Item and Method of Inspection	Reject If
Vehicles must meet minimum stopping distances as stated in the B.C. MVAR.	
1. Parking Brakes	
NOTE: Micro-lock system is not considered to be an acceptable parking brake. 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
	OUT OF SERVICE **i) Upon actuation of parking brake, the brake fails to hold vehicle.**
2. Hydraulic System	
a) lines	a) leaking, twisted, welded, soldered, cracked, chafing, blistered, bulged, flattened, insecurely mounted, restricted sections, deteriorated by corrosion, any repairs other than approved methods, any line equipped with reusable ends – tubing connections must be double flared
b) hoses (front and rear)	b) leaking, 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, less than OEM specific level.
d) master cylinder cap	d) missing, vent holes plugged, gasket missing or swelled, damaged

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
	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.**
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) b) pressure differential switch (if applicable)	a) does not operate as per OEM design – brake failure lamp is illuminated continuously or fails to illuminate during test cycle b) missing, broken, disconnected, inoperative, with engine running and brake pedal depressed with moderate foot pressure the lamp comes on [approx. 57 kg (125 lbs.) force]
	OUT OF SERVICE **i) Brake failure lamp is illuminated continuously or fails to illuminate during test cycle.**
4. Hydraulic Brake Leakage and Pedal Reserve Test	
With engine running if power brakes, and without pumping or repeated brake pedal application, apply a moderate foot force to pedal and maintain for one minute. With ABS braking system, test as per manufactures instructions. Using a measuring device, manually inspect for: a) leakage b) travel	a) pedal moves slowly in applied direction, any fluid leakage is observed in system b) pedal travel from its free height to its depressed height is more than 65% of possible total travel or does not meet OEM's specifications – excessive pedal free play – service brake pedal requires pumping to maintain pedal reserve
	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% of total brake pedal travel.**

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
5. Vacuum-Assisted Power Brakes	
Perform above test with engine shut off and all vacuum exhausted.	
6. Hydraulic-Assisted Brake System	
a) leakage and pedal reserve test	a) does not comply with the requirements for test as per Section 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 turning 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 stopped
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.** **i) 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, incorrect type, less than 40 mm (1.6 in.) from any part of the exhaust system
b) condition	b) leaking, one way check valve missing or inoperable, one way check valve installed backwards
c) clamps	c) loose, missing, broken

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
	OUT OF SERVICE **i) System leaking so that the vacuum system does not function continuously.**
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 (26 lbs.) and then start engine.	
a) operation	a) no movement in brake pedal detected
b) condition	b) loose, damaged, leaking, inoperable
	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 and then manually inspect:	
a) reserve	a) insufficient to assist a full brake application
b) tanks	b) missing, insecurely mounted, leaking
10. Proportioning Valve	
a) Determine if rear wheel brakes are working on vehicles equipped. Lift the vehicle so that all wheels are clear of the ground and place lifting device under rear axle rather than under 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 rear axle. Test function by applying just sufficient pressure to brake pedal to just lock both front wheels against hand rotation, the rear wheels should also be locked. **CAUTION SHOULD BE TAKEN – MANUFACTURER'S PROCEDURES SHOULD BE FOLLOWED.**	a) rear wheels fail to lock

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	
Bearing re-pack not part of inspection. Pull all wheels and brake drums. Inspect linings and drums. Re-install wheel and drum assembly. Install new cotter pin. Record measurements on inspection forms.	
a) Bonded Lining Using a steel scale or Vernier caliper, inspect and record measurements:	
i) wear	i) worn to 1 mm or less at the thinnest point.
ii) condition	ii) broken, cracked, contaminated, worn extremely uneven – installed incorrectly, primary and secondary shoes reversed, spalled
b) Riveted Lining Using a tire depth gauge, inspect and record measurements:	
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, contaminated, worn extremely uneven, installed incorrectly, primary and secondary shoes reversed, spalled
c) Mechanical Components	
i) self adjusters	i) seized, worn, inoperable, missing, wrong thread for wheel installed
ii) self adjuster cables and linkage	ii) missing, loose, broken, inoperable, 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
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

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
e) Brake Drums **NOTE: Drums must be removed and measurements recorded.** 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 machined out within drum limits
iii) wear Measure inside diameter of drum at two locations at centre of drum face and approximately 90º apart. Use an approved gauge.	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 set out in Section 3 Item 14. – diameter exceeds manufacturer's limit marked on drum
f) application Apply brakes and try to rotate wheel.	f) wheel rotates
	OUT OF SERVICE **i) Brake drum in a condition which could indicate failure is imminent.** **ii) Inoperative brake.** **iii) Metal to metal.** **iv) Contaminated lining.** **v) Lining loose to point of separation.**

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. Using a micrometer or dial indicator, inspect and record measurements: **NOTE: Wheel removal does not apply to new vehicles where NVIS is supplied by Canadian or US manufacturer.**	
a) discs/rotors – measure and record	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 14
b) calipers	b) leaking, seized, piston seized, piston dust seals deteriorated, bleeder inoperable, inferior attaching bolts, mounted incorrectly – retainer loose, broken missing – caliper assembly worn beyond OEM specifications
c) pads – measure and record thickness	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
d) application Apply the brakes and attempt to rotate the wheel assembly.	d) wheel rotates
	<u>OUT OF SERVICE</u> **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
e) onboard diagnostic scan	e) fails test

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 (3/32 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.