news
NHTSA

Diagnostic Inspection: An Aid to the Consumer

Herbert Jones, Vehicle Inspection Technician, makes an internal check of the brakes at the D.C. Demonstration Project in Southwest Washington. Looking on are (left to right) Joseph J. Innes, Director of the Engineering and Demonstrations Division, TSP; Roy J. Dennison, then Chief of the Office of Vehicle Safety Research, District of Columbia, and now with NHTSA's Office of Fuel Economy; and Robert E. Brumbach, Engineering and Demonstrations Division, TSP.

Volume 3
Number 3

Published by
National Highway Traffic
Safety Administration

U.S. Department of
Transportation
Washington, D.C.

NHTSA News is a semi-monthly publication prepared for all agency employees by the Executive Secretariat, Room 5215, Nassif Building, 426-2876. Distribution is on the 1st and 3rd Monday of every month.

Editor M. J. Noll

February 1977

When your car squeaks, sputters or chugs, you know something is wrong. But even if it's humming, your car may still have several serious problems.

Results from 125,000 vehicle inspections in five states show that the average car on our U.S. highways has two or three serious defects in the safety or emissions equipment.

So what is one to do?

Many consumer advocates feel that the answer lies in Federal or State operated diagnostic inspection facilities. Here the consumer can receive an unbiased and thorough inspection of his car at little or no out of pocket cost.

NHTSA has been testing the feasibility of such an approach through the operation of eight diagnostic demonstration projects in five states. The eight project sites are Huntsville, Alabama; Phoenix and Tucson, Arizona; San Juan, Bayamon and Ponce, Puerto Rico; Chattanooga, Tennessee; and Washington, D.C. The program was officially inaugurated in March 1974, when a diagnostic auto inspection lane was opened for business in D.C.'s Southwest Station.

The basis for these Federally funded projects is Title III of the Motor Vehicle Information and Cost Savings Act of 1972. Title III authorized the Secretary of Transporta-

(*See* Diagnostic Inspection *on page 2.*)

Diagnostic Inspection (from page 1)

tion to establish diagnostic inspection centers to obtain and evaluate information relating to vehicle operation and repair, and to make recommendations about the cost and potential benefits of that approach.

The program was originally scheduled for completion in June 1976. However, Congress, reacting to consumer applause for this effort, extended Federal funding for the inspection facilities of three demonstration projects until September 30, 1977. The purpose of this extension is to enable NHTSA to delve into longer range problems of vehicle maintenance and the characteristics of newer cars, including catalytic exhaust systems.

The three facilities currently operating with Federal funds are Washington, D.C.; Chattanooga, Tennessee; and Huntsville, Alabama. Puerto Rico is continuing to operate its inspection facilities with its own funds.

At the same time Congress extended the funding for three demonstration projects, it further designated that the Secretary establish a special motor vehicle diagnostic inspection demonstration project. The purpose of this special project is to assist in the research, rapid development and evaluation of advanced inspection, analysis and diagnostic equipment. This equipment should be suitable for use by any State in high volume inspection facilities designed to assess compliance with safety, noise and emission standards and to assist motor vehicle owners in achieving optimum fuel and maintenance economy.

In addition, this special demonstration project will look into the problems facing the small garage facility, which services 52 percent of all automobiles and employs 880,000 people in 325,000 establishments. As part of this special project, NHTSA will evaluate, to the extent possible, the diagnostic analysis and test equipment currently available for use by small automobile repair facilities. It will also assess the extent to which private industry can supply the small repair shop with low-cost equipment which can be used to monitor compliance with Federal, State or local safety, noise and emission standards.

At these diagnostic demonstration facilities the consumer can have a complete and thorough inspection of his car at little or no cost. During the half hour it takes for inspection, over 200 items essential to the proper functioning of his automobile are checked. These include tires and wheels, steering, alignment, suspension and brakes and engine exhaust emissions. He then receives a copy of the check list and a verbal explanation of the diagnosis. With facts in hand, he can proceed confidently to the mechanic of his choice.

The consumer and his checklist should be received cordially by the person in charge of an upright and reliable establishment. The consumer knows what he wants done, and the repair shop operator gets the business. Further, the consumer has saved the operator the trouble of trying to diagnose the malfunctions, one of the biggest problem areas in any repair shop. His bill will probably reflect the difference. In addition, since re-inspection at the diagnostic facility after repairs is part of the program, the mechanic will no doubt do his best to provide quality service.

As you can see, the diagnostic inspection facility serves as an important tool to the consumer. Here he receives an objective, detailed diagnosis of the mechanical condition of his car, and important information about its safety and emissions. If he uses this information properly, he will have a safer, better-maintained automobile with better fuel economy, lower emissions and a higher resale value, as well as longer vehicle life. One product of these demonstrations is conclusive evidence (99 percent confidence) that engines adjusted to meet emission inspection criteria also save gas. When tested under EPA laboratory conditions, the average 1969-1972 compact and intermediate sized cars were able to obtain 5 percent improved mileage in city driving and 2 percent in highway simulation tests.

Washington-based DOT employees, regardless of their State of residence, can have their cars inspected at the D.C. Demonstration Project free of charge. To make an appointment, call 488-4577.

Curtis Bullock, D.C. Vehicle Inspection Technician, points to the reading on the dynamic front wheel analyzer, which gives an electronic readout of caster, camber and toe-in. With Inspector Bullock are Eldon Rucker, Acting Chief of the D.C. Office of Vehicle Safety Research, and Joseph Innes, TSP (right).

And at the end of the inspection, the final report. Dr. Richard A. Ibison, MVP, (center) is amazed at the findings in the computer-generated report on his car. Presenting the report to Dr. Ibison is Robert Vanover, D.C. Vehicle Inspection Technician (right). Earl Hamilton, Supervisor of the D.C. Diagnostic project, looks on.

Responsibility for the Title III program falls under the jurisdiction of TSP's Office of State Vehicle Programs, capably headed by James E. Forrester. Day to day operation of the project has been carried on primarily by one of the Office's two divisions, the Engineering and Demonstration Division. Division Director is Joseph J. Innes. Within the Division, TSP professionals have carefully monitored the individual projects. They are: Theodore W. Bayler, assisted by Paul M. Honke - Contract Technical Manager (CTM) for the Arizona project; Homer Jackson, CTM for the Alabama and Tennessee projects; Robert E. Brumbach - CTM for the Washington, D.C. and Puerto Rico projects; Dr. Leslie E. Eder - CTM for Evaluation Support and Data Processing, under contract to Computer Sciences Corporation; and Wendell A. Cook - CTM for Engineering Support, under contract to Avco Corporation. In addition, Joseph P. Grillo, Director of the State Programs Division, played an important role during the planning stage of the project. In April 1976 this group received the Administrator's Award for its exemplary initiative and resourcefulness in the planning, implementation and technical management of the program (See Volume 2, No. 8 of the NHTSA News).

graffiti

Who's Who in NHTSA

To Him, Living Is Learning And Learning Is Living

Young in years, mature in experience--for he has simultaneously worked and attended school for the greater part of his 32 years--Mahesh K. Podar is a person you feel you would like to know better. With a friendly, casual manner, a natural wit, an insatiable desire to keep on learning new things, and with a keen sense of the importance of the people and situations in which he is involved, he piques one's curiosity. He says his given name, not a very common one in India, is easy to pronounce--just say "Ma-haysh'."

Mahesh Podar

An Economist with the Office of Program Analysis, Planning and Evaluation Branch (P&E), Mahesh has been with NHTSA but a little more than a year and a half, yet his contribution to the NHTSA effort to reduce highway casualties has already been felt at the top level. He authored the Inflation Impact Evaluation Statement as an input to the Secretary's office, following the Secretary's request to NHTSA to conduct an evaluation of the environmental and economic consequences of several alternative actions which could be taken in the area of occupant crash protection. The report was an in-depth study, for which Mahesh gives due credit to all with whom he worked. "I have received invaluable guidance in my office from my colleagues. I can't take all the credit for myself," he said.

Born in India, Mahesh grew up in Kanpur, a major Indian industrial and educational center on the Ganges River. Originally named Cawnpore, it was a small village when it was ceded to the British in 1801, but it grew rapidly to industrial importance, and now is a city of over 500,000. His father owns a firm which manufactures leather belts and other leather goods used in textile mills, and the firm also represents several machine manufacturers. As a teenager, Mahesh went to work as a salesman in his father's business, attending classes in the mornings and selling his firm's goods in the afternoons and evenings. His native language is Hindi.

In India the academic year is nine months long, beginning in August and continuing through April, six days a week, Mondays through Saturdays, with the main holiday at the time of the Hindu New Year in October and November. The school system is patterned after the British system, and there are no semesters or quarters as in the U.S. A Bachelor's Degree is earned in two years, and a Master's can be earned in an additional two. Mahesh received his Bachelor's at Agra University in 1964, all the while working for his father.

When he was 20, Mahesh traveled to Bombay to begin a partnership manufacturing business to produce textile sizing materials. He stayed long enough to get the firm on its feet, but before actual production began he had the opportunity to come to the U.S. to further his education. He flew to what was to become his adopted country in the fall of 1965, and in January of 1966 he began his college studies at Southern Illinois University in Carbondale, Illinois. Subsequently, he won a tuition scholarship; and to earn his "bed and board" at Southern Illinois, he started out as a student worker, scheduling operators, including himself, to show slides, educational films and to tape record lectures. He ended up as a supervisor, instructing student workers on how to operate the equipment.

During the summer of 1967 Mahesh became a Traveling Sales Assistant for the Zenith Sales Corporation and traveled extensively throughout the U.S. to present an audio-visual show of slides, film, and tape recordings. "This was the most interesting job I had ever had up to that time," he remembers--"I was traveling all over the country promoting sales to Zenith dealers on the occasion of their 50th Golden Anniversary."

In the summer of 1968 Mahesh became a Vista Volunteer for the summer program in New York City. "I thought it was very interesting. I was responsible for instructing 15 to 20 neighborhood teenagers on ways of improving the neighborhood," he proudly recalls. "It was full of tension at times but it was fun, too. I found that you could communicate with people if you make the effort. This was my first experience with poverty programs." "You found the kids responsive," we asked? "Yes, it is just a matter of how hard an effort is made to communicate with them and establish a rapport that is not very difficult for them to respond to. We talked about many different things. They were all boys and I took them on trips to Yale University, Philadelphia, and to the Museum of Modern Art in New York. It provided them with the opportunity to see other things which they wouldn't have seen otherwise. They were very interested. They had lived in New York all of their lives and many had never even gotten out of the neighborhood."

At the end of the summer Mahesh returned to Southern Illinois for his third year. It was then that he actively participated in studies for economic development, including funded projects to study the economic development of the region. Still earning his "bed and board," he was administrative manager for an off-campus residence hall, which duties included the counselling of students on their academic and personal problems. In 1969 he was elected to the Economic Honor Society, Omicron Delta Epsilon, and he received his Master's Degree in Economics in 1970.

With four years of Southern Illinois behind him, Mahesh entered Penn State University at University Park, Pennsylvania, to pursue graduate studies in Economics. He became a Graduate Teaching Assistant, thus earning a stipend, he says, to support himself while pursuing his graduate degree. During the summer of 1972, Mahesh taught a course there in social sciences to economically and socially disadvantaged students who were entering the University in the fall term as regular students, "to sort of give them a head start to make up for some of the deficiencies they had had in high school."

During the summer of 1974, and again the following spring, Mahesh was a paid Graduate Research Assistant for the Commonwealth of Pennsylvania. He was responsible for collecting and updating data on the economic impact of the Pennsylvania interstate highway system, which required some traveling throughout the State. Based on the findings, an attempt was to be made later to develop and test a model to predict the importance of interstate highways, if any, in relation to the economic development of the region.

Mahesh returned to become a Graduate Teaching Assistant for the Department of Economics at Penn State U. in the fall, still pursuing his own graduate studies. As a teaching assistant, he conducted discussion classes with students at least once a week and maintained office hours for private consultations with students.

After nine years of university study in the U.S., plus his B.A. Degree at Agra University in India, Mahesh joined NHTSA in June 1975 as an Economist. He came, not only with a background of many years of academic studies in his major, Economics, but with good practical experience in the subject as well. Add to that his extensive counselling and working with disadvantaged young people and with students--it seems he has earned far more than diplomas and college degrees!

Mahesh became a citizen in 1974. He met his wife

(See Who's Who on page 7.)

Of Special Interest

Even a sure-footed person can take an unexpected tumble. Although some falls are linked to hazards that are not easily remedied (such as a floor that is not level), most could have been prevented. The Consumer Product Safety Commission offers the following suggestions.

Floors

Many floor-related accidents are falls on slippery surfaces. Anything that has spilled on the floor should be swept or wiped up immediately. This is a habit that you should teach your children very early. Spilled water is likely to be a particular problem in such areas as the kitchen, bathroom and laundry room. Frequently damp areas in these rooms should have the added protection of nonskid mats or abrasive strips to make flooring more slip-resistant.

Entranceway floors also can be hazardous if not properly protected. Slippery conditions are quite common here. Anyone who comes in from outside could bring in water, mud, leaves and other material on his shoes. The use of slip-resistant entrance mats or indoor/outdoor carpeting here can sharply reduce the possibility of an accidental fall. It also may prevent people from tracking up floors in other rooms and leaving residue that others might slip on.

Washing and waxing a floor can make it very dangerous if not done with proper care.

Any time you wash or wax the floor, block off the room until the area is completely dry.

When using a paste wax, be careful not to lay down excess wax. This can make the floor quite slippery. Paste wax should be buffed very thoroughly in order to harden it enough to make it safe underfoot.

When using a liquid self-polishing wax, it is not advisable to use the same mop or sponge to both wash and wax the floor. It is difficult to get rid of all the cleaning agent no matter how well you rinse, and the residue may make the wax finish smeary and slippery.

On any smooth-surfaced floor, particularly if it is waxed, small rugs, runners and similar items can be treacherous. Any throw rug should be anchored to the floor in some manner, such as with double-faced carpet tape. Check rugs and mats periodically for tearing and for curled edges as these can create a tripping hazard.

One way a floor can be made more slip-resistant is to install carpeting. Carpeting, properly installed and padded, offers sound footing in areas such as living rooms, dining rooms and bedrooms.

Outside Areas

Porch and terrace floors frequently become quite slippery when exposed to rain and snow. Often there is little that can be done except to sweep snow off promptly and to use extra caution when walking across these floors when they are wet or icy, although sand or ashes may help.

If a porch or terrace floor is to be painted, sand or similar abrasive material can sometimes be added to the paint to make the surface slip-resistant. If you are building a porch or terrace, it is a simple matter to arrange for a rough-surfaced floor.

Carports and garage floors can be equally dangerous. Carports occassionally are exposed to the same elements as porches and terraces. In addition, both carport and garage floors may collect oil spills from automobiles. Oil on a smooth concrete surface is extremely slippery. Frequent and thorough scrubbing is necessary to keep such floors safe. Again, if you are building, a rough finish on these concrete floors is preferable to the common smooth finish.

Footwear

What you are wearing on your feet has an important relationship to falls. A great deal of research is currently being conducted on the interaction between footwear and floor surfaces. Many important questions have yet to be answered. But some facts are becoming apparent.

Wearing stockings alone, for example, is usually more hazardous than wearing shoes or going barefoot. Some experiments have shown that of common materials used to sole shoes, leather is the most slippery for almost all flooring materials and crepe the least slippery. Finally, and very importantly, high-heeled and platform shoes are far more unstable than flat shoes and can be a contributing factor in floor-related accidents.

'Round About NHTSA

Congratulations to the new mothers. Pamela Watson, Classification Clerk in Personnel, became the mother of a baby boy, Kevin Maurice, on January 6. Kevin weighed 5 lbs., 12 oz.

Mary Coyle, Secretary in the Associate Administrator's Office in MVP, had a baby boy, Mark Christopher, weighing 6 lbs., 12 oz., on January 18.

In the last issue of the Newsletter, NHTSA's additions were all baby girls, but the tide is beginning to turn.

Job Openings

For complete details, see the official vacancy announcements.

Secretary (Steno), GS-318-7, MVP. Opens: 1-27, Closes: 2-15. NHTSA 77-67.

Highway Safety Res. Engineer, GS-801-13/14, RD. Opens: 1-24, Closes: 2-11. NHTSA 77-68.

Mathematical Statistician, GS-1529-7/9/11, RD. Opens: 1-24, Closes: 2-11. NHTSA 77-69.

Who's Who (from page 5)

Denise, a Fine Arts major, at Southern Illinois and they were married in 1970. Denise grew up near Waukegan, Illinois, and had her first trip to India when Mahesh took her to meet his parents in Kanpur for Christmas in 1972. The family, including his two married brothers and two married sisters and their respective children, had all been wanting to meet his bride for some time. Denise works for the Council for the Advancement of Small Colleges, located at Dupont Circle. They bought a home in Alexandria, Virginia, last July. Asked if he likes gardening, he evaded the question by replying, "I like learning!" Both Denise and Mahesh are interested in antiques and have collected a few pieces to add to the "eclectic" decor of their home. When complimented on his well coordinated clothes, Mahesh extended the credit to Denise.

He says that he has learned a lot since starting to work for NHTSA. His boss, Michael Finkelstein, Associate Administrator for P&E, says of Mahesh, "He is very, very dependable. Even though he has only been with the Government for a year and a half, he has already become one of the senior staff members; and while he claims that he is learning a great deal from his colleagues, the experience is a mutual one, as all of us in P&E are learning a great deal from him."

Mahesh ended our interview by saying that he plans to live to be 100 years old and so has many more things to learn. He added that he still has some work ahead before receiving his Doctorate from Penn State U. "I have an A.B.D.," he said jokingly--"All But Dissertation." Based on his track record to date, the Dissertation will be completed, the Doctor's Degree in Economics will be his. Of this, we have no doubt!

Awards

Thirteen NHTSA employees have recently received awards for especially noteworthy contributions on the job.

Outstanding performance ratings were given to James Fell, RD; Charles Kaehn, MVP; Robert Meehan, AD; Kevin Quinlan, TSP; and Timothy Shaffer, P&E.

A Special Act Award was awarded to Dorothy Ness, OCC.

Receiving Quality Step Increase Awards were: James Hackney, RD and Mary Joynt, OCC.

An Administrator's Award for Superior Achievement was given to Joseph Bolos, AD; Joseph Delahanty, P & E; Gordon Lindquist; Region V; Robert Voas, TSP; and John Womack, OCC.

Roads Named After Men

Many of the quaint lanes and byways in Nassau and Paradise Island bear the names of men. There are 66 male names in the Bahamas capital--three times as many as those with first names of women.

Disability Deductions

A taxpayer planning to take a "disability deduction" on his Federal income tax this year better take a close look at the new sick pay/disability exclusion provision in his income tax booklet. Under the Tax Reform Act of 1976, the definition of "disability" is different and more stringent than it was in the past.

In order to exclude up to $5,200 of a disability annuity from his 1976 Federal income tax, an employee must meet all the following provisions:

The taxpayer must retire on disability, and be permanently and totally disabled for any substantial gainful employment.

The taxpayer must be under age 65 during any year in which the exclusion is claimed. The exclusion ends at the beginning of the year in which age 65 is attained or at the beginning of an earlier year in which the taxpayer makes an irrevocable election not to have the exclusion apply.

If the taxpayer's income from all sources exceeds $15,000, the amount of annuity which may be excluded from tax is reduced one dollar for each dollar of income over $15,000. If the taxpayer is married at the close of the taxable year, the disability exclusion is available only if the taxpayer and his or her spouse file a joint return for the taxable year, except in the case of a husband and wife who lives apart at all times during the taxable year.

In addition, an employee who retires under the disability provisons of the Civil Service Retirement Law (total disability for the position held at retirement) must prove to the satisfaction of the Internal Revenue Service that he or she meets the definition of disability contained in the new tax law (total and permanent disability for any substantial gainful employment).

Under the Tax Reform Act of 1976, there is no income tax advantage for disability retirement if an employee will be 65 or over in the calendar year in which he or she retires. The sick pay/disability exclusion ends no later than the beginning of the year he reaches 65.

Internal Revenue Service is still developing regulations and complete instructions for claiming the sick pay/disability exclusion under the Tax Reform Act of 1976. Updated information will be contained in the 1977 edition of IRS Publication 522, Information on Disability/Sick Pay Income Tax Exclusion.

Personnel

Welcome Aboard

Susan Wexler, Secretary (Steno), Office of Civil Rights, 12-19-76.

'Bye and Good Luck

Dorcas Dessasso, Secretary (Steno), P&E, 12-17-76.

Luanne Buchanan, Clerk-Typist, Region X, 12-18-76.

Reuben Harding, Oper. Res. Analyst, RD, 12-24-76.

Carole Hollis, Clerk-Typist, PACS, 12-25-76.

Julian Leysath, Chief, Lighting & Visibility, MVP, 12-31-76.

Sharon Spriggs, Clerk-Typist, AD, 12-31-76.

James Tracy, Hwy. Saf. Program Specialist, Region VIII, 12-31-76.

Florence Watson, Publication Review Asst., MVP, 12-31-76.

Congrats on Promotion

Otto Hall, Hwy. Saf. Management Specialist, TSP, 12-19-76.

Ethel Hayden, Secretary (Typing), MVP, 12-19-76.

Who We Are and What We Do

How many times have you been asked, "Just what does your agency do"? Now, concise but complete explanation of our functions is available in a newly published booklet titled "NHTSA, What it is; Why it was created; What it does; The results."

The publication, prepared by our Public Affairs staff, is available for handouts at speeches, meetings, conferences, demonstrations or as an enclosure to correspondence. Employees are urged to utilize this pamphlet to the fullest extent possible.

Copies can be obtained from the Distribution Office, Rm. 4423, Nassif.