

Comprehensive Brake Inspection

To be used when a known problem exists or when brake work is anticipated.

Parking lot checks:

Rear break lights: Should be off with pedal released, then turn on during pedal application.

Brake dashboard warning light: Make sure parking brake is released. Turn ignition on. Observe light.

Indicator light on Normal

Indicator light does not come on (record) Abnormal

Start engine, observe light:

Indicator light on, then goes off Normal

Indicator light comes on and stays on (record) Abnormal

ABS dashboard warning light: (If equipped) Start engine. Observe light.

Indicator light off or comes on then goes off Normal

Indicator light comes on and stays on (record) Abnormal

Parking brake: Count number of clicks pedal or level applies and observe light.

If vehicle clicks are proper per OE specifications Normal

If clicks are more or less (record) Abnormal

Indicator lights comes on Normal

Indicator light does not come on (record) Abnormal

Engage transmission, if automatic, to determine if the parking brake system is holding the vehicle in place. Forward gear is recommended for this test as many parking brakes will not function in reverse.

If vehicle holds in place Normal

If vehicle does not hold in place (record) Abnormal

If manual shift transmission, select first gear and slightly engage with increasing power to determine if vehicle will hold. Record as above to indicate the capability of the parking brake system.

Power Booster: Turn ignition off. Release parking brake. Pump brake pedal until it is hard, firm and high.

High and hard Normal

Low and hard (record) Abnormal

Low and spongy (record) Abnormal

High and fading (record) Abnormal

No pedal (record) Abnormal

With foot still on brake pedal, start the engine. Normal results will be as follows:

Pedal remains at same height.....	(non-power brakes)	Normal
Pedal drops 1 - 1 1/2"	(vacuum power brakes)	Normal
Pedal drops slightly and pushes back	(hydro-boost)	Normal

Test Drive: From 25 mph, 40 mph, and 55 mph make stops with both light and heavy pressure.

Smooth, straight stops.....		Normal
Vehicle pulls to one side while braking	(record)	Abnormal
Brake pedal vibrates	(record)	Abnormal
Steering wheel shimmys	(record)	Abnormal
One or more wheels lock prematurely	(record)	Abnormal
Excessive pedal effort required	(record)	Abnormal

Also check for “comfort factors”:

Squeal, groan, grind or clunk.....	(record)	Abnormal
Burning odor or smoke	(record)	Abnormal

Under hood inspection:

Vacuum power booster. Check for:

- Physical damage – dented/cracked unit.
- Worn, cut, cracked, or pinched vacuum supply hose.
- Loose, worn or missing belt on auxiliary vacuum pump (if so equipped).
- Measure vacuum with gauge and compare to specifications.

Hydro-booster. Check for:

- Physical damage.
- Fluid leaks at unit or pressure hoses.
- Fluid level and condition in power steering pump.
- Loose, worn or missing power steering belt.
- Excessive pump noise.

Electro-hydraulic booster. Check for:

- Physical damage.
- Fluid level and condition.
- Damaged/disconnected wires.

Master cylinder. Check for:

- Physical damage.
- Fluid leakage.
- Overfilled/underfilled reservoir. Refer to service manual on ABS equipped vehicles.
- Fluid contamination (swollen rubber diaphragm).
- Ash residue/dirty fluid.
- Excessive fluid moisture content.

General Undercar Inspection:

Steel lines. Check for:

Leaks.

Physical damage – dents/kinks.

Excessive corrosion.

Torn dust boot.

Corroded/dirty piston (pull back boot).

Ease of piston movement.

Seized bleeder screw.

Elongated mounting bolt holes.

ABS speed sensor (if equipped). Check for:

Damaged/disconnected wires.

Contaminated sensor.

Contaminated tone wheel.

Corroded tone wheel.

Drum brake inspection:

Linings. Check for:

Minimum lining thickness (per OE specs.)

Uneven wear, cracks, loose rivets.

Contaminated material. (Oil, grease, brake fluid, etc.)

Improper installation (primary/secondary).

Hardware. Check for:

Bent/broken components.

Missing components. (Use service manual for comparison).

Excessive corrosion.

Proper lubrication/ease of movement.

Worn hold down pins, stretched springs.

Parking brake lever. Check for:

Ease of movement.

Wear/corrosion.

Drum. Check for:

Cracks.

Excessive corrosion.

Grooves.

Broken studs/missing lug nuts.

Hot spots.

Bellmouthing.

Diameter (vs. OE specs.)

Runout.

Wheel cylinder. Check for:

Leakage.

Torn dust boot.

Seized pistons.

Seized bleeder screw.

Tightness to backing plate.

Axle/backing plate. Check for:

Grease leakage.

Excessive bearing play.

Corrosion/wear/damage to backing plate.

Rubber hoses. Check for:

Leaks.

Physical damage – cuts/chafing.

Dryrot, cracks or blisters.

Improper routing/kinking.

Valves: Check for:

Leaks.

Physical damage.

Cut/disconnected wires.

Bent/disconnected linkage (rear load valves).

Parking brake cables. Check for:

Ease of movement.

Excessive corrosion.

Misadjustment (too little/too much slack).

Lack of lubrication.

Fraying.

Physical damage to conduit.

Disk brake inspection:

Unbolt and remove caliper for better access. Support caliper, do not hang from brake hose.

Linings. Check for:

Minimum lining thickness (per OE specs).

Tapered wear, cracked material, loose rivets.

Contaminated material. (Oil, grease, brake fluid, etc.)

Proper fit and tightness to caliper.

Hardware. Check for:

Bent/broken components.

Missing components (use service manual for comparison).

Proper lubrication.

Excessive corrosion.

Presence and condition of shims (if OE equipped).

Rotor. Check for:

Cracks.

Excessive corrosion.

Grooves.

Broken/stripped studs/missing lugnuts.

Runout (check OE specs).

Thickness variation (check OE specs) and thickness vs. minimum specification.

Bearing play.

Condition of bearing grease (unless sealed).

Hot spots.

Caliper. Check for:

Leakage.

Physical damage (contact with wheel).

Seized pistons.

Seized bleeder screw.

ABS speed sensor (if equipped). Check for:

Damaged/disconnected wires.

Contaminated sensor.

Contaminated tone wheel.

Corroded tone wheel.