

New Techniques for Testing Brake, Clutch Lining

Ford Motor Company's Scientific Research Staff has developed a new technique for testing the quality and reliability of brake and clutch linings used in Ford's passenger car and light truck lines. Called FAST — Friction Assessment and Screening Test — the Ford procedure is the first of its kind in the automotive industry. It provides a quick and highly accurate characterization of friction materials used in brake and clutch linings. The FAST machine can screen and sort a large number of different brake and clutch materials for properties which affect their vehicle performance.

The FAST machine — a Ford first — represents a major technological breakthrough in ensuring rigid quality control of brake and clutch lining materials used in Ford products," said Michael Ference, Jr., Ford vice president for scientific research.

"The machine can measure friction and wear, and can demonstrate fade and squeal characteristics as well as the effects of environmental problems such as dust and water," Ference added. "It can be programmed to reproduce different load and temperature levels simulating many different kinds of operating conditions that brakes and clutches are subjected to under actual vehicle usage."

FAST machines will be used by Quality Control in the company's final assembly lines and by Ford suppliers to ensure:

1. Totally uniform braking characteristics for Ford's passenger cars and light trucks.
2. Improved vehicle control and greater safety under normal driving conditions and in emergency stops, braking on wet and icy road surfaces and, when cornering.
3. Greater durability of clutch facings.

In conjunction with the FAST test, a chemical analysis process provides a breakdown of the different ingredients present in brake and clutch lining materials to identify and isolate potential problems in material composition.

The chemical test — Pyrolytic Gas Chromatography — converts material samples into gas under intense heat, and separates the gaseous products. The separations are recorded graphically for comparison with established Ford standards for brake and clutch linings.

Ford's Scientific Research Staff also has under development a machine that will be used for basic research in brake and clutch lining materials.

This new machine will make it possible to test and develop new materials for brake and clutch linings. The machine will

also have program capabilities ranging from high-speed competition driving at speeds in excess of 150 miles an hour, to

interstate thruway, city and rural driving. The Automobile Manufacturers Association currently has the Ford procedure under study for possible adoption on an

industry-wide basis to establish uniform standards for brake and clutch lining materials.

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Livonia Rotary To Sponsor Carnegie Course

The world-famous Dale Carnegie Course is coming to Livonia under the sponsorship of the Livonia Rotary Club.

"We believe that the Rotary sponsorship of this adult education program is a genuine community service," says Jim McCoy, president of the club. "Businessmen, professional men, sales people, housewives, clubwomen, office personnel—every adult will benefit from this training. It will build a new enthusiasm, develop self-confidence, create a new understanding among the citizens of our town."

McCoy added that the Rotary Club, like other Service Clubs in the Livonia area, has found that the Dale Carnegie Classes have had an important influence on human relations and leadership development in their communities.

Plymouth Elks Win Fourth National Award

For the fourth consecutive year, the Plymouth Elks Lodge 1790 has won first place in the 1,000 to 1,500 membership category for the best official monthly publication.



That was the word received by Edmund Roginski, Exalted Ruler, from Grand Lodge Activities Chairman James Gunn.

Recognition for the unprecedented achievement is due to Willard "Hank" Lorenz, who took over the monthly publication four years ago after serving as Exalted Ruler.

A plaque will be awarded to Plymouth Lodge at the national convention in Dallas, Texas on July 3. Lorenz will be accompanied by the new Exalted Ruler to Dallas for the presentation.

In past years, he has accepted plaques at San Francisco, New York City and Miami Beach.

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at Yale
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Five Mile Rd.
at Levon
Livonia

Kendallwood Center
12 Mile at Farmington Road
Farmington

27415 Schoolcraft
at Inkster
Livonia

705 South Main
at Linden
Plymouth

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Farmington Road, South
of Grand River

8244 Merriman
Near Ann Arbor Trail
Nankin Township