



SURFACE VEHICLE RECOMMENDED PRACTICE

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Brake System Road Test Code – Motorcycles

RATIONALE

The Technical Report covers brake test procedures which, for foundation brake systems, are mature and not likely to change in the foreseeable future. Additional test procedures for advanced braking systems including ABS are addressed elsewhere.

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1. Scope—This SAE Recommended Practice establishes a uniform procedure for the level road test of the brake systems of all classes of motorcycles intended for highway use.

1.1 Purpose—The purpose of the recommended practice is to establish brake system capabilities with regard to:

1. Deceleration or stopping distance versus input, as affected by vehicle speed, brake temperature, and usage
2. Lining characteristics
3. Drum characteristics

2. References—There are no referenced publications specified herein.

3. Section A - Instrumentation

Line pressure of pedal and lever force gauges

Decelerometer

Direct reading temperature instrument

Speedometer (calibrated)

Odometer (calibrated)

Thermometer - ambient (or ambient sensitive thermocouple)

Optional Instrumentation

Pedal travel gauge

Stopmeter ("fifth wheel," distance only or shot marker)

Solenoid stop counter

Stopwatch

4. Section B - Installation Details

1. Friction Material Preparation—Attach and finish friction material per manufacturer's specifications.
2. Thermocouples—Install the desired type of thermocouples in each brake. Any one of the following installations may be used:

- a. Plug type. See Figure 1.

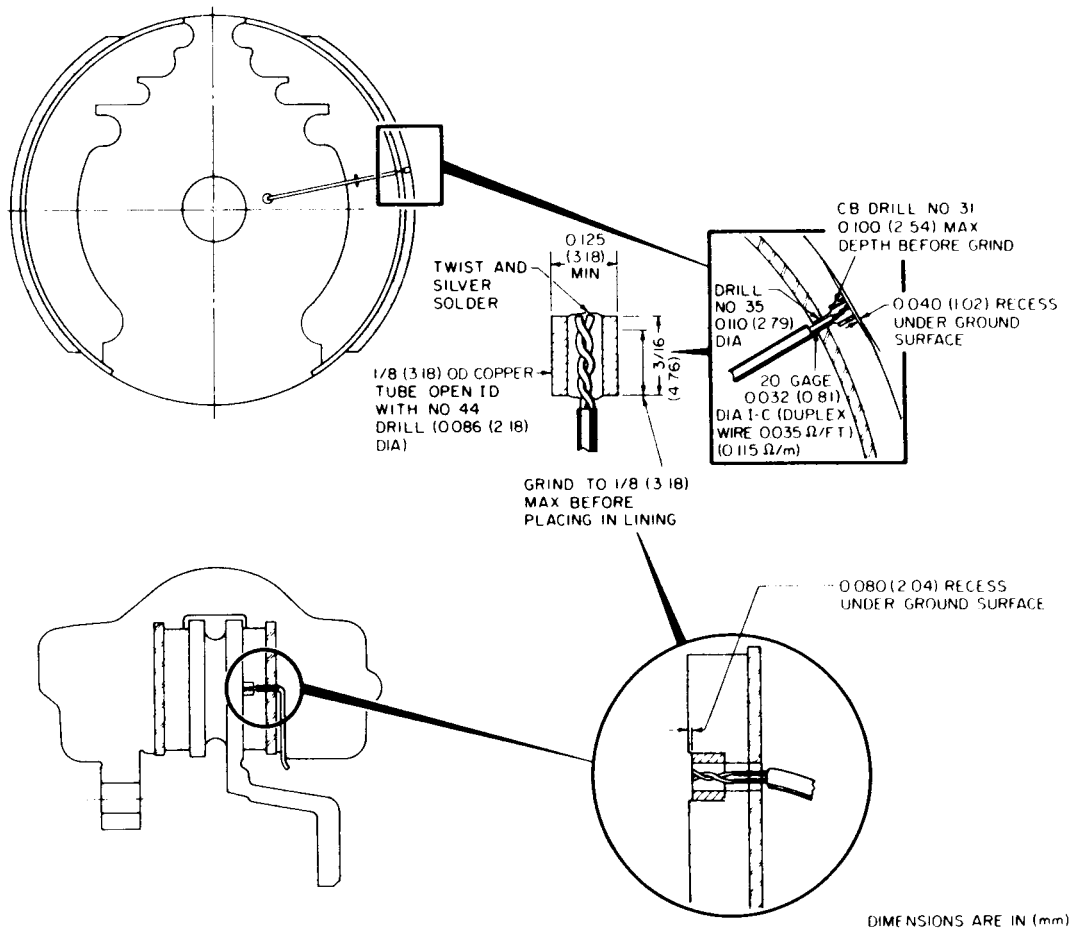


FIGURE 1—TYPICAL PLUG TYPE THERMOCOUPLE INSTALLATION

- b. Web-rim junction type, welded or otherwise, in intimate contact with the brake shoe near the web-rim junction.
- c. Thermocouple inserted in a hole drilled from the lining edge, approximately one-half the width of the lining in depth and as close to the shoe rim as possible.

All thermocouples are to be located in the approximate center of the most heavily loaded shoe, one per brake (two per brake on double-leading shoe brake).

3. Brake Drum or Rotor—Surface finish and dimensional characteristics (with special emphasis on runout of rubbing surface) of brake drums or rotor shall be in accordance with manufacturer's specifications for each test.