

STEERING SHAFT

Reasons for rejection:

- Is not secured to the steering box worm shaft, pinion or coupling.
- Where a coupling is fitted, it is not secure and free from fraying or other damage.

OUTER COLUMN

Reasons for rejection:

- Is not securely mounted and free from cracks.
- Wear in the bushes/bearings supporting the shaft is not within manufacturer's tolerances.

STEERING BOX

Reasons for rejection:

- All manual or power steering componentry is not securely mounted and free from excessive side or end play, roughness, binding or oil leaks. **(See Note 1)**

STEERING LINKAGES MECHANISM

Reasons for rejection:

- Steering linkages are not free of damage, wear, misalignment and not correctly located or fitted.
- Tie rod and drag link ends are not secured in both the rod and taper with fasteners suitably locked (e.g. split pins, lockwire, tabs or self locking nuts).
- Free play in any component exceeds the manufacturer's specifications. Where the manufacturer does not provide specifications or they are no longer appropriate, the free movement exceeds 3 mm.

ARMS AND LINKAGES

Reasons for rejection:

- Pitman arm is loose.

- The free movement measured at the front and rear of the tyre when attempting to turn the assembly right and left with the vehicle supported on the lower control arm exceeds the manufacturer's specifications. Where the manufacturer does not provide specifications or they are no longer appropriate, the free movement exceeds the measurements in the following table:

➤ Wheel rims 405 mm or less	7 mm;
➤ Wheel rims over 405 mm up to 455 mm	10 mm;
➤ Wheel rims over 455 mm	13 mm.
- The looseness at any one point is responsible for half or more of the movement specified in the above table.

SUSPENSION COMPONENTS

Reasons for rejection:

- Suspension components are not securely mounted and aligned with no distortion, cracks, corrosion, fractures or other damage likely to cause failure. **(See Note 5)**
- Link ends are not secured with fasteners suitably locked (e.g. split pins, lockwire, tabs or self locking nuts).
- Suspension components are missing, or repaired or modified by heating or welding unless specifically approved by Queensland Transport.
- Suspension components are worn beyond manufacturer's specifications.

SPRING MEDIA (I.E. SPRINGS, AIR BAGS, SPRING HANGERS, TORSION BARS)

Reasons for rejection:

- Components are not correctly aligned, adjusted, securely mounted or are unduly worn, rusted, damaged and nuts do not fully engage "U" bolts.
- Suspension heights are lowered or raised by more than one-third of the manufacturer's bump stop clearance. **(See Note 4)**
- Airbags are not in working condition and free of air leaks or perished components.

AXLE LOCATING ARMS/DEVICES (SHACKLES, BUSHES ETC.)

Reasons for rejection:

- Axle locating arms/devices and associated componentry are not in good working order, not securely mounted and not correctly adjusted.
- Any free movement in pivot pins, bushes or trunnions, when measured at the outer extremities of the tyre, exceeds:
 - Wheel rims 405 mm or less 7 mm;
 - Wheel rims over 405 mm up to 455 mm 10 mm;
 - Wheel rims over 455 mm 13 mm.

SWAY BARS/LINKAGES/BUSHES

Reasons for rejection:

- Are broken, loose, unduly worn, disconnected or have been removed.

WHEEL BEARINGS

Reasons for rejection:

- Are incorrectly adjusted, rough, noisy, loose on stub axle, do not rotate freely or are leaking.
- Movement between disc brake rotor/brake drum and backing plate exceeds manufacturer's specifications.

SHOCK ABSORBERS

Reasons for rejection:

- Shock absorbers are not fitted, not securely mounted and brackets and rubbers are missing, worn, or damaged.
- Shock absorbers do not effectively dampen or show signs of leakage.

KING PINS AND BUSHES/BALL JOINTS

Reasons for rejection:

- King pin/ball joint freeplay exceeds the manufacturer's specifications. Where the manufacturer does not provide specifications or they are no longer appropriate, the free movement exceeds the measurements in the following table:

- | | | |
|---|-------------------------------------|--------|
| ➤ | Wheel rims 405 mm or less | 7 mm; |
| ➤ | Wheel rims over 405 mm up to 455 mm | 10 mm; |
| ➤ | Wheel rims over 455 mm | 13 mm. |

NOTES:

- (1) **Must be inspected through the full range of steering movement, steering stops must prevent wheels or tyres from fouling vehicle chassis or suspension components on full lock.**
- (2) **Steering components that are modified or repaired by heating or welding without approval from Queensland Transport are not acceptable.**
- (3) **The minimum diameter of any replacement steering wheel must not be less than 350 mm. The replacement wheel must be no more than 26 mm smaller than the original steering wheel.**
- (4) **Mandatory lighting heights must not be affected by the lowering or raising of suspension heights.**
- (5) **Air bag controls must be located or fitted in a manner that prevents operation while the vehicle is moving.**
- (6) **Steering wheel rims, knobs and other devices which have deteriorated to an extent that they are hazardous are unacceptable. Steering wheel covers, if fitted, must be secure.**

WHEELS AND TYRES

OBJECTIVE: To ensure that road wheels and tyres are of a suitable type and condition and that they provide the necessary load carrying capacity, speed rating and control of the vehicle.

WHEELS (See Note 1)

Reasons for rejection:

- Wheels/rims are not of an approved type and construction.
- Wheels/rims fitted to an axle or axle group of a vehicle are not of the same size unless otherwise specified by the vehicle manufacturer.
- Wheels/rims are not secure or are cracked, corroded, bent, buckled or otherwise damaged.

- Stud or bolt holes are expanded or elongated or wheel and retainer tapers do not match.

WHEEL STUDS AND NUTS, LOCK RINGS

Reasons for rejection:

- Wheels/rims are not fitted with the correct number and type of nuts and studs.
- Studs/nuts are not securely fitted, are damaged and not engaged for at least the same thread length as provided originally by the vehicle manufacturer.
- Spacer plates are used between hub and wheels (except where fitted by the vehicle manufacturer).
- Tyre retaining rings are not in good condition and correctly located.
- On spider wheels, appropriate nuts and clamps are not used and there is slippage or run out.

TYRES

Reasons for rejection:

- Tyres are not compatible with the rim to which they are fitted and not of a type suitable for normal road use.
- All tyres fitted to rims on the same axle are not of the same case construction. **(See Note 2)**
- Tyres fitted to rims on an axle or axle group are not of the same size.
- Tyre load ratings are less than the minimum ratings specified originally by the vehicle manufacturer.
- The speed rating of all tyres is not of at least 100 km/h or the vehicle's top speed, whichever is the lesser, unless a lower rating has been specified by the manufacturer. **(See Note 3)**
- Where a vehicle has been fitted with retreaded tyres, the tyres are not compatible with the rims and do not have a load rating which is adequate for the vehicle's laden mass.
- Tyres do not have a tread pattern at least 1.5 mm deep, other than at tread wear indicators, in a band that runs continuously across at least 75 percent of the tyre width that normally comes into contact with the road surface, and around the whole circumference of the tyre.
- Tyre tread, shoulder or side wall rubber are damaged.

- Tyres have cuts, bulges, tread separation, exposed or damaged cords or other evidence of case failure.
- Valve stems are cracked, damaged, perished or loose.
- regrooved or recut tyres are not clearly marked "suitable for regrooving".
- Any tyre clearly marked "suitable for regrooving" is regrooved or recut beyond the maximum permissible groove depth or is regrooved or recut in such a way that the ply or cord is exposed or damaged.

TYRE/WHEEL WIDTH

Reasons for rejection:

- When in the straight ahead position, the wheels and tyres project beyond the extreme width of the mudguards.
- The wheels and tyres contact any part of the vehicle under any combination of steering and/or suspension movement.
- Where wide wheels and tyres are fitted which comply with the manufacturer's specifications or are approved by the manufacturer and protrude beyond the vehicles extremities, additional flared mudguards are not fitted. **(See Notes 4 and 5)**

NOTES:

- (1) Road wheels relate only to those wheels in contact with the road. The spare wheel is not included in a safety check.**
- (2) Steel radials, textile radials or conventional crossply must not be mixed.**
- (3) If a vehicle is fitted with tyres that have a speed rating specified by the vehicle manufacturer, this information should be noted on the tyre placard attached to the vehicle.**
- (4) Where the manufacturer offers the option of a wider track measurement (e.g. where wider wheels are optional), the maximum allowable track will be the maximum wheel track offered by the manufacturer.**
- (5) Maximum regulation dimensional limits must not be exceeded.**

BRAKES

OBJECTIVE: To ensure that the brakes operate effectively and are correctly adjusted.

BRAKE SYSTEM OPERATION

Reasons for rejection:

- The brake controls, when operated, do not cause the corresponding brake to operate (with the engine running, if necessary).
- All failure indicators, pressure/vacuum gauges and warning devices do not operate correctly.

PEDAL CONDITION

Reasons for rejection:

- A brake pedal does not have an effective anti-slip surface.
- The pedal shaft is bent, damaged or misaligned (outside scope of manufacturer's original design).
- The pedal and associated components are not secure, not correctly adjusted, bind or are worn so as to affect efficient operation.

PEDAL TRAVEL

Reasons for rejection:

- Maximum brake pedal height, in vehicles utilising a hydraulic brake system, is not achieved with one application of the brake pedal and is not at least 50% of the maximum pedal travel.
- The pedal, in vehicles utilising a hydraulic brake system, does not remain firm when light foot pressure is maintained in the applied direction.
- There is an indication of air in the hydraulic system.
- A brake pedal does not have free travel in accordance with the vehicle manufacturer's specifications.
- When not in use, the brake lever, handle or pedal does not return to the fully released position.

HAND/PARK BRAKE AND CONTROL LEVERS

Reasons for rejection:

- Linkages are not complete or parts are unduly worn.
- Cables are frayed, damaged or restricted.
- Rods and cables are repaired by welding or joining.
- The brake does not fully release when the release control is operated.
- Any handle or control lever is not fitted with a locking device capable of holding in any position.
- Any handle or control lever is insecure, damaged, bent, broken, restricted or missing.
- A handle or pedal of a parking/hand brake fitted to a vehicle does not have a reserve of travel of at least one-fifth of the maximum range of application.

HYDRAULIC LINES

Reasons for rejection:

- Hydraulic lines are not securely mounted, not free from damage or corrosion, show evidence of leakage and are not constructed of approved material. **(See Note 1)**

HOSES

Reasons for rejection:

- Flexible hoses are cracked, chafed, deteriorated, show evidence of leakage and are not manufactured and marked to relevant Australian Standards (or equivalent). **(See Note 2)**

CYLINDERS AND CALIPERS

Reasons for rejection:

- Hydraulic/air components, master cylinders, wheel cylinders/calipers etc. are not secured in a manner as recommended by the manufacturer or are seized, restricted or show evidence of leakage.

RESERVOIRS

Reasons for rejection:

- Any reservoir is not filled to the manufacturer's recommended minimum level and/or show evidence of leakage.

MECHANICAL LINKAGES

Reasons for rejection:

- Mechanical linkages and cables are not in a serviceable condition, are incorrectly adjusted, and not free of binding or excessive wear.
- Correct locking devices are not fitted, where applicable.
- There is evidence of repair by welding or brazing.
- Cables are frayed or have broken strands.

VACUUM/AIR COMPONENTS

Reasons for rejection:

- Brake air lines, hoses, pumps, valves, chambers, switch controls, actuators and any associated componentry are not secure and operational.
- Components are frayed, perished or misaligned, or show evidence of leakage or damage.
- Vacuum is not available immediately the engine is started.
- After engine shut down, there is not sufficient vacuum reserve to allow for at least one assisted brake application.
- Componentry is not correctly adjusted and free from binding.

DISCS AND PADS, DRUMS AND LININGS

Reasons for rejection:

- Linings are worn below wear indicators. If no indicators are provided, the thinnest part of the lining is worn below manufacturer's specifications. **(See Note 3)**
- Drums or disc rotors are worn or machined below manufacturer's specifications. **(See Note 4)**
- There are substantial cracks on friction surfaces, external cracks or mechanical damage.
- Lining material is contaminated with oil, grease or brake fluid.

NOTES:

- (1) Normal commercial copper tubing has been prohibited from use in brake systems because it is considered prone to cracking due to work hardening. However, there is a Society of Automotive Engineers (SAE) Recommended Practice called Tubing – Motor Vehicle Brake Tubing Hydraulic – SAE J1047 which is the accepted industry standard. Persons wishing to use copper tube for vehicle hydraulic brake lines, must first provide proof of compliance with SAE J1047 or equivalent standard.
- (2) Made up hoses are not acceptable. Where brake hoses are replaced with aftermarket products, relevant standards approval marking is required.
- (3) Where manufacturer's specifications are not provided, the minimum thickness for bonded linings is 1.5 mm or 0.8 mm above the head of a rivet.
- (4) Where manufacturer's specifications are not provided for drums, scoring must not be more than 3.0 mm for heavy vehicles. Refer to AIS Information Sheet 16 –Brake drums and discs.

ENGINES/DRIVE LINE/EMISSIONS

OBJECTIVE: To ensure the engine, drive line and associated components provide a controlled transmission of power to the driving wheels.

CLUTCH OPERATION

Reasons for rejection:

- Clutch components are not operational, are incorrectly adjusted or are cracked, bent or broken.
- There is leakage of hydraulic fluid from the system.

GEARBOX OPERATION (MANUAL/AUTOMATIC)

Reasons for rejection:

- Any gear selected disengages whilst the vehicle is in motion.
- The gear selector linkage is worn so as to affect the safe use of the motor vehicle on a road.
- The transmission is worn so as to affect the safe use of the motor vehicle on a road.
- The vehicle automatic gear selection indicator and light are not operational.

- The vehicle is able to be moved when park is selected (automatic transmission equipped vehicles).
- The engine is capable of being started in other than the park or neutral positions (automatic transmission equipped vehicles).

ENGINE/TRANSMISSION MOUNTINGS

Reasons for rejection:

- The engine and transmission are not securely mounted to the chassis of a vehicle.
- Mounting brackets and mounts are not securely fastened and not free of cracks or distortion.
- Rubber components are perished, broken or deteriorated.

LEAKS

Reasons for rejection:

- An engine, transmission, differential and associated piping leaks oil on to the roadway or on to any exhaust system or brake component.

ENGINE

Reasons for rejection:

- An engine and associated emission components manufactured to comply with the requirements of the relevant Australian Design Rules, is altered or modified so that they no longer comply with those Rules.

REPLACEMENT ENGINE

Reasons for rejection:

- A replacement engine, other than one offered as an option by the vehicle manufacturer for that make and model, is not certified by an Approved Person under the Code of Practice for Commercial Vehicle Modifications or Queensland Transport (endorsed approval letter). **(See Note 1)**

ENGINE CONTROLS

Reasons for rejection:

- Engine controls as fitted by the manufacturer (including cruise control) do not operate in a smooth and efficient manner.

- Engine speed does not return to normal idle position upon release of the accelerator pedal or throttle control.
- Vehicles fitted with a compression ignition engine (diesel) are not fitted with a locking device which prevents the engine from being started by accidental and inadvertent means.

DIFFERENTIAL

Reasons for rejection:

- The differential is worn so as to affect the safe use of the motor vehicle on a road.

DRIVE SHAFTS, AXLES, FLEXIBLE COUPLINGS

Reasons for rejection:

- Constant velocity joints, universal joints, support bearings, splines, and other drive line components are not secure, free of excessive wear, back lash or seizure which could cause component failure.
- Constant velocity joint boots are not in good condition, or are perished or deteriorated in such a way that lubricants can escape.

FUEL SYSTEM

Reasons for rejection:

- Replacement carburetors fitted to any motor vehicle do not continue to comply with the emission requirements of the Australian Design Rules applicable at the time of the vehicle's manufacture.
- Air cleaners are not fitted.
- The fitting of an aftermarket turbocharger or supercharger assembly, other than one offered as an option by the vehicle manufacturer, is not certified by an Approved Person in accordance with the Code of Practice for Commercial Vehicle Modifications or Queensland Transport (endorsed approval letter). **(See Note 1)**
- Nitrous oxide injection equipment is fitted irrespective of its operational ability.
- The fuel filler pipe inlet and cap are not located on the outside of the vehicle unless originally fitted inside by the manufacturer.
- Fuel system components are not securely mounted and free of leaks.

- The fuel tank/s is/are affected by rust or corrosion.
- A fuel tank cap that complies with manufacturer's specifications is not fitted.

EXHAUST CONSTRUCTION

Reasons for rejection:

- Exhaust extractors or headers fitted to any motor vehicle:
 - foul any part of the steering, suspension, brake or fuel system;
 - do not have fittings (if applicable) for emission control equipment (E.G.R. valve, pipes etc.) and do not retain exhaust pipes and mufflers incorporated in the exhaust system to ensure the vehicle maintains compliance with Australian Design Rules for vehicle emissions.
- Any alteration or modification to the exhaust system is not to a standard provided originally by the motor vehicle manufacturer. **(See Note 2)**
- An exhaust system component fitted external to the motor vehicle body is not protected by suitable guarding.
- An exhaust system does not discharge in accordance with prescribed standards. **(See Note 3)**
- The manifold, pipes, muffler, resonator and all exhaust system components are not securely mounted with adequate clearance between other parts of the vehicle and the road.

EMISSIONS

Reasons for rejection:

- There are leaks or excessive noise from the exhaust system and joints during operation.
- When operating, an engine of a motor vehicle emits visible emissions for a period of 10 seconds or more. **(See Note 4)**

EMISSION CONTROL SYSTEM

Reasons for rejection:

- Vehicles manufactured with emission devices do not have all emission control equipment properly located, connected or are damaged, deteriorated or altered in any way to reduce effectiveness.

DUAL FUEL SYSTEMS

Reasons for rejection:

- A vehicle operating on liquid petroleum gas (LPG) or compressed natural gas (CNG) and petrol does not have the emission control equipment fitted to enable compliance with emission levels when operating on petrol.

GROUND CLEARANCE

Reasons for rejection:

- A vehicle does not have a ground clearance equal to or more than 100 mm except where specified by the manufacturer. **(See Note 5)**

NOTES:

- (1) **Engines/turbochargers/superchargers fitted as optional equipment by the vehicle manufacturer are acceptable. This may require upgrading of vehicle componentry to ensure it is identical to a vehicle originally produced by the manufacturer in this configuration.**
- (2) **Proof of testing to an acceptable standard may be required.**
- (3) **The exhaust outlet must extend at least 40 mm beyond the furthestmost outboard or rearmost joint of the floor pan which is not continuously welded or permanently sealed which could permit direct access of exhaust gases to the passenger compartment, but not beyond the perimeter of the vehicle when viewed in plan;**
 - **the exhaust outlet, if to the side of the vehicle, must discharge to the right hand side of the vehicle and downwards at an angle to the horizontal of not less than 15 degrees and not more than 45 degrees; and**
 - **the exhaust outlet, if to the rear of the vehicle, must discharge at not more than 10 degrees above or 45 degrees below the horizontal.**
- (4) **This does not apply to emissions that are visible only because of heat or the condensation of water vapour.**
- (5) **Ground clearance requirements for motor vehicles are detailed in the brochure "All About Modifications to Motor Vehicles" and AIS Information Sheet 13.**

5. TRAILERS

LIGHTS AND ELECTRICAL COMPONENTS

OBJECTIVE: To ensure that all lights, reflectors and other electrical lighting components as required by prescribed standards are operational.

LIGHTING EQUIPMENT

Reasons for rejection:

- Lights and reflectors fitted to a trailer are not operational and not located in positions as required by prescribed standards.

LIGHTS AND REFLECTORS (See Note 1)

Reasons for rejection:

- Are not clearly visible under all normal conditions and of a consistent intensity, or are affected by dirty lenses or poor electrical contact.
- Lenses and light reflectors are not securely mounted, are faded or discoloured and are not free from cracks, holes, or other damage which would allow the entry of moisture or dirt to impair the efficiency of the light or reflector.
- The following lights do not operate correctly and are not fitted with appropriate lenses:
 - park or side lights;
 - brake lights (on hand and foot control);
 - tail lights;
 - turn signal indicator lights;
 - clearance/side marker lights (if fitted);
 - number plate light;
 - reversing lights (if fitted);
 - additional lights (if fitted).
- The number plate light/s direct light onto surfaces other than the rear number plate.
- The reverse light (if applicable) does not operate when reverse gear of the towing vehicle is selected.

ADDITIONAL LIGHTING

Reasons for rejection:

- Additional lighting (fitted as accessories) must be fitted in such a way that their operation will not impair the operation of statutory lighting, and not contravene any Act or Regulation.

REAR MARKING PLATES

Reasons for rejection:

- Retro/reflective rear marker plates are not fitted to all vehicles with a Gross Vehicle Mass (GVM) or a Gross Combination Mass (GCM) exceeding 12 tonnes and are damaged, faded, discoloured or insecure.
- Marker plates are not fitted in locations specified by the prescribed standards. **(See Note 2)**

WIRING HARNESS

Reasons for rejection:

- Electrical wiring is not securely mounted and insulated, is exposed to excessive heat or chafing or located in such a way that would cause danger to the operation of the vehicle.

BATTERY

Reasons for rejection:

- A battery (if fitted) is not secured in a cradle or carrier using hold down clamps, is cracked, leaking or has missing caps.

NOTES:

- (1) Further information on location and colour of lights is contained in AIS Information Sheet 8 – Motor Vehicle Lighting and the brochure "All About Modifications to Motor Vehicles".
- (2) Further information on rear marking plates is contained in AIS Information Sheet 9 – Rear Marking Plates.

BODY AND CHASSIS

OBJECTIVE: To ensure the vehicle body is free of protrusions, structurally sound and free from any defects or additional fittings that are likely to increase the risk of bodily injury to any occupant and other road users.

DOORS/HATCHES/HINGES/CATCHES

Reasons for rejection:

- Doors, hatches and removable covers (including safety catches, as applicable) are not securely fitted, mounted and operating correctly.
- Doors/hatches/hinges/catches are cracked, broken, distorted or corroded to the point where a component is weakened or failure of a component is likely to occur. **(See Note 2)**
- Door fastenings, hinges, inside and outside door control handles (as applicable) are not fitted, secure and operating correctly.

BODY AND CHASSIS FRAME (FLOOR PAN AND SUB FRAME)

Reasons for rejection:

- All panels, fittings and structural components (internal and external) are not free of sharp edges and protrusions which would increase the risk of injury to any person who comes into contact with the vehicle.
- Body componentry (including rear underrun protection, where applicable) or chassis frame are cracked, broken, distorted, corroded or otherwise weakened to the point where structural failure of any component is likely to occur.
- The body is not securely mounted to the frame or chassis.
- Any repairs carried out do not retain the original strength of the component/section.

BODY FITTINGS/COMPONENTS

Reasons for rejection:

- The body is not free of protrusions or fittings likely to cause injury to any person with whom the vehicle may come into contact.
- Where sliding axles are fitted, the axle does not lock and securely engage in position.
- Secondary securing devices and locking indicators do not operate correctly.

- Cargo anchor points are structurally damaged or repaired in a manner that does not retain the original strength of the component.

MUDGUARDS/WHEEL ARCHES

Reasons for rejection:

- Mudguards are not fitted and do not cover the full width of all wheels and tyres for which they are provided.
- Mudguards and mudflaps are not capable of deflecting downwards any mud, water, stones or any other substance thrown upward by the rotation of the wheels. **(See Note 1)**

NOTES:

- (1) **Further information on mudguards and mudflaps is contained in AIS Information Sheet 3 – Mudguard and Mudflap Requirements.**
- (2) **Minor rust/corrosion in body panels is not considered dangerous to structural integrity. Further information on rust is contained in AIS Information Sheet 11 – Rust and Corrosion.**

TOW COUPLINGS

OBJECTIVE: To ensure that all tow couplings and associated components are in a serviceable condition and that they provide the necessary load carrying capacity.

TOWING COUPLINGS, WIRING HARNESS, HOSES AND SAFETY CHAINS

Reasons for rejection:

- All electrical wiring, connectors, couplings, flexible pipes, skid plates, king pins etc. associated with a device for coupling a trailer to a motor vehicle are not operational, not secure, or are cracked, excessively worn, deformed or damaged in a way likely to cause failure.
- Coupling bodies fitted to light trailers up to 2.3 tonnes (GTM) and heavy trailers up to 10 tonnes (ATM), are not legibly marked, displaying the manufacturer's name or trademark, capacity in kg and the size (i.e. 50 mm) **(See Note 1)**
- Tow couplings are repaired by heating or welding.
- Tow couplings are not securely mounted to the trailer draw bar.

- The coupling is not of a positive locking type and not fitted with an efficient and secure latching/fastening device.
- The draw bar of a trailer is not securely fixed to the trailer frame/chassis.
- All draw bar componentry is not free of cracks, corrosion, distortion or other damage.
- Safety chain/s or cables (as required) are not securely and permanently attached to the trailer drawbar.
- Safety chains or cables (if required) are stretched, nicked, frayed or cracked.
- Trailers with an Aggregate Trailer Mass (ATM):
 - of 2.5 tonnes or less, do not have at least one safety chain capable of being attached to the towing vehicle; **(See Note 2)**
 - greater than 2.5 tonnes, do not have two safety chains capable of being attached to the towing vehicle. **(See Note 2)**
- The length of the safety chain/s does not prevent the trailer's draw bar hitting the ground if the trailer is detached from the towing vehicle.

TOWING CAPACITY

Reasons for rejection:

- The tow coupling capacity does not equal or exceed the Aggregate Trailer Mass of any trailer being towed (if applicable).
- In the case of light trailers manufactured after 1 July 1988, the tow coupling manufacturer's name or trade mark and maximum operating capacity is not displayed on the coupling in a conspicuous position.

NOTES:

- (1) A 50 mm ball coupling is, generally, not acceptable for trailers which have an Aggregate Trailer Mass (ATM) in excess of 2.3 tonnes.**

However, 50 mm ball couplings meeting the requirements of AS 4177.2 (Caravan and light trailer towing components – 50 mm tow balls) are suitable for motor vehicles towing very light and light trailers of up to 3.5 tonnes ATM.

- (2) All pig trailers with rigid drawbars and any other trailers without breakaway brakes, must be fitted with safety chains. The fitting of safety chains to other types of trailers with a Gross Trailer Mass (GTM) greater than 2.0 tonnes and fitted with a brake system that automatically applies if the trailer becomes detached from the towing vehicle is optional.

Safety Chains for trailers less than 3.5 tonnes ATM must be fitted in accordance with the information contained in AIS Information Sheet 12(a) – Safety Chain Requirements.

Safety Chains for trailers above 3.5 tonnes ATM and for rigid draw bar pig trailers above 2.5 tonnes GTM and fitted with automatic pin type couplings must be fitted in accordance with the information contained in AIS Information Sheet 12(b) – Safety Chain Requirements.

Aggregate Trailer Mass (ATM) is the total mass of the laden trailer when carrying the maximum load recommended by the manufacturer. This includes any mass imposed onto the drawing vehicle when the combination vehicle is resting on a horizontal supporting plane.

Gross Trailer Mass (GTM) is the mass transmitted to the ground by the axle or axles of the trailer when coupled to a drawing vehicle and carrying its maximum load approximately uniformly distributed over the load bearing area.

STEERING AND SUSPENSION

OBJECTIVE: To ensure that the steering and suspension is in good working order and allows the driver effective control of the vehicle.

STEERING COMPONENTS

Reasons for rejection:

- All fitted steering components (e.g. dog trailer or trailer with steerable axles) are not in good condition, securely mounted and free from damage, excessive wear, damage or misalignment. **(See Note 1)**
- Steering components are removed, heated, welded (modified) or bent without approval from Queensland Transport. **(See Note 2)**
- Free play in any component exceeds the manufacturer's specifications. Where the manufacturer does not provide specifications or they are no longer appropriate, the free movement exceeds 3 mm.

SUSPENSION COMPONENTS

Reasons for rejection:

- Suspension components are not securely mounted and aligned with no distortion, cracks, corrosion, fractures or other damage likely to cause failure.
- Link ends are not secured with fasteners suitably locked (e.g. split pins, lockwire, tabs or self locking nuts).
- Suspension components are missing, or repaired or modified by heating or welding unless specifically approved by Queensland Transport.
- Suspension components are worn beyond manufacturer's specifications.

SPRING MEDIA (I.E. SPRINGS, AIR BAGS, SPRING HANGERS, TORSION BARS)

Reasons for rejection:

- Components are not correctly aligned, adjusted, securely mounted or are unduly worn, rusted, damaged and nuts do not fully engage "U" bolts.
- Airbags are not in working condition and free of air leaks or perished components.

AXLE LOCATING ARMS/DEVICES (SHACKLES, BUSHES ETC.)

Reasons for rejection:

- Axle locating arms/devices and associated componentry are not in good working order, not securely mounted and not correctly adjusted.
- Any free movement in pivot pins, bushes or trunnions, when measured at the outer extremities of the tyre, exceeds:
 - Wheel rims 405 mm or less 7 mm;
 - Wheel rims over 405 mm up to 455 mm 10 mm;
 - Wheel rims over 455 mm 13 mm.

WHEEL BEARINGS

Reasons for rejection:

- Are incorrectly adjusted, rough, noisy, loose on stub axle, do not rotate freely or are leaking.
- Movement between disc brake rotor/brake drum and backing plate exceeds manufacturer's specifications.

SHOCK ABSORBERS

Reasons for rejection:

- Shock absorbers (if applicable) are not fitted, not securely mounted and brackets and rubbers are missing, worn, or damaged.
- Shock absorbers do not effectively dampen or show signs of leakage.

NOTES:

- (1) **Must be inspected through the full range of steering movement, steering stops must prevent wheels or tyres from fouling vehicle chassis or suspension components on full lock.**
- (2) **Steering components that are modified or repaired by heating or welding without approval from Queensland Transport are not acceptable.**

WHEELS AND TYRES

OBJECTIVE: To ensure that road wheels and tyres are of a suitable type and condition and that they provide the necessary load carrying capacity, speed rating and control of the vehicle.

WHEELS (See Note 1)

Reasons for rejection:

- Wheels/rims are not of an approved type and construction.
- Wheels/rims fitted to an axle or axle group of a trailer are not of the same size unless otherwise specified by the vehicle manufacturer.
- Wheels/rims are not secure or are cracked, corroded, bent, buckled or otherwise damaged.
- Stud or bolt holes are expanded or elongated or wheel and retainer tapers do not match.

WHEEL STUDS AND NUTS, LOCK RINGS

Reasons for rejection:

- Wheels/rims are not fitted with the correct number and type of nuts and studs.
- Studs/nuts are not securely fitted, are damaged and not engaged for at least the same thread length as provided originally by the vehicle manufacturer.

- Spacer plates are used between hub and wheels (except where fitted by the vehicle manufacturer).
- Tyre retaining rings are not in good condition and correctly located.
- On spider wheels, appropriate nuts and clamps are not used and there is slippage or runout.

TYRES

Reasons for rejection:

- Tyres are not compatible with the rim to which they are fitted and not of a type suitable for normal road use.
- All tyres fitted to rims on the same axle are not of the same case construction. **(See Note 2)**
- Tyres fitted to rims on an axle or axle group are not of the same size.
- Tyre load ratings are less than the minimum ratings specified originally by the vehicle manufacturer.
- The speed rating of all tyres is not of at least 100 km/h unless a lower rating has been specified by the manufacturer.
- Where a trailer has been fitted with retreaded tyres, the tyres are not compatible with the rims and do not have a load rating which is adequate for the vehicle's laden mass.
- Tyres fitted to the trailer do not have a tread pattern at least 1.5 mm deep, other than at tread wear indicators, in a band that runs continuously:
 - (a) across –
 - (i) for a trailer with a loaded mass over 4.5 tonnes – at least 75% of the tyre width that normally comes into contact with the road; or
 - (ii) for another trailer – the tyre width that normally comes into contact with the road; and
 - (b) around the whole circumference of the tyre.
- Tyre tread, shoulder or side wall rubber are damaged.

- Tyres have cuts, bulges, tread separation, exposed or damaged cords or other evidence of case failure.
- Valve stems are cracked, damaged, perished or loose.
- regrooved or recut tyres fitted to a trailer are not clearly marked "suitable for regrooving".
- Any tyre clearly marked "suitable for regrooving" is regrooved or recut beyond the maximum permissible groove depth or is regrooved or recut in such a way that the ply or cord is exposed or damaged.

TYRE/WHEEL WIDTH

Reasons for rejection:

- When in the straight ahead position, the wheels and tyres project beyond the extreme width of the mudguards or trailer frame.
- The wheels and tyres contact any part of the trailer under any combination of steering (if applicable) and/or suspension movement.
- Where wide wheels and tyres are fitted which comply with the manufacturer's specifications and protrude beyond the vehicle's extremities, additional flared mudguards are not fitted. **(See Note 3)**

NOTES:

- (1) **Road wheels relate only to those wheels in contact with the road. The spare wheel is not included in a safety check.**
- (2) **Steel radials, textile radials or conventional cross-ply must not be mixed.**
- (3) **Maximum regulation dimensional limits must not be exceeded.**

BRAKES

OBJECTIVE: To ensure that the brakes operate effectively and are correctly adjusted.

BRAKE SYSTEM OPERATION

Reasons for rejection:

- The brake controls of the towing unit, when operated, do not cause the corresponding trailer brake to operate (with the engine of the towing unit running, if necessary).

- Trailers with a Gross Trailer Mass (GTM) in excess of 0.75 tonne but not exceeding 2.0 tonnes, are not equipped with a braking system which operates on at least one axle. (Override or electric are acceptable.) **(See Note 5)**
- Trailers exceeding 2.0 tonnes Aggregate Trailer Mass (ATM) are not equipped with brakes which operate on all wheels. (See Note 5)
- Brakes fitted to trailers exceeding 2.0 tonnes Aggregate Trailer Mass (ATM) are not operated from the driver's seated position in the towing vehicle.
- Brakes fitted to trailers exceeding 2.0 tonnes Aggregate Trailer Mass (ATM) do not apply immediately in the event of the trailer becoming detached from the towing vehicle (breakaway system).
- Trailers fitted with double line braking systems do not automatically apply and remain applied for at least 15 minutes after the control and supply lines are disconnected from the towing vehicle.
- All brakes do not operate efficiently.

HAND/PARK BRAKE AND CONTROL LEVERS (IF FITTED)

Reasons for rejection:

- Linkages are not complete or parts are unduly worn.
- Cables are frayed, damaged or restricted.
- Rods and cables are repaired by welding or joining.
- The brake does not fully release when the release control is operated.
- Any handle or control lever is not fitted with a locking device capable of holding in any position.
- Any handle or control lever is insecure, damaged, bent, broken, restricted or missing.
- A handle or pedal of a parking/hand brake fitted to a trailer does not have a reserve of travel of at least one-fifth of the maximum range of application.

HYDRAULIC LINES

Reasons for rejection:

- Hydraulic lines are not securely mounted, not free from damage or corrosion, show evidence of leakage and are not constructed of approved material. **(See Note 1)**

HOSES

Reasons for rejection:

- Flexible hoses are cracked, chafed, deteriorated, show evidence of leakage and are not manufactured and marked to relevant Australian Standards (or equivalent). **(See Note 2)**

CYLINDERS AND CALIPERS

Reasons for rejection:

- Hydraulic/air components, master cylinders, wheel cylinders/calipers etc. are not secured in a manner as recommended by the manufacturer or are seized, restricted or show evidence of leakage.

RESERVOIRS

Reasons for rejection:

- Any reservoir is not filled to the manufacturer's recommended minimum level and/or show evidence of leakage.

MECHANICAL LINKAGES

Reasons for rejection:

- Mechanical linkages and cables are not in a serviceable condition, incorrectly adjusted, and free of binding or excessive wear.
- Correct locking devices are not fitted, where applicable.
- There is evidence of repair by welding or brazing.
- Cables are frayed or have broken strands.

VACUUM/AIR COMPONENTS

Reasons for rejection:

- Brake air lines, hoses, pumps, valves, chambers, switch controls, actuators and any associated componentry are not secure and operational.

- Components are frayed, perished or misaligned, or show evidence of leakage or damage.
- Componentry is not correctly adjusted and free from binding.

DISCS AND PADS, DRUMS AND LININGS

Reasons for rejection:

- Linings are worn below wear indicators. If no indicators are provided, the thinnest part of the lining is worn below manufacturer's specifications. **(See Note 3)**
- Drums or disc rotors must be worn or machined below manufacturer's specifications. **(See Note 4)**
- There are any substantial cracks on friction surfaces, external cracks or mechanical damage.
- Lining material is contaminated with oil, grease or brake fluid.

NOTES:

- (1) Normal commercial copper tubing has been prohibited from use in brake systems because it is considered prone to cracking due to work hardening. However, there is a Society of Automotive Engineers (SAE) Recommended Practice called Tubing – Motor Vehicle Brake Tubing Hydraulic – SAE J1047 which is the accepted industry standard. Persons wishing to use copper tube for vehicle hydraulic brake lines, must first provide proof of compliance with SAE J1047 or equivalent standard.**
- (2) Made up hoses are not acceptable. Where brake hoses are replaced with aftermarket products, relevant standards marking is required.**
- (3) Where manufacturer's specifications are not provided, the minimum thickness for bonded linings is 0.8 mm or 0.8 mm above the head of a rivet for light trailers, or the minimum thickness for bonded linings is 1.5 mm or 0.8 mm above the head of a rivet for heavy trailers.**
- (4) Where manufacturer's specifications are not provided for drums, scoring must not be more than 1.5 mm for light trailers or 3.0 mm for heavy trailers. Refer to AIS Information Sheet 16 – Brake drums and discs.**
- (5) Aggregate Trailer Mass (ATM) is the total mass of the laden trailer when carrying the maximum load recommended by the manufacturer. This includes any mass imposed onto the drawing vehicle when the combination vehicle is resting on a horizontal supporting plane.**

Gross Trailer Mass (GTM) is the mass transmitted to the ground by the axle or axles of the trailer when coupled to a drawing vehicle and carrying its maximum load approximately uniform

6. MOTORCYCLES

(including motor tricycle(s))

SEATING

OBJECTIVE: To ensure that all seating fitted to the motorcycle, including motor tricycle(s), provide a comfortable and secure position for the driver to control the motorcycle and control the deceleration of all motorcycle occupants.

SEATING

Reasons for rejection:

- Seat cushions (including backrests, if fitted) and seat frames are not fitted, not secure, are structurally damaged, have sharp or jagged edges, or protrusions.
- Any reduction or increase in seating capacity must be certified by an Approved Person (Code LK7).

LIGHTS AND ELECTRICAL COMPONENTS

OBJECTIVE: To ensure that all lights, reflectors and other electrical lighting components as required by prescribed standards are operational.

LIGHTING EQUIPMENT (See Note 4)

Reasons for rejection:

- Lights and reflectors fitted to a motorcycle, including motor tricycle(s), are not operational and not located in positions as required by prescribed standards.

HEADLIGHT/S

Reasons for rejection:

- Are not correctly focused.
- Lenses are not secure and not free of cracks or holes that would permit the entry of dirt or moisture.
- Reflector surfaces are not free of tarnish or other damage which could reduce the intensity of high or low beam. (See Note 1)

- Are not clearly visible under all normal conditions and of a consistent intensity, or are affected by dirty lenses or poor electrical contact.
- A dipping device to change the headlights from the high beam position to the low beam position and operated from the normal driving position is not fitted and operational. **(See Note 2)**
- A device to indicate to the driver that the headlights are in the high beam position is not fitted and operational. **(See Note 2)**

OTHER LIGHTS AND REFLECTORS (See Note 4)

Reasons for rejection:

- Are not clearly visible under all normal conditions and of a consistent intensity, and are affected by dirty lenses or poor electrical contact.
- Lenses and light reflectors are not securely mounted, are faded or discoloured and are not free from cracks, holes, or other damage which would allow the entry of moisture or dirt to impair the efficiency of the light or reflector.
- The following lights do not operate correctly and are not fitted with appropriate lenses:
 - front park lights;
 - brake lights
 - tail lights;
 - turn signal indicator lights;
 - number plate light;
 - reversing lights (if fitted);
 - additional lights (if fitted). **(See Note 2)**
- The number plate light/s direct light onto surfaces other than the rear number plate.
- The turn signal switch is not readily operable by the driver from the driving position.
- The turn signal operation is not indicated by means of a visible and/or audible telltale.

ADDITIONAL LIGHTING

Reasons for rejection:

- Additional lighting (fitted as accessories) is fitted in such a way that their operation will impair the operation of statutory lighting, and contravene prescribed standards.

ADDITIONAL HEADLIGHTS (DRIVING LIGHT/S)

Reasons for rejection:

- Additional driving lights do not operate in conjunction with the high beam circuit, and are not fitted with an independent on/off switch.

WIRING HARNESS

Reasons for rejection:

- Electrical wiring is not securely mounted and insulated, is exposed to excessive heat or chafing or located in such a way that would cause danger to the operation of the motorcycle.
- Electrical wiring hinders driver or passenger movement.

BATTERY

Reasons for rejection:

- A battery is not secured in a cradle or carrier using hold down clamps and is cracked, leaking or has missing caps.

WARNING DEVICE (HORN)

Reasons for rejection:

- A warning device is not fitted and operational and the tone is not of a single pitch. **(See Note 3)**
- A warning device is not clearly audible and the actuating mechanism is not located within the reach of the driver in the normal seated position.

NOTES:

- (1) Fitted clear headlight covers are acceptable provided the intensity of high or low beam is not affected.**

Tinted headlight covers are acceptable but must be removed when high or low beam headlights are operated.

Lens repairs are acceptable but must not reduce the effectiveness of the light when the light is lit.

- (2) White coloured lights or reflectors are only permitted for front facing lights, number plate and reversing lights.**

Amber lights are only permitted for indicators on motorcycles, including motor tricycle(s).

Flashing lights are not permitted on a motorcycle, including motor tricycle(s), except as indicators and for use on special use vehicles i.e. vehicles fitted or built for use in hazardous situations on a road or emergency vehicles.

Turn signal indicator lights must be fitted to all motorcycles, including motor tricycle(s), manufactured on or after 1 July 1975.

A motor vehicle built after 1934 that can travel at over 60 km/h must be fitted with a dual beam headlight system.

A motor vehicle built after 1953 must be fitted with a device to indicate to the driver that the headlights are in the high beam position.

- (3) Dual air or electrical horns are acceptable but must be of a single note.**
- (4) Further information on location and colour of lights is contained in AIS Information Sheet 8 - Motor Vehicle Lighting and the brochure "All About Modifications to Motor Vehicles".**

BODY AND CHASSIS

OBJECTIVE: To ensure the vehicle body is free of protrusions, structurally sound and free from any defects or additional fittings that are likely to increase the risk of bodily injury to any occupant and other road users.

HATCHES, HINGES AND CATCHES

Reasons for rejection:

- All hatches, catches, removable covers and fastenings fitted to a motorcycle, including motor tricycle(s), and also including a side-car (if fitted), are not securely fitted, mounted and do not operate in the manner for which they were designed.

BODY AND CHASSIS FRAME

Reasons for rejection:

- The body or chassis frame are cracked, broken, distorted or corroded to the point where a component is weakened or failure of a component is likely to occur.
- Any fastenings between frame members, including welds, are not secured or are cracked or distorted.

- Any repairs carried out do not retain the original strength of the component/section.

BODY FITTINGS

Reasons for rejection:

- Fairings and any attachments are not free of protrusions or fittings likely to cause injury to any person with whom the motorcycle, including motor tricycle(s), may come into contact. **(See Note 3)**
- Motorcycles, including motor tricycle(s), are not fitted with adequate protection (for rider and passenger) from any moving part (i.e. chain, road wheels, tyres, exhaust) or any area which would constitute a safety hazard and are not of the same curvature.
- A side-car (if fitted), is not securely attached and mounted to the left hand side of the motorcycle.
- Any part of a motorcycle (without a side-car), including motor tricycle(s), projects more than 150 mm ahead of the front wheel or 300 mm behind the rear wheel.

MUDGUARDS

Reasons for rejection:

- The wheels of a motorcycle, including motor tricycle(s), are not fitted with mudguards of a width not less than the maximum width of the tyre.
- The front mudguard does not shield that portion of the wheel extending rearward from a point vertically above and horizontally behind the center of the front wheel. **(See Note 1)**
- The rear wheel(s) or side-car wheel mudguard does not shield that portion of the wheel between points vertically above the foremost and rearmost parts of the wheel.

MOTORCYCLE (INCLUDING MOTOR TRICYCLE) RIDING CONTROLS

Reasons for rejection:

- Riding controls are not securely fastened and not in the correct location as per the relevant ADR for date of manufacture.
- The correct number of footrests as per the seating capacity of the motorcycle, including motor tricycle(s), are not fitted in a manner applicable to the frame manufacturer's technique.

REAR VISION MIRRORS

Reasons for rejection:

- Rear vision mirrors are not fitted in accordance with prescribed standards. **(See Note 2)**
- Rear vision mirror(s) fitted to any motorcycle, including motor tricycle(s), do not provide a clear view of the road to the rear of the motorcycle, including motor tricycle(s), when the rider is in a natural riding position, and are not of the same curvature.
- Mirror(s) are not securely mounted and free from damage, blemishes or tarnishing which would reduce the view to the rear of the vehicle.
- If convex mirrors are fitted, the mirrors do not have a radius of curvature of not less than 1.2 metres.

NOTES:

- (1) **If the frame or body of the motorcycle, including motor tricycle(s), provides adequate protection in any part of this area, then only the unprotected part of the region requires mudguard protection.**
- (2) **At least 1 rear vision mirror must be fitted to a motorcycle or motortrike with 1 front wheel built before July 1975.**

At least 1 rear vision mirror must be fitted to each side of a motorcycle or motortrike with 1 front wheel built after June 1975.

TOW COUPLINGS

OBJECTIVE: To ensure that all tow couplings and associated components are in a serviceable condition and that they provide the necessary load carrying capacity.

TOWING COUPLINGS, WIRING HARNESS, HOSES AND SAFETY CHAINS

Reasons for rejection:

- Tow bars, tow coupling componentry and their attachments, if fitted to a motorcycle, including motor tricycle(s), are not operational, not secure, or are cracked, excessively worn, deformed or damaged in a way likely to cause failure.
- All electrical wiring, connectors, etc. associated with a device for coupling a trailer to a motorcycle, including motor tricycle(s), are not securely mounted and operational.
- Tow coupling tongue assemblies are repaired by heating or welding.

- Tow coupling tongue assemblies are not securely mounted to the tow bar assembly.
- The tow ball (if fitted) is not secure, is cracked or is excessively worn.
- The tow ball assembly (50 mm type) is not legibly and indelibly marked with the mark “50” in characters not less than 5 mm high.
- Safety chain/s or cables are not able to be connected or affixed in such a way that the safety chains/ cables are not liable to accidental disconnection and are not readily detachable from the towing vehicle.
- A trailer coupling affixed to a motorcycle does not allow for angular movement of the combination about the vertical or horizontal axis.

TOWING CAPACITY

Reasons for rejection:

- The tow coupling capacity does not equal or exceed the Aggregate Trailer Mass (ATM) of any trailer being towed (if applicable).

NOTES:

Aggregate Trailer Mass (ATM) is the total mass of the laden trailer when carrying the maximum load recommended by the manufacturer. This includes any mass imposed onto the drawing vehicle when the combination vehicle is resting on a horizontal supporting plane.

STEERING AND SUSPENSION

OBJECTIVE: To ensure that the steering and suspension is in good working order and allows the driver effective control of the vehicle.

STEERING COMPONENTS

Reasons for rejection:

- All steering components are not in good condition, securely mounted and free from damage or distortion. **(See Note 1)**
- Steering components are removed, heated, welded (modified) or bent without approval from Queensland Transport. **(See Note 2)**

STEERING MECHANISM/DESIGN

Reasons for rejection:

- The handlebar of a motorcycle, including motor tricycle(s), is not secure and free play in the steering head exceeds manufacturer's specifications.
- Where steering linkages are fitted, any rotational free play exceeds 10 mm at the end of the handlebar.
- Steering gear and steering gear connections are not so designed so as to eliminate accidental detachment or overlocking.
- Steering components are misaligned with the frame and not free from damage, fatigue, corrosion or distortion.
- Repairs carried out to fork assemblies and handle bar assemblies indicate heating or welding.
- Operation of the handlebar is not smooth from lock to lock and equipment fitted to the motorcycle, including motor tricycle(s), prevents free movement (e.g. the handlebar must not come into contact with the fuel tank).
- Nuts, bolts or other fasteners used on steering components are not secure.
- The handlebar assembly is not constructed of suitable material, adequately mounted and free of sharp edges and protrusions.
- The handlebar is not symmetrical on either side of the front wheel and steering head assembly.
- The handlebar is not of the same shape and length on both sides of the front wheel and steering head assembly.
- If the forks are raked (i.e. modified wheelbase), the horizontal distance between the mid-point of the steering yoke bearings and a point vertically above the centre of the front wheel exceeds 550 mm.
- Motorcycles, including motor tricycle(s), fitted with offset triple clamps have a trail measurement of less than 75 mm. **(See Note 3)**
- Handlebar grips are not secure and excessively damaged or unduly worn. **(See Note 4)**

HANDLEBAR DIMENSIONS

Reasons for rejection:

- The distance between the extreme ends of the handlebar assembly is greater than 900 mm and less than 500 mm.
- The height of the lowest part of the handgrip is higher than 380 mm above the attachment point of the handlebar to the motorcycle.

SUSPENSION SYSTEM

Reasons for rejection:

- Suspension components are not securely mounted and aligned with no distortion, cracks, corrosion, fractures or other damage likely to cause failure.
- Wheel bearings and swing arm bushes/bearings are excessively worn.
- Link ends are not secured with fasteners suitably locked (e.g. split pins, lockwire, tabs or self-locking nuts).
- Suspension components are missing, or repaired or modified by heating or welding unless specifically approved by Queensland Transport.
- Suspension components are worn beyond manufacturer's specifications.

WHEEL BEARINGS

Reasons for rejection:

- Are incorrectly adjusted, rough, noisy, loose on stub axle, do not rotate freely or are leaking.
- Movement between disc brake rotor/brake drum and backing plate exceeds manufacturer's specifications.

SHOCK ABSORBERS

Reasons for rejection:

- Shock absorbers are not fitted, not securely mounted and brackets and rubbers are missing, worn, or damaged.
- Shock absorbers do not effectively dampen or show signs of leakage.

- When forced against the suspension and released, the motorcycle, including motor tricycle(s), rebounds past its normal height more than once.

NOTES:

- (1) **Must be inspected through the full range of steering movement, steering stops must prevent wheels or tyres from fouling motorcycle, including motor tricycle(s), frame or suspension components on full lock.**
- (2) **Steering components that are modified or repaired by heating or welding without approval from Queensland Transport are not acceptable.**
- (3) **If offset triple clamps are fitted to the front fork assembly (i.e. the clamps are machined such that the angle of the fork stanchions is at an angle to the steering head axis), then the trail measurement should be checked to ensure that the centre of the front axle is at least 75 mm behind the point where the steering head axis line intersects the ground.**
- (4) **Handlebar grips, knobs, levers and other devices which have deteriorated to an extent that they are hazardous are unacceptable.**

WHEELS AND TYRES

OBJECTIVE: To ensure that road wheels and tyres are of a suitable type and condition and that they provide the necessary load carrying capacity, speed rating and control of the vehicle.

WHEELS

Reasons for rejection:

- Wheels/rims are not of an approved type and construction.
- Wheels/rims fitted to an axle or axle group of a motortrike are not of the same size unless otherwise specified by the motortrike manufacturer.
- Wheels/rims are not secure or are cracked, corroded, bent, buckled or otherwise damaged.
- Stud or bolt holes are expanded or elongated or wheel and retainer tapers do not match.
- A spoked wheel does not have all spokes fitted or the spokes are loose, corroded, bent, broken or cracked.
- Each tyre is not capable of supporting the machine when it is fully loaded.

- Tyres or wheels rub or foul on any part of the motorcycle.

WHEEL SECURING DEVICES

Reasons for rejection:

- Wheels/rims are not fitted with the correct number and type of securing devices.
- Studs/nuts are not securely fitted, are damaged and not engaged for at least the same thread length as provided originally by the motorcycle, including motor tricycle(s), manufacturer.

TYRES

Reasons for rejection:

- Tyres are not compatible with the rim to which they are fitted and not of a type suitable for normal road use.
- All tyres are not of the same case construction. **(See Note 1)**
- Tyre load ratings are less than the minimum ratings specified originally by the motorcycle, including motor tricycle(s), manufacturer.
- The speed rating of all tyres is not of at least 120 km/h or the motorcycle's, including motor tricycle(s), top speed unless a lower rating has been specified by the manufacturer. **(See Notes 2 and 3)**
- Tyres do not have a tread pattern at least 1.5 mm deep, other than at tread wear indicators, in a band that runs continuously across the tyre width that normally comes into contact with the road and around the whole circumference of the tyre.
- Tyre tread, shoulder or side wall rubber are damaged.
- Tyres have cuts, bulges, tread separation, exposed or damaged cords or other evidence of case failure.
- Valve stems are cracked, damaged, perished or loose.
- Regrooved or recut tyres fitted to a motorcycle are not clearly marked "suitable for regrooving".
- Any tyre clearly marked "suitable for regrooving" is regrooved or recut beyond the maximum permissible groove depth or is regrooved or recut in such a way that the ply or cord is exposed or damaged.

TYRE/WHEEL WIDTH

Reasons for rejection:

- The wheels and tyres project beyond the extreme width of the mudguards.
- The wheels and tyres contact any part of the vehicle under any combination of steering and/or suspension movement.

NOTES:

- (1) **Steel radials, textile radials or conventional crossply must not be mixed.**
- (2) **A tyre fitted to a motorcycle, including motor tricycle(s), must, when first manufactured, have been rated by the tyre manufacturer as suitable for road use at the lower of:**
 - (a) **a speed of at least 120 km/h; and**
 - (b) **the vehicle's top speed.**
- (3) **Tyres branded "Not Suitable for Highway Use" (NHU) are not to be rejected solely for this reason.**

BRAKES

OBJECTIVE: To ensure that the brakes operate effectively and are correctly adjusted.

GENERAL

Reasons for rejection:

- All motorcycles, including motor tricycle(s), do not have two independent braking systems or a single brake that acts directly on all wheels of the vehicle and is arranged so that effective braking remains on at least 1 wheel if any part of the system fails.

BRAKE SYSTEM OPERATION

Reasons for rejection:

- The brake controls, when operated, do not cause the corresponding brake to operate.
- All failure indicators, pressure/vacuum gauges and warning devices do not operate correctly.

HAND/PARK BRAKE AND CONTROL LEVERS

Reasons for rejection:

- Brake foot lever/s do not have an effective anti-slip surface.
- Brake levers are bent, damaged, broken, restricted or misaligned (outside scope of manufacturer's original design).
- The levers and associated components are not secure, not correctly adjusted, bind or are worn so as to affect efficient operation.
- Maximum braking pressure, at levers, is not achieved without progressive applications of the brake lever and is not at least 50% of the maximum lever travel.
- The lever does not remain firm when light pressure is maintained in the applied direction.
- There is an indication of air in the hydraulic system.
- A brake lever does not have free travel in accordance with the motor cycle, including motor tricycle(s), manufacturer's specifications.
- The brake control levers of a motorcycle brake (including park brake control lever as applicable to side cars and motor tricycle(s)), does not have a reserve of travel of at least one-fifth of the maximum range of application.
- When not in use, the brake lever, handle or pedal does not return to the fully released position.
- The rider cannot operate the foot lever without lifting their foot from the footrest. **(Does not apply to Historically Registered Vehicles)**
- Linkages are not complete and components are unduly worn.
- The park brake control lever (as applicable to side cars and motor tricycle(s)), does not have a mechanical locking system to enable sustained operation.
- Cables are frayed, damaged or restricted.
- Rods and cables are repaired by welding or joining.
- The hand/park brake (as applicable to side cars) is not able to hold the motorcycle for a period of 5 minutes, facing each way, on a gradient of not less than 30% (as per ADR 33/00).

HYDRAULIC LINES

Reasons for rejection:

- Hydraulic lines are not securely mounted, not free from damage or corrosion or show evidence of leakage, cracking, chafing or deterioration. **(See Note 1)**

HOSES

Reasons for rejection:

- Flexible hoses are cracked, chafed, deteriorated, show evidence of leakage and are not manufactured and marked to relevant Australian Standards (or equivalent). **(See Note 2)**

CYLINDERS AND CALIPERS

Reasons for rejection:

- Hydraulic components, master cylinders, wheel cylinders/calipers etc. are not secured in a manner as recommended by the manufacturer or are seized, restricted or show evidence of leakage.

RESERVOIRS

Reasons for rejection:

- Any reservoir is not filled to the manufacturer's recommended minimum level and/or show evidence of leakage.

MECHANICAL LINKAGES

Reasons for rejection:

- Mechanical linkages and cables are not in a serviceable condition, are incorrectly adjusted, and not free of binding or excessive wear.
- Correct locking devices are not fitted, where applicable.
- There is evidence of repair by welding or brazing.
- Cables are frayed or have broken strands.

DISCS AND PADS, DRUMS AND LININGS

Reasons for rejection:

- Linings are worn below wear indicators. If no indicators are provided, the thinnest part of the lining is worn below manufacturer's specifications. **(See Note 3)**

- Drums or disc rotors are worn or machined below manufacturer's specifications. **(See Note 4)**
- There are substantial cracks on friction surfaces, external cracks or mechanical damage.
- Lining material is contaminated with oil, grease or brake fluid.

NOTES:

- (1) **Normal commercial copper tubing has been prohibited from use in brake systems because it is considered prone to cracking due to work hardening. However, there is a Society of Automotive Engineers (SAE) Recommended Practice called Tubing – Motor Vehicle Brake Tubing Hydraulic – SAE J1047 which is the accepted industry standard.**

Persons wishing to use copper tube for vehicle hydraulic brake lines, must first provide proof of compliance with SAE J1047 or equivalent standard.

- (2) **Made up hoses are not acceptable. Where brake hoses are replaced with aftermarket products, relevant standards approval marking is required.**

Motorcycles manufactured on or after 1 July, 1975, the brake hoses must be marked as per ADR 7/00. (Made up hoses are not acceptable unless specifically approved.)

Braided hoses are acceptable provided they are approved and correctly marked. Refer AIS Information Sheet 7 – Braided Brake Hoses.

- (3) **Where manufacturer's specifications are not provided, the minimum thickness for bonded linings is 0.8 mm or 0.8 mm above the head of a rivet. Refer to AIS Information Sheet 16 – Machining and reconditioning of brake drums and discs.**
- (4) **Where manufacturer's specifications are not provided for drums, scoring must not be more than 1.5 mm for motorcycles.**

ENGINE/DRIVELINE/EMISSIONS

OBJECTIVE: To ensure the engine, drive line and associated components provide a controlled transmission of power to the driving wheels.

CLUTCH OPERATION

Reasons for rejection:

- Clutch components are not operational, are incorrectly adjusted or are cracked, bent or broken.

- There is leakage of hydraulic fluid from the system.
- Hydraulic components show indications of chaffing or rubbing on any part of the motorcycle.
- Adjustment free play is not as per manufacturer's specifications and exceeds one-fifth of the lever operation distance.

GEARBOX OPERATION

Reasons for rejection:

- Any gear selected disengages whilst the motorcycle, including motor tricycle(s), is in motion.
- The gear selector linkage is worn so as to affect the safe use of the motorcycle, including motor tricycle(s), on a road.
- The gearlever is not in the original position (inverted or reversed) as fitted by the manufacturer. **(See Note 1)**
- Motorcycles, including motor tricycle(s), with an automatic clutch system do not have a smooth transition.
- Motorcycles (all types), and including motor tricycle(s), with an unladen mass of 0.45 tonne or greater do not have a reverse gear fitted.

ENGINE/TRANSMISSION MOUNTINGS

Reasons for rejection:

- The engine is not securely mounted to the frame of a motorcycle, including motor tricycle(s).
- Mounting brackets and mounts are not securely fastened and not free of cracks or distortion.
- Rubber components are perished, broken or deteriorated.

LEAKS

Reasons for rejection:

- An engine, transmission, differential and associated piping leaks oil on to the roadway or on to any exhaust system or brake component. **(See Note 2)**

ENGINE

Reasons for rejection:

- An engine and associated emission components manufactured to comply with the requirements of the relevant Australian Design Rules, are altered or modified so that they no longer comply with those Rules.

REPLACEMENT ENGINE

Reasons for rejection:

- A replacement engine, other than one offered as an option by the motorcycle, including motor tricycle(s), manufacturer for that make and model, is not approved by Queensland Transport (endorsed approval letter).

ENGINE CONTROLS

Reasons for rejection:

- Engine controls as fitted by the manufacturer do not operate in a smooth and efficient manner.
- Engine speed does not return to normal idle position upon release of the accelerator pedal or throttle control. **(See Note 3)**

DIFFERENTIAL

Reasons for rejection:

- The differential (if fitted) is excessively worn so as to affect the safe use of the motorcycle, including motor tricycle(s), on a road.

DRIVE LINE COMPONENTS

Reasons for rejection:

- A chain/belt is not free of excessive wear (within manufacturer's specifications).
- Drive sprockets are not free from excessive wear and incorrectly adjusted.
- Motorcycles, including motor tricycle(s), are not fitted with a chain or drive shaft guard.
- The chain or drive shaft guard is not in good condition, is incorrectly fitted and not of correct dimensions so as to provide a safe operating environment for the operator. **(See Note 4)**

FUEL SYSTEM

Reasons for rejection:

- Replacement carburetors fitted to any motorcycle, including motor tricycle(s), do not continue to comply with the emission requirements of the Australian Design Rules applicable at the time of the motorcycle's manufacture.
- Air cleaners are not fitted. **(See Note 5)**
- After market turbocharger or supercharger assemblies are fitted to motorcycles, including motor tricycle(s), without specific approval from Queensland Transport.
- Nitrous oxide injection equipment is fitted irrespective of its operational ability.
- Motor cycles, including motor tricycle(s), designed to operate on unleaded fuel are not fitted with a smaller filler neck which will only accept the nozzle of an unleaded petrol pump.
- Fuel system components are not securely mounted and free of leaks.
- The fuel tank is affected by rust or corrosion.
- A fuel tank cap that complies with manufacturer's specifications is not fitted.

EXHAUST CONSTRUCTION

Reasons for rejection:

- Exhaust extractors or headers fitted to any motorcycle:
 - foul any part of the suspension, brake or fuel system;
 - do not have fittings (if applicable) for emission control equipment and do not retain exhaust pipes and mufflers incorporated in the exhaust system to ensure the vehicle maintains compliance with Australian Design Rules for vehicle emissions.
- Any alteration or modification to the exhaust system is not to a standard provided originally by the motorcycle, including motor tricycle(s), manufacturer.
- An exhaust system component fitted external to the motorcycle, including motor tricycle(s), is not protected by suitable guarding.
- Exhaust gases do not discharge to the rear of the rearmost seating position of the motorcycle, including motor tricycle(s).

- All exhaust system components are not securely mounted with adequate clearance between other parts of the motorcycle, including motor tricycle(s), and the road.

EMISSIONS

Reasons for rejection:

- There are leaks or excessive noise from the exhaust system and joints during operation.
- When operating, an engine of a motor vehicle emits visible emissions for a period of 10 seconds or more. **(See Note 6)**

EMISSION CONTROL SYSTEM

Reasons for rejection:

- Motorcycles, including motor tricycle(s), manufactured with emission devices do not have all emission control equipment properly located, connected and not damaged, deteriorated or altered in any way to reduce effectiveness.

NOTES:

- (1) **The only acceptable conversion is to fit a linkage which keeps the gear change pattern the same as the original.**
- (2) **Motorcycles, including motor tricycle(s), manufactured with total loss lubricating systems which have been designed to "leak" are excluded from this condition.**
- (3) **For Vintage and Veteran motorcycles, including motor tricycle(s), manufactured without self-releasing throttle, the throttle does not operate in the manner prescribed by the manufacturer.**
- (4) **The guard must provide protection for at least the upper free run of the drive chain.**
- (5) **If applicable, owner to supply documented confirmation that air cleaners were not fitted as original equipment.**
- (6) **This does not apply to emissions that are visible only because of heat or the condensation of water vapour.**

7. ROAD TEST – ALL VEHICLES

OBJECTIVE: To confirm the safe operation of the vehicle

ROAD TEST

A road test is to be conducted unless a defect has been detected during the initial visual checks, which, in the opinion of the examiner, would make the vehicle unsafe to operate on the road.

The standards to be applied during the road test are contained in the relevant component sections of this code of practice.

The operation of the following must be validated during the road test:

- foot brake;
- park brake;
- steering;
- clutch;
- suspension;
- gear change mechanism;
- accelerator control;
- drive line condition;
- windscreen wiper/washers;
- driving position/visibility;
- exhaust system;
- speedometer and odometer operation;
- engine does not stall at idle.

Note: If a defect is detected during a road test the examiner must record “fail“ on the Inspection Report; i.e.

- The road test section; and
- The applicable component section (i.e. brakes, steering, etc.)

SERVICE BRAKE TEST

Reasons for rejection:

- The vehicle pulls to the left or right or has a grabbing affect when the brakes are applied.
- Braking is not even or does not function correctly on all wheels.
- For a motor vehicle built after 1930, the service brake is not capable of achieving the following minimum peak decelerometer readings during a brake test from a speed of 35 km/h with vehicle and combination in neutral:

VEHICLE

MINIMUM READING

Motor vehicles less than 2.5 tonnes (GVM)

60% (minimum peak deceleration)

Motor vehicles of 2.5 tonnes (GVM) and over

45% (minimum peak deceleration)

- In the case of a vehicle that **cannot** be tested with a decelerometer (e.g. motorcycles), the service braking system does not stop a motor vehicle or combination from a speed of 35 km/h:
 - a) within 12.5 metres for a vehicle or combination with a gross mass up to 2.5 tonnes;
 - b) within 16.5 metres for a vehicle or combination with a gross mass of 2.5 tonnes or over.

EMERGENCY BRAKE TEST

Reasons for rejection:

- For a motor vehicle built after 1930, the emergency brake is not capable of achieving the following minimum peak decelerometer readings during a brake test from a speed of 35 km/h with vehicle in neutral:

VEHICLE

MINIMUM READING

Motor vehicles less than 2.5 tonnes (GVM)

20% (minimum peak deceleration)

Motor vehicles of 2.5 tonnes (GVM) and over

15% (minimum peak deceleration)

- In the case of a vehicle that **cannot** be tested with a decelerometer, the emergency braking system does not stop a motor vehicle or combination from a speed of 35 km/h:
 - a) within 30 metres for a vehicle or combination with a gross mass up to 2.5 tonnes;
 - b) within 40.5 metres for a vehicle or combination with a gross mass in excess of 2.5 tonnes.

PARK/HAND BRAKE

Reasons for rejection:

- For a motor vehicle built after 1930, the parking brake of a vehicle or combination must be able to hold the vehicle or combination stationary on a 12% gradient.

NOTE:

The parking brake may also be the emergency brake.

SPEEDOMETER/ODOMETER

Reasons for rejection:

- Motor vehicles which were fitted with a speedometer at the time of original manufacture are not fitted with an operational speedometer readily visible to the driver.
- Motor vehicles are not fitted with an operational odometer readily visible to the driver.