHICLE DRIVER DATA-COLLECTION FORM

The following form is a blank form.

Other Vehicle Driver Form

Case Number _____

Motor Vehicle Number _____

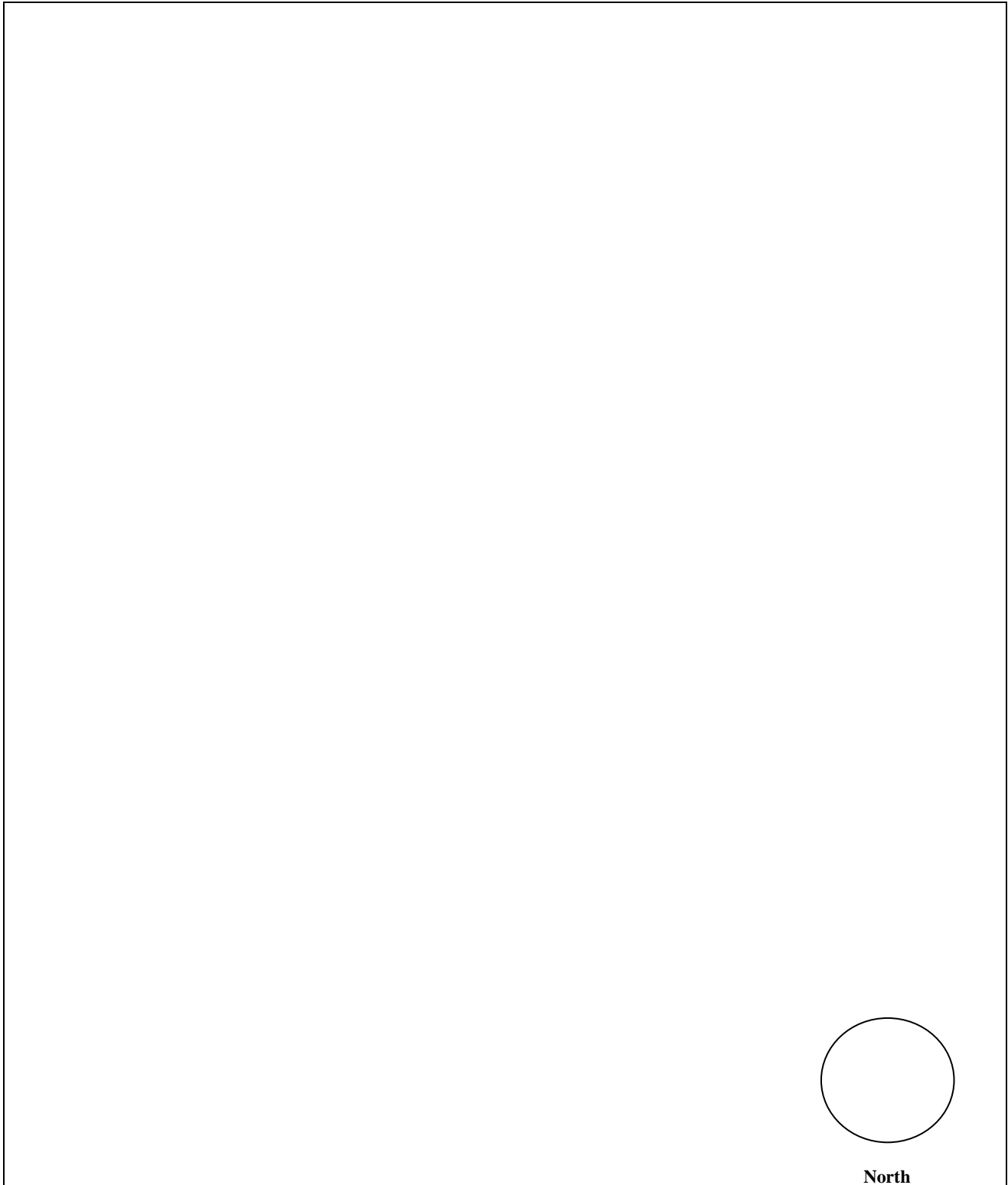
Source: **Rider** **Surrogate**

DRIVER'S DESCRIPTION OF CRASH EVENTS AND RELATED FACTORS

SPECIFIC QUESTIONS TO ASK INTERVIEWEE

CRASH DIAGRAM

Use this diagram to aid in relating interview crash trajectory data to identifiable objects in the environment.



PRE-CRASH DATA

**1. How Were You Operating Your Motor Vehicle/
Motorcycle Immediately Prior to the Crash?**

- (00) stopped in traffic, speed is zero _____
- (01) moving in a straight line, constant speed
- (02) moving in a straight line, foot off accelerator/throttle
- (03) moving in a straight line, braking
- (04) moving in a straight line, accelerating
- (05) turning right, constant speed
- (06) turning right, foot off accelerator/throttle
- (07) turning right, braking
- (08) turning right, accelerating
- (09) turning left, constant speed
- (10) turning left, foot off accelerator/throttle
- (11) turning left, braking
- (12) turning left, accelerating
- (13) stopped at roadside or parked
- (14) backing up in a straight line
- (15) backing up, steering left
- (16) backing up, steering right
- (17) making U-turn, right
- (18) making U-turn, left
- (19) making Y-turn, right
- (20) making Y-turn, left
- (21) changing lanes to left
- (22) changing lanes to right
- (23) merging to left
- (24) merging to right
- (25) entering traffic from right shoulder, median, or parked
- (26) entering traffic from left shoulder, median, or parked
- (27) leaving traffic, turn out to right
- (28) leaving traffic, turn out to left
- (29) passing maneuver, passing on right
- (30) passing maneuver, passing on left
- (31) crossing opposing lanes of traffic
- (32) traveling wrong way, against opposing traffic
- (33) stripe riding, filtering forward between lanes, longitudinal motion only
- (34) filtering forward between lanes, lateral motion only
- (35) filtering forward between lanes, both longitudinal and lateral motions
- (36) collision-avoidance maneuver to avoid a different collision
- (37) negotiating a curve, constant speed
- (38) negotiating a curve, foot off accelerator/throttle
- (39) negotiating a curve, braking
- (40) negotiating a curve, accelerating
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

2. Where Were You Looking Prior to the Start of the Crash Sequence?

- (01) looking straight ahead _____
- (02) looking right
- (03) looking left
- (04) looking rearward
- (05) looking at own motorcycle
- (06) scanning, not further specified
- (98) other (specify) _____
- (99) unknown

3. In Which Lane Were You Traveling Just Before the Precipitating Event?

- (01) lane one (right curb lane) _____
- (02) lane two
- (03) lane three
- (04) lane four
- (05) designated right-turn lane(s)
- (06) designated left-turn lane(s)
- (07) lane splitting
- (08) wrong way in opposing lanes
- (97) not applicable, not in a travel lane
- (98) other (specify) _____
- (99) unknown

4. What Was Your Travel Speed Just Before the Precipitating Event?

- (00) stopped _____
- (01-95) actual miles per hour
- (96) 96 mph or greater
- (98) other (specify) _____
- (99) unknown

5. What Collision-Avoidance Actions Were You Taking (If Any)?

CODE UP TO THREE

- (00) no avoidance actions _____
- (01) braking _____
- (02) steering _____
- (03) braking and steering _____
- (04) accelerating _____
- (05) steering and accelerating _____
- (06) releasing brakes _____
- (07) honked horn _____
- (08) flashing headlamps _____
- (98) other (specify) _____
- (99) unknown _____

6. Was there Any Control Loss Due to Weather, Roadway, or Mechanical Problems?

- (00) no control loss due to weather, roadway, or mechanical problems _____
- (01) yes, control loss due to weather
- (02) yes, control loss due to mechanical problems
- (03) yes, control loss due to both weather and mechanical problems
- (04) yes, control loss due to roadway problems
- (05) yes, control loss due to weather and roadway problems
- (06) yes, control loss due to roadway and mechanical problems
- (07) yes, control loss due to all three
- (98) other (specify) _____
- (99) unknown

7. How Many Passengers Were in Your Vehicle?

- (00) none (skip to # 9) _____
- (01-08) actual number of passengers
- (09) nine or more
- (99) unknown

8. Did the Passengers in Your Vehicle Contribute to the Crash?

- (00) passengers present, but they made no contribution to the crash _____
- (01) yes, passenger activities distracted driver and contributed to the crash
- (02) yes, passenger interfered with vehicle control and contributed to the crash
- (97) not applicable, no passengers
- (98) other (specify) _____
- (99) unknown

9. Was Your Line of Sight to the Motorcycle Clear?

- (00) no (skip to # 10) _____
- (01) yes, clear
- (02) MC/other vehicle in mirror blind spot
- (98) other (specify) _____
- (99) unknown

10. What Obstructed Your View?

- (00) no obstruction _____
- (01) view obstructed by road curvature
- (02) view obstructed by roadway grade
- (03) view obstructed by roadside objects (shrubs, vehicles, buildings)
- (04) obstructed by other vehicles/traffic
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

11. Was Your View of the Motorcycle/Vehicle Obscured?

- (00) no, not obscured _____
- (01) yes, obscured by sun glare
- (02) yes, obscured by headlight glare
- (03) yes, obscured by other glare (specify) _____
- (04) yes, obscured by darkness
- (05) yes, obscured by nighttime and color of vehicle
- (06) obscured by dust, smoke, smog, or fog
- (07) obscured by windshield/windscreen or eyewear condition (dirt, condensation, etc.)
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

SITUATION

12. Were You Distracted by Any of the Following?

- (00) attentive and not distracted _____
- (01) looked but did not see

Distractions

- (02) other occupants (specify) _____
- (03) moving object in vehicle (specify) _____
- (04) while talking or listening to cellular phone/intercom/shortwave radio (specify location and type of device) _____
- (05) while dialing cellular phone/intercom/shortwave radio (specify location and type of device) _____
- (06) while adjusting climate controls
- (07) while adjusting radio/cassette/CD (specify) _____
- (08) while using other device/controls integral to vehicle (specify) _____
- (09) while using/reaching for device/object brought into vehicle (specify) _____
- (10) sleepy or fell asleep
- (11) distracted by outside person/object/event (specify) _____
- (12) eating or drinking _____
- (13) smoking related
- (14) while listening to or adjusting GPS device
- (96) distracted, details unknown
- (98) other (specify) _____
- (99) unknown

TRIP INFORMATION

13. Where Did Your Trip Begin Today?

- (01) home _____
- (02) work, business
- (03) recreation/social
- (04) school
- (05) errand, shopping
- (06) family, friends, relatives
- (07) meals, restaurant, café, etc.
- (08) transport someone
- (09) medical/dental
- (10) bar/pub
- (11) religious activity
- (12) personal business/obligations
- (98) other (specify) _____
- (99) unknown

14. What Was Your Trip Destination?

- (01) home _____
- (02) work, business
- (03) recreation/social
- (04) school
- (05) errand, shopping
- (06) family, friends, relatives
- (07) meals, restaurant, café, etc.
- (08) transport someone
- (09) medical/dental
- (10) bar/pub
- (11) religious activity
- (12) personal business/obligations
- (13) no destination, joy riding
- (98) other (specify) _____
- (99) unknown

15. About How Many Miles Would the Trip be One Way?

- (001) 1 mile or less _____
- (002-995) actual number of miles
- (996) 996 miles or greater
- (997) not applicable
- (999) unknown

16. How Frequently Do You Travel This Road on/in Any Vehicle?

- (01) first time _____
- (02) daily use (i.e., once per day)
- (03) weekly use (i.e., once per week)
- (04) monthly use (i.e., once per month)
- (05) quarterly (i.e., once per quarter)
- (06) annually (i.e., once per year)
- (07) less than annually
- (99) unknown

17. How Long Have You Been Driving Today Since Your Trip Departure?

USE ZEROS TO FILL IN BLANKS

- _____ hours _____ minutes
- (00-59) minutes
- (00-24) hours
- (97-97) not applicable
- (98-98) other (specify) _____
- (99-99) unknown

18. How Many Miles Have You Gone Since Your Trip Departure?

- (001) 1 mile or less _____
- (002-995) actual number of miles
- (996) 996 miles or greater
- (997) not applicable, had not yet begun trip
- (998) other (specify) _____
- (999) unknown

IMPAIRMENT

19. Do You Have Any of the Following Permanent Physical Conditions?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- _____
- _____
- _____
- (00) no
- (01) vision reduction or loss
- (02) hearing reduction or loss
- (03) respiratory, cardiovascular condition
- (04) paraplegia
- (05) amputee
- (06) neurological, epilepsy, stroke
- (07) endocrine system, diabetes, digestive system
- (08) infirmity, arthritis, senility
- (98) other (specify) _____
- (99) unknown

20. At the Time of the Crash, Were You Experiencing Any of the Following?

CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- _____
- _____
- _____
- (00) no
- (01) fatigue
- (02) hunger
- (03) thirst
- (04) elimination urgency
- (05) muscle spasm, cramp, itch
- (06) headache, minor malaise, fever
- (07) siesta syndrome (tired in afternoon)
- (98) other (specify) _____
- (99) unknown

21. At the Time of the Crash, Were You Concerned About Any of the Following Issues?
 CODE UP TO THREE; INPUT 00 FOR REMAINING RESPONSES

- _____
- _____
- _____
- (00) no problems
 - (01) conflict with friends, relatives, divorce, separation
 - (02) work-related problems
 - (03) financial distress
 - (04) school problems
 - (05) legal, police problems
 - (06) reward stress
 - (07) traffic conflict, road rage
 - (08) death of family or friend
 - (98) other (specify) _____
 - (99) unknown

22. How Many Hours of Sleep Did You Have in the 24 Hours Prior to the Crash?

- _____
- (00) no sleep
 - (01–24) number of hours slept
 - (98) other (specify) _____
 - (99) unknown

23. Did You Drink Any Alcohol or Take Any Drugs or Medications Within the 24 Hours Prior to the Crash?

- _____
- (00) no (skip to # 26)
 - (01) alcohol use only (skip to # 26)
 - (02) drug/medication use only
 - (03) combined alcohol and drug/medication use
 - (98) other (specify) _____
 - (99) unknown

24. What Type of Drugs Other Than Alcohol?

- _____
- (00) no drugs other than alcohol
 - (01) stimulant
 - (02) depressant
 - (03) drugs taken, type unknown
 - (04) multiple drugs taken
 - (05) blood pressure/blood thinner
 - (97) not applicable
 - (98) other (specify) _____
 - (99) unknown

25. What Is the Source of Drugs Other Than Alcohol?

- _____
- (00) no drugs other than alcohol
 - (01) prescription
 - (02) nonprescription, over the counter
 - (03) illegal
 - (97) not applicable
 - (99) unknown

RIDING/DRIVING EXPERIENCE

26. How Long Have You Been Driving Any Kind of Motor Vehicle?

USE ZEROS TO FILL IN BLANKS

- _____ years _____ months
- (00-00) this is the first time
 - (00–11) months
 - (00–96) years
 - (98-98) other (specify) _____
 - (99-99) unknown

27. How Long Have You Been Driving the Crash-Involved Motor Vehicle/Motorcycle?

USE ZEROS TO FILL IN BLANKS

- _____ years _____ months
- (00-00) this is the first time
 - (00–11) months
 - (00–96) years
 - (98-98) other (specify) _____
 - (99-99) unknown

28. About How Many Miles per Year Do You Drive a Car or Truck?

- _____ , _____
- (00000) none
 - (00001–99995) actual number of miles
 - (99996) 99,996 miles or greater
 - (99998) other (specify) _____
 - (99999) unknown

29. What Kind of Driver Training Have You Had?

- _____
- (00) none
 - (01) State-recognized, entry-level motorcycle course
 - (02) experienced-rider course
 - (03) high-performance/competitive-track course
 - (04) self-taught
 - (05) taught by family and/or friends
 - (06) State-recognized, entry-level passenger vehicle course
 - (07) professional training for a commercial license
 - (08) compulsory motor vehicle training ordered by judge, police, etc.
 - (98) other (specify) _____
 - (99) unknown

30. How Many Moving Traffic Convictions Have You Had in the Previous 5 Years?

CODE THE TOTAL NUMBER OF MOVING TRAFFIC CONVICTIONS—ANY VEHICLE

- _____
- (00) none
 - (01–96) actual number of convictions
 - (99) unknown

31. How Many Motorcycle Moving Traffic Crashes Have You Had in the Past 5 Years?
CODE THE TOTAL NUMBER OF PREVIOUS MOTORCYCLE CRASHES

- (00) none _____
 (01-96) actual number of crashes _____
 (99) unknown _____

32. How Many Car or Truck Traffic Crashes Have You Had in the Past 5 Years?
CODE THE TOTAL NUMBER OF PREVIOUS CAR OR TRUCK CRASHES

- (00) none _____
 (01-96) actual number of crashes _____
 (99) unknown _____

33. Do You Currently Ride a Street Motorcycle?

- (00) no _____
 (01) yes _____
 (02) refused to answer _____
 (98) other (specify) _____
 (99) unknown _____

IF NOT CURRENTLY OPERATING A MOTORCYCLE,
CODE # 34-38 AS N/A; RESUME AT # 41

34. How Long Have You Operated a Street Motorcycle?
USE ZEROS TO FILL IN BLANKS

- _____ years _____ months
 (00-00) just started
 (00-11) months
 (00-96) years
 (97-97) not applicable, not currently riding
 (98-98) other (specify) _____
 (99-99) unknown

35. What Is the Average Number of Days per Year You Ride Motorcycles?

- _____ days per year
 (001-365) actual number of days per year
 (997) not applicable, just started
 (998) other (specify) _____
 (999) unknown

36. About How Many Miles per Year Do You Ride Motorcycles?

- _____, _____
 (00000) none
 (00001-99995) actual number of miles
 (99996) 99,996 miles or greater
 (99997) not applicable; not currently riding or just started
 (99998) other (specify) _____
 (99999) unknown

37. When You Ride or Drive, What Is the Percentage of Time You Ride a Motorcycle Versus Drive Another Type of Vehicle?

INDICATE PERCENTAGE OF TOTAL RIDING/DRIVING TIME FOR EACH CATEGORY
 Motorcycle _____
 Other-Vehicle Types _____
 100%

- (000) first-time use
 (001-100) actual percentage of time
 (997) not applicable
 (999) unknown

38. When You Ride a Motorcycle, What Is the Percentage of Time It Is for Each of these Categories?

INDICATE PERCENTAGE OF TOTAL RIDING/DRIVING TIME FOR EACH CATEGORY
 Recreation _____
 Basic Transportation _____
 100%

- (000) first-time use
 (001-100) actual percentage of time
 (997) not applicable, not a rider
 (999) unknown

BACKGROUND INFORMATION

39. How Old Were You at the Time of the Crash?

- _____ years
 (01-96) actual age in years
 (99) unknown

40. Were You Injured in This Crash?

- _____
 (00) no injuries (skip to # 42)
 (01) yes
 (99) unknown

41. What Kind of Medical Treatment Did You Receive?

- _____
 (00) no treatment
 (01) on-scene emergency care only
 (02) treated and released at hospital/trauma center
 (03) admitted to hospital/trauma center
 (04) walk-in clinic
 (05) private physician
 (97) not applicable, no injury
 (98) other (specify) _____
 (99) unknown

42. What State/Country Issued Your Current Driver's License?

- _____
 (00) no license
 (01) Canada
 (02) California
 (03) other State (specify) _____
 (04) military
 (97) no license required (49 cc scooter)
 (98) other (specify) _____
 (99) unknown

43. What Kind of Operator's License Is It?

CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- (00) no license
- (01) learner's permit only
- (02) motorcycle license
- (03) automobile license
- (04) commercial license
- (05) motorcycle driver and competition license
- (06) license to transport people
- (07) heavy-truck license
- (08) no license required (49 cc scooter)
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

44. What Year Was/Were the License(s) Issued?

LIST IN THE SAME ORDER AS LICENSES IN # 43

- (1900-2100) actual year of issuance
- (9997) not applicable
- (9999) unknown

45. Does Your License Qualify You to Operate This Motor Vehicle?

- (00) no
- (01) yes
- (97) not applicable
- (99) unknown

46. Are You of Hispanic or Latino Origin?

- (00) no
- (01) yes
- (02) refused to answer
- (98) other (specify) _____
- (99) unknown

47. What Is Your Race?

CODE UP TO THREE; INPUT 97 FOR REMAINING RESPONSES

- (01) White
- (02) Black or African American
- (03) Asian
- (04) Native Hawaiian or other Pacific Islander
- (05) American Indian or Alaska native
- (06) refused to answer
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

48. What Is Your Height?

_____ feet ____ inches

- (01-12) actual number of feet and inches
- (09-99) unknown

49. What Is Your Weight?

- (001-996) actual weight in pounds
- (999) unknown

50. What Is Your Gender?

- (01) male
- (02) female
- (99) unknown

51. How Much Formal Education Have You Had?

- (00) no formal schooling
- (01) less than high school diploma
- (02) high school diploma or GED
- (03) partial college/university
- (04) college/university graduate
- (05) graduate school, advanced degree, professional degree
- (06) specialty/technical school
- (98) other (specify) _____
- (99) unknown

52. What Is Your Current Occupation?

- (01) management
- (02) business and financial
- (03) computer and mathematical
- (04) architecture and engineering
- (05) life, physical, and social sciences
- (06) community and social services
- (07) legal
- (08) education, training, or library
- (09) arts, design, entertainment, sports, or media
- (10) healthcare practitioners and technical jobs
- (11) healthcare support
- (12) protective services
- (13) food preparation, serving, and related
- (14) building and grounds maintenance
- (15) personal care and services
- (16) sales and related
- (17) office and administrative support
- (18) farming, fishing, or forestry
- (19) construction or extraction
- (20) installation, maintenance, or repair
- (21) transportation and material moving
- (22) military
- (23) full-time student
- (97) not applicable, not in workforce at present
- (98) other (specify) _____
- (99) unknown

53. Are You Required to Wear Corrective Lenses When Riding/Driving?

- (00) no (skip to # 55) _____
- (01) yes
- (98) other (specify) _____
- (99) unknown

54. Were You Wearing Corrective Lenses at the Time of the Crash?

- (00) no _____
- (01) yes
- (98) other (specify) _____
- (99) unknown

55. Are You Married?

- (01) single _____
- (02) married
- (03) separated
- (04) divorced
- (05) widowed
- (06) cohabitating
- (98) other (specify) _____
- (99) unknown

56. How Many Children Do You Have?

- (00) none _____
- (01) one
- (02) two
- (03) three
- (04) four
- (05) five
- (06) six or more
- (98) other (specify) _____
- (99) unknown

57. Blood Alcohol Concentration (BAC)?

CODE RESULTS IN mg/100 ml

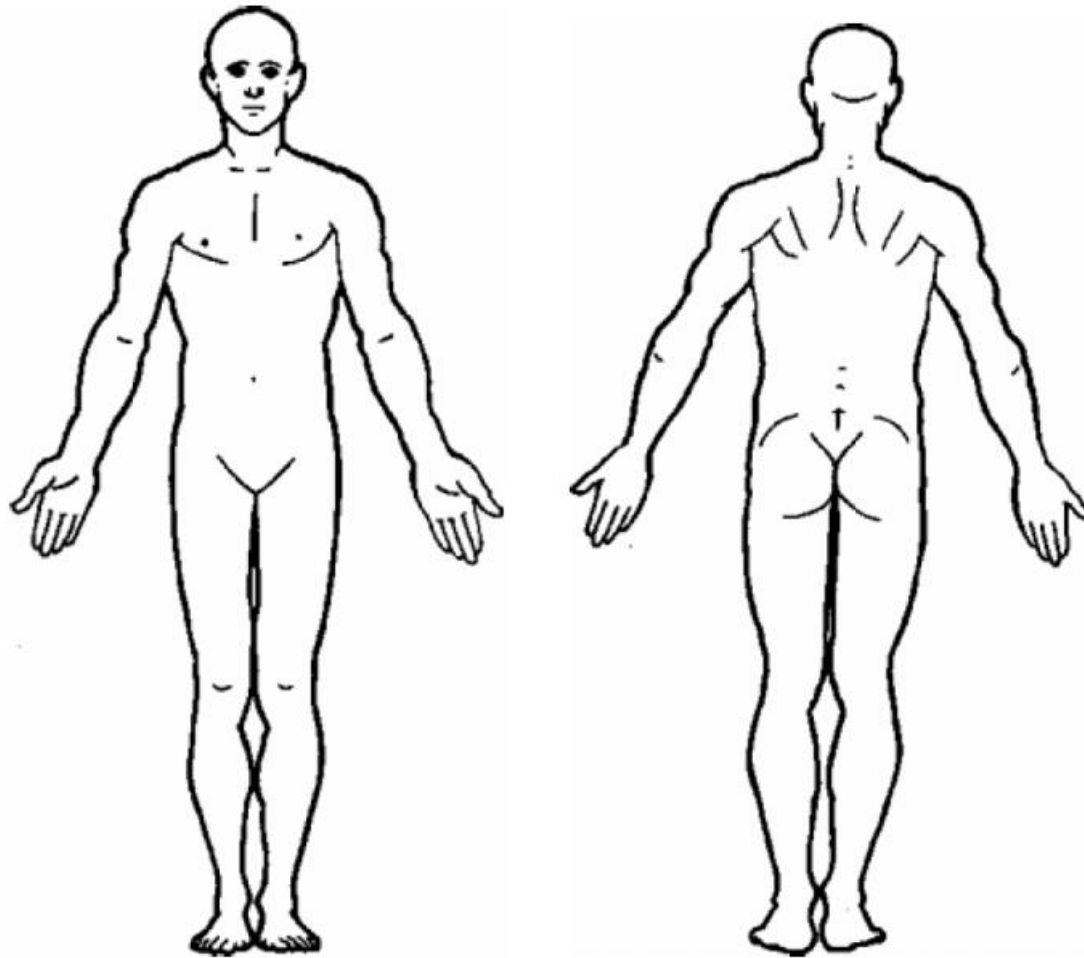
- (000) negative BAC _____
- (001–900) test results (mg/100 ml)
- (995) BAC tested, results not known
- (996) BAC not tested
- (998) other (specify) _____
- (999) unknown

58. Source of BAC Information?

- (00) not tested _____
- (01) breath test
- (02) unknown if tested
- (03) tested, results unknown
- (04) tested, results not available
- (05) official records/ER/autopsy/PAR
- (98) other (specify) _____
- (99) unknown

INJURY DATA—SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

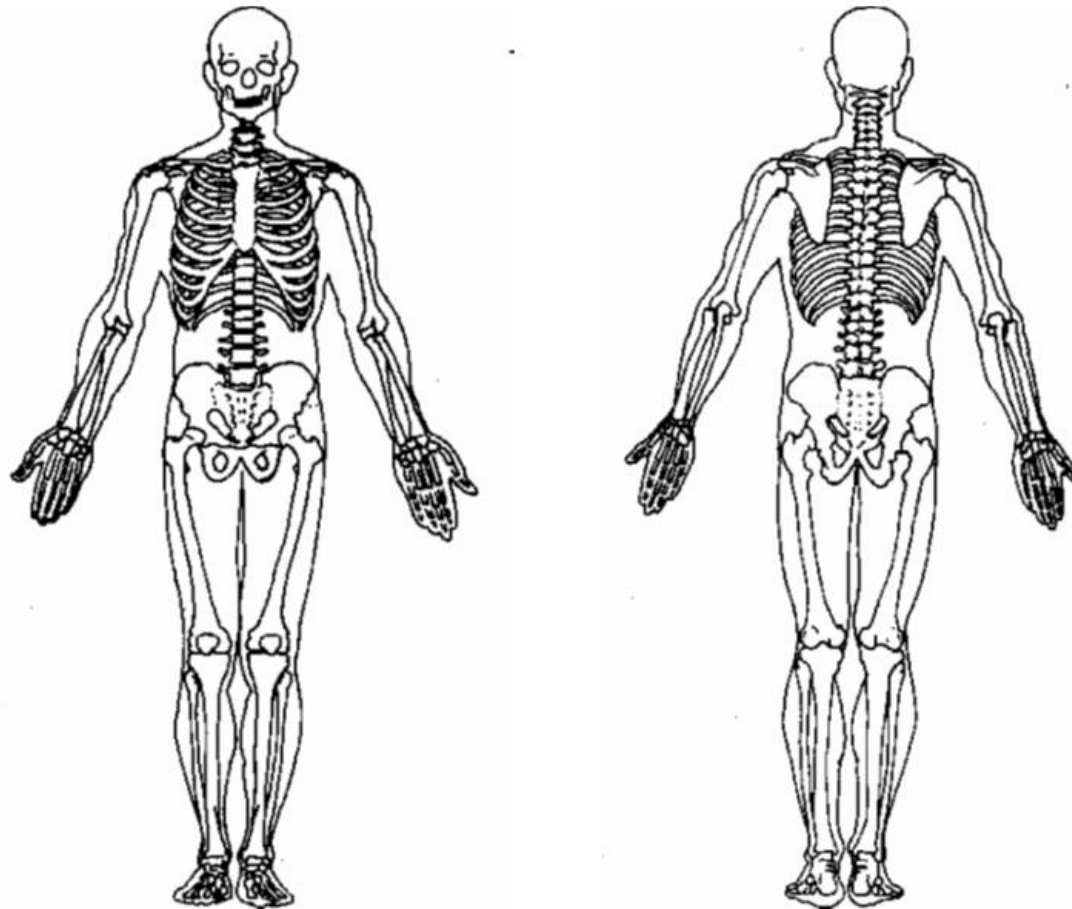


Source: OECD.

Figure 14. Illustration. Other-vehicle driver—front and back of human body.

INJURY DATA—SKELETAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).

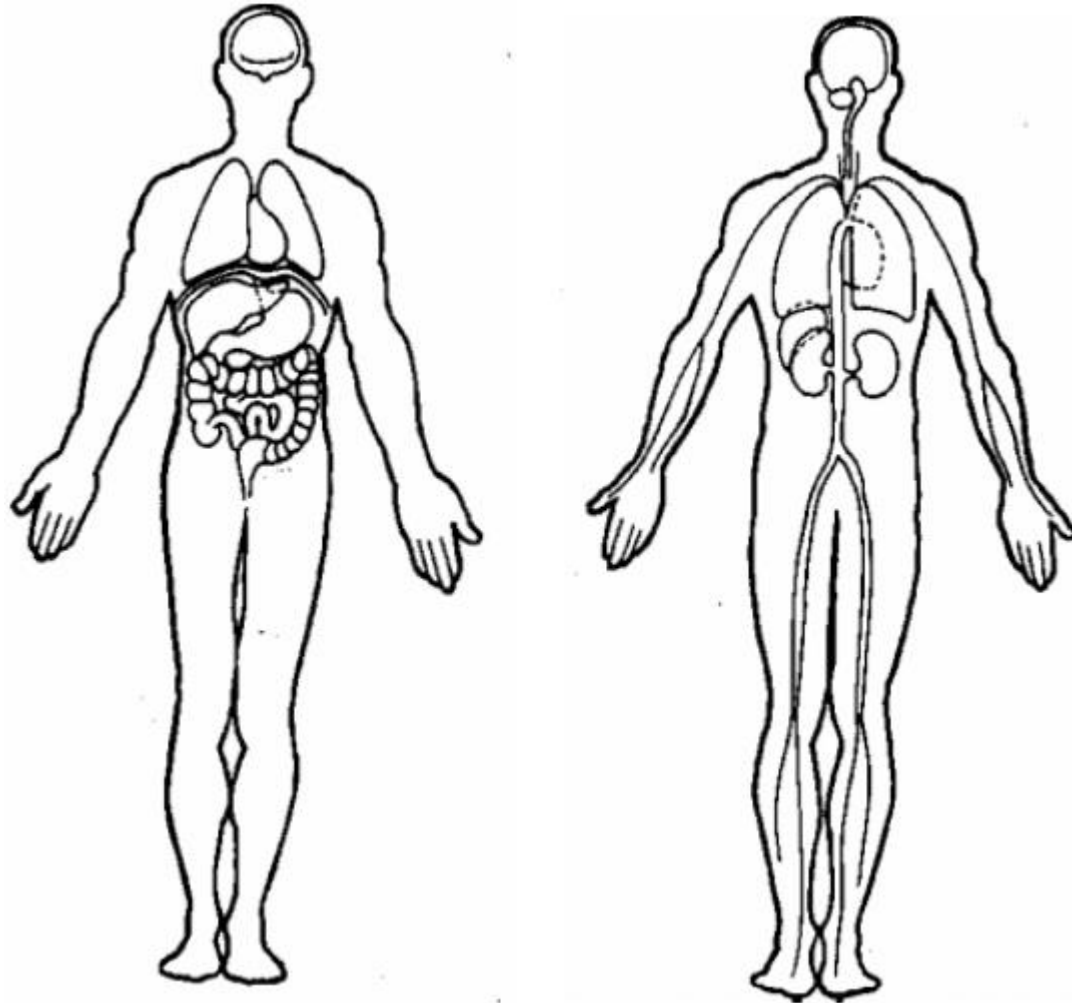


Source: OECD.

Figure 15. Illustration. Other-vehicle driver—front and back of human body with skeleton.

INJURY DATA—INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable).



Source: OECD.

Figure 16. Illustration. Other-vehicle driver—front and back of human body with internal organs.

A-13. OTHER VEHICLE DATA-COLLECTION FORM

The following form is a blank form.

Other Vehicle Form

Case Number _____

Vehicle Number _____

MECHANICAL FACTORS

1. Vehicle Body Type

- Vehicle Body Type _____
- (01) automobiles
 - (02) automobile derivatives
 - (03) utility vehicles
 - (04) van-based light trucks
 - (05) light conventional trucks
 - (06) other light trucks
 - (07) buses (excludes van based)
 - (08) medium/heavy trucks
 - (09) motored cycles
 - (10) other vehicles (specify) _____
 - (99) unknown body type

2. Vehicle Manufacturer

SEE CODING MANUAL FOR CODES AND DEFINITIONS

- Vehicle Manufacturer _____
- (999) unknown motorcycle

3. Vehicle Model

- Vehicle Model _____
- (99-999) unknown manufacturer and vehicle

4. Model Year

- (1900+) current data-collection year plus 1 _____
- (9999) unknown

5. Vehicle Identification Number

- _____ X X X X
- (000000000000000000) VIN not required on vehicle
 - (999999999999999999) VIN unknown

6. Vehicle Curb Weight in Pounds

- (100-99996) curb weight of vehicle in pounds _____
- (99999) unknown

7. Is This Vehicle Equipped With ABS?

- (00) no _____
- (01) yes, equipped, rear only
- (02) yes, equipped, front and rear
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

8. Did This Vehicle Experience Mechanical Problems?

- (00) none _____
- (01) tire or wheel failure
- (02) brake failure
- (03) steering failure
- (04) power-transmission failure
- (05) electrical failure
- (06) suspension failure
- (07) vehicle structural failure other than suspension, tire, or wheel
- (08) maintenance-related mechanical problem
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

VEHICLE DYNAMICS

9. Pre-Crash Motion Prior to Precipitating Event

- (00) stopped in traffic, speed is zero
- (01) moving in a straight line, constant speed
- (02) moving in a straight line, foot off accelerator/throttle off
- (03) moving in a straight line, braking
- (04) moving in a straight line, accelerating
- (05) turning right, constant speed
- (06) turning right, foot off accelerator/throttle off
- (07) turning right, braking
- (08) turning right, accelerating
- (09) turning left, constant speed
- (10) turning left, foot off accelerator/throttle off
- (11) turning left, braking
- (12) turning left, accelerating
- (13) stopped at roadside or parked
- (14) backing up in a straight line
- (15) backing up, steering left
- (16) backing up, steering right
- (17) making U-turn, right
- (18) making U-turn, left
- (19) making Y-turn, right
- (20) making Y-turn, left
- (21) changing lanes to left
- (22) changing lanes to right
- (23) merging to left
- (24) merging to right
- (25) entering traffic from right shoulder, median, or parked
- (26) entering traffic from left shoulder, median, or parked
- (27) leaving traffic, turn out to right
- (28) leaving traffic, turn out to left
- (29) passing maneuver, passing on right
- (30) passing maneuver, passing on left
- (31) crossing opposing lanes of traffic
- (32) traveling wrong way, against opposing traffic
- (36) collision-avoidance maneuver to avoid a different collision
- (37) negotiating a curve, constant speed
- (38) negotiating a curve, foot off accelerator/throttle off
- (39) negotiating a curve, braking
- (40) negotiating a curve, accelerating
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

10. Travel Speed at Time of Precipitating Event
CODE IN MILES PER HOUR, WHOLE NUMBERS ONLY

- (000) stopped in traffic, speed is zero
- (001–250) actual speed in miles per hour
- (999) unknown

11. Line of Sight to Motorcycle
USE CLOCKFACE DIRECTION, RELATIVE TO VEHICLE CENTER LINE

- (01–12) clockface line-of-sight position
- (97) not applicable
- (99) unknown

12. Pre-Crash Motion After Precipitating Event

- (00) stopped in traffic, speed is zero
- (01) moving in a straight line, constant speed
- (02) moving in a straight line, foot off accelerator/throttle off
- (03) moving in a straight line, braking
- (04) moving in a straight line, accelerating
- (05) turning right, constant speed
- (06) turning right, foot off accelerator/throttle off
- (07) turning right, braking
- (08) turning right, accelerating
- (09) turning left, constant speed
- (10) turning left, foot off accelerator/throttle off
- (11) turning left, braking
- (12) turning left, accelerating
- (13) stopped at roadside or parked
- (14) backing up in a straight line
- (15) backing up, steering left
- (16) backing up, steering right
- (17) making U-turn, right
- (18) making U-turn, left
- (19) making Y-turn, right
- (20) making Y-turn, left
- (21) changing lanes to left
- (22) changing lanes to right
- (23) merging to left
- (24) merging to right
- (25) entering traffic from right shoulder, median, or parked
- (26) entering traffic from left shoulder, median, or parked
- (27) leaving traffic, turn out to right
- (28) leaving traffic, turn out to left
- (29) passing maneuver, passing on right
- (30) passing maneuver, passing on left
- (31) crossing opposing lanes of traffic
- (32) traveling wrong way, against opposing traffic
- (36) collision-avoidance maneuver to avoid a different collision
- (37) negotiating a curve, constant speed
- (38) negotiating a curve, foot off accelerator/throttle off
- (39) negotiating a curve, braking
- (40) negotiating a curve, accelerating
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

13. Collision-Avoidance Action
CODE UP TO FOUR; INPUT 00 FOR REMAINING RESPONSES

- (00) none
- (01) braking
- (02) swerving
- (03) accelerating
- (04) countersteering
- (05) cornering
- (98) other (specify) _____
- (99) unknown

14. Braking Skid Marks on Roadway

- (00) none
- (01) skid marks from rear tires only
- (02) skid marks from front tires only
- (03) skid marks from both front and rear tires, equivalent and overlaying front and rear marks
- (04) long skid marks from rear tires, short terminal skid marks from front tires
- (05) light skid marks from both front and rear tires, no wheel-lockup evidence
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

15. Length of Skid Marks on Roadway

CODE IN FEET AND INCHES

Left Front Tire _____ feet _____ inches
 Left Rear Tire _____ feet _____ inches
 Right Front Tire _____ feet _____ inches
 Right Rear Tire _____ feet _____ inches

- (000.00) none, no skid marks visible
- (000.01–999.96) actual length of skid marks in feet and inches
- (999.99) unknown

16. Braking Skid-Mark Evidence On Roadway

- (00) none
- (01) dry-roadway braking skid marks confirmed from motor vehicle
- (02) wet-roadway braking skid marks confirmed from motor vehicle
- (03) deep water on roadway, dynamic hydroplaning most likely, no braking skid marks remain
- (04) wet reverted rubber skidding in evidence, white steam-cleaned skid paths shown on roadway confirmed from motor vehicle
- (05) braking skid-marks evidence most likely present but degraded by traffic after accident, no confirmation at scene examination
- (06) snow/ice on roadway, braking skid marks confirmed from other vehicles
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

17. Braking Tire-Striation Evidence

- (00) none, front or rear tires
- (01) rear tires only
- (02) front tires only
- (03) both front and rear tires
- (04) prolonged skid patch on rear tires only
- (05) prolonged skid patch on rear tires, plus braking striations on front tires
- (06) prolonged skid patch on rear tires, plus slide-out striations on front tires
- (07) prolonged skid patch on rear tires, plus slide-out striations on both front and rear tires
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

18. Acceleration Evidence on Tires

- (00) none
- (01) moderate slip striations and tread block-edge erosion
- (02) severe slip striations and tread block-edge erosion
- (03) extreme slip striations, tread block-edge erosion, and tread-rubber reversion
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

19. Cornering Skid Mark Evidence On Roadway

- (00) none
- (01) dry-roadway cornering skid marks confirmed from motor vehicle/motorcycle
- (02) wet-roadway cornering skid marks confirmed from motor vehicle/motorcycle
- (03) deep water on roadway, hydroplaning most likely, no cornering skid marks remaining
- (04) wet reverted rubber skidding in evidence, white steam-cleaned cornering skid paths shown on roadway confirmed from motor vehicle/motorcycle
- (05) cornering skid-marks evidence most likely present, but degraded by traffic after accident, no confirmation at scene examination
- (06) snow/ice on roadway, cornering skid marks confirmed from other vehicle
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

20. Cornering Tire-Striation Evidence

- (00) none
- (01) right-cornering tire striations, rear tires only
- (02) right-cornering tire striations, front tires only
- (03) right-cornering striations, both front and rear tires
- (04) left-cornering tire striations, rear tires only
- (05) left-cornering tire striations, front tires only
- (06) left-cornering tire striations, both front and rear tires
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

CRASH MOTION AT IMPACT

21. Other-Vehicle First-Collision Contact Code

Code the appropriate vehicle component, plus "L," "R," or "C" for left, right, or center of OV longitudinal center line, respectively (i.e., "front bumper, left of center line" is coded as "F01L").

F: Vehicle Front

(F01) bumper
(F02) push bar, bull bar
(F03) grill
(F04) front corner, headlamp nacelle
(F05) front edge or side of hood
(F06) top of hood, front
(F07) front side of upper A-pillar
(F08) front cowl
(F09) windshield lower molding
(F10) windshield surface
(F11) windshield header
(F12) front roof top
(F13) external rear view mirror
(F14) accessory lights, light bar
(F15) underride bar
(F16) entire front of vehicle
(F98) other front (specify)

(F99) unknown front

T: Vehicle Top Surfaces

(T01) top of hood, front
(T02) top of hood, center
(T03) top of hood, rear
(T04) front cowl
(T05) rooftop, front
(T06) sunroof, moonroof
(T07) rooftop, center
(T08) rooftop, rear
(T09) rollbar
(T10) trunk lid, front
(T11) trunk lid, center
(T12) trunk lid, rear
(T13) custom work/toolbox
(T14) top rail of tailgate
(T15) top rail of truck bed
(T16) floor of truck bed
(T17) accessory lights, light bar
(T18) accessory equipment (air horns, etc.)
(T19) entire top surfaces of vehicle
(T98) other top (specify)

(T99) unknown top

R: Vehicle Rear

(R01) bumper
(R02) step bumper
(R03) push bar, bull bar
(R04) power lift gate
(R05) trailer hitch
(R06) rear lamp, subtrunk panel
(R07) top rail of tailgate
(R08) tailgate
(R09) rear door panel, top
(R10) rear door panel, center
(R11) rear door panel, bottom
(R12) rear door handles, hardware
(R13) rear corner, truck bed
(R14) lower rear corner, attached truck cab
(R15) upper rear corner, attached truck cab
(R16) lower rear corner, van
(R17) upper rear corner, van
(R18) B-pillar, rear (truck only)
(R19) truck upper rear corner of cab
(R20) back light (window) header
(R21) back light glass
(R22) back light lower molding
(R23) lower C-pillar
(R24) upper C-pillar
(R25) rear door frame header
(R26) rear door or window, frame sill
(R27) rear door side frame posts, hinges
(R28) spare tire/spare tire housing
(R29) accessory lights, light bar
(R30) underride bar
(R31) entire rear of vehicle
(R98) other rear (specify)

(R99) unknown rear

U: Vehicle Undercarriage

RUN OVER OR SNAG

(U01) front of undercarriage
(U02) rear of undercarriage
(U03) side of undercarriage
(U04) spare tire/spare tire mount
(U05) entire undercarriage of vehicle
(U98) other undercarriage (specify)

(U99) unknown undercarriage

S: Vehicle Side

(S01) side of front bumper
(S02) side corner, headlamp nacelle
(S03) front mudguard (fender)
(S04) front mudguard (fender) wheelhouse
(S05) front tires
(S06) side of bonnet (hood), edge
(S07) rocker panel, sill beam, steps
(S08) lower A-pillar
(S09) upper A-pillar
(S10) front door, front
(S11) front door, rear
(S12) front door belt line
(S13) front door side glass
(S14) front door handle
(S15) front roof rail, including drip channel molding
(S16) rear roof rail, including drip channel molding
(S17) lower B-pillar
(S18) upper B-pillar
(S19) rear door, front
(S20) rear door, rear
(S21) rear door belt line
(S22) rear door side glass (window)
(S23) rear door handle
(S24) back light (window) side frame
(S25) center panel (van, bus)
(S26) lower C-pillar
(S27) upper C-pillar
(S28) rear mudguard (fender) wheelhouse
(S29) rear tires
(S30) rear mudguard (fender), rear bed side panel, rear panel
(S31) side of boot (trunk) lid, edge
(S32) lower rear corner
(S33) upper rear corner
(S34) side of rear bumper
(S35) side mount fuel tank
(S36) battery box, toolbox, fire extinguishers
(S37) frame rail
(S38) semitrailer spare tire, chain racks
(S39) trailer landing gear, struts
(S40) semitrailer tie down hook points, strap anchors, ratchet locks
(S41) accessory lights, light bar
(S42) underride bar
(S43) external rear view mirror
(S44) front wheel
(S45) rear wheel
(S98) other side (specify)

(S99) unknown side

M: Motorcycle/Moped

(MCLF) left front

(MCCF) center front

(MCRF) right front

(MCLC) left center

(MCLR) left rear

(MCCR) center rear

(MCRR) right rear

(MCRC) right center

(MCTR) top rear

(MCTC) top center

(MCTF) top front

(MCUR) undercarriage rear

(MCUC) undercarriage center

(MCUF) undercarriage front

(MC98) other motorcycle/moped location

(MC99) unknown motorcycle/moped location

(9998) other (specify) _____

(9999) unknown

22. Object(s) Contacted
CODE UP TO THREE

Collision With Other Vehicle

- (01) other vehicle # 1
- (02) other vehicle # 2
- (03) other vehicle # 3

Collision With Fixed Object

- (04) tree (less than or equal to 4 inches in diameter)
- (05) tree (greater than 4 inches in diameter)
- (06) shrubbery or bush
- (07) embankment
- (08) concrete traffic barrier
- (09) other traffic barrier (includes guardrail) (specify) _____
- (10) impact attenuator
- (11) bridge
- (12) curb
- (13) fire hydrant
- (14) ground
- (15) ditch or culvert
- (16) building
- (17) wall
- (18) fence
- (19) nonbreakaway pole or post (less than or equal to 4 inches in diameter)
- (20) nonbreakaway pole or post (greater than 4 inches but less than or equal to 12 inches in diameter)
- (21) nonbreakaway pole or post (greater than 12 inches in diameter)
- (22) nonbreakaway pole or post (diameter unknown)
- (23) breakaway pole or post (any diameter)
- (28) other fixed object (specify) _____
- (29) unknown fixed object

Collision With Nonfixed Object

- (30) pedestrian
- (31) train
- (32) object fell from vehicle in transport
- (33) trailer, disconnected in transport
- (34) animal
- (35) cyclist or cycle
- (36) vehicle occupant
- (37) other nonmotorist or conveyance (specify) _____
- (38) other nonfixed object (specify) _____
- (39) unknown nonfixed object (specify) _____

Noncollision

- (40) overturn->rollover (excludes end-over-end)
- (41) rollover->end-over-end
- (42) fire or explosion
- (43) jackknife
- (44) other intraunit damage (specify) _____
- (45) noncollision injury
- (48) other noncollision (specify) _____
- (49) noncollision details unknown
- (97) not applicable
- (98) other event (specify) _____
- (99) unknown event or object

23. Impact Speed

CODE IN MILES PER HOUR, WHOLE NUMBERS ONLY

- (000) stopped in traffic, speed is zero _____
- (001-250) actual miles per hour
- (999) unknown

24. PDOF Principal Direction of Force in Degrees

- (000) nonhorizontal force _____
- (010-360) degrees in 10-degree increments
- (998) other (specify) _____
- (999) unknown

POST-CRASH MOTION

25. Other-Vehicle Post-Crash Motion Code

- (00) none, stopped at POI; POR and POI coincide _____
- (01) stopped within 6 feet of POI
- (02) rolled on wheels from POI to POR
- (03) rolled on wheels from POI, then impacted other object at POR
- (04) vehicle rollover from POI to POR
- (05) skidded, slid from POI to POR
- (06) skidded, slid from POI, then impacted other object at POR
- (07) vehicles did not separate; PORs are essentially the same for motorcycle and other vehicle
- (08) spun or yawed, sliding from POI to POR
- (09) hit and run, driver departed scene of accident with other vehicle immediately after collision
- (10) driver departed scene immediately after collision, but other vehicle still at scene
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

26. Distance From POI to POR

CODE IN FEET AND INCHES

Distance Along POI Path:

offset: +/- _____ feet _____ inches
+/- _____ feet _____ inches

- (000-995) actual number of feet
- (00-11) actual number of inches
- (996-96) 996 feet or greater
- (997-97) not applicable
- (999-99) unknown

A-14. HELMET DATA-COLLECTION FORM

The following form is a blank form.

Helmet Testing/Evaluation Form

Case Number _____

MC/OV Number _____

PART A—FIELD INSPECTION

1. Helmet Belongs to?

- (01) rider _____
- (02) passenger 1 _____
- (03) passenger 2 _____
- (04) passenger 3 _____
- (98) other (specify) _____
- (99) unknown _____

2. Wearing Helmet on Head?

- (00) no _____
- (01) yes _____
- (02) helmet available but not used _____
- (98) other (specify) _____
- (99) unknown _____

3. Was Helmet Property Adjusted on Head?

- (00) no _____
- (01) yes _____
- (98) other (specify) _____
- (99) unknown _____

4. Was Your Helmet Securely Fastened to Your Head?

- (00) no _____
- (01) yes _____
- (98) other (specify) _____
- (99) unknown _____

5. Type of Helmet

- (00) not a motorcycle helmet _____
- (01) half/police motor vehicle/motorcycle helmet _____
- (02) open-face motor vehicle/motorcycle helmet _____
- (03) full-face motor vehicle/motorcycle helmet _____
- (04) novelty or beanie helmet _____
- (98) other (specify) _____
- (99) unknown _____

6. Type of Coverage

- (01) partial coverage _____
- (02) full coverage _____
- (03) full-facial coverage, integral chin bar but no face shield _____
- (04) full-facial coverage, removable chin bar _____
- (05) full-facial coverage, retractable bar _____
- (06) full-facial coverage, integral chin bar and face shield _____
- (07) open-face helmet with flat wraparound face shield _____
- (08) open-face helmet with bubble-type face shield _____
- (09) open-face helmet with visor/face shield combo _____
- (10) open-face helmet with removable gravel guard _____
- (98) other (specify) _____
- (99) unknown _____

7. Predominating Color

- (01) no dominating color, multicolored _____
- (02) white _____
- (03) yellow _____
- (04) black _____
- (05) red _____
- (06) blue _____
- (07) green _____
- (08) silver, grey _____
- (09) orange _____
- (10) brown, tan _____
- (11) purple _____
- (12) gold _____
- (13) chrome, metallic _____
- (98) other (specify) _____
- (99) unknown _____

8. Color of Face Shield, if Present

- (01) clear _____
- (02) green _____
- (03) grey, smoke _____
- (04) amber, yellow _____
- (05) blue _____
- (06) reflective (any color) _____
- (07) not applicable, no face shield _____
- (98) other (specify) _____
- (99) unknown _____

9. Helmet Owned by Wearer?

- (00) no _____
- (01) yes _____
- (98) other (specify) _____
- (99) unknown _____

10. Helmet Fit

- (01) acceptable fit _____
- (02) too large, too loose
- (03) too small, too tight
- (04) contour mismatch
- (98) other (specify) _____
- (99) unknown

11. Claimed Frequency of Helmet Use on Head
CODE 000–100 PERCENT

- (000–100) percent helmet worn _____
- (999) unknown

12. Conditions Under Which Helmet Used on Head
CODE UP TO FOUR; INPUT 97 FOR REMAINING RESPONSES

- _____
- _____
- _____
- _____
- (00) never use helmet
- (01) mostly long trips
- (02) mostly in high-speed highway or freeway traffic
- (03) in adverse weather
- (04) usually, but not in hot weather
- (05) always
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

13. Helmet Manufacturer
SEE CODING MANUAL FOR ALL CODES

- (000) not applicable, no helmet _____
- (998) other (specify) _____
- (999) unknown

14. Date of Manufacture

- Month/Day/Year _____ / _____ / _____
- (01–12) month
 - (01–31) day
 - (1900–2100) year
 - (99/99/9999) unknown

15. Helmet Model

LIST OR CODE MODEL; WRITE IN RESPONSE

16. Conformity to Which Qualification Modify Attributes

CODE ALL THAT APPLY UP TO 4; INPUT 97 FOR REMAINING RESPONSES

- _____
- _____
- _____
- _____
- (00) no standards labeled
- (01) FMVSS 218 (USDOT)
- (02) Snell M85 (USA)
- (03) Snell M90 (USA)
- (04) Snell M95 (USA)
- (05) Snell M2000 (USA)
- (06) Snell M2005 (USA)
- (07) Snell M2010 (USA)
- (08) Snell SA95 (USA)
- (09) Snell SA2000 (USA)
- (10) Snell SA/K 2005 (USA)
- (11) Snell SA/K 2010 (USA)
- (12) ANSI Z90.1 (USA)
- (13) UN/ECE-22-02 (Europe)
- (14) UN/ECE-22-D3 (Europe)
- (15) UN/ECE-22-04 (Europe)
- (16) UN/ECE-22-05 (Europe)
- (17) BS 6658A (UK)
- (18) BS 6658B (UK)
- (19) JIST8133-A (Japan)
- (20) JIST8133-B (Japan)
- (21) JIST8133-C (Japan)
- (22) CSA D230 (Canada)
- (23) AS 1698 (Australia)
- (24) MS 1 (Malaysia)
- (25) NZS 5430 (New Zealand)
- (26) SS-9 (Singapore)
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

17. Labeled Size

CONVERT TO CODE IF EXACT SIZE IS SHOWN

- _____
- (01) youth small/medium
- (02) youth large/extra large
- (03) adult extra small
- (04) adult small
- (05) adult medium
- (06) adult large
- (07) adult extra large
- (08) adult extra, extra large
- (98) other (specify) _____
- (99) unknown

18. Helmet Mass

CODE IN OUNCES; INCLUDE ALL APPLIANCES ATTACHED AND WORN AT THE TIME OF THE CRASH

- (001–996) helmet mass in ounces _____
- (999) unknown

19. Condition Prior to Crash _____

- (01) no significant prior damage
- (02) minor damage, possibly from handling and use, but no prior structural damage
- (03) moderate damage to exterior finish and comfort pads, possibly from handling and use, but no prior structural damage
- (04) significant prior damage to shell or liner but not in area of accident impact
- (05) significant prior damage to shell or liner located in area of most severe accident impact
- (06) significant prior damage to shell or liner located in area of second most severe accident impact
- (98) other (specify) _____
- (99) unknown

20. Type of Helmet Retention System _____

- (00) no retention system
- (01) double D-rings
- (02) slide bar
- (03) quick fasten/release or barb sides fitting
- (04) quick fasten/release, D blade-type fitting (like auto seatbelt)
- (05) lever clamp latch
- (98) other (specify) _____
- (99) unknown

21. Was Helmet Retained in Place on Head During Crash? _____

- (01) yes, helmet retained in place to completion of accident events
- (02) yes, helmet moved on head but was retained
- (03) no, helmet ejected from head during pre-crash time period
- (04) no, helmet ejected from head during crash
- (05) no, helmet ejected from head after collision
- (98) other (specify) _____
- (99) unknown

22. Was there a Retention-System Failure? _____

- (01) no
- (02) yes
- (97) not applicable, no retention system
- (99) unknown

23. Type of Retention-System Failure? _____

- (00) no retention-system failure
- (01) chinstrap pulled through D-rings, slide bar, or clamp latch
- (02) quick release let go
- (03) hanger fitting failed
- (04) shell rivets failed
- (05) webbing tensile failure
- (06) stitching failure in webbing
- (07) webbing laceration
- (97) not applicable, no retention system
- (98) other (specify) _____
- (99) unknown

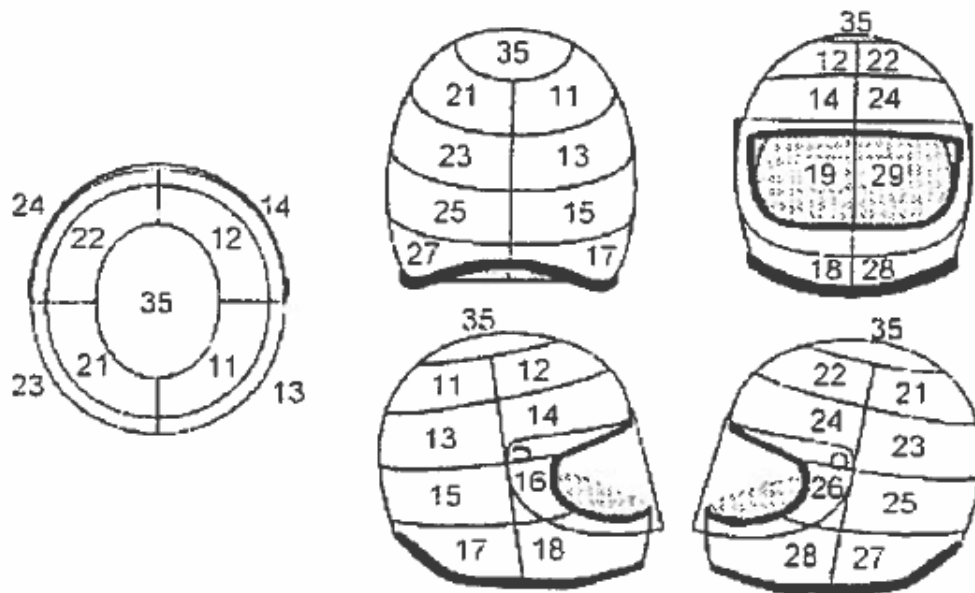
24. Hemet External Damage Marks

CODE UP TO FIVE IN ORDER OF SEVERITY, INCLUDING HELMET LOCATION CODES; INPUT 00 FOR REMAINING RESPONSES

Type of Damage	Location Code
1.	
2.	
3.	
4.	
5.	

_____ = no data available.

- (00) no significant damage
- (01) freckles, small indentations, pockmarks
- (02) abrasion
- (03) fracture through full thickness of shell
- (04) crack, split, not a through-and-through fracture
- (05) delamination, gross
- (06) microdelamination, audible but not visible
- (07) puncture
- (08) rubber transfer
- (09) paint transfer
- (98) other (specify) _____
- (99) unknown



Source: OECD.

Figure 17. Illustration. Helmet external location codes.

GENERAL HELMET EXAMINATION

25. Type of Helmet

- (01) motor vehicle, motorcycle _____
- (02) sports, football _____
- (03) bicycle _____
- (04) industrial safety _____
- (05) equestrian _____
- (06) riot, police _____
- (07) aviation, aircraft _____
- (08) military, ballistic _____
- (09) novelty _____
- (98) other (specify) _____
- (99) unknown _____

26. Lens or Shield Material, if Used

- (00) no lens or shield _____
- (01) plastic, cellulose acetate or butyrate _____
- (02) acrylic, Perspex™ _____
- (03) polycarbonate _____
- (04) glass, unmodified _____
- (05) glass, shatterproof _____
- (98) other (specify) _____
- (99) unknown _____

27. Eye-Coverage Damage Locations

CODE UP TO FOUR DAMAGE LOCATIONS IN ORDER OF DAMAGE SEVERITY; INPUT 00 FOR REMAINING RESPONSES

- _____
- _____
- _____
- _____
- (00) no damage
- (01) left lens
- (02) right lens
- (03) frame
- (97) not applicable, no eye coverage
- (99) unknown

28. Type of Damage to Eye Coverage

CODE UP TO FOUR TYPES OF DAMAGE IN THE SAME ORDER AS DAMAGE LOCATIONS LISTED IN # 27; INPUT 00 FOR REMAINING RESPONSES

- _____
- _____
- _____
- _____
- (00) no damage
- (01) crack, break, chip
- (02) abrasion
- (03) deformation
- (04) item lost during crash
- (97) not applicable, no eye coverage
- (98) other (specify) _____
- (99) unknown _____

29. Retention-System Misuse

- (00) no misuse _____
- (01) fastened too loosely, allowed helmet removal without unfastening
- (02) cannot be fastened because of frayed and unrepaired retention-system webbing
- (03) retention system not fastened because of prior damage to retention-system hardware
- (04) retention system not properly fastened; end snap or Velcro® comfort feature used to fasten strap
- (05) chin cup used on chinstrap
- (97) not applicable, no retention system
- (98) other (specify) _____
- (99) unknown

Helmet Tested?

- Yes
- No

PART B—HELMET TEST DATA
Most Severe Helmet Impact For # 30 to 53

30. Type of Impact
EXTERNAL EXAM

- (00) no impact _____
- (01) essentially normal
- (02) essentially tangential
- (03) both normal and tangential evidence
- (04) crushing, exterior force application
- (05) crushing, coincident external and interior forces
- (98) other (specify) _____
- (99) unknown

31. Impact Location

- (00) no impact _____
- (01) shell, including integral chin bar
- (02) edge bead
- (03) shell edge without edge bead
- (04) chinstrap webbing, cover
- (05) chinstrap hanger fitting
- (06) helmet liner, crown
- (07) chin strap fastening, D-rings, slide bar, buckle, quick fasten/release
- (08) comfort padding, crown
- (09) accessory radio equipment, microphone, boom, speakers
- (10) appliance chin guard, mouth protector
- (11) face shield, integral
- (12) liner or padding underneath chin bar, integral
- (13) face shield, snap-on accessory
- (14) visor, peak
- (15) chin bar of full-face helmet
- (98) other (specify) _____
- (99) unknown

32. Clockface Location

MOST SEVERE IMPACT

- Left-Side View _____
- Top View _____
- Right-Side View _____
- Top View _____

- (00) no impact
- (01–12) o'clock direction
- (98) other (specify) _____
- (99) unknown

33. Number of Distinct Impacts at This Location

CODE THE TOTAL NUMBER OF DISTINCT IMPACTS AT THIS LOCATION

- (00) no impact _____
- (01–08) number of distinct impacts
- (99) unknown

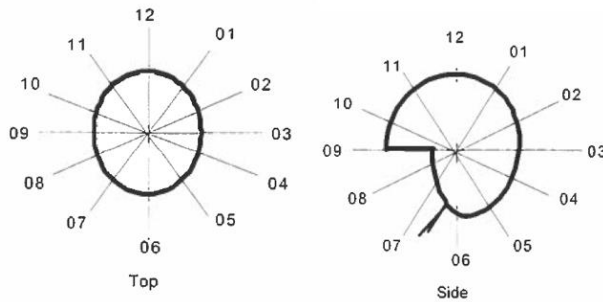
34. Shell Material

- (00) no shell _____
- (01) hand-laminated glass fiber
- (02) machine chop, pressure-molded glass fiber
- (03) polycarbonate
- (04) acetyl butadiene styrene
- (05) nylon, derivative
- (06) polypropylene, reinforced
- (07) polyethylene
- (08) polystyrene
- (98) other (specify) _____
- (99) unknown

35. Shell Thickness

CODE IN HUNDREDTHS OF AN INCH

- (0.01–9.96) hundredths of an inch _____
- (9.97) not applicable, no shell
- (9.99) unknown



Source: OECD.

Figure 18. Illustration. Clock face locations.

36. Liner Material

- (00) no liner, including comfort pads
- (01) expanded polystyrene, large bead
- (02) expanded polystyrene, small bead
- (03) polyurethane
- (04) Ethafoam®
- (05) neoprene sponge, Rubatex®, nitrile vinyl pad
- (06) expanded polypropylene
- (07) headband suspension system
- (97) not applicable
- (98) other (specify)
- (99) unknown

37. Liner Thickness

CODE IN HUNDREDTHS OF AN INCH

- (0.01–9.96) hundredths of an inch
- (9.97) not applicable, no liner
- (9.99) unknown

38. Liner Density

CODE IN POUNDS PER CUBIC FOOT (lb/ft³)

- (0.01–9.96) pounds per cubic foot
- (9.97) not applicable, no liner
- (9.99) unknown

39. Maximum Liner Crush

CODE IN HUNDREDTHS OF AN INCH

- (0.00) no liner crush
- (0.01–9.96) hundredths of an inch
- (9.97) not applicable, no liner
- (9.99) unknown

40. Area of Liner Crush or Signature

CODE IN SQUARE INCHES TO TWO DECIMAL PLACES

- (00.01–99.96) square inches
- (99.97) not applicable, no liner
- (99.99) unknown

41. Geometry of Impacting Surface

- (00) no impact
- (01) complex, not easily described
- (02) flat
- (03) spherical, large radius
- (04) spherical, small radius
- (05) cylindrical, large radius
- (06) cylindrical, small radius
- (07) sharp edge
- (08) blunt edge
- (09) point
- (98) other (specify) _____
- (99) unknown

42. Material of Impacting Surface

- (00) no impact
- (01) liquid, water
- (02) solid metal (e.g., lamppost)
- (03) sheet metal, less than 0.15-inch thick
- (04) curbstone
- (05) solid masonry, concrete structure, large rock
- (06) rolled asphalt (e.g., road surface)
- (07) troweled or brush-finished concrete pavement
- (08) compacted dirt
- (09) gravel, small rock
- (10) wood, post, solid fiber
- (11) glass
- (12) loose dirt, sand
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

43. Which Headform Is Used for Replication Testing?

- (01) ISO A _____
- (02) ISO E _____
- (03) ISO J _____
- (04) ISO M _____
- (05) ISO O _____
- (06) USDOT small _____
- (07) USDOT medium _____
- (08) USDOT large _____
- (09) Hybrid III _____
- (10) Hybrid II _____
- (11) NOCSAE _____
- (97) not applicable _____
- (98) other (specify) _____

44. Mass of Replication Drop Apparatus
CODE IN POUNDS; NOT INCLUDING HELMET

- (01–96) pounds _____

45. Equivalent Laboratory Testing Anvil

- (00) no anvil _____
- (01) flat steel anvil _____
- (02) hemispherical steel anvil _____
- (03) steel-edge anvil _____
- (04) curb anvil _____
- (05) cylindrical anvil _____
- (06) penetration point _____
- (07) steel-angle edge _____
- (08) flat pavement _____
- (09) sheet metal _____
- (10) windshield glass _____
- (97) not applicable _____
- (98) other (specify) _____

46. Helmet Impact Velocity From Crash Reconstruction
CODE IN MILES PER HOUR AND TENTHS

- (00.0) no velocity calculated _____
- (00.1–99.6) miles per hour and tenths _____
- (99.9) unknown _____

47. Impact Velocity From Laboratory Replication
CODE IN MILES PER HOUR AND TENTHS

- (00.0) no velocity calculated _____
- (00.1–99.6) miles per hour and tenths _____
- (99.9) unknown _____

48. Peak Headform Acceleration

- (000) not calculated _____
- (001–996) measure of acceleration (g) _____

49. Dwell Time Above 200 g
CODE IN MILLISECONDS PER USDOT 218

- (0.0) not calculated _____
- (0.1–9.6) milliseconds _____

50. Head Injury Criteria (HIC)

- (0000) not calculated _____
- (0001–9996) HIC value _____

51. Gadd Severity Index (GSI)

- (0000) not calculated _____
- (0001–9996) GSI value _____

52. Equivalent Specific Energy/Equivalent Drop Height From Crash Reconstruction
CODE IN FEET AND TENTHS

- (00.0) not calculated _____
- (00.1–99.5) feet and tenths _____
- (99.6) 99.6 feet or greater _____
- (99.9) unknown _____

53. Equivalent Specific Energy/Equivalent Drop Height From Laboratory Replication
CODE IN FEET AND TENTHS

- (00.0) not calculated _____
- (00.1–99.5) feet and tenths _____
- (99.6) 99.6 feet or greater _____
- (99.9) unknown _____

Second Most Severe Helmet Impact For # 54 to 77

54. Type of Impact
CODE FROM EXTERNAL EXAM

- (00) no impact _____
- (01) essentially normal _____
- (02) essentially tangential _____
- (03) both normal and tangential evidence _____
- (04) crushing, exterior force application _____
- (05) crushing, coincident external and interior forces _____
- (97) not applicable _____
- (98) other (specify) _____
- (99) unknown _____

55. Impact Location

- (00) no impact
- (01) shell, including integral chin bar
- (02) edge bead
- (03) shell edge without edge bead
- (04) chinstrap webbing, cover
- (05) chinstrap hanger fitting
- (06) helmet liner, crown
- (07) chin strap fastening, D-rings, slide bar, buckle, and quick fasten/release
- (08) comfort padding, crown
- (09) accessory radio equipment, microphone, boom, speakers
- (10) appliance chin guard, mouth protector
- (11) face shield, integral
- (12) liner or padding underneath chin bar, integral
- (13) face shield, accessory snap-on
- (14) visor, peak
- (15) chin bar of full-face helmet
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

56. Clock Face Location

- Left-Side View _____
- Top View _____
- Right-Side View _____
- Top View _____

- (00) no impact
- (01–12) o'clock direction
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

57. Number of Distinct Impacts at This Location

CODE THE TOTAL NUMBER OF DISTINCT IMPACTS AT THIS LOCATION

- (00) no impact
- (01–08) number of distinct impacts
- (97) not applicable
- (99) unknown

58. Shell Material

- (00) no shell
- (01) hand-laminated glass fiber
- (02) machine chop, pressure-molded glass fiber
- (03) polycarbonate
- (04) acetyl butadiene styrene
- (05) nylon, derivative
- (06) polypropylene, reinforced
- (07) polyethylene
- (08) polystyrene
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

59. Shell Thickness

CODE IN HUNDRETHS OF AN INCH

- (0.01–9.96) hundredths of an inch
- (9.97) not applicable
- (9.99) unknown

60. Liner Material

- (00) no liner, including comfort pads
- (01) expanded polystyrene, large bead
- (02) expanded polystyrene, small bead
- (03) polyurethane
- (04) Ethafoam®
- (05) neoprene sponge, Rubatex®, nitrile vinyl pad
- (06) expanded polypropylene
- (07) headband suspension system
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

61. Liner Thickness

CODE IN HUNDRETHS OF AN INCH

- (0.01–9.96) hundredths of an inch
- (9.97) not applicable, no liner
- (9.99) unknown

62. Liner Density

CODE IN POUNDS PER CUBIC FOOT (lb/ft³)

- (0.01–9.96) pounds per cubic foot
- (9.97) not applicable, no liner
- (9.99) unknown

63. Maximum Liner Crush

CODE IN HUNDRETHS OF AN INCH

- (0.00) no liner crush
- (0.01–9.96) hundredths of an inch
- (9.97) not applicable, no liner
- (9.99) unknown

64. Area of Liner Crush or Signature

CODE IN SQUARE INCHES TO TWO DECIMAL PLACES

- (00.01–99.96) square inches
- (99.97) not applicable, no liner
- (99.99) unknown

65. Geometry of Impacting Surface

- (00) no impact
- (01) complex, not easily described
- (02) flat
- (03) spherical, large radius
- (04) spherical, small radius
- (05) cylindrical, large radius
- (06) cylindrical, small radius
- (07) sharp edge
- (08) blunt edge
- (09) point
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

66. Material of Impacting Surface _____

- (00) no impact
- (01) liquid, water
- (02) solid metal (e.g., lamppost)
- (03) sheet metal, less than 0.15-inch thick
- (04) curbstone
- (05) solid masonry, concrete structure, large rock
- (06) rolled asphalt (e.g., road surface)
- (07) troweled or brush-finished concrete pavement
- (08) compacted dirt
- (09) gravel, small rock
- (10) wood, post, solid fiber
- (11) glass
- (12) loose dirt, sand
- (97) not applicable
- (98) other (specify) _____
- (99) unknown

LABORATORY REPLICATION

67. Which Headform Is Used for Replication Testing? _____

- (01) ISO A
- (02) ISO E
- (03) ISO J
- (04) ISO M
- (05) ISO O
- (06) USDOT small
- (07) USDOT medium
- (08) USDOT large
- (09) Hybrid III
- (10) Hybrid II
- (11) NOCSAE
- (97) not applicable
- (98) other (specify) _____

68. Mass of Replication Drop Apparatus
CODE IN POUNDS; NOT INCLUDING HELMET _____

- (01–96) pounds
- (97) not applicable

69. Equivalent Laboratory Testing Anvil _____

- (00) no anvil
- (01) flat steel anvil
- (02) hemispherical steel anvil
- (03) steel-edge anvil
- (04) curb anvil
- (05) cylindrical anvil
- (06) penetration point
- (07) steel-angle edge
- (08) flat pavement
- (09) sheet metal
- (10) windshield glass
- (97) not applicable
- (98) other (specify) _____

70. Helmet Impact Velocity From Crash Reconstruction
CODE IN MILES PER HOUR AND TENTHS _____

- (00.0) no velocity calculated
- (00.1–99.6) miles per hour and tenths
- (99.7) not applicable
- (99.9) unknown

71. Impact Velocity From Laboratory Replication
CODE IN MILES PER HOUR AND TENTHS _____

- (00.0) no velocity calculated
- (00.1–99.6) miles per hour and tenths
- (99.7) not applicable
- (99.9) unknown

72. Peak Headform Acceleration _____

- (000) not calculated
- (001–996) measure of acceleration (g)
- (997) not applicable

73. Dwell Time Above 200g
CODE IN MILLISECONDS PER USDOT 218 _____

- (0.0) not calculated
- (0.1–9.6) milliseconds
- (9.7) not applicable

74. Head Injury Criteria (HIC) _____

- (0000) not calculated
- (0001–9996) HIC value
- (9997) not applicable

75. Gadd Severity Index, GSI _____

- (0000) not calculated
- (0001–9996) GSI value
- (9997) not applicable

76. Equivalent Specific Energy/Equivalent Drop Height From Crash Reconstruction
CODE IN FEET AND TENTHS _____

- (00.0) not calculated
- (00.1–99.5) feet and tenths
- (99.6) 99.6 feet or greater
- (99.7) not applicable
- (99.9) unknown

77. Equivalent Specific Energy/Equivalent Drop Height from Laboratory Replication
CODE IN FEET AND TENTHS _____

- (00.0) not calculated
- (00.1–99.5) feet and tenths
- (99.6) 99.6 feet or greater
- (99.7) not applicable
- (99.9) unknown

APPENDIX B. VARIABLE NAMES PER FORM

Table 9. List of variables in the Crash Data Form.

Variable Number	Variable	SAS® and Excel™ Variable Name
0	Case Number	CF000_CASEID
1	Day of Week Crash Occurred	CF001_CRASHDAY
2	Time of Day Crash Occurred	CF002_CRASHTIME
3	First Harmful Event for Motorcycle	CF003_MCFIRSTHARMEVNT
3 (cont.)	First Harmful Event for Motorcycle - Text	CF003_MCFIRSTHARMEVNTTXT
4	MC vs. MC - Matching Case Number	CF004_TWOMCOTHERCASEID
5	Present at Crash Scene (Code up to 4, Item 1)	CF005_PRESENTONSCENE1
5 (cont.)	Present at Crash Scene (Code up to 4, Item 2)	CF005_PRESENTONSCENE2
5 (cont.)	Present at Crash Scene (Code up to 4, Item 3)	CF005_PRESENTONSCENE3
5 (cont.)	Present at Crash Scene (Code up to 4, Item 4)	CF005_PRESENTONSCENE4
5 (cont.)	Present at Crash Scene - Text	CF005_PRESENTONSCENETXT
6	Number of Other Vehicles Involved	CF006_OVCOUNT
6 (cont.)	Number of Other Vehicles Involved - Text	CF006_OVCOUNTTXT
7	Number of Pedestrians Involved	CF007_PEDESTRNCOUNT
7 (cont.)	Number of Pedestrians Involved - Text	CF007_PEDESTRNCOUNTTXT
8	Number of Motorcycle Passengers	CF008_MCPASSENGERCOUNT
9	Fatal Injuries Involved	CF009_FATALITY
10	Crash Configuration	CF010_CRASHCONFIG
10 (cont.)	Crash Configuration - Text	CF010_CRASHCONFIGTXT
11	Light Conditions	CF011_AMBIENTLIGHT
11 (cont.)	Light Conditions - Text	CF011_AMBIENTLIGHTTXT
12	Ambient Temperature	CF012_AMBIENTTEMP
12 (cont.)	Ambient Temperature - Text	CF012_AMBIENTTEMPSIGN
13	Weather Description	CF013_WEATHER
13 (cont.)	Weather Description - Text	CF013_WEATHERTXT
14	Wind Description	CF014_WINDSTRENGTH
14 (cont.)	Wind Description - Text	CF014_WINDSTRENGTHTXT
15	Wind Direction With Respect to Motorcycle Path	CF015_WINDDIRECTIONTOMC
15 (cont.)	Wind Direction With Respect to Motorcycle Path - Text	CF015_WINDDIRECTIONTOMCTXT

Table 10. List of variables in the Environment Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	EF000_CASEID
1	Type of Land Development on Same Side of Street	EF001_LANDUSESAMESIDEOFSTREET
1 (cont.)	Type of Land Development on Other Side of Street	EF001_LANDUSEOTHERSIDEOFSTREET
1 (cont.)	Type of Land Development - Text	EF001_LANDUSETXT
2	Relation to Junction	EF002_RELATIONTOJUNCTION
2 (cont.)	Relation to Junction - Text	EF002_RELATIONTOJUNCTIONTXT
3	Type of At-Grade Intersection	EF003_INTERSECTIONCONFIG
3 (cont.)	Type of At-Grade Intersection - Text	EF003_INTERSECTIONCONFIGTXT
4	Trafficway Description	EF004_TRAFFICPATTERN
4 (cont.)	Trafficway Description - Text	EF004_TRAFFICPATTERNTXT
5	Roadway Function	EF005_ROADWAYFUNCTION
5 (cont.)	Roadway Function - Text	EF005_ROADWAYFUNCTIONTXT
6	Posted Speed Limit in MPH	EF006_SPEEDLIMIT
6 (cont.)	Posted Speed Limit in MPH - Text	EF006_SPEEDLIMITTXT
7	Number of Through Lanes	EF007_NUMBERLANES
7 (cont.)	Number of Through Lanes - Text	EF007_NUMBERLANESTXT
8	Lane in Which Vehicle Was Traveling	EF008_MCTRAVELLANE
8 (cont.)	Lane in Which Vehicle Was Traveling - Text	EF008_MCTRAVELLANETXT
9	Lane Width - Feet	EF009_LANEWIDTHFT
9 (cont.)	Lane Width - Inches	EF009_LANEWIDTHIN
10	Roadway Width - Feet	EF010_ROADWAYWIDTHFT
10 (cont.)	Roadway Width - Inches	EF010_ROADWAYWIDTHIN
11	Type of Surface	EF011_ROADWAYTYPE
11 (cont.)	Type of Surface - Text	EF011_ROADWAYTYPEPETXT
12	Surface Condition (Code up to 4) - Item 1	EF012_ROADWAYCONDITION1
12 (cont.)	Surface Condition (Code up to 4) - Item 2	EF012_ROADWAYCONDITION2
12 (cont.)	Surface Condition (Code up to 4) - Item 3	EF012_ROADWAYCONDITION3
12 (cont.)	Surface Condition (Code up to 4) - Item 4	EF012_ROADWAYCONDITION4
12 (cont.)	Surface Condition - Text	EF012_ROADWAYCONDITIONTXT
13	Surface Special Features (Code up to 3) - Item 1	EF013_ROADWAYFEATURES1
13 (cont.)	Surface Special Features (Code up to 3) - Item 2	EF013_ROADWAYFEATURES2
13 (cont.)	Surface Special Features (Code up to 3) - Item 3	EF013_ROADWAYFEATURES3
13 (cont.)	Surface Special Features (Overbanding and Tar Snakes)	EF013_ROADWAYFEATURESTXT1
13 (cont.)	Surface Special Features (Bitumen Repair)	EF013_ROADWAYFEATURESTXT2
13 (cont.)	Surface Special Features - Text	EF013_ROADWAYFEATURESTXT3
14	Vertical Alignment	EF014_ROADWAYGRADE
14 (cont.)	Vertical Alignment - Text	EF014_ROADWAYGRADETXT
15	Horizontal Alignment	EF015_ROADWAYCURVATURE
15 (cont.)	Horizontal Alignment - Text	EF015_ROADWAYCURVATURETXT
16	Horizontal Curve Data - Curve Number	EF016_CURVENUMBER
16 (cont.)	Horizontal Curve Data - Text	EF016_CURVENUMBERTXT
16 (cont.)	Horizontal Curve Data - Radius (Feet)	EF016_CURVERADIUS
16 (cont.)	Horizontal Curve Data - Radius (Feet) - Text	EF016_CURVERADIUSTXT
16 (cont.)	Horizontal Curve Data - Chord (Feet)	EF016_CURVECHORD
16 (cont.)	Horizontal Curve Data - Chord (Feet) - Text	EF016_CURVECHORDTXT
16 (cont.)	Horizontal Curve Data - Middle Ordinate (Feet)	EF016_CURVERADIUSMIDORD
16 (cont.)	Horizontal Curve Data - Middle Ordinate (Feet) - Text	EF016_CURVERADIUSMIDORDTXT
16 (cont.)	Horizontal Curve Data - Superelevation (Percent)	EF016_CURVESUPRELEVATION
16 (cont.)	Horizontal Curve Data - Superelevation (Percent) - Text	EF016_CURVESUPRELEVATIONTXT
16 (cont.)	Horizontal Curve Data - Length (Feet)	EF016_CURVELENTH
17	Exclusive Turn Lane Presence and Type of Signal Phasing	EF017_EXCLUSIVETURNLANE
17 (cont.)	Exclusive Turn Lane Presence and Type of Signal Phasing - Text	EF017_EXCLUSIVETURNLANETXT
18	Type of Traffic Control	EF018_TRAFFICCONTROLS

Variable Number	Variable	SAS® and Excel™ Name
18 (cont.)	Type of Traffic Control - Text	EF018_TRAFFICCONTROLSTXT
19	Was Traffic Control Functioning Properly	EF019_CONTROLFUNCTIONAL
19 (cont.)	Was Traffic Control Functioning Properly - Text	EF019_CONTROLFUNCTIONALTXT
20	Traffic Control Visible to Vehicle Operator	EF020_OVSIGNALVISIBILITY
20 (cont.)	Traffic Control Visible to Vehicle Operator - Text	EF020_OVSIGNALVISIBILITYTXT
21	Traffic Control Violated by Vehicle Operator	EF021_OVSIGNALVIOLATION
21 (cont.)	Traffic Control Violated by Vehicle Operator - Text	EF021_OVSIGNALVIOLATIONTXT
22	Traffic Density at Time of Crash	EF022_TRAFFICDENSITY
22 (cont.)	Traffic Density at Time of Crash - Text	EF022_TRAFFICDENSITYTXT
23	Visibility Limitation	EF023_VISIBILITYLIMITATIONS
23 (cont.)	Visor, Windscreen Condition	EF023_VISIBILITYVISORLIMITATIONS
23 (cont.)	Visibility Limitation - Text	EF023_VISIBILITYLIMITATIONSTXT
24	Direction of Traffic in Right Lane Adjacent to Vehicle	EF024_ADJRGTLANETRAFFICFLOW
24 (cont.)	Direction of Traffic in Right Lane Adjacent to Vehicle - Text	EF024_ADJRGTLANETRAFFICFLOWTXT
24 (cont.)	Direction of Traffic in Left Lane Adjacent to Vehicle	EF024_ADJLFTLANETRAFFICFLOW
24 (cont.)	Direction of Traffic in Lane Adjacent to Vehicle - Text	EF024_ADJLFTLANETRAFFICFLOWTXT
25	Parked Vehicle Presence in Right Lane Adjacent to Vehicle	EF025_ADJPARKEDVEHICLERGT
25 (cont.)	Parked Vehicle Presence in Right Lane Adjacent to Vehicle - Text	EF025_ADJPARKEDVEHICLERGTTXT
25 (cont.)	Parked Vehicle Presence in Left Lane Adjacent to Vehicle	EF025_ADJPARKEDVEHICLELFT
25 (cont.)	Parked Vehicle Presence in Lane Adjacent to Vehicle - Text	EF025_ADJPARKEDVEHICLELFTTXT
26	Shoulder and Sidewalk Presence on Right in Area Adjacent to Vehicle Lane of Travel	EF026_ADJRGTSHOULDERORWALK
26 (cont.)	Shoulder and Sidewalk Presence on Right in Area Adjacent to Vehicle Lane of Travel - Text	EF026_ADJRGTSHOULDERORWALKTXT
26 (cont.)	Shoulder and Sidewalk Presence on Left in Area Adjacent to Vehicle Lane of Travel	EF026_ADJLFTSHOULDERORWALK
26 (cont.)	Shoulder and Sidewalk Presence in Area Adjacent to Vehicle Lane of Travel	EF026_ADJLFTSHOULDERORWALKTXT
27	Longitudinal Pavement Markings at the Edge of the Lane Traveled by the Vehicle - Right Side	EF027_RGTPAVEMENTMARKING
27 (cont.)	Longitudinal Pavement Markings at the Edge of the Lane Traveled by the Vehicle - Right Side - Text	EF027_RGTPAVEMENTMARKINGTXT
27 (cont.)	Longitudinal Pavement Markings at the Edge of the Lane Traveled by the Vehicle - Left Side	EF027_LFTPAVEMENTMARKING
27 (cont.)	Longitudinal Pavement Markings at the Edge of the Lane Traveled by the Vehicle - Text	EF027_LFTPAVEMENTMARKINGTXT
28	Pavement Markings Material - Right Side	EF028_RGTMARKINGMATERIAL
28 (cont.)	Pavement Markings Material - Right Side - Text	EF028_RGTMARKINGMATERIALTXT
28 (cont.)	Pavement Markings Material - Left Side	EF028_LFTMARKINGMATERIAL
28 (cont.)	Pavement Markings Material - Text	EF028_LFTMARKINGMATERIALTXT
29	Delineator Presence - Right Side	EF029_RGTLANEDELINEATOR
29 (cont.)	Delineator Presence - Right Side - Text	EF029_RGTLANEDELINEATORTXT
29 (cont.)	Delineator Presence - Left Side	EF029_LFTLANEDELINEATOR
29 (cont.)	Delineator Presence - Left Side - Text	EF029_LFTLANEDELINEATORTXT
30	Roadside Environment - Right Side	EF030_RGTROADSIDETERRAIN
30 (cont.)	Roadside Environment - Right Side - Text	EF030_RGTROADSIDETERRAINTXT
30 (cont.)	Roadside Environment - Left Side	EF030_LFTROADSIDETERRAIN
30 (cont.)	Roadside Environment - Text	EF030_LFTROADSIDETERRAINTXT
31	Roadside Fixed Object - Right Side	EF031_RGTROADSIDEFIXEDOBJECT
31 (cont.)	Roadside Fixed Object - Right Side - Text	EF031_RGTROADSIDEFIXEDOBJECTTXT
31 (cont.)	Roadside Fixed Object - Left Side	EF031_LFTROADSIDEFIXEDOBJECT
31 (cont.)	Roadside Fixed Object - Text	EF031_LFTROADSIDEFIXEDOBJECTTXT

Variable Number	Variable	SAS® and Excel™ Name
32	Stationary View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event (Code up to 3) - Item 1	EF032_MCRVIEWOBSTRUCTFIXED1
32 (cont.)	Stationary View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event (Code up to 3) - Item 2	EF032_MCRVIEWOBSTRUCTFIXED2
32 (cont.)	Stationary View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event (Code up to 3) - Item 3	EF032_MCRVIEWOBSTRUCTFIXED3
32 (cont.)	Stationary View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event - Text	EF032_MCRVIEWOBSTRUCTFIXEDTXT
33	Mobile View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event	EF033_MCRVIEWOBSTRUCTMOBILE
33 (cont.)	Mobile View Obstructions Along the Operator's Line of Sight at Time of Precipitating Event - Text	EF033_MCRVIEWOBSTRUCTMOBILETXT
34	Was This Crash Work-Zone Related	EF034_INWORKZONE
35	Location of Crash Within Work Zone - Text	EF035_LOCATIONINWORKZONE
35 (cont.)	Location of Crash Within Work Zone	EF035_LOCATIONINWORKZONETXT
36	Type of Work Zone	EF036_WORKZONETYPE
36 (cont.)	Type of Work Zone - Text	EF036_WORKZONETYPETXT
37	Location of First Harmful Event	EF037_FIRSTHARMEVNTLOCATION
37 (cont.)	Location of First Harmful Event - Text	EF037_FIRSTHARMEVNTLOCATIONTXT
38	If First Harmful Event is a Non-collision	EF038_FIRSTHARMEVNTMCONLY
38 (cont.)	If First Harmful Event is a Non-collision - Text	EF038_FIRSTHARMEVNTMCONLYTXT
39	If First Harmful Event is a Collision with a Non-Fixed Object	EF039_FIRSTHARMEVNTWMOBILE
39 (cont.)	If First Harmful Event is a Collision with a Non-Fixed Object - Text	EF039_FIRSTHARMEVNTWMOBILETXT
40	If First Harmful Event is a Collision with a Fixed Object	EF040_FIRSTHARMEVNTWFIXED
40 (cont.)	If First Harmful Event is a Collision with a Fixed Object - Text	EF040_FIRSTHARMEVNTWFIXEDTXT
41	Pedestrian Involvement	EF041_PEDESTRNINVOLVED
42	Location of Pedestrian at Precipitating Event - Pedestrian 1	EF042_PEDESTRNLOCPRECIPEVNT1
42 (cont.)	Location of Pedestrian at Precipitating Event - Text	EF042_PEDESTRNLOCPRECIPEVNT1TXT
42 (cont.)	Location of Pedestrian at Precipitating Event - Pedestrian 2	EF042_PEDESTRNLOCPRECIPEVNT2
42 (cont.)	Location of Pedestrian at Precipitating Event - Text	EF042_PEDESTRNLOCPRECIPEVNT2TXT
42 (cont.)	Location of Pedestrian at Precipitating Event - Pedestrian 3	EF042_PEDESTRNLOCPRECIPEVNT3
42 (cont.)	Location of Pedestrian at Precipitating Event - Text	EF042_PEDESTRNLOCPRECIPEVNT3TXT
43	Location of Pedestrian at impact - Pedestrian 1	EF043_PEDESTRNLOCATIMPACT1
43 (cont.)	Location of Pedestrian at impact - Text	EF043_PEDESTRNLOCATIMPACT1TXT
43 (cont.)	Location of Pedestrian at impact - Pedestrian 2	EF043_PEDESTRNLOCATIMPACT2
43 (cont.)	Location of Pedestrian at impact - Text	EF043_PEDESTRNLOCATIMPACT2TXT
43 (cont.)	Location of Pedestrian at impact - Pedestrian 3	EF043_PEDESTRNLOCATIMPACT3
43 (cont.)	Location of Pedestrian at impact - Text	EF043_PEDESTRNLOCATIMPACT3TXT
44	Animal Involvement	EF044_ANIMALINVOLVED
44 (cont.)	Animal Involvement - Text	EF044_ANIMALINVOLVEDTXT
45	Was the Animal Struck	EF045_ANIMALSTRUCK
46	Roadway Design Factors	EF046_ROADWAYDESIGNCONTRIB
46 (cont.)	Roadway Design Factors - Text	EF046_ROADWAYDESIGNCONTRIBTXT
47	Roadway Maintenance Factors	EF047_ROADWAYMAINTCONTRIB
47 (cont.)	Roadway Maintenance Factors - Text	EF047_ROADWAYMAINTCONTRIBTXT
48	Traffic Control Factors	EF048_TRAFFICCONTROLCONTRIB
48 (cont.)	Traffic Control Factors - Text	EF048_TRAFFICCONTROLCONTRIBTXT
49	Traffic Hazard, including Construction and Maintenance Operations	EF049_TEMPHAZARDCONTRIB
49 (cont.)	Traffic Hazard, including Construction and Maintenance Operations - Text	EF049_TEMPHAZARDCONTRIBTXT

Variable Number	Variable	SAS® and Excel™ Name
50	Weather-Related Problems	EF050_WEATHERCONTRIB
50 (cont.)	Weather-Related Problems - Text	EF050_WEATHERCONTRIBTXT
51	Effect of the Visual Background of Other Vehicle Along This Operator/Rider's Line of Sight at Time of Precipitating Event	EF051_MCVISUALBKGROUNDOFOV
51 (cont.)	Effect of the Visual Background of Other Vehicle Along This Operator/Rider's Line of Sight at Time of Precipitating Event - Text	EF051_MCVISUALBKGROUNDOFOVTXT

Table 11. List of variables in the Contributing Factors Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	FF000_CASEID
1	Roadway Design Issue	FF001_ROADWAYDESIGNONMC
1 (cont.)	Roadway Design Issue - Text	FF001_ROADWAYDESIGNONMCTXT
2	Roadway Maintenance Issue	FF002_ROADWAYMAINTENANCEONMC
2 (cont.)	Roadway Maintenance Issue - Text	FF002_ROADWAYMAINTENANCEONMCTXT
3	Traffic Controls Issue or Malfunction	FF003_TRAFFICISSUEONMC
3 (cont.)	Traffic Controls Issue or Malfunction - Text	FF003_TRAFFICISSUEONMCTXT
4	Temporary Traffic Obstruction including Construction	FF004_TEMPOBSTRUCTIONONMC
4 (cont.)	Temporary Traffic Obstruction including Construction - Text	FF004_TEMPOBSTRUCTIONONMCTXT
5	Weather-Related Problem	FF005_WEATHERONMC
5 (cont.)	Weather-Related Problem - Text	FF005_WEATHERONMCTXT
6	Visual Background of Other Vehicle along Motorcycle Rider's Line of Sight Prior to Crash	FF006_VISUALBKGRNDOFOVTOMCR
6 (cont.)	Visual Background of Other Vehicle along Motorcycle Rider's Line of Sight Prior to Crash - Text	FF006_VISUALBKGRNDOFOVTOMCRTXT
7	Effect of Insect Presence on the Rider	FF007_INSECTEFFECT
7 (cont.)	Effect of Insect Presence on the Rider - Text	FF007_INSECTEFFECTTXT
8	MC Front Tire Size	FF008_FRONTMCTIRESIZE
8 (cont.)	MC Front Tire Size - Text	FF008_FRONTMCTIRESIZETXT
8 (cont.)	MC Rear Tire Size	FF008_REARMCTIRESIZE
8 (cont.)	MC Rear Tire Size - Text	FF008_REARMCTIRESIZETXT
9	MC Front Tire Inflation Pressure	FF009_FRONTMCTIREPSI
9 (cont.)	MC Front Tire Inflation Pressure - Text	FF009_FRONTMCTIREPSITXT
9 (cont.)	MC Rear Tire Inflation Pressure	FF009_REARMCTIREPSI
9 (cont.)	MC Rear Tire Inflation Pressure - Text	FF009_REARMCTIREPSITXT
10	Crash Causation Related to MC Front Tire or Wheel Condition	FF010_FRONTWHEELCONDITION
10 (cont.)	Crash Causation Related to MC Front Tire or Wheel Condition - Text	FF010_FRONTWHEELCONDITIONTXT
10 (cont.)	Crash Causation Related to MC Rear Tire or Wheel Condition	FF010_REARWHEELCONDITION
10 (cont.)	Crash Causation Related to MC Rear Tire or Wheel Condition - Text	FF010_REARWHEELCONDITIONTXT
11	Crash Causation Related to MC Suspension Condition	FF011_SUSPENSIONCONDITION
11 (cont.)	Crash Causation Related to MC Suspension Condition - Text	FF011_SUSPENSIONCONDITIONTXT
12	Crash Causation Related to MC Frame Condition	FF012_FRAMECONDITION
12 (cont.)	Crash Causation Related to MC Frame Condition - Text	FF012_FRAMECONDITIONTXT
13	Crash Causation Related to MC Cornering Clearance	FF013_CORNERINGCLEARANCE
13 (cont.)	Crash Causation Related to MC Cornering Clearance - Text	FF013_CORNERINGCLEARANCETXT
14	Crash or Injury Causation Related to MC Seat	FF014_SEAT
14 (cont.)	Crash or Injury Causation Related to MC Seat - Text	FF014_SEATTXT
15	Crash/Injury Causation Related to MC Gas Tank Design/Orientation	FF015_GASTANK
15 (cont.)	Crash/Injury Causation Related to MC Gas Tank Design/Orientation - Text	FF015_GASTANKTXT
16	Crash Causation Related to MC Drive Chain, Belt, or Shaft Condition	FF016_DRIVETRAIN
16 (cont.)	Crash Causation Related to MC Drive Chain, Belt, or Shaft Condition - Text	FF016_DRIVETRAINTXT
17	Crash or Injury Causation Related to MC Exhaust System Condition	FF017_EXHAUST

Variable Number	Variable	SAS® and Excel™ Name
17 (cont.)	Crash or Injury Causation Related to MC Exhaust System Condition - Text	FF017_EXHAUSTTXT
18	Motorcycle Vehicle Failure, Crash Causation Related Defect	FF018_MCFailure
18 (cont.)	Motorcycle Vehicle Failure, Crash Causation Related Defect - Text	FF018_MCFailureTXT
19	Was MC Pre-Crash Fire Cause of Crash?	FF019_MCFIRE
19 (cont.)	Was MC Pre-Crash Fire Cause of Crash? - Text	FF019_MCFIRETXT
20	MC Cargo/Luggage Contribution to Crash	FF020_MCCARGO
20 (cont.)	MC Cargo/Luggage Contribution to Crash - Text	FF020_MCCARGOTXT
21	Rider Unsafe Acts in this Crash	FF021_MCRUNSAFEACT
21 (cont.)	Rider Unsafe Acts in this Crash - Text	FF021_MCRUNSAFEACTTXT
22	MC Rider Attention Failure/Distraction or Stress Contribution to Crash	FF022_MCRDISTRACTION
23	Did Motorcyclist's Lane Choice Contribute to Crash Causation?	FF023_MCRLANECHOICE
24	Did Motorcyclist's Traffic Scan Contribute to Crash Causation?	FF024_MCRTRAFFICSCAN
25	Did Motorcyclist's Visual Obstructions Contribute to Crash Causation?	FF025_MCRVISUALOBSTRUCTION
26	Did the Motorcyclist Hazard Detection Failure Contribute to Crash Causation?	FF026_MCRHAZARDDETECTION
27	Did the Motorcyclist's Faulty Traffic Strategy Contribute to Crash Causation?	FF027_MCRTRAFFICSTRATEGY
28	Did the Motorcycle Speed as Compared to Surrounding Traffic Contribute to Crash Causation?	FF028_MCRELATIVESPEED
29	Did the Motorcycle's Position with Respect to Other Traffic Contribute to Crash Causation?	FF029_MCTRAFFICPOSITION
30	Was There a Motorcyclist's Loss of Control that Contributed to Crash Causation?	FF030_MCRCONTROLLOSS
30 (cont.)	Was There a Motorcyclist's Loss of Control that Contributed to Crash Causation? - Text	FF030_MCRCONTROLLOSSTXT
31	Did the Motorcyclist's Control Unfamiliarity Contribute to Crash Causation?	FF031_MCRFAMILIARITYWCONTROLS
32	Did the Motorcyclist's Skills Deficiency Contribute to Crash Causation?	FF032_MCRSKILLDEFICIENCY
33	Did the Motorcyclist's Vehicle Handling Unfamiliarity Contribute to Crash Causation?	FF033_MCRHANDLINGABILITY
34	Did Motorcyclist's Control Operations Interfere with Driving Tasks?	FF034_MCRCONTROLACTIVATION
34 (cont.)	Did Motorcyclist's Control Operations Interfere with Driving Tasks? - Text	FF034_MCRCONTROLACTIVATIONTXT
35	Why did the Motorcyclist Fail to Avoid the Crash	FF035_MCRVOIDANCEFAILURE
35 (cont.)	Why did the Motorcyclist Fail to Avoid the Crash - Text	FF035_MCRVOIDANCEFAILURETXT
36	Validity of Evasive Action for the Situation?	FF036_MCREVASIVEACTCHOSEN
37	Competent Execution of Evasive Action	FF037_MCREVASIVEACTEXECUTION
37 (cont.)	Competent Execution of Evasive Action - Text	FF037_MCREVASIVEACTEXECUTIONTXT
38	Why Collision-Avoidance Maneuver Failed	FF038_MCRVOIDANCEFAILURE
38 (cont.)	Why Collision-Avoidance Maneuver Failed - Text	FF038_MCRVOIDANCEFAILURETXT
39	Motorcyclist Language Barriers or Difficulty with Sign Comprehension	FF039_MCRLANGUAGEBARRIER
39 (cont.)	Motorcyclist Language Barriers or Difficulty with Sign Comprehension - Text	FF039_MCRLANGUAGEBARRIERTXT
40	Did the Motorcyclist's Traffic Knowledge Deficiency Contribute to Crash Causation?	FF040_MCRLACKOFTRAFFICKNOWLEDGE
41	Did the Motorcyclist's Vehicle Control Skill Deficiency Contribute to Crash Causation?	FF041_MCRCONTROLSKILLDEFICIENCY

Variable Number	Variable	SAS® and Excel™ Name
42	Did the Motorcyclist's Aggressive Attitude Contribute to Crash Causation?	FF042_MCRAGGRESATTITUDECONTRIB
43	Did a Situation Incompatibility Contribute to Crash Causation?	FF043_MCRSITUATIONINCONTRIB
44	Did the Motorcyclist's Compensation Failure Contribute to Crash Causation?	FF044_MCRCOMPENSATEFAILCONTRIB
45	Did the Motorcyclist's Unsafe Act Contribute to Crash Causation?	FF045_MCRUNSAFEACTCONTRIB
46	Did the Motorcyclist's Alcohol/Drug Involvement Contribute to Crash Causation?	FF046_MCRDRUGCONTRIBUTION
47	Were the Motorcyclist's Previous Recorded Violations Related to Current Crash Contributions?	FF047_MCRRELATEDPRIORVIOLATIONS
48	Were the Motorcyclist's Previous Crashes Related to Current Crash Contributions?	FF048_MCRRELATEDPRIORCRASH
49	Did Upper Extremities and Upper Torso Coverage Reduce or Prevent Injury?	FF049_MCRUPPERTORSOPROTECT
49 (cont.)	Did Upper Extremities and Upper Torso Coverage Reduce or Prevent Injury? - Text	FF049_MCRUPPERTORSOPROTECTTXT
50	Did Lower Extremities and Lower Torso Coverage Reduce or Prevent Injury?	FF050_MCRLOWERTORSOPROTECT
50 (cont.)	Did Lower Extremities and Lower Torso Coverage Reduce or Prevent Injury? - Text	FF050_MCRLOWERTORSOPROTECTTXT
51	Did Footwear Reduce or Prevent Injury	FF051_MCRFOOTPROTECTION
51 (cont.)	Did Footwear Reduce or Prevent Injury - Text	FF051_MCRFOOTPROTECTIONTXT
52	Did Gloves Reduce or Prevent Injury	FF052_MCRHANDPROTECTION
52 (cont.)	Did Gloves Reduce or Prevent Injury - Text	FF052_MCRHANDPROTECTIONTXT
53	Did Eye Protection Reduce or Prevent Injury	FF053_MCREYEPROTECTION
53 (cont.)	Did Eye Protection Reduce or Prevent Injury - Text	FF053_MCREYEPROTECTIONTXT
54	Did Eye Coverage Reduce or Prevent Injury	FF054_MCRFACEPROTECTION
54 (cont.)	Did Eye Coverage Reduce or Prevent Injury - Text	FF054_MCRFACEPROTECTIONTXT
55	Did Helmet Reduce or Prevent Injury?	FF055_MCRHEADPROTECTION
55 (cont.)	Did Helmet Reduce or Prevent Injury? - Text	FF055_MCRHEADPROTECTIONTXT
56	Did the Helmet Contribute to the Crash?	FF056_MCRHELMETCONTRIBTOCRASH
57	What Was the Effect of the Helmet (code up to 2) - Item 1	FF057_MCRHOWHELMETCONTRIB1
57 (cont.)	What Was the Effect of the Helmet (code up to 2) - Item 2	FF057_MCRHOWHELMETCONTRIB2
57 (cont.)	What Was the Effect of the Helmet - Text	FF057_MCRHOWHELMETCONTRIBUTEDTXT
58	If Helmet Was Ejected During Crash, What Was the Cause?	FF058_MCRHELMETEJECTIONCAUSE
58 (cont.)	If Helmet Was Ejected During Crash, What Was the Cause? - Text	FF058_MCRHELMETEJECTIONCAUSETXT
59	Conspicuity Contribution?	FF059_CONSPICUITYCONTRIB
59 (cont.)	Conspicuity Contribution? - Text	FF059_CONSPICUITYCONTRIBTXT
60	Did Apparel Contribute to Comfort, Fatigue, Attention?	FF060_APPARELAFFECTONMCR
60 (cont.)	Did Apparel Contribute to Comfort, Fatigue, Attention? - Text	FF060_APPARELAFFECTONMCRTXT
61	Did Apparel Contribute to Control Interference?	FF061_APPARELAFFECTMCCONTROL
61 (cont.)	Did Apparel Contribute to Control Interference? - Text	FF061_APPARELAFFECTMCCONTROLTXT
62	Did MC Passenger Contribute to Crash Causation?	FF062_MCPCONTRIBUTION
62 (cont.)	Did MC Passenger Contribute to Crash Causation? - Text	FF062_MCPCONTRIBUTIONTXT
63	Effect of Rider/Passenger Interaction on Injury Causation	FF063_MCRMCPINTERACTION1
63 (cont.)	Effect of Rider/Passenger Interaction on Injury Causation - Text	FF063_MCRMCPINTERACTION2

Variable Number	Variable	SAS® and Excel™ Name
64	Did MC Passenger's Upper Extremities and Upper Torso Coverage Reduce or Prevent Injury?	FF064_MCPUPPERTORSOPROTECTION
64 (cont.)	Did MC Passenger's Upper Extremities and Upper Torso Coverage Reduce or Prevent Injury? - Text	FF064_MCPUPPERTORSOPROTECTIONTXT
65	Did MC Passenger's Lower Extremities and Lower Torso Coverage Reduce or Prevent Injury?	FF065_MCPLOWERTORSOPROTECTION
65 (cont.)	Did MC Passenger's Lower Extremities and Lower Torso Coverage Reduce or Prevent Injury? - Text	FF065_MCPLOWERTORSOPROTECTIONTXT
66	Did MC Passenger's Footwear Reduce or Prevent Injury?	FF066_MCPFOOTPROTECTION
66 (cont.)	Did MC Passenger's Footwear Reduce or Prevent Injury? - Text	FF066_MCPFOOTPROTECTIONTXT
67	Did MC Passenger's Gloves Reduce or Prevent Injury?	FF067_MCPHANDPROTECTION
67 (cont.)	Did MC Passenger's Gloves Reduce or Prevent Injury? - Text	FF067_MCPHANDPROTECTIONTXT
68	Did MC Passenger's Eye Coverage Reduce or Prevent Injury?	FF068_MCPEYEPROTECTION
68 (cont.)	Did MC Passenger's Eye Coverage Reduce or Prevent Injury? - Text	FF068_MCPEYEPROTECTIONTXT
69	Did MC Passenger's Helmet Reduce or Prevent Injury?	FF069_MCPHEADPROTECTION
69 (cont.)	Did MC Passenger's Helmet Reduce or Prevent Injury? - Text	FF069_MCPHEADPROTECTIONTXT
70	Other Vehicle Number	FF070_INVOLVEDOVCOUNT
71	Other Vehicle Roadway Design Issue?	FF071_ROADWAYDESIGNONOV
71 (cont.)	Other Vehicle Roadway Design Issue? - Text	FF071_ROADWAYDESIGNONOVTEXT
72	Other Vehicle Roadway Maintenance Issue?	FF072_ROADWAYMAINTENANCEONOV
72 (cont.)	Other Vehicle Roadway Maintenance Issue? - Text	FF072_ROADWAYMAINTENANCEONOVTEXT
73	Other Vehicle Traffic Controls Issue or Malfunction?	FF073_TRAFFICISSUEONOV
73 (cont.)	Other Vehicle Traffic Controls Issue or Malfunction? - Text	FF073_TRAFFICISSUEONOVTEXT
74	Other Vehicle Temporary Traffic Obstruction including Construction?	FF074_TEMPOBSTRUCTIONONOV
74 (cont.)	Other Vehicle Temporary Traffic Obstruction including Construction? - Text	FF074_TEMPOBSTRUCTIONONOVTEXT
75	Other Vehicle Weather-Related Problem?	FF075_WEATHERONOV
75 (cont.)	Other Vehicle Weather-Related Problem? - Text	FF075_WEATHERONOVTEXT
76	Visual Background of Motorcycle along OV Driver's Line of Sight Prior to Crash?	FF076_VISUALBKGRNDOFMCTOOVD
76 (cont.)	Visual Background of Motorcycle along OV Driver's Line of Sight Prior to Crash? - Text	FF076_VISUALBKGRNDOFMCTOOVDTEXT
77	Other Vehicle Failure, Crash Cause Related Defect?	FF077_OVDEFECTASCAUSE
77 (cont.)	Other Vehicle Failure, Crash Cause Related Defect? - Text	FF077_OVDEFECTASCAUSETXT
78	Did Other Vehicle Passengers Contribute to Crash Causation?	FF078_OVPASCAUSE
78 (cont.)	Did Other Vehicle Passengers Contribute to Crash Causation? - Text	FF078_OVPASCAUSETXT
79	Did OV Driver's Attention Failure/Distraction or Stress Contribute to Crash Causation?	FF079_OVDDISTRACTION
80	Did OV Driver's Lane Choice Contribute to Crash Causation?	FF080_OVDLANECHOICE
81	Did OV Driver's Traffic Scan Contribute to Crash Causation?	FF081_OVDTRAFFICSCAN
82	Did OV Driver's Visual Obstructions Contribute to Crash Causation?	FF082_OVDVISUALOBSTRUCTION

Variable Number	Variable	SAS® and Excel™ Name
83	Did the OV Driver's Hazard Detection Failure Contribute to Crash Causation?	FF083_OVDHAZARDDETECTION
84	Did the OV Driver's Faulty Traffic Strategy Contribute to Crash Causation?	FF084_OVDTRAFFICSTRATEGY
85	Did the Other Vehicle's Speed as Compared to Surrounding Traffic Contribute to Crash Causation?	FF085_OVRELATIVESPEED
86	Did the Other Vehicle's Position with Respect to Other Traffic Contribute to Crash Causation?	FF086_OVTRAFFICPOSITION
87	Did the Other Vehicle Driver's Control Unfamiliarity Contribute to Crash Causation?	FF087_OVDFAMILIARITYWITHCONTROLS
88	Did the Other Vehicle Driver's Skills Deficiency Contribute to Crash Causation?	FF088_OVDSKILLDEFICIENCY
89	Did the Other Vehicle Driver's Vehicle Handling Unfamiliarity Contribute to Crash Causation?	FF089_OVDHANDLINGABILITY
90	Did the Other Vehicle Driver's Control Operations Interfere with Driving Tasks?	FF090_OVDCONTROLACTIVATION
90 (cont.)	Did the Other Vehicle Driver's Control Operations Interfere with Driving Tasks? - Text	FF090_OVDCONTROLACTIVATIONTXT
91	Did the Other Vehicle Driver Fail to Avoid the Crash Due to:	FF091_OVDAVOIDANCEFAILURE
91 (cont.)	Did the Other Vehicle Driver Fail to Avoid the Crash Due to: - Text	FF091_OVDAVOIDANCEFAILURETXT
92	Was the Evasive Action the Proper Choice for the Situation?	FF092_OVDEVASIVEACTCHOSEN
93	Was the Action Properly Executed?	FF093_OVDEVASIVEACTEXECUTION
93 (cont.)	Was the Action Properly Executed? - Text	FF093_OVDEVASIVEACTEXECUTIONTXT
94	The Other Vehicle Driver Failed Collision Avoidance Due to	FF094_OVDAVOIDANCEFAILURE
94 (cont.)	The Other Vehicle Driver Failed Collision Avoidance Due to - Text	FF094_OVDAVOIDANCEFAILURETXT
95	Did the Other Vehicle Driver Experience Language Barriers or Difficulty with Sign Comprehension?	FF095_OVDLANGUAGEBARRIER
95 (cont.)	Did the Other Vehicle Driver Experience Language Barriers or Difficulty with Sign Comprehension? - Text	FF095_OVDLANGUAGEBARRIERTXT
96	Did the Other Vehicle Driver's Traffic Knowledge Deficiency Contribute to Crash Causation?	FF096_OVDLACKOFTRAFFICKNOWLEDGE
97	Did the Other Vehicle Driver's Vehicle Control Skill Deficiency Contribute to Crash Causation?	FF097_OVDCONTROLSKILLDEFICIENCY
98	Did the Other Vehicle Driver's Aggressive Attitude Contribute to Crash Causation?	FF098_OVDAGGRESATTITUDECONTRIB
99	Did a Situation Incompatibility Contribute to Crash Causation?	FF099_OVSITUATIONINCOMPATIBILITY
100	Did the Other Vehicle Driver's Compensation Failure Contribute to Crash Causation?	FF100_OVDCOMPENSATIONFAILURE
101	Did the Other Vehicle Driver's Unsafe Act Contribute to Crash Causation?	FF101_OVDUNSAFEACTCONTRIBUTION
102	Did the Other Vehicle Driver's Alcohol/Drug Involvement Contribute to Crash Causation?	FF102_OVDDRUGCONTRIBUTION
103	Were the Other Vehicle Driver's Previous Recorded Violations Related to Current Crash Contributions?	FF103_OVDRELATEDPRIORVIOLATIONS
104	Were the Other Vehicle Driver's Previous Crashes Related to Current Crash Contributions?	FF104_OVDRELATEDPRIORCRASH
105	Primary Crash Contributing Factor	FF105_PRIMARYCONTRIBFACTOR
105 (cont.)	Primary Crash Contributing Factor - Text	FF105_PRIMARYCONTRIBFACTORTXT
106	Crash Contributing Factors (Code up to 3) - Item 1	First Two Characters of FF106_CRASHCONTRIBFACTOR1
106 (cont.)	Crash Contributing Factors (Code up to 3) - Item 2	First Two Characters of FF106_CRASHCONTRIBFACTOR2

Variable Number	Variable	SAS® and Excel™ Name
106 (cont.)	Crash Contributing Factors (Code up to 3) - Item 3	First Two Characters of FF106_CRASHCONTRIBFACTOR3
106 (cont.)	Confidence in Crash Contributing Factors - Item 1	Last Character of FF106_CRASHCONTRIBFACTOR1
106 (cont.)	Confidence in Crash Contributing Factors - Item 2	Last Character of FF106_CRASHCONTRIBFACTOR2
106 (cont.)	Confidence in Crash Contributing Factors - Item 3	Last Character of FF106_CRASHCONTRIBFACTOR3
106 (cont.)	Confidence in Crash Contributing Factors - Text	FF106CRASHCONTRIBFACTORTXT

Table 12. List of variables in the Motorcycle Rider Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	MR000_CASEID
0 (cont.)	Source	MR000_SOURCE
0 (cont.)	Motorcycle Rider Description of Crash	MR000_MCRDESCRIPTION
1	Operation of Motorcycle Immediately Prior to the Crash	MR001_PRECRASHMCOOPERATION
1 (cont.)	Operation of Motorcycle Immediately Prior to the Crash - Text	MR001_PRECRASHMCOOPERATIONTXT
2	Sight line at the Start of the Crash Sequence	MR002_PRECRASHSIGHTLINE
2 (cont.)	Sight line at the Start of the Crash Sequence - Text	MR002_PRECRASHSIGHTLINETXT
3	Functioning of Brakes Before the Crash	MR003_PRECRASHBRAKESTATUS
3 (cont.)	Functioning of Brakes Before the Crash - Text	MR003_PRECRASHBRAKESTATUSTXT
4	Status of Hands/Fingers Position on the Front Brake Prior to the Crash Event	MR004_BRAKEHANDLECOVERED
4 (cont.)	Status of Hands/Fingers Position on the Front Brake Prior to the Crash Event - Text	MR004_BRAKEHANDLECOVEREDTXT
5	Travel Lane Just Before the Precipitating Event	MR005_TRAVELLANEPREPRCIP
5 (cont.)	Travel Lane Just Before the Precipitating Event - Text	MR005_TRAVELLANEPREPRCIPTXT
6	Travel Speed Before the Precipitating Event	MR006_TRAVELSPEEDPREPRCIP
6 (cont.)	Travel Speed Before the Precipitating Event - Text	MR006_TRAVELSPEEDPREPRCIPTXT
7	Lateral Direction Movements of Your Motorcycle Immediately Before Impact	MR007_LATERALMOVEPREIMPACT
7 (cont.)	Lateral Direction Movements of Your Motorcycle Immediately Before Impact - Text	MR007_LATERALMOVEPREIMPACTTXT
8	Collision Avoidance Actions Taken (Code Up to 4) - Item 1	MR008_COLLISIONAVOIDANCEACT1
8 (cont.)	Collision Avoidance Actions Taken (Code Up to 4) - Item 2	MR008_COLLISIONAVOIDANCEACT2
8 (cont.)	Collision Avoidance Actions Taken (Code Up to 4) - Item 3	MR008_COLLISIONAVOIDANCEACT3
8 (cont.)	Collision Avoidance Actions Taken (Code Up to 4) - Item 4	MR008_COLLISIONAVOIDANCEACT4
8 (cont.)	Collision Avoidance Actions Taken - Text	MR008_COLLISIONAVOIDANCEACTTXT
9	Status of Control Of The Motorcycle	MR009_MCRCONTROLLOSS
9 (cont.)	Status of Control Of The Motorcycle - Text	MR009_MCRCONTROLLOSSTXT
10	Description of Control Loss Due To Weather, Roadway Or Mechanical Problems	MR010_OTHERFACTORCNTRLLOSS
10 (cont.)	Description of Control Loss Due To Weather, Roadway Or Mechanical Problems - Text	MR010_OTHERFACTORCNTRLLOSSTXT
11	Travel Direction of Other Vehicle With Respect To Motorcycle	MR011_OVAPPROACHPATHWRTMC
11 (cont.)	Travel Direction of Other Vehicle With Respect To Motorcycle - Text	MR011_OVAPPROACHPATHWRTMCTXT
12	Clarity of Line Of Sight To The Other Vehicle	MR012_SIGHTLINETOOVOBSCURED
12 (cont.)	Clarity of Line Of Sight To The Other Vehicle - Text	MR012_SIGHTLINETOOVOBSCUREDTEXT
13	Obscurity Of View Of The Other Vehicle	MR013_VIEWTOOVOBSCURED
13 (cont.)	Obscurity Of View Of The Other Vehicle - Text	MR013_VIEWTOOVOBSCUREDTEXT
14	Position Of Rider On The Motorcycle At The Time of The Collision	MR014_MCRCRASHPOSITIONONMC
14 (cont.)	Position Of Rider On The Motorcycle At The Time of The Collision - Text	MR014_MCRCRASHPOSITIONONMCTXT
15	State of Distraction By Any Of The Following	MR015_MCRDISTRRACTED
15 (cont.)	State of Distraction By Any Of The Following - Text	MR015_MCRDISTRRACTEDTEXT
16	Start Point Of The Trip	MR016_TRIPORIGIN
16 (cont.)	Start Point Of The Trip - Text	MR016_TRIPORIGINTXT
17	Pre-departure Checks On Your Motorcycle Before Leaving For This Trip (Code up to 4) - Item 1	MR017_PREDEPARTURECHECKS1
17 (cont.)	Pre-departure Checks On Your Motorcycle Before Leaving For This Trip (Code up to 4) - Item 2	MR017_PREDEPARTURECHECKS2
17 (cont.)	Pre-departure Checks On Your Motorcycle Before Leaving For This Trip (Code up to 4) - Item 3	MR017_PREDEPARTURECHECKS3

Variable Number	Variable	SAS® and Excel™ Name
17 (cont.)	Pre-departure Checks On Your Motorcycle Before Leaving For This Trip (Code up to 4) - Item 4	MR017_PREDEPARTURECHECKS4
17 (cont.)	Pre-departure Checks On Your Motorcycle Before Leaving For This Trip - Text	MR017_PREDEPARTURECHECKSTXT
18	Trip Destination	MR018_TRIPDESTINATION
18 (cont.)	Trip Destination - Text	MR018_TRIPDESTINATIONTXT
19	Trip Distance In Miles	MR019_ONEWAYTRIPMILEAGE
20	Frequency Of Travel On This Road On/In Any Vehicle	MR020_FREQUENCYROUTETRAVELLED
21	Riding Time Today Prior To The Crash (Hours)	MR021_RIDETIMEPRIORTOCRASHHRS
21 (cont.)	Riding Time Today Prior To The Crash (Minutes)	MR021_RIDETIMEPRIORTOCRASHMINS
21 (cont.)	Riding Time Today Prior To The Crash - Text	MR021_RIDETIMEPRIORTOCRASHTXT
22	Miles Ridden Before The Crash Occurred	MR022_MILESRODEPRIORTOCRASH
22 (cont.)	Miles Ridden Before The Crash Occurred - Text	MR022_MILESRODEPRIORTOCRASHTXT
23	At The Time Of The Crash, Were You Wearing A Helmet	MR023_WEARINGHELMET
23 (cont.)	At The Time Of The Crash, Were You Wearing A Helmet - Text	MR023_WEARINGHELMETTXT
24	Reason For Not Wearing A Helmet	MR024_NOHELMETRATIONALE
24 (cont.)	Reason For Not Wearing A Helmet - Text	MR024_NOHELMETRATIONALETXT
25	Do You Ever Wear Helmet	MR025_FREQUENCYHELMETWORN
25 (cont.)	Do You Ever Wear Helmet - Text	MR025_FREQUENCYHELMETWORNTXT
26	Was Your Helmet Properly Adjusted On Your Head	MR026_HELMETPROPERLYADJUSTED
26 (cont.)	Was Your Helmet Properly Adjusted On Your Head - Text	MR026_HELMETPROPERLYADJUSTEDTXT
27	Helmet Secure on Head	MR027_HELMETSECURELYFASTENED
27 (cont.)	Helmet Secure on Head - Text	MR027_HELMETSECURELYFASTENEDTXT
28	Type Of Helmet	MR028_HELMETTYPE
28 (cont.)	Type Of Helmet - Text	MR028_HELMETTYPETXT
29	Type Of Helmet Coverage	MR029_HELMETCOVERAGE
29 (cont.)	Type Of Helmet Coverage - Text	MR029_HELMETCOVERAGETXT
30	Predominant Color Of Helmet	MR030_HELMETCOLOR
30 (cont.)	Predominant Color Of Helmet - Text	MR030_HELMETCOLORTXT
31	Color Of The Face Shield	MR031_FACESHIELDCOLOR
31 (cont.)	Color Of The Face Shield - Text	MR031_FACESHIELDCOLORTXT
32	Is Rider Owner of This Helmet	MR032_HELMETWEARERISOWNER
32 (cont.)	Is Rider Owner of This Helmet - Text	MR032_HELMETWEARERISOWNERTXT
33	Fit Of Helmet	MR033_HELMETFIT
33 (cont.)	Fit Of Helmet - Text	MR033_HELMETFITTXT
34	Helmet Retained on Head During The Crash	MR034_HELMETRETAINEDINCRASH
34 (cont.)	Helmet Retained on Head During The Crash - Text	MR034_HELMETRETAINEDINCRASHTXT
35	Percent Helmet Use When Riding	MR035_PERCENTHELMETUSEWHENMCR
36	Conditions When Wear Helmet (Code up to 4) - Item 1	MR036_HELMETUSAGECONDITION1
36 (cont.)	Conditions When Wear Helmet (Code up to 4) - Item 2	MR036_HELMETUSAGECONDITION2
36 (cont.)	Conditions When Wear Helmet (Code up to 4) - Item 3	MR036_HELMETUSAGECONDITION3
36 (cont.)	Conditions When Wear Helmet (Code up to 4) - Item 4	MR036_HELMETUSAGECONDITION4
36 (cont.)	Conditions When Wear Helmet - Text	MR036_HELMETUSAGECONDITIONTXT
37	Physical Impairments, If Any (Code up to 3) - Item 1	MR037_PHYSICALIMPAIRMENT1
37 (cont.)	Physical Impairments, If Any (Code up to 3) - Item 2	MR037_PHYSICALIMPAIRMENT2
37 (cont.)	Physical Impairments, If Any (Code up to 3) - Item 3	MR037_PHYSICALIMPAIRMENT3
37 (cont.)	Physical Impairments, If Any (Code up to 3) - Text	MR037_PHYSICALIMPAIRMENTTXT
38	Physiological Status At The Time Of Crash (Code up to 3) - Item 1	MR038_PHYSIOLOGICALCONCERN1
38 (cont.)	Physiological Status At The Time Of Crash (Code up to 3) - Item 2	MR038_PHYSIOLOGICALCONCERN2
38 (cont.)	Physiological Status At The Time Of Crash (Code up to 3) - Item 3	MR038_PHYSIOLOGICALCONCERN3
38 (cont.)	Physiological Status At The Time Of Crash - Text4	MR038_PHYSIOLOGICALCONCERNTXT
39	Psychological Status At The Time Of Crash (Code up to 3) - Item 1	MR039_PSYCHOLOGICALCONCERN1
39 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 2	MR039_PSYCHOLOGICALCONCERN2

Variable Number	Variable	SAS® and Excel™ Name
39 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 3	MR039_PSYCHOLOGICALCONCERN3
39 (cont.)	Psychological Status At The Time Of Crash - Text	MR039_PSYCHOLOGICALCONCERN3TXT
40	Sleep In Hours 24 Hours Prior To The Crash	MR040_AMTSLEEPLAST24HRS
40 (cont.)	Sleep In Hours 24 Hours Prior To The Crash - Text	MR040_AMTSLEEPLAST24HRSTXT
41	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash	MR041_DRUGSLAST24HRS
41 (cont.)	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash - Text	MR041_DRUGSLAST24HRSTXT
42	Type Of Drugs Other Than Alcohol	MR042_NONALCOHOLICDRUGTYPE
42 (cont.)	Type Of Drugs Other Than Alcohol - Text	MR042_NONALCOHOLICDRUGTYPETXT
43	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 1	MR043_NONALCOHOLICDRUGSOURCE1
43 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 2	MR043_NONALCOHOLICDRUGSOURCE2
43 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 3	MR043_NONALCOHOLICDRUGSOURCE3
44	Is Rider Owner Of This Motorcycle	MR044_RIDEROWNSMC
44 (cont.)	Is Rider Owner Of This Motorcycle - Text	MR044_RIDEROWNSMCTXT
45	Purchase Location of This Motorcycle	MR045_WHEREMCPURCHASED
45 (cont.)	Purchase Location of This Motorcycle - Text	MR045_WHEREMCPURCHASEDTXT
46	Time The Crash-Involved Motorcycle Owned By Rider (Years)	MR046_TIMEOWNTHISMCYR
46 (cont.)	Time The Crash-Involved Motorcycle Owned By Rider (Months)	MR046_TIMEOWNTHISMCMO
46 (cont.)	Time The Crash-Involved Motorcycle Owned By Rider - Text	MR046_TIMEOWNTHISMCTXT
47	Time Street Motorcycle Operated By Rider (Years)	MR047_MCRIDINGEXPERIENCEYR
47 (cont.)	Time Street Motorcycle Operated By Rider (Months)	MR047_MCRIDINGEXPERIENCEMO
47 (cont.)	Time Street Motorcycle Operated By Rider - Text	MR047_MCRIDINGEXPERIENCETXT
48	Time The Crash-Involved Motorcycle Operated By Rider (Years)	MR048_RIDINGEXPERIENCETHISMCYR
48 (cont.)	Time The Crash-Involved Motorcycle Operated By Rider (Months)	MR048_RIDINGEXPERIENCETHISMCMO
48 (cont.)	Time The Crash-Involved Motorcycle Operated By Rider - Text	MR048_RIDINGEXPERIENCETHISMCTXT
49	Average Number Of Days/Year Rider Rides Motorcycles	MR049_DAYSRIIDENPERYEAR
49 (cont.)	Average Number Of Days/Year Rider Rides Motorcycles - Text	MR049_DAYSRIIDENPERYEARTXT
50	Miles/Year Rider Ride Motorcycles	MR050_MILESRIIDENPERYEAR
50 (cont.)	Miles/Year Rider Ride Motorcycles - Text	MR050_MILESRIIDENPERYEARTXT
51	Type Of Motorcycle Training Rider Had	MR051_RIDERTRAININGTYPE
51 (cont.)	Type Of Motorcycle Training Rider Had - Text	MR051_RIDERTRAININGTYPETXT
52	Year of Formal Motorcycle Training (Code up to 3) - Item 1	MR052_YEAROFFORMALMCTRAINING1
52 (cont.)	Year of Formal Motorcycle Training (Code up to 3) - Item 2	MR052_YEAROFFORMALMCTRAINING2
52 (cont.)	Year of Formal Motorcycle Training (Code up to 3) - Item 3	MR052_YEAROFFORMALMCTRAINING3
53	Reason For Not Taking Motorcycle Safety Training	MR053_NOTRAININGRATIONALE
53 (cont.)	Reason For Not Taking Motorcycle Safety Training - Text	MR053_NOTRAININGRATIONALETXT
54	Age When Rider Began To Ride A Street Motorcycle	MR054_AGESTARTEDRIDING
54 (cont.)	Age When Rider Began To Ride A Street Motorcycle - Text	MR054_AGESTARTEDRIDINGTXT
55	Time Rider Not Ride A Motorcycle (Years)	MR055_GAPSWITHOUTRIDING
55 (cont.)	Time Rider Not Ride A Motorcycle (Years) - Text	MR055_GAPSWITHOUTRIDINGTXT
56	Most Recent Hiatus In Riding In Years	MR056_LENGTHMCRIDINGHIATUS
56 (cont.)	Most Recent Hiatus In Riding In Years - Text	MR056_LENGTHMCRIDINGHIATUSTXT
57	Time Driving Another Type of Vehicle Versus Riding a Motorcycle In Percent	MR057_PERCENTTRAVELBYMC

Variable Number	Variable	SAS® and Excel™ Name
57 (cont.)	Time Of Riding a Motorcycle Versus Driving Another Type of Vehicle In Percent	MR057_PERCENTTRAVELBYOV
58	When You Ride A Motorcycle, What Is The Percentage Of Time You Use It For Recreation	MR058_PERCENTRECREATIONALUSE
58 (cont.)	When You Ride A Motorcycle, What Is The Percentage Of Time You Use It For Transportation	MR058_PERCENTTRANSPORTATIONUSE
59	How Long Have You Been Driving Any Kind Of Motor Vehicle (Years)	MR059_TIMEDRIVINGANYVEHICLEYR
59 (cont.)	How Long Have You Been Driving Any Kind Of Motor Vehicle (Months)	MR059_TIMEDRIVINGANYVEHICLEMO
59 (cont.)	How Long Have You Been Driving Any Kind Of Motor Vehicle - Text	MR059_TIMEDRIVINGANYVEHICLETXT
60	How Many Miles Per Year Do You Drive a Car Or Truck	MR060_OVDIVENMILESPERYEAR
60 (cont.)	How Many Miles Per Year Do You Drive a Car Or Truck - Text	MR060_OVDIVENMILESPERYEARTXT
61	Have You Had Any Car Or Truck Driver Training	MR061_OVTRAINING
61 (cont.)	Have You Had Any Car Or Truck Driver Training - Text	MR061_OVTRAININGTXT
62	Number Of Traffic Convictions In Previous 5 Years	MR062_RECENTTRAFFICCONVICTIONS
63	Number Of Motorcycle Moving Traffic Crashes In Past 5 Years	MR063_MCCRASHESLAST5YRS
64	Number Of Car Or Truck Traffic Crashes In Past 5 Years	MR064_OVCRASHESLAST5YRS
65	Duration Of Experience Riding With Passengers On A Motorcycle	MR065_EXPERIENCERIDINGWITHMCP
66	Duration Of Experience Riding With Cargo/Luggage	MR066_EXPERIENCERIDINGWITHCARGO
67	Are You A Motorcycle Club Member	MR067_MCCLUBMEMBERSHIP
68	Were You Riding With Other Motorcyclists At The Time Of The Crash	MR068_WITHOTHERMCSATCRASH
68 (cont.)	Were You Riding With Other Motorcyclists At The Time Of The Crash - Text	MR068_WITHOTHERMCSATCRASHTXT
69	Number Of Motorcycles In The Group	MR069_NUMBERMCMCINGROUP
69 (cont.)	Number Of Motorcycles In The Group - Text	MR069_NUMBERMCMCINGROUPTXT
70	Was The Group Riding In A Specific Formation	MR070_FORMATIONOFGROUP
70 (cont.)	Was The Group Riding In A Specific Formation - Text	MR070_FORMATIONOFGROUPTXT
71	If In A Formation, Where Was Your Motorcycle Placed In The Formation	MR071_POSITIONOFMCMCINGROUP
71 (cont.)	If In A Formation, Where Was Your Motorcycle Placed In The Formation - Text	MR071_POSITIONOFMCMCINGROUPTXT
72	What Kind Of Clothing Was On Your Upper Body	MR072_UPPERBODYCLOTHING
72 (cont.)	What Kind Of Clothing Was On Your Upper Body - Text	MR072_UPPERBODYCLOTHINGTXT
73	Was This Upper Body Clothing Motorcycle-Oriented	MR073_WEARINGMCCAPPARELTORSO
73 (cont.)	Was This Upper Body Clothing Motorcycle-Oriented - Text	MR073_WEARINGMCCAPPARELTORSOTXT
74	What Kind Of Clothing Was On Your Lower Body	MR074_LOWERBODYCLOTHING
74 (cont.)	What Kind Of Clothing Was On Your Lower Body - Text	MR074_LOWERBODYCLOTHINGTXT
75	Was This Lower Body Clothing Motorcycle-Oriented	MR075_MCAPPARELWAISTDOWN
75 (cont.)	Was This Lower Body Clothing Motorcycle-Oriented - Text	MR075_MCAPPARELWAISTDOWNTXT
76	Were You Wearing An Inflatable Safety Vest	MR076_WEARINGINFLATABLEVEST
76 (cont.)	Were You Wearing An Inflatable Safety Vest - Text	MR076_WEARINGINFLATABLEVESTTXT
77	What Kind Of Shoes Or Boots Were You Wearing	MR077_KINDOFSHOESWORN
77 (cont.)	What Kind Of Shoes Or Boots Were You Wearing - Text	MR077_KINDOFSHOESWORNTXT
78	Did This Footwear Go Up Over Your Ankle	MR078_OVERANKLEFOOTWEAR
78 (cont.)	Did This Footwear Go Up Over Your Ankle - Text	MR078_OVERANKLEFOOTWEARTXT
79	Was Footwear Motorcycle-Oriented Or Not	MR079_MCORIENTEDFOOTWEAR
80	Type Of Gloves Used	MR080_TYPEOFGLOVESWORN
80 (cont.)	Type Of Gloves Used - Text	MR080_TYPEOFGLOVESWORNTXT

Variable Number	Variable	SAS® and Excel™ Name
81	Were/Are Gloves Motorcycle-Oriented Or Not	MR081_GLOVESMCOriented
81 (cont.)	Were Gloves Motorcycle-Oriented Or Not - Text	MR081_GLOVESMCOrientedTXT
82	Clothing's Retroreflective (Code up to 3) - Item 1	MR082_CLOTHINGRETROfLECTIVE1
82 (cont.)	Clothing's Retroreflective (Code up to 3) - Item 2	MR082_CLOTHINGRETROfLECTIVE2
82 (cont.)	Clothing's Retroreflective (Code up to 3) - Item 3	MR082_CLOTHINGRETROfLECTIVE3
82 (cont.)	Clothing's Retroreflective - Text	MR082_CLOTHINGRETROfLECTIVETXT
83	Clothing Color - Torso	MR083_CLOTHINGCOLORTORSO
83 (cont.)	Clothing Color - Torso - Text	MR083_CLOTHINGCOLORTORSOTXT
83 (cont.)	Clothing Color - Lower Body	MR083_CLOTHINGCOLORWAISTDOWN
83 (cont.)	Clothing Color - Lower Body - Text	MR083_CLOTHINGCOLORWAISTDOWNTXT
83 (cont.)	Clothing Color -Footwear	MR083_COLORFOOTWEAR
83 (cont.)	Clothing Color - Footwear - Text	MR083_COLORFOOTWEARTXT
83 (cont.)	Clothing Color - Gloves	MR083_COLORGLOVES
83 (cont.)	Clothing Color - Gloves - Text	MR083_COLORGLOVESTXT
84	Are Corrective Lenses Used	MR084_CORRECTIVELENSESREQD
84 (cont.)	Are Corrective Lenses Used - Text	MR084_CORRECTIVELENSESREQDTXT
85	Type Of Eyewear in Use	MR085_TYPEOFEYEWEARINUSE
85 (cont.)	Type Of Eyewear in Use - Text	MR085_TYPEOFEYEWEARINUSETXT
86	Color Of The Eye Coverage Lens	MR086_COLOROFLENS
86 (cont.)	Color Of The Eye Coverage Lens - Text	MR086_COLOROFLENTXT
87	Status Of Injury In This Crash	MR087_INJUREDINCRASH
88	Type Of Medical Treatment Received	MR088_TYPEOFMEDICALTREATMENT
88 (cont.)	Type Of Medical Treatment Received - Text	MR088_TYPEOFMEDICALTREATMENTTXT
89	Age At The Time Of The Crash	MR089_MCRYEARSOFAGE
90	State/Country Where Current Driver's License Issued	MR090_LICENSEISSUER
91	State/Country Where Current Driver's License Issued - Text	MR090_LICENSEISSUERTXT
91 (cont.)	Type Of Operator's License (Code up to 4) - Item 1	MR091_LICENSETYPE1
91 (cont.)	Type Of Operator's License (Code up to 4) - Item 2	MR091_LICENSETYPE2
91 (cont.)	Type Of Operator's License (Code up to 4) - Item 3	MR091_LICENSETYPE3
91 (cont.)	Type Of Operator's License (Code up to 4) - Item 4	MR091_LICENSETYPE4
92	Type Of Operator's License - Text	MR091_LICENSETYPETXT
92 (cont.)	Year License 1 Issued	MR092_YEARLICENSEISSUED1
92 (cont.)	Year License 2 Issued	MR092_YEARLICENSEISSUED2
92 (cont.)	Year License 3 Issued	MR092_YEARLICENSEISSUED3
92 (cont.)	Year License 4 Issued	MR092_YEARLICENSEISSUED4
93	Number Of Times a Motorcycle Learner's Permit Acquired	MR093_NUMBERMCLERNERPERMITS
93 (cont.)	Number Of Times a Motorcycle Learner's Permit Acquired - Text	MR093_NUMBERMCLERNERPERMITSTXT
94	Time Length For Motorcycle License Held (Years)	MR094_DURATIONMCLICENSEHELDYR
94 (cont.)	Time Length For Motorcycle License Held (Months)	MR094_DURATIONMCLICENSEHELDMO
94 (cont.)	Time Length For Motorcycle License Held - Text	MR094_DURATIONMCLICENSEHELDTXT
95	Riders Origin - Hispanic Or Latino	MR095_HISPANICORIGIN
95 (cont.)	Riders Origin - Hispanic Or Latino - Text	MR095_HISPANICORIGINTXT
96	Race (Code up to 3) - Item 1	MR096_RACE1
96 (cont.)	Race (Code up to 3) - Item 2	MR096_RACE2
96 (cont.)	Race (Code up to 3) - Item 3	MR096_RACE3
96 (cont.)	Race - Text	MR096_RACETXT
97	Riders Height (Feet)	MR097_MCRHEIGHTFEET
97 (cont.)	Riders Height (Inches)	MR097_MCRHEIGHTINCHES
98	Riders Weight In Pounds	MR098_MCRWEIGHT
99	Gender	MR099_GENDER
100	Level Of Formal Education	MR100_LEVELOFEDUCATION
100 (cont.)	Level Of Formal Education - Text	MR100_LEVELOFEDUCATIONTXT
101	Current Occupation	MR101_CURRENTOCCUPATION
101 (cont.)	Current Occupation - Text	MR101_CURRENTOCCUPATIONTXT
102	Marital Status	MR102_MARITALSTATUS
102 (cont.)	Marital Status - Text	MR102_MARITALSTATUSTXT
103	Number Of Children	MR103_NUMBEROFCHILDREN
103 (cont.)	Number Of Children - Text	MR103_NUMBEROFCHILDRENTXT
104	Blood Alcohol Concentration (BAC)	MR104_BLOODALCOHOL

Variable Number	Variable	SAS® and Excel™ Name
104 (cont.)	Blood Alcohol Concentration (BAC) - Text	MR104_BLOODALCOHOLTXT
105	Source of BAC Information	MR105_BACINFORMATIONSOURCE
105 (cont.)	Source of BAC Information - Text	MR105_BACINFORMATIONSOURCE

Table 13. List of variables in the Control Motorcycle Rider Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	CR000_CASEID
0 (cont.)	Motorcycle Number	CR000_MCNUMBER
1	Start Point Of The Trip	CR001_TRIPORIGIN
1 (cont.)	Start Point Of The Trip - Text	CR001_TRIPORIGINTXT
2	Safety Or Maintenance Checks Performed Before Leaving For This Trip (Code up to 4) - Item 1	CR002_PREDEPARTURECHECKS1
2 (cont.)	Safety Or Maintenance Checks Performed Before Leaving For This Trip (Code up to 4) - Item 2	CR002_PREDEPARTURECHECKS2
2 (cont.)	Safety Or Maintenance Checks Performed Before Leaving For This Trip (Code up to 4) - Item 3	CR002_PREDEPARTURECHECKS3
2 (cont.)	Safety Or Maintenance Checks Performed Before Leaving For This Trip (Code up to 4) - Item 4	CR002_PREDEPARTURECHECKS4
2 (cont.)	Safety Or Maintenance Checks Performed Before Leaving For This Trip (Code up to 4) - Text	CR002_PREDEPARTURECHECKSTXT
3	Trip Destination	CR003_TRIPDESTINATION
3 (cont.)	Trip Destination - Text	CR003_TRIPDESTINATIONTXT
4	Trip Distance In Miles	CR004_ONEWAYTRIPMILEAGE
5	Frequency Of Travel On This Road On/In Any Vehicle	CR005_FREQUENCYROUTETRAVELLED
6	How Long Have You Been Riding Today Since Your Trip Departure (Hours)	CR006_RIDETIMESINCEDEPARTHRS
6 (cont.)	How Long Have You Been Riding Today Since Your Trip Departure (Minutes)	CR006_RIDETIMESINCEDEPARTMINS
6 (cont.)	How Long Have You Been Riding Today Since Your Trip Departure - Text	CR006_RIDETIMESINCEDEPARTTXT
7	How Many Miles Have You Gone Since Your Trip Departure	CR007_MILESRODESINCEDEPART
7 (cont.)	How Many Miles Have You Gone Since Your Trip Departure - Text	CR007_MILESRODESINCEDEPARTTXT
8	What Was Your Travel Speed Just Before You Stopped For This Interview	CR008_SPEEDJUSTPRIORTOSTOP
8 (cont.)	What Was Your Travel Speed Just Before You Stopped For This Interview - Text	CR008_SPEEDJUSTPRIORTOSTOPTXT
9	When You Were Just Riding, Were You Wearing A Helmet?	CR009_WEARINGHELMET
9 (cont.)	When You Were Just Riding, Were You Wearing A Helmet - Text	CR009_WEARINGHELMETTXT
10	Reason For Not Wearing A Helmet	CR010_NOHELMETRATIONALE
10 (cont.)	Reason For Not Wearing A Helmet - Text	CR010_NOHELMETRATIONALETXT
11	Do You Ever Wear Helmet	CR011_FREQUENCYHELMETWORN
11 (cont.)	Do You Ever Wear Helmet - Text	CR011_FREQUENCYHELMETWORNTXT
12	Was Your Helmet Properly Adjusted On Your Head	CR012_HELMETPROPERLYADJUSTED
12 (cont.)	Was Your Helmet Properly Adjusted On Your Head - Text	CR012_HELMETPROPERLYADJUSTEDTXT
13	State Helmet Securely Fastened To Your Head or Not	CR013_HELMETSECURELYFASTENED
13 (cont.)	State Helmet Securely Fastened To Your Head or Not - Text	CR013_HELMETSECURELYFASTENEDTXT
14A	Helmet Standard Conformance (Code up to 4) - Item 1	CR014_HELMETSTDCONFORMITY1
14A (cont.)	Helmet Standard Conformance (Code up to 4) - Item 2	CR014_HELMETSTDCONFORMITY2
14A (cont.)	Helmet Standard Conformance (Code up to 4) - Item 3	CR014_HELMETSTDCONFORMITY3
14A (cont.)	Helmet Standard Conformance (Code up to 4) - Item 4	CR014_HELMETSTDCONFORMITY4
14A (cont.)	Helmet Standard Conformance (Code up to 4) - Text	CR014_HELMETSTDCONFORMITYTXT
14	Helmet Type	CR014_HELMETTYPE
14 (cont.)	Helmet Type - Text	CR014_HELMETTYPEPETXT
15	Type Of Helmet Coverage	CR015_HELMETCOVERAGE
15 (cont.)	Type Of Helmet Coverage - Text	CR015_HELMETCOVERAGETXT
16	Predominant Color of Helmet	CR016_HELMETCOLOR

Variable Number	Variable	SAS® and Excel™ Name
16 (cont.)	Predominant Color of Helmet - Text	CR016_HELMETCOLORTXT
17	Color Of The Face Shield	CR017_FACESHIELDCOLOR
17 (cont.)	Color Of The Face Shield - Text	CR017_FACESHIELDCOLORTXT
18	Is Rider Owner of This Helmet	CR018_HELMETWEARERISOWNER
18 (cont.)	Is Rider Owner of This Helmet - Text	CR018_HELMETWEARERISOWNERTXT
19	Fit Of Helmet	CR019_HELMETFIT
19 (cont.)	Fit Of Helmet - Text	CR019_HELMETFITTXT
20	Usage Of Helmet When Riding In Percentage	CR020_PERCENTHELMETUSEWHENMCR
21	Use Of Helmet Under Stated Condition (Code up to 4) - Item 1	CR021_HELMETUSAGECONDITION1
21 (cont.)	Use Of Helmet Under Stated Condition (Code up to 4) - Item 2	CR021_HELMETUSAGECONDITION2
21 (cont.)	Use Of Helmet Under Stated Condition (Code up to 4) - Item 3	CR021_HELMETUSAGECONDITION3
21 (cont.)	Use Of Helmet Under Stated Condition (Code up to 4) - Item 4	CR021_HELMETUSAGECONDITION4
21 (cont.)	Use Of Helmet Under Stated Condition - Text	CR021_HELMETUSAGECONDITIONTXT
22	Permanent Physical Conditions If Any (Code up to 3) - Item 1	CR022_PHYSICALIMPAIRMENT1
22 (cont.)	Permanent Physical Conditions If Any (Code up to 3) - Item 2	CR022_PHYSICALIMPAIRMENT2
22 (cont.)	Permanent Physical Conditions If Any (Code up to 3) - Item 3	CR022_PHYSICALIMPAIRMENT3
22 (cont.)	Permanent Physical Conditions If Any - Text	CR022_PHYSICALIMPAIRMENTTXT
23	When You Were Just Riding, Were You Experiencing Any Of The Following (Code up to 3) - Item 1	CR023_PHYSIOLOGICALCONCERN1
23 (cont.)	When You Were Just Riding, Were You Experiencing Any Of The Following (Code up to 3) - Item 2	CR023_PHYSIOLOGICALCONCERN2
23 (cont.)	When You Were Just Riding, Were You Experiencing Any Of The Following (Code up to 3) - Item 3	CR023_PHYSIOLOGICALCONCERN3
23 (cont.)	When You Were Just Riding, Were You Experiencing Any Of The Following - Text	CR023_PHYSIOLOGICALCONCERNTXT
24	Psychological Status At The Time Of Interview (Code up to 3) - Item 1	CR024_PSYCHOLOGICALCONCERN1
24 (cont.)	Psychological Status At The Time Of Interview (Code up to 3) - Item 2	CR024_PSYCHOLOGICALCONCERN2
24 (cont.)	Psychological Status At The Time Of Interview (Code up to 3) - Item 3	CR024_PSYCHOLOGICALCONCERN3
24 (cont.)	Psychological Status At The Time Of Interview - Text	CR024_PSYCHOLOGICALCONCERNTXT
25	Sleep In Hours 24 Hours Prior To The Interview	CR025_AMTSLEEPLAST24HRS
25 (cont.)	Sleep In Hours 24 Hours Prior To The Interview - Text	CR025_AMTSLEEPLAST24HRSTXT
26	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Interview	CR026_DRUGSLAST24HRS
26 (cont.)	Alcohol Or Any Drugs Or Medications Consumption 24Hours Prior To The Interview - Text	CR026_DRUGSLAST24HRSTXT
27	Type Of Drugs Other Than Alcohol	CR027_NONALCOHOLICDRUGTYPE
27 (cont.)	Type Of Drugs Other Than Alcohol - Text	CR027_NONALCOHOLICDRUGTYPETXT
28	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 1	CR028_NONALCOHOLICDRUGSOURCE1
28 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 2	CR028_NONALCOHOLICDRUGSOURCE2
28 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 3	CR028_NONALCOHOLICDRUGSOURCE3
29	Is Rider Owner Of This Motorcycle	CR029_RIDEROWNSMC
29 (cont.)	Is Rider Owner Of This Motorcycle - Text	CR029_RIDEROWNSMCTXT
30	Location Of Purchase Of This Motorcycle	CR030_WHEREMCPURCHASED
30 (cont.)	Location Of Purchase Of This Motorcycle - Text	CR030_WHEREMCPURCHASEDTXT
31	Time The Interview-Involved Motorcycle Owned By Rider (Years)	CR031_TIMEOWNTHISMCYR
31 (cont.)	Time The Interview-Involved Motorcycle Owned By Rider (Months)	CR031_TIMEOWNTHISMCMO

Variable Number	Variable	SAS® and Excel™ Name
31 (cont.)	Time The Interview-Involved Motorcycle Owned By Rider - Text	CR031_TIMEOWNTHISMCTXT
32	Street Motorcycle Experience of Rider (Years)	CR032_MCSTREETRIDINGEXPERIENCEYR
32 (cont.)	Street Motorcycle Experience of Rider (Months)	CR032_MCSTREETRIDINGEXPERIENCEMO
32 (cont.)	Street Motorcycle Experience of Rider - Text	CR032_MCRIDINGEXPERIENCETXT
33	Experience with Interview-Involved Motorcycle of Rider (Years)	CR033_RIDINGEXPERIENCETHISMCYR
33 (cont.)	Experience with Interview-Involved Motorcycle of Rider (Months)	CR033_RIDINGEXPERIENCETHISMCMO
33 (cont.)	Experience with Interview-Involved Motorcycle of Rider - Text	CR033_RIDINGEXPERIENCETHISMCTXT
34	Average Number Of Days/Year Rider Rides Motorcycles	CR034_DAYSRIIDENPERYEAR
34 (cont.)	Average Number Of Days/Year Rider Rides Motorcycles - Text	CR034_DAYSRIIDENPERYEARTXT
35	Miles/Year Rider Rides Motorcycles	CR035_MILESRIIDENPERYEAR
35 (cont.)	Miles/Year Rider Rides Motorcycles - Text	CR035_MILESRIIDENPERYEARTXT
36	Type Of Motorcycle Training Rider Had	CR036_RIDERTRAININGTYPE
36 (cont.)	Type Of Motorcycle Training Rider Had - Text	CR036_RIDERTRAININGTYPETXT
37	Reason For Not Taking Motorcycle Safety Training	CR037_NOTTRAININGRATIONALE
37 (cont.)	Reason For Not Taking Motorcycle Safety Training - Text	CR037_NOTTRAININGRATIONALETXT
38	When Formal Motorcycle Training Taken (code up to 3) - Item 1	CR038_YEAROFFORMALMCTRAINING1
38 (cont.)	When Formal Motorcycle Training Taken (code up to 3) - Item 2	CR038_YEAROFFORMALMCTRAINING2
38 (cont.)	When Formal Motorcycle Training Taken (code up to 3) - Item 3	CR038_YEAROFFORMALMCTRAINING3
39	Age When Rider Began To Ride A Street Motorcycle	CR039_AGESTARTEDRIDING
39 (cont.)	Age When Rider Began To Ride A Street Motorcycle - Text	CR039_AGESTARTEDRIDINGTXT
40	Years In Which Rider Did Not Ride A Motorcycle If Any	CR040_GAPSWITHOUTRIDING
40 (cont.)	Years In Which Rider Did Not Ride A Motorcycle If Any - Text	CR040_GAPSWITHOUTRIDINGTXT
41	Most Recent Hiatus In Riding In Years	CR041_LENGTHMCRIDINGHIATUS
41 (cont.)	Most Recent Hiatus In Riding In Years - Text	CR041_LENGTHMCRIDINGHIATUSXT
42	Time Of Driving a Motorcycle Versus Another Type of Vehicle In Percentage	CR042_PERCENTTRAVELBYMC
42 (cont.)	Time Of Driving a Motorcycle Versus Another Type of Vehicle In Percentage	CR042_PERCENTTRAVELBYOVTYPE
43	When You Ride A Motorcycle, What Is The Percentage Of Time You Use It For Recreation	CR043_PERCENTRECREATIONALUSE
43 (cont.)	When You Ride A Motorcycle, What Is The Percentage Of Time You Use It For Transportation	CR043_PERCENTTRANSPORTATIONUSE
44	How Long Have You Been Driving Any Kind Of Motor Vehicle (Years)	CR044_TIMEDRIVINGANYVEHICLEYR
44 (cont.)	How Long Have You Been Driving Any Kind Of Motor Vehicle (Months)	CR044_TIMEDRIVINGANYVEHICLEMO
44 (cont.)	How Long Have You Been Driving Any Kind Of Motor Vehicle - Text	CR044_TIMEDRIVINGANYVEHICLETXT
45	How Many Miles Per Year Do You Drive a Car Or Truck	CR045_OVDRIVENMILESPERYEAR
45 (cont.)	How Many Miles Per Year Do You Drive a Car Or Truck - Text	CR045_OVDRIVENMILESPERYEARTXT
46	Have You Had Any Car Or Truck Driver Training	CR046_OVTRAINING
46 (cont.)	Have You Had Any Car Or Truck Driver Training - Text	CR046_OVTRAININGTXT
47	Number Of Traffic Convictions In Previous 5 Years	CR047_RECENTTRAFFICCONVICTIONS
48	Number Of Motorcycle Moving Traffic Crashes In Past 5 Years	CR048_MCCRASHESLAST5YRS
49	Number Of Car Or Truck Traffic Crashes In Past 5 Years	CR049_OVCRASHESLAST5YRS
50	Experience Riding With Passengers On A Motorcycle	CR050_EXPERIENCERIDINGWITHMCP
51	Duration Of Experience Riding With Cargo/Luggage	CR051_EXPERIENCERIDINGWITHCARGO

Variable Number	Variable	SAS® and Excel™ Name
52	Are You A Motorcycle Club Member	CR052_MCCLUBMEMBERSHIP
53	Were You Riding With Other Motorcyclists At The Time Of The Interview	CR053_WITHOTHERMCTHISTRIP
53 (cont.)	Were You Riding With Other Motorcyclists At The Time Of The Interview - Text	CR053_WITHOTHERMCTHISTRIPTXT
54	Number Of Motorcycles In The Group	CR054_NUMBERMCINGROUP
54 (cont.)	Number Of Motorcycles In The Group - Text	CR054_NUMBERMCINGROUPTXT
55	Was The Group Riding In A Specific Formation	CR055_FORMATIONOFGROUP
55 (cont.)	Was The Group Riding In A Specific Formation - Text	CR055_FORMATIONOFGROUPTXT
56	If In A Formation, Where Was Your Motorcycle Placed In The Formation	CR056_POSITIONOFMCINGROUP
56 (cont.)	If In A Formation, Where Was Your Motorcycle Placed In The Formation - Text	CR056_POSITIONOFMCINGROUPTXT
57	What Kind Of Clothing Was On Your Upper Body	CR057_UPPERBODYCLOTHING
57 (cont.)	What Kind Of Clothing Was On Your Upper Body - Text	CR057_UPPERBODYCLOTHINGTXT
58	Was This Upper Body Clothing Motorcycle-Oriented	CR058_WEARINGMCAPPARELTORSO
58 (cont.)	Was This Upper Body Clothing Motorcycle-Oriented - Text	CR058_WEARINGMCAPPARELTORSOTXT
59	What Kind Of Clothing Was On Your Lower Body	CR059_LOWERBODYCLOTHING
59 (cont.)	What Kind Of Clothing Was On Your Lower Body - Text	CR059_LOWERBODYCLOTHINGTXT
60	Was This Lower Body Clothing Motorcycle-Oriented	CR060_MCAPPARELWAISTDOWN
60 (cont.)	Was This Lower Body Clothing Motorcycle-Oriented - Text	CR060_MCAPPARELWAISTDOWNTXT
61	Were You Wearing An Inflatable Safety Vest	CR061_WEARINGINFLATABLEVEST
61 (cont.)	Were You Wearing An Inflatable Safety Vest - Text	CR061_WEARINGINFLATABLEVESTTXT
62	What Kind Of Shoes Or Boots Were You Wearing	CR062_KINDOFSHOESWORN
62 (cont.)	What Kind Of Shoes Or Boots Were You Wearing - Text	CR062_KINDOFSHOESWORNTEXT
63	Did This Footwear Go Up Over Your Ankle	CR063_OVERANKLEFOOTWEAR
63 (cont.)	Did This Footwear Go Up Over Your Ankle - Text	CR063_OVERANKLEFOOTWEARTXT
64	Was Footwear Motorcycle-Oriented Or Not	CR064_MCORIENTEDFOOTWEAR
65	Type Of Gloves Used	CR065_TYPEOFGLOVESWORN
65 (cont.)	Type Of Gloves Used - Text	CR065_TYPEOFGLOVESWORNTEXT
66	Were Gloves Motorcycle-Oriented Or Not	CR066_GLOVESMCORIENTED
66 (cont.)	Were Gloves Motorcycle-Oriented Or Not - Text	CR066_GLOVESMCORIENTEDTEXT
67	Was Clothing Retroreflective (Code up to 3) - Item 1	CR067_CLOTHINGRETROFLECTIVE1
67 (cont.)	Was Clothing Retroreflective (Code up to 3) - Item 2	CR067_CLOTHINGRETROFLECTIVE2
67 (cont.)	Was Clothing Retroreflective (Code up to 3) - Item 3	CR067_CLOTHINGRETROFLECTIVE3
67 (cont.)	Was Clothing Retroreflective - Text	CR067_CLOTHINGRETROFLECTIVETXT
68	Torso Clothing Color	CR068_CLOTHINGCOLORTORSO
68 (cont.)	Torso Clothing Color - Text	CR068_CLOTHINGCOLORTORSOTXT
68 (cont.)	Lower Body Clothing Color	CR068_CLOTHINGCOLORWAISTDOWN
68 (cont.)	Lower Body Clothing Color - Text	CR068_CLOTHINGCOLORWAISTDOWNTEXT
68 (cont.)	Footwear Color	CR068_COLORFOOTWEAR
68 (cont.)	Footwear Color - Text	CR068_COLORFOOTWEARTXT
68 (cont.)	Gloves Color	CR068_COLORGLOVES
68 (cont.)	Gloves Color - Text	CR068_COLORGLOVESTXT
69	Are Corrective Lenses Required	CR069_CORRECTIVELENSESREQD
69 (cont.)	Are Corrective Lenses Required - Text	CR069_CORRECTIVELENSESREQDTXT
70	Type Of Eyewear in Use	CR070_TYPEOFFEYEWEARINUSE
70 (cont.)	Type Of Eyewear in Use - Text	CR070_TYPEOFFEYEWEARINUSETXT
71	Color Of The Eye Coverage Lens	CR071_COLOROFLENS
71 (cont.)	Color Of The Eye Coverage Lens - Text	CR071_COLOROFLENTXT
72	Age of Driver	CR072_MCRYEARSOFAGE
73	State/Country Where Current Driver's License Issued	CR073_LICENSEISSUER
73 (cont.)	State/Country Where Current Driver's License Issued - Text	CR073_LICENSEISSUERTXT
74	Operator's License Type Held (Code up to 4) - Item 1	CR074_LICENSETYPE1
74 (cont.)	Operator's License Type Held (Code up to 4) - Item 2	CR074_LICENSETYPE2

Variable Number	Variable	SAS® and Excel™ Name
74 (cont.)	Operator's License Type Held (Code up to 4) - Item 3	CR074_LICENSETYPE3
74 (cont.)	Operator's License Type Held (Code up to 4) - Item 4	CR074_LICENSETYPE4
74 (cont.)	Operator's License Type Held - Text	CR074_LICENSETYPETXT
75	Year Was The License(s) Issued - Item 1	CR075_YEARLICENSEISSUED1
75 (cont.)	Year Was The License(s) Issued - Item 2	CR075_YEARLICENSEISSUED2
75 (cont.)	Year Was The License(s) Issued - Item 3	CR075_YEARLICENSEISSUED3
75 (cont.)	Year Was The License(s) Issued - Item 4	CR075_YEARLICENSEISSUED4
76	Number Of Times a Motorcycle Learner's Permit Acquired	CR076_NUMBERMCLERARNERPERMITS
76 (cont.)	Number Of Times a Motorcycle Learner's Permit Acquired - Text	CR076_NUMBERMCLERARNERPERMITSTXT
77	Length of Time Motorcycle License Held (Years)	CR077_DURATIONMCLICENSEHELDYR
77 (cont.)	Length of Time Motorcycle License Held (Months)	CR077_DURATIONMCLICENSEHELDMO
77 (cont.)	Length of Time Motorcycle License Held - Text	CR077_DURATIONMCLICENSEHELDTXT
78	Riders Origin - Hispanic Or Latino	CR078_HISPANICORIGIN
78 (cont.)	Riders Origin - Hispanic Or Latino - Text	CR078_HISPANICORIGINTXT
79	Race (Code up to 4) - Item 1	CR079_RACE1
79 (cont.)	Race (Code up to 4) - Item 2	CR079_RACE2
79 (cont.)	Race (Code up to 4) - Item 3	CR079_RACE3
79 (cont.)	Race (Code up to 4) - Text	CR079_RACETXT
80	Riders Height (Feet)	CR080_MCRHEIGHTFEET
80 (cont.)	Riders Height (Inches)	CR080_MCRHEIGHTINCHES
81	Riders Weight (Pounds)	CR081_MCRWEIGHT
82	Gender	CR082_GENDER
83	Level Of Formal Education	CR083_LEVELOFEDUCATION
83 (cont.)	Level Of Formal Education - Text	CR083_LEVELOFEDUCATIONTXT
84	Current Occupation	CR084_CURRENTOCCUPATION
84 (cont.)	Current Occupation - Text	CR084_CURRENTOCCUPATIONTXT
85	Marital Status	CR085_MARITALSTATUS
85 (cont.)	Marital Status - Text	CR085_MARITALSTATUSTXT
86	Number Of Children	CR086_NUMBEROFCHILDREN
87	Blood Alcohol Concentration (BAC)	CR087_BLOODALCOHOL
87 (cont.)	Blood Alcohol Concentration (BAC) - Text	CR087_BLOODALCOHOLTXT
88	Source of BAC information	CR088_BACINFORMATIONSOURCE
88 (cont.)	Source of BAC information - Text	CR088_BACINFORMATIONSOURCECETXT

Table 14. List of variables in the Motorcycle Passenger Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	MP000_CASEID
0 (cont.)	Passenger Number	MP000_PASSENGERNUMBER
0 (cont.)	Source of Passenger	MP000_MPSOURCE
1	Where Were You Located Prior To The Crash	MP001_MCPLOCATIONPRIORCRASH
1 (cont.)	Where Were You Located Prior To The Crash - Text	MP001_MCPLOCATIONPRIORCRASHTXT
2	What Was Your Riding Position at the Time Of Collision	MP002_MPCPCRAHPPOSITION
2 (cont.)	What Was Your Riding Position at the Time Of Collision - Text	MP002_MPCPCRAHPPOSITIONTXT
3	Did Any Of Your Actions Contribute To The Crash	MP003_ACTIONSCONTRIBTOCRASH
3 (cont.)	Did Any Of Your Actions Contribute To The Crash - Text	MP003_ACTIONSCONTRIBTOCRASHTXT
4	At The Time Of The Crash, Were You Wearing A Helmet	MP004_WEARINGHELMET
4 (cont.)	At The Time Of The Crash, Were You Wearing A Helmet - Text	MP004_WEARINGHELMETTXT
5	Reason For Not Wearing A Helmet	MP005_NOHELMETRATIONALE
5 (cont.)	Reason For Not Wearing A Helmet - Text	MP005_NOHELMETRATIONALETXT
6	Do You Ever Wear Helmet	MP006_FREQUENCYHELMETWORN
6 (cont.)	Do You Ever Wear Helmet - Text	MP006_FREQUENCYHELMETWORNTXT
7	Was Your Helmet Properly Adjusted On Your Head	MP007_HELMETPROPERLYADJUSTED
7 (cont.)	Was Your Helmet Properly Adjusted On Your Head - Text	MP007_HELMETPROPERLYADJUSTEDTXT
8	State Helmet Securely Fastened To Your Head or Not	MP008_HELMETSECURELYFASTENED
8 (cont.)	State Helmet Securely Fastened To Your Head or Not - Text	MP008_HELMETSECURELYFASTENEDTXT
9	Type Of Helmet	MP009_HELMETTYPE
9 (cont.)	Type Of Helmet - Text	MP009_HELMETTYPEPETXT
10	Type Of Helmet Coverage	MP010_HELMETCOVERAGE
10 (cont.)	Type Of Helmet Coverage - Text	MP010_HELMETCOVERAGETXT
11	Predominant Color Of Helmet	MP011_HELMETCOLOR
11 (cont.)	Predominant Color Of Helmet - Text	MP011_HELMETCOLORTXT
12	Color Of The Face Shield	MP012_FACESHIELDCOLOR
12 (cont.)	Color Of The Face Shield - Text	MP012_FACESHIELDCOLORTXT
13	Owner of This Helmet	MP013_HELMETWEARERISOWNER
13 (cont.)	Owner of This Helmet - Text	MP013_HELMETWEARERISOWNERTXT
14	Fitting Of Helmet	MP014_HELMETFIT
14 (cont.)	Fitting Of Helmet - Text	MP014_HELMETFITTXT
15	Retaining Of Helmet In Place On Head During The Crash	MP015_HELMETRETAINEDINCRASH
15 (cont.)	Retaining Of Helmet In Place On Head During The Crash - Text	MP015_HELMETRETAINEDINCRASHTXT
16	Percent Time Wear Helmet When Motorcycle Passenger	MP016_PERCENTHELMETUSEWHENMCP
17	Use Of Helmet Under Stated Condition (Code up to 3) - Item 1	MP017_HELMETUSAGECONDITION1
17 (cont.)	Use Of Helmet Under Stated Condition (Code up to 3) - Item 2	MP017_HELMETUSAGECONDITION2
17 (cont.)	Use Of Helmet Under Stated Condition (Code up to 3) - Item 3	MP017_HELMETUSAGECONDITION3
17 (cont.)	Use Of Helmet Under Stated Condition (Code up to 3) - Item 4	MP017_HELMETUSAGECONDITION4
17 (cont.)	Use Of Helmet Under Stated Condition - Text	MP017_HELMETUSAGECONDITIONTXT
18	Permanent Physical Conditions If Any (Code up to 3) - Item 1	MP018_PHYSICALIMPAIRMENT1
18 (cont.)	Permanent Physical Conditions If Any (Code up to 3) - Item 2	MP018_PHYSICALIMPAIRMENT2
18 (cont.)	Permanent Physical Conditions If Any (Code up to 3) - Item 3	MP018_PHYSICALIMPAIRMENT3
18 (cont.)	Permanent Physical Conditions If Any - Text	MP018_PHYSICALIMPAIRMENTTXT
19	Physical Status At The Time Of Crash (Code up to 3) - Item 1	MP019_PHYSIOLOGICALCONCERN1

Variable Number	Variable	SAS® and Excel™ Name
19 (cont.)	Physical Status At The Time Of Crash (Code up to 3) - Item 2	MP019_PHYSIOLOGICALCONCERN2
19 (cont.)	Physical Status At The Time Of Crash (Code up to 3) - Item 3	MP019_PHYSIOLOGICALCONCERN3
19 (cont.)	Physical Status At The Time Of Crash (Code up to 3) - Text	MP019_PHYSIOLOGICALCONCERNTXT
20	Psychological Status At The Time Of Crash (Code up to 3) - Item 1	MP020_PSYCHOLOGICALCONCERN1
20 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 2	MP020_PSYCHOLOGICALCONCERN2
20 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 3	MP020_PSYCHOLOGICALCONCERN3
20 (cont.)	Psychological Status At The Time Of Crash - Text	MP020_PSYCHOLOGICALCONCERNTXT
21	Sleep In Hours 24 Hours Prior To The Crash	MP021_AMTSLEEPLAST24HRS
21 (cont.)	Sleep In Hours 24 Hours Prior To The Crash - Text	MP021_AMTSLEEPLAST24HRSTXT
22	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash	MP022_DRUGSLAST24HRS
22 (cont.)	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash - Text	MP022_DRUGSLAST24HRSTXT
23	Type Of Drugs Other Than Alcohol	MP023_NONALCOHOLICDRUGTYPE
23 (cont.)	Type Of Drugs Other Than Alcohol - Text	MP023_NONALCOHOLICDRUGTYPETXT
24	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 1	MP024_NONALCOHOLICDRUGSOURCE1
24 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 2	MP024_NONALCOHOLICDRUGSOURCE2
24 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 3	MP024_NONALCOHOLICDRUGSOURCE3
25	How Long Have You Been Riding As A Passenger on the Crash-Involved Motorcycle (Years)	MP025_MCPEXPERIENCETHISMCYR
25 (cont.)	How Long Have You Been Riding As A Passenger on the Crash-Involved Motorcycle (Months)	MP025_MCPEXPERIENCETHISMCMO
26	How Long Have You Been Riding As A Passenger In Any Kind Of Motor Vehicle (Years)	MP026_VEHICLEPASNGREXPERIENCEYR
26 (cont.)	How Long Have You Been Riding As A Passenger In Any Kind Of Motor Vehicle (Months)	MP026_VEHICLEPASNGREXPERIENCEMO
27	How Long Have You Ridden As A Passenger On Any Street Motorcycle (Years)	MP027_MCPEXPERIENCEONSTREETMCYR
27 (cont.)	How Long Have You Ridden As A Passenger On Any Street Motorcycle (Months)	MP027_MCPEXPERIENCEONSTREETCMO
28	What is The Average Number Of Days Per Year You Ride As A Passenger On Motorcycles	MP028_DAYSPEYRASMCP
29	What Kind Of Motorcycle Training Have You Had	MP029_TYPEOFMCTRAINING
29 (cont.)	What Kind Of Motorcycle Training Have You Had - Text	MP029_TYPEOFMCTRAININGTXT
30	When You Travel as a Passenger, What is the Percentage of Time You Ride on a Motorcycle Versus Riding as a Passenger in Another Type of Vehicle	MP030_WHENPSNGRPERCENTONMC
30 (cont.)	When You Travel as a Passenger, What is the Percentage of Time You Ride on/in Other than a Motorcycle Versus Riding as a Motorcycle Passenger	MP030_WHENPSNGRPERCENTINOV
31	When You Ride A Motorcycle As A Passenger, What Is The Percentage Of Time It Is For Recreation	MP031_PERCENTMCPFORRECREATION
31 (cont.)	When You Ride A Motorcycle As A Passenger, What Is The Percentage Of Time It Is For Transportation	MP031_PERCENTMCPFORTRANSPORT
32	How Much Experience Do You Have Riding As A Passenger On Motorcycles	MP032_EXPERIENCEASMCP
32 (cont.)	How Much Experience Do You Have Riding As A Passenger On Motorcycles - Text	MP032_EXPERIENCEASMCPTEXT
33	How Many Motorcycle Moving Traffic Crashes Have You Had As A Passenger In The Past 5 Years	MP033_CRASHESWHENMCPINLAST5YRS

Variable Number	Variable	SAS® and Excel™ Name
34	How Many Car Or Truck Traffic Crashes Have You Had As A Passenger In The Past 5 Years	MP034_CRASHESWHENOVPINLAST5YRS
35	What Kind Of Clothing Was On Your Upper Body	MP035_UPPERBODYCLOTHING
35 (cont.)	What Kind Of Clothing Was On Your Upper Body - Text	MP035_UPPERBODYCLOTHINGTXT
36	Was This upper Body Clothing Motorcycle-Oriented	MP036_WEARINGMCAPPARELTORSO
36 (cont.)	Was This upper Body Clothing Motorcycle-Oriented - Text	MP036_WEARINGMCAPPARELTORSOTXT
37	What Kind Of Clothing Was On Your Lower Body	MP037_LOWERBODYCLOTHING
37 (cont.)	What Kind Of Clothing Was On Your Lower Body - Text	MP037_LOWERBODYCLOTHINGTXT
38	Was This Lower Body Clothing Motorcycle-Oriented	MP038_MCAPPARELWAISTDOWN
38 (cont.)	Was This Lower Body Clothing Motorcycle-Oriented - Text	MP038_MCAPPARELWAISTDOWNTXT
39	Were You Wearing An Inflatable Safety Vest	MP039_WEARINGINFLATABLEVEST
39 (cont.)	Were You Wearing An Inflatable Safety Vest - Text	MP039_WEARINGINFLATABLEVESTTXT
40	What Kind Of Shoes Or Boots Were You Wearing	MP040_KINDOFSHOESWORN
40 (cont.)	What Kind Of Shoes Or Boots Were You Wearing - Text	MP040_KINDOFSHOESWORNTEXT
41	Did This Footwear Go Up Over Your Ankle	MP041_OVERANKLEFOOTWEAR
41 (cont.)	Did This Footwear Go Up Over Your Ankle - Text	MP041_OVERANKLEFOOTWEARTXT
42	Was Footwear Motorcycle-Oriented Or Not	MP042_MCORIENTEDFOOTWEAR
43	Type Of Gloves Used	MP043_TYPEOFGLOVESWORN
43 (cont.)	Type Of Gloves Used - Text	MP043_TYPEOFGLOVESWORNTEXT
44	Were Gloves Motorcycle-Oriented Or Not	MP044_GLOVESMCORIENTED
44 (cont.)	State Whether Are Gloves Motorcycle-Oriented Or Not - Text	MP044_GLOVESMCORIENTEDTEXT
45	Was Clothing Retroreflective (Code up to 3) - Item 1	MP045_CLOTHINGRETROFLECTIVE1
45 (cont.)	Was Clothing Retroreflective (Code up to 3) - Item 2	MP045_CLOTHINGRETROFLECTIVE2
45 (cont.)	Was Clothing Retroreflective (Code up to 3) - Item 3	MP045_CLOTHINGRETROFLECTIVE3
45 (cont.)	Was Clothing Retroreflective - Text	MP045_CLOTHINGRETROFLECTIVETXT
46	Clothing Color - Torso	MP046_CLOTHINGCOLORTORSO
46 (cont.)	Clothing Color - Torso - Text	MP046_CLOTHINGCOLORTORSOTXT
46 (cont.)	Clothing Color - Lower Body	MP046_CLOTHINGCOLORWAISTDOWN
46 (cont.)	Clothing Color - Lower Body - Text	MP046_CLOTHINGCOLORWAISTDOWNTEXT
46 (cont.)	Clothing Color - Footwear	MP046_COLORFOOTWEAR
46 (cont.)	Clothing Color - Footwear - Text	MP046_COLORFOOTWEARTXT
46 (cont.)	Clothing Color - Gloves	MP046_COLORGLOVES
46 (cont.)	Clothing Color - Gloves - Text	MP046_COLORGLOVESTXT
47	Type Of Eyewear	MP047_TYPEOFEYEWEARINUSE
47 (cont.)	Type Of Eyewear - Text	MP047_TYPEOFEYEWEARINUSETXT
48	What Color Was The Eye Coverage Lens	MP048_COLOROFLENS
48 (cont.)	What Color Was The Eye Coverage Lens - Text	MP048_COLOROFLENTXT
49	Status Of Injury In This Crash	MP049_INJUREDINCRASH
50	Type Of Medical Treatment Received	MP050_TYPEOFMEDICALTREATMENT
50 (cont.)	Type Of Medical Treatment Received - Text	MP050_TYPEOFMEDICALTREATMENTTEXT
51	Age At The Time Of The Crash	MP051_MCPYEARSOFAGE
52	State/Country Where Current Driver's License Issued	MP052_LICENSEISSUER
52 (cont.)	State/Country Where Current Driver's License Issued - Text	MP052_LICENSEISSUERTXT
53	Type Of Operator's License (Code up to 4) - Item 1	MP053_LICENSETYPE1
53 (cont.)	Type Of Operator's License (Code up to 4) - Item 2	MP053_LICENSETYPE2
53 (cont.)	Type Of Operator's License (Code up to 4) - Item 3	MP053_LICENSETYPE3
53 (cont.)	Type Of Operator's License (Code up to 4) - Item 4	MP053_LICENSETYPE4
53 (cont.)	Type Of Operator's License - Text	MP053_LICENSETYPETXT
54	Year License 1 Issued	MP054_YEARLICENSEISSUED1
54 (cont.)	Year License 2 Issued	MP054_YEARLICENSEISSUED2
54 (cont.)	Year License 3 Issued	MP054_YEARLICENSEISSUED3
54 (cont.)	Year License 4 Issued	MP054_YEARLICENSEISSUED4
55	Riders Origin - Hispanic Or Latino	MP055_HISPANICORIGIN

Variable Number	Variable	SAS® and Excel™ Name
55 (cont.)	Riders Origin - Hispanic Or Latino - Text	MP055_HISPANICORIGINTXT
56	Race (Code up to 3) - Item 1	MP056_RACE1
56 (cont.)	Race (Code up to 3) - Item 2	MP056_RACE2
56 (cont.)	Race (Code up to 3) - Item 3	MP056_RACE3
56 (cont.)	Race - Text	MP056_RACETXT
57	Riders Height (Feet)	MP057_MCPHEIGHTFEET
57 (cont.)	Riders Height (Inches)	MP057_MCPHEIGHTINCHES
58	Riders Weight (Pounds)	MP058_MCPWEIGHT
59	Gender	MP059_GENDER
60	Level Of Formal Education	MP060_LEVELOFEDUCATION
60 (cont.)	Level Of Formal Education - Text	MP060_LEVELOFEDUCATIONTXT
61	Current Occupation	MP061_CURRENTOCCUPATION
61 (cont.)	Current Occupation - Text	MP061_CURRENTOCCUPATIONTXT
62	Marital Status	MP062_MARITALSTATUS
62 (cont.)	Marital Status - Text	MP062_MARITALSTATUSTXT
63	Number Of Children	MP063_NUMBEROFCHILDREN
63 (cont.)	Number Of Children - Text	MP063_NUMBEROFCHILDRENTXT
64	Blood alcohol concentration (BAC)	MP064_BLOODALCOHOL
64 (cont.)	Blood alcohol concentration (BAC) - Text	MP064_BLOODALCOHOLTXT
65	Source of BAC information	MP065_BACINFORMATIONSOURCE
65 (cont.)	Source of BAC information - Text	MP065_BACINFORMATIONSORCETXT

Table 15. List of variables in the Control Motorcycle Passenger Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	CP000_CASEID
0 (cont.)	Control Motorcycle Number	CP000_CMCNUMBER
0 (cont.)	Passenger Number	CP000_MCPNUMBER
1	At The Time Of The Crash, Were You Wearing A Helmet	CP001_WEARINGHELMET
1 (cont.)	At The Time Of The Crash, Were You Wearing A Helmet - Text	CP001_WEARINGHELMETTXT
2	Reason For Not Wearing A Helmet	CP002_NOHELMETRATIONALE
2 (cont.)	Reason For Not Wearing A Helmet - Text	CP002_NOHELMETRATIONALETXT
3	Do You Ever Wear a Helmet?	CP003_FREQUENCYHELMETWORN
3 (cont.)	Do You Ever Wear a Helmet? - Text	CP003_FREQUENCYHELMETWORNTXT
4	Was Your Helmet Properly Adjusted On Your Head	CP004_HELMETPROPERLYADJUSTED
4 (cont.)	Was Your Helmet Properly Adjusted On Your Head - Text	CP004_HELMETPROPERLYADJUSTEDTXT
5	State Helmet Securely Fastened To Your Head or Not	CP005_HELMETSECURELYFASTENED
5 (cont.)	State Helmet Securely Fastened To Your Head or Not - Text	CP005_HELMETSECURELYFASTENEDTXT
6	Type Of Helmet	CP006_HELMETTYPE
6 (cont.)	Type Of Helmet - Text	CP006_HELMETTYPEPETXT
6a	Conformity to Which Qualification (Code Up to 4) - Item 1	CP006_HELMETSTDCOMFORMITY1
6a (cont.)	Conformity to Which Qualification (Code Up to 4) - Item 2	CP006_HELMETSTDCOMFORMITY2
6a (cont.)	Conformity to Which Qualification (Code Up to 4) - Item 3	CP006_HELMETSTDCOMFORMITY3
6a (cont.)	Conformity to Which Qualification (Code Up to 4) - Item 4	CP006_HELMETSTDCOMFORMITY4
6a (cont.)	Conformity to Which Qualification - Text	CP006_HELMETSTDCOMFORMITYTXT
7	Type Of Helmet Coverage	CP007_HELMETCOVERAGE
7 (cont.)	Type Of Helmet Coverage - Text	CP007_HELMETCOVERAGETXT
8	Predominant Color Of Helmet	CP008_HELMETCOLOR
8 (cont.)	Predominant Color Of Helmet - Text	CP008_HELMETCOLORTXT
9	Color Of The Face Shield	CP009_FACESHIELDCOLOR
9 (cont.)	Color Of The Face Shield - Text	CP009_FACESHIELDCOLORTXT
10	Owner of This Helmet	CP010_HELMETWEARERISOWNER
10 (cont.)	Owner of This Helmet - Text	CP010_HELMETWEARERISOWNERTXT
11	Fitting Of Helmet	CP011_HELMETFIT
11 (cont.)	Fitting Of Helmet - Text	CP011_HELMETFITTXT
12	Time Of Usage Of Helmet When Riding In Percentage	CP012_PERCENTHELMETUSEWHENMCP
13	Use Of Helmet Under Stated Condition (Code up to 4) - Item 1	CP013_HELMETUSAGECONDITION1
13 (cont.)	Use Of Helmet Under Stated Condition (Code up to 4) - Item 2	CP013_HELMETUSAGECONDITION2
13 (cont.)	Use Of Helmet Under Stated Condition (Code up to 4) - Item 3	CP013_HELMETUSAGECONDITION3
13 (cont.)	Use Of Helmet Under Stated Condition (Code up to 4) - Item 4	CP013_HELMETUSAGECONDITION4
13 (cont.)	Use Of Helmet Under Stated Condition - Text	CP013_HELMETUSAGECONDITIONTXT
14	Permanent Physical Conditions If Any (Code up to 3) - Item 1	CP014_PHYSICALIMPAIRMENT1
14 (cont.)	Permanent Physical Conditions If Any (Code up to 3) - Item 2	CP014_PHYSICALIMPAIRMENT2
14 (cont.)	Permanent Physical Conditions If Any (Code up to 3) - Item 3	CP014_PHYSICALIMPAIRMENT3
14 (cont.)	Permanent Physical Conditions If Any - Text	CP014_PHYSICALIMPAIRMENTTXT
15	Psychological Status At The Time Of Crash (Code up to 3) - Item 1	CP015_PHYSIOLOGICALCONCERN1
15 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 2	CP015_PHYSIOLOGICALCONCERN2

Variable Number	Variable	SAS® and Excel™ Name
15 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 3	CP015_PHYSIOLOGICALCONCERN3
15 (cont.)	Psychological Status At The Time Of Crash - Text	CP015_PHYSIOLOGICALCONCERNTXT
16	Physical Status At The Time Of Crash (Code up to 3) - Item 1	CP016_PSYCHOLOGICALCONCERN1
16 (cont.)	Physical Status At The Time Of Crash (Code up to 3) - Item 2	CP016_PSYCHOLOGICALCONCERN2
16 (cont.)	Physical Status At The Time Of Crash (Code up to 3) - Item 3	CP016_PSYCHOLOGICALCONCERN3
16 (cont.)	Physical Status At The Time Of Crash - Text	CP016_PSYCHOLOGICALCONCERNTXT
17	Sleep In Hours 24 Hours Prior To The Crash	CP017_AMTSLEEPLAST24HRS
17 (cont.)	Sleep In Hours 24 Hours Prior To The Crash - Text	CP017_AMTSLEEPLAST24HRSTXT
18	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash	CP018_DRUGSLAST24HRS
18 (cont.)	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash - Text	CP018_DRUGSLAST24HRSTXT
19	Type Of Drugs Other Than Alcohol	CP019_NONALCOHOLICDRUGTYPE
19 (cont.)	Type Of Drugs Other Than Alcohol - Text	CP019_NONALCOHOLICDRUGTYPETXT
20	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 1	CP020_NONALCOHOLICDRUGSOURCE1
20 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 2	CP020_NONALCOHOLICDRUGSOURCE2
20 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 3	CP020_NONALCOHOLICDRUGSOURCE3
20 (cont.)	Source Of The Drugs Other Than Alcohol - Text	CP020_NONALCOHOLICDRUGSOURCETXT
21	How Long Have You Been Riding as a Passenger on This Motorcycle? (Years)	CP021_MCPEXPERIENCETHISMCYR
21 (cont.)	How Long Have You Been Riding as a Passenger on This Motorcycle? - (Months)	CP021_MCPEXPERIENCETHISMCMO
22	How Long Have You Been Riding As A Passenger In Any Kind Of Motor Vehicle (Years)	CP022_VEHICLEPASNGREXPERIENCEYR
22 (cont.)	How Long Have You Been Riding As A Passenger In Any Kind Of Motor Vehicle - (Months)	CP022_VEHICLEPASNGREXPERIENCEMO
23	How Long Have You Ridden As A Passenger On Any Street Motorcycle (Years)	CP023_MCPEXPERIENCEONSTREETMCYR
23 (cont.)	How Long Have You Ridden As A Passenger On Any Street Motorcycle - (Months)	CP023_MCPEXPERIENCEONSTREETMCMO
24	What is The Average Number Of Days Per Year You Ride As A Passenger On Motorcycles	CP024_DAYSPEYRASMCP
25	What Kind Of Motorcycle Training Have You Had	CP025_TYPEOFMCTRAINING
25 (cont.)	What Kind Of Motorcycle Training Have You Had - Text	CP025_TYPEOFMCTRAININGTXT
26	When You Travel as a Passenger, What is the Percentage of Time You Ride as a Passenger in Another Type of Vehicle	CP026_WHENPSNGRPERCENTINOV
26 (cont.)	When You Travel as a Passenger, What is the Percentage of Time You Ride on a Motorcycle Versus Riding as a Passenger in Another Type of Vehicle	CP026_WHENPSNGRPERCENTONMC
27	When You Ride A Motorcycle As A Passenger, What Is The Percentage Of Time It Is For Recreation	CP027_PERCENTMCPFORRECREATION
27 (cont.)	When You Ride A Motorcycle As A Passenger, What Is The Percentage Of Time It Is For Transportation	CP027_PERCENTMCPFORTRANSPORT
28	How Much Experience Do You Have Riding As A Passenger On Motorcycles	CP028_EXPERIENCEASMCP
28 (cont.)	How Much Experience Do You Have Riding As A Passenger On Motorcycles - Text	CP028_EXPERIENCEASMCPTXT
29	How Many Motorcycle Moving Traffic Crashes Have You Had As A Passenger In The Past 5 Years	CP029_CRASHESWHENMCPINLAST5YRS
30	How Many Car Or Truck Traffic Crashes Have You Had As A Passenger In The Past 5 Years	CP030_CRASHESWHENOVPINLAST5YRS
31	What Kind Of Clothing Was On Your Upper Body	CP031_UPPERBODYCLOTHING

Variable Number	Variable	SAS® and Excel™ Name
31 (cont.)	What Kind Of Clothing Was On Your Upper Body - Text	CP031_UPPERBODYCLOTHINGTXT
32	Was This Upper Body Clothing Motorcycle-Oriented	CP032_WEARINGMCAPPARELTORSO
32 (cont.)	Was This Upper Body Clothing Motorcycle-Oriented - Text	CP032_WEARINGMCAPPARELTORSOTXT
33	What Kind Of Clothing Was On Your Lower Body	CP033_LOWERBODYCLOTHING
33 (cont.)	What Kind Of Clothing Was On Your Lower Body - Text	CP033_LOWERBODYCLOTHINGTXT
34	Was This Lower Body Clothing Motorcycle-Oriented	CP034_MCAPPARELWAISTDOWN
34 (cont.)	Was This Lower Body Clothing Motorcycle-Oriented - Text	CP034_MCAPPARELWAISTDOWNTXT
35	Were You Wearing An Inflatable Safety Vest	CP035_WEARINGINFLATABLEVEST
35 (cont.)	Were You Wearing An Inflatable Safety Vest - Text	CP035_WEARINGINFLATABLEVESTTXT
36	What Kind Of Shoes Or Boots Were You Wearing	CP036_KINDOFSHOESWORN
36 (cont.)	What Kind Of Shoes Or Boots Were You Wearing - Text	CP036_KINDOFSHOESWORNTEXT
37	Did This Footwear Go Up Over Your Ankle	CP037_OVERANKLEFOOTWEAR
37 (cont.)	Did This Footwear Go Up Over Your Ankle - Text	CP037_OVERANKLEFOOTWEARTXT
38	Was This Footwear Motorcycle-Oriented Or Not	CP038_MCORIENTEDFOOTWEAR
39	Type Of Gloves Used	CP039_TYPEOFGLOVESWORN
39 (cont.)	Type Of Gloves Used - Text	CP039_TYPEOFGLOVESWORNTEXT
40	Were Gloves Motorcycle-Oriented Or Not	CP040_GLOVESMCORIENTED
40 (cont.)	Were Gloves Motorcycle-Oriented Or Not - Text	CP040_GLOVESMCORIENTEDTEXT
41	Was Clothing Retroreflective Or Not (Code up to 3) - Item 1	CP041_CLOTHINGRETROFLECTIVE1
41 (cont.)	Was Clothing Retroreflective Or Not (Code up to 3) - Item 2	CP041_CLOTHINGRETROFLECTIVE2
41 (cont.)	Was Clothing Retroreflective Or Not (Code up to 3) - Item 3	CP041_CLOTHINGRETROFLECTIVE3
41 (cont.)	Was Clothing Retroreflective Or Not (Code up to 3) - Text	CP041_CLOTHINGRETROFLECTIVETXT
42	Clothing Color - Torso	CP042_CLOTHINGCOLORTORSO
42 (cont.)	Clothing Color - Torso - Text	CP042_CLOTHINGCOLORTORSOTXT
42 (cont.)	Clothing Color - Lower Body	CP042_CLOTHINGCOLORWAISTDOWN
42 (cont.)	Clothing Color - Lower Body - Text	CP042_CLOTHINGCOLORWAISTDOWNTEXT
42 (cont.)	Clothing Color - Footwear	CP042_COLORFOOTWEAR
42 (cont.)	Clothing Color - Footwear - Text	CP042_COLORFOOTWEARTXT
42 (cont.)	Clothing Color - Gloves	CP042_COLORGLOVES
42 (cont.)	Clothing Color - Gloves - Text	CP042_COLORGLOVESTXT
43	Type Of Eyewear	CP043_TYPEOFFEYEWEARINUSE
43 (cont.)	Type Of Eyewear - Text	CP043_TYPEOFFEYEWEARINUSETXT
44	What Color Was The Eye Coverage Lens	CP044_COLOROFLENS
44 (cont.)	What Color Was The Eye Coverage Lens - Text	CP044_COLOROFLENSTXT
45	Age At The Time of The Crash	CP045_MCPYEARSOFAGE
46	State/Country Where Current Driver's License Issued	CP046_LICENSEISSUER
46 (cont.)	State/Country Where Current Driver's License Issued - Text	CP046_LICENSEISSUERTXT
47	Type Of Operator's License (Code up to 4) - Item 1	CP047_LICENSETYPE1
47 (cont.)	Type Of Operator's License (Code up to 4) - Item 2	CP047_LICENSETYPE2
47 (cont.)	Type Of Operator's License (Code up to 4) - Item 3	CP047_LICENSETYPE3
47 (cont.)	Type Of Operator's License (Code up to 4) - Item 4	CP047_LICENSETYPE4
47 (cont.)	Type Of Operator's License - Text	CP047_LICENSETYPETXT
48	Year the License(s) Issued (Code up to 4) Item 1	CP048_YEARLICENSEISSUED1
48 (cont.)	Year the License(s) Issued (Code up to 4) Item 2	CP048_YEARLICENSEISSUED2
48 (cont.)	Year the License(s) Issued (Code up to 4) Item 3	CP048_YEARLICENSEISSUED3
48 (cont.)	Year the License(s) Issued (Code up to 4) Item 4	CP048_YEARLICENSEISSUED4
49	Riders Origin - Hispanic Or Latino	CP049_HISPANICORIGIN
49 (cont.)	Riders Origin - Hispanic Or Latino - Text	CP049_HISPANICORIGINTXT
50	Race (Code up to 3) - Item 1	CP050_RACE1
50 (cont.)	Race (Code up to 3) - Item 2	CP050_RACE2
50 (cont.)	Race (Code up to 3) - Item 3	CP050_RACE3

Variable Number	Variable	SAS® and Excel™ Name
50 (cont.)	Race (Code up to 3) - Text	CP050_RACETXT
51	Riders Height in Feet	CP051_MCPHEIGHTFEET
51 (cont.)	Riders Height in Inches	CP051_MCPHEIGHTINCHES
52	Riders Weight In Pounds	CP052_MCPWEIGHT
53	Gender	CP053_GENDER
54	Level Of Formal Education	CP054_LEVELOFEDUCATION
54 (cont.)	Level Of Formal Education - Text	CP054_LEVELOFEDUCATIONTXT
55	Current Occupation	CP055_CURRENTOCCUPATION
55 (cont.)	Current Occupation - Text	CP055_CURRENTOCCUPATIONTXT
56	Marital Status	CP056_MARITALSTATUS
56 (cont.)	Marital Status - Text	CP056_MARITALSTATUSTXT
57	Number Of Children	CP057_NUMBEROFCHILDREN
57 (cont.)	Number Of Children - Text	CP057_NUMBEROFCHILDRENTXT
58	Blood Alcohol Concentration (BAC)	CP058_BLOODALCOHOL
58 (cont.)	Blood Alcohol Concentration (BAC) - Text	CP058_BLOODALCOHOLTXT
59	Source of BAC information	CP059_BACINFORMATIONSOURCE
59 (cont.)	Source of BAC information - Text	CP059_BACINFORMATIONSOURCE

Table 16. List of variables in the Motorcycle Mechanical Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	MM000_CASEID
1	Manufacture	MM001_MANUFACTURE
1 (cont.)	Manufacture - Text	MM001_MANUFACTURETXT
2	Model - Text	MM002_MODELTXT
3	Year	MM003_YEAR
4	Motorcycle Legal Category	MM004_MCLEGALCATEGORY
4 (cont.)	Motorcycle Legal Category - Text	MM004_MCLEGALCATEGORYTXT
5	Motorcycle Type	MM005_MCTYPE
5 (cont.)	Motorcycle Type - Text	MM005_MCTYPETXT
6	Motorcycle Weight	MM006_MCWEIGHT
7	Vehicle Identification Number (VIN)	MM007_VIN
8	Odometer Reading in Miles	MM008_ODOMETERREADING
9	Registered Owner Category	MM009_OWNERCATEGORY
9 (cont.)	Registered Owner Category - Text	MM009_OWNERCATEGORYTXT
10	Predominant Color of Motorcycle	MM010_MCCOLOR
10 (cont.)	Predominant Color of Motorcycle - Text	MM010_MCCOLORTXT
11	Did the Motorcycle Have Any Retroreflective Parts, Material or Paint?	MM011_MCRETROFLECTIVE
11 (cont.)	Did the Motorcycle Have Any Retroreflective Parts, Material or Paint? - Text	MM011_MCRETROFLECTIVETXT
12	Motor Displacement	MM012_MCMOTORDISPLACEMENT
13	Number of Cylinders	MM013_MCNUMBCYLINDER
14	Symptom of Problem	MM014_MECHPROBLEMSYPTOMS
14 (cont.)	Symptom of Problem - Text	MM014_MECHPROBLEMSYPTOMSTXT
15	Source of Problem	MM015_MECHPROBLEMSOURCE
15 (cont.)	Source of Problem - Text	MM015_MECHPROBLEMSOURCETXT
16	Tire Size Measurement Units	MM016_TIREMEASUREMENTUNIT
17	Front Tire Measurement	MM017_FRONTTIREMEASUREMENT
18	Rear Tire Measurement	MM018_REARTIREMEASUREMENT
19	Front Tire Manufacturer	MM019_FRONTTIREMANUFACTURER
19 (cont.)	Tire Manufacturer - Text	MM019_FRONTTIREMANUFACTURERTXT
19 (cont.)	Rear Tire Manufacturer	MM019_REARTIREMANUFACTURER
19 (cont.)	Rear Tire Manufacturer - Text	MM019_REARTIREMANUFACTURERTXT
20	Rim Size Front - Diameter	MM020_FRONTRIMDIAMETER
20 (cont.)	Rim Size Front - Width	MM020_FRONTRIMWIDTH
21	Rim Size Rear - Diameter	MM021_REARRIMDIAMETER
21 (cont.)	Rim Size Rear - Width	MM021_REARRIMWIDTH
22	Front Rim Manufacturer	MM022_FRONTRIMMANUFACTURER
22 (cont.)	Front Rim Manufacturer - Text	MM022_FRONTRIMMANUFACTURERTXT
22 (cont.)	Rear Rim Manufacturer	MM022_REARRIMMANUFACTURER
22 (cont.)	Rear Rim - Text	MM022_REARRIMMANUFACTURERTXT
23	Front Tire Tread Type	MM023_FRONTTREADTYPE
23 (cont.)	Front Tire Tread Type - Text	MM023_FRONTTREADTYPETXT
23 (cont.)	Rear Tire Tread Type	MM023_REARTREADTYPE
23 (cont.)	Rear Tire Tread Type - Text	MM023_REARTREADTYPETXT
24	Measured Tread Depth - Front	MM024_FRONTTREADDEPTH
24 (cont.)	Measured Tread Depth - Rear	MM024_REARTREADDEPTH
25	Inflation Pressure Code in PSI - Front	MM025_FRONTTIREPSI
25 (cont.)	Inflation Pressure Code in PSI - Rear	MM025_REARTIREPSI
26	Braking Evidence on Front Tire	MM026_FTIREBRAKINGEVIDENCE
26 (cont.)	Braking Evidence on Front Tire - Text	MM026_FTIREBRAKINGEVIDENCETXT
26 (cont.)	Braking Evidence on Rear Tire	MM026_RTIREBRAKINGEVIDENCE
26 (cont.)	Braking Evidence on Rear Tire - Text	MM026_RTIREBRAKINGEVIDENCETXT
27	Suspension Type Front	MM027_FRONTSUSPENSIONTYPE
27 (cont.)	Suspension Type Front - Text	MM027_FRONTSUSPENSIONTYPETXT
28	Suspension Type Rear	MM028_REARSUSPENSIONTYPE
28 (cont.)	Suspension Type Rear - Text	MM028_REARSUSPENSIONTYPETXT
29	Front Suspension Condition	MM029_FRONTSUSPENSIONCONDITION

Variable Number	Variable	SAS® and Excel™ Name
29 (cont.)	Front Suspension Condition - Text	MM029_FSUSPENSIONCONDITIONTXT
29 (cont.)	Rear Suspension Condition	MM029_REARSUSPENSIONCONDITION
29 (cont.)	Rear Suspension Condition - Text	MM029_RSUSPENSIONCONDITIONTXT
30	Rider Brake Control Type - Lever/Pedal 1	MM030_BRAKECONTROLTYPE1
30 (cont.)	Rider Brake Control Type - Lever/Pedal 2	MM030_BRAKECONTROLTYPE2
30 (cont.)	Rider Brake Control Type - Lever/Pedal 1 - Text	MM030_BRAKECONTROLTYPE1TXT
30 (cont.)	Rider Brake Control Type - Lever/Pedal 2 - Text	MM030_BRAKECONTROLTYPE2TXT
31	Rider Brake Control Side - Lever/Pedal 1	MM031_BRAKECONTROLSIDE1
31 (cont.)	Rider Brake Control Side - Lever/Pedal 1 - Text	MM031_BRAKECONTROLSIDE1TXT
31 (cont.)	Rider Brake Control Side - Lever/Pedal 2	MM031_BRAKECONTROLSIDE2
31 (cont.)	Rider Brake Control Side - Lever/Pedal 2 - Text	MM031_BRAKECONTROLSIDE2TXT
32	Brake Actuation at Lever or Pedal 1	MM032_BRAKEACTUATION1
32 (cont.)	Brake Actuation at Lever or Pedal 1 - Text	MM032_BRAKEACTUATION1TXT
32 (cont.)	Brake Actuation at Lever or Pedal 2	MM032_BRAKEACTUATION2
32 (cont.)	Brake Actuation at Lever or Pedal 2 - Text	MM032_BRAKEACTUATION2TXT
33	Brake Control System Type - Lever/Pedal 1	MM033_BRAKECONTROLSYSTYPE1
33 (cont.)	Brake Control System Type - Lever/Pedal 2	MM033_BRAKECONTROLSYSTYPE2
34	Connection to Front Brake Includes Valve Type - Level/Pedal 1	MM034_FBRAKECONNECTINCLUDES1
34 (cont.)	Connection to Front Brake Includes Valve Type - Level/Pedal 2	MM034_FBRAKECONNECTINCLUDES2
35	Connection to Rear Brake Includes Valve Type - Lever/Pedal 1	MM035_RBRAKECONNECTINCLUDES1
35 (cont.)	Connection to Rear Brake Includes Valve Type - Lever/Pedal 2	MM035_RBRAKECONNECTINCLUDES2
36	Front ABS	MM036_FRONTBRAKEABS
36 (cont.)	Rear ABS	MM036_REARBRAKEABS
37	Front ABS Type	MM037_FRONTABSTYPE
37 (cont.)	Front ABS Type - Text	MM037_FRONTABSTYPETXT
37 (cont.)	Rear ABS Type	MM037_REARABSTYPE
37 (cont.)	Rear ABS Type - Text	MM037_REARABSTYPETXT
38	Front Brake Mechanism	MM038_FRONTBRAKEMECHANISM
38 (cont.)	Front Brake Mechanism - Text	MM038_FRONTBRAKEMECHANISMTXT
38 (cont.)	Rear Brake Mechanism	MM038_REARBRAKEMECHANISM
38 (cont.)	Rear Brake Mechanism - Text	MM038_REARBRAKEMECHANISMTXT
39	Front Brake Mechanism Actuation	MM039_FRONTBRAKEACTUATION
39 (cont.)	Front Brake Mechanism Actuation - Text	MM039_FRONTBRAKEACTUATIONTXT
39 (cont.)	Rear Brake Mechanism Actuation	MM039_REARBRAKEACTUATION
39 (cont.)	Rear Brake Mechanism Actuation - Text	MM039_REARBRAKEACTUATIONTXT
40	Were Rear Brakes Operational Before Crash	MM040_FRONTBRAKEOPERATIONAL
40 (cont.)	Were Front Brakes Operational Before Crash	MM040_REARBRAKEOPERATIONAL
41	Do the Front Brakes Appear to be Defective	MM041_FRONTBRAKESDEFECTIVE
41 (cont.)	Do the Rear Brakes Appear to be Defective	MM041_REARBRAKESDEFECTIVE
42	Front Brakes Condition/Wear	MM042_FRONTBRAKESWEARCOND
42 (cont.)	Front Brakes Condition/Wear - Text	MM042_FRONTBRAKESWEARCONDTEXT
42 (cont.)	Rear Brakes Condition/Wear	MM042_REARBRAKESWEARCOND
42 (cont.)	Rear Brakes Condition/Wear - Text	MM042_REARBRAKESWEARCONDTEXT
43	Front Brake Adjustment	MM043_FRONTBRAKEADJUSTMENT
43 (cont.)	Front Brake Adjustment Text	MM043_FRONTBRAKEADJUSTMENTTXT
43 (cont.)	Rear Brake Adjustment	MM043_REARBRAKEADJUSTMENT
43 (cont.)	Rear Brake Adjustment Text	MM043_REARBRAKEADJUSTMENTTXT
44	Frame Type/Configuration	MM044_FRAMEATYPE
44 (cont.)	Frame Type/Configuration - Text	MM044_FRAMEATYPETXT
45	Frame Material	MM045_FRAMEMATERIAL
45 (cont.)	Frame Material - Text	MM045_FRAMEMATERIALTXT
46	Reduction in Wheelbase	MM046_WHEELBASEREDUCTION
47	Did Front Wheel Displace Against Either the Motor or the Frame	MM047_FWHEELDISPLACEDWRTFRAME
48	Steering Stem Adjustment	MM048_STEERINGSTEMADJUSTMENT
48 (cont.)	Steering Stem Adjustment - Text	MM048_STEERINGSTEMADJUSTMENTTXT

Variable Number	Variable	SAS® and Excel™ Name
49	Steering Damper Installed	MM049_STEERINGDAMPERINSTALL
49 (cont.)	Steering Damper Installed - Text	MM049_STEERINGDAMPERINSTALLTXT
50	Is Rear Swing Arm Loose?	MM050_REARSWINGARMRIGIDITY
51	Is the Motorcycle Equipped with Pedals?	MM051_MCPEDALSEQUIPPED
52	Rider Foot Pegs, Footrest Type	MM052_MCRFOOTPEGSTYPE
52 (cont.)	Rider Foot Pegs, Footrest Type - Text	MM052_MCRFOOTPEGSTYPETXT
53	Passenger Foot Pegs, Footrest Type	MM053_MCPPEGSTYPE
53 (cont.)	Passenger Foot Pegs, Footrest Type - Text	MM053_MCPPEGSTYPETXT
54	Side Stand Type	MM054_SIDE STANDTYPE
54 (cont.)	Side Stand Type - Text	MM054_SIDE STANDTYPETXT
55	Center Stand Type	MM055_CENTERSTANDTYPE
55 (cont.)	Center Stand Type - Text	MM055_CENTERSTANDTYPETXT
56	Headlamp Assembly Type	MM056_HEADLAMPASSYTYPE
56 (cont.)	Headlamp Assembly Type - Text	MM056_HEADLAMPASSYTYPETXT
57	Was Headlamp Illuminated at the Time of Crash?	MM057_HEADLAMPLITATCRASH
57 (cont.)	Was Headlamp Illuminated at the Time of Crash? - Text	MM057_HEADLAMPLITATCRASHTXT
58	Was Motorcycle Equipped With as Airbag?	MM058_AIRBAGEQUIPPED
59	Is Motorcycle Equipped With or Pulling Any of the Following	MM059_MCPULLINGATTACHMENT
59 (cont.)	Is Motorcycle Equipped With or Pulling Any of the Following - Text	MM059_MCPULLINGATTACHMENTTXT
60	Handlebar Type	MM060_HANDLEBARTYPE
60 (cont.)	Handlebar Type - Text	MM060_HANDLEBARTYPETXT
61	Handlebar Mounting	MM061_HANDLEBARMOUNTING
61 (cont.)	Handlebar Mounting - Text	MM061_HANDLEBARMOUNTINGTXT
62	Handlebar Construction	MM062_HANDLEBARMATERIAL
62 (cont.)	Handlebar Construction - Text	MM062_HANDLEBARMATERIALTXT
63	Handlebar Measurement - Rise	MM063_HANDLEBARRISE
63 (cont.)	Handlebar Measurement - Sweep	MM063_HANDLEBARSWEEP
63 (cont.)	Handlebar Measurement - Width	MM063_HANDLEBARWIDTH
64	Seat Type	MM064_SEATTYPE
64 (cont.)	Seat Type - Text	MM064_SEATTYPETXT
65	Seat Fastening	MM065_SEATFASTENING
65 (cont.)	Seat Fastening - Text	MM065_SEATFASTENINGTXT
66	Fuel Tank Type	MM066_FUELTANKTYPE
66 (cont.)	Fuel Tank Type - Text	MM066_FUELTANKTYPETXT
67	Fuel Tank Material	MM067_FUELTANKMATERIAL
67 (cont.)	Fuel Tank Material - Text	MM067_FUELTANKMATERIALTXT
68	Fuel Tank Cap Type	MM068_FUELTANKCAPTYPE
68 (cont.)	Fuel Tank Cap Type - Text	MM068_FUELTANKCAPTYPETXT
69	Cap Retention	MM069_CAPRETENTION
69 (cont.)	Cap Retention - Text	MM069_CAPRETENTIONTXT
70	Tank Retention	MM070_TANKRETENTION
71	Tank Deformation	MM071_TANKDEFORMATION
72	Deformation source	MM072_TANKDEFORMATIONSOURCE
72 (cont.)	Deformation source - Text	MM072_TANKDEFORMATIONSOURCECETXT
73	Was There a Fuel Tank Failure?	MM073_FUELTANKFAILURE
74	Tank Damage/Failure Type (Code up to 4) - Item 1	MM074_TANKDAMAGEFAILURETYPE1
74 (cont.)	Tank Damage/Failure Type (Code up to 4) - Item 2	MM074_TANKDAMAGEFAILURETYPE2
74 (cont.)	Tank Damage/Failure Type (Code up to 4) - Item 3	MM074_TANKDAMAGEFAILURETYPE3
74 (cont.)	Tank Damage/Failure Type (Code up to 4) - Item 4	MM074_TANKDAMAGEFAILURETYPE4
74 (cont.)	Tank Damage/Failure Type - Text	MM074_TANKDAMAGEFAILURETYPETXT
75	Was There a Fuel Spill or Leak?	MM075_FUELLEAK
75 (cont.)	Was There a Fuel Spill or Leak? - Text	MM075_FUELLEAKTXT
76	Source of Fuel Spills or Leaks (Code up to 5) - Item 1	MM076_FUELLEAKSOURCE1
76 (cont.)	Source of Fuel Spills or Leaks (Code up to 5) - Item 2	MM076_FUELLEAKSOURCE2
76 (cont.)	Source of Fuel Spills or Leaks (Code up to 5) - Item 3	MM076_FUELLEAKSOURCE3
76 (cont.)	Source of Fuel Spills or Leaks (Code up to 5) - Item 4	MM076_FUELLEAKSOURCE4
76 (cont.)	Source of Fuel Spills or Leaks (Code up to 5) - Item 5	MM076_FUELLEAKSOURCE5

Variable Number	Variable	SAS® and Excel™ Name
76 (cont.)	Source of Fuel Spills or Leaks - Text	MM076_FUELLEAKSOURCETXT
77	Did a Fire Occur?	MM077_FIREOCCURENCE
78	When Did a Fire Occur?	MM078_WHENFIREOCCURRED
78 (cont.)	When Did a Fire Occur? - Text	MM078_WHENFIREOCCURREDTXT
79	The Fire Occurred How Long After a Crash?	MM079_FIRETIMEPOSTCRASH
79 (cont.)	The Fire Occurred How Long After a Crash? - Text	MM079_FIRETIMEPOSTCRASHTXT
80	Fuel Source for Fire	MM080_FIREFUELSOURCE
80 (cont.)	Fuel Source for Fire - Text	MM080_FIREFUELSOURCETXT
81	Ignition Source of Fire	MM081_FIREIGNITIONSOURCE
81 (cont.)	Ignition Source of Fire - Text	MM081_FIREIGNITIONSOURCETXT
82	Drive Line Type	MM082_DRIVELINETYPE
82 (cont.)	Drive Line Type - Text	MM082_DRIVELINETYPTXT
83	Drive Chain, Belt, or Shaft Condition	MM083_DRIVELINECONDITION
83 (cont.)	Drive Chain, Belt, or Shaft Condition - Text	MM083_DRIVELINECONDITIONTXT
84	When Did This Drive Line Damage Occur?	MM084_TIMEDRIVELINEDAMAGEOCCUR
85	Drive Sprocket Condition	MM085_DRIVESPROCKETCOND
85 (cont.)	Drive Sprocket Condition - Text	MM085_DRIVESPROCKETCONDXTXT
86	Does Throttle Control Work?	MM086_THROTTLECNTRLWORKING
87	Drum Condition	MM087_DRUMCONDITION
87 (cont.)	Drum Condition - Text	MM087_DRUMCONDITIONTXT
88	Condition of Cables	MM088_CABLECONDITION
88 (cont.)	Condition of Cables - Text	MM088_CABLECONDITIONTXT
89	Condition of Throttle Plate/Slides	MM089_THROTTLEPLATECOND
89 (cont.)	Condition of Throttle Plate/Slides - Text	MM089_THROTTLEPLATECONDXTXT
90	Return springs condition	MM090_RETURNSPRINGCONDITION
90 (cont.)	Return springs condition - Text	MM090_RETURNSPRINGCONDITIONTXT
91	Condition of Exhaust	MM091_EXHAUSTCONDITION
91 (cont.)	Condition of Exhaust - Text	MM091_EXHAUSTCONDITIONTXT
92	Front crash bars - Aftermarket	MM092_FRONTCRASHBARS_AFTMKT
92 (cont.)	Front crash bars - Damaged in Crash	MM092_FRONTCRASHBARS_DMG
92 (cont.)	Front crash bars - Equipped	MM092_FRONTCRASHBARS_EQUIP
92 (cont.)	Front crash bars - Modified	MM092_FRONTCRASHBARS_MOD
92 (cont.)	Front crash bars - Operational	MM092_FRONTCRASHBARS_OPER
92 (cont.)	Front crash bars - Original Equipment	MM092_FRONTCRASHBARS_ORIG
93	Rear crash bars - Aftermarket	MM093_REARCRASHBARS_AFTMKT
93 (cont.)	Rear crash bars - Damaged in Crash	MM093_REARCRASHBARS_DMG
93 (cont.)	Rear crash bars - Equipped	MM093_REARCRASHBARS_EQUIP
93 (cont.)	Rear crash bars - Modified	MM093_REARCRASHBARS_MOD
93 (cont.)	Rear crash bars - Operational	MM093_REARCRASHBARS_OPER
93 (cont.)	Rear crash bars - Original Equipment	MM093_REARCRASHBARS_ORIG
94	Engine guard - Aftermarket	MM094_ENGINEGUARD_AFTMKT
94 (cont.)	Engine guard - Damaged in Crash	MM094_ENGINEGUARD_DMG
94 (cont.)	Engine guard - Equipped	MM094_ENGINEGUARD_EQUIP
94 (cont.)	Engine guard - Modified	MM094_ENGINEGUARD_MOD
94 (cont.)	Engine guard - Operational	MM094_ENGINEGUARD_OPER
94 (cont.)	Engine guard - Original Equipment	MM094_ENGINEGUARD_ORIG
95	Windscreen - Aftermarket	MM095_WINDSHIELD_AFTMKT
95 (cont.)	Windscreen - Damaged in Crash	MM095_WINDSHIELD_DMG
95 (cont.)	Windscreen - Equipped	MM095_WINDSHIELD_EQUIP
95 (cont.)	Windscreen - Modified	MM095_WINDSHIELD_MOD
95 (cont.)	Windscreen - Operational	MM095_WINDSHIELD_OPER
95 (cont.)	Windscreen - Original Equipment	MM095_WINDSHIELD_ORIG
96	Fairing, handlebar or steering mounted - Aftermarket	MM096_FAIRING_AFTMKT
96 (cont.)	Fairing, handlebar or steering mounted - Damaged in Crash	MM096_FAIRING_DMG
96 (cont.)	Fairing, handlebar or steering mounted - Equipped	MM096_FAIRING_EQUIP
96 (cont.)	Fairing, handlebar or steering mounted - Modified	MM096_FAIRING_MOD
96 (cont.)	Fairing, handlebar or steering mounted - Operational	MM096_FAIRING_OPER
96 (cont.)	Fairing, handlebar or steering mounted - Original Equipment	MM096_FAIRING_ORIG

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97	Fairing, frame mounted - Aftermarket	MM097_FAIRINGMOUNT_AFTMKT
97 (cont.)	Fairing, frame mounted - Damaged in Crash	MM097_FAIRINGMOUNT_DMG
97 (cont.)	Fairing, frame mounted - Equipped	MM097_FAIRINGMOUNT_EQUIP
97 (cont.)	Fairing, frame mounted - Modified	MM097_FAIRINGMOUNT_MOD
97 (cont.)	Fairing, frame mounted - Operational	MM097_FAIRINGMOUNT_OPER
97 (cont.)	Fairing, frame mounted - Original Equipment	MM097_FAIRINGMOUNT_ORIG
97 (cont.)	Headlamps - Aftermarket	MM097_HEADLAMPS_AFTMKT
97 (cont.)	Headlamps - Equipped	MM097_HEADLAMPS_EQUIP
97 (cont.)	Headlamps - Original Equipment	MM097_HEADLAMPS_ORIG
98	Headlamp nacelle - Aftermarket	MM098_HEADLAMPNACELLE_AFTMKT
98 (cont.)	Headlamp nacelle - Equipped	MM098_HEADLAMPNACELLE_EQUIP
98 (cont.)	Headlamp nacelle - Original Equipment	MM098_HEADLAMPNACELLE_ORIG
98 (cont.)	Headlamps - Damaged in Crash	MM098_HEADLAMPS_DMG
98 (cont.)	Headlamps - Modified	MM098_HEADLAMPS_MOD
98 (cont.)	Headlamps - Operational	MM098_HEADLAMPS_OPER
99	Auxiliary headlamp - Aftermarket	MM099_AUXHEADLAMP_AFTMKT
99 (cont.)	Auxiliary headlamp - Equipped	MM099_AUXHEADLAMP_EQUIP
99 (cont.)	Auxiliary headlamp - Original Equipment	MM099_AUXHEADLAMP_ORIG
99 (cont.)	Headlamp nacelle - Damaged in Crash	MM099_HEADLAMPNACELLE_DMG
99 (cont.)	Headlamp nacelle - Modified	MM099_HEADLAMPNACELLE_MOD
99 (cont.)	Headlamp nacelle - Operational	MM099_HEADLAMPNACELLE_OPER
100	Auxiliary headlamp - Damaged in Crash	MM100_AUXHEADLAMP_DMG
100 (cont.)	Auxiliary headlamp - Modified	MM100_AUXHEADLAMP_MOD
100 (cont.)	Auxiliary headlamp - Operational	MM100_AUXHEADLAMP_OPER
100 (cont.)	Front position lamp - Aftermarket	MM100_FRONTPOSITIONLAMP_AFTMKT
100 (cont.)	Front position lamp - Equipped	MM100_FRONTPOSITIONLAMP_EQUIP
100 (cont.)	Front position lamp - Original Equipment	MM100_FRONTPOSITIONLAMP_ORIG
101	Front position lamp - Damaged in Crash	MM101_FRONTPOSITIONLAMP_DMG
101 (cont.)	Front position lamp - Modified	MM101_FRONTPOSITIONLAMP_MOD
101 (cont.)	Front position lamp - Operational	MM101_FRONTPOSITIONLAMP_OPER
101 (cont.)	Front reflector, yellow - Aftermarket	MM101_FRONTREFLECTORYEL_AFTMKT
101 (cont.)	Front reflector, yellow - Damaged in Crash	MM101_FRONTREFLECTORYEL_DMG
101 (cont.)	Front reflector, yellow - Equipped	MM101_FRONTREFLECTORYEL_EQUIP
101 (cont.)	Front reflector, yellow - Modified	MM101_FRONTREFLECTORYEL_MOD
101 (cont.)	Front reflector, yellow - Operational	MM101_FRONTREFLECTORYEL_OPER
101 (cont.)	Front reflector, yellow - Original Equipment	MM101_FRONTREFLECTORYEL_ORIG
102	Front reflector, white - Aftermarket	MM102_FRONTREFLECTORWHT_AFTMKT
102 (cont.)	Front reflector, white - Damaged in Crash	MM102_FRONTREFLECTORWHT_DMG
102 (cont.)	Front reflector, white - Modified	MM102_FRONTREFLECTORWHT_MOD
102 (cont.)	Front reflector, white - Operational	MM102_FRONTREFLECTORWHT_OPER
102 (cont.)	Front reflector, white - Equipped	MM102_FRONTREFLECTORWHT_EQUIP
102 (cont.)	Front reflector, white - Original Equipment	MM102_FRONTREFLECTORWHT_ORIG
103	Front reflector, red - Aftermarket	MM103_FRONTREFLECTORRED_AFTMKT
103 (cont.)	Front reflector, red - Damaged in Crash	MM103_FRONTREFLECTORRED_DMG
103 (cont.)	Front reflector, red - Equipped	MM103_FRONTREFLECTORRED_EQUIP
103 (cont.)	Front reflector, red - Modified	MM103_FRONTREFLECTORRED_MOD
103 (cont.)	Front reflector, red - Operational	MM103_FRONTREFLECTORRED_OPER
103 (cont.)	Front reflector, red - Original Equipment	MM103_FRONTREFLECTORRED_ORIG
104	Front reflector, silver - Aftermarket	MM104_FRONTREFLECTORSIL_AFTMKT
104 (cont.)	Front reflector, silver - Damaged in Crash	MM104_FRONTREFLECTORSIL_DMG
104 (cont.)	Front reflector, silver - Equipped	MM104_FRONTREFLECTORSIL_EQUIP
104 (cont.)	Front reflector, silver - Modified	MM104_FRONTREFLECTORSIL_MOD
104 (cont.)	Front reflector, silver - Operational	MM104_FRONTREFLECTORSIL_OPER
104 (cont.)	Front reflector, silver - Original Equipment	MM104_FRONTREFLECTORSIL_ORIG
105	Front turn signals - Aftermarket	MM105_FRONTTURN SIGNALS_AFTMKT
105 (cont.)	Front turn signals - Damaged in Crash	MM105_FRONTTURN SIGNALS_DMG
105 (cont.)	Front turn signals - Equipped	MM105_FRONTTURN SIGNALS_EQUIP
105 (cont.)	Front turn signals - Modified	MM105_FRONTTURN SIGNALS_MOD
105 (cont.)	Front turn signals - Operational	MM105_FRONTTURN SIGNALS_OPER

Variable Number	Variable	SAS® and Excel™ Name
105 (cont.)	Front turn signals - Original Equipment	MM105_FRONTTURN SIGNALS_ORIG
105 (cont.)	Speedometer - Aftermarket	MM105_SPEEDOMETER_AFTMKT
105 (cont.)	Speedometer - Equipped	MM105_SPEEDOMETER_EQUIP
105 (cont.)	Speedometer - Original Equipment	MM105_SPEEDOMETER_ORIG
106	Speedometer - Damaged in Crash	MM106_SPEEDOMETER_DMG
106 (cont.)	Speedometer - Modified	MM106_SPEEDOMETER_MOD
106 (cont.)	Speedometer - Operational	MM106_SPEEDOMETER_OPER
106 (cont.)	Tachometer - Aftermarket	MM106_TACHOMETER_AFTMKT
106 (cont.)	Tachometer - Equipped	MM106_TACHOMETER_EQUIP
106 (cont.)	Tachometer - Original Equipment	MM106_TACHOMETER_ORIG
107	Handlebars - Aftermarket	MM107_HANDLEBARS_AFTMKT
107 (cont.)	Handlebars - Equipped	MM107_HANDLEBARS_EQUIP
107 (cont.)	Handlebars - Original Equipment	MM107_HANDLEBARS_ORIG
107 (cont.)	Tachometer - Damaged in Crash	MM107_TACHOMETER_DMG
107 (cont.)	Tachometer - Modified	MM107_TACHOMETER_MOD
107 (cont.)	Tachometer - Operational	MM107_TACHOMETER_OPER
108	Handlebars - Damaged in Crash	MM108_HANDLEBARS_DMG
108 (cont.)	Handlebars - Modified	MM108_HANDLEBARS_MOD
108 (cont.)	Handlebars - Operational	MM108_HANDLEBARS_OPER
108 (cont.)	Throttle - Aftermarket	MM108_THROTTLE_AFTMKT
108 (cont.)	Throttle - Equipped	MM108_THROTTLE_EQUIP
108 (cont.)	Throttle - Original Equipment	MM108_THROTTLE_ORIG
109	Clutch lever - Aftermarket	MM109_CLUTCHLEVER_AFTMKT
109 (cont.)	Clutch lever - Damaged in Crash	MM109_CLUTCHLEVER_DMG
109 (cont.)	Clutch lever - Equipped	MM109_CLUTCHLEVER_EQUIP
109 (cont.)	Clutch lever - Modified	MM109_CLUTCHLEVER_MOD
109 (cont.)	Clutch lever - Operational	MM109_CLUTCHLEVER_OPER
109 (cont.)	Clutch lever - Original Equipment	MM109_CLUTCHLEVER_ORIG
109 (cont.)	Throttle - Damaged in Crash	MM109_THROTTLE_DMG
109 (cont.)	Throttle - Modified	MM109_THROTTLE_MOD
109 (cont.)	Throttle - Operational	MM109_THROTTLE_OPER
110	Brake lever - Aftermarket	MM110_BRAKELEVER_AFTMKT
110 (cont.)	Brake lever - Damaged in Crash	MM110_BRAKELEVER_DMG
110 (cont.)	Brake lever - Equipped	MM110_BRAKELEVER_EQUIP
110 (cont.)	Brake lever - Modified	MM110_BRAKELEVER_MOD
110 (cont.)	Brake lever - Operational	MM110_BRAKELEVER_OPER
110 (cont.)	Brake lever - Original Equipment	MM110_BRAKELEVER_ORIG
111	Right side rear view mirrors, posts - Aftermarket	MM111_RGTMIRRORPOST_AFTMKT
111 (cont.)	Right side rear view mirrors, posts - Damaged in Crash	MM111_RGTMIRRORPOST_DMG
111 (cont.)	Right side rear view mirrors, posts - Equipped	MM111_RGTMIRRORPOST_EQUIP
111 (cont.)	Right side rear view mirrors, posts - Modified	MM111_RGTMIRRORPOST_MOD
111 (cont.)	Right side rear view mirrors, posts - Operational	MM111_RGTMIRRORPOST_OPER
111 (cont.)	Right side rear view mirrors, posts - Original Equipment	MM111_RGTMIRRORPOST_ORIG
112	Left side rear view mirrors, posts - Aftermarket	MM112_LFTMIRRORPOST_AFTMKT
112 (cont.)	Left side rear view mirrors, posts - Damaged in Crash	MM112_LFTMIRRORPOST_DMG
112 (cont.)	Left side rear view mirrors, posts - Equipped	MM112_LFTMIRRORPOST_EQUIP
112 (cont.)	Left side rear view mirrors, posts - Modified	MM112_LFTMIRRORPOST_MOD
112 (cont.)	Left side rear view mirrors, posts - Operational	MM112_LFTMIRRORPOST_OPER
112 (cont.)	Left side rear view mirrors, posts - Original Equipment	MM112_LFTMIRRORPOST_ORIG
113	Front suspension - Aftermarket	MM113_FRONTSUSPENSION_AFTMKT
113 (cont.)	Front suspension - Damaged in Crash	MM113_FRONTSUSPENSION_DMG
113 (cont.)	Front suspension - Equipped	MM113_FRONTSUSPENSION_EQUIP
113 (cont.)	Front suspension - Modified	MM113_FRONTSUSPENSION_MOD
113 (cont.)	Front suspension - Operational	MM113_FRONTSUSPENSION_OPER
113 (cont.)	Front suspension - Original Equipment	MM113_FRONTSUSPENSION_ORIG
113 (cont.)	Front tire/wheel - Aftermarket	MM113_FRONTWHEEL_AFTMKT
113 (cont.)	Front tire/wheel - Equipped	MM113_FRONTWHEEL_EQUIP
113 (cont.)	Front tire/wheel - Original Equipment	MM113_FRONTWHEEL_ORIG
114	Front fender - Aftermarket	MM114_FRONTFENDER_AFTMKT

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114 (cont.)	Front fender - Equipped	MM114_FRONTFENDER_EQUIP
114 (cont.)	Front fender - Original Equipment	MM114_FRONTFENDER_ORIG
114 (cont.)	Front tire/wheel - Damaged in Crash	MM114_FRONTWHEEL_DMG
114 (cont.)	Front tire/wheel - Modified	MM114_FRONTWHEEL_MOD
114 (cont.)	Front tire/wheel - Operational	MM114_FRONTWHEEL_OPER
115	Front brakes - Aftermarket	MM115_FRONTBRAKES_AFTMKT
115 (cont.)	Front brakes - Equipped	MM115_FRONTBRAKES_EQUIP
115 (cont.)	Front brakes - Original Equipment	MM115_FRONTBRAKES_ORIG
115 (cont.)	Front fender - Damaged in Crash	MM115_FRONTFENDER_DMG
115 (cont.)	Front fender - Modified	MM115_FRONTFENDER_MOD
115 (cont.)	Front fender - Operational	MM115_FRONTFENDER_OPER
116	Front brakes - Damaged in Crash	MM116_FRONTBRAKES_DMG
116 (cont.)	Front brakes - Modified	MM116_FRONTBRAKES_MOD
116 (cont.)	Front brakes - Operational	MM116_FRONTBRAKES_OPER
116 (cont.)	Seat - Aftermarket	MM116_SEAT_AFTMKT
116 (cont.)	Seat - Equipped	MM116_SEAT_EQUIP
116 (cont.)	Seat - Original Equipment	MM116_SEAT_ORIG
117	Sissy bar/passenger back rest - Aftermarket	MM117_MCPBACKREST_AFTMKT
117 (cont.)	Sissy bar/passenger back rest - Damaged in Crash	MM117_MCPBACKREST_DMG
117 (cont.)	Sissy bar/passenger back rest - Equipped	MM117_MCPBACKREST_EQUIP
117 (cont.)	Sissy bar/passenger back rest - Modified	MM117_MCPBACKREST_MOD
117 (cont.)	Sissy bar/passenger back rest - Operational	MM117_MCPBACKREST_OPER
117 (cont.)	Sissy bar/passenger back rest - Original Equipment	MM117_MCPBACKREST_ORIG
117 (cont.)	Seat - Damaged in Crash	MM117_SEAT_DMG
117 (cont.)	Seat - Modified	MM117_SEAT_MOD
117 (cont.)	Seat - Operational	MM117_SEAT_OPER
118	Side reflectors, yellow - Aftermarket	MM118_SIDEREFLECTORYEL_AFTMKT
118 (cont.)	Side reflectors, yellow - Damaged in Crash	MM118_SIDEREFLECTORYEL_DMG
118 (cont.)	Side reflectors, yellow - Equipped	MM118_SIDEREFLECTORYEL_EQUIP
118 (cont.)	Side reflectors, yellow - Modified	MM118_SIDEREFLECTORYEL_MOD
118 (cont.)	Side reflectors, yellow - Operational	MM118_SIDEREFLECTORYEL_OPER
118 (cont.)	Side reflectors, yellow - Original Equipment	MM118_SIDEREFLECTORYEL_ORIG
119	Side reflectors, red - Aftermarket	MM119_SIDEREFLECTORRED_AFTMKT
119 (cont.)	Side reflectors, red - Damaged in Crash	MM119_SIDEREFLECTORRED_DMG
119 (cont.)	Side reflectors, red - Equipped	MM119_SIDEREFLECTORRED_EQUIP
119 (cont.)	Side reflectors, red - Modified	MM119_SIDEREFLECTORRED_MOD
119 (cont.)	Side reflectors, red - Operational	MM119_SIDEREFLECTORRED_OPER
119 (cont.)	Side reflectors, red - Original Equipment	MM119_SIDEREFLECTORRED_ORIG
120	Side reflectors, silver - Aftermarket	MM120_SIDEREFLECTORSIL_AFTMKT
120 (cont.)	Side reflectors, silver - Damaged in Crash	MM120_SIDEREFLECTORSIL_DMG
120 (cont.)	Side reflectors, silver - Equipped	MM120_SIDEREFLECTORSIL_EQUIP
120 (cont.)	Side reflectors, silver - Modified	MM120_SIDEREFLECTORSIL_MOD
120 (cont.)	Side reflectors, silver - Operational	MM120_SIDEREFLECTORSIL_OPER
120 (cont.)	Side reflectors, silver - Original Equipment	MM120_SIDEREFLECTORSIL_ORIG
121	Frame - Aftermarket	MM121_FRAME_AFTMKT
121 (cont.)	Frame - Damaged in Crash	MM121_FRAME_DMG
121 (cont.)	Frame - Equipped	MM121_FRAME_EQUIP
121 (cont.)	Frame - Modified	MM121_FRAME_MOD
121 (cont.)	Frame - Operational	MM121_FRAME_OPER
121 (cont.)	Frame - Original Equipment	MM121_FRAME_ORIG
121 (cont.)	Grab rails/hand holds - Aftermarket	MM121_HANDHOLDS_AFTMKT
121 (cont.)	Grab rails/hand holds - Equipped	MM121_HANDHOLDS_EQUIP
121 (cont.)	Grab rails/hand holds - Original Equipment	MM121_HANDHOLDS_ORIG
122	Fuel tank - Aftermarket	MM122_FUELTANK_AFTMKT
122 (cont.)	Fuel tank - Equipped	MM122_FUELTANK_EQUIP
122 (cont.)	Fuel tank - Original Equipment	MM122_FUELTANK_ORIG
122 (cont.)	Grab rails/hand holds - Damaged in Crash	MM122_HANDHOLDS_DMG
122 (cont.)	Grab rails/hand holds - Modified	MM122_HANDHOLDS_MOD
122 (cont.)	Grab rails/hand holds - Operational	MM122_HANDHOLDS_OPER

Variable Number	Variable	SAS® and Excel™ Name
123	Auxiliary fuel tank - Aftermarket	MM123_AUXFUELTANK_AFTMKT
123 (cont.)	Auxiliary fuel tank - Equipped	MM123_AUXFUELTANK_EQUIP
123 (cont.)	Auxiliary fuel tank - Original Equipment	MM123_AUXFUELTANK_ORIG
123 (cont.)	Fuel tank - Damaged in Crash	MM123_FUELTANK_DMG
123 (cont.)	Fuel tank - Modified	MM123_FUELTANK_MOD
123 (cont.)	Fuel tank - Operational	MM123_FUELTANK_OPER
124	Auxiliary fuel tank - Damaged in Crash	MM124_AUXFUELTANK_DMG
124 (cont.)	Auxiliary fuel tank - Modified	MM124_AUXFUELTANK_MOD
124 (cont.)	Auxiliary fuel tank - Operational	MM124_AUXFUELTANK_OPER
124 (cont.)	Motor crankcase, cylinders - Aftermarket	MM124_MOTORCRANKCASE_AFTMKT
124 (cont.)	Motor crankcase, cylinders - Equipped	MM124_MOTORCRANKCASE_EQUIP
124 (cont.)	Motor crankcase, cylinders - Original Equipment	MM124_MOTORCRANKCASE_ORIG
125	Motor crankcase, cylinders - Damaged in Crash	MM125_MOTORCRANKCASE_DMG
125 (cont.)	Motor crankcase, cylinders - Modified	MM125_MOTORCRANKCASE_MOD
125 (cont.)	Motor crankcase, cylinders - Operational	MM125_MOTORCRANKCASE_OPER
125 (cont.)	Radiator - Aftermarket	MM125_RADIATOR_AFTMKT
125 (cont.)	Radiator - Damaged in Crash	MM125_RADIATOR_DMG
125 (cont.)	Radiator - Equipped	MM125_RADIATOR_EQUIP
125 (cont.)	Radiator - Modified	MM125_RADIATOR_MOD
125 (cont.)	Radiator - Operational	MM125_RADIATOR_OPER
125 (cont.)	Radiator - Original Equipment	MM125_RADIATOR_ORIG
126	Water hose - Aftermarket	MM126_WATERHOSE_AFTMKT
126 (cont.)	Water hose - Damaged in Crash	MM126_WATERHOSE_DMG
126 (cont.)	Water hose - Equipped	MM126_WATERHOSE_EQUIP
126 (cont.)	Water hose - Modified	MM126_WATERHOSE_MOD
126 (cont.)	Water hose - Operational	MM126_WATERHOSE_OPER
126 (cont.)	Water hose - Original Equipment	MM126_WATERHOSE_ORIG
127	Motor power enhancement - Aftermarket	MM127_POWERENHANCED_AFTMKT
127 (cont.)	Motor power enhancement - Damaged in Crash	MM127_POWERENHANCED_DMG
127 (cont.)	Motor power enhancement - Equipped	MM127_POWERENHANCED_EQUIP
127 (cont.)	Motor power enhancement - Modified	MM127_POWERENHANCED_MOD
127 (cont.)	Motor power enhancement - Operational	MM127_POWERENHANCED_OPER
127 (cont.)	Motor power enhancement - Original Equipment	MM127_POWERENHANCED_ORIG
128	Transmission case - Aftermarket	MM128_TRANSMISSIONCASE_AFTMKT
128 (cont.)	Transmission case - Damaged in Crash	MM128_TRANSMISSIONCASE_DMG
128 (cont.)	Transmission case - Equipped	MM128_TRANSMISSIONCASE_EQUIP
128 (cont.)	Transmission case - Modified	MM128_TRANSMISSIONCASE_MOD
128 (cont.)	Transmission case - Operational	MM128_TRANSMISSIONCASE_OPER
128 (cont.)	Transmission case - Original Equipment	MM128_TRANSMISSIONCASE_ORIG
129	Battery, battery box - Aftermarket	MM129_BATTERY_AFTMKT
129 (cont.)	Battery, battery box - Equipped	MM129_BATTERY_EQUIP
129 (cont.)	Battery, battery box - Original Equipment	MM129_BATTERY_ORIG
129 (cont.)	Oil tank - Aftermarket	MM129_OILTANK_AFTMKT
129 (cont.)	Oil tank - Damaged in Crash	MM129_OILTANK_DMG
129 (cont.)	Oil tank - Equipped	MM129_OILTANK_EQUIP
129 (cont.)	Oil tank - Modified	MM129_OILTANK_MOD
129 (cont.)	Oil tank - Operational	MM129_OILTANK_OPER
129 (cont.)	Oil tank - Original Equipment	MM129_OILTANK_ORIG
130	Battery, battery box - Damaged in Crash	MM130_BATTERY_DMG
130 (cont.)	Battery, battery box - Modified	MM130_BATTERY_MOD
130 (cont.)	Battery, battery box - Operational	MM130_BATTERY_OPER
130 (cont.)	Rear brake pedal - Aftermarket	MM130_REARBRAKEPEDAL_AFTMKT
130 (cont.)	Rear brake pedal - Equipped	MM130_REARBRAKEPEDAL_EQUIP
130 (cont.)	Rear brake pedal - Original Equipment	MM130_REARBRAKEPEDAL_ORIG
131	Rear brake pedal - Damaged in Crash	MM131_REARBRAKEPEDAL_DMG
131 (cont.)	Rear brake pedal - Modified	MM131_REARBRAKEPEDAL_MOD
131 (cont.)	Rear brake pedal - Operational	MM131_REARBRAKEPEDAL_OPER
131 (cont.)	Shift lever - Aftermarket	MM131_SHIFTLEVER_AFTMKT
131 (cont.)	Shift lever - Equipped	MM131_SHIFTLEVER_EQUIP

Variable Number	Variable	SAS® and Excel™ Name
131 (cont.)	Shift lever - Original Equipment	MM131_SHIFTLEVER_ORIG
132	Foot pegs, footrests - Aftermarket	MM132_FOOTPEGS_AFTMKT
132 (cont.)	Foot pegs, footrests - Equipped	MM132_FOOTPEGS_EQUIP
132 (cont.)	Foot pegs, footrests - Original Equipment	MM132_FOOTPEGS_ORIG
132 (cont.)	Shift lever - Damaged in Crash	MM132_SHIFTLEVER_DMG
132 (cont.)	Shift lever - Modified	MM132_SHIFTLEVER_MOD
132 (cont.)	Shift lever - Operational	MM132_SHIFTLEVER_OPER
133	Foot pegs, footrests - Damaged in Crash	MM133_FOOTPEGS_DMG
133 (cont.)	Foot pegs, footrests - Modified	MM133_FOOTPEGS_MOD
133 (cont.)	Foot pegs, footrests - Operational	MM133_FOOTPEGS_OPER
133 (cont.)	Highway pegs/footrests - Aftermarket	MM133_FOOTRESTS_AFTMKT
133 (cont.)	Highway pegs/footrests - Damaged in Crash	MM133_FOOTRESTS_DMG
133 (cont.)	Highway pegs/footrests - Equipped	MM133_FOOTRESTS_EQUIP
133 (cont.)	Highway pegs/footrests - Modified	MM133_FOOTRESTS_MOD
133 (cont.)	Highway pegs/footrests - Operational	MM133_FOOTRESTS_OPER
133 (cont.)	Highway pegs/footrests - Original Equipment	MM133_FOOTRESTS_ORIG
134	Side stand - Aftermarket	MM134_SIDE STAND_AFTMKT
134 (cont.)	Side stand - Damaged in Crash	MM134_SIDE STAND_DMG
134 (cont.)	Side stand - Equipped	MM134_SIDE STAND_EQUIP
134 (cont.)	Side stand - Modified	MM134_SIDE STAND_MOD
134 (cont.)	Side stand - Operational	MM134_SIDE STAND_OPER
134 (cont.)	Side stand - Original Equipment	MM134_SIDE STAND_ORIG
135	Side stand interlock - Aftermarket	MM135_SIDE STAND INTERLOCK_AFTMKT
135 (cont.)	Side stand interlock - Damaged in Crash	MM135_SIDE STAND INTERLOCK_DMG
135 (cont.)	Side stand interlock - Equipped	MM135_SIDE STAND INTERLOCK_EQUIP
135 (cont.)	Side stand interlock - Modified	MM135_SIDE STAND INTERLOCK_MOD
135 (cont.)	Side stand interlock - Operational	MM135_SIDE STAND INTERLOCK_OPER
135 (cont.)	Side stand interlock - Original Equipment	MM135_SIDE STAND INTERLOCK_ORIG
136	Center stand - Aftermarket	MM136_CENTER STAND_AFTMKT
136 (cont.)	Center stand - Damaged in Crash	MM136_CENTER STAND_DMG
136 (cont.)	Center stand - Equipped	MM136_CENTER STAND_EQUIP
136 (cont.)	Center stand - Modified	MM136_CENTER STAND_MOD
136 (cont.)	Center stand - Operational	MM136_CENTER STAND_OPER
136 (cont.)	Center stand - Original Equipment	MM136_CENTER STAND_ORIG
137	Muffler/exhaust system - Aftermarket	MM137_EXHAUST SYSTEM_AFTMKT
137 (cont.)	Muffler/exhaust system - Damaged in Crash	MM137_EXHAUST SYSTEM_DMG
137 (cont.)	Muffler/exhaust system - Equipped	MM137_EXHAUST SYSTEM_EQUIP
137 (cont.)	Muffler/exhaust system - Modified	MM137_EXHAUST SYSTEM_MOD
137 (cont.)	Muffler/exhaust system - Operational	MM137_EXHAUST SYSTEM_OPER
137 (cont.)	Muffler/exhaust system - Original Equipment	MM137_EXHAUST SYSTEM_ORIG
137 (cont.)	Tank bag - Aftermarket	MM137_TANK BAG_AFTMKT
137 (cont.)	Tank bag - Equipped	MM137_TANK BAG_EQUIP
137 (cont.)	Tank bag - Original Equipment	MM137_TANK BAG_ORIG
138	Luggage/cargo rack - Aftermarket	MM138_LUGGUAGE_AFTMKT
138 (cont.)	Luggage/cargo rack - Equipped	MM138_LUGGUAGE_EQUIP
138 (cont.)	Luggage/cargo rack - Original Equipment	MM138_LUGGUAGE_ORIG
138 (cont.)	Tank bag - Damaged in Crash	MM138_TANK BAG_DMG
138 (cont.)	Tank bag - Modified	MM138_TANK BAG_MOD
138 (cont.)	Tank bag - Operational	MM138_TANK BAG_OPER
139	Luggage/cargo rack - Damaged in Crash	MM139_LUGGUAGE_DMG
139 (cont.)	Luggage/cargo rack - Modified	MM139_LUGGUAGE_MOD
139 (cont.)	Luggage/cargo rack - Operational	MM139_LUGGUAGE_OPER
139 (cont.)	Parcel rack - Aftermarket	MM139_PARCEL RACK_AFTMKT
139 (cont.)	Parcel rack - Equipped	MM139_PARCEL RACK_EQUIP
139 (cont.)	Parcel rack - Original Equipment	MM139_PARCEL RACK_ORIG
140	Parcel rack - Damaged in Crash	MM140_PARCEL RACK_DMG
140 (cont.)	Parcel rack - Modified	MM140_PARCEL RACK_MOD
140 (cont.)	Parcel rack - Operational	MM140_PARCEL RACK_OPER
140 (cont.)	Saddle bags - Aftermarket	MM140_SADDLE BAG_AFTMKT

Variable Number	Variable	SAS® and Excel™ Name
140 (cont.)	Saddle bags - Equipped	MM140_SADDLEBAG_EQUIP
140 (cont.)	Saddle bags - Original Equipment	MM140_SADDLEBAG_ORIG
141	Rear position lamps - Aftermarket	MM141_REARPOSITIONLAMPS_AFTMKT
141 (cont.)	Rear position lamps - Damaged in Crash	MM141_REARPOSITIONLAMPS_DMG
141 (cont.)	Rear position lamps - Equipped	MM141_REARPOSITIONLAMPS_EQUIP
141 (cont.)	Rear position lamps - Modified	MM141_REARPOSITIONLAMPS_MOD
141 (cont.)	Rear position lamps - Operational	MM141_REARPOSITIONLAMPS_OPER
141 (cont.)	Rear position lamps - Original Equipment	MM141_REARPOSITIONLAMPS_ORIG
141 (cont.)	Saddle bags - Damaged in Crash	MM141_SADDLEBAG_DMG
141 (cont.)	Saddle bags - Modified	MM141_SADDLEBAG_MOD
141 (cont.)	Saddle bags - Operational	MM141_SADDLEBAG_OPER
142	Stop lamp - Aftermarket	MM142_STOPLAMP_AFTMKT
142 (cont.)	Stop lamp - Damaged in Crash	MM142_STOPLAMP_DMG
142 (cont.)	Stop lamp - Equipped	MM142_STOPLAMP_EQUIP
142 (cont.)	Stop lamp - Modified	MM142_STOPLAMP_MOD
142 (cont.)	Stop lamp - Operational	MM142_STOPLAMP_OPER
142 (cont.)	Stop lamp - Original Equipment	MM142_STOPLAMP_ORIG
143	Rear reflectors, yellow - Aftermarket	MM143_REARREFLECTORYEL_AFTMKT
143 (cont.)	Rear reflectors, yellow - Damaged in Crash	MM143_REARREFLECTORYEL_DMG
143 (cont.)	Rear reflectors, yellow - Equipped	MM143_REARREFLECTORYEL_EQUIP
143 (cont.)	Rear reflectors, yellow - Modified	MM143_REARREFLECTORYEL_MOD
143 (cont.)	Rear reflectors, yellow - Operational	MM143_REARREFLECTORYEL_OPER
143 (cont.)	Rear reflectors, yellow - Original Equipment	MM143_REARREFLECTORYEL_ORIG
144	Rear reflectors, red - Aftermarket	MM144_REARREFLECTORRED_AFTMKT
144 (cont.)	Rear reflectors, red - Damaged in Crash	MM144_REARREFLECTORRED_DMG
144 (cont.)	Rear reflectors, red - Equipped	MM144_REARREFLECTORRED_EQUIP
144 (cont.)	Rear reflectors, red - Modified	MM144_REARREFLECTORRED_MOD
144 (cont.)	Rear reflectors, red - Operational	MM144_REARREFLECTORRED_OPER
144 (cont.)	Rear reflectors, red - Original Equipment	MM144_REARREFLECTORRED_ORIG
145	Rear reflectors, silver - Aftermarket	MM145_REARREFLECTORSLVR_AFTMKT
145 (cont.)	Rear reflectors, silver - Damaged in Crash	MM145_REARREFLECTORSLVR_DMG
145 (cont.)	Rear reflectors, silver - Equipped	MM145_REARREFLECTORSLVR_EQUIP
145 (cont.)	Rear reflectors, silver - Modified	MM145_REARREFLECTORSLVR_MOD
145 (cont.)	Rear reflectors, silver - Operational	MM145_REARREFLECTORSLVR_OPER
145 (cont.)	Rear reflectors, silver - Original Equipment	MM145_REARREFLECTORSLVR_ORIG
145 (cont.)	Rear turn signals - Aftermarket	MM145_REARTURNSIGNAL_AFTMKT
145 (cont.)	Rear turn signals - Equipped	MM145_REARTURNSIGNAL_EQUIP
145 (cont.)	Rear turn signals - Original Equipment	MM145_REARTURNSIGNAL_ORIG
146	Rear suspension - Aftermarket	MM146_REARSUSPENSION_AFTMKT
146 (cont.)	Rear suspension - Equipped	MM146_REARSUSPENSION_EQUIP
146 (cont.)	Rear suspension - Original Equipment	MM146_REARSUSPENSION_ORIG
146 (cont.)	Rear turn signals - Damaged in Crash	MM146_REARTURNSIGNAL_DMG
146 (cont.)	Rear turn signals - Modified	MM146_REARTURNSIGNAL_MOD
146 (cont.)	Rear turn signals - Operational	MM146_REARTURNSIGNAL_OPER
147	Rear suspension - Damaged in Crash	MM147_REARSUSPENSION_DMG
147 (cont.)	Rear suspension - Modified	MM147_REARSUSPENSION_MOD
147 (cont.)	Rear suspension - Operational	MM147_REARSUSPENSION_OPER
147 (cont.)	Rear tire/wheel - Aftermarket	MM147_REARWHEEL_AFTMKT
147 (cont.)	Rear tire/wheel - Equipped	MM147_REARWHEEL_EQUIP
147 (cont.)	Rear tire/wheel - Original Equipment	MM147_REARWHEEL_ORIG
148	Rear fender - Aftermarket	MM148_REARFENDER_AFTMKT
148 (cont.)	Rear fender - Equipped	MM148_REARFENDER_EQUIP
148 (cont.)	Rear fender - Original Equipment	MM148_REARFENDER_ORIG
148 (cont.)	Rear tire/wheel - Damaged in Crash	MM148_REARWHEEL_DMG
148 (cont.)	Rear tire/wheel - Modified	MM148_REARWHEEL_MOD
148 (cont.)	Rear tire/wheel - Operational	MM148_REARWHEEL_OPER
149	Rear brakes - Aftermarket	MM149_REARBRAKES_AFTMKT
149 (cont.)	Rear brakes - Damaged in Crash	MM149_REARBRAKES_DMG
149 (cont.)	Rear brakes - Equipped	MM149_REARBRAKES_EQUIP

Variable Number	Variable	SAS® and Excel™ Name
149 (cont.)	Rear brakes - Modified	MM149_REARBRAKES_MOD
149 (cont.)	Rear brakes - Operational	MM149_REARBRAKES_OPER
149 (cont.)	Rear brakes - Original Equipment	MM149_REARBRAKES_ORIG
149 (cont.)	Rear fender - Damaged in Crash	MM149_REARFENDER_DMG
149 (cont.)	Rear fender - Modified	MM149_REARFENDER_MOD
149 (cont.)	Rear fender - Operational	MM149_REARFENDER_OPER
150	Tools, tool box - Aftermarket	MM150_TOOLBOX_AFTMKT
150 (cont.)	Tools, tool box - Damaged in Crash	MM150_TOOLBOX_DMG
150 (cont.)	Tools, tool box - Equipped	MM150_TOOLBOX_EQUIP
150 (cont.)	Tools, tool box - Modified	MM150_TOOLBOX_MOD
150 (cont.)	Tools, tool box - Operational	MM150_TOOLBOX_OPER
150 (cont.)	Tools, tool box - Original Equipment	MM150_TOOLBOX_ORIG
151	Side covers - Aftermarket	MM151_SIDECOVERS_AFTMKT
151 (cont.)	Side covers - Damaged in Crash	MM151_SIDECOVERS_DMG
151 (cont.)	Side covers - Equipped	MM151_SIDECOVERS_EQUIP
151 (cont.)	Side covers - Modified	MM151_SIDECOVERS_MOD
151 (cont.)	Side covers - Operational	MM151_SIDECOVERS_OPER
151 (cont.)	Side covers - Original Equipment	MM151_SIDECOVERS_ORIG
152	Trailer - Aftermarket	MM152_TRAILER_AFTMKT
152 (cont.)	Trailer - Damaged in Crash	MM152_TRAILER_DMG
152 (cont.)	Trailer - Equipped	MM152_TRAILER_EQUIP
152 (cont.)	Trailer - Modified	MM152_TRAILER_MOD
152 (cont.)	Trailer - Operational	MM152_TRAILER_OPER
152 (cont.)	Trailer - Original Equipment	MM152_TRAILER_ORIG
153	Side Car - Aftermarket	MM153_SIDEDECAR_AFTMKT
153 (cont.)	Side Car - Damaged in Crash	MM153_SIDEDECAR_DMG
153 (cont.)	Side Car - Equipped	MM153_SIDEDECAR_EQUIP
153 (cont.)	Side Car - Modified	MM153_SIDEDECAR_MOD
153 (cont.)	Side Car - Operational	MM153_SIDEDECAR_OPER
153 (cont.)	Side Car - Original Equipment	MM153_SIDEDECAR_ORIG

Table 17. List of variables in the Control Motorcycle Mechanical Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	CM000_CASEID
0 (cont.)	Control Motorcycle Number	CM000_CMCMNUMBER
0 (cont.)	Control Collection Method	CM000_CNTRLLECOLLECTMETHOD
0 (cont.)	Control Collection Method - Text	CM000_CNTRLLECOLLECTMETHODTXT
1	Ambient Temperature	CM001_AMBIENTTEMP
1 (cont.)	Ambient Temperature Sign	CM001_AMBIENTTEMPSIGN
2	Weather Description	CM002_WEATHER
2 (cont.)	Weather Description - Text	CM002_WEATHERTXT
3	Wind Description	CM003_WINDSTRENGTH
3 (cont.)	Wind Description - Text	CM003_WINDSTRENGTHTXT
4	Wind Direction With Respect to Motorcycle Path	CM004_WINDDIRECTIONWRMCPATH
4 (cont.)	Wind Direction With Respect to Motorcycle Path - Text	CM004_WINDDIRECTIONWRMCPATHTXT
5	Manufacture	CM005_MANUFACTURE
5 (cont.)	Manufacture - Text	CM005_MANUFACTURETXT
6	Model	CM006_MODELTXT
7	Year	CM007_YEAR
8	Motorcycle Legal Category	CM008_MCLEGALCATEGORY
8 (cont.)	Motorcycle Legal Category - Text	CM008_MCLEGALCATEGORYTXT
9	Motorcycle Type	CM009_MCTYPE
9 (cont.)	Motorcycle Type - Text	CM009_MCTYPETXT
10	Motorcycle Weight	CM010_MCWEIGHT
11	Vehicle Identification Number (VIN)	CM011_VIN
12	Odometer Reading in Miles	CM012_ODOMETERREADING
13	Registered Owner Category	CM013_REGOWNERCATEGORY
13 (cont.)	Registered Owner Category - Text	CM013_REGOWNERCATEGORYTXT
14	Predominant Color of Motorcycle	CM014_MCCOLOR
14 (cont.)	Predominant Color of Motorcycle - Text	CM014_MCCOLORTXT
15	Did the Motorcycle Have Any Retroreflective Parts, Material or Paint?	CM015_MCRETROFLECTIVE
15 (cont.)	Did the Motorcycle Have Any Retroreflective Parts, Material or Paint - Text	CM015_MCRETROFLECTIVETXT
16	Motor Displacement	CM016_MCMOTORDISPLACEMENT
17	Number of Cylinder	CM017_MCNUMBCYLINDER
18	Number of Passengers	CM018_NUMBEROFPASSENGER
19	Cargo/luggage on motorcycle (Code up to 3), Item 1	CM019_CARGOONMC1
19 (cont.)	Cargo/luggage on motorcycle (Code up to 3), Item 2	CM019_CARGOONMC2
19 (cont.)	Cargo/luggage on motorcycle (Code up to 3), Item 3	CM019_CARGOONMC3
19 (cont.)	Cargo/luggage on motorcycle - Text	CM019_CARGOONMCTXT
20	Are The Tires Original Equipment	CM020_TIRESORIGIEQUIP
20 (cont.)	Are The Tires Original Equipment - Text	CM020_TIRESORIGIEQUIPTXT
21	Front Tire Thread Type	CM021_FRONTTIRETREADTYPE
21 (cont.)	Front Tire Thread Type - Text	CM021_FRONTTIRETREADTYPETXT
21 (cont.)	Rear Tire Thread Type	CM021_REARTIRETREADTYPE
21 (cont.)	Rear Tire Thread Type - Text	CM021_REARTIRETREADTYPETXT
22	Front Tire Measured Thread Depth	CM022_FRONTTIRETREADDEPTH
22 (cont.)	Rear Tire Measured Thread Depth	CM022_REARTIRETREADDEPTH
23	Are The Wheels Original Equipment	CM023_WHEELSORIGIEQUIP
23 (cont.)	Are The Wheels Original Equipment - Text	CM023_WHEELSORIGIEQUIPTXT
24	Is The Suspension Original Equipment	CM024_SUSPENSIONORIGIEQUIP
24 (cont.)	Is The Suspension Original Equipment - Text	CM024_SUSPENSIONORIGIEQUIPTXT
25	Suspension Type Front	CM025_FRONTSUSPENSIONTYPE
25 (cont.)	Suspension Type Front - Text	CM025_FRONTSUSPENSIONTYPETXT
26	Suspension Type Rear	CM026_REARSUSPENSIONTYPE
26 (cont.)	Suspension Type Rear - Text	CM026_REARSUSPENSIONTYPETXT
27	Rider Brake Control Type 1	CM027_BRAKECONTROLTYPE1

Variable Number	Variable	SAS® and Excel™ Name
27 (cont.)	Rider Brake Control Type 1 - Text	CM027_BRAKECONTROLTYPE1TXT
27 (cont.)	Rider Brake Control Type 2	CM027_BRAKECONTROLTYPE2
27 (cont.)	Rider Brake Control Type 2 - Text	CM027_BRAKECONTROLTYPE2TXT
28	Rider Brake Control System Type 1	CM028_BRAKECONTROLSYSTYPE1
28 (cont.)	Rider Brake Control System Type 2	CM028_BRAKECONTROLSYSTYPE2
29	Front ABS?	CM029_FRONTBRAKEABS
29 (cont.)	Rear ABS?	CM029_REARBRAKEABS
30	Has The Frame Been Modified	CM030_FRAMEMODIFIED
30 (cont.)	Has The Frame Been Modified - Text	CM030_FRAMEMODIFIEDTXT
31	Frame Type/Configuration	CM031_FRAMEATYPE
31 (cont.)	Frame Type/Configuration - Text	CM031_FRAMEATYPETXT
32	Is the Motorcycle Equipped with Pedals?	CM032_MCPEDALSEQUIPPED
33	Headlamp Assembly Type	CM033_HEADLAMPASSTYPETXT
33 (cont.)	Headlamp Assembly Type - Text	CM033_HEADLAMPASSTYPETXT
34	Headlamp Illuminated Prior To Stopping For The Interview	CM034_HEADLAMPLITATINTERVIEW
34 (cont.)	Headlamp Illuminated Prior To Stopping For The Interview - Text	CM034_HEADLAMPLITATINTERVIEWTXT
35	Was Motorcycle Equipped With as Airbag?	CM035_AIRBAGEQUIPPED
36	Is Motorcycle Equipped With or Pulling Any of the Following	CM036_MCPULLINGATTACHMENT
36 (cont.)	Is Motorcycle Equipped With or Pulling Any of the Following - Text	CM036_MCPULLINGATTACHMENTTXT
37	Have The Handlebars Been Modified	CM037_HANDLEBARMODIFIED
37 (cont.)	Is Motorcycle Equipped With or Pulling Any of the Following - Text	CM037_HANDLEBARMODIFIEDTXT
38	Has The Seat Been Modified	CM038_SEATMODIFIED
38 (cont.)	Has The Seat Been Modified - Text	CM038_SEATMODIFIEDTXT
39	Seat Type	CM039_SEATTYPE
39 (cont.)	Seat Type - Text	CM039_SEATTYPETXT
40	Has The Exhaust System Been Modified	CM040_EXHAUSTMODIFIED
40 (cont.)	Has The Exhaust System Been Modified - Text	CM040_EXHAUSTMODIFIEDTXT
41	Has The Windshield Been Modified	CM041_WINDSHIELDMODIFIED
41 (cont.)	Has The Windshield Been Modified - Text	CM041_WINDSHIELDMODIFIEDTXT
42	Is This Motorcycle Equipped With Crash Bars	CM042_CRASHBAREQUIPPED
42 (cont.)	Is This Motorcycle Equipped With Crash Bars - Text	CM042_CRASHBAREQUIPPEDTXT
43	Is This Motorcycle Equipped With Engine Guards	CM043_ENGINEGUARDEQUIPPED
43 (cont.)	Is This Motorcycle Equipped With Engine Guards - Text	CM043_ENGINEGUARDEQUIPPEDTXT
44	Front crash bars - Aftermarket	CM044_FRONTCRASHBARS_AFTMKT
44 (cont.)	Front crash bars - Damaged in Crash	CM044_FRONTCRASHBARS_DMG
44 (cont.)	Front crash bars - Equipped	CM044_FRONTCRASHBARS_EQUIP
44 (cont.)	Front crash bars - Modified	CM044_FRONTCRASHBARS_MOD
44 (cont.)	Front crash bars - Operational	CM044_FRONTCRASHBARS_OPER
44 (cont.)	Front crash bars - Original Equipment	CM044_FRONTCRASHBARS_ORIG
45	Rear crash bars - Aftermarket	CM045_REARCRASHBARS_AFTMKT
45 (cont.)	Rear crash bars - Damaged in Crash	CM045_REARCRASHBARS_DMG
45 (cont.)	Rear crash bars - Equipped	CM045_REARCRASHBARS_EQUIP
45 (cont.)	Rear crash bars - Modified	CM045_REARCRASHBARS_MOD
45 (cont.)	Rear crash bars - Operational	CM045_REARCRASHBARS_OPER
45 (cont.)	Rear crash bars - Original Equipment	CM045_REARCRASHBARS_ORIG
46	Engine guard - Aftermarket	CM046_ENGINEGUARD_AFTMKT
46 (cont.)	Engine guard - Damaged in Crash	CM046_ENGINEGUARD_DMG
46 (cont.)	Engine guard - Equipped	CM046_ENGINEGUARD_EQUIP
46 (cont.)	Engine guard - Modified	CM046_ENGINEGUARD_MOD
46 (cont.)	Engine guard - Operational	CM046_ENGINEGUARD_OPER
46 (cont.)	Engine guard - Original Equipment	CM046_ENGINEGUARD_ORIG
47	Windscreen - Aftermarket	CM047_WINDSHIELD_AFTMKT
47 (cont.)	Windscreen - Damaged in Crash	CM047_WINDSHIELD_DMG

Variable Number	Variable	SAS® and Excel™ Name
47 (cont.)	Windscreen - Equipped	CM047_WINDSHIELD_EQUIP
47 (cont.)	Windscreen - Modified	CM047_WINDSHIELD_MOD
47 (cont.)	Windscreen - Operational	CM047_WINDSHIELD_OPER
47 (cont.)	Windscreen - Original Equipment	CM047_WINDSHIELD_ORIG
48	Fairing, handlebar or steering mounted - Aftermarket	CM048_FAIRING_AFTMKT
48 (cont.)	Fairing, handlebar or steering mounted - Damaged in Crash	CM048_FAIRING_DMG
48 (cont.)	Fairing, handlebar or steering mounted - Equipped	CM048_FAIRING_EQUIP
48 (cont.)	Fairing, handlebar or steering mounted - Modified	CM048_FAIRING_MOD
48 (cont.)	Fairing, handlebar or steering mounted - Operational	CM048_FAIRING_OPER
48 (cont.)	Fairing, handlebar or steering mounted - Original Equipment	CM048_FAIRING_ORIG
49	Fairing, frame mounted - Aftermarket	CM049_FAIRINGMOUNT_AFTMKT
49 (cont.)	Fairing, frame mounted - Damaged in Crash	CM049_FAIRINGMOUNT_DMG
49 (cont.)	Fairing, frame mounted - Equipped	CM049_FAIRINGMOUNT_EQUIP
49 (cont.)	Fairing, frame mounted - Modified	CM049_FAIRINGMOUNT_MOD
49 (cont.)	Fairing, frame mounted - Operational	CM049_FAIRINGMOUNT_OPER
49 (cont.)	Fairing, frame mounted - Original Equipment	CM049_FAIRINGMOUNT_ORIG
50	Headlamp nacelle - Equipped	CM050_HEADLAMPNACELLE_EQUIP
50 (cont.)	Headlamps - Aftermarket	CM050_HEADLAMPS_AFTMKT
50 (cont.)	Headlamps - Damaged in Crash	CM050_HEADLAMPS_DMG
50 (cont.)	Headlamps - Equipped	CM050_HEADLAMPS_EQUIP
50 (cont.)	Headlamps - Modified	CM050_HEADLAMPS_MOD
50 (cont.)	Headlamps - Operational	CM050_HEADLAMPS_OPER
50 (cont.)	Headlamps - Original Equipment	CM050_HEADLAMPS_ORIG
51	Headlamp nacelle - Aftermarket	CM051_AUXHEADLAMP_EQUIP
51 (cont.)	Headlamp nacelle - Damaged in Crash	CM051_HEADLAMPNACELLE_AFTMKT
51 (cont.)	Headlamp nacelle - Modified	CM051_HEADLAMPNACELLE_DMG
51 (cont.)	Headlamp nacelle - Operational	CM051_HEADLAMPNACELLE_MOD
51 (cont.)	Headlamp nacelle - Original Equipment	CM051_HEADLAMPNACELLE_OPER
51 (cont.)	Auxiliary headlamp - Aftermarket	CM051_HEADLAMPNACELLE_ORIG
52	Auxiliary headlamp - Damaged in Crash	CM052_AUXHEADLAMP_AFTMKT
52 (cont.)	Auxiliary headlamp - Equipped	CM052_AUXHEADLAMP_DMG
52 (cont.)	Auxiliary headlamp - Modified	CM052_AUXHEADLAMP_MOD
52 (cont.)	Auxiliary headlamp - Operational	CM052_AUXHEADLAMP_OPER
52 (cont.)	Auxiliary headlamp - Original Equipment	CM052_AUXHEADLAMP_ORIG
53	Front position lamp - Aftermarket	CM053_FRONTPOSITIONLAMP_AFTMKT
53 (cont.)	Front position lamp - Damaged in Crash	CM053_FRONTPOSITIONLAMP_DMG
53 (cont.)	Front position lamp - Equipped	CM053_FRONTPOSITIONLAMP_EQUIP
53 (cont.)	Front position lamp - Modified	CM053_FRONTPOSITIONLAMP_MOD
53 (cont.)	Front position lamp - Operational	CM053_FRONTPOSITIONLAMP_OPER
53 (cont.)	Front position lamp - Original Equipment	CM053_FRONTPOSITIONLAMP_ORIG
54	Front reflector, yellow - Aftermarket	CM054_FRONTREFLECTORYEL_AFTMKT
54 (cont.)	Front reflector, yellow - Damaged in Crash	CM054_FRONTREFLECTORYEL_DMG
54 (cont.)	Front reflector, yellow - Equipped	CM054_FRONTREFLECTORYEL_EQUIP
54 (cont.)	Front reflector, yellow - Modified	CM054_FRONTREFLECTORYEL_MOD
54 (cont.)	Front reflector, yellow - Operational	CM054_FRONTREFLECTORYEL_OPER
54 (cont.)	Front reflector, yellow - Original Equipment	CM054_FRONTREFLECTORYEL_ORIG
55	Front reflector, white - Aftermarket	CM055_FRONTREFLECTORWHT_AFTMKT
55 (cont.)	Front reflector, white - Damaged in Crash	CM055_FRONTREFLECTORWHT_DMG
55 (cont.)	Front reflector, white - Equipped	CM055_FRONTREFLECTORWHT_EQUIP
55 (cont.)	Front reflector, white - Modified	CM055_FRONTREFLECTORWHT_MOD
55 (cont.)	Front reflector, white - Operational	CM055_FRONTREFLECTORWHT_OPER
55 (cont.)	Front reflector, white - Original Equipment	CM055_FRONTREFLECTORWHT_ORIG
56	Front reflector, red - Damaged in Crash	CM056_FRONTREFLECTORRED_AFTMKT
56 (cont.)	Front reflector, red - Aftermarket	CM056_FRONTREFLECTORRED_DMG

Variable Number	Variable	SAS® and Excel™ Name
56 (cont.)	Front reflector, red - Equipped	CM056_FRONTREFLECTORRED_EQUIP
56 (cont.)	Front reflector, red - Modified	CM056_FRONTREFLECTORRED_MOD
56 (cont.)	Front reflector, red - Operational	CM056_FRONTREFLECTORRED_OPER
56 (cont.)	Front reflector, red - Original Equipment	CM056_FRONTREFLECTORRED_ORIG
57	Front reflector, silver - Aftermarket	CM057_FRONTREFLECTORSIL_AFTMKT
57 (cont.)	Front reflector, silver - Damaged in Crash	CM057_FRONTREFLECTORSIL_DMG
57 (cont.)	Front reflector, silver - Equipped	CM057_FRONTREFLECTORSIL_EQUIP
57 (cont.)	Front reflector, silver - Modified	CM057_FRONTREFLECTORSIL_MOD
57 (cont.)	Front reflector, silver - Operational	CM057_FRONTREFLECTORSIL_OPER
57 (cont.)	Front reflector, silver - Original Equipment	CM057_FRONTREFLECTORSIL_ORIG
57 (cont.)	Front turn signals - Aftermarket	CM057_FRONTTURN SIGNALS_ORIG
58	Front turn signals - Damaged in Crash	CM058_FRONTTURN SIGNALS_AFTMKT
58 (cont.)	Front turn signals - Equipped	CM058_FRONTTURN SIGNALS_DMG
58 (cont.)	Front turn signals - Modified	CM058_FRONTTURN SIGNALS_EQUIP
58 (cont.)	Front turn signals - Operational	CM058_FRONTTURN SIGNALS_MOD
58 (cont.)	Front turn signals - Original Equipment	CM058_FRONTTURN SIGNALS_OPER
59	Speedometer - Aftermarket	CM059_SPEEDOMETER_AFTMKT
59 (cont.)	Speedometer - Damaged in Crash	CM059_SPEEDOMETER_DMG
59 (cont.)	Speedometer - Equipped	CM059_SPEEDOMETER_EQUIP
59 (cont.)	Speedometer - Modified	CM059_SPEEDOMETER_MOD
59 (cont.)	Speedometer - Operational	CM059_SPEEDOMETER_OPER
59 (cont.)	Speedometer - Original Equipment	CM059_SPEEDOMETER_ORIG
60	Tachometer - Aftermarket	CM060_TACHOMETER_AFTMKT
60 (cont.)	Tachometer - Damaged in Crash	CM060_TACHOMETER_DMG
60 (cont.)	Tachometer - Equipped	CM060_TACHOMETER_EQUIP
60 (cont.)	Tachometer - Modified	CM060_TACHOMETER_MOD
60 (cont.)	Tachometer - Operational	CM060_TACHOMETER_OPER
60 (cont.)	Tachometer - Original Equipment	CM060_TACHOMETER_ORIG
61	Handlebars - Aftermarket	CM061_HANDLEBARS_AFTMKT
61 (cont.)	Handlebars - Damaged in Crash	CM061_HANDLEBARS_DMG
61 (cont.)	Handlebars - Equipped	CM061_HANDLEBARS_EQUIP
61 (cont.)	Handlebars - Modified	CM061_HANDLEBARS_MOD
61 (cont.)	Handlebars - Operational	CM061_HANDLEBARS_OPER
61 (cont.)	Handlebars - Original Equipment	CM061_HANDLEBARS_ORIG
62	Throttle - Aftermarket	CM062_THROTTLE_AFTMKT
62 (cont.)	Throttle - Damaged in Crash	CM062_THROTTLE_DMG
62 (cont.)	Throttle - Equipped	CM062_THROTTLE_EQUIP
62 (cont.)	Throttle - Modified	CM062_THROTTLE_MOD
62 (cont.)	Throttle - Operational	CM062_THROTTLE_OPER
62 (cont.)	Throttle - Original Equipment	CM062_THROTTLE_ORIG
63	Clutch lever - Aftermarket	CM063_CLUTCHLEVER_AFTMKT
63 (cont.)	Clutch lever - Damaged in Crash	CM063_CLUTCHLEVER_DMG
63 (cont.)	Clutch lever - Equipped	CM063_CLUTCHLEVER_EQUIP
63 (cont.)	Clutch lever - Modified	CM063_CLUTCHLEVER_MOD
63 (cont.)	Clutch lever - Operational	CM063_CLUTCHLEVER_OPER
63 (cont.)	Clutch lever - Original Equipment	CM063_CLUTCHLEVER_ORIG
64	Brake lever - Aftermarket	CM064_BRAKELEVER_AFTMKT
64 (cont.)	Brake lever - Damaged in Crash	CM064_BRAKELEVER_DMG
64 (cont.)	Brake lever - Equipped	CM064_BRAKELEVER_EQUIP
64 (cont.)	Brake lever - Modified	CM064_BRAKELEVER_MOD
64 (cont.)	Brake lever - Operational	CM064_BRAKELEVER_OPER
64 (cont.)	Brake lever - Original Equipment	CM064_BRAKELEVER_ORIG
65	Right side rear view mirrors, posts - Aftermarket	CM065_RGTMIRRORPOST_AFTMKT
65 (cont.)	Right side rear view mirrors, posts - Damaged in Crash	CM065_RGTMIRRORPOST_DMG
65 (cont.)	Right side rear view mirrors, posts - Equipped	CM065_RGTMIRRORPOST_EQUIP
65 (cont.)	Right side rear view mirrors, posts - Modified	CM065_RGTMIRRORPOST_MOD
65 (cont.)	Right side rear view mirrors, posts - Operational	CM065_RGTMIRRORPOST_OPER

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65 (cont.)	Right side rear view mirrors, posts - Original Equipment	CM065_RGTMIRRORPOST_ORIG
66	Left side rear view mirrors, posts - Aftermarket	CM066_LFTMIRRORPOST_AFTMKT
66 (cont.)	Left side rear view mirrors, posts - Damaged in Crash	CM066_LFTMIRRORPOST_DMG
66 (cont.)	Left side rear view mirrors, posts - Equipped	CM066_LFTMIRRORPOST_EQUIP
66 (cont.)	Left side rear view mirrors, posts - Modified	CM066_LFTMIRRORPOST_MOD
66 (cont.)	Left side rear view mirrors, posts - Operational	CM066_LFTMIRRORPOST_OPER
66 (cont.)	Left side rear view mirrors, posts - Original Equipment	CM066_LFTMIRRORPOST_ORIG
67	Front suspension - Aftermarket	CM067_FRONTSUSPENSION_AFTMKT
67 (cont.)	Front suspension- Damaged in Crash	CM067_FRONTSUSPENSION_DMG
67 (cont.)	Front suspension - Equipped	CM067_FRONTSUSPENSION_EQUIP
67 (cont.)	Front suspension - Modified	CM067_FRONTSUSPENSION_MOD
67 (cont.)	Front suspension - Operational	CM067_FRONTSUSPENSION_OPER
67 (cont.)	Front suspension - Original Equipment	CM067_FRONTSUSPENSION_ORIG
68	Front brakes - Original Equipment	CM068_FRONTWHEEL_AFTMKT
68 (cont.)	Front tire/wheel - Aftermarket	CM068_FRONTWHEEL_DMG
68 (cont.)	Front tire/wheel - Damaged in Crash	CM068_FRONTWHEEL_EQUIP
68 (cont.)	Front tire/wheel - Equipped	CM068_FRONTWHEEL_MOD
68 (cont.)	Front tire/wheel - Modified	CM068_FRONTWHEEL_OPER
68 (cont.)	Front tire/wheel - Operational	CM068_FRONTWHEEL_ORIG
69	Front tire/wheel - Original Equipment	CM069_FRONTFENDER_AFTMKT
69 (cont.)	Front fender - Aftermarket	CM069_FRONTFENDER_DMG
69 (cont.)	Front fender - Damaged in Crash	CM069_FRONTFENDER_EQUIP
69 (cont.)	Front fender - Equipped	CM069_FRONTFENDER_MOD
69 (cont.)	Front fender - Modified	CM069_FRONTFENDER_OPER
69 (cont.)	Front fender - Operational	CM069_FRONTFENDER_ORIG
70	Front fender - Original Equipment	CM070_FRONTBRAKES_AFTMKT
70 (cont.)	Front brakes - Aftermarket	CM070_FRONTBRAKES_DMG
70 (cont.)	Front brakes - Damaged in Crash	CM070_FRONTBRAKES_EQUIP
70 (cont.)	Front brakes - Equipped	CM070_FRONTBRAKES_MOD
70 (cont.)	Front brakes - Modified	CM070_FRONTBRAKES_OPER
70 (cont.)	Front brakes - Operational	CM070_FRONTBRAKES_ORIG
71	Seat - Aftermarket	CM071_SEAT_AFTMKT
71 (cont.)	Seat - Damaged in Crash	CM071_SEAT_DMG
71 (cont.)	Seat - Equipped	CM071_SEAT_EQUIP
71 (cont.)	Seat - Modified	CM071_SEAT_MOD
71 (cont.)	Seat - Operational	CM071_SEAT_OPER
71 (cont.)	Seat - Original Equipment	CM071_SEAT_ORIG
72	Sissy bar/passenger back rest - Aftermarket	CM072_MCPBACKREST_AFTMKT
72 (cont.)	Sissy bar/passenger back rest - Damaged in Crash	CM072_MCPBACKREST_DMG
72 (cont.)	Sissy bar/passenger back rest - Equipped	CM072_MCPBACKREST_EQUIP
72 (cont.)	Sissy bar/passenger back rest - Modified	CM072_MCPBACKREST_MOD
72 (cont.)	Sissy bar/passenger back rest - Operational	CM072_MCPBACKREST_OPER
72 (cont.)	Sissy bar/passenger back rest - Original Equipment	CM072_MCPBACKREST_ORIG
73	Side reflectors, yellow - Aftermarket	CM073_SIDEREFLECTORYEL_AFTMKT
73 (cont.)	Side reflectors, yellow - Damaged in Crash	CM073_SIDEREFLECTORYEL_DMG
73 (cont.)	Side reflectors, yellow - Equipped	CM073_SIDEREFLECTORYEL_EQUIP
73 (cont.)	Side reflectors, yellow - Modified	CM073_SIDEREFLECTORYEL_MOD
73 (cont.)	Side reflectors, yellow - Operational	CM073_SIDEREFLECTORYEL_OPER
73 (cont.)	Side reflectors, yellow - Original Equipment	CM073_SIDEREFLECTORYEL_ORIG
74	Side reflectors, red - Aftermarket	CM074_SIDEREFLECTORRED_AFTMKT
74 (cont.)	Side reflectors, red - Damaged in Crash	CM074_SIDEREFLECTORRED_DMG
74 (cont.)	Side reflectors, red - Equipped	CM074_SIDEREFLECTORRED_EQUIP
74 (cont.)	Side reflectors, red - Modified	CM074_SIDEREFLECTORRED_MOD
74 (cont.)	Side reflectors, red - Operational	CM074_SIDEREFLECTORRED_OPER
74 (cont.)	Side reflectors, red - Original Equipment	CM074_SIDEREFLECTORRED_ORIG

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75	Side reflectors, silver - Aftermarket	CM075_SIDEREFLECTORSIL_AFTMKT
75 (cont.)	Side reflectors, silver - Damaged in Crash	CM075_SIDEREFLECTORSIL_DMG
75 (cont.)	Side reflectors, silver - Equipped	CM075_SIDEREFLECTORSIL_EQUIP
75 (cont.)	Side reflectors, silver - Modified	CM075_SIDEREFLECTORSIL_MOD
75 (cont.)	Side reflectors, silver - Operational	CM075_SIDEREFLECTORSIL_OPER
75 (cont.)	Side reflectors, silver - Original Equipment	CM075_SIDEREFLECTORSIL_ORIG
76	Frame - Aftermarket	CM076_FRAME_AFTMKT
76 (cont.)	Frame - Damaged in Crash	CM076_FRAME_DMG
76 (cont.)	Frame - Equipped	CM076_FRAME_EQUIP
76 (cont.)	Frame - Modified	CM076_FRAME_MOD
76 (cont.)	Frame - Operational	CM076_FRAME_OPER
76 (cont.)	Frame - Original Equipment	CM076_FRAME_ORIG
77	Grab rails/hand holds - Aftermarket	CM077_HANDHOLDS_AFTMKT
77 (cont.)	Grab rails/hand holds - Damaged in Crash	CM077_HANDHOLDS_DMG
77 (cont.)	Grab rails/hand holds - Equipped	CM077_HANDHOLDS_EQUIP
77 (cont.)	Grab rails/hand holds - Modified	CM077_HANDHOLDS_MOD
77 (cont.)	Grab rails/hand holds - Operational	CM077_HANDHOLDS_OPER
77 (cont.)	Grab rails/hand holds - Original Equipment	CM077_HANDHOLDS_ORIG
78	Fuel tank - Aftermarket	CM078_FUELTANK_AFTMKT
78 (cont.)	Fuel tank - Damaged in Crash	CM078_FUELTANK_DMG
78 (cont.)	Fuel tank - Equipped	CM078_FUELTANK_EQUIP
78 (cont.)	Fuel tank - Modified	CM078_FUELTANK_MOD
78 (cont.)	Fuel tank - Operational	CM078_FUELTANK_OPER
78 (cont.)	Fuel tank - Original Equipment	CM078_FUELTANK_ORIG
79	Auxiliary fuel tank - Aftermarket	CM079_AUXFUELTANK_AFTMKT
79 (cont.)	Auxiliary fuel tank - Damaged in Crash	CM079_AUXFUELTANK_DMG
79 (cont.)	Auxiliary fuel tank - Equipped	CM079_AUXFUELTANK_EQUIP
79 (cont.)	Auxiliary fuel tank - Modified	CM079_AUXFUELTANK_MOD
79 (cont.)	Auxiliary fuel tank - Operational	CM079_AUXFUELTANK_OPER
79 (cont.)	Auxiliary fuel tank - Original Equipment	CM079_AUXFUELTANK_ORIG
80	Motor crankcase, cylinders - Aftermarket	CM080_MOTORCRANKCASE_AFTMKT
80 (cont.)	Motor crankcase, cylinders - Damaged in Crash	CM080_MOTORCRANKCASE_DMG
80 (cont.)	Motor crankcase, cylinders - Equipped	CM080_MOTORCRANKCASE_EQUIP
80 (cont.)	Motor crankcase, cylinders - Modified	CM080_MOTORCRANKCASE_MOD
80 (cont.)	Motor crankcase, cylinders - Operational	CM080_MOTORCRANKCASE_OPER
80 (cont.)	Motor crankcase, cylinders - Original Equipment	CM080_MOTORCRANKCASE_ORIG
81	Radiator - Aftermarket	CM081_RADIATOR_AFTMKT
81 (cont.)	Radiator - Damaged in Crash	CM081_RADIATOR_DMG
81 (cont.)	Radiator - Equipped	CM081_RADIATOR_EQUIP
81 (cont.)	Radiator - Modified	CM081_RADIATOR_MOD
81 (cont.)	Radiator - Operational	CM081_RADIATOR_OPER
81 (cont.)	Radiator - Original Equipment	CM081_RADIATOR_ORIG
82	Water hose - Aftermarket	CM082_WATERHOSE_AFTMKT
82 (cont.)	Water hose - Damaged in Crash	CM082_WATERHOSE_DMG
82 (cont.)	Water hose - Equipped	CM082_WATERHOSE_EQUIP
82 (cont.)	Water hose - Modified	CM082_WATERHOSE_MOD
82 (cont.)	Water hose - Operational	CM082_WATERHOSE_OPER
82 (cont.)	Water hose - Original Equipment	CM082_WATERHOSE_ORIG
83	Motor power enhancement - Aftermarket	CM083_POWERENHANCED_AFTMKT
83 (cont.)	Motor power enhancement - Damaged in Crash	CM083_POWERENHANCED_DMG
83 (cont.)	Motor power enhancement - Equipped	CM083_POWERENHANCED_EQUIP
83 (cont.)	Motor power enhancement - Modified	CM083_POWERENHANCED_MOD
83 (cont.)	Motor power enhancement - Operational	CM083_POWERENHANCED_OPER
83 (cont.)	Motor power enhancement - Original Equipment	CM083_POWERENHANCED_ORIG
84	Transmission case - Aftermarket	CM084_TRANSMISSIONCASE_AFTMKT
84 (cont.)	Transmission case - Damaged in Crash	CM084_TRANSMISSIONCASE_DMG
84 (cont.)	Transmission case - Equipped	CM084_TRANSMISSIONCASE_EQUIP

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84 (cont.)	Transmission case - Modified	CM084_TRANSMISSIONCASE_MOD
84 (cont.)	Transmission case - Operational	CM084_TRANSMISSIONCASE_OPER
84 (cont.)	Transmission case - Original Equipment	CM084_TRANSMISSIONCASE_ORIG
85	Oil tank - Aftermarket	CM085_OILTANK_AFTMKT
85 (cont.)	Oil tank - Damaged in Crash	CM085_OILTANK_DMG
85 (cont.)	Oil tank - Equipped	CM085_OILTANK_EQUIP
85 (cont.)	Oil tank - Modified	CM085_OILTANK_MOD
85 (cont.)	Oil tank - Operational	CM085_OILTANK_OPER
85 (cont.)	Oil tank - Original Equipment	CM085_OILTANK_ORIG
86	Battery, battery box - Aftermarket	CM086_BATTERY_AFTMKT
86 (cont.)	Battery, battery box - Damaged in Crash	CM086_BATTERY_DMG
86 (cont.)	Battery, battery box - Equipped	CM086_BATTERY_EQUIP
86 (cont.)	Battery, battery box - Modified	CM086_BATTERY_MOD
86 (cont.)	Battery, battery box - Operational	CM086_BATTERY_OPER
86 (cont.)	Battery, battery box - Original Equipment	CM086_BATTERY_ORIG
87	Rear brake pedal - Aftermarket	CM087_REARBRAKEPEDAL_AFTMKT
87 (cont.)	Rear brake pedal - Damaged in Crash	CM087_REARBRAKEPEDAL_DMG
87 (cont.)	Rear brake pedal - Equipped	CM087_REARBRAKEPEDAL_EQUIP
87 (cont.)	Rear brake pedal - Modified	CM087_REARBRAKEPEDAL_MOD
87 (cont.)	Rear brake pedal - Operational	CM087_REARBRAKEPEDAL_OPER
87 (cont.)	Rear brake pedal - Original Equipment	CM087_REARBRAKEPEDAL_ORIG
88	Shift lever - Aftermarket	CM088_SHIFTLEVER_AFTMKT
88 (cont.)	Shift lever - Damaged in Crash	CM088_SHIFTLEVER_DMG
88 (cont.)	Shift lever - Equipped	CM088_SHIFTLEVER_EQUIP
88 (cont.)	Shift lever - Modified	CM088_SHIFTLEVER_MOD
88 (cont.)	Shift lever - Operational	CM088_SHIFTLEVER_OPER
88 (cont.)	Shift lever - Original Equipment	CM088_SHIFTLEVER_ORIG
89	Foot pegs, footrests - Aftermarket	CM089_FOOTPEGS_AFTMKT
89 (cont.)	Foot pegs, footrests - Damaged in Crash	CM089_FOOTPEGS_DMG
89 (cont.)	Foot pegs, footrests - Equipped	CM089_FOOTPEGS_EQUIP
89 (cont.)	Foot pegs, footrests - Modified	CM089_FOOTPEGS_MOD
89 (cont.)	Foot pegs, footrests - Operational	CM089_FOOTPEGS_OPER
89 (cont.)	Foot pegs, footrests - Original Equipment	CM089_FOOTPEGS_ORIG
90	Side stand - Equipped	CM090_FOOTRESTS_AFTMKT
90 (cont.)	Highway pegs/footrests - Aftermarket	CM090_FOOTRESTS_DMG
90 (cont.)	Highway pegs/footrests - Damaged in Crash	CM090_FOOTRESTS_EQUIP
90 (cont.)	Highway pegs/footrests - Equipped	CM090_FOOTRESTS_MOD
90 (cont.)	Highway pegs/footrests - Modified	CM090_FOOTRESTS_OPER
90 (cont.)	Highway pegs/footrests - Operational	CM090_FOOTRESTS_ORIG
91	Highway pegs/footrests - Original Equipment	CM091_SIDESTAND_AFTMKT
91 (cont.)	Side stand - Aftermarket	CM091_SIDESTAND_DMG
91 (cont.)	Side stand - Damaged in Crash	CM091_SIDESTAND_EQUIP
91 (cont.)	Side stand - Modified	CM091_SIDESTAND_MOD
91 (cont.)	Side stand - Operational	CM091_SIDESTAND_OPER
91 (cont.)	Side stand - Original Equipment	CM091_SIDESTAND_ORIG
92	Side stand interlock - Aftermarket	CM092_SIDESTANDINTERLOCK_AFTMKT
92 (cont.)	Side stand interlock - Damaged in Crash	CM092_SIDESTANDINTERLOCK_DMG
92 (cont.)	Side stand interlock - Equipped	CM092_SIDESTANDINTERLOCK_EQUIP
92 (cont.)	Side stand interlock - Modified	CM092_SIDESTANDINTERLOCK_MOD
92 (cont.)	Side stand interlock - Operational	CM092_SIDESTANDINTERLOCK_OPER
92 (cont.)	Side stand interlock - Original Equipment	CM092_SIDESTANDINTERLOCK_ORIG
93	Center stand - Aftermarket	CM093_CENTERSTAND_AFTMKT
93 (cont.)	Center stand - Damaged in Crash	CM093_CENTERSTAND_DMG
93 (cont.)	Center stand - Equipped	CM093_CENTERSTAND_EQUIP
93 (cont.)	Center stand - Modified	CM093_CENTERSTAND_MOD
93 (cont.)	Center stand - Operational	CM093_CENTERSTAND_OPER
93 (cont.)	Center stand - Original Equipment	CM093_CENTERSTAND_ORIG
94	Muffler/exhaust system - Aftermarket	CM094_EXHAUSTSYSTEM_AFTMKT
94 (cont.)	Muffler/exhaust system - Damaged in Crash	CM094_EXHAUSTSYSTEM_DMG

Variable Number	Variable	SAS® and Excel™ Name
94 (cont.)	Muffler/exhaust system - Equipped	CM094_EXHAUSTSYSTEM_EQUIP
94 (cont.)	Muffler/exhaust system - Modified	CM094_EXHAUSTSYSTEM_MOD
94 (cont.)	Muffler/exhaust system - Operational	CM094_EXHAUSTSYSTEM_OPER
94 (cont.)	Muffler/exhaust system - Original Equipment	CM094_EXHAUSTSYSTEM_ORIG
95	Tank bag - Aftermarket	CM095_TANKBAG_AFTMKT
95 (cont.)	Tank bag - Damaged in Crash	CM095_TANKBAG_DMG
95 (cont.)	Tank bag - Equipped	CM095_TANKBAG_EQUIP
95 (cont.)	Tank bag - Modified	CM095_TANKBAG_MOD
95 (cont.)	Tank bag - Operational	CM095_TANKBAG_OPER
95 (cont.)	Tank bag - Original Equipment	CM095_TANKBAG_ORIG
96	Luggage/cargo rack - Aftermarket	CM096_LUGGAGE_AFTMKT
96 (cont.)	Luggage/cargo rack - Damaged in Crash	CM096_LUGGAGE_DMG
96 (cont.)	Luggage/cargo rack - Equipped	CM096_LUGGAGE_EQUIP
96 (cont.)	Luggage/cargo rack - Modified	CM096_LUGGAGE_MOD
96 (cont.)	Luggage/cargo rack - Operational	CM096_LUGGAGE_OPER
96 (cont.)	Luggage/cargo rack - Original Equipment	CM096_LUGGAGE_ORIG
97	Parcel rack - Aftermarket	CM097_PARCELRAK_AFTMKT
97 (cont.)	Parcel rack - Damaged in Crash	CM097_PARCELRAK_DMG
97 (cont.)	Parcel rack - Equipped	CM097_PARCELRAK_EQUIP
97 (cont.)	Parcel rack - Modified	CM097_PARCELRAK_MOD
97 (cont.)	Parcel rack - Operational	CM097_PARCELRAK_OPER
97 (cont.)	Parcel rack - Original Equipment	CM097_PARCELRAK_ORIG
98	Saddle bags - Aftermarket	CM098_SADDLEBAG_AFTMKT
98 (cont.)	Saddle bags - Damaged in Crash	CM098_SADDLEBAG_DMG
98 (cont.)	Saddle bags - Equipped	CM098_SADDLEBAG_EQUIP
98 (cont.)	Saddle bags - Modified	CM098_SADDLEBAG_MOD
98 (cont.)	Saddle bags - Operational	CM098_SADDLEBAG_OPER
98 (cont.)	Saddle bags - Original Equipment	CM098_SADDLEBAG_ORIG
99	Rear position lamps - Aftermarket	CM099_REARPOSITIONLAMPS_AFTMKT
99 (cont.)	Rear position lamps - Damaged in Crash	CM099_REARPOSITIONLAMPS_DMG
99 (cont.)	Rear position lamps - Equipped	CM099_REARPOSITIONLAMPS_EQUIP
99 (cont.)	Rear position lamps - Modified	CM099_REARPOSITIONLAMPS_MOD
99 (cont.)	Rear position lamps - Operational	CM099_REARPOSITIONLAMPS_OPER
99 (cont.)	Rear position lamps - Original Equipment	CM099_REARPOSITIONLAMPS_ORIG
100	Stop lamp - Aftermarket	CM100_STOPLAMP_AFTMKT
100 (cont.)	Stop lamp - Damaged in Crash	CM100_STOPLAMP_DMG
100 (cont.)	Stop lamp - Equipped	CM100_STOPLAMP_EQUIP
100 (cont.)	Stop lamp - Modified	CM100_STOPLAMP_MOD
100 (cont.)	Stop lamp - Operational	CM100_STOPLAMP_OPER
100 (cont.)	Stop lamp - Original Equipment	CM100_STOPLAMP_ORIG
101	Rear reflectors, yellow - Aftermarket	CM101_REARREFLECTORYEL_AFTMKT
101 (cont.)	Rear reflectors, yellow - Damaged in Crash	CM101_REARREFLECTORYEL_DMG
101 (cont.)	Rear reflectors, yellow - Equipped	CM101_REARREFLECTORYEL_EQUIP
101 (cont.)	Rear reflectors, yellow - Modified	CM101_REARREFLECTORYEL_MOD
101 (cont.)	Rear reflectors, yellow - Operational	CM101_REARREFLECTORYEL_OPER
101 (cont.)	Rear reflectors, yellow - Original Equipment	CM101_REARREFLECTORYEL_ORIG
102	Rear reflectors, red - Aftermarket	CM102_REARREFLECTORRED_AFTMKT
102 (cont.)	Rear reflectors, red - Damaged in Crash	CM102_REARREFLECTORRED_DMG
102 (cont.)	Rear reflectors, red - Equipped	CM102_REARREFLECTORRED_EQUIP
102 (cont.)	Rear reflectors, red - Modified	CM102_REARREFLECTORRED_MOD
102 (cont.)	Rear reflectors, red - Operational	CM102_REARREFLECTORRED_OPER
102 (cont.)	Rear reflectors, red - Original Equipment	CM102_REARREFLECTORRED_ORIG
103	Rear reflectors, silver - Aftermarket	CM103_REARREFLECTORSLVR_AFTMKT
103 (cont.)	Rear reflectors, silver - Damaged in Crash	CM103_REARREFLECTORSLVR_DMG
103 (cont.)	Rear reflectors, silver - Equipped	CM103_REARREFLECTORSLVR_EQUIP
103 (cont.)	Rear reflectors, silver - Modified	CM103_REARREFLECTORSLVR_MOD
103 (cont.)	Rear reflectors, silver - Operational	CM103_REARREFLECTORSLVR_OPER
103 (cont.)	Rear reflectors, silver - Original Equipment	CM103_REARREFLECTORSLVR_ORIG
104	Rear turn signals - Aftermarket	CM104_REARTURNSIGNAL_AFTMKT

Variable Number	Variable	SAS® and Excel™ Name
104 (cont.)	Rear turn signals - Damaged in Crash	CM104_REARTURNSIGNAL_DMG
104 (cont.)	Rear turn signals - Equipped	CM104_REARTURNSIGNAL_EQUIP
104 (cont.)	Rear turn signals - Modified	CM104_REARTURNSIGNAL_MOD
104 (cont.)	Rear turn signals - Operational	CM104_REARTURNSIGNAL_OPER
104 (cont.)	Rear turn signals - Original Equipment	CM104_REARTURNSIGNAL_ORIG
105	Rear suspension - Aftermarket	CM105_REARSUSPENSION_AFTMKT
105 (cont.)	Rear suspension - Damaged in Crash	CM105_REARSUSPENSION_DMG
105 (cont.)	Rear suspension - Equipped	CM105_REARSUSPENSION_EQUIP
105 (cont.)	Rear suspension - Modified	CM105_REARSUSPENSION_MOD
105 (cont.)	Rear suspension - Operational	CM105_REARSUSPENSION_OPER
105 (cont.)	Rear suspension - Original Equipment	CM105_REARSUSPENSION_ORIG
106	Rear tire/wheel - Aftermarket	CM106_REARWHEEL_AFTMKT
106 (cont.)	Rear tire/wheel - Damaged in Crash	CM106_REARWHEEL_DMG
106 (cont.)	Rear tire/wheel - Equipped	CM106_REARWHEEL_EQUIP
106 (cont.)	Rear tire/wheel - Modified	CM106_REARWHEEL_MOD
106 (cont.)	Rear tire/wheel - Operational	CM106_REARWHEEL_OPER
106 (cont.)	Rear tire/wheel - Original Equipment	CM106_REARWHEEL_ORIG
107	Rear fender - Aftermarket	CM107_REARFENDER_AFTMKT
107 (cont.)	Rear fender - Damaged in Crash	CM107_REARFENDER_DMG
107 (cont.)	Rear fender - Equipped	CM107_REARFENDER_EQUIP
107 (cont.)	Rear fender - Modified	CM107_REARFENDER_MOD
107 (cont.)	Rear fender - Operational	CM107_REARFENDER_OPER
107 (cont.)	Rear fender - Original Equipment	CM107_REARFENDER_ORIG
108	Rear brakes - Aftermarket	CM108_REARBRAKES_AFTMKT
108 (cont.)	Rear brakes - Damaged in Crash	CM108_REARBRAKES_DMG
108 (cont.)	Rear brakes - Equipped	CM108_REARBRAKES_EQUIP
108 (cont.)	Rear brakes - Modified	CM108_REARBRAKES_MOD
108 (cont.)	Rear brakes - Operational	CM108_REARBRAKES_OPER
108 (cont.)	Rear brakes - Original Equipment	CM108_REARBRAKES_ORIG
108 (cont.)	Tools, tool box - Aftermarket	CM108_TRAILER_ORIG
109	Tools, tool box - Damaged in Crash	CM109_SIDEAR_ORIG
109 (cont.)	Tools, tool box - Equipped	CM109_TOOLBOX_AFTMKT
109 (cont.)	Tools, tool box - Modified	CM109_TOOLBOX_DMG
109 (cont.)	Tools, tool box - Operational	CM109_TOOLBOX_EQUIP
109 (cont.)	Tools, tool box - Original Equipment	CM109_TOOLBOX_MOD
109 (cont.)	Side covers - Aftermarket	CM109_TOOLBOX_OPER
109 (cont.)	Side covers - Damaged in Crash	CM109_TOOLBOX_ORIG
110	Side covers - Equipped	CM110_SIDECOVERS_AFTMKT
110 (cont.)	Side covers - Modified	CM110_SIDECOVERS_DMG
110 (cont.)	Side covers - Operational	CM110_SIDECOVERS_EQUIP
110 (cont.)	Side covers - Original Equipment	CM110_SIDECOVERS_MOD
110 (cont.)	Trailer - Aftermarket	CM110_SIDECOVERS_OPER
110 (cont.)	Trailer - Damaged in Crash	CM110_SIDECOVERS_ORIG
111	Trailer - Equipped	CM111_TRAILER_AFTMKT
111 (cont.)	Trailer - Modified	CM111_TRAILER_DMG
111 (cont.)	Trailer - Operational	CM111_TRAILER_EQUIP
111 (cont.)	Trailer - Original Equipment	CM111_TRAILER_MOD
111 (cont.)	Side Car - Aftermarket	CM111_TRAILER_OPER
112	Side Car - Damaged in Crash	CM112_SIDEAR_AFTMKT
112 (cont.)	Side Car - Equipped	CM112_SIDEAR_DMG
112 (cont.)	Side Car - Modified	CM112_SIDEAR_EQUIP
112 (cont.)	Side Car - Operational	CM112_SIDEAR_MOD
112 (cont.)	Side Car - Original Equipment	CM112_SIDEAR_OPER

Table 18. List of variables in the Motorcycle Dynamics Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	MD000_CASEID
1	Pre-crash Motion Prior to Precipitating Event	MD001_PRECRASHMOTIONPREPRCIP
1 (cont.)	Pre-crash Motion Prior to Precipitating Event - Text	MD001_PRECRASHMOTIONPREPRCIPTXT
2	Travel Speed	MD002_TRAVELSPEED
3	Travel Speed Confidence Interval	MD003_SPEEDCONFINTERVAL
3 (cont.)	Travel Speed Confidence Interval	MD003_SPEEDCONFINTERVALSIGN
4	Line of Sight to Other Vehicle	MD004_LINEOFSIGHTTOOV
5	Pre-crash Motion After Precipitating Event	MD005_PRECRASHMOTIONPSTPRCIP
5 (cont.)	Pre-crash Motion After Precipitating Event - Text	MD005_PRECRASHMOTIONPSTPRCIPTXT
6	Crash Avoidance Action (Code up to 4) - Item 1	MD006_CRASHAVOIDANCEACTION1
6 (cont.)	Crash Avoidance Action (Code up to 4) - Item 2	MD006_CRASHAVOIDANCEACTION2
6 (cont.)	Crash Avoidance Action (Code up to 4) - Item 3	MD006_CRASHAVOIDANCEACTION3
6 (cont.)	Crash Avoidance Action (Code up to 4) - Item 4	MD006_CRASHAVOIDANCEACTION4
6 (cont.)	Crash Avoidance Action (Code up to 4) - Text	MD006_CRASHAVOIDANCEACTIONXTXT
7	Breaking Skid Marks on Highway	MD007_SKIDMARKSDESCRIP
7 (cont.)	Breaking Skid Marks on Highway - Text	MD007_SKIDMARKSDESCRIPXTXT
8	Length of Skid Marks on Highway - Front Tire (Feet)	MD008_FRONTTIRESKIDLENGTHFEET
8 (cont.)	Length of Skid Marks on Highway - Front Tire (Inches)	MD008_FRONTTIRESKIDLENGTHINCHES
8 (cont.)	Length of Skid Marks on Highway - Rear Tire (Feet)	MD008_REARTIRESKIDLENGTHFEET
8 (cont.)	Length of Skid Marks on Highway - Rear Tire (Inches)	MD008_REARTIRESKIDLENGTHINCHES
9	Breaking Skid Mark Evidence on Highway	MD009_SKIDEVIDENCEONROAD
9 (cont.)	Breaking Skid Mark Evidence on Highway - Text	MD009_SKIDEVIDENCEONROADTXT
10	Braking Tire Striation Evidence	MD010_TIRESTRIATIONEVIDENCE
10 (cont.)	Braking Tire Striation Evidence - Text	MD010_TIRESTRIATIONEVIDENCETXT
11	Swerve	MD011_SWERVEDECISION
12	Acceleration Evidence on Rear Tire	MD012_REARTIREACCELEVIDENCE
12 (cont.)	Acceleration Evidence on Rear Tire - Text	MD012_REARTIREACCELEVIDENCETXT
13	Counter-steering	MD013_COUNTERSTEERINGDECISION
14	Cornering Skid Mark Evidence on Roadway	MD014_CORNERINGSKIDEVIDENCE
14 (cont.)	Cornering Skid Mark Evidence on Roadway - Text	MD014_CORNERINGSKIDEVIDENCETXT
15	Cornering Tire Striation Evidence	MD015_CORNERINGTIRESTRIATION
15 (cont.)	Cornering Tire Striation Evidence - Text	MD015_CORNERINGTIRESTRIATIONXTXT
16	Motorcycle First Collision Contact Code	MD016_MCFRSTCOLLISIONCONTACT
16 (cont.)	Motorcycle First Collision Contact Code - Text	MD016_MCFRSTCOLLISIONCONTACTXTXT
17	Object(s) Contacted (Code up to 3) - Item 1	MD017_OBJECTCONTACTED1
17 (cont.)	Object(s) Contacted (Code up to 3) - Item 1 - Text	MD017_OBJECTCONTACTED1TXT
17 (cont.)	Object(s) Contacted (Code up to 3) - Item 2	MD017_OBJECTCONTACTED2
17 (cont.)	Object(s) Contacted (Code up to 3) - Item 2 - Text	MD017_OBJECTCONTACTED2TXT
17 (cont.)	Object(s) Contacted (Code up to 3) - Item 3	MD017_OBJECTCONTACTED3
17 (cont.)	Object(s) Contacted (Code up to 3) - Item - Text	MD017_OBJECTCONTACTED3TXT
18	Motorcycle Impact Speed in MPH	MD018_MCIMPACTSPEED
19	Roll Attitude Angle (Sign)	MD019_ROLLATTITUDEANGLE
19 (cont.)	Roll Attitude Angle in Degrees	MD019_ROLLATTITUDEANGLESIGN
20	Slideslip Angle is Degrees	MD020_SIDESLIPANGLE
20 (cont.)	Slideslip Angle is Degrees - Text	MD020_SIDESLIPANGLEXTXT
21	Relative Heading Angle (Sign)	MD021_RELATIVEHEADINGANGLE
21 (cont.)	Relative Heading Angle	MD021_RELATIVEHEADINGANGLESIGN
22	Principle Direction of Force	MD022_PRINCIPLEDIROFFORCE
23	Calculated Time from Precipitating Event to Impact	MD023_TIMEPRCIPEVENTTOIMPACT
24	Motorcycle Motion Code	MD024_MCMOTION
24 (cont.)	Motorcycle Motion Code - Text	MD024_MCMOTIONXTXT
25	Distance from POI to Motorcycle POR (Sign)	MD025_DISTPOITOMCPORSIGN
25 (cont.)	Distance from POI to Motorcycle POR (Feet)	MD025_DISTPOITOMCPORFEET
25 (cont.)	Distance from POI to Motorcycle POR (Inches)	MD025_DISTPOITOMCPORINCHES
25 (cont.)	Offset Distance from POI to Motorcycle POR (Sign)	MD025_OFFSETPOITOMCPORSIGN
25 (cont.)	Offset Distance from POI to Motorcycle POR (Feet)	MD025_OFFSETPOITOMCPORFEET
25 (cont.)	Offset Distance from POI to Motorcycle POR (Inches)	MD025_OFFSETPOITOMCPORINCHES

Variable Number	Variable	SAS® and Excel™ Name
26	Post-crash Scrape Marks on Motorcycle	MD026_POSTCRASHSCRAPESONMC
26 (cont.)	Post-crash Scrape Marks on Motorcycle - Text	MD026_POSTCRASHSCRAPESONMCTXT
27	Rider Motion Code	MD027_MCRMOTIONCODE
27 (cont.)	Rider Motion Code - Text	MD027_MCRMOTIONCODETXT
28	Distance from POI to Rider POR (Feet)	MD028_DISTPOITOPORFEET
28 (cont.)	Distance from POI to Rider POR (Inches)	MD028_DISTPOITOPORINCHES
28 (cont.)	Passenger Motion Code	MD029_MCPMOTIONCODE
29	Passenger Motion Code - Text	MD029_MCPMOTIONCODETXT
30	Distance from POI to Passenger POR (Feet)	MD030_MCPPOITOPORFEET
30 (cont.)	Distance from POI to Passenger POR (Inches)	MD030_MCPPOITOPORINCHES
30 (cont.)	Post-crash Crash Scene Scrape Marks	MD031_POSTCRASHSCENESCRAPES
30 (cont.)	Post-crash Crash Scene Scrape Marks - Text	MD031_POSTCRASHSCENESCRAPES TXT
31	Tire Size - Front	MD032_FRONTTIRESIZE
31 (cont.)	Tire Size - Front - Text	MD032_FRONTTIRESIZETXT
32	Tire Size - Rear	MD032_REARTIRESIZE
32 (cont.)	Tire Size - Rear - Text	MD032_REARTIRESIZETXT
32 (cont.)	Tire Inflation Pressure Post-Crash - Front	MD033_POSTCRASHFRONTTIREPSI
32 (cont.)	Tire Inflation Pressure Post-Crash - Front - Text	MD033_POSTCRASHFRONTTIREPSITXT
33	Tire Inflation Pressure Post-Crash - Rear	MD033_POSTCRASHREARTIREPSI
33 (cont.)	Tire Inflation Pressure Post-Crash - Rear - Text	MD033_POSTCRASHREARTIREPSITXT
33 (cont.)	Contributing Factor Related to Front Tire or Wheel - Text	MD034_CONTFACORFRONTWHEELTXT
33 (cont.)	Contributing Factor Related to Front Tire or Wheel	MD034_CONTFACORFRONTWHEEL
34	Contributing Factor Related to Rear Tire or Wheel	MD034_CONTFACORREARWHEEL
34 (cont.)	Contributing Factor Related to Rear Tire or Wheel - Text	MD034_CONTFACORREARWHEELTXT
34 (cont.)	Contributing Factor Related to Front Suspension Condition	MD035_CONTRIBFRONTSUSPEND
34 (cont.)	Contributing Factor Related to Front Suspension Condition - Text	MD035_CONTFACORFRONTSUSPENDTXT
35	Contributing Factor Related to Rear Suspension Condition	MD035_CONTFACORREARSUSPEND
35 (cont.)	Contributing Factor Related to Rear Suspension Condition - Text	MD035_CONTFACORREARSUSPENDTXT
35 (cont.)	Contributing Factor Related to Frame Condition	MD036_CONTFACORFRAME
35 (cont.)	Contributing Factor Related to Frame Condition - Text	MD036_CONTFACORFRAMETXT
35 (cont.)	Contributing Factor Related to Cornering Clearance	MD037_CONTFACORCORNERCLEAR
36	Contributing Factor Related to Cornering Clearance - Text	MD037_CONTFACORCORNERCLEARTXT
36 (cont.)	Contributing Factor Related to the Seat	MD038_CONTFACORSEAT
37	Contributing Factor Related to the Seat - Text	MD038_CONTFACORSEATTXT
37 (cont.)	Contributing Factor Related to the Drive Chain, Belt, or Shaft Condition	MD039_CONTFACORDRIVECHAIN
38	Contributing Factor Related to the Drive Chain, Belt, or Shaft Condition - Text	MD039_CONTFACORDRIVECHAINTXT
38 (cont.)	Contributing Factor Related to the Exhaust System Condition	MD040_CONTFACOREXHAUSTSYS
39	Contributing Factor Related to the Exhaust System Condition - Text	MD040_CONTFACOREXHAUSTSYSTXT
39 (cont.)	Contributing Motorcycle Vehicle Failure	MD041_CONTFACORMCFailure
40	Contributing Motorcycle Vehicle Failure - Text	MD041_CONTFACORMCFailureTXT
40 (cont.)	Was a Pre-Crash Fire a Contributing Factor	MD042_CONTFACORPRECRASHFIRE
41	Was The Cargo/Luggage a Contributing Factor	MD043_CONTFACORCARGO
41 (cont.)	Was The Cargo/Luggage a Contributing Factor - Text	MD043_CONTFACORCARGOTXT

Table 19. List of variables in the Injury Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	IF000_CASEID
0 (cont.)	Vehicle Number	IF000_VEHNUMBER
0 (cont.)	Person Identifier	IF000_PASSENGERNUM
All Rows of Rider/Occupant Injury Form	All 15 Elements Recorded for Each Injury	--
0 (cont.)	Source of Injury Data	IF_INJURYDATASOURCE
0 (cont.)	Body Region	IF_INJURYSOURCETXT
0 (cont.)	Type of Anatomical Structure	IF_BODYREGION
0 (cont.)	Specific Anatomical Structure	IF_ANATOMICSTRUCTURE
0 (cont.)	Level of Injury	IF_SPECIFICANATOMICSTRUCTURE
0 (cont.)	Severity	IF_LEVELOFINJURY
0 (cont.)	Localizer1	IF_INJURYSEVERITY
0 (cont.)	Localizer2	IF_LOCALIZER1
0 (cont.)	1st Injury Source	IF_LOCALIZER2
0 (cont.)	1st Injury Source - Text	IF_FIRSTINJURYSOURCE
0 (cont.)	2nd Injury Source	IF_FIRSTINJURYSOURCETXT
0 (cont.)	2nd Injury Source - Text	IF_SECONDINJURYSOURCE
0 (cont.)	1st Injury Source Confidence Level	IF_SECONDINJURYSOURCETXT
0 (cont.)	2nd Injury Source Confidence Level	IF_FIRSTINJURYSOURCECONFIDENCE
0 (cont.)	Occupant Direct/Indirect Injury	IF_SECONDINJURYSOURCECONFIDENCE
0 (cont.)	FCI	IF_DIRECTINDIRECTINJURY
0 (cont.)	IDC-9	IF_FCI
151	Blood Alcohol Concentration	IF151_BLOODALCOHOL
152	Alcohol/Drug Impairment	IF152_ALCOHOLDRUGIMPAIRMENT
152 (cont.)	Alcohol/Drug Impairment - Text	IF152_ALCOHOLDRUGIMPAIRMENTTXT
153	Source of BAC information	IF153_BACINFORMATIONSOURCE
154	Time Span from Crash to BAC Collection	IF154_TIMECRASHTOBACCOLLECTHR
154 (cont.)	Time Span from Crash to BAC Collection	IF154_TIMECRASHTOBACCOLLECTMIN
154 (cont.)	Time Span from Crash to BAC Collection - Text	IF154_TIMECRASHTOBACCOLLECTTXT
155	Type of Drugs other than Alcohol	IF155_NONALCOHOLICDRUGTYPE
155 (cont.)	Type of Drugs other than Alcohol - Text	IF155_NONALCOHOLICDRUGTYPETXT
156	Source of Drugs other than Alcohol	IF156_NONALCOHOLICDRUGSOURCE
157	Injury Severity Score	IF157_INJURYSEVERITYSCORE
158	Trauma Status	IF158_TRAUMASTATUS
158 (cont.)	Trauma Status - Text	IF158_TRAUMASTATUSTXT
159	Number of Days of Hospital Admission	IF159_NUMBEROFDAYSINHOSPITAL
159 (cont.)	Number of Days of Hospital Admission - Text	IF159_NUMBEROFDAYSINHOSPITALTXT
160	Death Within How Many Days	IF160_DEATHAFTERCRASHDAYS
160 (cont.)	Death Within How Many Days - Text	IF160_DEATHAFTERCRASHDAYSTXT

Table 20. List of variables in the Other Vehicle Driver Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	OD000_CASEID
0 (cont.)	Source	OD000_SOURCE
0 (cont.)	Vehicle Number	OD000_VEHICLENUMBER
1	Pre-Crash Motion Prior to Precipitating Event	OD001_PRECRASHMCOOPERATION
1 (cont.)	Pre-Crash Motion Prior to Precipitating Event - Text	OD001_PRECRASHMCOOPERATIONTXT
2	Sight line at the Start of the Crash Sequence	OD002_PRECRASHSIGHTLINE
2 (cont.)	Sight line at the Start of the Crash Sequence - Text	OD002_PRECRASHSIGHTLINETXT
3	Travel Lane Just Before the Precipitating Event	OD003_TRAVELLANEPREPRCIP
3 (cont.)	Travel Lane Just Before the Precipitating Event - Text	OD003_TRAVELLANEPREPRCIPTXT
4	Travel Speed Before the Precipitating Event	OD004_TRAVELSPEEDPREPRCIP
4 (cont.)	Travel Speed Before the Precipitating Event - Text	OD004_TRAVELSPEEDPREPRCIPTXT
5	Collision Avoidance Actions (Code up to 3) - Item 1	OD005_COLLISIONAVOIDANCEACT1
5 (cont.)	Collision Avoidance Actions (Code up to 3) - Item 2	OD005_COLLISIONAVOIDANCEACT2
5 (cont.)	Collision Avoidance Actions (Code up to 3) - Item 3	OD005_COLLISIONAVOIDANCEACT3
5 (cont.)	Collision Avoidance Actions - Text	OD005_COLLISIONAVOIDANCEACTTXT
6	Description of Control Loss Due To Weather, Roadway Or Mechanical Problems	OD006_OTHERFACTORSCONTROLLOSS
6 (cont.)	Description of Control Loss Due To Weather, Roadway Or Mechanical Problems	OD006_OTHERFACTORSCONTROLLOSS
7	Number of Passengers	OD007_NUMBEROFOVPASSENGERS
8	Did OV Passenger Contribute to Crash	OD008_OVPCONTRIBFACTORS
8 (cont.)	Did OV Passenger Contribute to Crash - Text	OD008_OVPCONTRIBFACTORSTXT
9	Clarity of Line of Sight to Motorcycle	OD009_SIGHTLINETOMCCLEARED
9 (cont.)	Clarity of Line of Sight to Motorcycle - Text	OD009_SIGHTLINETOMCCLEAREDTEXT
10	Object Obstructing View	OD010_OBSTRUCTINGOBJECTINVIEW
10 (cont.)	Object Obstructing View - Text	OD010_OBSTRUCTINGOBJECTINVIEWTXT
11	Was View to Motorcycle Obscured	OD011_VIEWTOMCOBSCURED
11 (cont.)	Was View to Motorcycle Obscured - Text	OD011_VIEWTOMCOBSCUREDTEXT
12	Distractions	OD012_OVDDISTRACTED
12 (cont.)	Distractions - Text	OD012_OVDDISTRACTEDTEXT
13	Start Point Of The Trip	OD013_TRIPORIGIN
13 (cont.)	Start Point Of The Trip - Text	OD013_TRIPORIGINTXT
14	Trip Destination	OD014_TRIPDESTINATION
14 (cont.)	Trip Destination - Text	OD014_TRIPDESTINATIONTEXT
15	Trip Distance In Miles	OD015_ONEWAYTRIPMILEAGE
16	Frequency Of Travel On This Road On/In Any Vehicle	OD016_FREQUENCYROUTETRAVELLED
17	Time Driving Today Prior To The Crash (Hours)	OD017_RIDETIMEPRIORTOCRASHHRS
17 (cont.)	Time Driving Today Prior To The Crash (Minutes)	OD017_RIDETIMEPRIORTOCRASHMINS
17 (cont.)	Time Driving Today Prior To The Crash - Text	OD017_RIDETIMEPRIORTOCRASHTXT
18	Total Miles Traveled Before The Crash Occurred	OD018_MILESRODEPRIORTOCRASH
18 (cont.)	Total Miles Traveled Before The Crash Occurred - Text	OD018_MILESRODEPRIORTOCRASHTXT
19	Physical Impairment (Code up to 3) - Item 1	OD019_PHYSICALIMPAIRMENT1
19 (cont.)	Physical Impairment (Code up to 3) - Item 2	OD019_PHYSICALIMPAIRMENT2
19 (cont.)	Physical Impairment (Code up to 3) - Item 3	OD019_PHYSICALIMPAIRMENT3
19 (cont.)	Physical Impairment - Text	OD019_PHYSICALIMPAIRMENTTXT
20	Physiological Status At The Time Of Crash (Code up to 3) - Item 1	OD020_PHYSIOLOGICALCONCERN1
20 (cont.)	Physiological Status At The Time Of Crash (Code up to 3) - Item 2	OD020_PHYSIOLOGICALCONCERN2
20 (cont.)	Physiological Status At The Time Of Crash (Code up to 3) - Item 3	OD020_PHYSIOLOGICALCONCERN3
20 (cont.)	Physiological Status At The Time Of Crash - Text	OD020_PHYSIOLOGICALCONCERNTEXT
21	Psychological Status At The Time Of Crash (Code up to 3) - Item 1	OD021_PSYCHOLOGICALCONCERN1
21 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 2	OD021_PSYCHOLOGICALCONCERN2

Variable Number	Variable	SAS® and Excel™ Name
21 (cont.)	Psychological Status At The Time Of Crash (Code up to 3) - Item 3	OD021_PSYCHOLOGICALCONCERN3
21 (cont.)	Psychological Status At The Time Of Crash - Text	OD021_PSYCHOLOGICALCONCERN3TXT
22	Sleep In Hours 24 Hours Prior To The Crash	OD022_AMTSLEEPLAST24HRS
22 (cont.)	Sleep In Hours 24 Hours Prior To The Crash - Text	OD022_AMTSLEEPLAST24HRSTXT
23	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash	OD023_DRUGSLAST24HRS
23 (cont.)	Alcohol Or Any Drugs Or Medications Consumption 24 Hours Prior To The Crash - Text	OD023_DRUGSLAST24HRSTXT
24	Type Of Drugs Other Than Alcohol	OD024_NONALCOHOLICDRUGTYPE
24 (cont.)	Type Of Drugs Other Than Alcohol - Text	OD024_NONALCOHOLICDRUGTYPETXT
25	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 1	OD025_NONALCOHOLICDRUGSOURCE1
25 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 2	OD025_NONALCOHOLICDRUGSOURCE2
25 (cont.)	Source Of The Drugs Other Than Alcohol (Code up to 3) - Item 3	OD025_NONALCOHOLICDRUGSOURCE3
26	Time Driving Any Kind of Motor Vehicle (Years)	OD026_TIMEDRIVINGANYVEHICLEYR
26 (cont.)	Time Driving Any Kind of Motor Vehicle (Months)	OD026_TIMEDRIVINGANYVEHICLEMO
26 (cont.)	Time Driving Any Kind of Motor Vehicle - Text	OD026_TIMEDRIVINGANYVEHICLETXT
27	Time Driving the Crash-Involved Motorcycle/Motor Vehicle (Years)	OD027_DRIVINGEXPERIENCETHISOVYR
27 (cont.)	Time Driving the Crash-Involved Motorcycle/Motor Vehicle (Months)	OD027_DRIVINGEXPERIENCETHISOVMO
27 (cont.)	Time Driving the Crash-Involved Motorcycle/Motor Vehicle - Text	OD027_DRIVINGEXPERIENCETHISOVTXT
28	Miles/Year Drive Car or Truck	OD028_OVDRIVENINMILESPERYEAR
28 (cont.)	Miles/Year Drive Car or Truck - Text	OD028_OVDRIVENINMILESPERYEARTXT
29	Type Of Driving Training Driver Had	OD029_TYPEOFDRIVINGTRAINING
29 (cont.)	Type Of Driving Training Driver Had - Text	OD029_TYPEOFDRIVINGTRAININGTXT
30	Number Of Traffic Convictions In Previous 5 Years	OD030_RECENTTRAFFICCONVICTIONS
31	Number Of Motorcycle Moving Traffic Crashes In Past 5 Years	OD031_MCCRASHESLAST5YRS
32	Number Of Car Or Truck Traffic Crashes In Past 5 Years	OD032_OVCRASHESLAST5YRS
33	Do You Currently Ride a Street Motorcycle?	OD033_RIDESASTREETMC
33 (cont.)	Do You Currently Ride a Street Motorcycle? - Text	OD033_RIDESASTREETMCTXT
34	Motorcycle Riding experience (Years)	OD034_MCRIDINGEXPERIENCEYR
34 (cont.)	Motorcycle Riding experience (Months)	OD034_MCRIDINGEXPERIENCEMO
34 (cont.)	Motorcycle Riding experience - Text	OD034_MCRIDINGEXPERIENCETXT
35	Average Number Of Days/Year Driver Rides Motorcycles	OD035_AVERAGEDAYSRIDINGMC
35 (cont.)	Average Number Of Days/Year Driver Rides Motorcycles - Text	OD035_AVERAGEDAYSRIDINGMCTXT
36	Miles/Year Driver Rides Motorcycles	OD036_MCRIDDENINMILES
36 (cont.)	Miles/Year Driver Rides Motorcycles - Text	OD036_MCRIDDENINMILESTXT
37	Time Of Riding a Motorcycle Versus Another Type of Vehicle In Percentage	OD037_PERCENTTRAVELBYMC
37 (cont.)	Time Of Driving Another Type of Vehicle Versus Riding a Motorcycle In Percentage	OD037_PERCENTTRAVELBYOVTYPE
38	When You Ride A Motorcycle, What Is The Percentage Of Time You Use It For Recreation	OD038_PERCENTRECREATIONALUSE
38 (cont.)	When You Ride A Motorcycle, What Is The Percentage Of Time You Use It For Transportation	OD038_PERCENTTRANSPORTATIONUSE
39	Age At The Time of The Crash	OD039_MCRYEARSOFAGE
40	Driver Injury In This Crash	OD040_INJUREDINCRASH
41	Type Of Medical Treatment Received	OD041_TYPEOFMEDICALTREATMENT
41 (cont.)	Type Of Medical Treatment Received - Text	OD041_TYPEOFMEDICALTREATMENTTXT
42	State/Country Where Current Driver's License Issued	OD042_LICENSEISSUER

Variable Number	Variable	SAS® and Excel™ Name
42 (cont.)	State/Country Where Current Driver's License Issued - Text	OD042_LICENSEISSUERTXT
43	Type Of Operator's License (Code up to 4) - Item 1	OD043_LICENSETYPE1
43 (cont.)	Type Of Operator's License (Code up to 4) - Item 2	OD043_LICENSETYPE2
43 (cont.)	Type Of Operator's License (Code up to 4) - Item 3	OD043_LICENSETYPE3
43 (cont.)	Type Of Operator's License (Code up to 4) - Item 4	OD043_LICENSETYPE4
43 (cont.)	Type Of Operator's License - Text	OD043_LICENSETYPETXT
44	Year License 1 Issued	OD044_YEARLICENSEISSUED1
44 (cont.)	Year License 2 Issued	OD044_YEARLICENSEISSUED2
44 (cont.)	Year License 3 Issued	OD044_YEARLICENSEISSUED3
44 (cont.)	Year License 4 Issued	OD044_YEARLICENSEISSUED4
45	Does Your License Qualify You to Operate This Motor Vehicle?	OD045_LICENSEAPPLIESTOTHISOV
46	Riders Origin - Hispanic Or Latino	OD046_HISPANICORIGIN
46 (cont.)	Riders Origin - Hispanic Or Latino - Text	OD046_HISPANICORIGINTXT
47	Race (Code up to 4) - Item 1	OD047_RACE1
47 (cont.)	Race (Code up to 4) - Item 2	OD047_RACE2
47 (cont.)	Race (Code up to 4) - Item 3	OD047_RACE3
47 (cont.)	Race (Code up to 4) - Item 4	OD047_RACE4
47 (cont.)	Race - Text	OD047_RACETXT
48	Riders Height (Feet)	OD048_MCRHEIGHTFEET
48 (cont.)	Riders Height (Inches)	OD048_MCRHEIGHTINCHES
49	Riders Weight (Pounds)	OD049_MCRWEIGHT
50	Gender	OD050_GENDER
51	Level Of Formal Education	OD051_LEVELOFEDUCATION
51 (cont.)	Level Of Formal Education - Text	OD051_LEVELOFEDUCATIONTXT
52	Current Occupation	OD052_CURRENTOCCUPATION
52 (cont.)	Current Occupation - Text	OD052_CURRENTOCCUPATIONTXT
53	Are You Required to Wear Corrective Lenses When Riding/Driving?	OD053_CORRECTIVELENSESREQD
53 (cont.)	Are You Required to Wear Corrective Lenses When Riding/Driving? - Text	OD053_CORRECTIVELENSESREQDTXT
54	Were Corrective Lenses In Use at the Time of the Crash?	OD054_CORRECTIVELENSESUSED
54 (cont.)	Were You Wearing Corrective Lenses at the Time of the Crash? - Text	OD054_CORRECTIVELENSESUSEDTXT
55	Marital Status	OD055_MARITALSTATUS
55 (cont.)	Marital Status - Text	OD055_MARITALSTATUSTXT
56	Number Of Children	OD056_NUMBEROFCHILDREN
56 (cont.)	Number Of Children - Text	OD056_NUMBEROFCHILDRENTXT
57	Blood Alcohol Concentration (BAC)	OD057_BLOODALCOHOL
57 (cont.)	Blood Alcohol Concentration (BAC) - Text	OD057_BLOODALCOHOLTXT
58	Source of BAC information	OD058_BACINFORMATIONSOURCE
58 (cont.)	Source of BAC information - Text	OD058_BACINFORMATIONSOURCECETXT

Table 21. List of variables in the Other Vehicle Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	OV000_CASEID
0 (cont.)	Vehicle Number	OV000_VEHICLENUMBER
1	Vehicle Body Type	OV001_OVBODYTYPE
1 (cont.)	Vehicle Body Type - Text	OV001_OVBODYTYPETXT
2	Vehicle Manufacturer	OV002_OVMANUFACTURER
2 (cont.)	Vehicle Manufacturer - Text	OV002_OVMANUFACTURERTXT
3	Vehicle Model	OV003_OVMODEL
3 (cont.)	Vehicle Model - Text	OV003_OVMODELTXT
4	Model Year	OV004_OVMODELYEAR
5	Vehicle Identification Number	OV005_VIN
6	Vehicle Curb Weight	OV006_CURBWEIGHT
7	Is This Vehicle Equipped With ABS	OV007_ABSEQUIPPED
7 (cont.)	Is This Vehicle Equipped With ABS - Text	OV007_ABSEQUIPPEDTXT
8	Did This Vehicle Experience Mechanical Problems	OV008_MECHPROBEXPERIENCED
8 (cont.)	Did This Vehicle Experience Mechanical Problems - Text	OV008_MECHPROBEXPERIENCEDTXT
9	Pre-crash Motion Prior to Precipitating Event	OV009_PRECRASHMOTIONPREPRCIP
9 (cont.)	Pre-crash Motion Prior to Precipitating Event - Text	OV009_PRECRASHMOTIONPREPRCIPTXT
10	Travel Speed At Time of Precipitating Event	OV010_SPEEDATPRCIPEVENT
11	Line of Sight to Motorcycle	OV011_LINEOFSIGHTTOMC
12	Pre-crash Motion after Precipitating Event	OV012_OVMOTIONPOSTPRECIPEVNT
12 (cont.)	Pre-crash Motion after Precipitating Event - Text	OV012_OVMOTIONPOSTPRECIPEVNTTXT
13	Collision Avoidance Action (Code up to 4) - Item 1	OV013_CRASHAVOIDANCEACTION1
13 (cont.)	Collision Avoidance Action (Code up to 4) - Item 2	OV013_CRASHAVOIDANCEACTION2
13 (cont.)	Collision Avoidance Action (Code up to 4) - Item 3	OV013_CRASHAVOIDANCEACTION3
13 (cont.)	Collision Avoidance Action (Code up to 4) - Item 4	OV013_CRASHAVOIDANCEACTION4
13 (cont.)	Collision Avoidance Action - Text	OV013_CRASHAVOIDANCEACTIONTXT
14	Braking Skid Marks on Roadway	OV014_SKIDMARKSDESCRIP
14 (cont.)	Braking Skid Marks on Roadway - Text	OV014_SKIDMARKSDESCRIPTXT
15	Length of Skid Marks on Roadway - Left Front Tire (Feet)	OV015_LFRONTTIRESKIDLENGTHFEET
15 (cont.)	Length of Skid Marks on Roadway - Left Front Tire (Inches)	OV015_LFRONTTIRESKIDLENGTHINCHES
15 (cont.)	Length of Skid Marks on Roadway - Left Rear Tire (Feet)	OV015_LREARTIRESKIDLENGTHFEET
15 (cont.)	Length of Skid Marks on Roadway - Left Rear Tire (Inches)	OV015_LREARTIRESKIDLENGTHINCHES
15 (cont.)	Length of Skid Marks on Roadway - Right Front Tire (Feet)	OV015_RFRONTTIRESKIDLENGTHFEET
15 (cont.)	Length of Skid Marks on Roadway - Right Front Tire (Inches)	OV015_RFRONTTIRESKIDLENGTHINCHES
15 (cont.)	Length of Skid Marks on Roadway - Right Rear Tire (Feet)	OV015_RREARTIRESKIDLENGTHFEET
15 (cont.)	Length of Skid Marks on Roadway - Right Rear Tire (Inches)	OV015_RREARTIRESKIDLENGTHINCHES
16	Braking Skid Mark Evidence on Roadway	OV016_SKIDEVIDENCEONROAD
16 (cont.)	Braking Skid Mark Evidence on Roadway - Text	OV016_SKIDEVIDENCEONROADTXT
17	Braking Tire Striation Evidence	OV017_TIRESTRIATIONEVIDENCE
17 (cont.)	Braking Tire Striation Evidence - Text	OV017_TIRESTRIATIONEVIDENCETXT
18	Acceleration Evidence on Tires	OV018_TIREACCELEVIDENCE
18 (cont.)	Acceleration Evidence on Tires - Text	OV018_TIREACCELEVIDENCETXT
19	Cornering Skid Mark Evidence on Roadway	OV019_CORNERINGSKIDEVIDENCE
19 (cont.)	Cornering Skid Mark Evidence on Roadway - Text	OV019_CORNERINGSKIDEVIDENCETXT
20	Cornering Tire Striation Evidence	OV020_CORNERINGTIRESTRIATION
20 (cont.)	Cornering Tire Striation Evidence - Text	OV020_CORNERINGTIRESTRIATIONTXT
21	Other Vehicle First-Collision Contact Code	OV021_OVFRSTCOLLISIONCONTACT
21 (cont.)	Other Vehicle First-Collision Contact Code - Text	OV021_OVFRSTCOLLISIONCONTACTTXT
22	Object(s) Contacted (Code up to 3) Item 1	OV022_OBJECTCONTACTED1

Variable Number	Variable	SAS® and Excel™ Name
22 (cont.)	Object(s) Contacted (Code up to 3) Item 1 - Text	OV022_OBJECTCONTACTED1TXT
22 (cont.)	Object(s) Contacted (Code up to 3) Item 2	OV022_OBJECTCONTACTED2
22 (cont.)	Object(s) Contacted (Code up to 3) Item 2 - Text	OV022_OBJECTCONTACTED2TXT
22 (cont.)	Object(s) Contacted (Code up to 3) Item 3	OV022_OBJECTCONTACTED3
22 (cont.)	Object(s) Contacted (Code up to 3) Item 3 - Text	OV022_OBJECTCONTACTED3TXT
23	Impact Speed In MPH	OV023_OVIMPACTSPEED
24	PDOF - Principal Direction of Force (In Degrees)	OV024_PRINCIPLEDIROFFFORCE
25	Other Vehicle Post-Crash Motion Code	OV025_OVPOSTCRASHMOTION
25 (cont.)	Other Vehicle Post-Crash Motion Code - Text	OV025_OVPOSTCRASHMOTIONTXT
26	Distance from POI to POR (Sign)	OV026_DISTPOITOOVPORSIGN
26 (cont.)	Distance from POI to POR (Feet)	OV026_DISTPOITOOVPORFEET
26 (cont.)	Distance from POI to POR (Inches)	OV026_DISTPOITOOVPORINCHES
26 (cont.)	Offset Distance from POI to POR (Sign)	OV026_OFFSETPOITOOVPORSIGN
26 (cont.)	Offset Distance from POI to POR (Feet)	OV026_OFFSETPOITOOVPORFEET
26 (cont.)	Offset Distance from POI to POR (Inches)	OV026_OFFSETPOITOOVPORINCHES

--not applicable.

Table 22. List of variables in the Helmet Form.

Variable Number	Variable	SAS® and Excel™ Name
0	Case Number	HF000_CASEID
0 (cont.)	Motorcycle or Other Vehicle Number	HF000_VEHNUMBER
0 (cont.)	Person Number	HF000_PASSENGERNUMBER
1	Wearer of Helmet	HF001_HELMETWEARER
1 (cont.)	Wearer of Helmet - Text	HF001_HELMETWEARERTXT
2	Wearing Helmet on Head	HF002_HELMETONHEAD
2 (cont.)	Wearing Helmet on Head - Text	HF002_HELMETONHEADTXT
3	Was Helmet Properly Adjusted on Head	HF003_HELMETPROPERLYADJUSTED
3 (cont.)	Was Helmet Properly Adjusted on Head - Text	HF003_HELMETPROPERLYADJUSTEDTXT
4	Was Your Helmet Securely Fastened to Your Head	HF004_HELMETPROPERLYTSECURED
4 (cont.)	Was Your Helmet Securely Fastened to Your Head - Text	HF004_HELMETPROPERLYSECUREDTEXT
5	Type of Helmet	HF005_HELMETTYPE
5 (cont.)	Type of Helmet - Text	HF005_HELMETTYPEPETXT
6	Type of Coverage	HF006_HELMETCOVERAGE
6 (cont.)	Type of Coverage - Text	HF006_HELMETCOVERAGETXT
7	Predominating Color	HF007_HELMETCOLOR
7 (cont.)	Predominating Color - Text	HF007_HELMETCOLORTXT
8	Color of Face Shield, if Present	HF008_FACESHIELDCOLOR
8 (cont.)	Color of Face Shield, if Present - Text	HF008_FACESHIELDCOLORTXT
9	Helmet Owned by Wearer	HF009_HELMETWEARERISOWNER
9 (cont.)	Helmet Owned by Wearer - Text	HF009_HELMETWEARERISOWNERTXT
10	Helmet Fit	HF010_HELMETFIT
10 (cont.)	Helmet Fit - Text	HF010_HELMETFITTXT
11	Claimed Frequency of Helmet Use on Head	HF011_CLAIMEDFREQOFHELMETUSE
12	Conditions Under Which Helmet Use on Head (Code up to 4) - Item 1	HF012_HELMETUSECONDITION1
12 (cont.)	Conditions Under Which Helmet Use on Head (Code up to 4) - Item 2	HF012_HELMETUSECONDITION2
12 (cont.)	Conditions Under Which Helmet Use on Head (Code up to 4) - Item 3	HF012_HELMETUSECONDITION3
12 (cont.)	Conditions Under Which Helmet Use on Head (Code up to 4) - Item 4	HF012_HELMETUSECONDITION4
12 (cont.)	Conditions Under Which Helmet Use on Head - Text	HF012_HELMETUSECONDITIONTXT
13	Helmet Manufacturer	HF013_HELMETMANUFACTURER
13 (cont.)	Helmet Manufacturer - Text	HF013_HELMETMANUFACTURERTXT
14	Date of Manufacture	HF014_MANUFACTUREDATE
15	Helmet Model, List or Code Model - Text	HF015_HELMETMODELTEXT
16	Conformity to Which Standards (Code up to 4) - Item 1	HF016_HELMETSTANDARDMET1
16 (cont.)	Conformity to Which Standards (Code up to 4) - Item 2	HF016_HELMETSTANDARDMET2
16 (cont.)	Conformity to Which Standards (Code up to 4) - Item 3	HF016_HELMETSTANDARDMET3
16 (cont.)	Conformity to Which Standards (Code up to 4) - Item 4	HF016_HELMETSTANDARDMET4
16 (cont.)	Conformity to Which Standards - Text	HF016_HELMETSTANDARDMETTXT
17	Labeled Size, in Inches and Eighths	HF017_HELMETSIZE
17 (cont.)	Labeled Size, in Inches and Eighths - Text	HF017_HELMETSIZEETXT
18	Helmet Mass	HF018_HELMETMASS
19	Condition Prior to Crash	HF019_HELMETPRIORCONDITION
19 (cont.)	Condition Prior to Crash - Text	HF019_HELMETPRIORCONDITIONTXT
20	Type of Helmet Retention System	HF020_HELMETRETENSIONSYSTEM
20 (cont.)	Type of Helmet Retention System - Text	HF020_HELMETRETENSIONSYSTEMTEXT
21	Was Helmet Retained in Place on Head During Crash	HF021_HELMETRETAINEDINCRASH
21 (cont.)	Was Helmet Retained in Place on Head During Crash - Text	HF021_HELMETRETAINEDINCRASHTXT

Variable Number	Variable	SAS® and Excel™ Name
22	Was There a Retention System Failure	HF022_HELMETRETENTIONFAILURE
23	Type of Retention System Failure	HF023_HELMETRETENTIONFAILTYPE
23 (cont.)	Type of Retention System Failure - Text	HF023_HELMETRETENTIONFAILTYPETXT
24	Hemet External Damage Marks 1 - Type	HF024_HELMETDAMAGE1TYPE
24 (cont.)	Hemet External Damage Marks 1 - Location	HF024_HELMETDAMAGE1LOCATION
24 (cont.)	Hemet External Damage Marks 1 - Text	HF024_HELMETDAMAGE1TXT
24 (cont.)	Hemet External Damage Marks 2 - Type	HF024_HELMETDAMAGE2TYPE
24 (cont.)	Hemet External Damage Marks 2 - Location	HF024_HELMETDAMAGE2LOCATION
24 (cont.)	Hemet External Damage Marks 2 - Text	HF024_HELMETDAMAGE2TXT
24 (cont.)	Hemet External Damage Marks 3 - Type	HF024_HELMETDAMAGE3TYPE
24 (cont.)	Hemet External Damage Marks 3 - Location	HF024_HELMETDAMAGE3LOCATION
24 (cont.)	Hemet External Damage Marks 3 - Text	HF024_HELMETDAMAGE3TXT
24 (cont.)	Hemet External Damage Marks 4 - Type	HF024_HELMETDAMAGE4TYPE
24 (cont.)	Hemet External Damage Marks 4 - Location	HF024_HELMETDAMAGE4LOCATION
24 (cont.)	Hemet External Damage Marks 4 - Text	HF024_HELMETDAMAGE4TXT
24 (cont.)	Hemet External Damage Marks 5 - Type	HF024_HELMETDAMAGE5TYPE
24 (cont.)	Hemet External Damage Marks 5 - Location	HF024_HELMETDAMAGE5LOCATION
24 (cont.)	Hemet External Damage Marks 5 - Text	HF024_HELMETDAMAGE5TXT
25	Type of Helmet	HF025_MCOROTHERHELMETTYPE
25 (cont.)	Type of Helmet - Text	HF025_MCOROTHERHELMETTYPETXT
26	Lens or Shield Material, if Used	HF026_LENSMATERIAL
26 (cont.)	Lens or Shield Material, if Used - Text	HF026_LENSMATERIALTXT
27	Eye Coverage Damage Locations (Code up to 4) - Item 1	HF027_EYECOVERDAMAGELOC1
27 (cont.)	Eye Coverage Damage Locations (Code up to 4) - Item 2	HF027_EYECOVERDAMAGELOC2
27 (cont.)	Eye Coverage Damage Locations (Code up to 4) - Item 3	HF027_EYECOVERDAMAGELOC3
27 (cont.)	Eye Coverage Damage Locations (Code up to 4) - Item 4	HF027_EYECOVERDAMAGELOC4
28	Type of Damage to Eye Coverage Location 1	HF028_TYPEEYECOVERDAMAGE1
28 (cont.)	Type of Damage to Eye Coverage Location 2	HF028_TYPEEYECOVERDAMAGE2
28 (cont.)	Type of Damage to Eye Coverage Location 3	HF028_TYPEEYECOVERDAMAGE3
28 (cont.)	Type of Damage to Eye Coverage Location 4	HF028_TYPEEYECOVERDAMAGE4
28 (cont.)	Type of Damage to Eye Coverage - Text	HF028_TYPEEYECOVERDAMAGETXT
29	Retention System Misuse	HF029_HELMETRETENTIONMISUSE
29 (cont.)	Retention System Misuse - Text	HF029_HELMETRETENTIONMISUSETXT
30	Type of Impact	HF030_HELMETTESTIMPACTTYPE
30 (cont.)	Type of Impact - Text	HF030_HELMETTESTIMPACTTYPETXT
31	Impact Location	HF031_HELMETTESTIMPACTLOC
31 (cont.)	Impact Location - Text	HF031_HELMETTESTIMPACTLOCTXT
32	Most Severe Impact Clock Face Location - Left Side	HF032_MOSTSEVERELFTIMPACTLOC
32 (cont.)	Most Severe Impact Clock Face Location - Left Top	HF032_MOSTSEVERELFTTOPIMPACTLOC
32 (cont.)	Most Severe Impact Clock Face Location - Right Side	HF032_MOSTSEVERERGTIMPACTLOC
32 (cont.)	Most Severe Impact Clock Face Location - Right Top	HF032_MOSTSEVERERGTTOPIMPACTLOC
32 (cont.)	Most Severe Impact Clock Face Location - Text	HF032_MOSTSEVEREIMPACTLOCTXT
33	Number of Distinct Impacts at This Location	HF033_DISTINCTIMPACTSCOUNT
34	Shell Material	HF034_SHELLMATERIAL
34 (cont.)	Shell Material - Text	HF034_SHELLMATERIALTXT
35	Shell Thickness	HF035_SHELLTHICKNESS
36	Liner Material	HF036_LINERMATERIAL
36 (cont.)	Liner Material - Text	HF036_LINERMATERIALTXT
37	Liner Thickness	HF037_LINERTHICKNESS
38	Liner Density	HF038_LINERDENSITY
39	Maximum Liner Crush	HF039_MAXLINERCRUSH
40	Area of Liner Crush or Signature	HF040_AREAOFLINERCRUSH
41	Geometry of Impacting Surface	HF041_IMPACTINGSURFACEGEOM
41 (cont.)	Geometry of Impacting Surface - Text	HF041_IMPACTINGSURFACEGEOMTXT

Variable Number	Variable	SAS® and Excel™ Name
42	Material of Impacting Surface	HF042_IMPACTINGSURFACEMATL
42 (cont.)	Material of Impacting Surface - Text	HF042_IMPACTINGSURFACEMATLTXT
43	Which Headform Used for Replication Testing	HF043_HEADFORMUSEDINTEST
43 (cont.)	Which Headform Used for Replication Testing - Text	HF043_HEADFORMUSEDINTESTTXT
44	Mass of Replication Drop Apparatus	HF044_DROPAPPARATUSMASS
45	Equivalent Laboratory Testing Anvil	HF045_TESTINGANVILTYPE
45 (cont.)	Equivalent Laboratory Testing Anvil - Text	HF045_TESTINGANVILTYPEPETXT
46	Helmet Impact Velocity from Crash Reconstruction	HF046_CRASHIMPACTVELOCITYTEST
47	Impact Velocity from Laboratory Replication	HF047_LABIMPACTVELOCITY
48	Peak Headform Acceleration	HF048_PEAKHEADFORMACCEL
49	Dwell Time Above 200g	HF049_DWELLTIME
50	Head Injury Criteria, HIC	HF050_HEADINJURYCRITERIA
51	Gadd Severity Index, GSI	HF051_GADDSEVERITYINDEX
52	Equivalent Specific Energy/Equivalent Drop Height from Crash Reconstruction	HF052_EQUIVENERGYRECONSTRUCT
53	Equivalent Specific Energy/Equivalent Drop Height from Laboratory Replication	HF053_EQUIVENERGYLABTEST
54	Type of Impact	HF054_2NDHELMETTESTIMPACTTYPE
54 (cont.)	Type of Impact - Text	HF054_2NDHELMETTESTIMPACTTYPEPETXT
55	Impact Location	HF055_2NDHELMETTESTIMPACTLOC
55 (cont.)	Impact Location - Text	HF055_2NDHELMETTESTIMPACTLOCTXT
56	2nd Most Severe Impact Clock Face Location - Left Side	HF056_2NDSEVERELFTIMPACTLOC
56 (cont.)	2nd Most Severe Impact Clock Face Location - Left Top	HF056_2NDSEVERELFTTOPIMPACTLOC
56 (cont.)	2nd Most Severe Impact Clock Face Location - Right Side	HF056_2NDSEVERERGTIMPACTLOC
56 (cont.)	2nd Most Severe Impact Clock Face Location - Right Top	HF056_2NDSEVERERGTTOPIMPACTLOC
56 (cont.)	2nd Most Severe Impact Clock Face Location - Text	HF056_2NDSEVEREIMPACTLOCTXT
57	2nd Most Severe Impact Number of Distinct Impacts at This Location	HF057_2NDDISTINCTIMPACTSCOUNT
58	2nd Most Severe Impact Shell Material	HF058_2NDSHELLMATERIAL
58 (cont.)	2nd Most Severe Impact Shell Material - Text	HF058_2NDSHELLMATERIALTXT
59	2nd Most Severe Impact Shell Thickness	HF059_2NDSHELLTHICKNESS
60	2nd Most Severe Impact Liner Material	HF060_2NDLINERMATERIAL
60 (cont.)	2nd Most Severe Impact Liner Material - Text	HF060_2NDLINERMATERIALTXT
61	2nd Most Severe Impact Liner Thickness	HF061_2NDLINERTHICKNESS
62	2nd Most Severe Impact Liner Density	HF062_2NDLINERDENSITY
63	2nd Most Severe Impact Maximum Liner Crush	HF063_2NDMAXLINERCRUSH
64	2nd Most Severe Impact Area of Liner Crush or Signature	HF064_2NDAREAOFLINERCRUSH
65	2nd Most Severe Impact Geometry of Impacting Surface	HF065_2NDIMPACTSURFACEGEOM
65 (cont.)	2nd Most Severe Impact Geometry of Impacting Surface - Text	HF065_2NDIMPACTSURFACEGEOMTXT
66	2nd Most Severe Impact Material of impacting surface	HF066_2NDIMPACTSURFACEMATL
66 (cont.)	2nd Most Severe Impact Material of impacting surface - Text	HF066_2NDIMPACTSURFACEMATLTXT
67	2nd Most Severe Impact Which Headform Used for Replication Testing	HF067_2NDHEADFORMUSEDINTEST
67 (cont.)	2nd Most Severe Impact Which Headform Used for Replication Testing - Text	HF067_2NDHEADFORMUSEDINTESTTXT
68	2nd Most Severe Impact Mass of Replication Drop Apparatus	HF068_2NDDROPAPPARATUSMASS
69	2nd Most Severe Impact Equivalent Laboratory Testing Anvil	HF069_2NDTESTINGANVILTYPE
69 (cont.)	2nd Most Severe Impact Equivalent Laboratory Testing Anvil - Text	HF069_2NDTESTINGANVILTYPEPETXT

Variable Number	Variable	SAS® and Excel™ Name
70	2nd Most Severe Impact Helmet Impact Velocity from Crash Reconstruction	HF070_2NDCRASHIMPACTVELOCITYEST
71	2nd Most Severe Impact Velocity from Laboratory Replication	HF071_2NDLABIMPACTVELOCITY
72	2nd Most Severe Impact Peak Headform Acceleration	HF072_2NDPEAKHEADFORMACCEL
73	2nd Most Severe Impact Dwell Time Above 200g	HF073_2NDDWELLTIME
74	2nd Most Severe Impact Head Injury Criteria, HIC	HF074_2NDHEADINJURYCRITERIA
75	2nd Most Severe Impact Gadd Severity Index, GSI	HF075_2NDGADDSEVERITYINDEX
76	2nd Most Severe Impact Equivalent Specific Energy/Equivalent Drop Height from Crash Reconstruction	HF076_2NDEQUIVENERGYRECONSTRUCT
77	2nd Most Severe Impact Equivalent Specific Energy/Equivalent Drop Height from Laboratory Replication	HF077_2NDEQUIVENERGYLABTEST

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