

VEHICLE GENERAL ENDURANCE

Build Vehicle - Plymouth Horizon
With new rotors, drums, and friction materials
Measure - friction material - drums and rotors

Instrumentation - Data Logger
With thermocouples in all brakes, recording
decelerometer, and pressure transducer

Vehicle Load - Curb + 600 lbs.

Test Procedure - 4 stops - 35 MPH to 0, 10 ft./sec.²
1 stop - 35 MPH to 0, 12 ft./sec.²
1 stop - 35 MPH to 0, 10 ft./sec.²
1 stop - 50 MPH to 0, 10 ft./sec.²
1 stop - 40 MPH to 0, 10 ft./sec.²

Interval .5 miles between stops.

Cool to 200°F approximately 4.0 miles
and repeat above cycle.

Repeat above conditions for 1000 miles.
Stops per 1000 miles is 952.

Measurement - Measure friction material, drums and
rotors. Calculate extrapolated
mileage based on:

Pad thickness	.400
Rotor	.059
Drum Lining	
Drum	.059