Item and Method of Inspection	Reject If
1. Parking Brakes	
Apply parking brake and with engine running at approximately 800 rpm, engage transmission into drive if automatic or if manual first gear and momentarily engage clutch. Manually inspect:	
a) indicator lamp (if equipped)	a) fails to illuminate
b) application	b) fails to fully apply or release, not a mechanical type
c) application mechanism	c) binds, inoperative, broken, missing, fails to lock
d) cables	d) frayed, broken, missing, seized, inadequately secured, equalizer missing
e) parking brake	e) missing
	OUT OF SERVICE **i) Upon actuation of parking brake, the brake fails to hold vehicle.**
2. Hydraulic System	
a) lines – tubing connections must be double flared	a) twisted, welded, soldered, cracked, chafing, flattened, blistered, bulged, insecurely mounted, restricted sections, any repairs other than approved tubing, any line equipped with reusable ends
b) hoses (front and rear)	b) cracked or chafed to first braid if rubber composite material, flattened, insecurely mounted, restricted sections, not approved material for brake fluid use
c) master cylinder condition	c) fluid level below 13 mm (1/2 in.) from top, insecurely mounted
d) master cylinder cap	d) missing, vent holes plugged, gasket missing or swelled, damaged
	OUT OF SERVICE **i) Any brake hose or line seeps, leaks or swells.** **ii) Any leak in brake system.** **iii) Master cylinder reservoir is less than OEM minimum level.**

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.

Item and Method of Inspection	Reject If
3. Dual Brake System Hydraulic Circuit Check	
Turn the ignition to "ON" and then to "START" position. Manually inspect:	
a) warning indicator (parking brake not applied)	a) does not operate as per OEM design; lamp operates continuously
b) pressure differential switch (if applicable)	b) missing, broken, disconnected, inoperative, with engine running and brake pedal depressed with moderate foot pressure the lamp comes on (approx. 55 Kg (125 lbs) force)
	OUT OF SERVICE **i) Brake failure lamp illuminates continuously or fails to illuminate during test cycle.**
4. Hydraulic Brake Leakage and Pedal Reserve Test	
For inspection of power brakes: with engine running, and without pumping or repeated brake pedal application, apply a moderate foot force to pedal and maintain for 1 minute. With use of measuring device, manually inspect for:	
a) leakage	a) pedal moves slowly in applied direction
b) travel	b) pedal travel from its free height to its depressed height is more than 65% of this total or does not meet manufacturer's specifications
	OUT OF SERVICE **i) Any fluid leakage is observed in the system.** **ii) Service brake pedal requires pumping to maintain pedal reserve.** **iii) Pedal free play exceeds 80%.**
5. Vacuum-Assisted Power Brakes	
Perform above test with engine shut off and all vacuum exhausted.	

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.

Item and Method of Inspection	Reject If
6. Hydraulic Assisted Brake System	
a) leakage and pedal reserve test	a) does not comply with the requirements for test as per Sections 3 and 4
Vehicles equipped with an electrically driven hydraulic pump that functions in the event of a power steering failure, can be checked by applying moderate pressure on the brake pedal and turn the ignition switch to the "ON" position	
i) travel	i) no movement in pedal is detected
ii) warning indicator (if applicable)	ii) inoperative when power steering pump is stoppe
iii) pump reservoir	iii) insufficient fluid, leaking
iv) lines and hoses	iv) missing, leaking, insecurely mounted, incorrect type
v) belt	v) missing, loose, cracked or excessively worn
b) operation	
i) stop engine, depress brake pedal several times. Apply moderate foot pressure on brake pedal and start engine	i) no pedal movement is observed
	OUT OF SERVICE **i) Power assist unit fails to operate.** **ii) The service brake does not move toward the floorboard with brakes applied when engine started.**
7. Vacuum System	
Manually inspect:	
a) lines and hoses	a) missing, loose, cracked, collapsed, broken, chafed, insecurely mounted, not OEM or equivalent type, less than 40 mm (1 1/2 in.) from any part of the exhaust system
b) condition	b) leaking, one way check valve missing or inoperative, one way check valve installed backwards
c) clamps	c) loose, missing, broken
	OUT OF SERVICE **i) System leaking so as not to remain operational.**

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Item and Method of Inspection	Reject If
8. Vacuum Booster (if equipped)	
With engine off, depress brake pedal several times to eliminate vacuum reserve, apply light force on brake pedal 12 kg (25 lbs.) and then start engine.	
a) operation	a) no movement in brake pedal detected
b) condition	b) loose, damaged, leaking, inoperative
	OUT OF SERVICE **i) Power assist unit fails to operate.**
9. Vacuum Reserve	
Start engine, build to full vacuum, shut engine off, make one full brake application. Manually inspect:	
a) reserve	a) insufficient to assist a full brake application
b) tanks	b) missing, insecurely mounted, leaking
10. Proportioning Valve (if equipped)	
a) Determine if rear wheel brakes are working on vehicles, if equipped. Lift the vehicle so that all wheels are clear of the ground and place lifting device under rear axle rather than the body because the valve on the body on some vehicles is connected to axle by a link which causes valves to shut off pressure to the rear brakes when the vehicle body lifts away from the rear axle. Then, by applying just sufficient pressure to brake pedal to just lock both front wheels against hand rotation, the rear wheels should also be locked.	a) rear wheels fail to lock **CAUTION SHOULD BE TAKEN – MANUFACTURER'S PROCEDURES SHOULD BE FOLLOWED.**

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.

Item and Method of Inspection	Reject If
11. Drum Brakes	
NOTE: Drums must be removed. Inspect linings and drums. Bearing re-pack not part of inspection.	
a) bonded lining	
With use of a steel scale or Vernier caliper inspect:	
i) wear	i) worn to 1.6 mm (1/16 in.) or less at the thinnest point
ii) condition	ii) broken, cracked, petroleum product contaminated, worn extremely uneven – installed incorrectly, primary and secondary shoes reversed, spalled
b) riveted lining	
With the use of a tire depth gauge, inspect:	
i) wear	i) worn to 1.6 mm (1/16 in.) or less above rivet head – worn to minimum as indicated by component manufacturer over 1.6 mm
ii) condition	ii) broken, cracked, petroleum product contaminated, worn extremely uneven, installed incorrectly, primary and secondary shoes reversed, spalled
c) mechanical components	
i) self adjusters	i) seized, worn, inoperative, missing, wrong thread for wheel installed
ii) self adjuster cables and linkage	ii) missing, loose, broken, inoperative, cable frayed
iii) anchor pins and springs	iii) missing, loose, broken, excessively worn beyond manufactured tolerances, springs stretched, no spring tension, bent
iv) backing plate	iv) loose, bent, damaged, lands worn or grooved in a manner that restricts free movement of shoes

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.

Item and Method of Inspection	Reject If
d) wheel cylinders **NOTE: Drums must be removed.**	
i) operation	i) seized, inoperative
ii) condition	ii) leaking, damaged, mounted insecurely
iii) dust seals	iii) cracked, split, damaged, missing, deteriorated
e) brake drums	
Inspect for:	
i) cracks	i) cracks extend to the open edge of the drum, any external cracks are present
ii) damage	ii) hot spots are present in more than one location that cannot be removed by machining within drum limits, friction surface is uneven, chunk broken out of drum, discolouration of metal in drum resulting in heat cracks that cannot be machinated out within drum limits
Measure inside diameter of drum at two locations at centre of drum face and approximately 90° apart. Use an approved gauge.	
iii) wear	iii) drum has more than one groove worn so that measurement in groove exceeds wear limits – out of round more than 0.25 mm on drums 280 mm (11 in.) diameter and smaller – out of round more than 0.63 mm on drums greater than 280 mm (11 in.) diameter – drum exceeds specifications as set out in Section 3 Item 17
Apply brakes and try to rotate wheel.	
f) application	f) wheel rotates
	<u>OUT OF SERVICE</u> **i) Brake drum in a condition which would indicate failure is imminent.** **ii) Inoperative brake.** **iii) Metal to metal.** **iv) Contaminated lining.**

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.

Item and Method of Inspection	Reject If
12. Disc Brakes	
Pull all wheels. With the use of a micrometer or dial indicator, inspect:	
a) discs/rotors	a) broken, pitted, cracks on surface extend to outer edges, damaged, one groove worn beyond 2.3 mm (3/32 in.) hot spots are present that cannot be removed by machining – disc not vented properly – lateral run-out exceeds 0.125 mm on disc 380 mm (15 in.) diameter or less – lateral run-out exceeds 0.25 mm on discs greater than 380 mm (15 in.) diameter – wear exceeds wear limits in Section 3, Item 13
b) calipers	b) leaking, seized, piston seized, piston dust seals deteriorated, bleeder inoperative, inferior attaching bolts, mounted incorrectly – retainer loose, broken missing – caliper assembly worn beyond OEM specifications
c) pads	c) damaged, contaminated, broken, cracked, worn extremely uneven, rivets loose, installed incorrectly, spalled – worn to 1.6 mm (1/16 in.) or less at the thinnest point on bonded linings – worn to 1.6 mm (1/16 in.) or less above rivets at the thinnest point on riveted linings
Apply the brakes and attempt to rotate the wheel assembly.	
d) application	d) wheel rotates
	OUT OF SERVICE **i) Any disc is cracked to the hub or failure appears imminent.** **ii) Inoperative brake.** **iii) Metal to metal.**

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.

Item and Method of Inspection	Reject If
13. Anti-Lock Brakes (if OEM equipped or as required by MVSA [Canada])	
a) indicator lamp	a) missing, inoperative, remains illuminated when ignition switch on, does not operate during test cycle
b) wiring	b) missing, insecurely mounted
c) electronic control unit (ECU)	c) missing, insecurely mounted
d) wheel speed sensors	d) missing, insecurely mounted, inoperative
14. Machining and Wear Limits, Brake Drums and Discs/Rotors	
Brake Drums a) No combination of machining and wear may exceed the manufacturer's stamped limit. b) If manufacturer's limit is not given, then no combination of wear and machining may exceed: i) 2.3 mm (3/2 in.) over original diameter on drums 350 mm (14 in.) or less ii) 3.0 mm (1/8 in.)over original diameter on drums greater than 350 mm (14 in.) Brake Disc/Rotor Original thickness may not be decreased by any combination of wear and machining below manufacturer's minimum thickness.	

All inspection procedures are visual unless additional inspection procedures are indicated or where applied force is necessary to verify tightness and/or component security.