

frictiontester

ICC's Model SFT5041 and SFT5042 Pavement Skid Friction Test Systems measure the average coefficient of a paved surface in accordance with ASTM E274, and measure the peak or incipient slip friction of a paved surface in accordance with ASTM E1337. The information collected with the test system helps determine changes in surface friction due to deterioration, weathering, or other characteristics. The information collected with the system has a number of applications: 1) DOT's use the information to help determine if a paved surface needs resurfacing or rehabilitation. 2) Airports determine if runways have adequate friction values. 3) Tire manufacturers use it to help test characteristics of new products 4) It is used in a court of law to determine if safe roadway condi-

tions are present.

These systems consist of a specially equipped pickup truck and a specially equipped towed two-wheeled trailer.

ICC's Skid Trailer uses an ASTM standard ribbed or blank test tire. The trailer can be pulled over a paved surface by the truck at a constant velocity while a nozzle dispenses water in front of the tire to simulate wet conditions. The test wheel of the trailer is coupled by a disc brake assembly to a calibrated force transducer, which measures the traction force and load on the wheel under braking. The electrical/mechanical devices in the trailer are controlled by the computer system electronics in the pickup truck in

combination with switches on an operator's control console.

ICC's Skid Truck contains a water system which supplies water to the test operations, electrical equipment to supply the required DC and AC power to the test system, and a computer system to activate tests and record the measured data. In typical testing, the driver of the truck maintains the desired test speed then activates a test where the equipment: 1) Dispenses water at the trailer wheel, 2) Actuates the trailer braking system to lock up the wheel, 3) Detects the resultant wheel traction force, wheel load, and vehicle speed and 4) Uses the resulting force time information to determine the friction of pavement for the standard test tire. The friction value detected is reported in



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System Features

- Extremely User-friendly, Menu Driven Software
- Real Time Dynamic Data Logging and Graphing
- Automatic Calibration and Error Checking
- Automatic Warning or Manual Data Collection Modes
- Easy Adjustment Water Delivery System (no gear box)
- Air/Water Blow-out (prevents damage from expanding freezing water)
- Extra Large Dash Display for both Speed and Distance
- Completely DC Power System
- Trailer Carries Additional Test Tire
- All Trailer Compartments are Accessible with Hinged, Aluminum Hoods
- Hinged Trailer Top Plate (allows access to suspension from top of trailer)
- Trailer Professionally Painted, Rock Guards Applied to Help Prevent Chipping
- Trailer Suspension Adjustable, Permits Calibration without Touching Transducer

Specifications

Tow Vehicle

- One-ton, Super Duty Vehicle
- Extended or Crew-cab Pick-up
- 10,000 or 11,000 GVWR
- Single or Dual Rear Wheels



Test Trailer

- One or Two Sided Test System
- Heavy Duty Coil Spring Suspension
- Solid State Air to Hydraulic Power Disc Braking System
- Dual Axis Transducer
- Precision Speed Sensing System

Computer

- Industrial Hardened IBM PC/AT
- High-Speed Processor
- Hard Disk
- Floppy Disk (Optional Mass Storage Drive and CD Rom Drive)
- High-resolution Flat Panel Display
- Printer
- DOS Operating System (Optional Windows) and Friction Software

Optional Subsystems

- One or Two Sided Test Systems
- Large Dash Display for Speed and DMI
- GPS or DGPS
- Mapping Systems
- Texture and International Friction Number
- Digital Video Logging
- Automatic Voice Recognition of Event Marking and Feature Location



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