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# NATIONAL PARTS RETURN PROGRAM VOLUME II



## Contract No. DOT HS-9-02236 Contract Amt. \$97,826



## OCTOBER 1980 FINAL REPORT

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Technical Report Documentation Page

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National Highway Traffic Safe	ety Administration	31	September	1980
Office of Defects Investigatio	ns	14.	Sponsoring Agency ( N41-60	Lode
15. Supplementory Notes		I '		
16. Abstract				
The National Parts Re	turn Program invo	lves the volunt	tarv submittal	by
independent automotive repair	facilities of faile	d automotive o	components ar	nd
information. The purpose of	the program is to	gather inform	ation on these	e components
and failure reports to assist t	he NHTSA in iden	tifying the exi	stence of safe	ety-related
manufacturing defects in desig	gn, materials, cons	truction or pe	rformance of	motor
Vehicles and motor vehicle eq	uipment. Under a	uthority of the	e National Tra	affic and
to conduct sefety defect rose	1966, as amended,	the NHTSA ca	an require ma	nufacturers
relating to motor vehicle safe	ty exists	it has been d	etermined that	it a defect
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In addition, the inform	ation obtained fro	m these parts	and reports i	s valuable
in preparing Federal Motor Ve	hicle Safety Stand	ards.	and reports i	5 variable
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## Acknowledgement

This work was performed under contract number DOT HS-9-02236. KSI's Contract Technical Manager was Mr. Gary Woodford, Engineering Analysis Division, Office of Defects Investigation, National Highway Traffic Satety Administration, whose assistance is gratefully acknowledged. KSI would also like to recognize the support for this project provided by Mr. William Risteen, Acting Chief, Engineering Analysis Division, Office of Defects Investigation. NHTSA and Mr. Kenneth Rice, Safety Defects Engineer, Engineering Analysis Division, Office of Defects Investigation, NHTSA.



## TABLE OF CONTENTS

## VOLUME II

Page

Section	1:	NEWSLETTER MATRIX	1
Section	2:	PRP <u>NEWS</u> VOLUME 5	18
Section	3:	SUMMARY OF PRP INPUTS - CY 1980	68



## SECTION 1

Newsletter Matrix

	Equipment						
	Imports					•	
ent Manufacturers	AMC	1974 AMC Matador 1976 Matador SW - pitman arm and strut rod.					
Vehicle or Equipme	Ford	Maverick, Comet, Granada, Monarch, Lincoln Versailles - power steering control valve.	F-100, F-150 pickup truck - drag link tie rod end failures.				1970 Ford LTD - idler arm and bracket pulled from frame. 1974 Ford E-700 Van - steering gearbox failure, excessive steering free- play.
	Chrysler				1976 Chrysler Newport - power steering valve failure.		
	General Motors			1975 Pontiac Firebird 1978 Pontiac Safari - relay rods.	1977 Chevrolet Impala - sector shaft cracks.	1977 Buick Electra 225 - power steering gearbox failure.	1979 Chevrolet C-30 truck - excessive idler arm wear at low mileage.
Date	Month/Year	July 1979		August 1979	Sept. 1979	Jan. 1980	Aarch 1980

PRP NEWSLETTER ARTICLES July 1979 to July 1980

PRP NEWSLETTER ARTICLES July 1979 to July 1980

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Steering(cont'd)

	Fauloment			
	Imports	1978 Jaguar XJ12L - power steering hose failure.		
tent Manufacturers	AMC			
Vehicle or Equipm	Ford	1977 Ford E150 Van - power steering gearbox crack.		
	Chrysler			
	General Motors	Late model GM w/ Saginaw integral power steering - gearbox failure due to redesign.	1977 Chevrolet Corvette torn rubber steering coupler.	
Date	h/Year	1980 1980	1980	
	Mont	April May	July	

	personan	panenna		and the second						 	-
INSION		Equipment		Uniroyal PR5/PR6 steel belted radial tire defect investigation.		Uniroyal țire failure reports.			•		
LACOC		lmports			1977 Toyota Celica - rear stabilizer bar breakage.	•			•		
	nt Manufacturers	AMC									
	Vehicle or Equipme	Ford	1977-78 Ford Thunderbird/ Mercury Cougar - plastic road wheel.			1978-79 Ford Fiesta - track rod failure.					
		Chrysler		>	1976 Plymouth Volare - no upper shaft support bracket		1977 Dodge Van - ball joint separation.				
		General Motors		1978 Chevrolet Monte Carlo/Malbu; Buick Regal, Pontiac Grand Pri Le Mans; Oldsmobile Cutlass, GMC Cuballero, Chevrolet El Camino - front wheel bearing recall investigation.		1979 Pontiac Gran Prix - front wheel bearing failure.	1969 Chevrolet C-10 pickup - road wheel failure.	1979 Cadillac Seville 1973 Chevrolet Impala - front spindle failure.	1977 Chevrolet Nova - rear spring breakage.		
	Date	Month/Year	Aug. 1979	Sept. 1979	Nov. 1979	Dec. 1979	Jan. 1980	Mar. 1980			

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PRP NEWSLETTER ARTICLES

July 1079 to July 1980

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NEWS	
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July 1979 to July 1980

Suspension (cont'd)

	Equipment			1973-74 Firestone steel belted radial tires. Company pays civil penalty.		-	
	Imports						
ent Manufacturers	AMC						
Vehicle or Equipm	Ford	1979 Ford E350 Van - wheel lug stud breakage.			-		
	Chrysler						
	General Motors		1977 Buick Skylark – rear stabilizer bar breakage.				
Date	Month/Year	May 1980	June 1980	July 1980			

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July 1979 to July 1980

BRAKES		Equipment		0	Bendix Hydro - booster casting failures.		Brake performance standards for light	trucks and vans.			•	
		Imports		1975-76 VW Rabbit/Sciroc 1974-76 VW Dasher/Audi Fox - master cylinder failures.					Toyota Corollor/Corona - front break hose cracks.	1976 Renault Le Car - excessive brake pad.		
	tent Manufacturers	AMC										
	Vehicle or Equipm	Ford	-									
		Chrysler	1977 Plymouth Volare - front brake hoses.			1973 Plymouth Duster 1977 Plymouth Volare - front brake hoses	1978 Dodge Aspen - broken backing plate.	1978 Dodge Van - power brake booster failure.				 
		General Motors		•		1978 Oldsmobile Cutlass 1978 Cadillac Fleetwood - master cylinder failure.		1973 Pontiac Firebird - excessive wear on front brake rotor.				
	ate	n/Year	1979	1979	1979	1979	1979	1989	1980			
	D	Montl	July	Aug.	Sept.	Oet.	Nov.	Jan.	April			

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Brakes, (cont'd)

PRP NEWSLETTER ARTICLES July 1979 to July 1980

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	Equipment						-	
	Inports	1976 Datsun 280Z - disc brake pad lining failure.	1978 Mazda GLC - brake proportioning valve malfunction.				•	
nt Manufacturers	AMC							
Vehicle or Faulane	Ford		1978 Ford Fairmont - disc brake caliper sticking escessive brake pad and rotor wear.					
	Chrysler							
	General Motors	:	1978 Oldsmobile Cutlass disc brake rotor air nclusions in casting.	Cadillac w/4wheel disc brakes. Piston sticking in caliper base.				
Dato	Month/Year	May 1980	June 1980	July 1980				

					ENGINE	COOLING SYSTEM
Date			Vehicle or Equipme	ent Manufacturers		
Month/Yea	r General Motors	Chrysler	Ford	AMC	Imports	Equipment
August 1979	6	1973 Chrysler/Plymouth/ Dodge - flex fan failures.	1971 Ford LTD - fly- wheel ring gear breakage.		1970 Volvo 145 - timing gear and chain.	
					1974 Jaguar XJ6 - broken flex plate.	
Oct. 1979	1977 Pontiac, Buick, Olds mobile 231 CID V-6 engine stalling	-!				
	1976 Buick Century - cracked flywheel.					
Nov. 1979	Cadillac Eldorado - cracked flywheel					
Jan. 198	0		1977 Ford Pinto - flywhee. breakage.			
March 198	0 1979 Chevrolet Chevette - crankshaft belt pulley separation.	1977 Chrysler Le Baron - rocker arm breakage.			1977-80 VW Rabbit 1979-80 VW Dasher - uncontrollable diesel engine over speeding.	
April 1980	1980 GM X-body vehicle stalling investigation.		1976 Lincoln - improper engine component identificat	tion.		
June 1980					VW Rabbit engine oil con- sumption reports 1980 VW Rabbit reactor plastic radiator tank leaks.	
July 1980	1975 Chevrolet Monte Carlo - crankshaft pulley failure.					
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PRP NEWSLETTER ARTICLES July 1979 to July 1980

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on (cont <sup>1</sup> d)		Equipment			1973-74 Firestone steel belted radial tires. Company				
Suspensi		Imports							
1001	ent Manufacturers	AMC							
kine of stel kine	Vehicle or Equipme	Ford	1979 Ford E350 Van - wheel lug stud breakage.						
		Chrysler							
		General Motors		1977 Buick Skylark - rear stabilizer bar breakage.		 			
	Date	Month/Year	May 1980	June 1980	July 1980				

PRP NEWSLETTER ARTICLES

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July 1979 to July 1980

BRAKES

	Equipment			ndix Hydro - oster casting Innes		ake performance ndards for light	icks and vans.			•.	
	Imports		1975-76 VW Rabbit/Scirocco 1974-76 VW Dasher/Audi Fox - master cylinder failures.	Be		Br	·	Toyota Corollor/Corona front break hose cracks.	1976 Renault Le Car - excessive brake pad.		
ent Manufacturers	AMC										
Vehicle or Equipm	Ford										
	Chrysler	1977 Plymouth Volare - front brake hoses.		,	1973 Plymouth Duster 1977 Plymouth Volare - front brake hoses	1978 Dodge Aspen - broken backing plate.	1978 Dodge Van - power brake booster failure.				
	General Motors				1978 Oldsmobile Cutlass 1978 Cadillac Fleetwood - master cylinder failure.		1973 Pontiac Firebird - excessive wear on front brake rotor.				
Date	nth/Year	1979	. 1979	t. 1979	t. 1979	. 1979	. 1989	il 1980			
	Mo	լու	Aug	Sep	o	Nov	Jan	Apr			

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Brakes, (cont'd)

PRP NEWSLETTER ARTICLES July 1979 to July 1980

	Equipment						
	Inports	1976 Datsun 2802 - disc brake pad lining failure.	1978 Mazda GLC - brake proportioning valve malfunction.				
nt Manufacturers	AMC						
Vehicle or Equipme	Ford		1978 Ford Fairmont - disc brake caliper sticking escessive brake pad and rotor wear.				
	Chrysler						
	General Motors		1978 Oldsmobile Cutlass - lisc brake rotor air nelusions in casting.	Cadillac w/4wheel disc prakes. Piston sticking n caliper base.			
Data	Month/Year	May 1980	June 1980	July 1980			

Date			Vehicle or Equipment Manufact	turers		
Month/Y	ear General Motors	Chrysler	Ford Ah	MC	Imports	Equipment
August 1	979	1973 Chrysler/Plymouth/ Dodge - flex fan failures.	1971 Pord LTD - fly- wheel ring gcar breakage.		1970 Volvo 145 - timing gear and chain.	
					1974 Jaguar XJ6 - broken flex plate.	
Det. 19	79 1977 Pontiac, Buick, Old mobile 231 CID V-6 engine stalling	4				
	1976 Buick Century - cracked flywheel.					
Nov. 19	79 Cadillac Eldorado - cracked flywheel					
Jan. 1	980		1977 Ford Pinto - flywhee. breakage.			
March ]	1979 Chevrolet Chevette - crankshaft belt pulley separation.	1977 Chrysler Le Baron - rocker arm breakage.			1977-80 VW Rabbit 1979-80 VW Dasher - uncontrollable diesel engine over speeding.	
April 19	980 1980 GM X-body vehicle stalling investigation.		1976 Lincoln - improper engine component identification.			
June 19	80				VW Rabbit engine oil con- sumption reports 1980 VW Rabbit reactor plastic radiator tank leaks.	
July 1:	980   1975 Chevrolet Monte Carlo - crankshaft pulley failure.					

FNGINE/COOLING SVETEN

PRP NEWSLETTER ARTICLES July 1979 to July 1980

8

AUST SYSTEM		Equipment						-	
FUEL/EXH		Imports		1975-76 VW Rabbit/Scirodco 1974-75 VW Dasher, 1974 Audi Fox - accelerator cable recall investigation		1975-78 Toyota - all models - accelerator pedal sticking reports.	1977 Honda Accord - collapsed steel liner on exhaust manifold.	-	
	t Manufacturers	AMC							
	Vehicle or Equipmen	Ford	1970-73 Ford Maverick 1971-73 Mercury Comet - fuel system integrity.						
		Chrysler .				1974 Dodge Monaco - intake manifold EGR floor jets burned out.	1979 Dodge D-100 pickup aluminum exhaust mani- fold cracked under carburetor mounting flange.		
		General Motors			1979 Cadillac Seville - diesel fuel system contamination.				
	Date	Month/Year	July 1979	August 1979	March 1980	June 1980	July 1980		

ARTICLES	
EWSLETTER	
PRP N	

July 1979 to July 1980

ER TRAIN		Equi pment										
POWE		Imports	1976 Volvo 265 - automatic transmission selector lever.						1978 Volkswagon Rabbit - Diesel - clutch cable outer sheath split, cracked.			
	t Manufacturers	AMC										
	Vehicle or Equipmen	Ford		1976 Ford Pinto - rear axle breakage.	1976-78 Mercury Capri - transmission shift lever separation recall.	1968 Mercury Montego - failed rear axle bearing.					;	
		Chrysler										
		General Motors					1976-1980 Chevrolet Chevette - manual transmission shift lever separation investigation.	1978 Chevrolet Chevette - clutch cable breakage.				
	Date	Month/Year	August 1979	Sept. 1979	Nov. 1979		April 1980		July 1980			

PRP NEWSLETTER ARTICLES July 1979 to July 1980

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ELECTRICAL/IGNITION

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	Equipment						-
	Imports						
nent Manufacturers	AMC					1975-76 AMC Hornet/ Gremlin/Matador - vacuum advances, unites blown apart.	
Vehicle or Equipm	Ford			1977 Ford Thunderbird - battery explosion. 1974 Ford Maverick - ignition module failure.	1977-78 Ford line - ignition module failures (6)		
	Chrysler					1978 Dodge Diplomat - lean burn "train" mal- functions.	
	General Motors	1976 Chevrolet - distributor shaft.	1976 Oldsmobile Omega- ignition coil failure.		1978 Cadillac Seville - ignition module failure.		
Date	Month/Year	July 1979	August 1979	Oct. 1979	Nov. 1919	May 1980	

		_	
ING/COMMUNICATION		Equipment	
LIGHT		Imports	
	ent Manufacturers	AMC	
	Vehicle or Equipm	Ford	
		Chrysler	1
		General Motors	
	Date,	Month/Year	

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PRP NEWSLETTER ARTICLES

July 1979 to July 1980

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July 1979 to July 1980

VISUAL SYSTEMS

	Equipment					~	
				 ··· , ,			
	Imports	46.5					
nent Manufacturors	AMC						
Vehicle or Equipm	Ford				-		
	Chrysler .						
	General Motors	GM A-body Station Wagon - tailgate window breakage from defoggers.	1979 Pontiac Le Mans Safari - rear window breakage due to electric defogger.				
Date	Month/Year	Jan-Feb.1980	May 1980				

ATING/COOLING		Equipment	
HE		Imports	··· · · ·
	nent Manufacturers	AMC	
	Vehicle or Equipn	Ford	
		Chrysler	1979 Dodge Aspen - heater core pinhole leaks.
		General Motors	
	Date	Month/Year	April 1980

July 1979 to July 1980

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July 1979 to July 1980

INTERIOR

	Equipment	Air bag/Automatic belt evaluation program.	·
	Imports		
ent Manufacturers	AMC		
Vehicle or Equipm	Ford	1971-73 Mercury Capri - seat back failure/ recall.	
	Chrysler		
	General Motors		belt latch.
Date	Month/Year	Oct. 1979 Nov. 1979	

PRP NEWSLETTER ARTICLES July 1979 to July 1980

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STRUCTURE		Equipment	22								
		Imports	1970-73 Fiat 850 & 128 - under carriage rust. 1975 Mazda RX-3 SW 1975 Subaru SW 1976-79 Renault 1228 1973-78 Toyota Corona SV 1973-78 Toyota Corolla SV - hatchback/tailgate latch failures.	1970-71 Fiat 850, 1970- 74 Fiat 124 - rust re- call investigation.	1971 Opel GT - frame rust/shock mount dis- connected.			•			
	nent Manufacturers	AMC				1975-79 AMC Pacer - interior door handle breakage.					
	Vehicle or Equipm	Ford	1975-78 Mercury Bobcat 1975-78 Ford Pinto 1974-78 Ford Mustang II - hatchback/tailgate latch failures.								
		Chrysler		2		1977 Plymouth Volare Station wagen - tailgate latch failure.					
		General Motors		1974 Chevrolet Malibu S - fender rusting around fuel tank.			1978 Chevette - inner fender weld/shock tower weld failure.	·			
	Date.	Month/Year	July 1979	Oct. 1979	Dec. 1979	June 1980	July 1980				
l											

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July 1979 to July 1980

EQUIPMENT

Vehicle or Equipment Manufacturers	Equipment	Plastic fuel tanks.	P-Metric tires - nflation warning.	Plastic fuel tank eakage reported.	mproved safety tandard for light rucks and vans proposed.	lectric vehicle afety problems.				
	Imports				1978 Volvo 264 - 1 screw type jack failure. s t	<u> </u>	 			
	AMC									
	Ford								·	
	Chrysler									
	General Motors		1975-76 Chevrolet/GMC light truck - jack failure/ defect determination.		1978 Chevrolet Malibu - jack failure.					
Date	Month/Year	July 1979	Sept. 1979	Nov. 1979	Dec. 1979	March 1980				

## SECTION 2

PRP News, Volume 5



## FIAT RUST PROBLEMS CONTINUE

In the February-March 1979 issue of the PRP News we featured an article concerning the recent Fiat undercarriage rust recall. Since that time, the PRP has received numerous telephone calls from members requesting information on which models are involved in the recall. The recall involves 31,702 of the 1970-1971 model 850 Spyders. These vehicles can exhibit excessive undercarriage rust and corrosion. We have also received calls concerning severe rust problems on Fiats which are not included in the recall. Other Fiat models are still under investigation for excessive rust damage.

Pictured is a 1973 Fiat 850 Sport Spyder. As shown in the far right photo, the floor pan beneath the seat is severely rusted. The photo below shows corrosion and rusting of the car's structural undercarriage components. This information was submitted by **Wales Garage** in Ft. Lauderdale, Florida. Also submitted by Wales Garage was information and photos concerning a 1969 Fiat 850 with similar rust problems.



Tim's Import Sales & Service in Hutchinson, Kansas reported rusted out rocker panels on a 1972 Fiat 128SL. The vehicle has 65,822 miles on it. Tim's also reports seeing other Fiats with rust problems.

If you come across a Fiat with rust problems which is included in the recall campaign, please inquire if the owner has received a recall notice from the manufacturer. If the car is not included in the recall, please submit the pertinent information (with photos, if possible) to the PRP. The more information we receive from PRP members, the more we can do to improve highway safety.

## FORD POWER STEERING FAILURES

The NHTSA is currently looking into alleged power steering failures on non-integral power steering systems in Mavericks. Comets. Granadas, Monarchs and Lincoln Versailles. The alleged problem occurs when the pitman arm ball stud separates from the power steering control valve. After separation, a violent, immediate left turn can allegedly result. The NHTSA is most interested in any information PRP members can supply related to possible occurrences of this problem. You can assist by forwarding the information on an information report form or by telephoning the PRP collect at (703) 527-4500.



## MAVERICK/COMET DEFECT DETERMINATION WITHDRAWN

The U.S. Department of Transportation has withdrawn the initial determination that a defect exists in the fuel systems of 1970-1973 Ford Mavericks and 1971-1973 Mercury Comets. This suspected defect was first reported in the May issue of the PRP News.

Retesting of the fuel systems has been ordered because the NHTSA has evidence that the Mavericks whose fuel systems failed during testing had proviously undergone major repairs which may have altered the original fuel system design.

The NHTSA emphasized the fact that the withdrawal of the initial defect determination does not mean there is no defect in the vehicles. The agency is continuing its investigation.

## FEDERAL MOTOR VEHICLE SAFETY STANDARDS

Introduced in last month's issue of the PRP News was an article on Federal motor vehicle safety standards. This is a continuation of that article which describes additional standards.

- FMVSS 110—Tire Selection and Rims—Specifies requirements for original equipment tire and rim selection on new passenger cars to prevent tire overloading. Includes placard and rim performance requirements.
- FMVSS 111—Rearview Mirrors—Specifies requirements for rearview mirrows on passenger cars, multipurpose passenger vehicles, trucks, buses and motorcycles to provide the driver with a clear and reasonably unobstructed view to the rear. Also, inside rearview mirrors must be designed to reduce the likelihood of injury on impact.
- FMVSS 112—Headlamp Concealment Devices—Specifies that any fully opened headlamp concealment device shall remain fully opened whether either or both of the following occur: (a) any loss of power to or within the device or (b) any malfunction of wiring or electrical supply for controlling the concealment device.
- FMVSS 113—Hood Latch Systems—Specifies requirements for a hood latch system for each hood of a passenger car, multipurpose passenger vehicle, truck or bus. A front opening hood, which, when open, obstructs a driver's forward view through the windshield, must be provided with a second latch position on the hood latch system or with a second hood latch system.

- FMVSS 114—Theft Protection—Requires that each passenger car have a key locking system that, whenever the key is removed, prevents normal activation of the car's engine and also prevents either steering or self-mobility of the car, or both.
- FMVSS 115—Vehicle Identification Number—Specifies requirements for an identification number for all passenger cars; the purpose being to facilitate recognition of unauthorized vehicle use resulting in crashes. The number must be visible from the outside and be sunk or embossed upon either a part of the vehicle which is not designed to be removed except for repair or on a plate which is permanently affixed to such a part.
- FMVSS 116—Motor Vehicle Brake Fluids—Specifies minimum physical characteristics for brake fluids, DOT 3, DOT 4, DOT 5, for use in hydraulic brake systems in all motor vehicles. Also included in the standard are packaging and labeling requirements for brake fluid containers.

#### OLD MAILBAG

Check your PRP mailbag inventory for any mailbags addressed to Inland Testing Laboratories. The address on these bags is incorrect and parts sent in these bags are rerouted to us causing a delay. If your shop has any of these old mailbags please give us a call so we can supply you with new ones.

## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a **COLLECT CALL** (703) 527-4500.

## **PLASTIC FUEL TANKS**

The U.S. Department of Transportation is considering a possible change in Federal Motor Vehicle Safety Standard 301-75 (Fuel System Integrity) to include performance requirements for nonmetallic fuel tanks, such as plastic tanks. According to the NHTSA, plastic tanks are coming into use due to several advantages which they offer over metallic tanks. including weight saving characteristics, elimination of rust problems and flexibility of location because of the ability to form complex and unorthodox shapes.

The major disadvantage of plastic tanks is that most designs will totally burn and dump their fuel after 2 or 2<sup>1</sup>/<sub>2</sub> minutes of exposure to external fire sources. Under the requirements of the standard, no part of a vehicle's entire fuel system can have fuel spillage beyond certain specified amounts. However, specific requirements for individual components of the fuel system, such as the fuel tank, are not currently included in the standard. The PRP is interested in any information members may have regarding plastic fuel tank problems.

#### "P-METRIC" Tires

The NHTSA has issued a warning to motorists who replace their original equiptment tires with "P-Metric" tires to carefully check their air pressure. P-Metric tires must be inflated to 3 psi higher than the recommended pressure for the original equipment tire they replace.

The P-Metric tires are designed to run on higher inflation pressures in order to improve gas mileage. If the tire is not properly inflated, excessive heat, shorter tire life, and increased fuel consumption will result. Tire failure might also occur. Several steering linkage components from various vehicles were submitted to the PRP by Feld Garage in Kenosha, Wisconsin. Two pitman arms were submitted; one from a 1974 AMC Matador, the other from a 1976 Matador wagon. Worn bushings in these pitman arms caused loose steering in both vehicles. Also submitted were two strut rod bushings that had worn out and one idler arm also with a worn out bushing.

Jack's Auto Service in Chamblee, Georgia submitted to the PRP the distributor from a 1976 Chevrolet C-10 pick-up with 81,207 miles. Reportedly, while the truck was in operation, the engine backfired, stalled out and could not be restarted. Upon inspection, it was discovered that the lower end of the distributor gear shaft had broken off as shown in the photo below. It

## THE FORUM

is unknown if the backfire was the cause or the result of the shaft breaking. The PRP is interested in similar problems with other GM H. E. I. distributors.



The State of Wisconsin Fleet Operations in Madison, Wisconsin submitted to the PRP the front brake hoses removed from a 1977 Plymouth Volare with 36,300 miles. The original equipment hoses were cracking on the outer rubber housing near the brass fittings. The cracked hoses were discovered during a routine inspection of the car and were replaced before the cracks progressed to the point where the brake fluid could leak out.

Del Hatt Alignment & Repair of Poughkeepsie, New York contacted the PRP to report problems it has experienced in late model Ford F100 and F150 pick-up trucks. The shop has seen many drag link and tie rod end failures in these vehicles. One truck the shop has seen, a 1978 F100 with 13,733 miles, experienced a failure in both the tie rod end and drag link.

### **INVESTIGATIONS INTO HATCHBACK AND TAILGATE LATCHES**

The NHTSA recently announced the opening of five separate investigations of safety-related defects in hatchback and tailgate latches on 2.6 million vehicles. The investigations involve 1975 Mazda RX3 station wagons, 1975 Subaru station wagons, 1976-1979 Renault type 1228 hatchbacks and station wagons, 1973-1978 Toyota Corona station wagons, 1975-1978 Toyota Corolla station wagons, 1971-1978 Ford Pinto hatchbacks and station wagons, 1975-1978 Ford Mercury Bobcat hatchbacks and station wagons, and 1974-1978 Ford Mustang 11 hatchbacks.

The NHTSA has received reports of 11 accidents resulting in 14 injuries and 2 fatalities allegedly due to failure of the latching mechanisms of the Ford vehicles involved in the investigation. Four accidents resulting in 7 injuries involving Toyota vehicles have also been reported. Even though no accident involving Mazdas, Subarus or Renaults have been reported, tests of these vehicles showed latch disengagement at force levels even lower than those vehicles where alleged accidents were noted.

Federal Motor Vehicle Safety Standards 206—Door Locks and Door Detention Components—requires locking systems and specifies load requirements for door latches to minimize the probability of occupants being thrown from the vehicle as a result of forces encountered in vehicle impact. At present, this standard does not apply to latches on the hatchback or tailgate door of a vehicle, but the NHTSA is considering amending the standard.

PRP members with information concerning this alleged safetyrelated defect are urged to contact the PRP via the information report or with a collect call.

#### THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982.

#### **OUTSTANDING PARTICIPANTS**

The members highlighted below have contributed parts or information to the PRP within the past month. Asterisks indicate first contributions for the year (July 1978 through June 1979). Numbers in parenthesis indicate consecutive active months.



 Frank's Front End Service Manchester, NH
Bothel's Garage Cape Elizabeth, ME

#### **REGION 1**

(2) Gil's Safety Service Ridgewood, NJ Del Hatt Alignment & Repair Poughkeepsie, NY

#### **REGION 2**

(3) Auto Brake Corp. Norfolk, VA **REGION 3** 

Jack's Auto Repair Service Chamblee, GA

- \* Ralph Cannon Auto Service Atlanta, GA
- (5) Wales Garage Ft. Lauderdale, FL

#### **REGION 4**

Taylor's Garage & Service Station Akron, OH

\* Bridgeport Standard Service Bridgeport, MI

#### **REGION 5**

- Feld Garage, Inc. Kenosha, WI Day Nite Auto Station Kaukauna, WI State of Wisconsin Madison, WI
- \* Richfield Wheel Alignment Richfield, MN
- \* Hansen Automotive Minneapolis, MN

#### **REGION 6**

\* Hutt & Stiles Skokie, IL Tim's Import Sales & Service Hutchinson, KS Raymond's Auto Repair, Inc. Chicago, IL

#### **REGION 7**

\* Hill's Automotive Clinic, Inc. Abilene, TX Fuselier's Auto Service, Inc. Lake Charles, LA

#### **REGION 8**

\* Alameda Foreign Car Garage Las Cruces, NM

#### REGION 9

Wayne's Garage Eugene, OR

#### **REGION 9A**

 Vanowen Brake & Wheel North Hollywood, CA
Automatic Transmission Service San Diego, CA

#### POSTAGE AND FEES PAID NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION



DOT 517

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U.S. DEPARTMENT OF TRANSPORTATION

NATIONAL HIGHWAY TRAFFIC SAFETY

ADMINISTRATION

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#### Vol. 5 No. 2

## **VW BRAKE MASTER CYLINDERS**

parts

The PRP is interested in gathering information on brake master cylinders from various VW vehicles as reported in past issues. Several PRP members have contributed parts and information concerning brake master cylinders during recent months.



The contributing shops reported similar accounts of sudden partial loss of the vehicles' braking ability. Upon inspection, it was discovered that the seals in the master cylinders had worn out, allowing internal leakage of the brake fluid. Because of this, pressure may be applied to only one set of brakes in the tandem system. No external loss of brake fluid has been reported. Also, many reports have been received indicating the primary and secondary braking systems fail simultaneously, resulting in the brake pedal traveling to the floor with little or no braking action.

One shop noted that during assembly of the master cylinders, the seals, in order to fit tightly in

place, must be stretched over a pronged retainer. This can reportedly result in damage to the seals in the form of tears and small nicks. Premature failure can result. with the seal lasting as little as 30.000 miles.

The NHTSA is currently investigating master cylinders in 1975-76 VW Rabbits and Sciroccos and 1974-76 Audi Foxes and VW Dashers. This month, AmFor Automotive in Silver Spring, Maryland and Tim's Import Sales and Service in Hutchinson, Kansas submitted related parts and information from a 1976 Audi Fox, a 1974 VW Dasher, a 1971 VW 411 and a 1973 VW Super Beetle. Please forward any parts or information relating to this problem to the PRP.

## CHRYSLER FLEX FANS

The NHTSA is currently investigating an alleged safety defect in the engine cooling fan used in several models of 1973 Chrysler cars. These models include sport compact, intermediate and fullsized passenger cars equipped with 318 cubic inch engines with air conditioning, and intermediate and full-sized cars with 360, 400 or 440 cubic inch engines without air conditioning.

The blades on these fans, which flex and flatten out as the fan's rotating speed increases, can break, resulting in vehicle damage and personal injury. The danger of

## ADEQUACY OF VW ACCELERATOR RECALL

August 1979

The National Highway Traffic Safety Administration recently held a public hearing to determine whether Volkswagen of America, Inc. has met its obligation in carrying out a recent recall campaign involving safety-related defects in the accelerator systems on 1975-76 Rabbits, 1975-76 Sciroccos, 1974-75 Dashers and 1974 Audi Foxes.

At the hearing, owners of these vehicles stated that VW provided them with inadequate recall service. Complaints of repeated unsuccessful attempts to correct the defective accelerator cables were heard.

VW stated that of the vehicles brought in for the recall service. which included inspection and or replacement of the accelerator cable, only a small number required new cables. VW also claimed that the relatively small response to the recall indicates that most owners are satisfied with the operation of their vehicles.

In response to this hearing, the NHTSA could either order VW to recampaign, or order a new campaign to include newer models not included in the previous campaign.

personal injury is greatest when the vehicle's hood is opened and the engine is running, such as during engine repairs.

The NHTSA has previously conducted an investigation involving the same type fan used on 1970-77 Ford cars and light trucks.

## FEDERAL MOTOR VEHICLE SAFETY STANDARDS

In an effort to promote highway safety, we are continuing the presentation of Federal Motor Vehicle Safety Standards issued by the Department of Transportation.

- FMVSS 117—Retreaded Pneumatic Tires—Specifies casing requirements for retreaded tires on passenger cars and prohibits casings having certain defects. Labeling, plunger test, energy and dimensional requirements are also specified.
- FMVSS 118—Power-Operated Window Systems—Requires that power-operated window systems on passenger cars and multipurpose passenger vehicles be inoperative when the ignition is off or when the key is removed.
- FMVSS 119—New Pneumatic Tires—Specifies strength, endurance, high speed performance and marking requirements for new pneumatic tires used on multipurpose passenger vehicles, trucks, trailers, buses, and motorcycles.
- FMVSS 120—Tire Selection and Rims for Vehicles Other than Passenger Cars—Requires new vehicles to have tires conforming to FMVSS 119 and rims designated in the tire association manuals as fitting them. It specifies marking requirements for rims and requires tire and rim size designations, inflation pressure and vehicle weight rating information on a vehicle label.
- FMVSS 121—Air Brake Systems—Establishes performance and equipment requirements on trucks, buses and trailers equipped with air brake systems, to shorten stopping distances and improve lateral stability.

- FMVSS 122—Motorcycle Brake Systems—Establishes performance and equipment requirements on brake systems of two and three-wheeled motorcycles. Either a split hydraulic service brake system or two independently actuated service brake systems are required.
- FMVSS 123—Motorcycle Controls and Displays—Specifies requirements for the location, operation, identification and illumination of motorcycle controls, displays, stands and footrests.
- FMVSS 124—Accelerator Control Systems—Requires that when a driver of a passenger car, multipurpose passenger vehicle, truck or bus removes his foot from the accelerator control, or in the event of a breakage or disconnection in the control system, the vehicle's throttle will return to the idle position.
- FMVSS 125—Warning Devices— Establishes shape, size and performance requirements for reusable day and night warning devices, not having self-contained energy sources, placed on or near the roadway to warn approaching motorists of a stopped vehicle.
- FMVSS 126—Truck-Camper Loading—Requires manufacturers of slide-in campers to include a label on the camper that contains information on certification, identification and proper loading with more detailed loading information in the owner's manual.
- FMVSS 201—Occupant Protection in Interior Impact—Specifies requirements for padded instrument panels, seat backs, sun visors and armrests in passenger cars to provide impact protection

for occupants during a crash. Also requires that the glove compartment doors remain closed during a crash.

- FMVSS 202—Head Restraints— Specifies requirements for head restraints in passenger cars to reduce the frequency and severity of neck injuries in rear-end and other collisions.
- FMVSS 203—Impact Protection for the Driver From the Steering Control System—To minimize injuries in front-end crashes, the standard requires that steering systems in passenger cars yield forward, cushioning the impact of the driver's chest.
- FMVSS 204—Steering Control Rearward Displacement— Specifies requirements limiting the rearward displacement of the steering control into the passenger compartment to reduce the likelihood of chest, neck, or head injuries.

## **OLD MAILBAGS**

Check your PRP mailbag inventory for any mailbags addressed to Inland Testing Laboratories. The address on these bags is incorrect and parts sent in these bags have to be rerouted to us causing a delay. If your shop has any of these old mailbags please give us a call so we can supply you with new ones.

## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a COLLECT CALL (703) 527-4500.
Automatic Transmission Service in San Diego, California submitted to the PRP the automatic transmission selector lever from a 1976 Volvo 265 DL Wagon with 60,000 miles. The problem is similar to that reported in the May 1979 PRP News concerning late model Jaguars. The selector lever is attached to the housing of the Borg-Warner transmission. Through normal use, the mounting hole of the lever may enlarge allowing the transmission to be engaged in a gear other than what is indicated. The shop has seen several problems of this type in other vehicles. Please submit information on similar occurrences to the PRP

Gil's Safety Service in Ridgewood, New Jersey submitted to the PRP two relay rods taken off a 1975 Pontiac Firebird and a 1978 Pontiac Safari. The relay rods, sometimes referred to as center links or drag links, had broken free at their weld. The problem was discovered during a routine front end alignment of the vehicles. The shop believes that the weld is too small to hold up under stress. The drivers had not noticed any adverse handling characteristics of these two vehicles.

### THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982.

## THE FORUM

Submitted to the PRP by Tim's Import Sales and Service in Hutchinson, Kansas, was a timing gear from a 1970 Volvo Wagon with 105,025 miles. According to the shop, during operation of the vehicle, the engine stalled and could not be restarted. The vehicle had to be towed for repairs and it was discovered that the timing gear was broken. Replacement of the gear corrected the problem.

**V&H Ford, Inc.**, of Marshfield, Wisconsin reported information to the PRP concerning an optional type wheel called "road wheel" on 1977 and 1978 Ford Thunderbirds and Mercury Cougars. The wheels have a plastic coating giving a shiny appearance. This plastic coating which causes the wheel to fit tightly over the hub, retains moisture that can seep in. After priod of normal use, 10,000 to 35,000 miles, corrosion can form freezing the wheel to the hub. This causes difficulty in removing the wheel such as during a tire change. The dealer states a safety problem exists when an individual attempts to remove the wheel while the car is on a bumper jack.

Auto Inn Garage in South Bend, Indiana submitted to the PRP the electronic ignition coil from a 1976 Oldsmobile Omega with 51,182 miles. The wires to the coil had broken, preventing the electrical current from flowing, and as a result the engine was inoperative. According to the shop, the wires were not flexible enough to prevent them from breaking during vaccum advance of the distributor.

## FLYWHEEL PROBLEMS

This month, the PRP received two failed flywheels from different model vehicles. One flywheel was taken from a 1971 Ford LTD with approximately 40,000 miles. The owner of the car had complained of an unusually loud engine noise, as well as having had the starter replaced. Upon inspection, it was discovered that the teeth on the flywheel gear were worn. This required replacement of the flywheel. The contributing shop, Auto Inn Garage of South Bend, Indiana, has noted similar failures on Buicks, Oldsmobiles, and Fords with mileages ranging from 30,000 to 40,000.

Pictured is the other flywheel submitted by Automatic Transmission Service of San Diego, California. This flywheel was removed from a 1974 Jaguar XJ6. As seen in the photo, the flex plate broke free from the flywheel. The shop states that this is a fairly common problem among late model Jaguar XJ6's.



## OUTSTANDING PARTICIPANTS

The members highlighted below have contributed parts or information to the PRP within the past month. Since we have begun a new program year (July, 1979 through June, 1980) all inputs are considered first contributions for the year.



#### **REGION I**

Del Hatt Alignment Poughkeepsie, NY Gil's Safety Service Ridgewood, NJ Pete's Auto Spring Valley Stream, NY

#### **REGION 2**

AmFor Automotive Silver Spring, MD

#### **REGION 3**

Wales Garage Ft. Lauderdale, FL Big Brake Safety Center Gulfport, MS

### **REGION 4**

Auto Inn Garage South Bend, IN

#### **REGION 5**

Gil's Automotive Service Sioux City, IA V&H Ford, Inc. Marshfield, WI

#### **REGION 6**

Gartner Auto Service Chicago, IL Tim's Import Sales & Service Hutchinson, KS

#### **REGION 7**

Fox Automotive Tulsa, OK

#### **REGION 8**

S&D Tire & Auto Center Salt Lake City, UT Mr. Brake #8 Nampa, ID Las Vegas Wheel Alignment & Brake Service Las Vegas, NV

#### **REGION 9**

L.A.D. Auto Electric Spokane, WA Norm's Auto Repair Arlington, WA

#### **REGION 9A**

Automatic Transmission Service San Diego, CA Ise Automotive Service Hollywood, CA

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DOT 517



INITIAL DEFECT IN GM JACKS

The NHTSA has announced an initial defect determination regarding the original equipment jack, Model 344788, provided with certain 1975 and 1976 Chevrolet C-10, P-10, G-20 and GM C-15, P-15 and G-25 light duty trucks. The jack is of a screw-type design and is placed under the axle of the vehicle and used to raise the chassis in order to change tires.

The NHTSA has warned individuals of the danger involved in using these jacks. The agency has received five 'reports of failures including three instances of the jacks dropping the vehicle they were supporting, resulting in one injury. GM has received 57 other reports of failures.

If these jacks must be used to change a tire, the following precautions should be taken: Select a flat, even surface for the jacking operation; lighten the vehicle load; stop raising the vehicle if the jack bends or deforms; place sturdy wooden blocks or other support under the axle after the jack is extended; never get under the vehicle while it is being supported by the jack.

Please remind your customers of the possible hazards involved in the operation of these jacks.

BEND OUR EAR!! If you need mailbags, tags or info report forms, give us a COLLECT CALL (703) 527-4500.

## BENDIX HYDRO-BOOST POWER STEERING/POWER BRAKE PROBLEMS ON AMERICAN CARS AND TRUCKS.

The NHTSA is currently looking into allegations of Hydro-boost failures on late model domestic vehicles allegedly due to casting failures which result in a loss of pressure to the power brake and steering system.

In a Hydro-boost system, power steering and power brakes are interdependent, utilizing one hydraulic pump to pressurize both. Reports of system failures include total loss of power assist steering and brakes, self-actuation of brakes upon executing a turn, and contamination of the brake fluid with power steering (automatic transmission) fluid.

The photo below, taken from a 1977 Ford LTD station wagon, illustrates casting failure of the Hydro-boost in the area of the accumulator, resulting in a sudden total loss of power assist to both the steering and brakes.

Alleged failures in Ford vehicles include the 1976 and 1977 Lincoln

Continental, LTD and Lincoln Mark V. The PRP has had reports of failures in the Mark V with mileage ranging from 15-18,000 and 1977 LTD vehicles.

The Ford Motor Company has the Hydro-boost unit installed on 1975-79 full size Ford, Lincoln, and Mercury vehicles as well as the 1978-79 model Ford Granada, Mercury Monarch, and Lincoln Versailles. General Motors uses the Hydro-boost on all diesel engine equipped vehicles since 1974. The Chrysler Corporation has used the Hydro-boost unit on medium trucks and school bus chassis vehicles since 1976.

PRP members are encouraged to report any problems they have noted in the past with Hydro-boost systems on domestic vehicles, and to be sure to forward any information on Hydro-boost problems which they see in the near future.



## FEDERAL MOTOR VEHICLE SAFETY STANDARDS

In a continuing effort to promote highway safety, additional Federal motor vehicle safety standards are presented below:

- FMVSS 205—Glazing Materials—Specifies requirements for all glazing materials used in windshields, windows, and interior partitions of passenger cars, multipurpose passenger vehicles, motorcycles, trucks and buses. Its purpose is to reduce the likelihood of lacerations and to minimize the possibility of occupants penetrating the windshield in collisions.
- FMVSS 206—Door Locks and Door Retention Components— Requires locking systems and specifies load requirements for door latches and door hinge systems on passenger cars, multipurpose passenger vehicles and trucks to minimize the probability of occupants being thrown from the vehicle as a result of forces encountered in vehicle impact.
- FMVSS 207—Seating Systems— Establishes requirements for seats, their attachment assemblies, and their installation in passenger cars, multipurpose passenger vehicles, trucks and buses to minimize the possibility of failure as a result of forces acting on the seat in vehicle impact.
- FMVSS 208—Occupant Crash Protection—Specifies requirements for both active and passive occupant crash protection systems for passenger cars, multipurpose passenger vehicles, trucks and driver's seats in buses.
- FMVSS 209—Seat Belt Assemblies—Specifies requirements pertaining to the manufacturer of seat belt assemblies on passenger cars,

multipurpose passenger vehicles, trucks and buses. The requirements apply to straps, webbing or similar material, buckles and other fasteners, installation hardware, and to the installation, usage, and maintenance instructions for the assembly.

- FMVSS 210—Seat Assembly Anchorages—Specifies the requirements for seat belt assembly anchorages in passenger cars, multipurpose passenger vehicles, trucks and buses to ensure effective occupant restraint, and to reduce the likelihood of failure in collisions.
- FMVSS 211—Wheel Nuts, Wheel Discs and Hub Caps— Requires that winged projections be deleted from wheel nuts, wheel discs and hub caps on passenger cars, multipurpose passenger vehicles and equipment, eliminating a potential hazard to pedestrians and cyclists.
- FMVSS 212—Windshield Mounting—Requires that each windshield mounting on passenger cars must be anchored in place and retain one of two specified percentages of its periphery in a crash situation.
- FMVSS 213—Child Seating Systems—Specifies requirements for child seating systems, including their installation and use, to minimize the likelihood of injury and death to children in vehicle crashes or sudden stops.
- FMVSS 214—Side Door Strength—Specifies requirements for crush resistance levels in side doors of passenger cars to minimize the safety hazard caused by intrusion into the passenger compartment in a side impact collision.

## PRP MEMBERS CONTRIBUTE TO UNIROYAL TIRE INVESTIGATION

In the June 1979 issue of the PRP News, we featured an article describing the safety-related defect investigation involving Uniroyal steel-belted radial tires announced by the Department of Transportation. The tires being investigated are those in the PR5 and PR6 lines. These tires can exhibit tread and belt separation causing hazardous driving conditions.

**Brake-O-Mat** in Evanston, Illinois submitted information to the PRP in response to the June article. The shop noted problems on the rear tires on a 1976 Buick Estate Station Wagon with 9,167 miles. The tires had shown signs of ply separation and vibrated when the vehicle was driven at both high and low speeds.

Gotham Auto Lease, Inc. in New Rochelle, New York submitted three tires to the PRP with similar problems. The tires exhibited belt separation causing the rubber to expand and form bumps in the tires. The tires shimmy causing bad vibration and the vehicle pulls to the left during operation.

The State of Georgia in Atlanta, Georgia also cantacted the PRP to report similar problems with Uniroyal steel-belted radial tires.

We appreciate these assists and encourage all PRP members to watch for similar Uniroyal tire failures.

## THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982. A power steering cylinder head was submitted to the PRP by K & B Brake and Wheel Service, Inc. of Omaha, Nebraska. The cylinder head, which was scored, was removed from a 1976 Chrysler Newport with 42,707 miles. Scoring of the cylinder head reportedly caused the vehicle's power steering to lock when a fast turn to the right was executed.

Hansen Automotive of Minneapolis, Minnesota, reports a rear axle problem on a 1976 Ford Pinto with 25,943 miles. The axle fell off of the vehicle while it was in motion, carrying with it the rear brake lines. No accident occured due to the fact that the vehicle was moving slowly. Upon inspection, the shop found an apparent insufficient weld on the flange which holds the axle bearing.

## THE FORUM

The steering sector shaft shown in the accompanying photo, was submitted to the PRP by Art Dell's Garage in Rensselaer, New York. It was removed from a 1977 Chevrolet



Impala with 22,329 miles. As indicated by the arrow in the photo, the shaft has several cracks and twisted threads at the point where it meets the steering arm. The result is an unstable connection between the two and potential loss of steering control. Any further information on this type of problem would be appreciated.

The 1979 Administrator's Awards for PRP members whose contributions have been particularly outstanding will be announced in the near future. It's not too early to start thinking ahead to next year's awards and your shop's contributions to the program. Take an extra minute today to send in that part or information report.

## **GM RECALL FOR WHEEL BEARING FAILURES PROBED**

The Department of Transportation is looking into a recent General Motors Corporation recall involving possible wheel bearing failures in the entire 1978 production of Buick Century and Regal, Chevrolet Monte Carlo and Malibu, Oldsmobile Cutlass, Pontiac LeMans and Grand Prix cars, and GM Caballero and Chevrolet El Camino light trucks. The NHTSA is investigating to determine whether the problem is being properly corrected, and whether other model vehicles should be recalled.

The alleged failure, which was first described in the May 1978 issue of the PRP News, is due to inadequate lubrication of the front wheel bearing. Excessive front brake heat caused by front suspension weight and design of the front disc brake rotors is transferred to the front outer wheel bearing causing its grease to become a liquid. This results in inadequate lubrication of the wheel bearing. General Motors recalled the vehicle under pressure from the NHTSA and Canadian Transportation safety officials.

Symptoms of inadequate lubrication involve a front-end vibration or grinding noise, but they are not always apparent. Continued operation of the vehicle with inadquate wheel bearing lubrication can cause a front wheel outer bearing failure, resulting in damage to the spindle and loss of vehicle control or momentary loss of front disc braking.

GM's proposed remedy to correct the alleged defect involves installing new outer wheel bearings, adding new bearing lubricant, coating the spindle with additional lubricant, and installing new grease retainer caps.

The NHTSA has received approximately 700 reports of front wheel bearing failures. Most of them occured on vehicles with less than 24,000 miles.

The PRP is interested in similar wheel bearing failures in all sizes of 1975-79 GM model vehicle.

## OUTSTANDING PARTICIPANTS

The members highlighted below have contributed parts or information to the PRP within the past month. Asterisks indicate first contributions for the year (July 1979 through June 1980). Numbers in parenthesis indicate consecutive active months.



- \*
  - Fuselier's Auto Service, Inc. Lake Charles, LA
  - C & S Brake Service Ft. Worth, TX

#### **REGION 8**

- **Robertson's Automotive** Fountain Hills, AZ
- (2) Las Vegas Wheel Alignment Las Vegas, NV

#### **REGION 9A**

- **Duane's Tune-Up Clinic** Manteca, CA
- (2) Ise Automotive Service Hollywood, CA
- A & E Automotive Service Fresno, CA

#### **REGION 4**

- \* **Taylor's Garage and Service Station** Akron, OH
- **REGION 5** 
  - \* Day Nite Auto Station Kaukauna, WI
  - Dave McMillen's Auto Repair \* Duluth, MN

#### **REGION 6**

- Hutt & Stiles \* Skokie, IL
- Brake-O-Mat Evanston, IL
- K & B Brake & Wheel Service, Inc. Omaha, NB

### REGION 0

- Sheffield Auto Electric Sheffield, MA
- Glidden Auto Service Nashua, NH
- (2) Bothel's Garage Cape Elizabeth, ME
- Henniker Automotive Henniker, NH
- Curley's Auto Repair, Inc. Warwick, RI

## **REGION I**

- \* Art Dell's Garage Rensselaer, NY
- D & Z Atlantic Cornwell Heights, PA
- Stewart Auto Williamsport, PA
- **Bob's Exxon Service** Somers Point, NJ
- (2) Gil's Safety Service Ridgewood, NJ
- Gotham Auto Lease, Inc. New Rochelle, NY
- John's Body Shop Binghamton, NY
- **Kolesnik's Service Station** Rochester, NY

#### **REGION 2**

- Auto Brake Corporation Norfolk, VA
- **Garlick's Garage** Roanoke, VA

#### **REGION 3**

(2) Wales Garage Ft. Lauderdale, FL

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DOT 517



DEPARTMENT OF TRANSPORTATION • NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Vol. 5 No. 3

August 1979

## The National Highway Traffic Safety Administration (NHTSA) recently held a public hearing to determine whether Fiat Motors of North America, Inc., has met its obligation in carrying out a recent recall campaign involving excessive rusting and corrosion on the undercarriage of its 1970-1971 Model 850 Spyder vehicles. In addition, the hearing addressed NHTSA's recent reinstatement of an initial determination that a safety-related defect exists in 1970-1974 Fiat Model 124 vehicles due to a similar rusting problem, and whether Fiat has undertaken an unannounced recall campaign of the Model 124 which does not comply with requirements of the law.

Shortly after Fiat initiated the recall campaign, the NHTSA began receiving complaints from owners of these recalled vehicles. The complaints have dealt with: (1) the price Fiat is offering owners to repurchase corroded vehicles (e.g., \$600 maximum for an 8-year-old vehicle with up to 72,000 miles), (2) alleged coercive tactics used to make the owners sell their cars back to the company, (3) Fiat's repair policy under the repair procedures of the recall, and (4) allegations that Fiat was limiting participation in the recall campaign to Model 850 owners showing proof of current vehicle registration (this limitation would exclude vehicle owners whose vehicles were so badly corroded that their owners put them in storage

## ADEQUACY OF FIAT RUST RECALL

rather than register them for use on the highway).

NHTSA has also received complaints from owners of Model 124 vehicles concerning structural rust and corrosion. In addition it learned that Fiat has repurchased some Model 124 vehicles after inspecting them and allegedly declaring them unsafe. This information led the agency to reinstate its initial determination that 1970–1974 Model 124 Fiats also are defective.



Wales Garage, Fort Lauderdale, Florida, recently submitted the ignition amplifier shown in the picture. The amplifier was removed from a 1974 Ford Maverick with 56,000 miles. The vehicle owner has experienced intermittent stalling prior to the discovery of the problem. What is unique in this instance is that the insulation backing of the amplifies has melted away. Other amplifier submitted to the PRP have had a clear, hard backing. In this case, the backing is soft and discolored, indicating an intense heat build-up. Please keep an eye out for similar situations. Fiat Motors and nineteen Fiat owners were at the public hearing to present testimony, data and information on both issues. A decision on the adequacy of the Fiat 850 recall will be forthcoming shortly. More information (with photos, if possible) on the above vehicles from our PRP members would be helpful.

#### GM V-6 Engine Stalling

Investigation continues into alleged stalling of 1977 Pontiac, Buick and Oldsmobile vehicles equipped with 231 CID V-8 engines (Defect Investigation ODI Case No. C8-33). The vehicles allegedly stall frequently when the engines are cold and while accelerating from a stop or from low speeds. The problem is accentuated when air temperatures are low.

## **ROBERTSON'S AUTOMOTIVE.** Fountain Hills, Arizona, reports a possible answer to the problem. The shop has found a number of faulty distributor shafts in problem V-6's. Separations along the seams as well as slippage in the pin in the shaft have been found. The shop claims that replacement of the distributor shaft with a new shaft offers a permanent cure to the stalling problem. The PRP is interested in hearing from members about their experiences with V-6 stalling as well as any solution they may have to the problem. Call us collect or drop us a line via your information reporting forms.

## FEDERAL MOTOR VEHICLE SAFETY STANDARDS

Our summary of Federal motor vehicle standards continues:

- FMVSS 215—Exterior Protection, Passenger Cars—Requires passenger cars to withstand barrier and pendulum impacts of 5 m.p.h. front and rear, without damage to lighting, fuel, exhaust, cooling and latching systems. The pendulum tests also assue a uniform bumper height among all passenger cars.
- FMVSS 216—Roof Crush Resistance, Passenger Cars—Sets minimum strength requirements for passenger car roofs to reduce the likelihood of roof callapse in a rollover accident.
- FMVSS 217—Bus Window Retention and Release- This standard establishes minimum requirements for bus window retention and release, to reduce the likelihood of passenger ejection in accidents and facilitate passenger exit in emergencies. It also requires that each school bus have an interlock system that will prevent engine start-up until all emergency door locking mechanisms are released, and an audible warning system which will sound an alarm if an emergency door release mechanism is not closed while the engine is running.
- FMVSS 218—Motorcycle Helmets—Requires most helmets manufactured for use by motorcyclists and other motor vehicle users to meet minimum specified performance requirements. It establishes test requirements for impact attenuation, penetration, and retention, and criteria for peripheral vision clearance, harmful projections and labeling.

- FMVSS 219—Windshield Zone Intrusion—The purpose of this standard is to reduce crash injuries and fatalities that result from occupants contacting vehicle components displaced near or through the windshield. The standard regulates the intrusion of vehicle parts from outside the occupant compartment into a defined zone in front of the windshield during a frontal barries crash test.
- FMVSS 220—School Bus Rollover Protection—This standard specifies minimum performance requirements for the structural integrity of the passenger compartment and for capability to use emergency exits (except roof exits) of school buses when subjected to forces that can be encounted in rollovers.
- FMVSS 221—School Bus Body Joint Strength—This standard seeks to reduce the likelihood of lacerations caused by exposure of school bus passenger to sharp metal edges when, during an accident, body panels become separated from the structural components to which they have been fastened. It specifies resistance requirements for body joints to the stress caused by the load on them in relation to the body panels.
- FMVSS 222—School Bus Passenger Seating, Crash Protection—This standard specifies seating, restraining barrier, and impact zone requirements for school buses. The standard relies on compartmentalization between well-padded and well-constructed seats to provide occupant protection on school buses.

## Thanks ... And a Tip of the PRP Hat

A tip of the PRP hat to Brake-O-Mat, Evanston, Illinois, who recently submitted to the PRP one 1977 VW Dasher and two late model VW Rabbit master cylinders and to Protano's Service, Worchester, Massachusetts, who has forwarded a master cylinder from a 1977 VW Dasher. These inputs are a great help in the continuing investigation into VW master cylinders.

We'd also like to commend Larry's Auto Supply Company, South Windsor, Connecticut, for diaplaying the PRP News for customers to read. A customer browsed through the July issue while making a parts purchase and noted our article on Ford Pinto tailgate latch failure. He then wrote a letter to the NHTSA reporting a similar problem in his 1976 Ford Pinto station wagon. A metal tool box placed in the cargo area had slid back and hit the tailgate, causing it to pop open.

We heartily recommend that all members keep the PRP News on display for their customers—it could easily result in more information on a reported problem!

## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a COLLECT CALL (703) 527-4500.

#### THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical Is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982. Dave Strelow of Rc ertson's Automotive, Fountain Hills, Arizona reports two similar master cylinder failures on recent model GM vehicles. In one instance, a 1978 Oldsmobile Cutlass Supreme with 13,530 miles lost primary braking power without warning, the brake pedal travelling to the floor. In the second instance, a customer's 1978 Cadillac Fleetwood Brougham experienced occasional loss of braking power, with the pedal travelling to the floor. The cause of these failures was not immediately evident.

John's Body Shop, Binghamton, New York, has recently submitted information to the PRP on cormosion in the area of the gas tank on a 1974 GMC station wagon with 40,557 miles. The gas tank fell off of the vehicle after the retaining strap rusted away. In general, overall vehicle resting was about average for its age, according to the shop.

## THE FORUM

A Motorcraft battery explosion has been reported to the PRP by Joe's Auto Service, Albuquerque, New Mexico. The heavy duty battery was installed as original equipment on a 1977 Ford Thunderbird with 13,000 miles. The incident took place while the auto was sitting in a parking lot. The shop suggests that the explosion may have been due to heat buildup and battery brackets which were too tight.



As indicated in the accompanying picture, Eddie's Standard Service has submitted front brake hoses from two Plymouth Dusters which have cracked through near the connectors. The first set hoses was removed from a 1973 Duster with 38,421 miles. As reported in the July, 1979 PRP News the State of Wisconsin submitted front brake hoses from a 1977 Plymouth Volare with 36,300 miles showing similar cracking.

Henniler Automotive, Henniler, New Hamphsire recently forwarded to the PRP a flywheel removed from a 1976 Buick Century with 22,000 miles. the center of the flywheel cracked apart, a situation which the shop reports as common. The August, 1979 PRP News reported similar cracking in Ford, Buick and Oldsmobile vehicles.

## **EVALUATING AIR BAGS AND AUTOMATIC BELTS**

Federal Motor Vehicle Safety Standard No. 208, Occupant Crash Protection, which was highlighted in the last issue of the PRP News, is one of the NHTSA's most significant regulations. As amended, Standard No. 208 will require automatic restraint protection for front seat occupants in all passenger cars manufactured after 1 September 1983. When automatic restraints are installed on all passenger cars, the NHTSA estimates that at least 9,000 fatalities and hundreds of thousands of injuries will be prevented each year.

Stressing the importance of Standard No. 208, the NHTSA recently announced an exaluatuon plan to analyze the actual road experience of vehicles equipped with automatic restraints. The purpose of the evaluation plan is to make further refinements in the assessment of the actual, on-the-road experience with automatic restraints as the Standard takes effect. Also, should unexpected problems occur with particular cars equipped with automatic restraints, the evaluation plan would enable the NHTSA and the auto makers to become aware of them promptly and to take remedial action. This could also encourage foreign car manufacturers to increase the variety of automatic restraint system designs available to the American public.

Among the questions the NHTSA hopes to answer through the new evaluation plan are:

• What is the fatality and injury reducing effectiveness of the automatic restraint system?

- What injuries do people in crashes receive with automatic restraints.? How do they compare with injuries that would have occurred if the occupants has been unrestrained?
- How effective are automatic restraints as a function of automobile size?

The NHTSA anticipates that while the defects investigation program is not part of the exaluation plan per se, it will contribute valuable information to the effort. We may even be asking for your assistance as PRP members. Further information on the plan is available from the Office of Management Services, NHTSA, 400 Seventh Street, S.W., Washington, D.C. 20590

## OUTSTANDING PARTICIPANTS

The members highlighted below have contributed parts or information to the PRP within the past month. Asterisks indicate first contributions for the year (July 1979 through August 1980). Numbers in parenthesis indicate number of months a shop has been active in the current year.



Henniker, NH

#### **REGION 1**

- \* Gordie's Auto Service West Chester, PA.
- Vins Motor Service Corp. \* Brooklyn,, NY
- (2) Kolesnik's Service Rochester, NY
- (3) Gil's Safety Service Ridgewood, NJ

**REGION 2** 

- (1) Berea Auto Service Greenville, SC
- (1) Lippy's Auto Service Richmond, VA

#### **REGION 3**

- (3) Wales Garage
- Ft. Lauderdale, FL
- (1) State of GA Dept. of Admin. Ser. Atlanta, GA

#### **REGION 5**

- (2) Dave McMillen's Auto Repair Service Duluth, MN
- (1) Hansen Automotive Minneapolis, MN
- (1) Richfield Wheel Alignment Minneapolis, MN
- **REGION 6** 
  - (2) Brake-O-Mat Evanston, IL
  - (1) Eddie's Standard Service University City, MO

(1) AA Auto & Truck Service Chicago, IL

#### **REGION 8**

- \* Mr. Brake #1 Salt Lake City, UT
- **REGION 9** 
  - (2) L.A.D. Auto Electric Spokane, WA

### U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Washington, D.C. 20590

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DOT 517





## Vol. 5 No.5

## PLASTIC FUEL TANK LEAKAGE REPORTED

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In the July 1979 issue of the PRP News, it was reported that the U.S. Department of Transportation is considering a possible change in Federal Motor Vehicle Safety Standard 301-75 (Fuel System Integrity) to include performance requirements for non-metallic fuel tanks. Information on plastic fuel tank problems was also requested.

The NHTSA has received information on problems relating to these plastic (high density polvethylene) tanks in 1976-1979 Chrysler vehicles. These tanks range in size from 18 gallons to 50 gallons and are installed primarily in Chrysler vans, pick-up trucks and motor homes. Recently, Chrysler Corporation voluntarily initiated a recall campaign for its 1979 motorhomes equipped with a 35 gallon, midframe-mounted, plastic fuel tank. To date, NHTSA has received 14 reports of plastic tank problems directly from private owners, and 22 complaints were submitted through the cooperation of Chrysler Corporation.

Basically, two types of problems have been reported with regard to these plastic fuel tanks. First, due to load and thermal effects, ballooning of the tank occurs and may cause ruptures and leaks, if contact is made with the drive shaft or exhaust system. Second, leaks may occur from some form of "cracking" or through other means, for example, through seams.

These leakage problems are obviously very dangerous—in one case, an entire van burned and one person received burns. Please let us know if you come across any problems associated with plastic fuel tanks.



The stabilizer bar pictured above, manufactured with a hollow center, was submitted by EAST SIDE AUTO SERVICE CENTER, Columbus, Ohio, having been removed from a 1977 Toyota Celica with 42,000 miles. The bar reportedly snapped in two while the vehicle was in motion.

## FORD ANNOUNCES CAPRI RECALL FOR SEAT BACK FAILURE

November 1979

The Ford Motor Company has agreed to recall certain Capri automobiles because of safetyrelated defects. The recall involves 1971-73 Capris for failure of the reclining seat backs, and 1971-74 and 1976-78 Capris for separation of the manual transmission gear shift lever. Previously, Ford had agreed to recall 1971 and 1972 Capris because of a defect in the headlight switch.

Regarding the seat back failures, the NHTSA said that its investigation showed it is possible for the driver's seat back to collapse toward the rear of the vehicle, making it difficult for the driver to maintain vehicle control. The failure apparently is caused by the absence of a required weld in the structure of the seat. The agency received reports of more than 500 instances of failures, including three accidents.

The NHTSA also reported that it had received at least 250 reports involving separation of the gear shift lever, including one reported accident. Separation can occur without warning and can cause loss of ability to control the vehicle.

## GET IN THE HOLIDAY SAFETY SPIRIT! Send in a failed part today.

## DOT CAR CRASH TEST RESULTS ANNOUNCED

The NHTSA recently announced the crash test results of its new car assessment program in which domestic, European and Japanese cars are being crash tested—both front and rear—at a speed of 35 miles per hour.

The Chevrolet Citation and Chevette, Ford Mustang and Plymouth Horizon all performed very well under the tests. The preliminary findings in the tests, however, indicate that there are substantial differences in the degree of crash protection that manufacturers build into their cars. The NHTSA was particularly disappointed that none of the imported cars tested provided a high level of occupant crash protection in frontal crashes.

The crash test program is an important step toward a federal

automotive crashworthiness rating system. Such a rating system could help consumers determine the safety performance differences among the hundreds of makes and models produced by the industry. According to the NHTSA, a crashworthiness rating system would not only give the consumer more vital information about new cars in the marketplace, but would also generate competition among the manufacturers to produce cars which are safer, more resistant to damage and less costly to service and repair. Testing completed thus far in the initial phase of the program will help determine whether or not a continuing program of rating vehicles for crashworthiness should be instituted, based on higher levels of performance than those required by minimum safety standards.



"THAT RUNNER LOOKED DEFECTIVE TOO. LET'S SEND THEM BOTH IN TO THE PRP."

## FEDERAL MOTOR VEHICLE SAFETY STANDARDS

Our summary of Federal Motor Vehicle Safety Standards concludes with this issue.

- FMVSS 301-Fuel System Integrity, Passenger Cars-The present standard specifies requirements for integrity and security of the entire fuel system. including the fuel tanks, fuel pump, carburetor, emission controls, lines and connections. Beginning September 1, 1977, all vehicles under 10,000 pounds, except motorcycles, must withstand severe front, rear and lateral barrier impact crash tests. Manufacturers must also be able to demonstrate that fuel loss will not exceed one ounce per minute in a static rollover test following these barrier crash tests, as well as not exceeding these limits after and incidental to the crash tests
- FMVSS 302—Flammability of Interior Materials—This standard specifies burn resistance requirements for materials used in the occupant compartment of motor vehicles in order to reduce deaths and injuries caused by vehicle fires.

Inputs from PRP members can, in some cases, help in the formulation of new standards or in the revision of current standards. If you are interested in further information on these standards, write for the booklet "Standards", Office of Public Affairs, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C. 20590.

THE BOX SCORE Total Membership: 2600 Inputs for October: 65 Total Inputs Since 7/1/79: 265

## THE FORUM

Special thanks to Ed Coffer of AUTOMATIC TRANSMISSION SERVICE, San Diego, California, who wrote an article about the PRP in the September-October issue of San Diego's local Moto Mike News, published by Motor Machine and Supply of San Diego. We would like to express our appreciation to Ed and to encourage others to spread the word about the PRP.

We've recently received two GM flywheels from PRP members, Both flywheels had similar failures, having broken completely through at the center, as shown in the accompanying picture. The illustrated flywheel was submitted bv **HENNIKER** AUTOMOTIVE, Henniker, New Hampshire and was removed from a 1976 Buick Century with 22,000 miles. The other flywheel was contributed by ISE AUTOMOTIVE SERVICE. Hollywood, California and came from a Cadillac Eldorado with 72,000 miles.



**DUANE'S TUNE-UP CLINIC**, Manteca, California, has recently submitted to the PRP six failed electronic ignition amplifier modules from 1977-78 Ford vehicles and one from a 1978 Cadillac Seville. The shop reports, as many other PRP members have, that this is a common problem, especially with Ford electronic ignition systems. GIL'S SAFETY SERVICE, Ridgewood, New Jersey, has submitted two broken brake backing plates from a 1978 Dodge Aspen used as a taxicab. The shop reports that this is a common problem. Also reported—a 1976 Plymouth Volare with no upper shaft support bracket.

NOCH'S AUTO REPAIR, Glastonbury, Connecticut, recently contributed a failed rear axle bearing from a 1968 Mercury Montego with 95,000 miles. The shop reports that the bearing failed twice in the last three years. Both times it broke apart. The first time the failure occurred, the vehicle was in motion.

Do your part during the upcoming holiday season. Send in a part or information report form on *any* problem which you feel is safety-related. We're waiting to hear from *every* member this year.

## BRAKE STANDARDS FOR LIGHT TRUCKS AND VANS

In an effort to stem the rising number of fatalities in accidents involving light trucks and vans, as well as multi-purpose passenger vehicles, the NHTSA has proposed to extend the requirements of its standard on hydraulic brake systems (Federal Motor Vehicle Safety Standard 105-75) to vehicles with a gross vehicle weight rating of 10,000 pounds or less. The standard currently applies only to passenger cars and school buses.

Since 1975, sales of light trucks, vans and on/off road vehicles have increased substantially while corresponding occupant fatalities rose from 4,672 in 1975 to 6,585 in 1978, an increase of 41%. The existing standard requires passenger cars to stop in 194 feet from 60 miles per hour in a lightlyloaded condition. The new proposed stopping distance is 216 feet for trucks, buses and vans under 8,000 pounds and a range of distances from 228 to 242 feet for lightly loaded trucks, buses and vans weighing between 8,000 and 10,000 pounds.

The proposed rule would also upgrade the performance requirements for school buses and ex-

## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a COLLECT CALL (703) 527-4500. tend the standard on a limited basis to heavier vehicles weighing more than 10,000 pounds.

During the past year, the PRP has received inputs on brake problems in 1977 Dodge B200 and B300 series vans and the 1976 Chevrolet LUV. Further information on braking problems in light trucks and vans would be appreciated.

#### THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982.

## **OUTSTANDING PARTICIPANTS**

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#### **REGION 0**

- \* Protano's Service Station Worcester, MA.
- (2) Noch's Auto Repair Glastonbury, CT

#### **REGION 1**

- Basile's Exxon
- Fairview Vlg., PA
- \* Robbin's Exxon Service Norristown, PA
- (4) Gil's Safety Service Ridgewood, NJ

#### **REGION 2**

\* Cherrydale Motors Arlington, VA

## U.S. DEPARTMENT OF TRANSPORTATION

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- \* Yon Brother's Garage Charleston, SC
- (2) Auto Brake Co. Norfolk, VA
- Jack Stoltz's Garage Winston-Salem, NC

#### **REGION 3**

 Ed's Automotive Center Miami, FL

(4) Wales Garage Ft. Lauderdale, FL

#### **REGION 4**

 East Side Auto Service Columbus, OH

#### **REGION 5**

 Minnesota Gas Co. Minneapolis, MN

#### **REGION 6**

- (2) A & A Auto & Truck Service Chicago, IL
- (2) .Eddie's Standard Service University City, MO

#### **REGION 7**

- \* Stewart's Garage San Angelo, TX
- (2) C & S Brake Service Ft. Worth TX

#### **REGION 8**

- (2) Robertson Automotive Fountain Hills, AZ
- Brown Road Exxon Service Mesa, AZ
- (2) Joe's Auto Service Albuquerque, NM
- **REGION 9** 
  - Leonard's Service Los Angeles, CA
  - (2) Duane's Tune-Up Clinic Manteca, CA
  - (3) Ise Automotive Service Hollywood, CA
  - Sequoia Institute Sunnyvale, CA

#### **REGION 9A**

(3) L.A.D. Auto Electric Spokane, WA

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## Vol. 5 No. 4

## FORD FIESTA TRACK ROD UNDER INVESTIGATION

The NHTSA is currently looking into complaints of track rod failures on 1978 and 1979 Ford Fiesta models at mileages ranging from 4,000 to 43,000. The rod, which locates the rear suspension members, links the axle on one side of the vehicle to the frame on the other side, limiting transverse movement of the suspension.

The track rod, also called a Panhard rod or sway bar, is a 'U'-shaped Channel as opposed to being a solid bar. Failure reports indicate that generally the rod shows signs of bending before failure occurs. However, breakage can occur with no prior warning, resulting in swaying of the vehicle and alleged loss of directional control. A total of 18 failures have been reported with one resulting in an accident—a single vehicle rollover. Approximately 200,000 1978 and 1979 Fiestas may be involved.

The rod in the photo below, taken from a 1978 Fiesta with 29,000 miles, shows a typical failure. The rod was submitted by **PROTANO'S SERVICE STATION, INC.** PRP members should note that indications of bending often precede breaking.

Members are encouraged to report any problems they have encountered with Fiesta Panhard rod assemblies in the past, and report any problems they see in the future.



## DOT LAUNCHES ALL-OUT ATTACK ON DRUNK DRIVING

December 1979

Joan Claybrook, NHTSA Administrator, recently outlined a program to deal with the problem of drunken driving, which is based on a coordinated effort by the police, courts, local governments and rehabilitation agencies. She called on the nation's governors, mayors, and county executives to begin an all-out attack on the problem of drunk driving. Claybrook suggested these specific actions:

- Encourage cities and counties to adopt coordinated programs to deal with the drunk driver.
- Make the programs financially self-supporting through fines and treatment fees for drunk drivers.
- Improve drunk driver apprehension techniques and support equipment such as the new roadside breath-alcohol testers.
- Streamline court procedures to handle increased caseloads.
- Combine punishment for the drunk driving offense with treatment for the offender's underlying alcohol problem.

THE BOX SCORE

Total Membership: 2600 Inputs for November: 68 Total Inputs Since 7/1/79: 333

## MORE JACK PROBLEMS

Two more original equipment jack failures were submitted to the PRP this month. WALES GARAGE in Fort Lauderdale, Florida sent in the photo of the screw-type jack from a 1978 Volvo 264. The vehicle rolled off the jack when the lug nuts were loosened resulting in the jack arm twisting and the base collapsing.

SCIENTIFIC PRODUCTS, of McGraw Park, Illinois, notified the PRP of a similar incident involving the bumper jack from a 1978 Chevrolet Malibu Classic station wagon. While the driver was changing a rear tire, the vehicle reportedly fell off the jack, injuring his hand.

As reported in the September 1979 issue, NHTSA has announced

## HEAVY TRUCK BRAKE STANDARDS UPHELD

The U.S. Department of Transportation moved recently to prevent a serious downgrading in the safety of the brake systems now used on heavy duty trucks, which could lead to an increase in the already rising number of accidents involving large trucks.

The department's National Highway Traffic Safety Administration has learned that several manufacturers are considering removing front axle service brakes from some of their vehicles as a means of reducing truck weight and costs. NHTSA test data indicate that such action could lengthen stopping distances at 60 miles per hour by 36 to 139 feet—increases of up to 66 percent.

In order to prevent a weakening of truck brake systems, NHTSA has issued a notice of proposed rulemaking that would require heavy duty trucks, truck-tractors and trailers weighing more than an initial defect determination regarding the original equipment screw-type jack provided with certain Chevrolet and GMC light trucks.



10,000 pounds to be equipped with service brakes that act on each wheel. Since this is now the practice in the industry, the agency's action would not result in additional costs for either the manufacturers or the truck owners.

Fatalities involving heavy truck accidents have risen over 40 percent since 1975, and there was a 30 percent increase in automobile occupant deaths during the same period attributable to crashes involving heavy trucks.

Since the NHTSA proposal would impose no additional burdens on manufacturers, it would become effective as soon as it is published as a final rule in the Federal Register.

## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a COLLECT CALL (703) 527-4500.

## DEFECTS INVESTIGATION CHECKLIST

- C9-24—Alleged failure of flexible blade cooling fan. 1973 Dodge, Plymouth, and Chrysler passenger cars with 318 CID engine.
- C9-19—Alleged blowouts and failures which can result in accidents. 1975 and 1976 Uniroyal PR-5/Zeta; PR-6/H-14, 15/J-15/L-15; TPC FR-6/ H-14, 15/J-15/L-15 radial tires.
- C9-18—Alleged tailgate door latch failure. 1975 Mazda RX-3 Station Wagon.
- C9-17—Alleged tailgate or hatchback door latch failure. 1971-1978 Ford Pinto and Mustang II and 1971-1978 Mercury Bobcat.
- C9-16—Alleged tailgate door latch failure. 1973-1978 Toyota Corona Station Wagon and 1973-1978 Toyota Corolla Station Wagon.
- C9-15—Alleged tailgate door latch failure. 1979 Subaru Station Wagon.
- C9-14—Alleged hatchback door latch failure. 1976-1979 Renault Type 1228 Hatchback.

## **OLD MAILBAGS**

Check your PRP mailbag inventory for any mailbags addressed to Inland Testing Laboratories. The address on these bags is incorrect and parts sent in these bags have to be rerouted to us causing a delay. If your shop has any of these old mailbags please give us a call so we can supply you with new ones. The PRP received a list of tire failures noted by GIL'S SAFETY SERVICE of Ridgewood, New Jersey, since the beginning of September, 1979. Included were three failures of Uniroyal radial tires possibly covered in the recently announced defect investigation. In a related incident, the STATE OF GEORGIA submitted the accompanying photo of a Uniroyal PR6 radial taken from a '977 Pontiac Station Wagon with 12,000 miles.

ISE AUTOMOTIVE SERVICE of Hollywood, California, continued to be an active member this month by submitting 12 parts to the PRP. Congratulations once again to Ise Kuromi and his staff.

## THE FORUM



OOPS

We goofed. Our October 1979 issue was inadvertently dated August 1979. Please excuse our mistake. EDDIE'S STANDARD SERV-ICE of University City, Missouri, contacted the PRP to report a rust problem with a 1971 Opel GT. The frame and body rust caused the upper shock mount to pull away from the frame and resulted in the inability to replace a worn shock absorber.

**BIG BRAKE SAFETY CENTER**, of Gulfport, Mississippi, submitted the right front wheel bearings from a 1979 Pontiac Grand Prix with 27,000 miles, which failed due to loss of lubrication. The shop reports three such failures on this vehicle alone, and cites similar failures on 4 other vehicles of the same year and model.

## DOT IMPROVES SAFETY IN LIGHT TRUCKS AND VANS

The U.S. Department of Transportation moved today to increase protection in accidents for the drivers and passengers of light trucks and vans.

The department's National Highway Traffic Safety Administration issued amendments that extend three federal motor vehicle safety standards to light trucks and vans that will become effective Sept. 1, 1981. This will give manufacturers time to design and produce vehicles with the added protection. The regulations since the late 1960's have applied only to passenger cars.

The three standards involve improving interior padding to protect occupants, improving protection for the driver by providing steering wheels that absorb energy to cushion the driver's impact in the event of an accident, and limiting the distance the steering assembly can move backwards in order to avoid impact with the driver in a crash. Joan Claybrook, the head of NHTSA, said the rapid growth of light trucks and vans has resulted in a significant increase in fatalities and injuries which now number in excess of 5,000 a year. "The number of vehicles such as pickup trucks, buses and vans has increased about 85 percent over the last decade, and light trucks now account for 89 percent of the truck market. Sales of these vehicles passed the three million mark in 1977 and are expected to grow through the 1980's,"

She said that based on an agency evaluation of the effectiveness of the three standards in passenger cars, "We can expect a reduction of several hundred fatalities and over 4,000 serious injuries per year once all light trucks and vans comply with the standards."

The revised standards will require:

• That instrument panels, seat backs, sun visors and arm

rests be designed to lessen injuries when persons are thrown against them in crashes;

- The steering wheel to cushion the impact which occurs when a driver strikes the steering wheel in an accident; and
- Limitation of the rearward movement of the steering assembly to no more than five inches, when the vehicle crashes into a barrier at 30 miles per hour.

Standard 201, Occupant Protection in Interior Impact, and Standard 203, Impact Protection for the Driver from the Steering Control System, will apply to trucks, buses and multipurpose passenger vehicles with a gross vehicle weight of 10,000 pounds or less, while Standard 204. Steering Control Rearward Displacement, is being extended to cover trucks, buses and multipurpose vehicles with an unloaded vehicle weight of 4,000 pounds or less.

## **OUTSTANDING PARTICIPANTS**

The members highlighted below have contributed parts or information to the PRP within the past month. Asterisks indicate first contributions for the year (July 1979 through August 1980). Numbers in parenthesis indicate number of months a shop has been active in the current year.



- (2) Protano's Service
- Worcester, MA 01606
- REGION I
  - (3) Gil's Safety Service Ridgewood, NJ 07450
  - (2) John's Body Shop Binghamton, NY 13901
  - \* Main Friendly Service Bergenfield, NJ 07621
  - \* DMV—DIV. OF VEH. SAFETY New York, NY 10047
  - \* Woody's Garage Montoursville, PA 17754

- REGION 2 \* Call Carl, Inc. Fairfax, VA 22030
- **REGION 3** 
  - (5) Wales Garage Ft. Lauderdale, FL 33316
  - (2) State of Ga. Dept. of Admin. Atlanta, GA 30316
  - \* Auto Safety Service, Inc. Oakland Park, FL 33308
  - (2) Big Brake Safety Center Gulfport, MS 39051

#### **REGION** 4

- None
- REGION 5 None
- **REGION 6** 
  - (3) Brake O-Mat Evanston, IL 60201
  - (3) Eddie's Standard Service University, City, MO 63130
  - \* Scientific Products McGraw Park, IL 60085

**REGION 7** 

- None
- **REGION 8** 
  - \* Accurate Auto Yuma, AZ 85364

#### **REGION 9**

- \* Big Brake and Alignment Stockton, CA 95209
- \* Wayne's Garage Eugene, OR 97405
- (4) Ise Automotive Service Hollywood, CA 90027
- (4) L A D Auto Electric Spokane, WA 99206

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U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION Washington, D.C. 20590

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## Vol. 5 No. 7

January-February 1980

## **REAR WINDOW BREAKAGE FROM ELECTRIC DEFROSTERS**

NHTSA is currently looking into reports of glass breakage on 1979 General Motors A-body station wagons equipped with rear window defrosters. The A-body is GM's downsized intermediate-the Chevrolet Malibu, Pontiac LeMans, Oldsmobile Cutlass, and Buick Century.

Reportedly, the glass breaks after the defroster has been on for a few minutes. In many cases, owners have complained of smelling smoke or fire prior to breakage. NHTSA has received reports of both glass explosions, where the glass is hurled backwards, away from the vehicle,

and implosions, where the glass enters the passenger compartment. In at least one case, an owner was reportedly injured when, after smelling smoke, he went to the rear of the car to inspect the glass. The window exploded, hurling glass 20 feet out the rear of the vehicle. The owner's hands were cut in the incident.

NHTSA is primarily concerned with the safety of passengers, especially children who might be riding in the back of the car at the time of window breakage.

Interestingly, the alleged problem appears to be centered around only the 1979 models. NHTSA has not received any reports that indicate similar problems on either 1978 or 1980 models, although they both are virtually identical. Also of interest is the fact that in a related incident NHTSA received 10 reports of rear window breakage in 1978 Cougars. but none in other similar Ford vehicles such as the Thunderbird or LTD II. The agency is also looking into these failures.

The PRP is interested in hearing from members about similar rear window breakage. Call us collect or fill out an information report form and drop it in the mail.

## MORE DODGE VAN SUSPENSION PROBLEMS

Pictured below is the right front lower ball joint from a 1977 Dodge Van with approximately 66,000 miles. As shown, the part has completely separated. It exhibits signs of abnormal wear at the taper end of the ball.

According to RED'S AUTO-MOTIVE of Abilene, Texas, the vehicle was moving at between 30 and 40 mph when the failure occurred, resulting in partial loss of steering and other vehicle control. Fortunately, the failure did not cause an accident. The shop further



stated that the vehicle was in good condition, had been serviced regularly, and was not abused.

In the September 1978 Newsletter, similar ball joint breakage in Dodge Vans was reported. In contrast, it was speculated at that time that the failure was due to mismatched tapers on the ball joint and spindle, causing the stud to break. The PRP is interested in hearing from members regarding Dodge Van suspension problems. Any further information would be appreciated.

## NINE MILLION VEHICLES RECALLED IN 1979

According to figures recently released by the U.S. Department of Transportation, 8.8 million motor vehicles and more than 250,000 tires were recalled for safety related defects in 1979. In 1978, over 9 million vehicles were recalled by manufacturers.

PRP members will be interested to know that out of 259 recall campaigns, 54 recalls involving 3.7 million vehicles were influenced by government actions or investigations.

The largest single recall campaign was conducted by General Motors and involved almost 1.9 million 1978 intermediate Chevrolet, Pontiac, Oldsmobile, Buick and GMC Caballero vehicles to fix a wheel bearing problem which could

## HIGHWAY SAFETY SURVEY

The U.S. Department of Transportation recently released the results of a nationwide telephone survey of motorists' attitudes toward current and proposed highway safety programs. The survey shows strong support of the 55 mile-per-hour speed limit as well as other programs.

The survey of 1,500 licensed drivers found that:

- 77% are in favor of keeping the 55 MPH speed limit.
- 51% would prefer air bags over automatic safety belts, even if the air bags cost up to \$200 more.
- 84% favored a law requiring children under 5 to use safety belts.
- 52% supported a mandatory seat belt usage law.
- 60% are willing to pay higher taxes for programs to deal with the drunk driving problem.

result in loss of vehicle control. G.M. also recalled over 1.3 million Chevrolet, Pontiac, Oldsmobile, Buick, and Cadillac cars, because the heads of the seat belt anchor bolts could break off.

Ford recalled 517,000 Mercury Capris ranging from model years 1971–1978 for various defects including front seat reclining mechanism failure, headlight switchesthat would fall apart, and floor mounted gear shift levers that would detach from the transmission. All three of these recalls resulted from NHTSA investigations.

The largest recall campaign of foreign vehicles involves 540,000 Volkswagen Rabbit and Scirocco vehicles with standard transmissions built from 1975-1978 to correct a problem which could result in the vehicles starting and moving by themselves.

Rolls-Royce Motors recalled 193 of its 1979 Rolls-Royce and Bentley cars to correct a defect involving the rear seat belt.

In addition to the vehicle and tire recalls, almost 2 million units of motor vehicle equipment such as jacks, motorcycle luggage racks, and fuel filters were recalled under NHTSA regulations.

Since NHTSA was created in 1966, vehicle manufacturers have recalled almost 83.7 million vehicles in 2,926 recall campaigns. NHTSA has directly influenced the recall of more than half of these vehicles.

## **BUICK POWER STEERING GEARBOX FAILURE**

SASSAMAN AND BURDEN AUTO SERVICE of Temple, PA, recently submitted the steering gearbox shown below, from a 1974 Buick Electra 225 Limited. As shown in the picture, the casting split in the lower section of the housing where the steel end plug and 'O' ring seal are retained by a snap ring.

The damage reportedly resulted in the complete loss of power steering fluid and consequently, the loss of

Joan Claybrook, head of the NHTSA, said, "This survey and other public opinion polls have consistently shown a high level of support for the 55 MPH speed limit. A large majority of drivers consider 55 to be a reasonable and effective way to not only save lives and reduce injuries, but to conserve energy as well". power assist. The cause of the failure is not clearly known.

Vehicle mileage was 56,000 at the time of failure.



## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a **COLLECT CALL** (703) 527-4500. **FRANK'S FRONT END SERV-ICE**, of Manchester, NH, supplied information to the PRP of a wheel failure in a 1969 Chevrolet C-10 pickup truck with 58,498 miles. The vehicle was brought to the shop with a complaint of a shimmy. Upon inspection, they noticed a split in the rim causing an imbalance condition. The tire had not lost air, and there was no evidence of the wheel being hit or rust damage that could have caused the failure.

In response to the flywheel problems reported in the August newsletter, LAMBERTS MOBIL SERVICE of Downingtown, PA, submitted to the PRP this month the flyweel/flexplate from a 1977

## THE FORUM

Pinto with 48,000 miles. According to the shop, the owner noticed a knock as he was driving down a hill. At the bottom of the hill he accelerated, the engine raced, but the car did not speed up. Upon inspection, it was noticed that the center hub spun around on the flywheel, elongating the mounting hole.

LEXINGTON BRAKE, of Lexington, KY, submitted to the PRP a disc brake rotor from a 1973 Pontiac Firebird. The inboard side braking surface had been worn through to the cooling fins, while wear on the outboard side was negligible. The exact cause of the problem was not clear, although it was evident that the brake piston was unable to retract the pad from the rotor, causing excessive wear. The problem was corrected by replacing the rotor and overhauling the caliper.

Here's a stumper! An owner of a 1978 Dodge Van with 52,000 miles drove into ISE AUTOMOTIVE, of Hollywood, CA, complaining of a loss of braking power. The shop reports to the PRP that the brake were dragging slightly, causing exessive heat and thus brake fade, and accelerated brake pad wear. The problem was traced to the vacuum assist power booster. A ruptured diaphragm is at least partially the cause. The problem also created a rough engine idle.

## MAILBAGS

Apparently, there are still a number of old mailbags in the field, addressed to previous PRP contractors. Members should make certain that before mailing parts to the PRP, the canvas mailbag is addressed to U.S. Department of Transportation, c/o KAPPA SYSTEMS, INC., 1501 Wilson Boulevard, Arlington, VA 22209.

If you find any old mailbags around the shop, the next time you contribute to the PRP, place the old mailbages in the current bag along with the parts or call 703-527-4500. This will ensure that your contribution does not get lost in the mail and therefore is of value to the PRP.

A special thanks to Ms. Delores Stevens of the NHTSA regional office in Chicago for bringing this matter to the attention of the PRP.

Also, in order for the PRP staff to accurately process the parts you send in, make certain that you insert the failed part data tag into the protective cover before mailing. Otherwise, the tag may become soiled and illegible in transit.

#### THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical bas been approved by the Director of the Office of Management and Budget through March 31, 1982.

## OUTSTANDING PARTICIPANTS

(January-February 1980 Issue)

The members highlighted below have contributed parts or information to the PRP within the past month. Asterisks indicate first contributions for the year (July 1979 through August 1980). Numbers in parenthesis indicate number of months a shop has been active in the current year.



#### \*

Manchester, NH 03103

#### **REGION 1**

- (4) GIL'S SAFETY SERVICE Ridgewood, NJ 07450
- (3) JOHN'S BODY SHOP Binghamton, NY 13901
- (4) WOODY'S GARAGE Montoursville, PA 17754
- (2) DEL HATT ALIGNMENT REPAIR Poughkeepsie, NY 12601

- SASSAMAN & BURDEN AUTOMOTIVE SERVICE Temple, PA 19560
- EARL R. LAMBERT MOBIL SERVICE
- Downingtown, PA 19335 W & S SERVICE Wilmington, DE 19805
- **REGION 2** 
  - NONE

### REGION 3

- (6) WALE'S GARAGE Ft, Lauderdale, FL 33316
- (3) STATE OF GEORGIA-DEPT. OF ADMINISTRATIVE SERVICES Atlanta, GA 30316
- R. W. HARMON & SONS, INC. Memphis, TN 38118

### **REGION 4**

- \* LEXINGTON BRAKE Lexington, KY 40503
- PHIL'S AUTO CARE SERVICE Avon Lake, OH 44012

**REGION 5** NONE

**REGION 6** 

NONE

#### **REGION 7**

- \* RED'S AUTOMOTIVE Abilene, TX 79605
- **B & N AXLE SERVICE** Austin, TX 78701

**REGION 8** 

NONE

- **REGION 9** 
  - (5) ISE AUTOMOTIVE SERVICE Hollywood, CA 90027
  - MAYER AUTO SERVICE Marysville, WA 98270

#### U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION Washington, D.C. 20590

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FIRST CLASS



Vol. 5 No. 8

March 1980

## **RUNAWAY RABBITS REPORTED**

The National Highway Traffic Safety Administration (NHTSA) recently initiated a formal defect investigation into reports of uncontrolled acceleration in Volkswagens equipped with the popular diesel engine.

According to the NHTSA's Office of Defects Investigation, at least 16 reports of this nature have been received to date, covering vehicles with as little as 7,000 miles. Typically, a driver feels a "surge" during normal operation of the vehicle, and the vehicle begins accelerating on its own. Releasing the accelerator has no effect on slowing the vehicle down as there is no throttling of air in a diesel engine. Engine speed is controlled by regulating the amount of fuel injected into each cylinder. It is suspected that "pullover oil"--lubricating oil pulled into the combustion chamber-is the cause of the problem. Releasing the accelerator reduces the amount of fuel delivered to each cylinder, however, if pullover oil is present in the cylinder, it burns as fuel, producing power.

The problem is compounded by the fact that switching the "ignition" switch off also will have no effect on engine speed, because there is no ignition system on a diesel engine. Turning off the "ignition" switch shuts off the fuel supply to the injection pump, but if lubricating oil is present in the combustion chamber, the compression ignition engine will continue to run.

The source of the pullover oil is not known at this time. However, it is speculated that oil lying in the cylinder head below the camshaft could be pulled into the cylinders through the crankshaft ventilation PCV hose into the intake manifold. Another possible source of oil or oil foam is past the piston rings due to crankcase pressure.

The only way to stop the vehicle when the problem occurs is to stall the engine by braking while in gear.

The title of the investigation is "Alleged Uncontrollable Acceleration of Diesel Engines in 1977-1980 Rabbit and 1979-1980 Dasher Vehicles Manufactured/Imported by Volkswagen of America, Inc., ODI Case No. C80-04".

## G.M. SPINDLE FAILURES

**FOSTER'S SERVICE CORP.** of Seattle, WA sent 2 spindles from late model General Motors products to the PRP. The spindle in the photo was taken from a 1979 Cadillac Seville with 23,000 miles. As can be seen, the outer wheel bearing inner race seized to the spindle, and the related heat build-up and friction caused the end of the spindle to twist off. The shop was unable to verify if the vehicle was in motion when the failure occurred.

The day before this spindle was removed, the shop uncovered a similar problem on a 1973 full sized Chevrolet with 21,000 miles. While the Chevrolet spindle did not break, the wheel bearing race is seized to it in a similar manner and extensive bluish discoloration indicated intense heat build-up.



## **DIESEL DILEMMA**

WALES GARAGE of Fort Lauderdale, FL contacted the PRP regarding a stalling problem with a 1979 Cadillac Seville equipped with a diesel engine. According to the shop, the vehicle which has 7,200 miles showing, stalls intermittently, without warning, and cannot be restarted until the fuel system is bled.

The problem does not follow any pattern. The engine can quit while idling or while traveling at highway speed. The safety factor of vehicle stalling is amplified because the vehicle is equipped with the Bendix Hydro-boost steering and brake assist. If the engine stalls, partial loss of both steering and brake control is experienced.

The shop reports that they have ruled out fuel contamination as the cause, primarily because the vehicle owner owns another diesel which does not exhibit this problem. They suspect the fuel pump or the pump relay circuit, however, the scarcity of service literature on the vehicle has made diagnosis difficult.

If any other members have seen this problem or have ideas on the "fix", the PRP would like to hear your comments. We'll pass them along.



## ELECTRIC VEHICLE SAFETY PROBLEMS

The Argonne National Laboratory, part of the Department of Energy, recently released findings of potential safety problems related to the electric vehicle test program. While the environmental impact is insignificant due to the small scale of the test program, safety related problems unique to the electric vehicle will deserve some unique consideration as their use becomes more widespread.

According to an article in the January 21 Automotive News, DOE has noted that poisonous stibine and arsine gas is produced during the charging cycle. While the level of arsine is expected to remain low, positive ventilation is necessary to control stibine levels during charging. Additionally, there will be a need to train local fire fighters to handle accidents with electrics.

Other problems noted in the study include—

- The potential for chemicals to spill into water supplies
- The compatibility of electrics with other vehicles on the road, primarily due to the poor acceleration of the electrics
- How electrics should be taxed to pay for roads (normally done through gasc<sup>i</sup>ne taxes)
- How electrics should be insured, since there is no data on claims of accidents.

More data is also needed on the low noise levels of electrics beneficial in urban areas, but not without dangers since pedestrians may not hear them coming.

## THE FORUM

JONES' AUTO SERVICE of Richmond, VA submitted the rocker arm in the accompanying photo. The part was taken from a 1977 Chrysler LeBaron with a 318 CID engine with 20,000 miles. The part does not show signs of abnormal wear or overheating and no other apparent cause could be determined.

Two idler arms were submitted to the PRP this month. CHET'S SUNOCO, of Avon Lake, OH, submitted an idler arm from a 1970 Ford LTD with 69,000 miles. Allegedly, the bushing on the idler arm at the bracket end becomes frozen to the idler arm, causes the bracket to separate from the frame, and can result in loss of vehicle control. This failure is the subject of a NHTSA defects investigation.

An idler arm from a 1979 Chevrolet C-30 crew cab pickup truck with 8,000 miles was submitted by the MIDAS MUFFLER SHOP, INC. in Bakersfield, CA. According to the shop, there was excessive play in the arm at the bracket end, which is a ball and socket-type joint. This condition can cause excessive free play in the steering and could represent a potentially hazardous condition.



**GORDIE'S AUTO SERVICE of** West Chester, PA submitted a steering gearbox from a 1974 Ford E-200 van with 69,000 miles. The gearbox showed signs of accelerated wear on the steering shaft and bearings. According to the shop, this resulted in one foot of free play at the steering wheel. The shop noted that the steering gearbox on this particular vehicle had already been replaced once before, about two years ago. They also stated that steering gearbox problems are not uncommon on Ford light trucks and vans. The PRP is interested in hearing from other members who have seen similar failures.

We were sorry to learn of a fire that destroyed the shop and business of one of our members, HARRIS & PAULL garage in Reno, NV.

## **TELEPHONE CALLS**

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Information on the failure of a leaf spring was supplied by EDDIE'S STANDARD SERVICE. of University City, MO. The vehicle, a 1977 Chevrolet Nova with 27,000 miles was brought into the shop with a complaint of sagging at the rear end. Inspection revealed that the top leaf of the right rear spring had broken near the center belt. Since this is the leaf by which the rest of the spring is attached to the frame, the body of the vehicle was allowed to rest on the axle housing. Fortunately, the spring break did not cause an accident.

**ABBOTT'S GARAGE** of South Norwalk, CT submitted seven parts to the PRP in January. Of particular interest was the crankshaft pulley from a 1979 Chevette with 18,000 miles. The center of the pulley was cracked and pulled away from the web. No cause was apparent. Also of interest was another EGR spacer plate from a 1977 Mercury with 22,000 miles. The base of the plate was eroded, causing a vacuum leak and stalling.

### **OLD MAILBAGS**

Once again, the PRP staff would like to remind members to check their supplies for old mailbags. Parts should be returned to the PRP only in mailbags addressed to KAPPA SYSTEMS, INC. If you have any mailbags addressed to INLAND TESTING LABORA-TORIES or GENERAL ENVIR-ONMENTAL CORP., please return them to the PRP with your next contribution.

## PARTICIPANTS LAST MONTH

(March 1980 Issue)

The members highlighted below have contributed parts or information to the PRP within the last month. Asterisks indicate first contributions for the year (July 1978 through August 1980). Numbers in parenthesis indicate number of months a shop has been active in the current year.



#### **REGION 0**

- \* ABBOTT'S GARAGE S. Norwalk, CT 06856
- (2) SHEFFIELD AUTO ELECTRIC Sheffield, MA 01230

#### **REGION 1**

- \* COTTMAN TRANSMISSION CENTER Bridgeport, PA 19405
- (2) GORDIE'S AUTO SERVICE West Chester, PA 19380
- (5) WOODY'S GARAGE Montoursville, PA 17754

#### **REGION 2**

- \* DODD'S AUTO SERVICE Portsmouth, VA 23701
- \* JONES' AUTO SERVICE Richmond, VA 23230
- \* NEISLER'S AUTO SERVICE Virginia Beach, VA 23462

#### **REGION 3**

- (4) STATE OF GEORGIA-DEPT. OF ADMINISTRATIVE SERVICES Alianta, GA 30316
- (7) WALE'S GARAGE Ft. Lauderdale, FL 33316

#### **REGION 4**

- \* CHET'S SUNOCO SERVICE Avon Lake, OH 44012
- CITY OF SPRINGFIELD—DEPT.
  OF PUBLIC WORKS
  Springfield, OH 45504
- (2) LEXINGTON BRAKE Lexington, KY 40503
- (2) PHIL'S AUTO CARE SERVICE Avon Lake, OH 44012

#### **REGION 5**

\* STATE OF WISCONSIN-DIVI-SION OF MOTOR VEHICLES Madison, WI 53702

### **REGION 6**

- (4) EDDIE'S STANDARD SERVICE University City, MO 63130
- \* MANDT BRAKE SERVICE Rockford, IL 61108
- (2) TIM'S IMPORT SALES & SERVICE Hutchinson, KS 67501
- **REGION 7**

NONE

- REGION 8
  - NONE

## **REGION 9**

- (2) AUTOMATIC TRANSMISSION SERVICE San Diego, CA 92103
- FOSTER'S SERVICE CORP. Seattle, WA 98108
- (6) ISE AUTOMOTIVE SERVICE Hollywood, CA 90027
- (4) LAD AUTO ELECTRIC Spokane, WA 99206
- \* MIDAS MUFFLER SHOP, INC. Bakersfield, CA 93301

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## Vol. 5 No. 9

## TOYOTA BRAKE HOSES

The four brake hoses shown below, removed from a late model Toyota Corolla were submitted to the PRP by **BRAKE-O-MAT** in Evanston, IL.

All four hoses show signs of leakage at or near the area where the threaded coupler is crimped around the flexible hose. In two cases, the coupler has been separated from the hose itself. Some of the hoses show cracks and other deterioration, yet even in the case where the hose and fitting are intact, traces of a fluid leak can be seen around the coupler.

The shop reports this is a common problem among late model Toyota Corollas and Coronas. The PRP is interested in hearing from other members who have encountered this or similar problems.

## **15 SHOPS RECEIVE ADMINISTRATOR'S AWARD**

Our PRP members last year contributed parts and information that supported the NHTSA directly in 17 formal investigations. Five of these investigations have resulted in recall campaigns by the manufacturers. Last year, we received 931 parts and information reports from 247 shops. Of these shops, 15 were selected to receive the Certificate of Appreciation Award.

In making the awards, NHTSA administrator, Joan Claybrook, expressed her appreciation for the voluntary effort put forth by these shops in contributing to the PRP on a regular basis.

The 15 shops receiving the award are:



• ISE AUTOMOTIVE SERVICE North Hollywood, California

April 1980

- AUTO BRAKE CORPORA-TION Norfolk, Virginia
- WALE'S GARAGE Fort Lauderdale, Florida
- L.A.D. AUTO ELECTRIC Spokane, Washington
- DAY-NITE AUTO STATION Kaukauna, Wisconsin
- **BOTHEL'S GARAGE** Cape Elizabeth, Maine
- TIM'S IMPORT SALES & SERVICE Hutchinson, Kansas
- KOLESNIK'S SERVICE STA-TION Rochester, New York
- WISCONSIN D.O.T. Madison Wisconsin
- GOTHAM AUTO LEASE, INC. New Rochelle, New York
- PENNSYLVANIA BUREAU OF MOTOR VEHICLES Lancaster, Pennsylvania
- V&H FORD, INC. Marshfield, Wisconsin
- SHEFFIELD AUTO ELEC-TRIC Sheffield, Massachusetts
- AUTOMOTIVE CITY SERVICE CENTER San Francisco, California
- SCIENCTIFIC PRODUCTS, INC. McGaw Park, Illinois

The PRP would like to express our thanks to these shops for their outstanding work during the past year. We hope that you will be joined by many others in making your contribution to highway safety in the coming year.

## DOT CONSIDERS STANDARDIZATION OF VEHICLE CONTROLS

The U.S. Department of Transportation announced recently that it is sponsoring research into the standardization of some instrument panel and steering column controls in cars, vans, and light trucks.

The NHTSA is concerned about safety problems arising from difficulties of motorists in finding and operating vehicle systems controls, especially steering column levers that have more than one function. The agency issued a request for comments on the subject and said it is considering a proposal to amend the present safety standard on Controls and Displays, FMVSS 101.

Comments are invited from all interested parties and can be addressed to the Docket Section, Room 5108, National Highway Traffic Safety Administration, 400 7th St., SW, Washington, DC 20590, before May 7, 1980.

## THE STATE OF THE PRP

March 1 marked the mid point of the current contract year (September 1, 1979 to August 31, 1980) for the PRP and the staff thought that members would like to see how this year's activity compares to last year's.

At the end of February, the PRP had received a total of 331 inputs. Of these 265 were actual parts and 66 were information inputs. The sixmonth total for contract year 1979 was 352 inputs. Most of the contributions came from the brake system (83 imputs) followed by components from the electrical system, suspension, engine and fuel systems, respectively.

While activity is slightly less this year, compared to last, there is still time to make this year the most successful PRP year yet. Send in your contribution, today.

## THE BOX SCORE

Total Membership: 2600 Inputs for February: 38 Total Inputs Since 7/1/79: 472



The exhaust manifold in the accompanying picture, taken from a 1978 Toyota Celica with 52,000 miles shows several cracks near the exhaust pipe mounting flange. The cracks, outlined with chalk, appear to be caused by excessive heating of the manifold, although the exhaust pipe mounting sheds did not show the type of corrosion and rust normally associated with such heat.

The manifold was submitted by **MAURICE'S AUTOMOTIVE** of Hollywood, CA.

### **TWO G.M. MODELS INVESTIGATED**

Safety-Related Defects Investigations involving General Motors X-body compacts and Chevettes were recently announced by the Department of Transportation.

The first investigation centers around reported engine stalling in 1980 X-body compacts equipped with the L-4 four cylinder engine. About 200,000 Chevrolet Citation, Oldsmobile Omega, Buick Skylark, and Pontiac Phoenix vehicles are included in the investigation.

The NHTSA had received 13 owner complaints concerning the problem, and General Motors had received an additional 158 complaints at the time the case was opened. At least one crash and one related injury were reported to have been caused by the alleged defect. Since then hundreds of complaints have been received.

According to complaints, engine stalling can result from attempting to accelerate a cold engine from a stop or after a full stop, when slowing for a turn, merging into traffic, or turning on the air conditioner. Reports of surging, hesitation, and stalling have also been reported when moving at speeds between 35 and 50 mph.

The second investigation involves 1976-1980 Chevettes equipped with manual transmissions. Reportedly, a possible malfunction of the gear shift linkage may cause a partial but sudden loss of vehicle control when the driver shifts into a lower gear. The shift lever reportedly may also bind, feel loose, or separate from the transmission entirely.

The NHTSA had received 116 reports on the shifting problem at the time the case was opened. Among the reports are four alleged accidents and at least two alleged injuries. The investigation covers approximately 400,000 vehicles.

The PRP is interested in hearing from members on these problems. It would be helpful, where possible, to send actual parts. JONES AUTO SERVICE of Richmond, VA called the PRP to report a problem encountered while performing major engine work on a 1976 Lincoln with 18,000 miles. A knocking noise in the engine was traced to a collapsed piston skirt. The piston removed from the engine was marked as being a standard piston when, in fact, the engine had been bored .020" over size, presumably at the factory.

**ISE AUTOMOTIVE** of Hollywood, CA submitted a clutch cable taken from a 1978 Chevette with 47,000 miles to the PRP. Broken threads on the adjusting flange of the cable prevented the shop from adjusting the clutch. The cause of the breakage was unknown. The rest of the clutch linkage was in good working order.

## THE FORUM

The high pressure power steering hose pictured to the right was taken from a 1978 Jaguar XJ122 sedan. As can be seen, the fitting, which is crimped onto the end of the flexible line, pulled away from the hose resulting in a rapid loss of steering assist. According to WALE'S GARAGE of Ft. Lauderdale, Fl, the failure occurred as the driver was negotiating a left turn. Fortunately, the mishap did not lead to an accident.

The **BUREAU OF MOTOR VEHICLES** of Lancaster, PA submitted two heater cores removed from 1979 Dodge Aspens with between 23,000 and 25,000 miles. The heater cores were full of pinhole leaks causing a loss of engine coolant and windshield fogging. Both vehicles are used as Police cars and had been in service for less than a year.



**WORCESTER VOCATIONAL HIGH SCHOOL** of Worcester, MA submitted the left front disc brake caliper from a 1976 Renault LeCar with 24,000 miles to the PRP this month. Excessive rotor and brake pad wear had caused the brake pads to be replaced twice since new. The school reportedly traced the problem to a blinding caliper piston causing the brake to drag and overheat.

## **MOST LATE MODEL CARS FAIL CRASH TESTS**

Results of a recent crash test program, released recently by the U.S. Department of Transportation, show most domestic and all foreign automobiles tested failed to show a high level of occupant protection in frontal crashes.

In the final phase of the car crash assessment program, 1979 and two 1980 models were crashed at 35 mph into a fixed barrier in frontal tests for occupant protection and in moving barrier rear tests for fuel system integrity. The 35 mph test speed is 5 mph higher than is currently required by Federal Motor Vehicle Safety Standards.

The Chevrolet Citation, the Plymouth Horizon, and the Ford Mustang passed every test. By contrast, some of the larger cars such as the Buick Riviera, Dodge Diplomat, and the Ford Thunderbird failed the rear impact tests, because they leaked fuel.

The purpose of the crash testing program is to measure the forces that a person would feel in a crash. However, other aspects of occupant protection such as windshield retention, intrusion of vehicle parts into the passenger compartment and fuel system integrity during a crash are also measured.

NHTSA administrator, Joan Claybrook, said the program "is the first step toward a federal automotive crashworthiness rating system. Such a system could help consumers determine the safety performance differences among the hundreds of makes and models on the market. It would be similar to the fuel economy ratings which now most be displayed on new car window stickers."

She noted that success of any ratings system will depend on consumer acceptance and rapid dissemination of the ratings.

## **TELEPHONE CALLS**

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## **PARTICIPANTS LAST MONTH**

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### **REGION 0**

- (3) CURLEY'S AUTO REPAIR Warwick, R1 02888
- (1) WINSLOW'S MOBIL SERVICE Gorham, ME 04038
- (1) WORCESTER VOCATIONAL HIGH SCHOOL Worcester, MA 01605

#### **REGION 1**

- (1) BUREAU OF MOTOR VEHICLES Lancaster, PA 17604
- (5) GIL'S SAFETY SERVICE Ridgewood, NJ 07450

- (3) AUTO BRAKE CORP. Norfolk, VA 23513
- (2) JONES AUTO SERVICE Richmond, VA 23230
- **REGION 3** 
  - (5) STATE OF GEORGIA-DEPT. OF ADMINISTRATIVE SERVICES Atlanta, GA 30316
  - (1) IKE'S SERVICE CENTER Ft. Lauderdale, FL 33309
  - (8) WALE'S GARAGE Ft. Lauderdale, FL 33316

#### REGION 4 NONE

#### **REGION 5**

- (1) LARRY GAIDA'S SERVICE STATION Duluth, MN 55802
- **REGION 6**

(4) BRAKE-O-MAT Evanston, 1L 60201

### **REGION 7**

(3) C&S BRAKE SERVICE Ft. Worth, TX 76103

#### **REGION 8**

(2) BROWN'S ROAD EXXON SERVICE Meza, AZ 85203

#### **REGION 9**

- (7) ISE AUTOMOTIVE Hollywood, CA 90027
- (1) MAURICE'S AUTOMOTIVE Hollywood, CA 90027
- (2) MAYER'S AUTO SERVICE Marysville, WA 98270

U.S. DEPARTMENT OF TRANSPORTATION URBAN MASS TRANSPORTATION ADMINISTRATION Washington, D.C. 20590

## Official Business

PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID URBAN MASS TRANSPORTATION ADMINISTRATION



DOT 511



## U.S. DEPARTMENT OF TRANSPORTATION . NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

## Vol. 5 No. 10

May 1980

## **UNIROYAL TO RECALL TWO MILLION TIRES**

The U.S. Department of Transportation recently announced that the Uniroyal Tire Company will recall an estimated two million passenger car steel belted radial tires—the second largest tire recall in history.

For the most part, the recall covers the company's 1975 and 1976 production "Zeta 40 PR6" and "TPC PR6" tires, size LR78-15. Also included is the "Zeta 40 PR6", size HR78-15; and 1975 production "TPC PR6", size BR78-13.

In addition, the company will recall tires sold under private and allied brand names, manufactured by Uniroyal that are essentially the same tire as the company brands.

Most of the tires involved were installed as original equipment on some full size 1975, 1976 and 1977 General Motors automobiles. Owners of these OEM tires will receive notification by mail, based on auto registration records. Owners of recalled tires bought as replacement tires should also be receiving notification letters, if their tires were registered at the time they were purchased. However, notification is not necessary for an owner to exchange affected tires.

In announcing the recall, NHTSA Administrator Joan Claybrook said, "It is clear that the tires being recalled by Uniroyal have experienced an unacceptable rate of failure and a large number of these failures involved separation of the tire's tread and belts, which can be very dangerous."



She praised the New Jersey Division of Consumer Affairs, which in October, 1979, established a hotline for consumer complaints. They received 1200 reported complaints in a three-week period, which were forwarded to the NHTSA. Several PRP members contributed inputs of Uniroyal tire failures since the safety-related defect investigation was announced in June, 1979. They include the **STATE OF GEORGIA** of Atlanta, Georgia, **GIL'S SAFETY SERV-ICE**, of Ridgewood, New Jersey, **GOTHAM AUTO LEASE**, of New Rochelle, New York, **BRAKE-O-MAT** of Evanston, Illinois, and **SCIENTIFIC PRODUCTS**, of McGaw Park, Illinois. A special thanks to these members for their contributions to this investigation.

To assist Uniroyal tire owners, the company has established a tollfree consumer information center. Questions on the recall can be directed to the center by calling (800) 521-6240 (Michigan residents call (800) 482-3>22).

## **MORE POWER STEERING GEARBOX PROBLEMS**

Following our report of the Buick power steering gearbox failure, in the January-February *PRP News*, two member shops contacted the staff with similar reports.

WADE'S GARAGE of Hallandale, Florida contacted the PRP to report several failures on Saginaw integral type power steering gearboxes used on many General Motors vehicles. According to the shop, the late model gearboxes have reportedly been redesigned to eliminate the lower pitman shaft bearing. The new box utilizes an upper bearing which reportedly is inadequate to provide the support necessary to allow the pitman shaft to rotate true around the bearing centerline. The result is rapid and excessive pitman shaft and gearbox wear, resulting in a fluid leak and subsequent loss of power assist.

In a related incident, EDDIE'S STANDARD SERVICE of University City, Missouri reports a cracked steering gearbox on a 1977 Ford Econoline E-150 with approximately 70,000 miles. The shop reports finding a three inch crack across the top of the box, near the front, causing the loss of fluid and, therefore, the power assist. The vehicle shows no signs of damage due to collision that might well cause such a large crack. The cause of failure was not apparent.

## BRAKE PROBLEM REPORTED

The picture below shows a disc brake pad and its backing plate from a 1976 Datsun 280Z. The part, submitted by A & C AUTO SERV-ICE of Fort Lauderdale, Florida was taken from the inboard side of the right front brake. As can be seen, the friction material is separated from the metal backing plate.

Close inspection indicates the failure may have been caused by the bonding agent, as the pad itself is intact. It is unclear whether the part was original equipment on the vehicle or an after-market replacement. As a result of the failure, the pad was twisted on the backing plate and has worn unevenly. The owner complained of brake noise, but apparently did not experience any brake pull.

The vehicle had just over 19,000 miles showing when the repair was made.



TELEPHONE CALLS If you need mailbags, tags or info report forms, give us a COLLECT CALL (703) 527-4500.

## STANDARDS SHOULD SAVE 500 BILLION GALLONS OF FUEL BY THE YEAR 2000

The U.S. Department of Transportation's fourth annual report to the Congress on the Automotive Fuel Economy Program predicts a national savings of over 500 billion gallons of fuel by the end of the century due to fuel economy standards already established for cars through 1985 and light trucks through 1981.

Secretary of Transportation, Neil Goldschmidt said, "These savings will provide the country with the equivalent of an additional five-year supply of gasoline for its cars and light trucks."

At the same time, the DOT announced the fuel economy standards for model year 1982 light trucks. The standards are 18 mpg for two wheel drive vehicles and 16 mpg for four wheel drive vehicles. No decision on fuel economy standards beyond the 1985 model year has been made for passenger cars.

NHTSA Administrator Joan Clavbrook cited increased new vehicle fuel efficiency as being responsible for almost a quarter of the estimated reduction of 120 million barrels of fuel used in 1979. She also cited reasons such as better trip planning, increased use of public transportation, carpools and vanpools, intermittent shortages of gasoline, higher gasoline prices, and more energy-efficient driving techniques as playing a major role in this 5% reduction. She said, "The improvements in fuel economy alone have reduced our trade deficit by about \$1 billion and we project another \$1-1.5 billion reduction in our trade deficit in 1980."

By the year 2000, NHTSA projects a reduction of gasoline consumption of 36.6 billion gallons, or 26% of the total that would have been consumed if 1977 fuel economy levels had continued.

## **1979 TRAFFIC COUNT: DEATHS UP; TRAVEL DOWN**

Traffic fatalities in the United States again topped the 50,000 mark in 1979, but the gasoline shortage of last spring and summer kept the death toll from being much worse, the U.S. Department of Transportation announced recently.

An estimated 50,745 people died in traffic accidents in 1979, an increase of slightly less than 1 percent over the 1978 total of 50,327. In announcing these figures, NHTSA Administrator Joan Claybrook said, "The rise occurred despite a small decrease in the number of miles traveled, a shortage of gasoline during part of the heavily traveled summer months, and a substantial increase in prices of fuel." Claybrook noted that speed did not appear to play the same major role in increasing the 1979 deaths as it did in preceding years, indicating that more drivers are observing the 55 mph speed limit. However, she expressed concern at the increase in the proportion of deaths of occupants of subcompact cars, noting that these account for 30 percent of the traffic fatalities.

The administrator reiterated the NHTSA's commitment to crash survivability, noting efforts in the areas of occupant crash protection in frontal and side impacts, specifically automatic restraint legislation and improved vehicle structure research currently being conducted.

The STATE OF GEORGIA, in Atlanta, Georgia, contacted the PRP to report a problem encountered with one of the fleet's 1979 Ford Econoline E-350 vans. The vehicle is equipped with a heavy duty, full floating rear axle with eight lug nuts. The driver noticed a loud rattling noise at low speed and, upon inspection, it was found that six of the eight studs had broken off and were rattling around in the hub cap. No thread damage was apparent, leading to the suspicion that the lug nuts were over-torqued. The vehicle mileage was less than 9,000 and to the shop's knowledge, the wheel had not been removed prior to the failure.

The NHTSA is currently looking into a problem in 1978 Ford F-350 and E-350 vehicles equipped with dual rear wheels. The lug studs on these rear wheels may fail, resulting in loss of both rear wheels and loss of vehicle control. Any additional information from members pertaining to broken lug studs or loss of rear wheels on these vehicles would be appreciated.

A special thanks to EDDIE'S GARAGE in Nashville, Tennessee—for displaying the PRP News. One of their customers saw the article on rear window breakage from electric defoggers and called the PRP to report such an incident that occurred on his 1979 Pontiac Lemans Safari when the vehicle had only 326 miles showing.

The PRP received 7 spark advance units from 1975 and 1976 model AMC vehicles equipped with 6 cylinder engines and the BID ignition system. In each case the vacuum advance diaphragm was ruptured. The STATE OF WISCONSIN in Madison, Wisconsin, reports that a potential safety problem exists in that, when this diaphragm breaks, the plastic chamber can fill up with a mixture of air and fuel. If the vehicle backfires, as it is prone to do when this diaphragm breaks, a small explosion can occur, resulting in blowing the distributor cap off, stalling the vehicle, and causing damage to the advance unit as shown in the photo below.

FELD GARAGE of Kenosha, Wisconsin submitted 4 advance units with the same problem. Vehicle mileage on these components ranged from 32,000 to 68,000 miles.



RITE WAY GARAGE, of Harrisburg. Pennsylvania reports a suspected problem with the "brain" of the Lean Burn System used on Chrysler Corporation products equipped with V-8 engines. The shop reports finding "several" of the micro-processors going bad within the last several months. The latest incident involved a 1978 Dodge Diplomat with approximately 19,000 miles. The vehicle was being operated at 45-50 mph when the engine suddenly quit, resulting in a loss of power steering and brake assist. The problem was corrected by installation of a new module. However, the shop complains of the inability to trouble shoot the system.

PRP members are reminded to be sure to include vehicles owners' names and addresses on all inputs. This information is necessary in case an owner needs to be contacted for more details about a failure during the course of an investigation.

## THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982.

## **PARTICIPANTS IN MARCH**

The members highlighted below have contributed parts or information to the PRP within the last month. Numbers in parentheses indicate the number of months a shop has been active in the current year (July 1979 through August 1980).



(3) SHEFFIELD AUTO ELECTRIC Sheffield, MA 01230

#### **REGION 1**

- (1) BOB'S EXXON SERVICE STATION Somers Point, NJ 08244
- (3) DEL-HATT ALIGNMENT AND REPAIR Poughkeepsie, NY 12601
- (6) GIL'S SAFETY SERVICE Ridgewood, NJ 07450
- (3) KOLESNIK'S SERVICE STATION Rochester, NY 14607
- (1) **RITE WAY GARAGE** Harrisburg, PA 17109
- (2) VIN'S MOTOR SERVICE CORP. Brooklyn, NY 11204

- (4) AUTO BRAKE CORP. Norfolk, VA 23513
   (1) BILL'S TEXACO
- Norfolk, VA 23504

#### **REGION 3**

- (5) A & C AUTO SERVICE Fort Lauderdale, FL 33315
- (1) EDDIE'S GARAGE Nashville, TN 37209
- (6) STATE OF GEORGIA—DEPT. OF ADMINISTRATIVE SERVICES Atlanta, GA 30316
- (1) WADE'S GARAGE Hallandale, FL 33009
- (8) WALE'S GARAGE Ft. Lauderdale, FL 33316

REGION 4 NONE

#### **REGION 5**

- (1) FELD'S GARAGE Kenosha, WI 53104
- (2) STATE OF WISCONSIN DMV Madison, WI 53702

#### **REGION 6**

(5) EDDIE'S STANDARD SERVICE University City, MO 63103

**REGION 7** 

- NONE
- **REGION 8** 
  - (1) BROWN'S AUTO REPAIR Boise, ID 83704

#### **REGION 9**

- (3) MAYER'S AUTO SERVICE Marysville, WA 98270
- (8) ISE AUTOMOTIVE Hollywood, CA 90027

#### U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Washington, D.C. 20590

#### Official Business

PENALTY FOR PRIVATE USE, \$300

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DOT 517





U.S. DEPARTMENT OF TRANSPORTATION • NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

### Vol. 5, No. 11

June 1980

## WHAT IS A FAILED PART?

From time to time, in our contact with members, the PRP staff is asked questions such as "By the time I see a defective part, the failure has been reported in the PRP NEWS. Should I send the part in anyway?", or "What is it that the PRP is looking for?" A quick look at the purpose of the program and its desired results should provide the answer.

The PRP is designed to help identify potential safety related problems in motor vehicles and equipment. "Safety-related problems" is a term that implies the failure of a component to perform in the manner in which it was designed, and that presents a hazard to the health and safety of the operator, occupant, or other person in the vicinity of the vehicle at the time failure occurs.

In other words, a part that wears out or breaks before it's normally expected life time is considered to be a "problem". If this wear or breakage presents a safety hazard, then the failure is a "safety-related problem". That is open to interpretation.

The PRP is set up to monitor trends in safety-related problems.

The NHTSA is interested in finding out if a high frequency of safetyrelated problems are occurring in any particular make, model, or year of vehicle. Therefore, numbers are important. Just because you saw such-and-such a failure reported in last month's newsletter, don't feel that you missed the boat! In fact, if vou've seen a similar problem. that's all the more reason to send the information along. It may help the NHTSA make the determination as to whether that "safety-related problem" you reported last month is actually a "safety-related defect" that warrants a recall or some other action.

## FAIRMONT BRAKE FAILURES

Two shops reported amazingly similar front disc brake failures on Ford Fairmonts to the PRP this month, MALCOLM'S AUTOMO-TIVE of Arlington, Virginia, submitted the photo of a rotor that was damaged after the outboard pad wore out. Notice the inboard pad shows very little wear at all. The problem appears to be the caliper binding on the floating pins, although no evidence of this could be detected during the repair. The vehicle is a 1978 Fairmont four door sedan with approximately 22,000 miles. According to the shop, the

scraping and grinding noise usually associated with such a failure was not present.

In a similar incident, **ART'S AUTO REPAIR** of Arnold, MO, submitted the rotor and brake pads from a 1978 Fairmont station wagon showing the same wear pattern. Again there was no evidence of mechanical binding of the caliper. The vehicle had 29,000 miles showing at the time of repair.

Any information of similar failures on these vehicles would be appreciated.



## DEFECTS INVESTIGATION CHECKLIST

- C80-05-Alleged engine stalling. 1980 Chevrolet Citation, Oldsmobile Omega, Buick Skylark, and Pontiac Phoenix equipped with L4 engines.
- C80-04-Alleged uncontrollable acceleration of diesel engines. 1977-1980
   Volkswagen Rabbit and 1979-1980 Volkswagen Dasher.
- C80-03-Alleged gear shift control lever malfunction causing looseness or separation of the lever from the transmission. 1976-1980 Chevrolet Chevette equipped with manual transmission.
- C9-24-Alleged failure of flexible blade cooling fan, 1973 Dodge, Plymouth, and Chrysler passenger cars equipped with 318 CID engines.
- C9-18-Alleged tailgate or hatchback door latch failure. 1975 Mazda RX-3 Station Wagon.
- C9-17-Alleged tailgate or hatchback door latch failure. 1971-1980 Ford Pinto and Mustang II and 1971-1978 Mercury Bobcat.
- C9-16-Alleged tailgate door latch failure. 1973-1978 Toyota Corona and Corolla Station Wagons.
- C9-15-Alleged tailgate door latch failure, 1979 Subaru Station Wagon.
- C9-14-Alleged hatchback door latch failure, 1976-1979 Renault Type 1228 hatchback.

# VW RABBIT OIL CONSUMPTION

Although oil consumption is not always safety related, the NHTSA is interested in obtaining information about VW Rabbit oil consumption. Numerous complaints have been received about sudden "seizure" at highway speeds of Rabbit engines which had run out of engine oil. Several owners have stated that the oil pressure warning light didn't illuminate until it was too late to save the engine from almost total destruction.

If your customer has a "blown" Rabbit engine, please send us a short report. Also check the oil pressure warning system, if possible, and send us any defective oil pressure sensors you find. If you have occasion to repair a Rabbit engine which didn't "blow" but which uses too much oil, please tell us what caused the high oil consumption. If the valve stem seals were at fault, please send us the old seals. It's also helpful if you find out from the owner how much oil the engine had been using (miles per quart). Thanks.

## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a **COLLECT CALL** (703) 527-4500.

## PACER DOOR HANDLE BREAKAGE

The Office of Defects Investigation of the NHTSA is currently looking into reports of door handle breakage on 1975-1979 AMC Pacers. It is suspected that binding in the linkage rod between the door handle and the latch places undue stress on the inside door handle so that the door handle breaks when it's operated. Of concern is the ability of the occupants to get out of the vehicle in an emergency.

The NHTSA has received 25 reports of the alleged failure to date. Conceivably, about 200,000 vehicles manufactured between 1975 and 1979 could be affected.

## TOYOTA ACCELERATOR PEDAL STICKING

The NHTSA is looking into reports of throttle sticking on 1975-1978 Toyotas. In the suspect vehicles, the accelerator pedal is mounted to the floor with a metal hinge. It is believed that a combination of moisture and dirt causes the hinge to corrode and bind to the point where the throttle return spring tension is insufficient to overcome the binding, leaving the throttle partially open.

About 750,000 Corona, Corolla, and Celica vehicles built between 1975 and 1978 are involved. Several accidents have been reported as a result of the problem, including some accidents with personal injury. Members should be alerted to this.
## THE FORUM

TIM'S IMPORT SALES AND SERVICE of Hutchinson, KS, is looking for some help on a brake problem encountered on two 1978 Mazda GLC vehicles. The rear brakes reportedly lock up under normal application and upset directional stability. The proportioning valve has been adjusted to the extent possible and the problem still occurs. A replacement proportioning valve is not available from the dealer. The shop is concerned that they are seeing too many of these problems on several makes and would like to hear if other members have seen or heard of similar problems. If you have, contact the PRP, we'll pass the word along.

Martin Whitcomb, a professional engineer from Baltimore, Md. contacted the PRP to report a commonly recurring problem on tire valve stems with the plastic extensions used in conjunction with some wheel covers. In many cases, if a wheel so equipped is rubbed against a curb, the plastic can be distorted so as to hold the extension pin against the Schrader valve on the valve stem, deflating the tire. This can occur both while the vehicle is in motion, or while standing. A reminder to members to check this minor, but important aspect when trying to pinpoint slow airleaks.

#### THE PARTS RETURN PROGRAM NEWSLETTER

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The photo below shows the tailgate latch from a 1977 Plymouth Volare Station wagon. As can be seen, the striker guide plate near the latch jaw is bent and torn, restricting the movement of the jaw and hampering the engagement of the ratchet. The result is, of course, the failure of the latch to hold closed The vehicle was not involved in a collision, and no other explanation for the failure was evident. The latch was submitted by WALE'S GARAGE of Ft. Lauderdale, FL. Mileage at failure was approximately 30.000.



A customer recently came into S & J TIRE, INC. of Lexington, KY complaining of a bad pedal pulsation problem and noise. During the course of inspection and repair, the shop turned the rotors. After the machine work, inspection revealed voids in the rotors that allegedly caused uneven expansion and warpage and hence, the pulsation and noise. The vehicle was a 1978 Cutlass with approximately 32,000 miles. If you've seen anything similar on this or comparable models we'd like to hear from you.

WOODY'S GARAGE, of Montoursville, PA, reports a problem with the intake manifold from a 1974 Dodge Monaco with 42,000 miles. This manifold has brass jets in the floor of the manifold that are used to meter exhaust gas recirculation. In this vehicle, the jet allegedly burned out so that a large amount of exhaust gas was recirculated. resulting in rough running and a large air leak that reduced the vacuum supply to the brake power assist. This design was used only for a short period of time in 1973 and 1974. The shop believes the problem is fairly universal for the application.

The stabilizer bar pictured below was taken from a 1977 Buick Skylark with 41,000 miles. As can be seen, the bar has broken near one of the mounting bolts. The photo was sent in by ISE AUTOMOTIVE of Hollywood, CA.



### PARTICIPANTS IN APRIL

The members highlighted below have contributed parts or information to the PRP during April. Numbers in parentheses indicate the number of months a shop has been active in the current year.

RECION MC in 11GION REGION : **REGION 5** 

**REGION 7** NONE

#### **REGION 8**

(1) HURLEY SUPER SERVICE Pueblo, CO 81003

#### **REGION 9**

- (9) ISE AUTOMOTIVE Hollywood, CA 90027
- (1) KING COUNTY BRAKE SERVICE Seattle, WA 98106
- (5) LAD AUTO ELECTRIC Spokane, WA 99206
- (2) MIDAS MUFFLER SHOP Bakersfield, CA 93301
- U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION WASHINGTON, D.C. 20590

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300

(1) BOB'S AUTO SERVICE Rapid City, S.D. 57701

- (2) MINNESOTA GAS CO.
- Minneapolis, MN 55419

#### **REGION 6**

- (1) ART'S AUTO REPAIR Arnold, MO 63010
- (2) HUTT & STILES Skokie, IL 60076
- (2) K & B BRAKE & WHEEL SERVICE, INC. Omaha, NE 68102
- (1) RAYMOND'S AUTO REPAIR, INC. Chicago, IL 60609
- (3) TIM'S IMPORT SALES & SERVICE Hutchinson, KS 67501

REGION 0

- (2) GLIDDEN AUTO SERVICE Nashua, N.H. 03060
- (3) PROTANO'S SERVICE STATION Worchester, MA 01606
- (3) SHEFFIELD AUTO ELECTRIC Sheffield, MA 01230

#### **REGION 1**

- (4) DEL HATT ALIGNMENT AND REPAIR Poughkeepsie, NY 12601
- (7) GIL'S SAFETY SERVICE Ridgewood, NJ 07450
- (3) VIN'S MOTOR SERVICE CORP. Brooklyn, NY 11204
- (1) WESTHOLME AUTO SERVICE Long Beach, N.Y. 11561
- (6) WOODY'S GARAGE Montoursville, PA 17754
- (3) W & S SERVICE, INC. Wilmington, DE 19805

#### **REGION 2**

- (5) AUTO BRAKE CORP. Norfolk, VA 23513
- (2) CHERRYDALE MOTORS Arlington, VA 22207
- (1) J. A. PAYNE West Point, VA 23181
- (1) MALCOLM'S AUTOMOTIVE Arlington, VA 22204

#### **REGION 3**

- (1) AUTO HAUS OF TALLAHASSEE Tallahassee, FL 32304
- (9) WALE'S GARAGE Ft. Lauderdale, FL 33316
- **REGION 4** 
  - (1) S & J TIRE, INC. Lexington, KY 40504

POSTAGE AND FEES PAID NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION DOT 517





Vol. 5, No. 12

July 1980

# **CHANGE IN BRAKE LIGHTS CUTS ACCIDENTS**

A study recently released shows that vehicles with a single, highmounted brake light, located on the vehicle centerline just under the back window, had more than 50 percent fewer rear-end accidents than vehicles without the added light.

Previous research by the department was reported in February 1978 and involved the rear-end accident experience of 2,100 Washington, D.C., taxicabs that logged nearly 60 million miles in heavy city traffic. This study showed a reduction in rear-end accidents of 54 percent by cabs equipped with the experimental brake lights over taxis equipped with conventional brake lights. It was reported in the March 1978 PRP News. The new study involving nontaxicabs was undertaken because taxicabs typically drive more miles per year, often in dense urban traffic and have a higher accident rate than most other passenger vehicles. Accident data was collected over a continuous 12-month period in 1979 on approximately 5,400 telephone company passenger cars of which about half were equipped with a single center, high-mounted, auxiliary stop lamp.

In announcing the results of the study, NHTSA administrator Joan Claybrook said "the rear-end collision accounts for nearly 3 million accidents annually."

The American Telephone and Telegraph Company and seven of its

operating Bell System companies participated in the study and logged approximately 55 million miles (26.3 million for the vehicles equipped with the experimental light and 28.5 million for the unmodified vehicles).

"These results are more impressive than the previous research because the study involved a broader mix of vehicle makes and models," Claybrook noted. "The AT&T fleet was composed primarily of 1970 to 1979 compact and intermediate size vehicles, with approximately equal numbers from the major domestic manufacturers, while the taxicab fleet consisted primarily of full-sized vehicles from a single manufacturer."

## **CHEVETTE SHOCK MOUNT FAILURE**

Pictured to the right is a portion of the inner fender well and shock tower cut away from a 1978 Chevrolet Chevette with approximately 38,000 miles. The shock tower, where the top of the shock absorber is mounted, has pulled away from the inner fender panel, and has partially torn and distorted the inner fender well.

While the total extent of the damage is not clearly visible in the photo, the failure caused a definite lack of stability of the vehicle due to the resultant erratic operation of the shock absorber. The part was submitted by the STATE OF CONNECTICUT DEPARTMENT OF TRANSPOR-TATION, of Hartford, CT. They maintain several similar vehicles in their fleet. Fortunately, this was the only vehicle inspected that exhibited the problem.

The PRP would be interested in hearing from other shops regarding this problem. Use your information reporting form to report a similar failure if you cannot supply the actual part.



### FIRESTONE FINED FOR TIRE SAFETY VIOLATION

The Firestone Tire and Rubber Company has agreed to pay \$500,000 in civil penalties for violations of the National Traffic and Motor Vehicle Safety Act of 1966, the U.S. Department of Transportation announced recently. It is the largest civil penalty ever assessed under the Safety Act.

The case involved Firestone's 500 steel belted radial tires and a related tire line made by Firestone and marketed under the "Primero" brand name.

NHTSA found that 400,000 of the company's "500" radials, sizes HR78-14 and HR78-15 and 5,000 Primero tires, size GR78-15, were improperly manufactured and did not comply with Federal Motor Vehicle Safety Standard No. 109, New Pneumatic Tires. The tires in question failed to meet the high speed requirement of the standard.

The tires, produced in 1973 and 1974, were recalled by Firestone in early 1977.

In 1978, as a result of another investigation by NHTSA, Firestone agreed to recall approximately 14 million steel belted radial 500 and steel belted radial TPC tires, the largest tire recall in history. Those tires were determined to contain a safety-related defect. The Safety Act requires manufacturers to recall such defective automotive products regardless of whether they meet specific standards established by the safety agency.

The tires which are the subject of the civil penalty are from the same Firestone tire lines as those covered by the defect recall, but were found earlier by NHTSA to be in noncompliance with the standard.



## CORVETTE STEERING COUPLER FAILURE

Pictured above is the rubber steering column coupler removed from a 1977 Chevrolet Corvette equipped with power steering. The part was submitted by WAYNE'S GARAGE of Eugene, OR.

As can be seen in the photo, the screen reinforced flexible rubber coupler has torn near one bolt hole. This failure, in turn, caused excessive wear on the two steel guide pins. The end result is excessive play in the steering, and, more importantly, directional control problems.

The vehicle involved had approimately 51,000 miles showing when the failure was identified and corrected.



- The NHTSA recently issued an advanced notice of proposed rulemaking aimed at making heavy duty trucks more visible to drivers approaching from the rear. Comments should be addressed to: National Highway Traffic Safety Administration; Docket Section, Room 5108; 400 Seventh St., S.W., Washington, D.C. 20510.
- The NHTSA has received several reports of infants being burned as a result of coming into contact with hot metal or vinyl parts of auto seats, in cars that have been locked up and parked in the sun. Please alert your customers to this potential hazard.

#### MORE PULLEY FAILURES

The crankshaft pulley shown below was removed from a 1975 Chevrolet Monte Carlo with approximately 48,000 miles. This particular failure shows the complete separation of the outer pulley from the hub.

This part was submitted by **TOM CARR GARAGE** of Las Cruces, NM.

The PRP has seen a number of similar failures on different vehicles in recent months. With the summer season upon us, the increased use of vehicle air conditioners places increased loads on components such as these pulleys. Because of the relative inaccessibility of the crankshaft pulley, it is often overlooked in a cooling system/air conditioner check up.

The PRP staff would like to alert members to such potential failures. If you see anything like this, we would like to hear from you.

BOTHEL'S GARAGE, of Cape Elizabeth, ME contacted the PRP with a report concerning inoperative seat belts in a 1978 Pontiac Phoenix. According to the shop, one of their customers recently purchased the car used and, when they couldn't latch the seat belt, drove into the shop for advice. Upon inspection the shop determined that the male and female latch ends were mismatched. The vehicle is equipped with the retractable 3-point shoulder-lap combination belt. The belt ends are color matched and the belt does not show any evidence of prior use. If you have encountered a similar problem, we would like to hear about it.

WALE'S GARAGE, of Fort Lauderdale, FL contributed the exhaust manifold from a 1977 Honda Accord. The manifold contains an inner liner, made of steel. For some reason, the manifold overheated and the steel liner collapsed. When this happened, the flow of exhaust gases was restricted which subsequently resulted in loss of power and increased overheating. The cause of the initial overheating which caused the liner to collapse, is not clear. The vehicle has an odometer mileage of 61,000.

The PRP was contacted by two member shops this month reporting similar problems on late model Cadillac vehicles equipped with four wheel disc brakes. **BRAKE-O-MAT** of Evanston, IL reported a problem with the left rear wheel caliper piston sticking in its bore, and then fluid leaking from around the piston seal and dust boot. **MERCHANT'S TIRE, INC.** of Manassas, VA, reported a similar problem.

## THE FORUM

Pictured below is the clutch cable removed from a 1978 Volkswagen Rabbit Diesel with approximately 24,000 miles. As can be seen, the stainless steel inner cable has worn through the outer sheathing, resulting in erratic clutch operation and only partial disengagement. The outer casing is made of a material like ABS plastic. The cause of the failure is not known. There is no evidence of abrasive material in the cable and the cable appears to be adequately lubricated.

The cable was submitted by ISE AUTOMOTIVE of Hollywood, CA.



JONES' AUTO SERVICE of Richmond, VA submitted an intake manifold removed from a 1979 Dodge D-100 pickup with approximately 18,000 miles. According to the shop, the customer had complained of rough idling, lack of power, and poor fuel economy since buying the vehicle new. Numerous attempts to identify the cause of the problem and correct it were unsuccessful. The shop reports that after ruling out a number of possibilities, the intake manifold was inspected and a large crack underneath the carburetor mounting flange was found. The crack connected the intake manifold portion of the part to the exhaust gas recirculation port, resulting in constant EGR. The

manifold, which is made of aluminum, was replaced and there have been no further operational complaints. If you run into a similar problem, be aware of this possibility.

FAIRLINGTON SUNOCO of Alexandria, VA, contacted the PRP about a cooling system problem encountered on a 1978 Volkswagen Rabbit with 24,000 miles. The vehicle is equipped with a plastic radiator core. Twice on this vehicle, the engine overheated and the coolant melted the heat exchanger. The thermostat and fan switch both checked out well. The exact cause is not known.

#### THE PARTS RETURN PROGRAM NEWSLETTER

The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982.

## **TELEPHONE CALLS**

If you need mailbags, tags or info report forms, give us a COLLECT CALLECTOR

#### REGION 0

- (3) BOTHEL'S GARAGE Cape Elizabeth, ME 04104
- (4) PROTANO'S SERVICE STATION Worcester, MA 01606
- (4) SHEFFIELD AUTO ELECTRIC Sheffield, MA 01230
- (1) STATE OF CONNECTICUT DEPT. OF TRANSPORTATION Hartford, CT 06106

#### **REGION 1**

- (2) BASILE'S EXXON SERVICE STA-TION Fairview Village, PA 19409
- (3) D & Z ATLANTIC Cornwall Heights, PA 19020
- (8) GIL'S SAFETY SERVICE Ridgewood, NJ 07450
- (2) GOTHAM AUTO LEASE, INC. New Rochelle, NY 10801
- (4) VIN'S MOTOR SERVICE CORP. Brooklyn, NY 11204
- (7) WOODY'S GARAGE Montoursville, PA 17754

#### **REGION 2**

- (6) AUTO BRAKE CORP. Norfolk, VA 23513
- (1) EUROPEAN CAR SPECIALISTS Arlington, VA 22204
- (1) FAIRLINGTON SUNOCO SERVICE CENTER Alexandria, VA 22302
- (3) JONES' AUTO SERVICE Richmond, VA 23230
- (2) MALCOLM'S AUTOMOTIVE Arlington, VA 22204

#### Marce address

U.S. DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION WASHINGTON, D.C. 20590

> OFFICIAL BUSINESS PENALTY FOR PRIVATE USE. \$300

### MAY PARTICIPANTS

The members highlighted below have contributed parts or information to the PRP within the last month. Numbers in parentheses indicate the number of months a shop has been active in the current year.



- **REGION 3** 
  - (3) **BIG BRAKE SAFETY CENTER** Gulfport, MS 39501 (10) WALE'S GARAGE
  - Ft. Lauderdale, FL 33316

#### **REGION 4**

- (3) LEXINGTON BRAKE
- Lexington, KY 40503
- (2) S & J TIRE, INC.
- Lexington, KY 40504

#### **REGION 5**

(1) DES MOINES AREA COMMUNITY COLLEGE Ankeny, IA 50021

## (5) BRAKE-O-MAT

- Evanston, IL 60201
- (4) TIM'S IMPORT SALES & SERVICE Hutchinson, KS 67501
- **REGION 7**

#### **REGION 8**

NONE

(1) TOM CARR GARAGE Las Cruces, NM 88001

#### **REGION 9**

- (10) ISE AUTOMOTIVE Hollywood, CA 90027
- (6) LAD AUTO ELECTRIC Spokane, WA 99206
- (1) WAYNE'S GARAGE Eugene, OR 97405

#### POSTAGE AND FEES PAID NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION DOT 517



## SECTION 3

Summary of PRP Inputs - CY 1980

INPUTS	
PROGRAM	CCC + CDC
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d x d	COMP CLASS	ССИНР МАКЕ	YEAP MI	NDDEL	MILE FAILUPE	SHOP NO
40410d	0515100	TIGING CHAIN AND GEAR VEHICLE DDES NOT START, EXCESSIV	74 A.C F.EAR IN TIMING	AMBASSADOR	6700	01230005
p01694	00016160	TIMING CHAIN AND GEAK Vehicle odes not start, excessiv	74 AFC EWEAR IN, TIMIN	AIMPASSADOR 5 CHAIN.	6700	01230005
927104	0 8 5 3 0 0 0 0	KOTAR CARRODED CANTACTS	7.8 AF.C	CORCORD	12442	53140005
17770d	0854000	IGNITION CONTROL ROX Imternal Shopt	77 AFIC	GREMLIN	13650	60616012
P07722	00005500	VACUHM APVANCE UNIT Spark advance diaphragm hruken.	75 Arc	GRENLIN	32884	53140005
a 9 n L J d	06652000	EGK EXHAUSI SEMSUR No Vacuum 10 Egr Valve	7.6 A.F.C	HORNET	65202	90027012
507444	00002250	MATER PHMP AATER PHMP LOCKED UP	75 ANC	HORNET	30000	06033091
pa7532	00002250	BRAKE PADS PADS NEAR PREMATURFLY IN FLEET O	79 AAC FIRHURNEIS.P	HORNET STONS FREEZE TOO.	14000	F10047139
P07631	0455000	VACUUM ADVANCE UNIT Vacuum Advance Diaphragm Arnyfr	76 ALSING VEHICLE	HORNET STALLIGG	19817	F53702100
P01432	0.4550.00	VACIUM ANVANCE UNIT VACIUM ANVANCE DIAPHPAGM HHMKE $N$	76 APC	HORNET STALLI <sup>146</sup>	76648	F53702100
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L.P.BRAKE CAHLE Corrosion Locks up prake cable.	ALTERNATOR RRACKET HPACKET BROKE AT THREF NUHLIING MU	FREEZE PLUG Rusten Through, leaking	STOP LIGHT SWITCH Insulator aroven out of Switch Cal	ZARA, FLOAT Float Saturated with fuel, ginks.	IGN MODULE Internal Malfingtiun	FRUNT BRAKE HOSE (DISC) Fleyible Hoses Chackéd neah Juncii	FREEZE PLUG PLUG RUSTED THROUGH, WATER LEAKS.	UISTRIBHTOR CAP & WIRFS Cap and wirfs worm, engine missfs	CARAURETOR - ACCFLERATOR PUMP 7 ACCELERATOR PUMP IS WORM, VEHICLE	7 CARAURFIOR FLOAT FLOAT SATURATED WITH FUEL, SIMKS.	VOLTAGE REGILATOR KIIRNED CAUSED OV Voltage Regillator kiirned Caused Ov	TELEX FAN FAN BLADE BROKE OFF	HRAKE SHUK SPRINGS RETURN SPRINGS LOST FENSIOL - HRAN	CONTROL MODILE INTERNAL VALFUNGTION	VACUH™ ANVAMCE UNLT содож Абуданск итариласи ноцейн
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нетск	BUICK SH IDLF STALLIN	HUICK SIST.	AUTCK	витск	BUICK	BUTCK	RUICK /ALVE. EMGINE R	0.1CK 0.1Kt.0WA) .P97725	HUICK Seen many of t	CANILLAC	CANILLAC JLL OF GAS	CADILLAC	CADILLAC Ct fuel PHMP Re	CENFLLAC .UV CUNTRUE VAL	CANJLLAC	CADILLAC LLL, MARD START
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P07697	P07619	P07883	10101	162704	F07321	45184	P.P.5058	P87726	pateya	p01784	P(17503	P07544	P97612	P07704	P01741	P07831

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P07475	00000150	FLYWHEEL ANOKEN IN CENTER FLYWHEEL ANOKEN IN CENTER	ELUORADO	72000	90027012
827109	03230000	MASTER CYLINDER Loss of Praking Arility, frake pedal gues fo floor	FLEETWOOD	UNKNOWN	85268105
ululbd	03271000	UISC RRANE CALJPER Caliper Pistun Sticks,fluid Leaks.	FLEETWOOD	30000	60201006
P01747	00024500	INTAKE MAMIFULD Exhaust Crussovfr Pipf Burned Through.	SEDAN DEVILLE	80707	17754007
P07788	0020260	INTAKE MANIFULD Relav Comtacts Rupmed, 40 Low Beam, Headlights.	SEDAN DEVILLE	80707	17754007
P9A025	07461000	HEAR AXLE HOUSI <sup>10</sup> G Excessive axle heaming weak caused lunseness of bearing	SEDAN DEVILLE In Axle Housing.	21000	20031049
p07 299	0270000	UNIROYAL TIRE-STEEL HELTED RAD 77 CADILLAC Shimmy-Bad virration, Pulls to Right	SEVILLE	25000	FI0801145
100709	02700000	UNIRDYAL TIRE-STEEL BELTED RAD 76 CADILLAC Shimmy-bad vibkation, pulls to left	SEVILLE	18977	F10801145
P07451	08540000	AMPLIFIEN MOULF 78 CADILLAC Internal malfunction	SEVILLE	18566	9533600I
P07626	02160000	RIGHT FRONT SPIRDLE 76 CADILLAC Spimdle broken due to seited mheel bearing	SEVILLE	22743	98108037
607609	06326000	FAST IDLE VALVE HEATEP 76 CADILLAC Internal Malfingtion. Idle Speed 100 HIGH	SEVILLE	UNKNOWN	90027113
[nvi0d	04150000	PARKING APAKE CABLE 76 CADILLAC Carle broken dhe to Rhaing Against exhaust Pipe	SEVILLE	72641	90027012
150404	06152000	FUEL LINF Heat From Exhaust Mantfold Wears Hose Linjeg.	SEVILLE	I 7868	9027012
520404	0.4540,00	IGNITION MODULE 79 CADILLAC FNGINE STALLS, WILL WIT KFSTART UNTIL COUL.	SEVILLE	6716I	33316118
P94035	იგ5ძიიე	נפאנגוסט מסטיניני אורך המו הנצנאפן טיוור כמטר. לאמואב צואבוני, אורן המו הנצנאפן טיוור כמטר.	SEVILLE	64791	33316118
P01695	00020060	HEAD LIGHT MOUSING 26 CADILLAC 76 CADILLAC 76 CADILLAC 76 CADILLAC	SEVILLE 4 DR.	32253	23504100

P07470	0000271	VELOCITY PEARING FAILURE OF LRIVESHAFT CHEVR VELOCITY PEARING FAILURE OF LRIVESHAFT	/HIN, F. I	574 1UN	35000	06033091
607A6	03242000	RPARF HOSES FRONT RRANE HUSES CRACLED, LEAVING.	/Prol E T	REL⇒AIR	44657	11204002
Pu7415	00005720	DIFFRENTIAL EVE PIPION 75 CHEVP PIN BOOKE 19 140	1 HOLE 1	RLAZER	0.0.0.6 0	06033091
1.2 4 L 0 d	03270000	HRAKE CALPER SEAL SEAL DETERIORATION CAUSES HRAKES TO LOUK	ROLET	ht⊿∕ER	50000	01230005
000000d	00001111	HEATER CORE PINHOLE LEAKS IN HEATER CONE. 79 CHEVP	POLET	rt. A Z E R	12000	03242005
Pound 1	06136000	FUEL PUMP FUEL PUMP LEVEN NEAPING OUT AT PIVUT PIN.	POLET	C~10	9046	77009187
P07730	01530000	IDLER ARN Excessive wear,	ואחניד	C-10 PICKUP	43210	14607007
F01835	01560000	TIE ROD END Excessive wear causing Louseness th steering.	/R 01.E T	C-10 PICKUP	87954	17754007
58709	08550000	PICKUP COIL LEAD WIRE RPUKEN GUE TO CPIMPING.	/R01,ET	C-10 PICKUP	25152	18015143
РАТБИС	0260000	WHEEL SPLIT APAHI 69 . CHEVH	/HULET	C-10 TRUCK	UNKNOWN	03103002
p015194	01530000	IDLER APM Excessive play at Arackef END 79 CHEVP	POLFT	C-30 CREW CAB	8321	93301046
F07564	02160000	STEEPING KRUCKLE 7A CHEVR Outer wheel wearing inner face seizen to spind	/ROLET JOLF	с-ел зснолг ви	19851	00000000
P07565	02160000	STEERING KNUGKLF Duter wheel hearing inker racf stited to spind	rPOLET 10LE	C-60 SCH00L AU	18542	00000000
P07546	0216000	STEERING KRUCKLE Duter pheel mearing overheated, bearing failed	/RPLET (D/SP1NDLE G	с-60 SCHOOL HU Амабер	12741	00000000
512704	0405150	PIN FRUKEN 77 CHEVP	13104/	C20 P.U.	29241	08244012
P01414	0,652,00,00	PCV HOSE 74 CHEVR HOSE COLLAPSED CRACKED CAUSING AIR LEAK PUNGH	ROLET 64 IULE	CAMARI	31616	63130132
9cn14d	03211000	HRAKE CALIPEP FTSTON FHOZED JP CALIPLE 79 CHEVE	ROLET	CAPRICE	16614	08244012

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AIR PUMP 73	HEATER CORE Pinhole leaks in Heater Core.	HEATER CORE NUMEROUS PINHULE LEAKS IN HEATER COPE.	HRAKE PADS TA TA PADS WOKN DUT-PREMATURE MEAR.	STEERIMG COUPLING Rubber Isclator Worn out,mard Steering	DISC RAAKF ROTOR DISC ARAKE RUTOR WORN EXCESSIVELY	FUEL PURP 76 FUEL LEAKING FROM ARUUNU RUDY SEAM	BASE GASKET Carruretor tu intake manifuld gasket b	FLOAT FLOAT SATURATED WITH FUEL,AND VEHICLE	STRUT ROD Rod broken near ihreaded end.	ТІРЕ ВЕLT ВROKE4	MASTER CYLINDER Extephal Leak frûm rear uf master Cyli	LOWER CONTROL AW <sup>M</sup> LOWER CONTROL ARM HPGKEN NEAR OUTROARD	MASTER CYLINUEP MASTER CYLINUEP LE⊅KING FPNM REAK.	KOTOR DITTER KHEEL BEAPTRE UVENKEATED CRACKED	C4ANKSMAFT PULLEY CENTER OF PULLEY CMACKDZPUTLED APART
0012150	11110000	11110000	03272000	01160000	03273000	06136000	06233000	06233000	02111000	02700000	03230000	0005120	03250000	0902259	02130000
P07630	P67745	P07795	P07416	P0A040	P07622	P01534	510604	91060d	P07744	PR1541	P07730	65220d	P0116P	P04076	P07604

50006	CLUTCH FAPLE ADJUSTING FLANGE THREAUS AROKER, 	Cht VRULE F	CHŁ VET LE	ς 2 2 7 η	90027012
	INVER FENDER PANEL 7A C Separation of Smuck tower from Inner Fende	CHEVROLFT Er Partl	CHEVETTE	3A351	F06106103
	LONFROL ARM NEIAL TORM NEAM BALL JOINT. CONFROL ARM NEIAL TORM NEAM BALL JOINT.	CHEVROIET	CHEVELTE	28000	68776029
	UPPER HALL JOINT 76 C Excessive weap, bokh nut in 27000 miles un	CMEVROLET NSERVJCEAHLE.	CHEVETTE	27324	11204002
	SHIFT LEVER SEPARATED FROM TPANSATON	CHEVROLET	CHEVETTE	1768	F55343118
	TRANSMISSION FILTER FILTER ALGUKED, STARVING PUMP FOR OIL	ChEVPOLET	СНЕ VE TTE	27791	11580154
	FUEL PUPP HOSE FUEL HOSE ROTTED,CPÅKFU, LEAKTPG.	CHEVROLEY	CHEVETTE	5166	96027012
	HEATER OUTLETS AIR DISTRIBUTION ROY WARPEL.	CHEVROLET	СНЕVЕТТЕ	9122	63130132
	LOWER CONTPOLAR Pressed in Mall Joint Sfreraten From Lower	CHEVROLET R CONTROL ARM.	CHEVETTE	28664	68776029
	GEAR SHIFT LEVER NO COMMENT	CHEVROLET	CHEVETTE	13000	63130132
	CRAMK SHAFT PULLEY CRANKSHAFT PULLEY CRACKEU, FFLL APART.	CHEVRULET	CHE VETTE	16463	33316118
	FUEL PUMP HOSE 7A C Ruibrep fuel live chacked, leaking rear fue	CPEVROLET FL PUMP.	CHEVETTE	12000	63130132
	FRONT HRAKE PAUS HRAKE PADS EXHIBIT UNEVEN REAR.	CHEVROLET	СНЕ VETTE	27000	63130132
	CALIPER HOLT Caliper Holt Frizen in Place. 77 C	CHEVROLET	CHEVETTE	27000	63130132
	СРАМКЅНАЕТ РИLLEY 72 С Наз тиб най сяасыз IN селтер ор риlley (JM	CHEVRULET NSTDE & DUTSID	СНЕVY 2 Е)	42241	63130132
	STEERTING COUPLER HUBBER MATENTAL TEAPS CAUSLING WEAR ON GULD	CHEVROLET DE PINS, LOOSE	CORVETTE STEERING.	51313	97405004
	TIRES 77 C TREAD SEPERATION CAUSED DAYAGE TO FIGERLA	CHEVROLET ASS GONY.	CURVETTE	27000	11561164

21006007	90027012	20850043	68102007	12208084	76901073	01606062	60201006	01606062	02450150	3720903	22207212	01230005	90027012	01230005	F45435072
26420	49513	UNKNOWN	22000	22329	15203	35192	2000	20897	NMUNMIN	<b>6600</b> 0	17347	55000	39414	56000	00015
CORVETTE	EL CAMINO	EL CAMINO	6-20 VAN	INPALA	INPALA	IMPALA	IMPALA Ment Problem)	ן <sup>4</sup> וף αנ ג	IMPALA	JIMPALA AND TAPER.	I HPAL A	IRPALA	IMPALA	IMPALA	IMPALA SW
CHEVROLET BOLT HOLES.	CHEVROLET	TPR VPOLET	CHEVROLET	CHEVROLET	CHEVHOLET	CHEVROLE1	CHEVROLEI VING (NOT ALIGN	CHEVROLET 05 UP	CHEVROLET P.	CHEVROLET Etween Threads	CHEVROLET	CHEVHOLF T	CEEVRULET Swiich.	CHEVROLET ISSES# 。	CHEVRDLET THE OHL OF LIFT
STEERING COUPLER 77 FLEXIRLF STEERING COUPLER TORM AT BOTH E	MASTER CYLINUER FEAR PURTIGN LEAKS.	TRAILER HITCH HITCH BRAN HAP PROKE, CAUSE UNKNUDM.	CLUTCH PEDAL & HRACKET 76 MFLO AROKE ON CLUTCH PIVOT ROD AUSHIMG.	POWER STEERING SHAFT Cracked at Spline and twisted	ELEC.IGNITION ROULE 75 FLECTRONIC IGNITION MODULE FAILURE	FAL MOTOR REARING RURNT ULIT	UNIROYAL TIPE Severe Side-to-Side Vthpation while driv	FAN MOTOR 78 Internal Malfunction - Motor Noisy, Bing	MASTER CYLINDER Haster Cylinder Leaking Frum Primary Cuf	BALL JOINT 74 BALL JOINT STUD GROKEN (PULLED APART) HE	MASTER CYLINIJEH Rfak Primary CUP Leaking Fluid.	20108 60041 10845.	DIMMER SWITCH HEADLIGHIS LOOPENALIVE, OFFN CIRCUIT IN :	WIRF SET HIGH TEPSION PIPES WURD, UUL, VEHIGLE "A	CAN SHAFT EXCESSIVE BEAR OF CANSHAFT CANSHAF DISHI
01160000	03230000	15902000	00001120	00022210	000001811	00020111	05700000	11103000	00002250	00152000	00008220	00001150	04001000	09530000	05150050
нилин	P0767 %	P07032	P64053	P01323	PRIUIP	P07377	99748A	lenind	P07690	87174	51040d	511100	244704	Slowod	40016d

pa1956	00000060	TAIL LIGHT LENS Reflections Frunt The sun can cause brake	CHEVRULET LIGHTS TO APPEA	LUV (PICKUP) R TO BE AN.	NNUMMAND	67501001
26210d	0662000	EXHAUST PIPE Internal Collapse	CHEVROLET	(181,164)	61752	23230031
P01455	08550000	CONNECTOR ELECTRICAL SHORT	CHEVRULET	ИАСІВО	10620	33316118
96410d	01300000	COVER-SPRINGS Hole in Cover From Arokem Spring	CHEVROLET	IALI51)	48159	01606062
727189	0323000	MASTER CYLIMDER Internal Leak.	CHFVRULET	۲۹۲۱ HII N	1685	07450150
PRITAG	1530000	CRUISE CONTROL CRUISE CONTROL COMES ON WITHOUT WARNING.	CHEVPOLET	MALIBU	11121	33316118
P87825	03233000	MASTER CYLINDER Master Cylindfr Failure, Cause Dunknow,	CFEVROLET	HALIBU	UNKNOWN	0510570
200884	1346000	WINDOW HIGH DENSITY PLASTIC MATERIAL BRUKEN NEA	CHEVRULET R MJMDUW TRACK	MALIBU	80000	17104008
Peanar	03265000	BACKING PLATE Wheel Cylinder Locating Holf Worn Cansin	CHEVROLET 16 LUSS OS REAR B	MALIRU Rakes 。	40000	84101043
parıa7	08510000	IGNITION LUCK IGNITION LOCK TUMBLEH WEARS EXCESSIVELY	CHEVRULET Causing Excessiv	MALIRU E required effort.	30000	84101043
P09034	03265000	PRAKE BACKING PLATE Hole Lucating where cylinder worn excess	CHEVROLET .IVELY CANSING AR	MALIBU 40R AKES TO LUCK ON.	73379	84101043
PR7504	06113000	GAS TANK TANK FELL LOOSE FROM CORRUSION	CPEVPOLET	MALIBU SW	41000	13901005
PATSUI	1550000	JACK Jack Coliapsfu – Ukivfr Injureu Hand	CHEVROLET	MALIBU SN	NNKNONNN	F60085155
POTAZE	13520000	TAILGATE SUPPORT PISTOL CYLINDER REPORTEDLY DOES NUT PROPERLY SU	CHEVROLET PPORT TAILGATE I	MALIUU SM M RAISED POSITION.	12000	F10801145
P37410	00005750	FTRESTUNE RAUTAL TIRE 5 TIRES VEVELOPEU PLY SEPAHATTONS & UNT-	CHEVROLET OF-ROUND COMDITI	MONTE CARLO Um	NNKNOWN	03242005
P87559	00010120	TIRE - GR70x15 TREAD SFPARATION	снеувоцет	NUMTE CARLO	22286	90027012
PR1755	05740000	RADIAL TIRES (4) TIRES ARE CUPPED, AND VEHICLE GIVES MARD	CHEVROLET.	MUNTE CARLO	20000	33316118

96001004	04610200	08610200	04610200	04610200	23513001	01230905	90027012	23181002	63130132	33316118	11204002	50002210	33316118	01230005	F45435072
48036	34000	19692	34435	34435	46679	กพดพง	28457 5 TO SHO	40000	26691	12710	UNKNONN	21000	7848	86000	46000
MONTE CARLO	MUNTE CARLO	MPWIE CARLO Erheating.	MANTE CARLU Les In Screen.	MONTE CARLO	MONZA T.	N CNZ A	MONZA ERMINAL, ACCORDING	MONZA ZDR.	RUV A	MUV A	NOVA	NCIVA .	faUV <b>A</b>	∩.ÛV.A	fillV@ ER.,
CHFVROLET	CHE VROLE I	CFEVROLET USTAG COOLANT OV	CHEV40LFT ALUATVAUM PARTIC	CHEVRULET w.	C⊢E∨R0LET R #5 £xH∧UST POR	CHEVRILLET.	CHEVROLET O HIGH TENSION T	CHEVRULET S RALL.	CHE VROLET	CHEVROLET NG	CHEVROLET	CHEVFOLET	ĊHEVROLEI NI (PERATION.	CHEVROLET.	CHEVPOLET CHEVPOLET HING OUT DE LIFT
75 APAHT.	77 PANSION TUBL.	77 NGS AND SEAL CAN	17 10 PRESENCE OF	77 Kefrigerant. flo	78 Dken at Cylinder	76 W HARD TU SHIFI	79 ★Ew TOU CLOSE TO	77 HEKE TAPER MEETS	77	AAY FROM MOULDI	t EL. • 73	75 UIRED VOLTAGE.	78 SING TRIERWITTER	PUMP 70 EMICLE STREELES.	78 AFT CAUSING HIST
RANK SHAFT PULLEY ULLEY CHACKED AND SPLIT	/C EXPANSION FUHE Orrosion Clugaed A/C exi	ATEK PUMP Ear on water pump reaki	ССИМИГАТОР ИРУЕН ССИМИГАТОР СЕЛССЕО ВИЕ	XPANSION TURE Luminum Oxtde Hlocking 1	EFT EXHAUST MANIFOLD EFT EXHAUST MANIFULD HRU	LUTCH BEARING Earing Norn, tranmission	ISTPIRUTOR CAP Osition of Hold Down Sch	OWER HALL JUIGT ALL JUINT STUD ARCKEN WI	EAF SPRING REAR OP LEAF BROKEN	RM REST Ounting flange Hrokfn av	LYWHEEL Ing Gear Slips or Flymh	PARK PLUG WIRE SET. Lug wires wûrr⊷high rfn	GMITION MODULE Mternal Malfunction Cau	ARBUPFTOR - ACCELEGATOR CCELEMATOR PUMP NOPM, VI	AM SHAFT XCE33IVE WEAY DU GAP SH
00000ELSU	11614000 A C	M 00008520	11612000 A	1160800U E	06610000 LI	07150000 CI	08530001 D	02152000 LI	02410000 LI	M 12000000 AI	4 100000 F	0.8530000 SI	08540000 I	06223000 C.	05150030 C
P07741	74047	nûurûd	106vd	20300S	P07756	161931	F0800	P07727	F87597	P07506	47696	P07693	617709	861199	194769

P07964	01150000	STEERING SHAFT NUVA 77 CPEVRULET NUVA Steering shaff hall and socket JGINT at Column End Appears E	a Excessively worn.	2350	10801145
PA7941	02615000	CHROME LUG NUTS LUG NUTS CRACKFD,SPLIT NURING INSTALLATION.	A UI	NKNOWN	20850043
P07652	06131000	FUEL LINE 79 CHEVROLET NOVA OUTSIDE OF HUSE IS VERY DFTERJORATED AND CHACKED.	A 305 VB	2448	90027113
P0766A	08550000	HEI ROTOR HOLE BURNT IN ROTOR DHE IN EXCESSIVE VOLIAGE BUTLOUP	KiiP 20	0000	<b>3520309</b> 8
60770d	08530000	COLL 7.8 CHEVROLET PICKU VEHICLE QUIT RUNWING.	36 X U P	6000	31003001
P0/417	0852000	NEUTRAL SAFETY SWITCH UN CHEVROLET PICK SHORT CIRCUIT, VEHICLE STANTS IN ANY REAK.	KUP UI	NMONYF	<b>33206</b> 096
P 0 8 0 4 9	03245000	COMBINATION VALVE 77 CHEVROLET PICKI MALFUNCTION CAUSING HRAKES TO GRAH.	4uP	4739	34057040
5 ŋ ŋ ŋ ŋ 2	01530000	STEERING INLER ARM IDLER ARM HALL AND SOCKET CURRUDED CAUSING EXCESSIVE 9TEERIN	KUP NG EFFORT.	2607	14607007
P 0 9 0 0 0	00001<50	EXPANSION PLUGS 78 CHEVROLET PICKI RUSTED THROUGH.	KUP 2:	3073	3242005
P07705	08530000	ROTOR CHEVROLET PICKI Vehicle auit quaning, kutar contácts rurufu.	KUP 4 WHEEL 30	6000	31003001
941962	05150630	CAMSHAFT CONE CAMSHAFT LURE WORN UNGN COMPLETELY.	KIJP (C-10) 3/	A 0 0 0	4 <b>87</b> 22088
P1)7545	0850000	UIST CAP 7.3 CHEVRULET SW CROSSFIRING IN CAP	<b>.</b> .	3590	17754007
1001 Ud	11609000	FRONT COMPRESSUP REARTINGS THE CHEVROLET TRHCI FRONT ALC COMPRESSOF REARTINGS FORM	φ Φ	0000	1250005
0079A6	06610000	LZH EXHAUST MANTFOLD CHACKED. 7M CHEVROLET TRUC Left Exhaust mantfold cracked. Cause unkurna.	CK C-65 64	4200	53702100
01.76.10	00002250	KADIATUR HOSE UPPER RAPIATUR HOSE GRACKEU GAUSING OVER HEATING	10HM	2792	06856001
P01620	0216000	LEFT FRONT SPTFOLF 73 CPFVRGLET UNKOU OUTER WHEEL HEARING JAMF4 KACT SEJJED 10 SFTMOLF	20%I/	0889	98108037
P07691	00004580	ROTOR UISTREAUTOR FOTOR POPERT-VEHICLE PARA TO START.	41 M M	0000	1230005

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83704028	53140005	53140005	01230005	01230005	01230095	02488001	15025214	15025214	13901005	90027012	F17604203	14607007	00000000	90027012	90027012
UNKNOWN	71067	10967	61000	61000	20000	NMUNNNU	UNKROWN	UNKNOWN	UNKNOWN	30529	33250	36221	UNKNOWN	37713	33364
URKNOWN	ычкиоили	UHA NOWN	UtiktiOwN	NMONAU	งพฤทหาก	UMKNOMN	UNKNOWN	UNKNOWN	VÅN A VÅPDR LOCK	VEGA	VEGA	G-10 VAN Fering Effurt,	PICKUP	сикоона	сивнона
CHF VRGLF T	CHEVROLET	CPEVROLET	CHF VP01.ET	CHEVROLET PIAG	CHEVROLFT ) Start.	CHEVROLET	CHEVROLET To cooling fins.	CHEVROLET	CHEVROLET DLP WHICH CAUSES	CHEVROLET	CHEVROLET	CHEVPOLRET Ing Excessive str	снеит	CHPYSLFK	CEEYSLER Marting
70 PHINNELED.	68 1. јани ирокем обт.	TEDLY NUTSY. 7P	EU, VEHICLF MISSES.	ZAUSING SHIMMY,LOOSE STEE	75 Ok Bukned, Vehicle Hard To	7A MEAR CEINTEP.	R BRAKE CALIPÉR VORN DOWN	N COMPLETELY GUT.	ES 78 Lays Near Exhaust Manifo	75 • CAR RUNS RICH.	JUINI. 77 Fhum Suckei	ΑΑΡ ΑνΩ \$0CKE1 COARDED CAUSI	ANSOPHER 74 TRATED DAMPENING EFFET.	7 ts	R REFERENCE AND REP 0
REAR AXLE Rearing Surface	115 ROU FNU UUTROARD ENU RA	ғиес римр керпр	UTSTRTAUTOP CAP CONTACIS CORPOD	IPLER ARM Excessive Ream	POTOP DISTRIBUTOF RUCC	FLYWHEEL FLYWHEEL CRACK	UISC HRAKE RUTU Inhoard Side Of	PRAKE PADS Inenaru Pad Wur	RUBBER FUEL LIN RUBBER GAS LINE	CARR。 FLOAT FLOAT SATUWATEO	R∘F。 LO⋈ER AALL Báll SfparatéD	STEEPING IPLFR Idler Arm Rall	STEERING SHOCK Fluid leak flir	PITWAN APP Louse Strerimg	NALLAST PLESTU SHORT - CAP STA
07462000	01560000	061360AU	0.6530.000	01530000	045500	02140000	03273400	03272000	06132000	06233000	00025120	01530000	0159000	01510600	0000000000
P07700	22LLOH	P07724	Pa7730	610aud	ro?ro1	100604	60060d	0 lunud	655184	51472	p01642	100804	p67036	64414d	662104

01230005	90027012	02888001	33316118	61108004	23230130	07450150	07450150	07450150	01230005	01230005	01230005	01230005	01230005	11204002	01230005	11754007
20000	13217	14000	26629	36468	19681	42741	42741	UNKNOWN	80000	70000	82000	75000	95000	.66731	101000	62003
LURUOBA In Caliper Bore.	СЛИЮЛНА	LЕнлиор	LEEARON	LEHAROM	L внакоњ	LEHARON	LEHARON	LEBARON SW 46 NUISE.	NEW YORKER	NEW YORKER	NEW YORKER	NEW YORKER	NEW YORKER SZW	NE 3PORT	1000130	SEUAN
CHRYSLER VISTON STICKING	СНРҮЗЦЕЖ	CHRYSLEP	CPRYSLER F RIGHT	CHRYSLFR	Снрүзцёр	CHRYSLER RRASION.	CLRYSLFR	CHPYSLER Rieep out causi'	CHRYSLFR M FELL DOWN.	CHRYSLFR	CHRYSLER	CHRYSLER	CHRYSLER ITY.	CHRYSLFK	CHRYSLER Shoff CIRCUIT.	CHRYSLEH CHRYSLEH
HPAKE PADS BRAKE PADS CUMPLETLY NGRN OUT, DUE TO P	IGNITION RESISTON (PEN, WILL NOT STAKI.	PRAKE CALIPER PISTON Piston Froff in Caliper	HRAKES HPANE FAILURE-CAUSING CAP TO PULL TO TH	FRONT BRAKE HOSF 77 RUBPER HOSE CRACKED NEAR JUNCTION HLOCK	RUCKER ARM BROKEN IN HALF	CALIPER PISTON Piston Seized in Calipër Rore due to Cu	DUST RODIS SEAL DUST RODI TMPHOPERLY SFATED.	OUTER WHEEL BEARING OUTER WHEEL BEARING LOST LU <sup>n</sup> kication, Ruf	EXHAUST PIPE HANGER. Hanger Rhacket Rusted and Exhaust system	TRANSMISSION FILIEN TRANSMISSION FILTEN CLOGS WITH DEARIS.	ATH CONDITIONING SWITCH Switch Open. Inoperative	PLUG MIYE SPARK PLUG WIPES NORD DUL.	PITMAN ARM Excessive wfar cansing vehicle instanili	IDLER ARM Ball, Joint at Drag Lim <sup>1</sup> eru seizèn.	DISTATBUTOR CAP CRACK IN UTSTRIPUTOR CAP TUALR CAUSTIG S	LOWER PALL JOINT Exceesive read conside have steening.
037200	00005300	03271000	03200000	03240000	05150000	n32710n0	03271000	02170000	0660000	00000520	11601000	0002300	01510000	01530000	00002580	02152000
F01763	P04065	huztud	41114	P07603	754769	płulud	254704	PA1A00	111104	F07927	06670d	PROFICE	P03014	P01489	880809	\$ 20r0d

1201	0621300	ACCELENATIN PURP VENTCLE HESTIATES, STALLS, MILE	72 AGE IS PO	СИРҮЗЦЕР ШЯ.	TORU AND COUNT	UNKBOWN	01230005
æ	00000000	HALLAST RESISTER Electrical Seort	76	CHEYSLFR	UPANONE	инкиомы	90027113
×	0.6446000	MALLAST RESISTOR Electrical Showt	14	CFRYSLER	UERMONN	งพบพพ	90027113
57	04559000	BALLAST RESISTOR Electrical Short - Vehicle Stal	11 LING (CUM	CHRYSLFR HON OCCURENCE 1	UMKNOWN IN CHRYSLERS)	15000	F30316139
5	11665000	A/C BLOWER FUSE Melted terringl	11	DATSUR	2003x	14732	33316118
51	03230400	HRAKE MASTER CYLIWDER Possirle wknwg fluid	76	NUS 1 SUN	280 2	58980	A5268105
57	00057560	FRONT DISC PADS Friction Material Separated Fro	76 M BACKING	UATSUN PLATF	2 R O Z	19051	33315126
я ()	05230000	MATER PUMP Water Pump Shaft Bruke.	76	DATSUN	260 Z	61589	19805002
в ()	00008250	FAN HLADE Fan Hlades Broken, water Pump S	76 HAFT BRUK	DATSUN En, Fan Went Ir	280 Z WTU RADIATOR.	61589	19805002
53	06136000	ELECTRIC FUEL PUMP Fuel Pump Inuderative.	11	DØTSHN	280 Z	41591	90027012
30	03242000	FRONT BRAKE HOBES Caacks and cuts in front rhake	77 HUSES.	DATSUN	610	51900	63130132
5 6	03233000	MASTER CYLINDER Internal Seal Leak.	74	DATSIIN	7-10	73466	90027012
22	00022260	FRUNT NRAKF PADS UNEVEN WEAR ON FRONT RHARE PADS		DATSUN	810	3A359	03060006
61	0524000	FAN BLADE SPLJF NPFN	15	DATSUN	н <b>210</b>	47110	19401061
15	03230000	№АЗТЕР ГУЦТЧЮЕН РЦИТО ЦРАК ЦИЗЅ «Е РЕЛАЦ	11	04TSUN	H 210	51093	90027012
<i>a</i> 9	09212600	EROWT BRAKE PALS MAAKE PADS GLAZED. CANSTOG EXCE	77 \$5146 901	DATSHW SF OD APPLICAT	8-210 104-	45710	03060060

60091 90027012	UNIK NOWN 60201006	90627012	45000 55423002	05642 60616012	UNKNOWN 07450150	UMKNOWN 97450150	0105700 NMUNNIN	45000 61108004	45000 61108004	45000 61108004	45000 61108004	UNKNDWN 02889001	22587 F17604203	24371 F17604203	17524 33316118	
PICKUP	NNKNONN	1/2 TON PICKU	ASPEN	ASPEN	A SPEN	ASPEN	ASPEN	ASPEN	ASPEN	ASPEN	ASPEN	ASPEII	ASPEN	ASPEN	ASPEN	
N N N N N N N N N N N N N N N N N N N	NIISTAO	DCDGF FUT)	рспсғ Ақи	DUDGE	DODGE	000GE	DODRE	DCDGE	DUDGF	DODGE	0.00GE	DUDGE	DUDGE OVERHEATS.	DUDGF OVERHEATS	DepteE	
MASTER CYLINDER I'nternal Leak - Penal Sinks	REAR REAKE ADJUSTER HRAKE ADJUSTER FROZEN	арум studs pulled through druw (A чергасғм)	לטאנגטן אין איררגט בטאנגטן אין אירן אין איר אין	RRAKE CALIPER PISTON FROZE IN CALIPER	HRAKE HACKING FLATE Metal ton Light 10 withstawn Siples	BRAKE HACKING PLATE MEFAL TOO LIGHT	PIVOT HAF PLATE PIVOT BAR SUPPORT PLATE BRUKFN	LEFT FRONT BRAKE HOSE PUBBER HOSE CRACKED NEAR JUNCTION PLOC	RIGHT FRUNT RYAKE HOSE Rubber Hose Cracked NFAR JUNCTION FLOC	LFFT FRONT HRAKE PISTON PISTUM STUCK II, CALIPFR HORE	RIGHT FRONT BRAKE PISTUP PISTON STUCK IN CALIPER BORE	CALIPER IN PISTON. 77 FRUTEN	HEATER CORE PINHULE LEAKS IN HEATER COHE. VEHICLE	HEATER CORE PINMOLE LEAKS 1 <sup>14</sup> HEATER GURE. VEHICLE	CALIPER PISTON PISTON STICKS IN CALIPER RUKE.	
0.322000	03265000	03264000	0514000	03271000	0004220	03270000	00009510	00027200	0002420	03271000	03271000	00012550	11110000	11110000	00012220	
00520d	61210d	P07525	210Lud	P07435	p01450	P07450	P.R.7 u.R.5	P0760R	P01608	01910d	P07410	P07,642	P07683	01709	P07703	

33316118	63130132	63130132	00000000	9,4106082	00000000	23513001	33316118	0510570	07450150	98270095	07450150	20014038	20910041	21770040	33316118
17000	45415	45415	23000	16920	23430	66173	16590	UNKNOWN	UNK NOWN	16559	UNKNOWN	NMONNN	MMONNH	NAONAN	13097
ASPEN	ASPEN	ASPEN	ASPFR	ASPEN	ASPEN	ASPEN	ASPEN	ASPEN	ASPEN	ASPEN DN HURE .	ASPEN	ASPEN	ASPEN	ASPEN S/:	ASPEN SW
000GE	DUDGF	ŊŨŊĠĔ	· DUDGE ILURE,	DUDGE Er Arm.	39000	DCDGE EFLECTOR.	PUDGE CORROSION.	OUNGE	DUDGE	DODGE In Caliper Pisto	₽¢₽¢₽ ₽acket.	DCDGE .	DCDGE	NUT STARL.	0.006E 10.4666168
FRONT DISC ARAKES 79 PISTON STICKS IM CALIPER AGRE	L.F.HRAKE HUSE 2 CUTS IN HOSE DUF TU KFAR.	R.F. BRAKE HOSE Hose tor short, cut in 2 places.	DISC BRAKE RUTUR Crack In Hur Caused whfel hfaring fa	IDLER ARM Excessive play at Rushing end of Idle	DIFFERENTIAL, RING, AND FINIUN 78 Tooth un ring gear broken.	FRONT PARKING LIGHT Lens came unglued,fell off plastic re	CALIPER PISTON PISTON SEIZED IN CALIPER RORE DUL TO	FRONT BRAKE HOSES FRONT BRAKE HOSES CRACKEL, LEAKING.	DUST HOOTS DUST BOOTS IMPROPERLY INSTALLED.	CALIPER PISTUNS PISTON STICKS IN CALIPER OUE TO RUST	UPPER CONTROL AR™ NO UPPER CUNTROL ARM INNER SUPFORT BA	CALIPER PISTON PISTON STICKS IN CALIPER HURL.	GPAKE CALIPER PISION SITCKS IN CALIPER HOPE.	3TARTER MALLASI MESISTOR MALLAST RESISTOR OPEN, VEHICLE WILL ≀ MALLAST RESISTOR OPEN, VEHICLE WILL ≀	НРАКЕ САЛЕ НИЗТЕР, КОНТЕР ТО СТИЗЕ 1 НРАКЕ САМЕ НИЗТЕР, КОНТЕР ТО СТИЗЕ 1
03271000	03242000	0002#250	01530000	0153000	0145000	09004000	00012320	03242000	U3271600	03271000	00010120	05271000	09271000	08240600	04150000
PA7705	P07751	P07753	P04017	P0A07A	P07743	01a10	P07A20	POTASd	P01855	P07857	72018d	120199	clulad	Lleind	663600

20404C	03273000	DTSC-CALIPER PISION PISTON SEIZED IN CALIPER BURE.	16	DC.06E	H-100 VAN	84990	32741167
1177ng	01211000	THRUST BEARINGS(GEARDAX) THRUST BEAPINGS WORN FXCESSIVELY	75 Calisting	ULNGE BINDING IN STEF	8-200 RING COLUMN.	62349	23513001
94870d	01520000	DRAG LINK Excessive wear, Replaced Taice IM	79 46000 4	ncuge .Ites.	8-300 VAW	46000	92632037
២0,75,4,8	02170000	WHEEL BEARING, NUTER BEARING CUP, RACE, AND KULLERS RM	77 1 NNELLEL	0005E J. CAULD BE CAU	CHARGER JSED BY LACK OF LUBR	17389 :ICATI	19560055
P07511	0911000	SIGNAL SWITCH Internal Malfunction - NU Rear Si	70 GUAL DR	DUDGE Bhahfs	CUROMET	55056	99206096
P (17 fr 3 fr	0002300	DISTRIBUTUR CAP Vehtcle hard to start Misfirfs	7 2	DengE	CURDNET	114000	01239005
p17639	0.853000	IGNITION WIRES Vehicle Hard to Start Misfires	72	DUDGE	COROME T	114000	01230005
P01640	03233000	MASTER CYLINDER PISTON Corrosion Causing Arake fluid Lea	7 2	DUDGE	CORUPHET	114000	01230005
P07661	02160000	SPINDLE Unik Nown	76	PODGE	CORONET	42714	02888001
P0+046	09110000	SIGMAL SWITCH SHORT CIRCUIT IN STEFPING COLUMN	76 CAUSE SI	DUNGE IGNAL SWITCH TO	CORONET BURN.	80000	01230005
pa7538	06132000	FUEL LINE COMRODED - LEAMING	7 u	DOGE	CUSTOM TRUCK	69000	13901005
P01470	0,65,0000	EGR VALVE HPUKEN EGR - WILL NOT 10LE	7 u	DUDGE	DART	41551	90027012
75,789	0650000	EGR VALVE Replacement valvé léaks as unigim	74 AL D10 (	DUDGF [Less Than 3000	DART Miles on New ONE)	4346 <b>8</b>	90027012
P07535	03242000	RPAKE HOSE Left Frowt Huse Crackeu	7 4	01036	UART	32010	63130132
P(17536	03242000	BPAKE HOSE RIGHT FROMT HUSE CHACKED	7 4	րսոցե	UART	32010	63130132
P01543	0.450000	UIST CAP Cap Cracken Cauging 4115F126.	6.9	DCDGF	UART	43005	17754007
P075A0	06223000	FLUAT SATUPATED ATTH FUFL, SAUK C	74 AUSING	DODGE CONDING, STALLIN	DAHT 16,HARD STARTING	66562 *	98270095

0306006	03060006	23513001	23513901	23513001	98270095	07621154	02140002	11204002	11204002	11204002	63130132	11204002	11204002	00000000	13901005
22425	22426	50650	74402	42355	79659	62160	41005	60176	84952	46925	36000	46925	48407	78354	44000
DART	UART	UART	DART	UART	DART	DART FLUID.	DART	DART	DART	<b>DART</b>	DART (BIT REMOVAL OF TIRE	UART	UAPT	DART	UPLOHAT
DUNGE	DUDRE	<b>PUBGE</b>	PUNGE Stalling.	DONGE	DUDGE WHEN HDT.	DUNGE FITTINGS-LEAKING	DUDGE	DCDGE S DRAG	DUDGE	ver. ver.	LY SU AS TO PROHI	DODGE	DCDGE PPURT ERACKFT.	94090	DODGE
.R.HYDRAULIC REAKE HOSF 73 UMBER CHACKED NO EVIDENCE OF LEAKS.	.R.HYDRAULIC BYAKE HOSE 73 UHHER CYACKED, WI EVILIENCE OF LEAKS	T.0AT HEMOLIC FLOAT SATURATLD WITH FUEL.	LECTRONIC MODULE 74 Eak Spark Caustng Plig Fouling , Arid	LECTRONIC MODULE 74 'EHICLE STALLS WILL, WOI RESTART.	LECTRDWIG CONTRUL UNTT 73 WTERNAL MALFUNCTION, VEHTCLE STALLS	77 10SE CRACKED IN TWO PLACES NEAR END F	ALIPER PISTON ISTON CORRODER, STUCK DN CALIIPER RO	ALIPER 'ISTON STICKS IN CALIPER AUPE; RRAKE'	ALIPER ISTON STICKS IN CALIPER RURE.	75 UTER HOSE CRACKED NEAR SUPPURT BRAC	IRÉ ARACKET .Pare tire holo unwn buli rusten bani	.aliper 15ton sfized in Caliper Hure.	RAKE HOSE LEXIBLE HOSE C°ACNED KEAN CENTER SU	.ASTER CYLINDER VIERDAL LEAK PEDAL STOKS ID FLOUR.	DAME PADS DAME PADS MERE FOR SMALL
03242000 H	03242000 F	06230000 F	08540000 E	08540000 E	08540000 E	03243000 A	03271000 C	03271000 C	0.3271000 C	03242000 8	13130000 1	03271000	03242000 H	4 00055500	03272000 H
P0A054	P08057	PUTAA4	21820d	F07A13	ротаяа	P07A71	116204	21018d	P37935	P03015	P.8.9.79	P8A030	Pug0 34	рпапуя	601549

151704	00005580	LEAN MURN MUDULE Internal Malenmotion causing interm	buuta LTTENT OPERATION。	U1PLUMA1	19000	1/109006
96 <b>7</b> 096	03263000	RIGHT LEFT BPAKE SHOLS 79 REAR BRAKES WORN NUT PREMATHRELY.	0 0 0 0 E	DIPLOMAT	15125	07450150
P07664	01530000	ICLEM ARM IDLEM ARM	DUDGE	H. Ohla C (I	16279	16103004
P07780	0824000	STARTER DRIVE UNE WAY CLUTCH MURN, DRIVE SLIPS.	0 UDGE	H-ONACO	54000	01230005
co110d	0327300	FRONT BRAKE POTON FRONT BRAKE ROTON WORD FROESSIVELY.	Ν¢DGE	INHO	34610	50021001
P07367	11102000	HFATER BLOWER SWITCH Short within Switch	DUDGE	PICKUP	NNKNOWN	99206096
P01657	05270000	MATER PUMP BROKE PULLEY HUB CAUSING MOISE.	DUDGE	PICKIJP	31000	33309117
P07660	02140000	FLEX PLATE ENDS BROKEG.	DUDGE	PICKUP	19958	02888001
P01406	06232000	INTAKE MANIFOLD MANIFOLD CRACKFD UMDER CARBURFIOR, 1	DUDGE Jear Egh Port, Cons	PICKUP TANT ROUGH RUNNING	18000	23230130
F07992	00101000	MEADLIGHT DIMMER SWITCH 75 Headlight Switch Open, NO LIGHTS AT	DUDGE ALL.	PICKUP	51000	01230005
908022	01560000	TIE ROD END'S Excessive tie and end wear causing :	вирсе Внімих.	PICAUP	51538	17754007
904039	11102000	A/C HEATER PLOWER SMITCH Electrical Smort Burnfu out Switch.	nebGE	PICKUP	43445	F32304115
01340	06210000	CARBURETOP INTERNAL MALFUNCTIUM	DUNGE	PULARA	35000	01230005
P.8.7.7.8	06712000	INTAKF MANIFOLD Ege Fludë jets Aurmed Out.	Df+DGE	SEDAN	41266	17754007
P07751	06223000	THROTTLE SHAFT PHONEN.	DCDGF	TRADESMAN 100	56515	90027012
P87571	03224000	POWEN UISC RRAKF RGOSTER Hrake Pedal Slaks and Hrakes Drag ur	DUDGE iem Engine is start	TRADESMAN VAN ED	52144	90027012
P07477	00005550	MASTER CYLIMDER PRIMAR CUE STUKING TO THE FLOUR.	DCDGE	TRADESHAN VAN	UNKNOPN	90027012

01230005	01230005	01230005	01230005	01230005	01230005	13901005	17754007	01230005	17754007	02888001	79605001	33309117	33309117	\$1190555	90027012
30000	MAUMAN	33000	29000	NNGNNU	00005	00069	60414	UNKNOWN	56835	33000	66000	14000	14000	14000	06735
t H UCK	тниск	TRHCK	1RUCK 150	THUCK 0-290	TRUCK D-200	TRUCK-CLUB CAB 2 CARPET	UMK NOWN	UWK NOWN	UNK NOWN	VAN	VAN	VAN	VAN	N V N	VAN-TRADESMAN
000GF	D006F	DODGE I 4 G	0006E NS _	DungF	DUDGE	DODGE UNDER INTERIOR	D.0.66 W.N	001)GE 01 START.	DUNGE F PERFORMANCE.	D(DGF,	Denise.	DùpGF	OUNGE NY CALTPERS	bt PGE	0006F
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, 1155166.	TS TEER	79 1 VELINE VJBRATTUN	7 a 7 a 7	75	UNG SILL PLATE (	73 F NIT CAUSE UNKNOW	74 CEWILL NO	74 14 SING PUOR ENGINE	77	1	78 1156 WIAR.	JA JA (	TH THEAR	1 52
84 AKS GOSHLINE FRUM S	итин сар Start, Pnok Milfauf	ENU Je "Far Caustre Shi	AL JOJ41 VE WPAN CAUSTIC DAT	JTOR WIRFS Start, Puor Hileag	JE E FAN HLADE HROKE№.	NE E RIJSTED IN AREA AL	TEG PALT The From Sending H	RESISTOR OPFN, AND RESISTUR OPFN, AND	JTOR CAP Iracking in cap cau	ALIPER PISION "Roze in Caliper	INT INT SEPAKATED	am JE PLAY IL STFERING	NUS JE WEAR DUE TU MALF	ROM MHELS CAUSIDG	ADTILE SHAFT - VALVE SHAFT GROKE
FILE PUR	UTSTRIH HARD TO	IJE 400 Excessiv	UNIVERSA Excessiv	01878130 HARD TU	FAN HLAU Flexihlf	FUEL LIN Gas Line	UTL LEAK UTL LEAK	HALLAST HALLAST	DISTPIBL Carron 1	HRAKE CA PISTUN F	6ALL J01 8ALL J01	IDLER AF EXCESSIV	BRAKF PA EYCFSSIV	CALIPER UAD PIST	CAPH THA THEOTTLE
461 460 A	0.02300.00	01560000	07411000	0453000	05240000	06131000	00005150	08530000	09002590	03271000	05152000	01530000	00208650	0 9 7 7 1 0 0 0	00021200
P07642	P01742	050804	Elyeda	P01754	P03047	POTSAR	62410d	P07760	o lusúd	5821ud	P01513	PUIRSU	267694	P01+56	P07615

95244012	8526A105	33316118	00000000	67501001	18018143	63130132	63130132	63130132	A0201005	0685600	06856001	33316118	F30316139	84057040	33316118	19409113
8000	6377	UNK NOWN	47000	26825	UNKNOWN	19361	1623	21000	UNKNOWN	30000	30000	38713 I.	UNKNOWN	29000	45,420	28000
N∼15∪ PONER %A (AMINATION OF ∂ALL JOINT.	INER 44 150	i.LITE	124 SP10ER	128	12H A	131	131 S	131 S	D MK NOWN	UNKNOWN	UNKHOWA	X1/9 TO BEND AND ENGINE TO GUI	330 TRUCK	1) JH (1) K	CANPEN	CLUH WAGUN VAN
DUDGE JK SAGO COUT	NC0.65_P0	DUNLUP .	FIAT	FIAl	FIAT	FIAT	Flat	FIAT	FIAT	FIAT	FlAT	FIAI SINE VALVES	F (: R ()	FURD	ĠЯ-J <del>J</del>	FLRU
URAG LINK EXCESSIVE WEAR, APPARKNILY FROM UIRT (	STEERING GFAK HOX STEERING GEAR HOX CANF LOUSE 79	TTPES PLY SEPARATION CAUSES TIRE TO ASSUME F	NNUERCAPRIAGE Excessive Corporator	LOWER CONTROL ARY HALL JUINT LOOSE	CLUTCH CARLE END BROKEN.	HRAKE CYLTRUERS BOTH REAR WHEEL CYLINDERS LEAKED	WHEEL CYLINDER LFAKING BRAKE FLUTU	MASTER CYLINDFR Extepnal Fluid Leak, Luss of Hrakfs,	HRAKE CALIPER PISTON STICKS, LOCKED UP BRAKES	L.F. LUWER BALL JUINT EYCESSIVE PLAY/LOUSEMESS	P.F. LUWER AALL JUINT Excessive plaviluoseness	TIMING BELT TIMING BELT BROKE SUUDFNLY CAUSTRG END	PISTON ROD RACKEN PISTUN ROD RROKEN	COMMINATJON VALVE Malfunction Caused hrake graf.	FORD FNGINE STALLS UN MICHMAY.	STEERICE WHEFL 76 COACHEL
0152000	0120006	00006750	1310000	00005120	00002126	03761000	03261000	0323000	03271000	V2152000	00023120	0015150	05150060	0.5245000	0.8540000	01100000
11110d	20218d	5046d	∀Cħl6d	Pu7634	15410d	17474	63 <i>01</i> 0d	25710d	P07383	P07603	P07603	P07A73	Sentod	P08007	191747	607 842

99206096	98155032	063130132	00000000	19380005	F55419121	F55419121	F30316140	F19406213	55423002	99206096	98270095	95207019	97405004	23513001	07450150
11693	000	70001	34000	68991	59280	NMONNI	8964	68600 NG 。	42000	54354	42431	69549	44751	19066 HOUSING	NMUMNIN
COUNTRY SEDAN	COURIFR Vial Case.	E-150 ECONOLIN	E-150 VAN	E-200 VAN	E-200 VAN EFRING.	E-250 VAN	E-350 VAN	E-350 VAN Causing Loose Steeri	E 100	ELITE	F 250 KESTARTEU.	F-100 IN ON SPINDLE	F-100	F-100 Mair Lfak Thru Choke	F-100 NACX LOUSE.
FLRU	FURD Into Different	FLRN	F UR()	F URD	FURD USING LUASE STE	F (iR Ü	FGRD - TORGUED.	FURD TU FRAME BRUKE	F URU	FURD	FURD , CUULD NDT BE	FURD 106 MUCH STRAI	FURD	FURU R GASKET CAUSED	EURU 0.SIELRJNG GFAH
RPAKE LICHT SWJICH Internal Malfunciicn	UIFFERENIIAL CUPRIER LFFT SIDE REARING CAP HROKE UFF, FELL	FOWFF STEERING REAR HOX GFARBOX CRACKEN CAUSING FLUID LOSS.	AMPLIFIER MODULE Internal Malfunciign	STEEPING GEAR BOX Excessive worm shaft heaking play	FRAME FRAME RUSTED MEAN STEERING GEARRUX CAU	RRAKE HOSE Hose worn through	LUG NUTS & STUDS 6 OF 8 LUG NUTS HROKEN. PROBALY UVER-	STEERING GEARBOX HOLIS Bolts Holding Pomer Steeking Gearrox 1	PITMAN SHAFT SHAFT BPUKEN	SIGNAL SWITCH Internal Malfunction	ELECTRONIC CONTRUC UNIT 75 INTERNAL MALFUNCTION. VFHICLE STALLED.	FPONT SPINDLE Offset wheels & uversize tiples placed	AMPLIFIEP MOUNLE Imternal Malfunciium - Engine won't Pu	CARP CHOKE GASKET. Ebgjne Rijus Kourn, nrokem Clore Cover	STEEPING GEARAUX STEEPING GEARAUX STEEPING GEARAUXE
001090160	01450000	00002210	<b>UK5UAAA</b>	01210000	00001151	03242000	05615000	01220000	01213000	00001660	08540060	0216000	9 6 5 4 0 0 0 0	00122590	00000210
642 10d	51020g	u1/lod	pg 1 1 3 a	46570d	P81702	P07434	101164	P07A51	Pn7355	015104	41610d	26.0104	267495	p1410d	514/04

22030214 22030214	23595 RUINED) 23595 23595	FAJRHONT TION OF PADS(ONE ROTOR F FALRHONT FIDN OF PADS(ONE BOTOR F	FURD K INSTALLAT FURD K INSTALLAT	18 ALIPERS OR IMPROPE IFFROND	DEFECTIVE CASTING OF C. MRAKE PANS MEFECTIVE CASTING OF C.	03272000	507
95336001	20440	FAIRMONT	F (i.R.l)	7.8	AMPLIFIER MODULE Internal Malfunction	0.854000	448
F39194024	26230	F-600 U STALL ON INTERSTATE.	FURD VEHICLE T	PIN JROKE CAUSTNG	DISTRIPUTOR DISTRIBUTOR DRIVE GFAR	0.8530.001	084
F30316139	UNK NOKN	F - 6 () 0	FURD MANGLED	17 140 CRAWKSHAFT WAS	PISTON ROD BEARING THAT FITS APUH	05150000	215
F30316139	UNKNOWN	F = 500	FURD		PISTON ROD Connecting Rud Brokf	05150060	114
17754007	50484	F-250 JOR PERFORMANCE.	F0PD 0UR IDLE,PC	69 ). HARD TU START,P	UISTRIBUTOR CAP DISTRIPHTOR CAP HURNER	0.8530000	n. Mi
99206096	99935	F = 250	FORD R SIGNALS	67 NO BRAKES OR REA	SIGMAL SWITCH Internal, Malfumiction	09110000	6 () a
33316118	21318	F = 250	FORD PRIVING	- THUCK OULL AFTER	AMP,MOUULE PICKUP Internal malfunction	08540000	183
33316118	21318	F-250	FURD 2 DRJVING	- TRUCK OUTT AFTER	AMPLIFIER MODULE Internal Malfunction	08540000	2411
99206096	30355	F=250	FURD	7 1	SIGNAL SMITCH Imffrnal malfunctinn	09110000	250
84107017	104232	F = 250	040 E	7.0	RRAKE METER VALVE VALVE GAME APART	00002250	9621
60609104	16200 Ing manuf	F-150 FALLED AND ADJUSTED DUR	FORD OPERLY INSI	VG COLUTIN WAS IMPR	STEERING COLUMM APPEARS AS IF STEERI	01120000	5206
12208084	26262	F = 15()	FURD	й зное, 78	HRAKE SHOF HRAKE LIWING LURSE D	03263000	7860
17754067	54165	F-150 Carruretor Hase plate.	FURD EU HOLE IN	R XHAUST GASES BURNE	BASE PLATE CARBUFFIN Heat and Corrosive F	0.6213000	() § d L
19335003	66451 ERRODE	F-150 M EGR CAUSED CASTING TO	FURU FGASES ERO	E 77 CURRIISTVE EXHAUS	CARRURETOR RASE PLAT COMPINATION HEAT AGO	06223000	17541
00000000	61200	+ ← 1 ∪ U	F URD	11 /ERAL LUCATIONS.	CUIL SPRING SPRING BROKEN IN SEV	02340000	,

21604 33316118	22000 22204227	UNKNOWN 07450150	24500 40503002	35372 40503002	19200 07450150	22000 12601016	21000 55408005 R0T0R.	22000 22204227	22000 22204227	22000 22204227	28946 63010019	28946 63010019	14442 98270095	29134 0160662	
FATRNUNT	FALHIONT	FAIRMONT Several Vehicles.	FALRMONT UCK.	FAIRMONT Icklug.	FAJRMONT ICLE	FAIRMONT	FAIRMONT DISC HRAKE PADS AND	FALRMUNT 4DR	FAIRMONT 4DR.	FAIRMONT 4DR.	FAIRMONT SW	FAIRHONT SW	FALCUM SZW	f lf STA Anly	
TRANSMISSION ANTOMATIC TRANSMISSION FAILED	BRAKE CALIPER CAUSF UNKNOWM, APPARENILY STICKING CALIPER.	LEFT.FRONT SUSPERSION 74 FURD SHOP REPURTS IMAUILITY TU PPOPERLY ADJUST (AMMER ON	КОТОК ВRAKE Brake Rotop щоку excessively as if caliple hecané st	HPAKE ROTOR ROTOR «ORN BEYOND SERVICAALE LIMIT DUE TU CALIPFR ST	STRUT UMARLE TO PROPERLY ADJUST CAMMER ON LEFT SIDE OF VEH	BRAKE PAU Right Front Outbuakd Brake Pad Wurn Out.	DISC RRAKE PADS Sticking Caliper Caused Rapid and Premature Wear to	ΒRAKE CALIPER Malfunctioning πυτθάληρας ραύ completely murn out.	HRAKE DISC (PASSENGERS SIDE) 79 FURD UUTROARD PAD WEAHS OUT, CAUSING EXCESS WEAK UN RUTUR	RRAKE ØTSC(DHIVENS SIDE) OUTBOARD PAD WEAFS OUT, CAUSING EXCFSS WEAF OM ROTOR	RUTOR VARU DUE TO CALIPER STICKING.	HRAKE PADS HPAKE PADS WORN UNE IN CALIPER SIICKING.	CARBUPETOR FLOAT FLOAT SATHRATEU ZITH FDFL,SAFK CAUSED POUR THEE.	ΗΕΑΡ SVAY NAR ΒΑΚ SNAPPED CFF ΓΑUSINU: ΗΕΑΡ NF CAR 10 S2AY CUASIDER	
00000220	03272000	92100000	03273000	03273000	02111000	03772000	00027560	00657550	03273000	03273000	03273000	0021250	0.0021590	09944600	
FA7560	P07721	517789	P07401	20795A	P47913	uço Taq	blo16d	090904	627704	19080d	640rud	020#0d	107963	Soulud	

5.45.00%	80005250	ATEX PUSH PUSH FALLINE.	-1 X ) 4	r 1t 3t A	57000	えんといないたい
e£0×0d	0005230	латея римя Ити батек ригр до кторо и цтяз.	F (: R1)	FIESTA 20R	37000	22204227
utelad	00022250	RRAKE PADS RRAKE PADS ANNI EXCESSIVELY FILE 10 1	ЕСКО ВРВОРЕК РКТОК КЕРАТЧ	GA1.AXTE •	38319	02140002
SHOLUH	05130000	ΙΩLER ΔRE ΡΑΔCREI ΡΟLLEU ΔυΑΥ ΕΝΟΡ Ε	F(1,HU :KANE+	GALAXIE ZUR	37000	00000000
Surray	0155000	IDLER ARF AINDING AT RRACKET FRD. HARD STEERIN	F(LAD) JG.,	GALAXIE 500	62348	14607007
607863	03242000	BRAME HUISE FRONT BVAKE HOSES CRACKED, LFAKING.	FORD	GALAXIE 500	ุ่งสบคามก	11204002
646704	0001100	SIGWAL SAJICH CAUSE UNKNOWN, SIGWAL SWITCH INOPERA	FORD ATIVE.	GALAXIE 500	100885	99206096
89210H	09106000	BRAKE LIGHT SWITCH INTERNAL MALFUNCTION	FURD	GRANADA	UNK NOWN	909090266
1.6210d	10313000	TRANSMISSION WIPEP	Furkty	GRANANA	36553	87110023
P07447	0854000	AMPLIFIER MODULE Internal Malfunction	F('RU)	GHANADA	19520	95336001
601449	0854000	AMPLIFIER MOULLE INTERNAL MALFURCTION	F (1R1)	GRANADA	13237	95336001
P01658	0.0240000	FODHLE AND CUTS OFF.	FURD	GRANANA	48401	F30316139
P07674	03245000	METERING(HRAKF) VALVL. UNKNOWN CAUSF-HPAKES FADE.	FURU	G H A M A D A	14564	55802096
A10604	06212100	CHUKE SPRING AUTOMATIC CHUKE SPRING REDREE CAUSIN	FUND 1907ERATIVE CHOKE.	GHANADA	26351	04104003
42040d	06530000	EGR PLATE HHRWT CANSING CODSIANT EGG	FURD 2, POUR TOLE.	GRAMADA	57152	33316118
PHIR44	00002270	AUTOMATIC FRAUSHISSION LIGAAGE 73 TRANSDISSION JUPPS FROM PARA TU REVE	FURD RSE.	GRAND TORINO	UPIKNOWN	11204002
P97663	05150060	PISTON SKIKT *MOCNIAG UNISE, PISTON SKIPI COLLAS	F11Ri) ()	LINCOLE CONTIN	16000	23230130

14601007	76901023	99206096	44012110	44012110	44012114	63130132	23513001	14607007	14607007	99206096	60609104	01230005	04104003	14607007	33009139
46200	16068	B6504	UNKNOWN	34479	68956	29688	37185	56625	66524 10N。	a4565	39110	00005	29051	92452	1 0 0 0 0
LTU	٥٢٦	LTD	LTD	LTD	LTD	LTD XHAUST. GASES。	LTD	LTD	LTD ADED TRAVEL SUSPENS	LTD	LTD	LT()	LTD	ISY. LTD	L 1 D
FURD	FORD	F 0.8 ()	F GRU	F (,R')	F URU	FURU) SIVE AND HAT E	FORD	F 0 P t)	FLRD UBJECT FO U34LU	FURD	FURD	FURD	0a34	EQUD FOUD	Е ОРО ИЕ АК ЗРАКК 。
ENGINE MUNTS TO FAGINE MOUNTS TO	ELECT.IGHTTOM MODULE ELECTRONIC IGNITTOM MODULE FAILURE	SIGNAL SHICH INTERNAL NALFUNCTION	HADIATUR Radiator Faileu	MODULE 77 Car stalls in Traffic	IDLER ARM TORE AWAY FRUM FRAMF IDLER ARM TORE AWAY FRUM FRAMF	EGR SPACER PLATF Egr spacer plate erroden nue tu curru:	MASTER CYLINDER Primary CUP Failure. Luss uf Pedal.	IDLER ARM Excessive mear.	REAR BYAKE HUSF Hose Appears tou shokt. Splits when Si	SIGNAL SWITCH SIGNAL SWITCH ANT ANAKING.	FAN FAN BLADE BROKEN.	PRESSURE SEMUTION UNIT OIL LEAKING FROM SEMDER UPIT.	ытной РЕСПІЛТОР Regulator Phenatheely «омч онг.	TOLER ARE IDLER ARE BUSH(ER SEIZED TO SHAFT, HAI	COLL MIGH FENSION VOLIALE LEAR RESOLITED IN
0001150	00000580	00001160	10001250	00001590	01530000	06233000	03230000	0153000	03245000	0001160	0000720	0002150	1 5460000	01530000	50005300
P07 33A	P87417	P01429	P87510	PR7611	p07613	P07699	P07714	P01735	001140	P07701	p08073	P07178	1,181,04	548704	14 1 4 1

	6															
99206 <u>096</u>	F3031613	07450150	17754007	<b>99206096</b>	92103122	17754007	33316118	99206096	63130132	33316118	33316118	33316118	33316118	90027012	11561164	90027012
H5861	UNKNOWN	25372	56741	1947	33364	49948	56604	UNKNOWN	29692	31251	31251	51251	UNK NOMN	40622	63000	46825
L F I	LTD 2 SE IN PAST 2 YEARS	וו טוא	LTP SDN	LTD SW	LTD SW	LTD SW	MAVERICK	MAVERICK	MAVERICK	MAVERICK	MAVERICK	MAVERICK .	MAVERICK	MAVERICK	riave.rtck	MAVERICH
F(;R() KE.	Е (121) - SEER NAMY OF THE	(, Ł, ), Ł	F URU	F∪RU LIGHT DA£SNT WORK	F (.RI)	FURD NVERHEATING.	FURD	FURD	F C.R.D. SING	FURD	F ( . R ()	FURD	FURD	F(IR)	F (iRi)	F (PU)
72 SMITCH OF LEAD IN WT	78 TTON WZ HEFT BUTLOUP	VTER TASE FAJLURE.	ISE 72 LEAKS ON MARIFOLD.	71 1000 1661 178 00000	79 IED FROM FLYWHEEL		11.01	2H 71	74 CHACK UN TUP OF HOU	3earliig Seal LEAKS	.77 VASTER CYLINDER LEAK	77	13 10 FLOOK 73	12 12 12	74	70 PCHEFING EDIF 2080
SIGNAL SWITCH OPEN CIRCUTT IN S	AMPLIFIER MODULF Internat malfuuct	DIFFERENTIAL CAPP DIFFERENTIAL CAPP	POWER STEERING HA HOSE PUNCTURED, L	1/S SWITCH Internal malfungi	FLYWHFEL Ring Gear Separat	SENSOR RETARU HEL Spark retard rel/	IGNITION MODULE Internal Malfunci	TURM SIGMAL SWITC INTERNAL SHOPT	EGR PLATE CLUGGEU UP & HAS	AXLE REARING/SEAL Right Rear Axle f	MASTER CYLINDER Rear Portion OF 6	DEFROSTER SWITCH SWITCH STICKS	MASTER CYLINDER PFDAL GOES HALFUN	MASTER CYLINDFR JMTERNAL LFAK = L	FLEY FAN Fan Alade Awukem.	НЦЕХ РЦАТЕ Томоне сничентем
00001160	0.5.540000	01450000	01350000	09110000	0.014000	08550600	0.4.2.4.0.0.0	00001160	0.6500000	07463000	00005550	11101000	03230000	03230000	02240000	0.0000150
120604	P07514	P#1905	a [Uhud	perron	P01645	407823	P07574	P07371	P07489	p07554	P01557	P07554	PR1569	P07517	STARD9	P47A03

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63130132	00000000	33316118	90027012	53140005	07450150	99206096	00000000	20750039	04104003	19401061	27105003	40503002	60609104	90027012	33009139
41000	44000	40156	101428	59602	22133 1ECHANISM.	76694	UNKNOWN	UNK NOWN	UNKNOWN .	16100	42060	41645	36084	1 4 4 5 5	38275
MAVERICK	MAVERICK	MUTOR HUME	NUSTANG	hustang	MUSTANG ATE ADJUSTMENT M	MUSTANG	NUSTANG	MUSTANG 2	MUSTANG 2	MUSTANG II	NUSTANG II	MUSTANG II	MUSTANG II	II SWATSOW	FUSTANG II
F CR0	FURD	FURD FURD	FURU FIME AXLE BROKE	FURD	FORD FUE TO INANEOU	FURD	F0R0 7 01L.	F(PD)	FURD	FURD	F URD	F URD	FURD	F URD	F(R)
HREAKER POINTS Rubbing block brukew off McVarlf Arm.	PAUTAL TURELESS FIRE TREAD SEPERATION CAUSED DAMAGE TU BODY	IGNITION MODULE Internal Malfunction Causing Intermitt	AXLE AXLE HROKE - CAR WAS REING PARKEU AT T	CAM SHAFT HRUKEN IN HALF, CAUSE UNKNUKN.	L.F. MCPHERSON STRUT UNARLE TO PROPERLY AUJUST CAMHER ANGLE	SIGNAL SWITCH SIGMAL SWITCH GFTS HUT, OPEN CURCUITS.	VALVE LIFTER STICK LIFTER ALLEGEDLY CAUSED AV MOTOR	IGNITION MODULE Internal Malfunction.	BREAKER PLATE Breaker Plate Ground Wire Bruken.	MATER PUMP Pump Shaft Loosf	САМ9НАЕТ GEAR теетн виркел	DISC BRAKE RUFUR DISC BRANE WORN EXLESSIVELY	FAN FAN BLADE BPOKFP	MASTER EVITUDES INTERNAL LEAK, PENAL SJUKS TO ELGOR,	רעיז ארעוני ברקינטרה או עוני מייטייניי זיבר
0.0.0.0.5.4.0	02740000	0.8540000	97462000	05150030	02120010	00001160	05150030	00240000	04530001	0523000	05150036	03273060	05240000	0323000	00000250
01040	PAR005	911104	P07524	P01725	pra7a49	57610d	7997A9	P81076	P09017	P01464	011114	P01623	F64674	PGTANZ	561180

99206096	33316118	99206096	55407066	27105003	07621154	19335003	01230005	01230005	23513001	23513001	3857005	01230005	23513001	01230005	22204227	01230005
500736	36340	72978.2	25943	33202	IJNK NOWN	48000	71800	71800	3000	30000	38225	80550	42087	48000	6000	40000
PICKUP S.	PICKIIP	FICKUP	PTNT0	PINTO	OLNIA	PINTO	PINTO TOF VEHICLE	PINTO AT OF VEHICLE	PINTO	PIRTO	PINTU FRUM STANDSTILL	PINTO	PINTO	PINTO	P [NTO	P1810
FURN NU TURM STGRALS	F()RU GНМАҮ.	F(P()	FUKU	F(F)	FURD	FURU	FURU SHAFT IN FALL UI	FCRD Shafi To Fall Cu	FURD	FORD	FURN & STALLING	FURD 1. NOI START.	FURD HAUST LEAK.	FURD	Fren	FLPD S IN GU JHT.
SIGNAL SWIICH OPEN CIRCUIT IN SWITCH OR LFAD WIRE.	IGNITION MODULE VEMICLE STALLS NHILF THAVELING ON HI	SIGNAL SWITCH UN OPEN CIRCUIT IN SWITCH ON LEAD IN WI	AFAR AXLF AXLE NUT RELUFD ID ANLE HOUSING	САМЯНАЕТ GEAN ТЕЕТН ВРОКЕЧ	FAN FAN BLADF RROKE (JFF & CRACKFD SHKOUD	FLYWHEEL (FLEX PLATE) 72 CENTER (HUR) TUPALED (HU	UMIVERSAL JOINT Excessive rearing wear caused drive :	UNIVERSAL JUINT Excessive rearing wear caused drive :	RACKRPINION GEAR HOX Excessive Play at Finium rear.	EXHAUSI MANIFOLD EXHAUST MANIFOLD CMACKS.	ELECTRIC IGNITION ANDLIFIER INTERNAL MALFHMCFION, CAUSING HESITA	FUEL PUMP LEAKS AT SEAM. VEHICLE WILI	EGR VALVE PINTLE VALVE HURMED AMAY, CAUSING EYI	AMEEL MEARING AMEEL REAPTING WIN-NUTSY.	FAN BLADF FAN BLADE EROKE VHILE IN NPERATION.	HEAD LIGHT SWITCH TWIERPAL SHORT CIRCUIT CANALAG LIGHL
00001160	0854000	00001160	0240004	05150030	0524000	05140000	07411000	07411000	0140000	05150000	08540000	06136000	00000590	02170000	0224000	0016000
P07A18	P04041	ปรับธุญส	551184	P07413	P07520	P07582	24420d	601602	199169	p9768a	P07715	P81727	Pn7758	P01776	Р <i>к</i> / 344	aga 10d

01230005	12601016	0000000	95336001	95336001	17754007	87110023	85203098	87110023	40504039	90027012	07450150	40503002	14607007	90045061	33308038
48000	UNK NOWN	UNKNOWN	33808	14896	51339	13102	30000	07819	41957	20890	22610	45752	39652	63000	64598
PINIO	RANCHERD	S S	s v	ŝ.	So	THUNDERBIRD	THUNDERBIRD	THUNDERBIRD	THUNDERBIRD	THUNDERBIRD	THUNDERBIRD	THUNDERBIRD	0.01101	TORINO	UNIADI
FURD	FORD	FORD	FURD	f (JRI)	FORD CARBURETOR	FURD	FURD	FURD	FORD	FURU CAP CRACKED.	F(RD N LÉÁK 。	F ORD	FORD	F () R ()	L FURD .
DIMMER SWITCH LIGHT NO HEADLIGHTS. DPEN DIMMER SWITCH, NO HEADLIGHTS.	MASTER CYLINDER Primary cup Leak- Loss of flutd	73 Rear axle fatlen-wheel & axle came off	AMPLIFIER MODULF Internal Shirt	AMPLIFIER KODULF Internal Malfunction	CARR BASE PLATE Plate Burnt Out Causing Malfunction at C	BATTERY BLEW UP	ELEC. IG. AMP. MODULE 78 Internal MalfungfIon	THROTTLE SHAFT CAM Accelerator Sticks	WHEEL 77 ROAD WHEEL STICKS UN AXLE FLANGE.	DIFFERENTIAL CARRIER Left side diffrential carrier rearing (	REAP AXLE Grunve worn in frak axle causing seal ti	HRAKE HOTOR Rotor form heldin servicfarle limits.	STEERING TOLEN ANN LUOSE 73 Steeming Tolen Ann Luose	FAN RLADES H4UNE OFF	STREMTPG COUPLED PLASTIC COUPLEA REDREM - LOSS OF COMTROL
0010160	03230000	0240000	04540000	08540000	06500000	00100180	0854000	1640000	02620000	0105070	01620000	03273000	01530000	000650	01160000
P07993	P01567	PA7423	52010d	p01454	P07542	P87420	601400	P07385	PR7R37	p97904	n86184	P0804 %	20140S	HP WIUd	porga

481042	00095450	MASTER CYLTWIER Secondary seal fajlén durimg ins	70 FURU Fallation à Blefuing.	106.150	6 0 0 V	90027012
05430	0001160	SIGMAL SWJICH Internal Matfumctium	75 FURD	٨N	3 A 4 3 4	99206096
44210d	0.4540.000	IGNITION MODULE Internal Malfunctium	HN FURD	UPKNOWA	NMONXNO	F30316139
505Lüd	000004280	IGNITION MODULE Internal Malfunction	LIN FURD	UNKHOWN	NWONNN	F30316139
いわうていけ	0325300	MARTER CYLTHUER PISTUN Corrosion Causing Hrake Fluid Le	UN FURD	имк момч	IJNK NOWN	01230005
P07659	0854000	MODULE Cuts off	77 FURD	UNK MOWN	22000	F30316139
P(17462	00000	EGR PLATE NOTSY	73 FURU	VAN	69754	33316118
P87898	13110000	FRAME RUST CAUSING FROMT SUSPEMSION ME	69 FURD BERS TO PARTIALLY DE	VAN FACH FROM CHASSIS.	53000	11204002
20060d	01100000	STEERING INSERT UNAHLE TO DETERMINE EXACT CAUSE	77 FORD JF PIECE BREAKAGE.	٨٧٧	53010	02888001
04916d	03230900	MASTER CYLINDER Forð Master Cylinder With 1" Húri	(114 FURD) E-CUPS WILL NOT SEAL.	VARIES	VARIES	0000000
P01643	00002540	MEUTRAL SAFETY SVITCH Internal malfunctiuk	UA 6.M.	UNK NOWN	UNKNOWN	01230005
H61704	01510000	PITMAN ARM Excessive play ai Ukag Link FNU.	7.A GNC	C 500	35094	19020002
P07501	07440000	DRIVING HUN SPLINE STRIPPED - 1/0 PUNER TU`NH	72 HONDA JELS	600 CUIPE	19654	90027012
£67709	06610000	EXHAUST MANTFOLD Inner steel linteg (nverheatfg am	77 HUMUA / CULLAPSED	ACCURD	61805	33316118
114104	00025220	SOLEFOID STICKS	7.e HUNDA	CIVIC 1200	17578	33316118
etalog	0002\$280	SOLEPOTO CAR DID 401 IDLE.	76 нсмба	CIVIC #460W	31281	33316118
800604	00002220	SHIFT FOWK JUOPS UND GF 4TH GEAR.	7.P. JATENNATIONAL	SCHOOL RUS	1606 I	23273236

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el,

PA7529	02150000	LOWER COMTROL AR <sup>M.</sup> Control Arm Snapped Off CAH = Ho	T3 ILT WAS RI	INTERNATIONAL Pfeu out	TRAVELALL	93915	F30316139
P07372	10311000	WIPER/WASHER SWIICH Internal Malfunction	7.8	JaGijak	אטופר	10400	33316118
P07772	10321000	WASHER/WIPER MOLUR Internal Malfungiin <sup>n</sup>	7.8	JAGUAR	۲ <i>۰</i> ۱۶ ۲	10400	33316118
P07470	01330000	STEERING HOSE High Pressure Hose Hecare Uiscon	7.8 NECTED WH	JØGUAR ILE VEHICLE WAS	XJ12L SEDAN 3 Turning Left.	13002	33316118
PUTAJO	01120000	LOWER STEERING COLUMN Excessive Near Ju Universal Join	79 IT PINJON.	JAGUAR	ХĴб	16341	33316118
61018d	0371000	CALIPER Caliper Himoing, Brakes Graf.	61	JŁĘP	RENEGADE(CJ-7)	UNKNOMN	20750039
PR7973	03271006	RRAKE CALIPER Caliper Binding, Rkakes 64A4.	19	JEEP	RENEGADE(CJ-7)	UNKNOWN	20750039
pg1074	03271000	BRAKE CALIPER Caliper Binding, brakes grab.	61	JEEP	RENEGADE(CJ-7)	UMKNOWN	20750039
240804	12421000	FUEL GAUGE Fuel Guage Inoperative.	7 a	JEEP	⊮ÅGONEEP	55385	01230005
904090	07470000	REAR TRANSWISSION SEAL Iransmission seal worn, uil lear	7 tu 5 .	JEEP	WAGONEER	50000	01230005
P07310	00020160	HEADLIGHT SWITCH Internal Short-Lights blink	74	LINCOLN	CUNTINENTAL	88397	99206096
60014d	06213000	CARRURETOR Plug In Caphiretur Runy FFLL Out	75 CAUSING	LIMCOLM FUEL LEAK.	CUNTINENTAL	NMONNNI	08244012
P04057	05150090	IIMING CHAIN COVER TIMING CHAIN COVER CRACKED.	77	LINCOLH	CONTINENTAL	23146	19409113
palaq	08540000	ІБМІТІИМ МОЙИLE Імтериац Мастіой Імтермінтер	0111N91 [	LINCOLN V FAILHRF.	CONTINENTAL TO	55000	11204002
P07452	00001166	ЗІБНАЦ SVITCH Імтекиац маценностірно	69	LINCOLN	COUPE	82038	99206096
510181	000000000	14611160 MONES	67	LINCOLN	MARK S	3000	20750039

	0.5300.00 0.8540.00	IGATIO <sup>N SQU</sup> UE SCIICHES IGATION COUTEDL SUBUE SCIICHES IGATION IGMITTOM FODULE	79 LINCOLN 79 LINCOLN	танк 5 .ик.Ittf.uLv. Арк 2	21096 21000	33316118 33316118
102510	0.0	CONSTRUL PONULE SALICHES IGALIJUM IOLER AR <sup>1</sup>	PN AND UFF JMTERAITTEI 71 JJMCOLM	HLY. Mark III	R 2500	14607007
5		EXCESSIVE WEAR AT PPACAFT END.		4 4 		
0.6580	000	EGR SPACER HUMMT DHF - CAUSED HULSE R RAS FU	75 LINCOLM MF LEAKS	VARK IV	48385	95336001
110	0000	SIGMAL SHITCH Imternal mateurciion	74 LHICOLN	MARK IV	08579	99206096
0.8540	A000	IGNITION PODULE Internal Pathunction.	7.8 LINCARN	MARK V	25275	33316118
0133	0000	HTGH PRESSURE HUSE CRIMP AT PUMP ENU FAJLS TO MOLD H	77 LINCULT URH PRESSURE LEAKS.	VERSAILLES	87700	1010101
1324	5000	ВРАКЕ РЕОРОНТІОНТИС VALVE ВЕАР ВНАКЕЅ LOCKUP VITH «ПНИАL AP	7A MAZUA PLTCATION.	נרכ	19495	67501001
0324	0005	РКИРИКТИИТИК ААLVE Reer whfels lock up with Nurmal b	77 HAZHA RAKE APPILICATIOH.	GLC ZDR.	24777	67501001
4580	2000	РРОРОРОЯТІСКІМС VALVE Rear wheels lock up with Normal b	77 MAZDA Rake Application.	GLC ZUR.	19495	67501001
0326	0.002	HRAKE SHUES INSUFFICIENT SELF AUJUSTNENT CAUS	77 MAZDA EU UNEVEN WFAR.	GLC 20R.	19495	67501001
5150	1000	CAM CHAIN TENSIONER Motor oil Alleged Caused Plunger	64 MERLEDES HENZ De cam chain tensionen	190 2 10 STICK.	UNKNOWN	00000000
0215	0000	LUNER CONTROL ARM ΗΡUKEN AT PIVO) Loaer control Arm Ηρυκεώ at Pivo)	72 MERCENES WEN7	₽80 SEL. 4.5	93280	32404167
0854	0000	IGMTICA MODULE Fagine Buits while Runding.	7.8 MF PCIIRY	RONCAT	24384	23513001
0323	0000	RRAKE MASTEP CYLIEDER PEDAL STICKS + THTERMAL FALEURCTI	7.6 МЕРСИРУ Он	САРКІ	52657	90027012
1150	0090	TRAMS FLEX PLATE PLATE CRACKED WEAR TURNUE CANVERT	67 MERCHRY FR FOUNTING HOLE.	COMET	62300	01606062
0 4 5 4	000	ELECTRONIC CONTROL OF INTI I'TERRAT MALFURCTION, VEFTLLE STA	77 PERCURY LLS PUSING OPERATION.	CUUGAR	UNKROWN	98270095

99206096	33316118	95336001	01230005	04104003	99206096	29405008	95336001	07450150	04104003	06033091	06033091	14607007	63130132	17754007	06033091
24547	00076	30000	74000	18000	92125	13848	27752	26010	86315	95000	000S	56250	65000	18874	NMCNDMN
COUGAR	MARGUIS	MARQUIS RESULTED	MARDUIS Sor	MAFDUIS	MARGUIS	MUNARCH	MUNARCH	MONARCH PULLS TU RIGHT.	MUMARCH H RADIATOR.	₩0NTEG0	MONTEGO	MUNTEGO	091EG0	MUNTEGO	MONTEGU MX
MERCHRY RATIVE.	MERCURY	M£RCHRY - LEAK & FIRE	MÉRCURY FIVE COMPRESS	ME RCIJR Y	MERCIJRY	MERCHRY	MERCURY	MERCURY ALVE, VEHICLE	MERCURY FL.EW THRONGH	MERCURY KET	MERCURY	MERCURY	ME RCURY	MERCURY	ME MC116Y F
HRAKE LIGHT SWITCH DPEN CIRCUIT SWITCH, SWAKE LIGHTS INOPER	TURM SIGWAL SWITCH Internal Malfunction	POWER STEERING HOSE 70 EXHAUST MANIFOLD - HOSE WAS TOO CLOSE TO EXHAUST MANIFOLD -	A/C COMPRESSOR PEARING Worn Compresson Hearing Lausing Inoperat	EGR VALVE 77 VALVE STICKS OPEN DUE TO CORROSIUN.	SIGNAL SWITCH Cause unknown, signal switch inopenative	WHEEL REARING Hearing Broken	AMPLIFIER MODULE Internal Short - Engine Stops Running	STEFPING CONTROL VALVE 76 Malfunctioning power steering control va	FAN RLANE Flexible blade on cogling fan eruke anu	SHIFTING SACKET SHIFTING SFLECTOR RIPPED OUT OF ITS SACK	HFAR AXLE REARING HFAR AXLE HEARINGS FAJLFU	1DLER ARM FYCFSSIVE NFAR.	BMAVE HOSE 71 FLEXIPLE MOSE CUT REAR JUNCTION HLOCK.	EMERSIUN COMIPAL VALVE. 75 EGR VALVE HUMMI CAUSIMG COUSIANT EGP.	алце⊸иртел, нин телт реам алтелнин птоголого (тит Евль Алт
001040160	00001160	01330000	1160900	0000290	0011000	02483000	0654000	0130000	05240000	01320000	02483000	0000230	00027286	06530000	00041420
610604	P07373	p97457	11.420d	P07885	P(17945	P01436	P67453	FB1715	P11875	erura	P()/43	p11739	106104	020×0d	b(1010)

802100	0353000	HRAKE MASTER CYLIPUER Internal MalfingTIDN	7.3 МЕРСИЛУ	AUNTEGU SW	NMUNYNN	14607007
01418	01530000	IDLER ARM IDLEP ARM PULLED AWAY FPUM FRAME.	71 MERCHRY	NDNTFREY	<b>6</b> 8860	04038005
154700	000001160	SIGNAL SWITCH Internal Malfunction	72 MEPCURY	цык мө <i>мы</i>	91125	99206096
205200	0.000750	FAN FAN BLADE HRUKEN	7.2 MERCURY	NMGNANU	108698	90027012
204700	0614000	CARBURETOR HASE PLATE CARB HASE PLATE ERRIDEU UUF 10 HE	77 MERCURY AT AND COMRUSIVE EGR GA	UNKMOWN ISES	21742	06856001
100100	00008250	FAN FAN BLADE CRACKFU.	7 4 МЕРСИRY	NWANN	59912	68510001
744780	02110000	ENGINE MOUNT BPACKET BROKEN AT NU	78 MERCURY UNTING BULT HOLES.	<b>г</b> ғрнүқ	00062	22204227
DIRAK	0377500	HRAKE PADS BRAKE PADS WURP DUT AS IF FLUATIN	7.8 MERCHRY G CALIPER RECAME STUCK.	ZEPHYR	26000	04104003
n9779u	02760003	TIRE Rroken Steel Belt Prutrinting Thru	70 MGB Ugh Tread	ROADSTER	39820	67501001
058600	08540000	MADULE INTERNAL MALFUNCTION, VFHILLE RUI	70 MGR TS MJTHUII WARNING.	RUADSTER	2361 <i>4</i>	33316118
550180	03261000	PEAR BRAKE CYLINDER Wheel Cylinder Pistum Seals Insta	74 MGB LIFU MACKYARD CAUSING L	RUAUSTER .0SS OF HYDRAULEC P	94178 RESSUR	67501001
87954	03261000	RFAR HRAKE CYLINDER MHEEL CYLINDER PISTON SFALS IDSTA	к9 — мен Lled Hackkard Cansidg L	RUADSTER .0Ss of hydraulic Pi	UNK NÕWN RESSUR	<b>675010</b> 01
87955	03261000	PEAR BRAKE CYLINDER WHEEL CYLINDER PISION SEALS INSTA	70 MGA LLFD BACKWARD CAUSING L	RUAUSTER .nss of hydraulic Pi	82304 RESSUR	67501001
196160	00377700	DISC 9PARE PADS DISC 9RAKE PADS DR DWE SIDE WORE	79 mgp Excessively.	RGADSTER	14000	93702194
546100	00020160	LAMP SWITCH HEADLIGHI SWITCH CPFKAIE'S FAFATIC	7.8 NGA ALIY.	RUADSTER	31913	97303038
520100	00001120	JMMER & MUTER FROMT WHEEL HEAQ Wheel heartwes fatted due to lack	79 ՈԼԹՅՈՌԱԼԼԷ ՆԲ ԼԱԳԷԼՆATTON.	CUTLASS	38993	22201004
01940	11503000	BLOWER MUTOR FAM MOTOR INNPERATIVE.	ծն ՈւսՏԽՍԳԼԼԸ	CUILASS	8758	55802006

056 84057040	414 90027012	530 A5268105	000 40204030	623 14607007	000 00033091	KNOWN 08244012	080 03060006	00 24017016	777 57006007	543 57006007	370 87110023	KNOWN 30313006	489 90027012	421 63130132	
CUTLASS 46	ClitLASS 35	CUILASS SUPREM 13	CUTLASS SUPREM 32	0.ELIA A8 35	0f.LTA 88 97	DÉLTA 88 ) SHAITER.	UELTA 88 23	DELTA 88 45	TURUNADA	TURUNAD0 19	10804460	VISTA CRUISE UN .OUSMESS	61	111516 P	
OLDSMORILE	OL DSMORTLE	OLDSMOBILE	nt OSWDMILE Alicn.	J.I. BUMB J. E	010500811.6 010500811.6	OLDSMURILE Cklite Window TC	0L05400A1LE	OLDSM091LE	0LDSMORILE	OLDSMOH1LE L1SJ04.	OLESMORILE	∩LOS∺OMILE BR⊖KE CAUSING L	ารสบ	HEFIOWA TH	
74 Rakes Tu Gran.	11	I.R.	TA TAKE APPLIC	75	68 HURN FXCESSIVELY -	DEFUGGER 79 FUNCTION CAUSED BAC	78 JPF. NEAR.	80 WICE IV 4500 MILES.	79 FN.	ICENENT STUCE & COLI	78 /ACUUM ASSISI.	HIG MARNE ARN TU FRAME	7 0	13 IL IL	
COMMINATION VALVE MALEUMCTION CAUSING E	MASTER CYLINDFR Internal Sfal Lfak.	HPAKE GASTER CYLIMDEN Internal Palennen	DTSC REAKE RUTOWS PEDAL PULSATIONZWOTSE	STEERING IULER ARM Hard Steering In Pigh	TIMING SPPOCKET Engine Chain & Gears	REAR WINDON FLECIPIC Electric defiggem mai	HEAP BRAKE SHDES EYCESSIVE ANL PREMATL	FRANSMISSION Fransmission Fatled 1	BRAKE RUTUR U1SC BHAKE RUTHP RRUH	НРАКЕ R0104 THIS 15 THE 4TH HFPL/	POWEH BRAKE BOOSTER DIAPHRAGN BROKEN.AO	AOLT HOLDING UPPEN CO BOLT HOLDING UPPEN CO	KATAP MOUNTS MATAP MOUNTS BROKEN	ЕНОИТ НИАКЕ НИЗЕ-НУОН НИЗЕ СИЛСКЕО	
03245000	03234000	0223000	0.0057560	0153000	0015150	10130000	002563000	01300000	03273000	03273000	りいいしょう	05141000	n0001150	09242000	
POROUN	[~u80d]	907482	ԲԳԱՈԵս	Polaga	P01445	200784	14010d	043040	79184	かさいそりオ	49036	Scorod	114104	101160	

63130152	63130132	90027012	1902002	14607007	90027012	11204002	11204002	F30316139	F30316139	17109006	23513001	23513001	63130132	63130132	94206096	21770040
52152	32132	55938	72373	44602	58708	58780	58780	91547	92287	30000	15197	68013	71000	51000	50168	A0000
00STER	01051EP	DHSTEP	U1JSTER	UUSTER .0N.	DUSTER CIRCULATION.	DUSTER	DUSTER	F URY	F URY	Y AU P	FURY	FURY	FURY	F UR Y	FURY II	FURY II
нтилинтн	H 1(H)'1 H	РГҮНООТН	нтиону д	PLYMOUTH FOR APPLICATI	PLYMOUTH Exhaust gas re	ргүмоцтн	нтилята	РЦУНОЦТН НІСЦЕ (РНОТО S	ргүмонти	нтилмү ја	PLYMONTH A'ND STALLS.	РЦҮМОИТН	PLYMONTH IN STEEPING.	ртиомуна нтиомуна	PLYNOUTH KE PEDAL	рт үеонтн
ΕΡΟΜΙ ΑΡΑΚΕ ΝΠΈΕ-ΗΥΝΕΑΙΗ.ΙΓ ΗΩSE CAACKEN	FRONT BRAKE MUSE-HYDPAIN.IC 14 HOSE CHACKED	υινελτερ ναινε Ιμιεριμαι μεακ, κρυση τυικ, μαρυ σταρτ	MASTER CYLINDER 141FRMAL LFAK	НРАКЕ НОЗЕЗ НОЗЕ АНОКЕН ИЕЛА ЕКО, АЗ ТЕ ТОО SHURT	EGR VALVE 74 PINTLE VALVE HURMED CAUSING COMSTANT E	HRAKE HOSE FRONT HRAKE HOSE CRACKED, LEAKING.	HRAKE HOSE FRONT HPAKE HOSE CRACKED, LFAKING.	TORSION HAR BAR SNAPPEN IN THO ON LFFT SIDE UF VEN	FLEX FAN UNE ALADE URUKEN	AIR PUMP FROLEN, INOPFHAIJVE. 76	ARDULE 75 Intermal malfunction endly misfires,	IGWITION COMFROL FUDDLE 73 Engine Stalls, wom't mestart "Hen Hut.	IDLER ARM 71 IDLER ARM HUSHING WORN OUT, LOUSLNESS	TDLER AR <sup>2</sup> Excessive wear at Hushing Evid Couses 9	THER SIGNAL SEITCH Imternal Malenmetton nu left side Hran	-STEEL RELTED RANIAL 18EAD SEMEWATINE
03242000	93242000	00002300	0323000	03242000	0650006540	0324200	03242000	0006120	0224000	0651000	08540000	0.8540000	01530000	01530000	0000116U	00007700
P07406	P07406	drt./0d	P07536	557704	011100	Puters	P07256	85284	P0/59%	02116d	PUTHEN	P()7A16	¥n620d	208035	P01425	PRTATH

14607007	01230005	01230005	07621154	12601016	23513001	20008016	63130132	11223191	10770178	F30316139	01230005	33145005	33145005	14607007	29379007
46851	NMGNNBMN	86000	6400	22000	UNKNOWN	15000	61115	110562	UWKNOWN	UNKNOWN	UNKNOWN	40582	4 0 A 2 0	38410	00077
FURY III	FURY S/W	FURY S/W	FURY SUBURBAN	HORIZON	HGRIZON	ΗΟR J ΖΟίν	SATELLITE G	SATTELLITE Aftfr Installation.	SCAHP	м Х	UNKNUWN	VALIANT	VALIANT	VALIANT	VALIANT
нтимитн	PLYMOUTH WSIANTLY.	HTUUUTH	ргүмлтн	ргүлдитн	PLYMOUTH Nifold Air Leak.	PLYMUTH , WHEN UNLOADED.	PLYMOUTH 1 LEAK OVFRHEATIN	PLYMOUTH LEAKING 2 MONTHS	р. Р. Үминтн	PLYNOUTH F. PHOTO SENT.	ргүмоцтн	PLYMUTH	PL YMOUTH	ргүлинтн	РЕУМОЛТИ РЕУМАНЗТ РТРЕ
IDLER ARM Hand Stffring, htdlmg at idler Arm	OIL PRESSURE UNTI Sender Groumped, OII Light Stays on Con	SALENAID CONTACT Solenaid Inumerative Cause Harrown.	FAN BLADE 75 TIPS OF FAN BLADES HROKEN UFF.	RIGHT, FRONT, WHEEL BEARING Rearing wear cansing grumling noise.	CARBURETOR ISOLATOR Warpeo Mounting Elock Caused Intare Man	MCPHERSON STRUT Strut Lunse at upper muunting position,	TIMING CHAIN COVER Water Passages cuprined causing coulant	MASTEH CYLINDEH Néw Replacemeni Master Cylinder Began l	HRAKE HOSE Ditter Cover uf Front Rhake Huse Crackeu	FIHESTOME 500 TIRE Severe belt separations, thead came uff	GASKET GASKET LEAKS.	SEATHELT INTERLUCE UNIT INTERNAL SHORT	SFATBELT TUTFRLOCK UNTI THTEPNAL SHORT	ראאגר אטאניטאניט אינטאנעט אראאני אטאני הבאר מעדער אראייי אינער	LATALYIIC COPVENTER COVERTER LOUGHTER SMALTERD.TLAVELED I
01530000	0000080	08232000	05240000	02170000	06233000	02120010	05150000	0323000	n3242000	02709660	02150020	060906590	04550000	03242900	00016490
P07743	529709	160803	P07482	54080d	P07875	7209997	P07615	くくっちょく	P49033	060164	もそらとりす	n5210d	245104	P01755	000164

11204002	63130132	01230005	24017016	76103004	F30316139	22207212	07450150	N 95207019	N 0762115a	N F30316139	N F30316139	F30316139	F 50316139	v F30316139	63130132	
10306	74000	2000	26085	17562	16000	24000	39000	R.E.	UNK NOM	UNK MORI	UNKNOWN (D1FF CARS). PHOT	22000	25000	UMKNOW	53415	21210
VAL I ANT	VALIANT	עחן גאנ	VDLARE	VULARE	VOLARE	VOLARE Manager	VOLARE	VOLARE G BRAKE FAILU	VOLARE	VOLARE PHOTUS SENT.	VOLARE ON SIDEFALL	VULARE	VULARE	VOLARE LVE CRACKING	VULARE	
PLYAGUEH	нтинути	HINDEA 1d	hLitotiA	нтинитн	H1001:A Td	FLYMOUTH CHRYSLERS SAYS	PLYMOUTH	PLYMOUTH ARACKET CAUSIN	PLYMOUTH	PLYMOUTH FERFUT CARS).	PLYMOUTH HAS HUGE HALE	PLYMOUTH -LUJD LEAKAGE	нтиому ја	PLYMOUTH FINUED TU REVO	H±∩0⊌A Ta	
НРАКЕ НОЗЕ СРАСКЕР. И Ваке нозе сраскер.	10LER ARM JORM OUT AT RRACKET MUSHIN	CARRURETOR INTERNAL MALFUNCTION	HRAKELINE FATEN INTO RY HAITERY AFIO	HRAKE CALIPER PISTON FROZEN 10 CALIPER	РІЗТОН 400 РІЗТОМ 200 НАЛАРИ	BRAKE CALIPÉH Califérs Frééze - Commun Pruplém 10. Califérs Frééze - Commun	FRONT SUSPENSIUN No upper shaft support brackets	SUPPORT BRACKET Control Are toke Lucse from Suppurt e	POWER STEERTING HUSE Hose wore through on mattery case	GOODYEAR TIRES Two likes have helt sepanalions (dife	77 Iwo Tires Have Belt Sfpakalions, One	HRAKE LIVE Mattery acid corrision caused hrake f	BRAKE LINE HATTERY ACID ALE HULE IN LINE	PISTON ROD Rod Broke Cleaw - Crannshaft Frid Cori	HRAKE PISTON PISTON CORRODED AND FRUZE IN HOUSING	
0.0294200	00005410	00001290	03241000	09571000	05150060	00011250	0210000	02110000	01330000	05700000	00000220	03241000	03241600	0415000	03271000	
22010d	096704	163194	P01316	PRINCH	75#164	0 by Lod	PA7045	160709	P07521	055184	PP7531	P07515	P(1515	A.1709	P07534	

65130132	01450150	19805002	011210##	01450150	78701089	23701047	F53702100	19401061	19401061	14607007	07450150	05105710	11204002	11204002	39501021
53415	UNKIOWN	17982	15001	NMŨNXNŪ	27843	34000	57897	14796	14796	N / A	24638	24638	2A085	28085	00001
AnL ARE	VOLARE	VOLARE	VULARE	VOLARE	V0LARE	VOLARE	VOLARE HOLES	VULARE	VOLARE	VOLARE	VOLARE	VOLARE	VOLARE	VOLARE	VOLARE
нтимата	HT(10±AJtH	нтцомтд	нт или н	н тиому да	PL YMOUTH	PLYMOUTH	PLYMOUTH N A1 KOUNTING	PLYMOUTH Ng Hracket	PLYMOUTH Ng bracket	Р1 ҮМОЦТН	H1H0W1Jd	нтиомт да	нтиому 19	РЕҮАОНТИ	HIDOWADd
16	4 1	11	7.4	76	7.8	11	C 77 CKET AROKEI	78 3RT/L0CATI	78 RT/LUCATI	7.7	78	7A	11. 11.	11 010	11
PRAKE HOSE RIGHT FRONT HOSE CRACKED	υΡΡΕΝ ΧΗΡΡΟΝΊ ΗΩΛCKET NO UPPER SUPPONT HHACKLT	UISC REAKE PISTON Piston Stuck in Calipfe Bolf	UTSC BRAKE PISTON PISTON STUCK IN CALIPER HONE	R.F. FENDER Fendek qusted uur	DISC RHAKE CALIPER PISTUM Piston Seited in Caliper	DISC BRAKE CALIPER PISION Pistofi Sticks in Calible Hore	UPPER CONTROL AR™ SUPPURT К⊃AC UPPER CONTROL ARM SUPPURT HRAC	L.F. BRAKE MOSE Hose cracked near center suppo	R.F. BRAKE HOSE Hose cracked nfar center suppo	CALIPER PISTON Piston Sticks in Caliper Hure.	CALIPER PISTON PISTON SEIZEO IN CALIPER HURE.	UUST 800T AND SFAL Allegfoly installed imprupiply	BRAKE HOSE CHACKFU,LEAKING FLU BPAKE HOSE CHACKFU,LEAKING FLU	RAAKE HOSE PRAKE HOSE CRACKFL, LEAKING EL	SHAKE CALIPPH PISTON SEIZED IN CALIPPH NURL
03242000	0000020	00017550	03271000	13130000	03271000	0371900	02110000	03242000	03242000	03271000	03271000	03270000	03244099	03244000	0 9 5 1 0 0 0
P07555	PA7551	5,27 A 9	£2570d	PR156H	1451Ad	P01621	P01633	0 b d 1 d d	P07840	PR7741	P OHD54	FOKDS	nellud	P6/134	110101

05I05#/0	11204002	07450150	60609104	11204002	01230005	40503002	01230005	14607007	1919182	<b>232732</b> 56	23273236	33316118	00000000	20850042	33316118	F45504102
UNKNUWN	46028	UNKNOWN	29000	31050	59000	23786	56000	26821	75164	29542	17830	29832	15000	UNKNOWN	00017	80000 Eak.,
VIILARE	VULARE	VOLARE	VOLARE	VULARE	VULARE L PRESSURE.	VOLARE	VOLARE	VOLARE	VOLARE	VIJLARE	VULARF	VOLARE SW	VUYAGEK VAN	HOMMENICLE	HUNHEVILLE	CATALTNA LEP CANSTNG FUEL LI
н г тили н	HLAOBA 1d	нтиожуда	PLYMOUTH FING.	PL YMUUTH DRAG	PLYMOUTH CAUSING HIGH OI	РГҮМОНТН	р∟үкЮИТН 6.	PLYNOUTH S UBSFRVED.	PLYMDHTH UPPORT RRACKET.	PLYNUUTH	н10%/1d	HT00:47	Р∟Ү∺О⊔тн	PONITAC OF POUND.	PUNTTAC	LTME RUNS TOGETH
UPPER SUPPUNT MAACKET. 16 NU UPPER SUPPUNT HPACKET.	JAAKE H99ES Front Brake Husf's Cracked,Leaking.	HRAKE LINE FRONT BRAKE HOSES CRACKFU,LFAXIMG.	PRAKE HOSE 77 FRONT BRAKE HOSE RUPTURED MEAR END FIT	CALIPER Pision Sticks In Califer Ruhef Bhakes I	UTL PUMP UIL PRESSURE RELIFF VALVE STUCK CLUSED	HRAKE CALIPER PISTON STICKS IN CALIPER HURE.	CAPRURETUR KIT Hesitation, Pour Econory, Hard Siaptin	FROMT BRAKE MUSE Cracks In Ruter Layff Of Flextble MOSE	IDLER ARM GRACKET IDLER ARM SWUNG UVER CENTER, CHUSHED SI	ROD BEARING Rearing failure due to lack uf dil.	FUEL FILTER FUEL FILTER APPEARS UVERMEATED.	TAILGATE LATCH Tailgate Latch rent, Ingperative.	PLASTIC FUEL TANK GAS TANK LEAKED - FIME RESULTED	RADIAL TIRE TREAD SHIFTED LAFERALLY, 112E CONF. OUT	TRANSMISSION SLIPS, JERKS.	FUEL LIVE TPANSWISSION CURLER LIVE AUN THE FLEL I
90001120	03242000	00027280	03242000	0371000	00005150	03271000	06230000	03242000	01530000	05150000	06135000	13550000	06113000	02740000	01300000	06131000
PA1A27	PATAUS	FA7P48	() 6 b L U d	PR1914	bisb Li) d	P08016	110404	0 h () e () d	4 4 0 4 A	P03005	700e0d	P.04047	65718d	* HELNd	P.A.G.2.4	1 pyted

01230005	23462068	23462068	40503002	85203098	8903098	99206096	08244012	63130132	63130132	01230005	01230005	08610200	39501021	63130132	37209003
105090	37467	37467	NMOMN	UNKNOWN	UNKNOWN	36433	34700	51122	22122	54000	54000	62611	26767	32000	326 006 -
CAFALTIA	CATALINA SAFAR	CATALINA SAFAR	FIPERIRO	FIREBIRD	FIREHIRD	FIRERIRD	FIREBIRD	GRAN PRIX	GRAN PRIX	GRAN PRIX	GRAN PRIX	GRAN PRIX	GRAND PRIX	GRANN PRIX	LE MANS SAFARI Mending to Expi
STARILIZER LIUK Hushing aear causing vemirie tastability.	TKE HRZA-15 PLY SEPADATION - IMRUARD SIDEMALL MEAR BEAD	TIRE - HR7A-15 PLY SEPARATION - INHUAKO SIDEM ALL NEAH BEAD	DISC BRAKE ROTUP INBOARD STDE OF ROTOR KORM AWAY	HEI MODULE 77 PUNITAC Internal Malfunctiun-far Stalls, Monut Pestart.	HEI KOTOR HOLE PURNT IN MOTUR UNE TO EXCESSIVE VOLTAGE AUILD UP.	SIGMAL SWITCH 67 PCUSTAC No brake of Signal Light-Left in Peak.	GAS TANK HAFFLE Baffle for Fhel Tank vapur line became disconnected.	BRAKE COMMINATION VALVE 75 PONTIAC Fluid leak From Commination valve.	CARH BOWL VERT HOSE 78 POUTIAC Cara Bowl Vert Huse Kinked - Improper Venting.	DTSTRIBUTOR CAP 76 PUNTIAC Carron tracks and dirt causing misfire.	DISTREMUTOR #IPE #IRES WORM OUT TROREASING REQUIRED VOLTAGE.	INTAKE MANIFULD AIR LEAK BETWEFFL CYLS 18'S IMUICATFFL UY DIAGNOSIS.	©HÉEL HEARINGS BEARINGS LOST LUBRICATION, N BURNT UP	P.C.V.VAEHUM HUSE 78 78 PUNTIAC PCV VACUUM HUSE COLLEPSES, CRACKS, AIR LEAR OFVELOPS.	FFAM > LUMUM 70 PUCK 10 PUCK 1
0242000	00000220	0570000	00027550	985400VU	00005580	00001150	00115000	03245000	06121000	0000590	10005580	06212000	0001120	0095290	0000101
u Lu <sup>p</sup> ud	12774	502104	P01552	464109	P01647	011104	100100	P07635	P0764A	P07781	C+1104	२ भूत ह भूत ह	unslud	P04035	w1116d

\$ 1420d	00000540	ΕΓΩΝ VALVE «FAK MELD HEIWFEM VALVE X MACK PH	77 PUNFLAC ESSURE FRUM STFENCER =	LEMANS • HOT FIRST UNE REM	34777 0VE0	F 50516139
15010d	00001998	EXMAUST MAI TFOLD CPACKED	7.A PUNTTAC	РНЛЕМІХ	45627	23513001
40110d	1220000	SEAT AFLIS SEAT AELIS ⊬JLL NOT OPERATE, MALE	78 PUMIJAC AND FERALF LATCHES DO	PHOEWIX N NOT MATCH.	25000	04104003
020H04	0140000	STEERING RMACNET WHIS FUR ATTACHING RACK ANU PTUJO	RA PURITAC N HOUSING TO FIREMALL	PHDENIX FAILED.	21778	11561164
Suslad	000000220	UNIROYAL TIRE Tire Alew dut - Mas Sturwall Hole	77 PUNTIAC	SUHAIRD	10000	00000000
71870d	0171000	STEFRING GEARROX Excessive internal reak gausing s	78 PUNIIAC TEERING LUOSENESS.	SUNBIRD	27663	23513001
1504	0270000	UNTRAYAL TIRE HOLE IN SIDEWALL (SIZE OF THUMH)	77 PUNFIAC	Sw	12000	F30316139
P07547	1130000	CONNECTOR SHORT BURNT DUT ONE CONNECTOR	7A PUNTIAC	SW	31024	33316118
P07405	96540900	EXHAUST CRANKCASE HOSE PCV VACUUM HUSE FAILED	75 PUNITAC	TEMPEST	28022	63130132
PR7415	0320000560	BRAKE COMBINATION VALVE Combination valve lfaks	75 PUNTIAC	TEMPEST	22245	63130132
やそれとちょ	0270000	TIRE BELT SEPARATION	HN PONTIAC	NAONARIÌ	NNOWN	F30316139
044204	06314000	UISTRIBUTOP UISTRIBUTOP HAD UNE BUSHING	71 PONTIAC	UNK (40%)	80000	06033091
Plard.	0022250	OUTER ARAKE PAU FRICTION MATERIAL SEPARATED FPON	71 PURSCHE Racying Plate	914	89147	95051060
PUTAUR	00011250	L.F. DISC CALIPFK. Calipfk piston wikuing,Excessive	76 REMANLT Prake pad and rutor we	LE CAR S AR	54000	01605008
606200	のれんちょうの	FRONT DISC REAME HUSE. FLEXIBLE HUSE COLLAPSED LAUSING B	71 SAAH Rake UPan,eycess Hear.	ŕf	39000	01240002
нлирра	05740000	TIRES Excessive iveal sfar.	ศิลษชกรี 08	STATION WAGON	8 Z N U	20850050
hçe164	10005580	UISTRIBUTOR SHAFT · UPPER UISTATRUTON SHAFT FUSUING F	77 SCAAPU Ajluke CAUSEPC SHAFF H	UPAK HUMM PF & X & G.E. 。	35000	04628031

43227119	90027012	90027012	51075006	60201006	60201006	63130132	90027012	60201006	01606062	67501001	20850050	¢000£510	01230005	F10801145	11754007
42000	51193	26435	24440	UNKNOWN	23471	51126	NMONXNFI	NMOWN	71355	23533	UNKNOWN	UNKNOWN	NNKNOMN	UNKNOWN	UNKNUWN
CFLICA	CELICA GF.	CFLICA	CELICA (LIFTRA	CORULLA Ing.	CUROLLA	COROLLA Sucking Air.	COROLLA IC SYSTEM.	CUROLLA	COROWA MARK II	SPITFIRE	TR-7	UNKNOWN	UPIKINOWN	MAUNAND	ጠም ሌ የላውሮጠ
TUYULA	TUYOTA 	1040TA N.	TUYUTA Kaŭken, pruken.	TUYUTA DETERIJRATED,LEAK	ΤύγΰΤΑ	TOYDTA CRACKED OPEN AND	TOYOTA EDING THE HYDRAUL	TOYOTA	T0YUTA K.	ТРТИМРН	HdMillH	UNKININ	UNKNOWN	UE K NOWG	HF KidthAH
11	78 WEAR EXHAUST P	78 D, CAUSE UNKNOW	7A Tahilizér rar C	74 34.4.4ES CRACKFU,	72 Jumctjon Black.	74 JSE CULLAPSED,	69 Aking While Rle	74 BRAKES CRACKED.	73 , NUISY, NU POWE	UN ARD 10 START.	NU BENT .	i I	IJt,	LI FADT HI	06 6 A.D. CORKODFL
STARILJ7FИ МАН ИЕАР НАЧ ВКОКЕЧ IN IND	EXMAUST MANTFOLD Large Crack in Marifulu	EXHAUST MANIFOLD FXHAUST ►ANIFNLD CRACKEF	RFAP STAHILIZER PAR UPPER Rracket to reak S'	АРДКЕ НОЗЕ. Flexiale H0se to Front <sup>2</sup>	4 FRONT BRAKE HOSE. Cracked and split reak .	CPANK CASE VENT HOSE Crankcase ventilation ho	9RAKF WHEEL CYLI√DER Wheel Cylinder Regan le'	HRAKE HOSE Flexible Hose to Fromt F	FLYWHEEL Семтек (нин) вракем олт,	IGNITION MODULE Internal Malfunction, H	LOWER CONTRAL ≜R.A 80тн Luwer Contral Arms	SWITCH-NFUTRAL SAFETY IHTERNAL MALFHPCTION	U-JOINT Two CAPS MISSING	FIRESTONE TJKE-SIFEL NEI SHIMMY-BAD VINKATTON	DESC MRAKE RULEP DESC MMARE JUTER RUSTER
02112000	00001940	00005150	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	03241000	03242000	06520000	03261000	03241000	00000150	08540000	00005120	000233000	0.0413000	02700000	1 2 2 2 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1
P117401	pathau	P0.4045	PA1635	202763	P07641	P01754	PRIAIQ	CPHNEd	P(1,24,17	85010g	(JSJ)H6Jd	142704	963100	unn/ud	161513

03300913	20850042	07450150	07450150	17754007	17754007	17754007	60201006	33316118	90027012	90027012	22207212	84057040	60201006	60201006	33316118	33316118
UNKROWN SIVE SHA	UNKNOMN	VARIFS	VARIES.	17815	51811	17815	NKUDMN	21000	93733	29154	40463	28900	UMKNOWN	UNKNOWN	74186	36741
ПРКИЛИИ ITMAN'SHAFT。 ExCES.	UPLANOVAD	VARIES	VARIES POUND BROKEN RELTS	BEETLE	beetle.	HEETLF	() A SHE R	DASHER PTIN,	U∆SHER	DASHER	DASHER	DASHER SIW	RAHHIT	1 I 86V 8	НАВНІТ НМАҮ)	RABHIT
UNKADWA R BEARING DA P	Unka0wr IE •	VARJES	VARIFS PULL, OUT UF (	VULKSWAGFN Al LIGHTS.	VCLKSWAGEN	VOLKSWAGFN LIGHIS,	VOLKSWAGEN	VOLKS®AGEN IGH MIL COUSUM	VOLKSWAGEN HRAKES。	VOLKSWAGEN	VOLKSWAGEN	VPLKSWAGFN	VOLKSWAGFN	VULKSMAGFN	VULKSVAGFN () WAYMING (HIG) ,	VULKSVAGEN
TX UD LONGER HAS A LOWE	LFAKING FLECTROLT	H VARIOUS PROHLEMS	энонгемз INCLUDING Ни	71 PARF, 40 UIRECTION	71 K CEMTER.	71 . NU LOP REAM HEAU	77	77 FUM RJMGS CAUSED H	75 SIAKS TO FLOOR, NO	LOSS OF PRESSURE.	14 Texts fo FLOUR.	74 LOSS OF PEUAL.	2 1	611	7 a - CAP MENT DEAU, M	11 -
PONER STEENING REAR N Redesigned gearpox no	UELCO-BATTERY Mattery Case Chacked,	TTRES 50 TIRES REPORTED WITH	74 TIRES 74 TIRE WITH VARTOUS	HAZARD FLASHER SWITCH HACK DF SWITCH FELL A	אטררבא אטט דמאש מיוד מר פטורנב	HEADLIGHT PELAY Relay Contacts Burned	DRAKE MASTER CYLINDER Internal malfunction	PISTUM RINGS Excessive wear on PIS	BPAKE MASTER CYLIND <sup>F</sup> h Imternal Leak, penal	MASTEP CYLINDER Imtermal Leak Causing	MASTER CYLINDER Internal léar pfdal S	AASTER CYLINDER Intepnal leak cansing	RPAKE MASTER CVLIMFK INTERMAL MALFHMCTION	RPAKE NASTER CYLJNNEH Internal, Malfnoctton	V.PEG.ALT.PACK INTEPNAL HALPHACTION	MASTER CYLJNDER LFaktnr scals
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THNAR	TURAN	T T HAAH	ТЧАА	RABUT	каныт	THHAN A	KAUBIT	канат	HABBIT Asket Area.	RABBIT VE UIL CONSUMPTION.	KABHIT	НАННІТ Нанніт	RARAIT URE .	I THEVY	RABUT
VULKSWAGEN	VULKSWAGEN	VOLKSWAGEN	VULKSWAGFN	VULKSWAGEN	VULKSNAGEN	VULKSWAGEN ING	VULKSWAGEN Operate.	VULKSWAGEN Material.	VOLKSWAGEN Eak FROM HEAD G	VOLKSWAGEN CAUSING EXCESSI	VULKSWAGEN LINDER WALL.	VULKSWAGFN 10 COOLIMG.	VOLKSWARFN EU HEARING SEIZ	V(II, ๙ ริฟ.ศ.GF (	VULKSEAGEN
75	75	11	17	75 F PEDAL.	75 75	78 Lastic Sheath	78 Fan Wjll rot	78 TEN RADIATOR	T TA CAUSING OIL L	78 VALVE SEALS	78 R0PERLY 10 CY	76 LEAKS UUT, N	17 UIL LNSS CAUS	77 1906 FALLURE .	7 ts
4466L CYLTMDFR Fluid Leak	WHEEL CYLINDER Fluid Leaks	FUEL LINE MUSE Lfaking fuel	CLUTCH CARLE An CLUTCH ACTION	MASTER CYLTUDER Internal Fluid Leak-Luss D	CARRURETOR BASE PLATE Unknown Car Stalls at LIGH	CLUTCH CARLE Steel Carle Noke Through Pi	THERMAL SWITCH THERMUSTATIC SWITCH UPEN.	RADIATOR Vemicle Overheated and Mel	CYLINDER HEAU ANLTS RGASKE Loose Cylinder Hean Kolts	VALVE GUIDES Excessive guide wear, mard	PISTUN 41MGS NOT SEALING P	ATR CONDITIONLYG HOSE Hfrigerant Hose Cut, R-12	ENGINE SUDDEN UNEXPLAIMED ENGINE	инеЕ мЕ∆аТи63 Рцематияс балы сысег нсая	VALVE SEALS VALVE SEALS VALVE SEALS DETERIDRATED.
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45859 S FUEL	27895 LVES	33570	60316	72553	19437	43872	4570	72184	116461	101904 LUTCH	40454	23054	18448	5885	46522	NWKW0WWN
RANALI DIESEL Ter Cylfuders, burn A	SCIMUCCO F PISTOR RINGS AND VA	\$C1405.00	остиниссо	SQUAKEBACK	SUPER BEETLE	SUPER BEETLE	DASHF R	1 4 S	1 4 4	1458 FATIC UPERATION AND C	164 E	ET k CAP wAS IN PARK.	264 GLE	244 GLE	265	n ar tatuta A
- 15494ET е межи поцтя метатью суть 3 AND 4 Allov Ott TO ENT с	ON RINGS - AND ALL CONSUMPTION CONFECTED AY INSTALLATION OF SSIVE OIL CONSUMPTION CONFECTED AY INSTALLATION OF	CH CANLE E SHEATH SPLIT NEAR CLUTCH PELFASE FORK.	ER CYLTAADER 74 VOLKSVAGHA PVAL SEAL FATLORG LUSS OF PEDAL.	נא אנואנאנאנאנאנאנאנאנאנאנאנאנאנאנאנאנאנ	ER CYLTERDER - 74 VULNSAAGEN SEAL (TRTERDAL) CAUSING LOSS UF NRAKFFLUTU.	E ROTOR R 320xem IN INO PIECES; CAUSE UNANUMU	LERATOP CAPLE 74 VCLKSWAGON ITLE FARLE STICKS. 74	SHAFT 70 VULVN GEAR ARUAEM	JOINT WORN EXCESSIVELT. 69 VOLVD	CH FAPK CH PIVUT SOCKET UF CLUICH FORK CHACKED CAUSING FRF	ANLIC MASTER CYLJEDER 74 VULVU RMAL LEAK-COMPLETE LUSS NE ARAMES	7.8 νιζνο Collapsen υλύξε ψετισμι υε σάκ, all σμάκες φεαε se	I CARTRIDGE ©URN=LUSS ∩F DAAPERING CAPARILITY.	E MASTER CVITEDES - 78 VELVA ING PHIMARY CUE, PEDAL SIDKS TO ELOOM.	PRESSURE FATLORE 75 VOLVO	OBDITIONER FROTT SEAL 7.4 VULVO GESSOF SEAL LEARS, ATE LOCITICS TO DEPARTIVE.
05150020 HFA LUD	05150060 PTS Exc	07120000 CLU CAR	0323000 FAT	07110000 CLU PED	03230000 HAS	104 104 00052<50	06430000 ACC	05150039 CAN	02132000 AAL	CLU CLU CLU CLU	0101 HAD	1550000 JAC	92120000 STR STR	03230000 NB4	110 500000 598	11609000 AIR
alola4	Pa/hh5	500ered	t č v / t) d	54010A	016400	< 16104	Stolud	1 = 2 () (1	カチャノクイ	5(1 <b>8</b> /0d	61510d	Pu2144	64770d	26110d	P87419	9251Ud



