

DESCRIPTION OF ENGINEERING TESTS

BRAKE DRUM DYNAMOMETER TEST

Two types of testing are performed on a brake dynamometer:

FMVSS-121 Test:

The brake system performance is measured according to NHTSA standards for retardation, fade, and recovery.

Drum Durability Test:

The drum must withstand a specified series of severe stops at increasing speeds without cracking through.

HUB TEST PER SAE J1095

Accepted industry standard test for qualification of hub design at maximum rated loads. Test consists of:

Rotary Fatigue Test:

Hub must run minimum specified cycles at accelerated cornering test load without cracking.

NUT TEST

Accepted SAE J1965, industry standard test for qualification of nut design at recommended torque values. Test consists of:

Torque/Tension Test:

Nut assembly must exhibit specified limits of clamping force when torqued from zero to specified maximum test torque.

Retorque Test:

Nut assembly must exhibit specified limits of clamping force when retorqued from zero to specified maximum test torque five consecutive times.

Compression Test:

Nut assembly must withstand a specified axial test load without exceeding specified amount of permanent deflection or any functional failure.

Nut Body Proof Load Test:

Nut body on a bolt must withstand a specified axial load through the bolt without a functional failure.