



Motorcycle Inspection Methods and Standards

Reference Manual

September 2020

Copyright and Disclaimer

Government of Newfoundland and Labrador reserves the right to make changes to the information contained in this publication without prior notice. Official Inspection Stations will be notified in all cases where any such changes have taken place.

© Queen's Printer

Table of Contents

Introduction	1
Instructions for Authorized Inspection Mechanic Conducting Inspections	2
Inspection Method	2
Inspection Outcome Based on Current Vehicle Condition	2
Inspection Report	2
Workplace Safety	3
Informational Notes	3
Terminology	4
Application	4
Definitions	4
Categorization of fluid leaks	6
Illustrations and Diagrams Used in the Manual	6
Measurements and Tolerances	7
Defective conditions of Hoses, Tubing and Lines	9
Section 1 – Power Train	10
1. Throttle	10
2. Fuel System	10
3. Exhaust System	11
4. Chain / Belt	12
5. Sprockets	12
6. Engine / Transmission Mount	12
7. Clutch and Clutch Control	13
8. Engine Shutdown	13
9. Engine Start Safety Feature	13
10. Gear Shifter / Selector and Position Indicator	13
Section 2 – Suspension	14
1. Front Fork Assembly	14
2. Rear Shocks	14
3. Swing Arm	14
4. Rigid Frame	14
5. Axle Attaching and Track Components	15
Section 3 – Brake Systems	16
1. General	17
2. Brake Controls	17
3. Brake System Indicator Lamps	17
4. Hydraulic System Components	18
5. Drum Brake System Components	19

6. Disc Brake System Components	20
7. Parking Brake	22
Section 4 – Steering	23
1. Steering Control and Linkage	23
Section 5 – Instruments and Auxiliary Equipment	24
1. Horn	24
2. Speedometer	24
3. Odometer	24
4. Neutral Indicator Lamp	24
Section 6 – Lamps	25
1. Required Lamps	25
2. Reflex Reflector	27
Section 7 – Electrical System	30
1. Wiring	30
2. Battery	31
Section 8 – Body	32
1. Frame	32
2. Fenders	32
3. Device or Equipment Attached or Mounted to the Vehicle	32
4. Seat	33
5. Footrests	33
6. Stand	33
7. Windshield	33
8. Mirrors	34
Section 9 – Tire and Wheel	35
1. Tire-Tread Depth	35
2. Tire Tread Condition	35
3. Tire Sidewall	36
4. Tire Inflation Pressure	36
5. Wheel / Rim	37
6. Wheel Fasteners (Nuts, Bolts and Studs)	37
7. Wheel Bearing	38

Introduction

Introduction

As partners in road safety, licensed Official Inspection Station appointee's and Authorized Inspection Mechanics must carefully review and apply the vehicle inspection standards contained in the Official Inspection Station Manual, prescribed in the *Official Inspection Station Regulations*, under the *Highway Traffic Act*. This Standard applies to motorcycles requiring the issuance of an Official Inspection Station Certificate. The purpose of the inspection is to ensure that the vehicle meets a minimum safety standard at the time of inspection. A determination must be made as to whether the condition of the vehicle at the time of the inspection conforms to the requirements outlined in this manual.

All items listed in this Manual must be inspected in accordance with the specific outlined procedures. An Official Inspection Station Vehicle Inspection Certificate is a legal declaration that the vehicle was inspected in accordance with the standards prescribed in the Official Inspection Station Manual and met all of the requirements at the time of the inspection.

Instructions for Authorized Inspection Mechanics Conducting Inspections

Inspection Methods

The inspection of vehicle components and systems conducted to determine compliance with the Official Inspection Station Manual consists mainly of visual inspection activities in Sections 1-10 and through the completion of an on-road evaluation, details of which are found in Section 11.

An inspection will also involve testing, removal and/or disassembly of components, measurements and other actions in certain cases. Whenever an item requires more than a visual inspection, additional procedures are specifically provided. These are displayed with the heading “Additional Inspection Procedure(s)” appearing before the text describing the necessary steps.

Inspection Outcome Based on Current Vehicle Condition

A pass or fail outcome of a vehicle inspection is based on the condition of the vehicle at the time of the inspection. The determination does not involve a prediction about a vehicle’s condition in the future.

Inspection Report

For each inspection, the authorized inspection mechanic must complete an inspection report. This report must be provided to the customer and submitted to Motor Vehicle Registration in accordance with applicable requirements.

The following items are noted in the Manual as recordable items and must be included on the inspection report.

- Tell-Tales indicating a fault
- Fuel Tank Level
- Tire Tread Depth
- Disc Brakes
 - Rotor Thickness
 - Pad (Friction) Material Thickness of Inner and Outer Brake Pad
- Brake Drum System
 - Brake Shoe Lining Thickness
 - Brake Drum Diameter

Introduction

Additional details on the type of information that must be recorded can be found in the respective sections contained in the manual.

Workplace Safety

Some of the inspection procedures described in this manual require the use of tools and equipment, and may involve safety hazards. It is assumed that the individual performing inspections according to this manual is fully familiar with all relevant workplace safety requirements and protocols.

No specific safety warnings are provided within this document. All relevant and appropriate safety precautions are the responsibility of the authorized inspection mechanic and the workplace where the inspection is conducted.

Informational Notes

In many cases, additional information is provided to clarify the inspection procedure or assist in consistent interpretation of the manual. These are displayed with the heading “Note:” appearing before the text.

Terminology

Application

Various terms and acronyms are used throughout this manual. These terms have specific and consistent meanings as they relate to conducting safety inspections and identifying defective conditions. The purpose of defining these terms is to support consistent interpretation and application of the language used. The terms that are defined below are highlighted whenever they appear in each section to remind the reader that the condition is one of those that is specifically defined. This reminder also appears in the footer of each page of this document.

Definitions

The meaning of each of the terms, for the purposes of conducting inspections according to this manual, is as follows:

“abnormally worn” – means unusual, excessive or exceptional wear of a vehicle component, indicative of the presence of some deterioration or defect in that component, or in a related part of a vehicle. This term is used selectively in this manual for a component or system where some wear is normal, and does not directly have any effect on vehicle safety. It is expected that the authorized inspection mechanic knows the amount of wear, and the type of wear, that is typical (normal) based on the age and operation of the vehicle and based on the standards as prescribed by the vehicle manufacturer and or industry standard.

“broken” – means burst, cracked, crushed or damaged.

“CMVSS” – means Canada Motor Vehicle Safety Standards (CMVSS) and their supporting Technical Standards Documents. These are Canadian safety standards for vehicles that were developed and are updated by Transport Canada.

“crazed” – a network of fine cracks in the surface

“damaged” – means any unintended condition, or condition caused by means other than normal use, that is likely to impair normal function.

“industry standard” – means installation, modification or repair methods described in *industry-accepted standards or recommended practices published* by Mitchell Repair Information Company, ALLDATA, the Society of Automotive Engineers (SAE), I-CAR, Canadian Standards Association (CSA) and other similar documents from similar organizations.

Introduction

“inoperative” – means a vehicle component or system that does not operate the way it was originally intended to or the way the vehicle manufacturer intended it to operate.

“insecure” – means (a) a component is becoming detached due to deterioration of the means of attachment, or (b) the means of attachment is unable to withstand normal vehicle operation or is not at least equivalent to the OEM standard means of attachment.

“loose” – means that an item is detached, or no longer fully attached, due to improper installation, failure or deterioration of one or more means of attachment.

“missing” – means that an item is absent (such as “removed” or “detached”) that is ordinarily present on the vehicle, was present on the vehicle when the vehicle was manufactured, or is required for normal and safe vehicle operation.

“manufacturer” – means the manufacturer of the vehicle, the manufacturer of a major vehicle component or system, or manufacturer of aftermarket parts that are direct replacements for OEM parts.

“OEM” – means “original equipment manufacturer” and refers to the “brand name” manufacturer of the vehicle.

“OEM standard” – means the manufacturing methods, component and assembly quality levels, and performance levels set by the manufacturer of a vehicle or vehicle component to ensure a vehicle is able to perform safely as intended. It includes component quality, performance levels, repair methods, durability, safety and the service methods outlined in the warranty and service literature provided for the use and maintenance of a vehicle. Parts supplied by OEM, and established aftermarket manufacturers of parts intended for direct replacement of OEM parts, are generally considered to meet OEM standard

“operate as intended” – means the manner in which a vehicle component or system ordinarily operates, operated when the vehicle was manufactured, or is required to operate for normal and safe vehicle operation

“reject if” – means a condition if present at the time of inspection or after repairs that results in a failed inspection.

“tell-tale” – means an optical signal that, when alight, indicates the activation or deactivation of a device, its correct or defective functioning or condition, or its failure to function.

Categorization of Fluid (Liquid) Leaks

Every reference to a fluid (or liquid) leak listed as a reject condition is categorized with respect to the level of severity of the leak: level 1, level 2 or level 3. Each category is defined below. A vehicle with a leak that meets the defined level, or leaking more severely than this level, will cause the vehicle to fail inspection.

“level 1 leak” – means seepage of fluid that is not great enough to form drops.

“level 2 leak” – means seepage of fluid that is great enough to form drops, but not great enough to cause the drops to fall during inspection.

“level 3 leak” – means seepage of fluid that forms drops that fall during inspection

Illustrations and Diagrams Used in the Manual

In an effort to improve the consistency and uniformity of the inspection process, a series of diagrams and illustrations is used in this version of the Manual. When a diagram or illustration is in conflict with a legislated or regulatory requirement, the latter prevails.

Measurements and Tolerances

Many of the inspection items and reject conditions involve measurements of mass or weight, pressure and distance. To achieve consistent application of each criterion that involves such a measurement, it is necessary to address the degree of precision associated with such measurements. In determining the appropriate level of precision or tolerance, it is also necessary to consider the measuring tools that will be commonly used to make each of these measurements.

The level of precision associated with any measurement is defined by the tolerance stipulated for it. Tolerance is expressed as a plus or minus (+/-) value. The actual window of precision is double the value of the tolerance. For example, 50 mm (+/- 1 mm), means a value of 49 to 51 mm. The measurement tolerance of 1 mm renders a measurement precision of within 2 mm.

Given the similarities in the measurements that appear most frequently in this Manual, standard tolerances are given for most of these measurements. **The standard tolerances that are listed below apply in all cases where no additional tolerance is provided. In cases where the standard tolerance does not apply, the tolerance for that criterion is provided adjacent to the measurement.** Whenever a tolerance is provided adjacent to a measurement, the tolerance stipulated with the measurement is to be used in place of the standard tolerance listed below.

Measurements of distance are the most common in this Standard, and also have a significant variance in terms of the range of distance that is used. Four different standard tolerance values are used for distance.

Pressure

Metric (SI) pressure value = *kilopascals (kPa)*,

Imperial (American) pressure value = *pounds per square inch or pounds/inch² (psi)*

Conversion Factors: $1 \text{ kPa} = 0.145 \text{ psi}$, $6.9 \text{ kPa} = 1 \text{ psi}$

Standard tolerance for all pressure values: +/- 5 kPa (0.5 psi)

Distance

Metric (SI) distance value: *millimetre (mm)*

Imperial (American) distance value: *inch (in.)*

Conversion Factors: $1 \text{ mm} = 0.039 \text{ in.}$, $1 \text{ in.} = 25.4 \text{ mm}$

Standard tolerance for distance value ranges

Introduction

Tolerances for distance measurements vary based on the type and precision of the criterion as follows:

1. **Large distance measurements of greater than 25 mm:** *tolerance is +/- 5 mm (accuracy is to the nearest 10 mm)*
2. **Short distance measurements of 1 to 25 mm, where the distance value is expressed as a whole mm:** *tolerance is +/- 0.5 mm (accuracy is to the nearest 1 mm)*
3. **Precise short distance measurements of 1.0 to 25.0 mm, where the distance value is expressed as one-tenth of a mm:** *tolerance is +/- 0.05 mm (accuracy is to the nearest 0.1 mm)*
4. **Micro distance measurements of less than 1 mm:** *tolerance is +/- 0.005 mm (accuracy is to the nearest 0.01 mm)*

For the purpose of these tolerances, the following equivalent values are used:

Comparable Measurement Tolerances

Tolerance in metric measurements	Tolerance in imperial measurements
± 5 mm	± 0.125 (1/8) in.
± 0.5 mm	± 0.02 in.
± 0.05 mm	± 0.002 in.
± 0.005 mm	± 0.0005 in.

Metric / Imperial Conversions

25.4 mm = 1.0 in.
10.0 mm = 0.394 in.
0.0254 mm = 0.001 in.

Introduction

Identification of Defective Conditions of the Types of Hose, Tubing and Lines Used on Vehicles

Diagram	Characteristics	Defective Condition
	Type 1 – Copper, steel or plastic tubing used for liquid or vapour. Made of a single layer of material.	Wear or damage is visible on the outside.
	Type 2 – Plastic (usually nylon) tubing commonly used in air-brake systems. Uses no reinforcement ply. Inner core and outer cover are usually different colour.	Inner core becomes visible from the outside, as shown by colour change.
	Type 3 - Plastic (usually nylon) tubing commonly used in air-brake systems. Uses reinforcement ply. Inner and outer core are different colour. (Note: Type 2 and 3 may appear identical externally.)	Reinforcement ply or inner core is visible from the outside, as shown by colour change.
	Type 4 – Stainless steel braided (or otherwise) outer cover with inner layer of tubing.	Wear or damage visible on the outer cover.
	Type 5 – Synthetic rubber hose with inner reinforcement ply.	Wear or damage exposing the reinforcement ply.
	Type 6 – Synthetic rubber hose with multiple reinforcement plies.	Wear or damage exposing the outer reinforcement ply.
	Type 7 – Flexible hose with one or more reinforcement plies that may be fabric or steel, and an outer protective layer.	Wear or damage through the outer protective layer and outer cover, exposing a reinforcement ply.

Section 1 – Powertrain

1. Throttle

ITEM AND METHOD OF INSPECTION	REJECT IF
<p><i>Additional Inspection Procedure(s):</i> With engine running, press and release the throttle. Check engine response.</p> <p>a) actuator</p>	<p>a)</p> <ul style="list-style-type: none"> - binding, <u>inoperative</u>, <u>missing</u> - engine fails to respond normally
<p>b) linkage / cable</p>	<p>b)</p> <ul style="list-style-type: none"> - binding, <u>broken</u> or <u>insecure</u> - deficient part is used that is not <u>OEM standard</u> - throttle cable is binding, frayed or seized

2. Fuel System

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) fuel System</p>	<p>a)</p> <ul style="list-style-type: none"> - <u>level 1 leak</u> or spillage of fuel present from any part of the fuel system
<p>b) filler Cap</p>	<p>b)</p> <ul style="list-style-type: none"> - improper type or <u>missing</u>
<p>c) tank</p>	<p>c)</p> <ul style="list-style-type: none"> - cracked, perforated, <u>insecure</u> mounting - deficient product is used that does not meet <u>OEM standard</u> - repaired in a way that does not meet <u>OEM standard</u>
<p>d) line, hose, fitting and connection</p> <p><i>Note:</i> Refer to correct type of hose or tube and the related defective condition(s) as defined in the chart in the definition section of this standard.</p>	<p>d)</p> <ul style="list-style-type: none"> - chafed, cracked or <u>insecure</u> - deficient product is used that does not meet <u>OEM standard</u> - not approved for use in a fuel system - any section of a line, hose or tube is worn or <u>damaged</u>
<p>e) pump, Carburetor/ Injection System</p>	<p>e)</p> <ul style="list-style-type: none"> - <u>damaged</u> or <u>insecure</u>

Section 1 – Powertrain

3. Exhaust System

ITEM AND METHOD OF INSPECTION	REJECT IF
<p><i>Additional Inspection Procedure(s):</i> Inspect with engine running.</p> <p>a) manifold (if originally equipped)</p>	<p>a)</p> <ul style="list-style-type: none"> - <u>broken</u>, cracked, leaking, <u>loose</u> or <u>missing</u>
<p>b) catalytic converter (if originally equipped)</p>	<p>b)</p> <ul style="list-style-type: none"> - cracked, perforated or leaking - bypassed, disabled, <u>missing</u> or removed - patched in any manner that is not consistent with <u>industry standard</u>
<p>c) muffler</p> <p><i>Note:</i> The <u>OEM</u> muffler or one that meets the <u>OEM</u> standard is required on every motorcycle.</p>	<p>c)</p> <ul style="list-style-type: none"> - cracked, perforated or leaking - bypassed, disabled, <u>missing</u> or removed, any <u>loose</u> or <u>missing</u> baffles - baffle does not meet <u>OEM standard</u> - deficient part is used that does not meet <u>OEM standard</u> - patched in any manner that is not consistent with <u>industry standard</u>
<p>d) exhaust pipes</p>	<p>d)</p> <ul style="list-style-type: none"> - cracked, collapsed or pinched - <u>missing</u>, perforated or leaking - patched in any manner that is not consistent with <u>industry standard</u>
<p>e) mounting hardware</p>	<p>e)</p> <ul style="list-style-type: none"> - <u>broken</u>, <u>insecure</u>, <u>loose</u> or <u>missing</u> - deficient part is used that does not meet <u>OEM standard</u>
<p>f) location / heat damage</p> <p><i>Note:</i> Heat damage can sometimes be due to the absence of a heat shield originally provided by the <u>manufacturer</u></p>	<p>f)</p> <ul style="list-style-type: none"> - exhaust-system component is located so as to cause charring or other heat damage to any wiring, fuel line, brake line or combustible material of the vehicle
<p>g) Exhaust sound pressure level</p> <p><i>Note:</i> the test procedure noted in SAE J2825 Measurement of Exhaust Sound Pressure Levels of Stationary On-Highway Motorcycles as amended must be followed.</p>	<p>g)</p> <ul style="list-style-type: none"> - does not meet requirements specified by SAE J2825 Measurement of Exhaust Sound Pressure Levels of Stationary On-Highway Motorcycles

Section 1 – Powertrain

4. Chain / Belt

ITEM AND METHOD OF INSPECTION	REJECT IF
a) Condition	a) <ul style="list-style-type: none">- excessively worn- <u>damaged</u>- guard <u>missing</u> or <u>loose</u>- improper coupler
b) adjustment/Tension Note: Normal tension should be consistent with <u>OEM standard</u> or <u>industry standard</u>	b) <ul style="list-style-type: none">- <u>loose</u>- not properly adjusted

5. Sprockets

ITEM AND METHOD OF INSPECTION	REJECT IF
a) condition	a) <ul style="list-style-type: none">- bent, cracked, <u>insecure</u>, <u>loose</u> or excessively worn.

6. Engine/Transmission Mount

ITEM AND METHOD OF INSPECTION	REJECT IF
a) condition/Attachment	a) <ul style="list-style-type: none">- bent, <u>loose</u>, <u>missing</u>, cracked- a mount or part of a mount is replaced with a product or material that is not equivalent to <u>OEM standard</u>- repaired in any manner not consistent with <u>industry standard</u>

Section 1 – Powertrain

7. Clutch and Clutch Control

ITEM AND METHOD OF INSPECTION	REJECT IF
<i>Additional Inspection Procedure(s):</i> Inspect clutch operation and adjustment according to <u>manufacturer</u> service instructions. a) operation	a) - fails to operate in the manner prescribed by the <u>manufacturer</u>
b) adjustment	b) - is not adjusted according to <u>manufacturer</u> instructions

8. Engine Shutdown

ITEM AND METHOD OF INSPECTION	REJECT IF
a) engine Stop Switch <i>Note:</i> Not required on motorcycles manufactured before September 1, 1994	a) - engine stop switch fails to function as designed - missing

9. Engine Start Safety Feature

ITEM AND METHOD OF INSPECTION	REJECT IF
a) starter interlock system (if equipped)	a) - any <u>OEM</u> incorporated interlock system does not function as required

10. Gear Shifter / Selector

ITEM AND METHOD OF INSPECTION	REJECT IF
a) operation	a) - gear shifter / selector movement is stiff or does not enable all gear positions to be freely engaged or selected

Section 2 – Suspension

1. Front Fork Assembly

ITEM AND METHOD OF INSPECTION	REJECT IF
a) operation	a) - fails to operate in the manner prescribed by the <i>manufacturer</i>
b) seals	b) - torn - level 2 leak
c) outer fork tube	c) - bent, cracked - welded or repaired in a way that does not meet <u>OEM standard</u>
d) inner fork tube	d) - bent - plating is pitted or otherwise compromised

2. Rear Shocks

ITEM AND METHOD OF INSPECTION	REJECT IF
a) operation	a) - fails to operate in the manner prescribed by the <i>manufacturer</i>
b) condition	b) - bent, <u>broken</u> , <u>loose</u> or <u>missing</u>

3. Swing Arm

ITEM AND METHOD OF INSPECTION	REJECT IF
a) Condition	a) - evidence of incorrect preload exists - bent, cracked or <u>loose</u>

4. Rigid Frame

ITEM AND METHOD OF INSPECTION	REJECT IF
a) rigid frame	a) - not equipped with a suspension system

Section 2 – Suspension

5. Axle Attaching and Track Components (3 wheeled motorcycles)

ITEM AND METHOD OF INSPECTION	REJECT IF
a) axle attachment	a) <ul style="list-style-type: none">- bent, <u>broken</u>, cracked,- <u>loose</u> or <u>missing</u>- axle shifted from its normal position
b) arm, rod, strut / shock suspension, control arm	b) <ul style="list-style-type: none">- bent, <u>broken</u>, cracked- <u>loose</u>, <u>missing</u>, or worn out,- perforated due to corrosion or deterioration,- welded or repaired in a way that does not meet <u>OEM standard</u>- wear or damage permits axle or wheel to shift out of position or required orientation
c) stabilizer / anti-sway bar, ball and socket or link	c) <ul style="list-style-type: none">- bent, <u>broken</u>, <u>missing</u>,- welded or repaired in a way that does not meet <u>OEM standard</u>

Section 3 – Brakes

Additional Inspection Procedure(s):

Inspecting Internal Brake Components

1. Disassembly of Wheels and Drums for Inspection

Internal brake components must be inspected at every inspection. Disassembly or removal of wheels, and/or brake parts, is required to facilitate full inspection of all components.

2. Required Measurement of Brake Components

Brake inspections require certain components to be measured. These measurements are required to be recorded on the inspection report. The items that must be measured for each type of brake are as follows:

2.1 Drum Brake Systems

For drum brakes, the brake-shoe lining thickness and brake-drum diameter must be measured at every inspection.

2.2 Disc Brake Systems

For disc brakes, the rotor thickness and pad friction material thickness of the inner and outer brake pad must be measured and recorded at every inspection.

Friction-material thickness can be determined by measuring the friction material itself, or by measuring the combined thickness of the friction material and pad backing plate, then deducting the thickness of the backing plate. Always record the thickness of the friction material only.

Section 3 – Brakes

1. General

ITEM AND METHOD OF INSPECTION	REJECT IF
a) brake system <i>Note:</i> A motorcycle shall be equipped with two independently actuated service brake systems, one applying at least the front wheel brakes and the other applying at least the rear wheel brakes, unless the motorcycle was manufactured solely with a split-service brake system, within the meaning of <u>CMVSS 122</u> and the split-service brake system, (a) met the requirements of that Standard at the time it was manufactured; (b) has a single actuator; and (c) has been maintained in its original condition.	a) <ul style="list-style-type: none"> - any component of the brake system is <u>missing</u> or disabled - level 1 leak located in any part of the system

2. Brake Controls

ITEM AND METHOD OF INSPECTION	REJECT IF
a) handle bar mounted control	a) <ul style="list-style-type: none"> - cannot be readily actuated without releasing the handle bar grip - <u>broken</u>, cracked, <u>loose</u>, or <u>missing</u>, - welded or repaired in a way that does not meet <u>OEM standard</u>
b) foot actuated brake control	b) <ul style="list-style-type: none"> - <u>broken</u>, cracked, <u>loose</u>, or <u>missing</u> - welded or repaired in a way that does not meet <u>OEM standard</u>

3. Brake System Indicator Lamps

ITEM AND METHOD OF INSPECTION	REJECT IF
a) operation <i>Additional Inspection Procedure(s):</i> Check operation of brake <u>tell-tale</u> according to <u>manufacturer</u> service instructions.	a) <ul style="list-style-type: none"> - <u>missing</u> - not red or amber in colour - does not <u>operate</u> according to <u>manufacturer</u> service instructions - indicates a brake system malfunction or defect

Section 3 – Brakes

4. Hydraulic System Components

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) metal line and fittings</p> <p><i>Additional Inspection Procedure(s):</i> Inspect lines and fittings for leaks after brakes are applied with a heavy force on the brake pedal similar to what would be used in an emergency stop</p> <p><i>Note:</i> Surface rust and corrosion is normal on metal lines and fittings, and is not cause for rejection</p>	<p>a)</p> <ul style="list-style-type: none"> - heavy rust, corrosion or scaling is present on any metal line or fitting that reduces or increases the thickness or compromises the structural integrity of the material - <u>level 1 leak</u> - chafing, cracked, flattened or restricted section - <u>insecure</u> mounting causing line to shift out of its normal position - repaired by welding or soldering - repaired using material or method that does not meet <u>OEM standard</u> - connections between brake system components are not a double flared type fitting - component does not meet <u>OEM standard</u>
<p>b) flexible line / hose</p> <p><i>Additional Inspection Procedure(s):</i> Inspect flexible hoses after brakes are applied with a heavy force on the brake pedal similar to what would be used in an emergency stop.</p>	<p>b)</p> <ul style="list-style-type: none"> - bulged or swells under pressure - flattened, twisted, restricting section - <u>insecure</u> mounting - outer composite material is cracked or chafed exposing an inner layer as shown in hose and tube condition chart in introduction - located so as to rub against any component - component does not meet <u>OEM standard</u> - <u>level 1 leak</u>
<p>c) master cylinder</p>	<p>c)</p> <ul style="list-style-type: none"> - <u>damaged</u> or <u>insecure</u> mounting - fluid is contaminated - <u>level 1 leak</u> - fluid level is below indicated minimum level or, if not indicated, more than 13 mm from top, - filler cap is <u>damaged</u>, <u>loose</u> or <u>missing</u>, - vent holes are plugged - gasket is <u>missing</u> or swollen

Section 3 – Brakes

5. Drum Brake System Components

ITEM AND METHOD OF INSPECTION	REJECT IF
a) brake shoe lining condition	a) - lining material is <u>broken</u> , contaminated or cracked - lining <u>loose</u> or separating from shoe
b) brake shoe lining thickness <i>Note:</i> Lining thickness measurements are taken above a rivet or shoe at the most worn location.	b) - less than the minimum specified by the <u>manufacturer</u> or when no specification is available 1.6 mm (2/32 in) where the lining is thinnest
c) brake drum condition	c) - crack, groove or worn area is deeper than the drum wear limit - surface cracks or heat checks extend completely across the brake surface - any external crack is present - friction surface is <u>abnormally worn</u>
d) brake drum diameter (wear)	d) - measured drum diameter exceeds limit indicated on the brake drum or, if not available, <u>OEM standard</u> or <u>industry standard</u>
e) adjusters	e) <u>broken</u> , <u>inoperative</u> , <u>missing</u> or seized
f) anchor pin / bracket and return spring	f) - <u>abnormally worn</u> - bent, <u>broken</u> , <u>loose</u> or <u>missing</u>
g) wheel cylinder	g) - <u>inoperative</u> - seized - <u>damaged</u> - <u>loose</u> or <u>insecure</u> mounting - <u>level 1 leak</u> - dust seal is cracked or split, <u>missing</u> , <u>damaged</u> or deteriorated

Section 3 – Brakes

6. Disc Brake System Components

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) disc (rotor) condition</p> <p><i>Note:</i> Lateral run-out and parallelism needs to be checked only where there is evidence of a problem</p> <p>Heat checks and some surface cracks on the friction surface are normal.</p> <p>Heat checks are identified by a number of short, fine hairline cracks on the braking surface.</p>	<p>a)</p> <ul style="list-style-type: none"> - <u>broken</u>, pitted, <u>damaged</u> - cracks on surface extending to the outer edge - <u>broken</u> or cracked cooling fins - mechanical damage that may be attributable to abnormal wear on friction surfaces - any surface crack, groove or worn area is deeper than the wear limit - crack extends from the friction surface through to the cooling vent - contact pattern of the pad on solid rotor material (not rusted) is less than 75% of the radial width around the entire rotor, on one side - lateral run-out or parallelism measurement exceeds <u>OEM</u> or <u>industry standard</u>
<p>b) disc (rotor) thickness</p> <p><i>Note:</i> Measurements must be taken using a suitable tool with the level of accuracy defined by the measurement tolerance, but never with a level of accuracy less than ± 0.05 mm.</p>	<p>b)</p> <ul style="list-style-type: none"> - thickness between friction surfaces at any point on the pad-contact surfaces is less than the minimum indicated on the brake rotor, <u>OEM standard</u> or <u>industry standard</u>
<p>c) caliper</p>	<p>c)</p> <ul style="list-style-type: none"> - assembly seized or binding, mounted incorrectly or inferior attaching bolt is used - slide pin / slider or pad slider is seized or binding, <u>damaged</u> or <u>abnormally worn</u> - caliper guide is welded or repaired in a way that does not meet <u>OEM standard</u> - level 1 leak - pad retainer is bent, <u>damaged</u>, <u>insecure</u> or <u>missing</u> - boot or bellows is cracked or deteriorated, <u>damaged</u> or <u>missing</u> - piston seized or binding
<p>d) anchor plate</p>	<p>d)</p> <ul style="list-style-type: none"> - <u>loose</u> or bolt is <u>missing</u>

Section 3 – Brakes

6. Disc Brake System Components (Cont'd)

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>e) pad condition</p>	<p>e)</p> <ul style="list-style-type: none"> - <u>damaged</u>, contaminated, <u>broken</u>, cracked or <u>abnormally worn</u> - friction material <u>loose</u> or separating on pad, or pad installed incorrectly - signs of “rust-jacking”, (friction material lifting due to rust build-up or friction material separating from backing material)
<p>f) pad (friction material) thickness</p> <p><i>Additional Inspection Procedure(s):</i> Pad (friction material) thickness of both inboard and outboard pad must be measured and must be recorded on the inspection report.</p> <p><i>Note:</i> Pad (friction material) thickness can be determined by measuring the friction material itself or by measuring the combined thickness of the friction material and pad backing plate, then deducting the thickness of the backing plate.</p>	<p>f)</p> <ul style="list-style-type: none"> - measured friction-material thickness is less than <u>manufacturer</u> specification. If limit is not available: <ul style="list-style-type: none"> • bonded friction-material thickness is less than 1.6 mm • riveted friction-material thickness is less than 3.2 mm (4/32 in) without pads removed • riveted friction-material thickness is less than 1.6 mm (2/32 in) above the rivet head with pads removed - difference between inboard and outboard friction-material thickness is greater than <u>manufacturer</u> specification. If limit is not available: difference is greater than 3.2 mm (4/32 in)
<p>g) clearance between pads and rotor (caliper adjustment)</p>	<p>g)</p> <ul style="list-style-type: none"> - does not meet <u>manufacturer's</u> specifications

Section 3 – Brakes

7. Parking Brake (If Equipped)

ITEM AND METHOD OF INSPECTION	REJECT IF
<i>Note:</i> Required on all motor tricycles a) operation <i>Additional Inspection Procedure(s):</i> Fully apply and release the park brake.	a) - With parking brake fully applied, the vehicle moves forward or backward with little or no resistance - the parking brake does not fully release when the release control is operated
b) control	b) - binds, <u>broken</u> or <u>missing</u> - <u>inoperative</u> or fails to lock
c) cable and/or linkage	c) - <u>broken</u> , frayed, improperly secured, <u>missing</u> or seized
d) adjustment	d) - any part of the system is improperly adjusted
e) friction material	e) - friction material must be in place and in good serviceable condition

Section 4 – Steering

1. Steering Control and Linkage

ITEM AND METHOD OF INSPECTION	REJECT IF
a) handlebar	a) <ul style="list-style-type: none"> - bent, cracked or misaligned - welded or repaired in a way that does not meet <u>OEM standard</u> - any portion of an aftermarket handlebar is higher than the shoulders (when in a normal riding position) of the person presenting the vehicle for inspection - width is less than 460 mm or greater than 920 mm, measured at the outer edges of the grips
b) hand grips	b) <ul style="list-style-type: none"> - <u>loose, missing</u> - do not have an anti-slip component incorporated into them
c) handlebar controls	c) <ul style="list-style-type: none"> - any handlebar mounted control cannot be readily actuated without releasing the handlebar grip
d) steering stop	d) <ul style="list-style-type: none"> - <u>Loose, cracked, broken or missing</u>
e) triple tree <i>Note: Also see front fork assembly in suspension section page 14.</i>	e) <ul style="list-style-type: none"> - bent, cracked or misaligned - welded or repaired in a way that does not meet <u>OEM standard</u>
f) steering head bearings	f) <ul style="list-style-type: none"> - roughness is detected while moving the steering from stop to stop - <u>loose</u> or out of adjustment
g) tie rod (motor tricycle)	g) <ul style="list-style-type: none"> - bent, <u>broken</u>, cracked, welded or repaired in a way that does not meet <u>OEM standard</u>
h) tie rod ends (motor tricycle)	h) <ul style="list-style-type: none"> - bent, <u>insecure, loose</u> or wear exceeds that specified by the <u>OEM</u> or <u>industry standard</u> - welded or repaired in a way that does not meet <u>OEM standard</u> - part is used that does not meet <u>OEM standard</u>

Section 5 – Instruments and Auxiliary Equipment

1. Horn

ITEM AND METHOD OF INSPECTION	REJECT IF
<i>Additional Inspection Procedure(s):</i> Test horn operation.	
a) operation	a) - <i>inoperative, missing</i> - not clearly audible
b) control	b) - not identified as "Horn," if not <u>OEM</u> - not readily accessible to the driver, if not <u>OEM</u> - not a pressure-type switch

2. Speedometer

ITEM AND METHOD OF INSPECTION	REJECT IF
a) operation	a) - <i>inoperative or missing</i> - not clearly visible

3. Odometer (If equipped)

ITEM AND METHOD OF INSPECTION	REJECT IF
a) operation	a) - <u>OEM</u> odometer <i>inoperative or missing</i>

4. Neutral Indicator Lamp

ITEM AND METHOD OF INSPECTION	REJECT IF
a) operation	a) - Fails to illuminate as designed

Section 6 – Lamps

1. Required Lamps

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) operation of all required lamps</p> <p><i>Note:</i> See Tables I and II on pages 28 and 29 for details on the federal requirements for lamps, lamp location and colour.</p> <p><i>Additional Inspection Procedure(s):</i> Test the operation of all required lamps, lamp switches and controls, and lamp indicators.</p>	<p>a)</p> <ul style="list-style-type: none"> - fails to illuminate fully and correctly in response to the switch or control - except for headlamps LED lamps in which 25% or more of LEDs of any one lamp assembly are <i>inoperative</i> - fails to turn off in response to the switch or control - the operation of a lighting circuit interferes with the operation of any other circuit - lens, reflector or other parts of assembly that ensure proper light output is <i>missing, broken</i>, has open crack or is <i>inoperative</i> - has an <i>insecure</i> mounting - lens, reflector or mounting hardware not correctly installed - is not clearly visible or is covered in any manner - does not meet the colour, location or orientation requirements of <u>CMVSS 108</u>, as detailed in Tables I and II at the end of this section - lamp has been altered from <u>OEM</u> condition so as to reduce or significantly increase the intensity of the light, surface area of the lens, colour of light emitted, or any modification to change the function or operation of the lamp
<p>b) headlamps</p> <p><i>Note:</i> A crack is acceptable in a halogen lamp with a replaceable bulb if it illuminates as required.</p> <p><i>Note:</i> Headlamp alignment must be verified and be within that specified by the <u>manufacturer</u></p>	<p>b)</p> <ul style="list-style-type: none"> - a non-functional diode in LED headlamp - HID bulb is installed in an incandescent headlamp housing - HID assembly does not display either HG, DC, DR or DCR codes - headlamp switch, or beam (high and low) selector, is <i>broken, missing, inoperative</i> or does not meet <u>OEM standard</u> - high-beam indicator lamp on instrument panel is <i>inoperative</i> - vehicle modification or installation of lamp causes headlamp to be higher or lower than permitted by Tables I or II - headlamp(s) not in alignment

Section 6 – Lamps

1. Required Lamps (Cont'd)

ITEM AND METHOD OF INSPECTION	REJECT IF
	<ul style="list-style-type: none"> - the headlamps fail to meet any of the following requirements: <ul style="list-style-type: none"> ▪ minimum of 1 facing front located on the vertical centerline ▪ illuminate correctly when operated by headlamp control on high and low beam ▪ lenses are <u>crazed</u>, clouded, fogged or <u>damaged</u>, so as to materially impair beam pattern or produce excessive light scatter to oncoming drivers ▪ headlamp is coated or covered with a coloured material - headlamp does not illuminate when ignition is on and transmission is engaged (applies to vehicles manufactured on and after Jan 1, 1975)
c) tail lamps	c) <ul style="list-style-type: none"> - vehicle modification or installation of lamp causes tail lamp to be higher or lower than permitted by Table I or Table II - the tail lamps fail to meet any of the following requirements: <ul style="list-style-type: none"> ▪ minimum of 1 lamp facing the rear, located on rear of vehicle on vertical centerline, red in colour
d) stop (brake) lamps	d) <ul style="list-style-type: none"> - the stop lamps fail to meet any of the following requirements: <ul style="list-style-type: none"> ▪ minimum of 1 lamp facing the rear, located at rear of vehicle on vertical centerline, red in colour ▪ does not illuminate with the application of both the front and rear service brake
e) license-plate lamp	e) <ul style="list-style-type: none"> - not white, fails to illuminate licence plate when operated by headlamp control - lamp not shielded from projecting light rearward

Section 6 – Lamps

1. Required Lamps (Cont'd)

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>f) turn-signal lamps</p> <p>Note: Applies to motorcycles manufactured on or after October 1, 1973</p> <p>Does not apply to a moped if not originally equipped by the <u>OEM</u></p>	<p>f)</p> <ul style="list-style-type: none"> - control is <i>broken, missing or inoperative</i> - control fails to hold selected position - turn-signal indicator lamp on instrument panel is <i>inoperative</i> - turn-signal lamps fail to meet any of the following requirements: <ul style="list-style-type: none"> ▪ minimum of 2 facing the front, amber or yellow in colour ▪ minimum of 2 facing the rear, amber, yellow or red in colour ▪ illuminate correctly when operated by turn signal control

2. Reflex Reflector

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>Note: A lamp's lens may also function as a reflex reflector</p> <p>a) required reflectors</p> <p>Note: See Table I and II for details on <u>CMVSS</u> 108 requirements for reflex-reflector location and colour.</p>	<p>a)</p> <ul style="list-style-type: none"> - any required reflex reflector, or part of a reflex reflector, is <i>broken, missing, obscured or not clearly visible</i> - not labelled to show compliance with <u>CMVSS</u>, DOT or SAE standards
<p>b) rear reflectors</p>	<p>b)</p> <ul style="list-style-type: none"> - rear reflectors fail to meet any of the following requirements: <ul style="list-style-type: none"> ▪ minimum of 1, located on vertical centerline
<p>c) side-marker reflectors</p>	<p>c)</p> <ul style="list-style-type: none"> - side marker reflectors fail to meet any of the following requirements: <ul style="list-style-type: none"> ▪ 1 red as far to the rear as practicable ▪ 1 amber as far to the front as practicable

Section 6 – Lamps

Table I: Required Motor Vehicle Lighting Equipment

Item	Motorcycles
Headlamps	Section 7.9 (TSD108)
Tail lamps	1 red
Stop lamps	1 red
Licence-plate lamp	1 white
Reflex reflectors	3 red; 2 amber
Turn-signal lamps	2 amber; 2 red or amber;
Turn-signal operating unit	1
Turn-signal flasher	1

Section 6 – Lamps

Table 2: Location of Required Equipment

Item	Location on Motorcycles	Height above road surface measured from centre of item on vehicle at curb weight mass
Headlamps	On the front located on the vertical centerline; See also Section 7.9 (TSD 108)	Not less than 559 mm (22 in.) or more than 1,372 mm (54 in.)
Tail lamps	On the rear-on the vertical centerline except that if two are used, they shall be symmetrically disposed about the vertical centerline.	Not less than 380 mm (15 in.) or more than 1,830 mm (72 in.)
Stop lamps	On the rear-on the vertical centerline except that if two are used, they shall be symmetrically disposed about the vertical centerline.	Not less than 380 mm (15 in.) or more than 1,830 mm (72 in.)
Licence-plate lamp	At rear licence plate, to illuminate the plate from the top or sides.	No requirement
Reflex reflectors	On the rear - 1 red on the vertical centerline except that, if two are used on the rear, they shall be symmetrically disposed about the vertical centerline. On each side - 1 red as far to the rear as practicable, and 1 amber as far to the front as practicable.	Not less than 380 mm (15 in.) or more than 1,530 mm (60 in.)
Turn signal lamps	<p>At or near the front - 1 amber on each side of the vertical centerline at the same height, and having a minimum horizontal separation distance (centerline of lamps) of 400 mm (16 inches). Minimum edge to edge separation distance between lamp and headlamp is 100 mm (4 inches).</p> <p>At or near the rear - 1 red or amber on each side of the vertical centerline, at the same height and having a minimum horizontal separation distance (centerline to centerline of lamps) of 230 mm (9 inches). Minimum edge to edge separation distance between lamp and tail or stop lamp is 100 mm (4 inches), when a single stop and tail lamp is installed on the vertical centerline and the turn signal lamps are red.</p>	Not less than 380 mm (15 inches), nor more than 2 110 mm (83 inches)

Section 7 – Electrical System

1. Wiring

ITEM AND METHOD OF INSPECTION	REJECT IF
<p><i>Additional Inspection Procedure(s):</i> Inspect wiring, harnesses and connections that are accessible and visible. Pay particular attention to battery, starter and charging-system circuits.</p>	
<p>a) securement</p>	<p>a)</p> <ul style="list-style-type: none"> - <u>loose</u> or improperly supported, and able to contact moving parts - chafed section of wiring harness has exposed wires resulting from contact with vehicle part(s)
<p>b) insulation</p>	<p>b)</p> <ul style="list-style-type: none"> - conductor is exposed, other than as required at a proper connector
<p>c) condition</p>	<p>c)</p> <ul style="list-style-type: none"> - cut, shorted or deteriorated - connection is <u>loose</u>, abnormally corroded or burnt
<p>d) circuit loading</p> <p><i>Note:</i> Circuit-protection requirements are based on <u>manufacturer</u> design and specifications. Circuit testing is not required. Inspection is visual and based on knowledge of the normal design and specifications.</p>	<p>d)</p> <ul style="list-style-type: none"> - circuit load protection is <u>missing</u> or bypassed

Section 7 – Electrical System

2. Batteries

ITEM AND METHOD OF INSPECTION	REJECT IF
a) posts and connections	a) - corrosion or deterioration is present that prevents proper electrical contact, <u>loose</u> or burnt
b) mount	b) - cracked or <u>missing</u> , perforated or weakened due to corrosion
c) cover and hold down	c) - <u>missing, insecure</u> , does not meet <u>OEM standard</u> - battery is not secured in place
d) condition	d) - <u>level 2 leak</u> of battery fluid

Section 8 - Body

1. Frame

ITEM AND METHOD OF INSPECTION	REJECT IF
a) condition <i>Note:</i> Some rust and corrosion on the outer surface of exposed metal parts is normal. When an excessive amount of rust or corrosion is present and visibly reduces the thickness of the material, structural deterioration is possible.	a) <ul style="list-style-type: none"> - welded, modified or repaired in a way that does not meet <u>OEM standard</u> or <u>industry standard</u> - bent, <u>broken</u> or cracked - rusted or corroded to a depth sufficient to become weakened

2. Fenders

ITEM AND METHOD OF INSPECTION	REJECT IF
a) condition <i>Note:</i> Front and rear required	a) <ul style="list-style-type: none"> - <u>missing</u>, section torn away, section <u>missing</u> or corroded so that road spray is not controlled - corroded or <u>damaged</u> in a manner that <u>OEM</u> type lamps cannot be properly secured - not the full width of the tire(s)

3. Device or Equipment Attached or Mounted to the Vehicle

ITEM AND METHOD OF INSPECTION	REJECT IF
a) security and condition <i>Additional Inspection Procedure(s):</i> Check security of attached body, device or equipment visually, manually and using suitable tools as necessary. No functional tests to be conducted	a) <ul style="list-style-type: none"> - equipment or device is in such an unsafe condition that it is a risk to other motorists, the driver, a passenger, pedestrian or cyclist - equipment or device is <u>insecure</u> or <u>loose</u>, or in danger of shifting in a way that could impede normal operation of the vehicle - any section has an exposed sharp edge, is torn or protrudes out in a manner that could be hazardous to the driver, a passenger, pedestrian or cyclist

Section 8 - Body

4. Seat

ITEM AND METHOD OF INSPECTION	REJECT IF
a) height	a) - no load height is less than 65 cm
b) security	b) - <u>loose</u> , not securely mounted

5. Footrests

ITEM AND METHOD OF INSPECTION	REJECT IF
a) Condition <i>Note:</i> Passenger pegs required if <u>OEM</u> equipped or seating for passenger exists	a) - <u>missing</u> , <u>loose</u> or bent

6. Stand

ITEM AND METHOD OF INSPECTION	REJECT IF
a) condition	a) - <u>missing</u> , <u>loose</u> - does not function as designed - stand is inadequate for the weight it supports

7. Windshield (If Equipped)

ITEM AND METHOD OF INSPECTION	REJECT IF
a) condition	a) - <u>loose</u> , not securely attached - vision is obscured or limited due to surface condition - <u>crazed</u> , clouded or fogged, so as to materially impair vision - exposed sharp edges
b) material type	b) - not marked as type AS-1 AS-6 or AS-10
c) obstruction	c) - decal or device in installed that obscures vision

Section 8 - Body

8. Mirrors

ITEM AND METHOD OF INSPECTION	REJECT IF
a) location <i>Note:</i> Left and right required.	a) - required mirror is <u>missing</u>
b) view	b) - view to the rear is obstructed on a required mirror
c) mount	c) - <u>broken, insecure</u> or <u>loose</u> - fails to hold mirror in correct position
d) mirror reflective surface condition	d) - cracked, <u>broken</u> - significant reduction in reflecting surface area, due to deterioration of the reflective silvering, damage to the glass surface (e.g., pitting, etc.) or contamination (e.g., paint, etc.) is evident
e) surface area of external mirror	e) - reflective area of any mirror is less than 80 cm ² (64.5 cm ² if convex)

Section 9 – Tire and Wheel

1. Tire-Tread Depth

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) condition</p> <p><i>Additional Inspection Procedure(s):</i> Inspect the tire tread to locate the area where the depth is at its minimum. Measure it at a major groove using a suitable tread-depth gauge. Do not measure tread depth on a wear bar.</p> <p>Tread-depth measurements are to be recorded on an inspection report. The recorded tread depth must have been measured at the minimum tread depth location.</p>	<p>a)</p> <ul style="list-style-type: none">- tread depth is less than 1.6 mm at point of minimum tread depth

2. Tire Tread Condition

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) tread condition</p>	<p>a)</p> <ul style="list-style-type: none">- cut or crack greater than 25 mm long that extends deeper than a major tread groove- cut or crack extends into body cord, or a body cord is exposed- any piece of original tire tread is <u>missing</u>, and the longest dimension across the <u>missing</u> section is greater than 25 mm

Section 9 – Tire and Wheel

3. Tire Sidewall

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) matching and application</p> <p><i>Note:</i> Nominal tire size is based on the size designation and marking provided by the tire <u>manufacturer</u></p>	<p>a)</p> <ul style="list-style-type: none"> - wheel / rim size does not match tiresize according to tire <u>manufacturer's</u> specifications - any tire is labelled "Not for Highway Use," or in any way that indicates the tire is not intended for on-road use - tire not manufactured to be used as a motorcycle tire - tire has a lower load rating / capacity than specified by the vehicle <u>manufacturer</u> - tire is sufficiently oversized / undersized as to contact any vehicle component which may affect the safe operation of the vehicle
<p>b) condition</p>	<p>b)</p> <ul style="list-style-type: none"> - ply separation is evident or bodycords are exposed - bulge in sidewall more than 10 mm high - casing is <u>broken</u> or distorted - presence of plug-type repair, or rubber-coated or cured-rubber plug is used in the sidewall - UV degradation damage more than 3 mm deep

4. Tire Inflation Pressure

ITEM AND METHOD OF INSPECTION	REJECT IF
<p>a) inflation pressure</p> <p><i>Note:</i> Recommended tire inflation pressure is based on data provided by the vehicle <u>manufacturer</u>. Ensure pressure is as required by <u>OEM</u></p>	<p>a)</p> <ul style="list-style-type: none"> - leaking tire will not maintain a constant air pressure
<p>b) valve stem</p>	<p>b)</p> <ul style="list-style-type: none"> - cracked, <u>damaged</u>, leaking or inaccessible - prevents measurement of tire pressure - prevents inflation or deflation of tire

Section 9 – Tire and Wheel

5. Wheel / Rim

ITEM AND METHOD OF INSPECTION	REJECT IF
a) condition	a) <ul style="list-style-type: none"> - wheel / rim is <u>damaged</u>, <u>broken</u>, bent, cracked or distorted - wheel / rim has been welded or repaired in a way that does not meet <u>industry standard</u> - incompatible wheel or component is used - wheel is installed incorrectly - any spoke is <u>loose</u> or <u>missing</u> - rim diameter is not at least 25cm - wheelbase (center of front axle to center of rear axle) is not at least 100 cm - radial or lateral runout exceeds <u>manufacturers</u> specification or if not available 2.0 mm
b) matching	b) <ul style="list-style-type: none"> - wheel / rim size does not match tire size

6. Wheel Fasteners (Nuts, Bolts and Studs)

ITEM AND METHOD OF INSPECTION	REJECT IF
a) installation	a) <ul style="list-style-type: none"> - incorrect fastener type, thread direction or style is installed - any nut is not fully engaged with the stud or bolt - incompatible wheel or component is used on a wheel system - wheel is installed incorrectly
b) condition	b) <ol style="list-style-type: none"> 1. any fastener is bent, <u>broken</u>, otherwise <u>damaged</u> or <u>missing</u> 2. there is evidence of a <u>loose</u> or ineffective fastener

Section 9 – Tire and Wheel

7. Wheel Bearing

ITEM AND METHOD OF INSPECTION	REJECT IF
a) bearing condition	a) - binding or roughness detected while rotating the bearing
b) play	b) - any play (radial or axial) is detected (0.10mm axial permitted on tapered bearings)