

HMV categorisation of defects

Level 3

NZ Transport Agency and NZ Police



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About this guide

This guide covers a considerable number of faults and situations that are dealt with by police officers who hold a certificate to carry out level 3 inspections, CVIU Vehicle Safety Officers and NZ Transport Agency Transport Officers.

It contains a set of national enforcement standards designed to ensure that heavy vehicle defects are dealt with uniformly throughout the country. This guide is also available to the transport industry as a reference guide and can be found on www.nzta.govt.nz.

The guide identifies:

- a number of breaches that can place a vehicle out of service
- the requirements for the issue of pink or green stickers
- the action to take if the situation or defect can be fixed without the need for a new certificate of fitness to be issued (now defined as green 2).

It is acknowledged that the list is not exhaustive - therefore the document will be amended periodically. If you are unsure about any aspect of the guide, please contact your supervisor.

If you have any suggestions regarding the content of the guide, please use the form on the last page and post or fax to; Senior Sergeant (CVIU: Standards and Training), Police National Headquarters, PO Box 3017 6140, Wellington, or fax to (04) 498-7404.

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Preamble

The NZ Transport Agency (NZTA), NZ Police (CVIU), the Road Transport Forum (RTF), the Heavy Haulage Association (HHA) and the Bus and Coach Association (BCA) have all been involved in the preparation of this inspection guide.

Section 115 of the Land Transport Act 1998 empowers enforcement officers to direct that a vehicle must not be used on a road. The following are guidelines to assist with the more consistent application of the section.

- This aid has been developed to assist enforcement officers in determining 'in' or 'out of' service criteria for vehicles found with defects at a roadside inspection.
- The pass/fail criteria differ from that applied to the vehicle at the time of certificate of fitness (CoF) inspections. The walk-around may not include physically climbing under a vehicle.
- It applies criteria which will assist in consistency of application when assessing if a vehicle is safe to continue after a visual walk-around inspection.
- Depending on the fault/s identified, and the particular circumstances, an out-of-service order may be issued, with the accompanying pink or green sticker both requiring the issue of a new CoF. Under new legislation, an enforcement officer may issue a green 2 sticker with an instruction to repair or rectify the fault/s, to be carried out within a specified time. A new CoF is not required if a green 2 sticker is issued. Instead the operator must prove to the enforcement officer that faults have been rectified.

- Failure to comply with the instruction on an offence notice to repair or rectify the fault/s, and to notify the officer that the faults have been remedied, may result in prosecution.
- The driver is to be advised of the level of assessment prior to commencement of inspection, e.g. walk-around or comprehensive.

Interpretation

- *Loose - visually or can be moved without aid of a tool
- *Codes - QP (qualifies for pink)
- *Codes - QG (qualifies for green)

Discretionary equipment

- Checking of towing connections with the appropriate equipment (go - no go gauge) is discretionary.
Note: if the trailer is disconnected, it is to be made clear to the driver that it is his/her responsibility to ensure a safe re-coupling before moving off.
- Use of the 'heat gun' for assessing brake drum temperatures is discretionary - should it be decided to carry out this check then the procedure laid down in the *Induction manual* - Appendix 4.5 (page 339) must be adhered to.

Roadside inspections: Disclaimer

Due to the limited nature of this inspection, there may be faults or defects present in the vehicle apart from those listed on an inspection report. The NZ Police and the NZ Transport Agency do not accept liability for any fault or defect not detected by their officers in this inspection. If further faults or defects are identified at any subsequent inspection, then they must be rectified before the vehicle is returned to service. Any questions about an inspection should be directed to the address indicated on the inspection report.

Rectifying faults at the roadside

The aim of identifying defects that qualify pink (QP) or green (QG) is so that the vehicle can be returned to full compliance at the roadside without risk. In a case where the defect cannot be rectified at the roadside, then the appropriate sticker is issued to the vehicle and any terms or conditions take effect.

In many cases, the driver may be able to bring the vehicle back into compliance almost immediately. For example, the driver has used a substandard or broken tie-down point to restrain the load, the driver then changes the load restraint to another tie-down point that is satisfactory. The risk has immediately been rectified and ceases to exist. However, the fact that the original tie-down used was not appropriate qualifies the defect for a pink sticker (QP). Similarly this approach can be applied to qualify green defects.

The requirements for roadside defect rectification also dictate that a driver cannot simply move the initial sanction from, for example, a pink sticker to a green (CoF required) or a green 2 (no CoF required). Also, for example, the

brake lights are not working, the driver repairs the RHS. By partially rectifying the defect from pink sticker down the scale he now qualifies for the lesser sanction green 2.

It may also be appropriate that if the vehicle is restored to a traffic offence notice status, the officer could let it proceed but with a stringent reporting timeframe for any defects or non-compliance to be rectified.

Cab – level 3

EC01	Corrosion hole in pillars	Corrosion which has resulted in a hole >50mm in the cab pillars	Green
EC02	Corrosion hole around door hinges	Corrosion which has resulted in a hole >50mm around the cab door hinges	Green
ED18	Doors inoperative	Doors for cab are fitted but cannot be operated	Green
PS01	Seat belt damaged/worn occupied seat	Seat belts are fitted and/or the seat belt anchorages are damaged or worn so they do not function correctly or are unsafe. Driver's seat or an occupied passenger seat	Green
PS02	Seat belt damaged/worn unoccupied seat	Seat belt and/or the seat belt anchorages for passenger are damaged or worn but the seat is not occupied	Green 2
PS03	Seat belt not fitted	Seat belt/s are required but not fitted to a vehicle manufactured or first registered in NZ after 1 October 2003	Green

Vision – level 3

EM01	RHS rear vision mirror not usable	Right-hand side rear vision mirror is missing or mirror glass is broken or otherwise damaged, therefore the driver cannot use it	Pink
EM02	RHS rear vision mirror damaged	Right-hand side rear vision mirror is cracked, damaged or insecure, which reduces the driver's vision through the mirror but is still usable	Green 2
EM03	LHS rear vision mirror damaged	Left-hand side rear vision mirror is cracked, damaged or insecure, which reduces the driver's vision through the mirror and is not on a PSV	Green
EM04	LHS rear vision compromised	Not pink or green but left-hand rear vision is compromised	Green 2
II13	Wiper not working while raining – driver's side	Windscreen wiper is missing or not working, and it is raining. Applies to driver's side wiper	Pink
II14	Wiper not working while raining – driver's vision not impaired	Windscreen wiper is missing or not working, and it is raining. Applies to driver's side wiper or other wiper where drivers vision is not impaired. Applies to other wiper where driver's vision is not impaired	Green 2
II16	Wipers or washers not working but not raining	Windscreen wipers or washers are missing or not working but it is not raining	Green 2
IV06	Sun visor impedes driver's vision or not fitted.	Sun visor is in a position that partially or fully impedes the driver's vision and cannot be rectified immediately by the driver if requested to do so	Green 2

Vision – level 3 (continued)

IW09	W/screen sticker or overlay or mesh reduces driver's vision	Windscreen has a sticker or overlay, mesh or stone guard, which, due to its dark colour, pattern or other reasons, noticeably reduces the driver's vision	Pink
IW10	W/screen sticker or overlay vision not impaired	Windscreen has a sticker or overlay that is more than 100mm wide measured from the side edge, an anti-glare band that is more than 200mm wide measured from the top edge of the windscreen, or a plastic stone guard overlay that is higher than the highest point of the steering wheel. Driver's vision not significantly impaired. Refer to <i>Technical Reference Guide</i>	Green 2
IW11	W/screen damage impairs driver's vision	Windscreen damage or repairs impairs the driver's vision due to the position and size of the defect, in particular damage within the CVA (critical vision area)	Pink
IW12	W/screen damage not impairing driver's vision	Windscreen has a significant damage not more than 500mm long, side to side crack, bullseye or other concentrated damage with a diameter more than 100mm, etc but it does not impair the driver's vision due to the location of the damage	Green 2
IW13	W/screen insecure for >1/3 circumference	Windscreen is insecure either due to major deterioration, loss of its rubber bedding or the bonding material or a major corrosion of the windscreen frame that extends to more than 1/3 of the windscreen circumference	Green
IW14	W/screen insecure for <1/3 circumference	Windscreen is insecure either due to major deterioration or loss of its rubber bedding or the bonding material, or a major corrosion of the windscreen frame that extends to less than 1/3 of the windscreen circumference	Green 2

PSV only vision defects – level 3

EM05	PSV with more than 1 LHS door and no mirror	PSV left-hand side rear view mirror not fitted when passengers are carried on a school bus/city bus with more than one left entrance/exit door (and other vehicles where it is apparent that the vehicle has been operated for an extended period of time with no left rear view mirror)	Pink
EM06	PSV LHS rear vision mirror not usable	PSV left-hand side rear vision mirror is missing or mirror glass is completely broken or otherwise damaged, therefore the driver cannot use it	Pink
IM07	PSV internal rear vision mirror is insecure	PSV internal rear vision mirror that is fitted and is insecure	Green 2

Speedo – level 3

IO05	Speedo missing or damaged	Speedo is missing from the driver's console position or damaged	Green 2
IO06	Speedo needle jammed	Speedo needle is jammed or not able to indicate speed of vehicle	Green 2
IO07	Cable disconnected or damaged	Speedo cable is disconnected or damaged	Green 2
IO08	Speedo does not work – driver admits	Speedo does not work and driver admits that it does not	Green 2
IO09	Speedo cannot be seen from drivers position	Speedo cannot be seen from driver's position	Green 2

Lighting – level 3

LF24	H/lights not working during daylight hours	Headlights are not working during daylight hours	Green 2
LF25	H/light low beams - none at night	Headlight low beams are not working during hours of darkness (both lights)	Pink
LF26	H/light low beam or auxiliary RHS not working	Headlight right-hand side low beam is not working in an 'open road' speed area, and the vehicle does not have an auxiliary head lamp working on the RHS.	Green
LF27	H/light low beam LHS none at night but has fwd side lamps	Headlight left-hand side low beam is not working but both forward facing side lamps are working during hours of darkness	Green
LF28	Auxiliary lamp RHS headlight doesn't dip	Working auxiliary headlamp on the right-hand side, unless the driver can make the headlight dip	Green 2
LI18	Indicator system does not operate	Indicator system does not operate	Pink
LI19	Indicator lights - two or more not working	Indicator system operates, but 2 or more lights are not working	Green
LI20	Indicator light - one not working	One indicator light is not working	Green 2
LM18	Side marker lights not working at night	Side marker lights are not working on either side during hours of darkness	Green

Lighting – level 3(continued)

LO34	T/light RHS out at night	Tail light/s on rear right-hand side of combination or single vehicles not working during the hours of darkness (refer to preamble)	Green
LO35	T/light LHS out at night	Tail light/s on left-hand side not working during the hours of darkness (refer to preamble) on rear of combination or single vehicles	Green 2
LR01	Right-hand reflector missing/ineffective in darkness	Right-hand reflector is missing or ineffective during hours of darkness	Pink
LR02	No required rear reflectors fitted	No required rear reflectors are fitted	Green
LR03	Only 1 required rear reflector fitted	Only one of two required rear reflectors are fitted	Green
LR04	Rear reflector colour other than red	A rear reflector reflects light of a colour other than red	Green 2
LR05	Rear reflector not securely fitted	A rear reflector is not securely fitted	Green 2
LR06	Rear reflector damaged/dirty	A rear reflector is damaged or not clean	Green 2
LR07	Rear reflector is obscured at night	A rear reflector is partially or fully obscured at night	Green

Lighting – level 3(continued)

LR08	Rear reflector obscured during the day	A rear reflector is partially or fully obscured during the day	Green 2
LR09	Rear reflector fitted with a cover affecting its reflection	A rear reflector is partially or fully fitted with a cover that is opaque, tinted, damaged or deteriorated	Green 2
LR10	Reflector RHS ineffective at night – vehicle not visible	Reflector right-hand side is missing or ineffective during hours of darkness and vehicle is not readily visible by other means	Pink
LR11	Reflector RHS ineffective at night – vehicle visible	Reflector right-hand side is missing or ineffective during hours of darkness but vehicle is readily visible by other means	Green 2
LR12	Reflector RHS missing during day	Reflector right-hand side missing during daylight hours	Green 2
LR13	Reflector LHS ineffective at night	Reflector left-hand side missing or ineffective during hours of darkness	Green 2
LS18	B/lights – none working (day or night)	Brake lights on rear of combination or single vehicles are not working day or night (both lights)	Pink
LS19	B/lights on when brakes not applied	Brake lights are on when the brakes not applied	Green
LS20	B/light – one not working or missing	One brake light is not working or missing	Green 2

Fluid leaks – level 3

MF13	Oil leak: vehicle power train – severe	Oil leaks from engine diff or gearbox – danger to other road users	Green
MF14	Oil leak: hydraulic ancillary system – severe	Oil leaks from hoist, crane etc – danger to other road users	Green
MF15	Fluid leaks other	Fluid leaks from any other source that warrant attention but does not pose a danger to other road users	Green 2

Fuel system – level 3

MF10	Fuel dripping	Fuel leaking while vehicle is standing, ie free flow or dripping – dangerous to other road users	Pink
MF11	Fuel tank cap missing	Fuel tank cap is missing or allowing fuel to leak	Green 2
MF12	Fuel seepage from fuel system	Fuel is seeping from fuel system	Green 2

Exhaust system – level 3

ME06	Exhaust system leaks or excessive noise	Exhaust system has active leaks or creates excessive noise	Green
ME07	Exhaust detachment is imminent	Exhaust system or component detachment of is imminent	Pink
ME08	Exhaust loose or shows leaks before muffler	Exhaust is loose or shows signs of leaks on primary side (in front of muffler)	Green 2
ME09	Excessive smoke – safety issue exists	Excessive smoke as determined by 10 second moving test or other means – safety issue exists	Green
ME10	Excessive smoke – no safety issue	Excessive smoke as determined by 10 second moving test or other means. No safety issue exists	Green 2
ME11	Excessive noise	Excessive noise from any part of the vehicle's exhaust system	Green

Steering – level 3

SA02	Drop arm worn - imminent failure	Drop arm indicates excessive movement or unacceptable wear and looseness in steering components outside manufacturer's tolerances where failure is imminent	Pink
SA03	Drop arm loose	Drop arm indicates excessive movement or unacceptable wear and looseness in steering components outside manufacturer's tolerances	Green
SB08	Steering box mount loose	Steering box mount loose	Pink
SC04	Steering linkage loose	Steering linkage indicates excessive movement or unacceptable wear and looseness in steering components outside manufacturer's tolerances	Green
SC05	Steering linkage loose - imminent failure	Steering components indicate excessive movement or unacceptable wear and looseness in steering linkage outside manufacturer's tolerances and failure is imminent	Pink
SP01	Power steering system leak - major	Power steering system has a major leak - must be dripping	Pink
SW03	Steering wheel excessive movement	Steering wheel indicates excessive movement or unacceptable wear and looseness in steering components >30 degrees	Green

Brakes – level 3

BO01	Brakes out of adjustment – 2 or more	Brakes are outside adjustment specified in CoF/manufacture’s standard – two or more	Pink
BO02	Brakes out of adjustment – GSV >2 axles, 2 or more – unladen	Brakes are outside of adjustment specified in CoF/manufacture’s standard but two or more with 50% of brakes still inside adjustment on a GSV unladen	Green
BO03	Mechanical linkage missing	Mechanical linkage missing	Green
BO04	Mechanical linkage incorrect	Mechanical linkage incorrect (clevis pin missing, welded, incorrect angle, cut to incorrect length)	Green
BO05	Mechanical linkage loose	Mechanical linkage loose or excessive movement.	Green 2
BO06	Air line restrictions – affects brake operation	Air line restrictions that affect the operation of a brakes (kinked, bent, squashed, blocked, etc)	Green
BO07	Air line restrictions – brake operating	Air line restrictions that do not affect the operation of a brakes (kinked, flattened, bent)	Green 2
BO08	Air line insecure	Air line/s are insecure with no chafing evident	Green 2
BO09	Air line chafing evident	Air line chaffing evident but not leaking	Green 2

Brakes – level 3 (continued)

BO10	Air leak low air pressure <30 seconds	Air leak with park brake released, service brake applied. Low air pressure alarm activates in less than 30 seconds	Pink
BO11	Air leak low air pressure 30–60 seconds	Air leak with park brake released, service brake applied. Low air pressure alarm activates between 30–60 seconds	Green
BO12	Air leak low air pressure >60 seconds	Air leak with park brake released, service brake applied. Low air pressure alarm activates in greater than 60 seconds	Green 2
BO13	Air leak park brake system	Air leak with park brake system released	Green
BO14	Air leaks any other system	Air leak from any other system	Green 2
BO15	Air tank mounts broken – tanks insecure	Air tank Mounts broken or damaged that cause the tank/s to be insecure	Pink
BO16	Air tank single mount point broken	Air tank with single mounting point broken or damaged tank detachment not imminent (assuming four mounting points)	Green 2
BO17	Brake chamber missing or loose or damaged	Brake chamber missing or loose or damaged (effecting operation), air lines disconnected or blocked off	Pink
BO18	Brake chamber perforated by corrosion	Brake chamber or housing is perforated by corrosion and the assembly is unsound	Pink

Brakes – level 3 (continued)

BO19	Push rod doesn't move – brakes applied	Push rod does not move when park brake is off and service brake is applied	Pink
BO20	Brake equipment loose	Brake equipment, components or mounts loose	Green 2
BO21	Brake roller machine test fail	Mobile roller brake test machine has detected brake performance defects refer to CVIU standard (level 6)	Green
BO22	Brake temperature check	Brake temperature check has detected brake performance defects refer to CVIU standard operating procedures	Green
BO23	Hoses to trailer brakes not connected	Hoses to trailer brakes not fitted or disconnected	Pink
BO24	EBS/ABS system inoperative	EBS or ABS system is found to be inoperable	Green
BO25	Suzie coil hose draw bar, no brake away feature	Suzie coil hose on full trailer draw bar with no means of a activating breakaway feature	Green 2
BO26	Adjustment out – 1 brake PSV laden	PSV is laden and has one brake outside adjustment specified in CoF/ manufacturer's standard	Pink
BO27	Adjustment out – 1 brake PSV unladen	PSV is unladen and has one brake outside adjustment specified in CoF/ manufacturer's standard	Green

Suspension – level 3

UB05	Air bag fully deflated – laden	Air bag fully deflated, with vehicle in laden condition	Pink
UB06	Air bag damaged	Air bag bellows has obvious external damage – protruding, exposed or worn cords	Green 2
UB07	Air bag fully deflated – unladen	Air bag fully deflated, with vehicle in unladen condition	Green
UB08	Lash limiter severely worn or missing	Lash limiter for spring severely worn or missing	Green 2
UL06	Coil spring broken	Coil spring/s broken	Pink
UL07	Leaf spring broken – locates the axle	Leaf spring/s that locates the axle (applies only to main leaf)	Pink
UL08	Leaf spring broken – doesn't locate the axle	Leaf spring/s that does not locate the axle (applies to all supporting leaves)	Green
UL09	Spring slipper box spring not retained	Spring slipper box is worn or broken so that the spring is no longer restrained	Pink
UL10	Spring slipper box cracked	Spring slipper box cracked or damaged	Green

Suspension – level 3 (continued)

UX04	Axle position displaced	Axle position is displaced	Pink
UX05	Axle locating device broken or missing	Axle locating device is broken or missing (radius arm, U-bolt, centre bolt, etc)	Pink
UX06	Axle locating device loose	Axle locating device loose or worn beyond safe tolerance – failure not imminent	Green

Chassis – level 3

CC01	Cross member is broken	Cross member is broken or missing or severely damaged by corrosion	Pink
CC02	Cross member has a visible crack	Cross member has a visible crack	Green 2
CC03	Chassis or cross member fastenings insecure (pink)	Chassis or cross member fastenings are visibly loose or insecure and have signs of movement – rivets, nuts, bolts or any other type of fastening. Unsafe condition	Pink
CC04	Chassis or cross member fastenings insecure (green)	Chassis or cross member fastenings are visibly loose or insecure and have signs of movement – rivets, nuts, bolts or any other type of fastening. Defective condition, new CoF required	Green
CC05	Chassis or cross member fastenings insecure (green 2)	Chassis or cross member fastenings are visibly loose or insecure and have signs of movement – rivets, nuts, bolts or any other type of fastening. Defective condition, new CoF not required	Green 2
CD03	Attachment points broken or missing	Attachment points for subframe or body broken or missing or severely damaged by corrosion	Pink
CD04	Attachment points 1/3 loose – laden	Attachment points of the subframe or body are missing, broken or visibly loose on more than 1/3 of one side – vehicle is laden	Pink
CR03	Chassis rail crack on flange >30mm or web >60mm	Chassis rail has a visible crack either on the flange greater than 30mm or on the web greater than 60mm	Pink

Chassis – level 3 (continued)

CR04	Chassis rail crack to flange and web of rail	Chassis rail has a visible crack that extends at least partially through to both the flange and web of the rail	Pink
CR05	Chassis rail clearly buckled or twisted	Chassis rail is buckled or twisted and it is clearly detectable	Pink
EB01	Sub-frame or body attachment bolts loose – unladen	Sub-frame or body attachment bolts, nuts or other types of fastening are loose but not missing and vehicle is unladen	Green 2
EF07	Fuel tank, battery box, etc dangerously insecure	Fuel tank, battery box, air tanks or any other heavy item is grossly insecure due to missing upper bolts, nuts, or broken/cracked or missing bracket	Pink
EF08	Fuel tank, battery box, etc insecure or loose	Fuel tank, battery box, air tanks or any other heavy item is not properly secured because some of the bolts are loose	Green 2
MD18	Centre bearing insecure, worn or damaged	Drive-shaft centre bearing hanger or rubber insecure, damaged, dislodged or perished	Pink
VC01	Wheelbase or axle change not on loading cert	Wheelbase extended or shortened, axle is added or removed, and details are not recorded on the loading certificate	Green 2

Driveline – level 3

MD17	Drive-shaft flange or universal joint loose	Drive-shaft flange or universal joint are loose, worn or missing a bolt or nut	Pink
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Tyres and wheels – level 3

WT23	Tyre contact with body or frame	Tyre/s show evidence of sustained running contact with body, frame, chassis, suspension, etc also refer to suspension section	Green
WT24	Tyre delaminating - tread area (retread)	Tyre delaminating in tread area of a retread	Pink
WT25	Tread insufficient steering axle of front vehicle	Tread depth insufficient on steering axle (if in combination only the steering axle of the first vehicle)	Pink
WT26	Tread insufficient single tyred axles	Tread depth insufficient on all single tyred axles except steering axle on a truck	Green
WT27	Tread in dual set 1 tyre below minimum	Tread depth insufficient on one tyre of a dual (twin tyred) set	Green 2
WT28	Tread in dual set 2 tyres below minimum	Tread depth insufficient on both tyres in dual (twin tyred) set (wear below legal minimum)	Pink
WT29	Cord damage steering axle	Cord/s are damaged on a steering axle tyre	Pink
WT30	Cord damage non steering axle	Cord/s are damaged on a non steering axle tyre	Green
WT31	Cord damage non steering axle	Cord/s are damaged on a non steering axle tyre and cords are showing in the 'tread block' area	Green 2

Tyres and wheels – level 3 (continued)

WT32	Tyre profile mismatched – vehicle laden	Tyre profiles are mismatched with the vehicle laden	Green
WT33	Tyre profile mismatched – vehicle unladen	Tyre profiles are mismatched with the vehicle unladen (one tyre not in contact with road surface)	Green 2
WT34	Side wall bulge	Sidewall has a bulge protruding greater than 2mm high	Pink
WT35	Side wall unzipping	Side wall unzipping/split and cords damaged	Pink
WT36	Wheel centre or rim cracking	Wheel centre or rim cracking on any wheels	Pink
WT37	Wheel stud holes elongated	Wheel stud holes elongated on any wheel	Pink
WT38	Wheel studs/nuts missing, vehicle laden	Wheel studs/nuts missing on the same wheel (2 or more) and vehicle is laden. (Wheel detachment is imminent)	Pink
WT39	Wheel studs/nuts missing, vehicle unladen	Wheel studs/nuts missing on the same wheel (2 or more) and vehicle is unladen	Green
WT40	Studs/nuts 1 missing, vehicle laden	Wheel stud/nut one only missing with vehicle laden	Green

Tyres and wheels – level 3 (continued)

WT41	Studs/nuts 1 missing, vehicle unladen	Wheel stud/nut one only missing with vehicle unladen if the hub has more than 6 studs	Green 2
WT42	Studs/nuts 1 missing on spider hubs	Wheel stud/nut one only missing on 5/6 bolt/stud spider hubs	Green
WT43	Spare wheel carrier insecure	Spare wheel carrier and or wheel insecure and detachment imminent	Pink
WT44	Tread in dual set 1 tyre below minimum	Tyre tread depth insufficient on one tyre of a dual set and vehicle is a PSV	Green

Mudguards – level 3

WG05	Mudguard/mudflap assembly detaching - dangerous	Mudguard or mudflap assembly has become a dangerous fitting if detaching and cannot be mitigated at roadside	Pink
WG06	Mudguard/mudflap assembly detaching. Road side fix	Mudguard or mudflap assembly detaching and may become dangerous but danger can be mitigated at road side	Green 2
WG07	Mudguard/mudflap missing from last axle combination	Mudguard or mudflap is missing from last axle in a combination	Green 2

Ball-race turntables – level 3

BC24	Ball-race turntable cracked	Ball-race turntable cracked and in use	Green
BC25	Ball-race turntable missing 1 bolt	Ball-race turntable missing one bolt but others are tight	Green
BC26	Ball-race turntable missing more than 1 bolt	Ball-race turntable missing more than one bolt	Pink
BC27	Turtable fasteners loose (other)	Turtable has any loose fasteners not in other categories	Green 2
BC28	Turtable mount bolt holes cracked	Turtable mounting bolt holes cracked	Green
BC29	Turtable contact between top and bottom plates	Turtable shows evidence of contact between top and bottom mounting bolts or plates	Green
BC30	Turtable bolts loose – up to 2 loose in a quadrant	Ball-race turntable bolts loose – 2 or less in a quadrant	Green
BC31	Turtable bolts loose – up to 25% (max 3)	Ball-race turntable bolts loose – lesser of 25% or a maximum of 3	Green
BC32	Turtable bolts loose – more than 25% or 3	Ball race turntable bolts loose – more than 3 or more than 2 in a quadrant, or more than 25%	Pink

Ball-race turntables – level 3 (continued)

BC33	Turntable ring cracking around circumference	Turntables ring any cracking around circumference	Pink
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Tow couplings and 5th wheel – level 3

TB03	Bottom bush more than 4mm wear	Tow coupling bottom bush more than 4mm wear or other wear outside manufacturer's specifications	Green 2
TB04	Go/no-go gauge fits thru tow-eye bush thrust faces	Go/no-go gauge passes through tow-eye bush thrust faces	Green
TB05	Tow eye bolt loose in tow eye	Tow eye bolt loose in tow eye	Pink
TB06	Tow eye bent	Tow eye bent	Pink
TB07	Tow eye bush missing	Tow eye bush missing	Pink
TB08	Hinge pin bushings worn	Draw bar hinge pin bushings excessively worn	Green
TC03	Tow coupling cracks	Tow coupling any cracks in draw bar, draw beam, or coupling	Pink
TC04	Tow couplings mismatched	Tow couplings mismatched (40mm vs 50mm)	Pink
TC05	Base plate wear pad worn more than 4mm	Draw bar base plate wear pad worn more than 4mm	Green 2

Tow couplings and 5th wheel – level 3 (continued)

TC06	Drop bolt pin blockage prevents secondary system locking	Foreign material in bottom recess for drop bolt pin preventing secondary system locking	Pink
TC07	Go/no-go gauge fits over drop bolt raised section	Go/no-go gauge fits over drop bolt pin raised section	Green
TC08	Tow coupling nut loose or split pin missing	Tow coupling retainer nut loose or split pin missing	Pink
TC09	Cert. plates missing or illegible	Draw beam or draw bar certificate plates missing or illegible	Green 2
TC10	Ground contact prevention device missing	Draw bar ground contact prevention device missing	Green 2
TC11	Hinge pin bolt/nut missing or loose	Draw bar hinge pin bolt/nut missing or loose	Pink
TC12	Mounting bolts loose – more than one per side	Mounting bolt loose more than one per side (includes 5th wheel, drawbar, and drawbeam side plates)	Pink
TC13	Mounting bolt loose – one per side	Mounting bolt loose one per side (includes 5th wheel, drawbar, and drawbeam side plates)	Green
TF07	5th wheel locking mechanism – primary	5th wheel primary locking mechanism/latch not engaged. Damaged pink, corrected at roadside qualify pink	Pink

Tow couplings and 5th wheel – level 3 (continued)

TF08	5th wheel locking mechanism - secondary	5th wheel secondary locking mechanism/latch not engaged. Damaged pink, corrected at roadside qualify pink	Pink
TF09	5th wheel Mounting bolts or fasteners missing	5th wheel has any missing mounting bolts or fasteners	Pink
TF10	Coupling high	Coupling high on 5th wheel	Pink
TF11	5th wheel no 'stop' to prevent disconnection	5th wheel does not have a 'stop' fitted to prevent accidental disconnection (adjustable sliding type)	Green
TR08	Draw bar deformed	Draw bar deformed, dented, bent, crushed or damaged	Pink
TR09	Retractable draw bar locking pin and end stop missing	Retractable draw bar locking pin missing from pole drop pin and end stop missing	Pink
TR10	Retractable draw bar end stop missing	Retractable draw bar end stop missing but locking pin fitted to pole drop pin	Green
TR11	Retractable draw bar locking pin missing	Retractable draw bar locking pin missing from pole drop pin and end stop in place	Green

Load anchorages – level 3

EL15	Anchorage in use not certified to NZS5444	Anchorage in use and not certified to NZS5444	Green
EL16	Anchorage in use not specified on LA tag	Anchorage not specified on load anchorage tag and in use	Green
EL17	Anchor points insecure - in use, no alternate points	Anchorage points damaged or insecure and being used. Alternative points are not available	Pink
EL18	Anchor points damaged - in use, alternates available	Anchorage points damaged and being used. Alternative points are available	Green
EL19	Anchor point/s damaged - not in use	Anchorage point/s damaged and not in use	Green 2
EL20	Bolster locking pins - all missing or out of shape	Bolster assembly locking pins are missing, damaged, bent or deformed (all pins)	Pink
EL21	Bolster locking pin - one missing or out of shape	Bolster assembly locking pin is missing, damaged bent or deformed one only (note: depending on degree of fault this could be a green 2 to pink sticker fault)	Green
EL22	ID tag showing Incorrect number of points	ID tag has the incorrect number of points showing on it	Green
EL23	ID tags unreadable - unladen	ID tags are unreadable or unclear and vehicle is unladen	Green 2

Load anchorages – level 3 (continued)

EL24	Repairs uncertified alternates available - laden	Repairs have been made that are uncertified but alternative points are available and vehicle is laden	Green
EL25	Repairs uncertified - unladen	Repairs have been made that are uncertified and vehicle is unladen	Green 2
EL26	Rope rails damaged	Rope rails are damaged, detached at any point or cracked	Green 2

Equipment locking devices – level 3

OL01	Alarm is not fitted	Locking device alarm is not fitted	Green
OL02	Alarm does not operate	Locking device alarm is fitted but does not operate	Green
OL03	Swivel crane locking device not compliant class NB and NC	Swivel crane locking device is not readily seen, does not have an alarm fitted, or is not locking when the landing leg is not in a fully retracted position (NB and NC vehicles)	Green 2
OL04	Locking device not fitted	Locking device is not fitted	Green
OL05	Locking device ineffective on outrigger, etc	Locking device on a sliding axle set or sliding chassis, or an outrigger fitted to a vehicle is not effective on visual inspection	Green 2
OL06	Locking device risk to other road users	Equipment locking device/s pose a significant risk to other road users (specify the risk in notes)	Pink
UD01	Sliding axle end stops never fitted	Sliding axle set has never had end-stops fitted	Green
UD02	Sliding axle end stops damaged	Sliding axle set has damaged end-stops	Green

Technical references

The following reference material has been inserted to help clarify references made in the defects guide. The material can come from a variety of sources eg Land Transport Rules, Ministry of Transport regulations, technical publications, NZ Police GIs, and is designed to be updated from time to time.

Tyre speed ratings

Extracts from Land Transport Rule 32013

- 2.2(3) The speed category of a tyre fitted to a motor vehicle must be compatible with the maximum legal speed limit for the vehicle.
- 2.2(4) The complete assembly of tyre, wheel, hub, and axle on a towed vehicle must be compatible with the loading of that vehicle and the maximum legal speed limit for the towing vehicle.

The following table shows the designation that indicates the speed rating of a tyre. The symbols are part of the sidewall marking system of the tyre eg 340/75 x 22 S (S indicates a speed rating of maximum 180km/h).

A1	5km/h
A2	10km/h
A3	15km/h
A4	20km/h
A5	25km/h
A6	30km/h
A7	35km/h
A8	40km/h
B	50km/h
C	60km/h
D	65km/h
E	70km/h
F	80km/h
G	90km/h

J	100km/h
K	110km/h
L	120km/h
M	130km/h
N	140km/h
P	150km/h
Q	160km/h
R	170km/h
S	180km/h
T	190km/h
U	200km/h
H	210km/h
V	240km/h
W	270km/h
Y	300km/h

Tyre load ratings

Extracts from Land Transport Rule 32013

- 2.3(10) The sum of the load ratings of the tyres fitted to an axle of a motor vehicle must be equal to, or greater than, the maximum load that is specified on the certificate of loading for that vehicle, taking into account the speed at which the vehicle is being used.
- 2.3(12) The laden weight on any axle of a motor vehicle must not exceed the sum of loads that are allowed for the tyres fitted to the axle, taking into account the speed at which the vehicle is being used and the pressure to which the tyres are inflated.

The following table shows the load index codes for tyres up to 210km/h. The numerical codes are part of the sidewall marking system of the tyre, eg 180 = a maximum load of 8000kg.

Li	kg	Li	kg	Li	kg	Li	kg	Li	kg	Li	kg	Li	kg
0	45	20	80	40	140	60	250	80	450	100	800	120	1400
1	46.2	21	82.5	41	145	61	257	81	462	101	825	121	1450
2	47.5	22	85	42	150	62	265	82	475	102	850	122	1500
3	48.7	23	87.5	43	155	63	272	83	487	103	875	123	1550
4	50	24	90	44	160	64	280	84	500	104	900	124	1600
5	51.5	25	92.5	45	165	65	290	85	515	105	925	125	1650
6	53	26	95	46	170	66	300	86	530	106	950	126	1700
7	54.5	27	97.5	47	175	67	307	87	545	107	975	127	1750
8	56	28	100	48	180	68	315	88	560	108	1000	128	1800
9	58	29	103	49	185	69	325	89	580	109	1030	129	1850
10	60	30	106	50	190	70	335	90	600	110	1060	130	1900
11	61.5	31	109	51	195	71	345	91	615	111	1090	131	1950
12	63	32	112	52	200	72	355	92	630	112	1120	132	2000
13	65	33	115	53	206	73	365	93	650	113	1150	133	2060
14	67	34	118	54	212	74	375	94	670	114	1180	134	2120
15	69	35	121	55	218	75	387	95	690	115	1215	135	2180
16	71	36	125	56	224	76	400	96	710	116	1250	136	2240
17	73	37	128	57	230	77	412	97	730	117	1285	137	2300
18	75	38	132	58	238	78	425	98	750	118	1320	138	2360
19	77.5	39	136	59	243	79	437	99	775	119	1360	139	2430

Li	kg	Li	kg	Li	kg	Li	kg	Li	kg	Li	kg	Li	kg
140	2500	160	4500	180	8000	200	14000	220	25000	240	45000	260	80000
141	2575	161	4625	181	8250	201	14500	221	25750	241	46200	261	82500
142	2650	162	4750	182	8500	202	15000	222	26500	242	47000	262	85000
143	2725	163	4875	183	8750	203	15500	223	27250	243	48750	263	87500
144	2800	164	5000	184	9000	204	16000	224	28000	244	50000	264	90000
145	2900	165	5150	185	9250	205	16500	225	29000	245	51500	265	92500
146	3000	166	5300	186	9500	206	17000	226	30000	246	53000	266	95000
147	3075	167	5450	187	9750	207	17500	227	30750	247	54500	267	97500
148	3150	168	5600	188	10000	208	18000	228	31500	248	56000	268	100000
149	3250	169	5800	189	10300	209	18500	229	32500	249	58000	269	103000
150	3350	170	6000	190	10600	210	19000	230	33500	250	60000	270	106000
151	3450	171	6150	191	10900	211	19500	231	34500	251	61500	271	109000
152	3550	172	6300	192	11200	212	20000	232	35000	252	63000	272	112000
153	3650	173	6500	193	11500	213	20600	233	36500	253	65000	273	115000
154	3750	174	6700	194	11800	214	21200	234	37500	254	67000	274	118000
155	3875	175	6900	195	12150	215	21800	235	38750	255	69000	275	121000
156	4000	176	7100	196	12500	216	22400	236	40000	256	71000	276	125000
157	4125	177	7300	197	12850	217	23000	237	41250	257	73000	277	128000
158	4250	178	7500	198	13200	218	23600	238	42500	258	75000	278	132000
159	4375	179	7750	199	13600	219	24300	239	43750	259	77500	279	136000

Tyre tread pattern and depth

Extracts from Land Transport Rule 32013

- 2.3(1) Tyres on the same axle must be of the same size designation and construction, and of the same tread pattern type, unless 2.3(2) or 2.6(2) applies.
- 2.3(4) A tyre must be of good quality and construction, fit for its purpose and maintained in a safe condition.
- 2.3(5) A tyre must not have worn, damaged or visible cords apparent by external examination. Tread pattern and tread depth.
- 2.3(13) Except as otherwise provided in this clause, a tyre on a motor vehicle must have a tread pattern, excluding any tie-bar or tread-depth indicator strip, of not less than 1.5mm in depth across at least three-quarters of the width of the tread and around the entire circumference of the tyre.
- 2.3(17) A motor vehicle of class NA, NB, NC, TC or TD that is fitted with twin tyres must comply with the tread pattern and tread-depth requirements in 2.3(13).

Tyre inflation requirements

Extracts from Land Transport Rule 32013

- 2.4(1) Except if 2.4(3) applies, a tyre fitted to a vehicle must be maintained at a safe inflation pressure that:
- (a) takes into account the recommendation of the manufacturer of the tyre or vehicle, the speed at which the vehicle is being used, and any loading, and
 - (b) if fitted to a heavy motor vehicle, is not greater than the maximum cold inflation pressure for heavy motor vehicle tyres in 2.4(2).
- 2.4(2) The maximum cold inflation pressure for a heavy motor vehicle tyre is:
- (a) for a cross-ply tyre, 700kPa (100PSI)
 - (b) for a radial-ply tyre, 825kPa (120PSI)

FAQs on tyres

Q Can an 11.1R20 run on the same axle or as a pair with a 10.00R20?

A Yes, an 11.1R20 can run with a 10.00R20. They are both of the same construction and size.

Q Can an 11/70R22.5 run with a 275/70R22.5?

A Yes, they are both the same construction and size. 11 represents 11 inches which is the same as 275mm.

Q Can a rib lug tread run with a highway tread?



Rib lug pattern



Highway pattern

A Yes, provided they are both the same size, as they are both rib/block tread pattern types.

Q Can those types of tread run on the steer axles?

A Yes, there is no rule preventing any kind of tyre from being fitted to any axle, provided the tyres on that axle match. It is best practice that lug tyres are not fitted to steering axles.



Fig 1



Fig 2



Fig 3



Fig 4

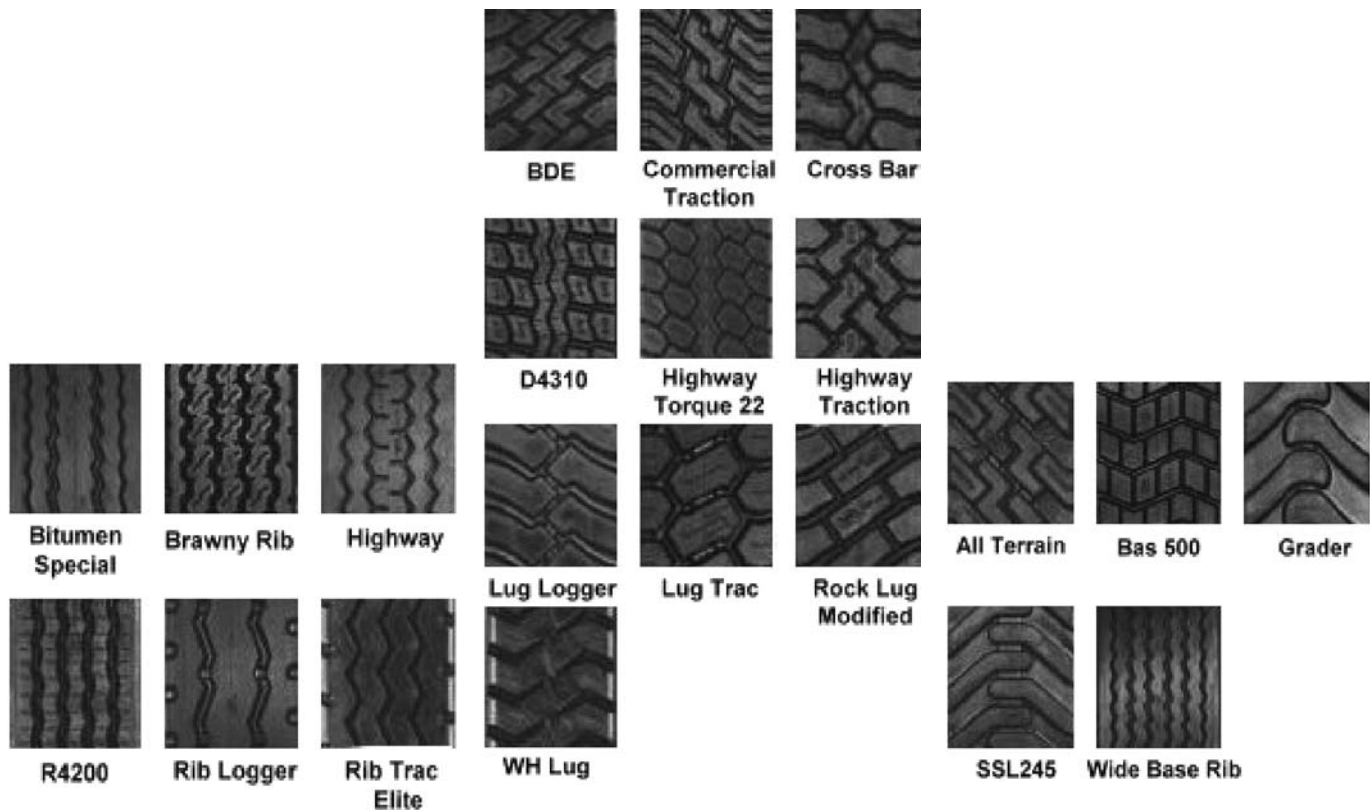
There are many other tread pattern designs - the following pages have some examples from the retread range of Bandag products and the new tyre commercial range from Bridgestone. These are only a small number of designs in service but it gives an idea of what they look like.

Q Can a pink sticker be issued for a bulge in the side wall of a tyre?

A Yes, a bulge in the side wall indicates damage to the structure of the tyre.

Q Can a vehicle be ordered off the road for different tread depth on duals?

A No, providing they both have more than 1.5mm of tread across 3/4 of the width.



Highway Rib

Highway Traction

Specialty\Wide Base

BRIDGESTONE TBR



R200

R SERIES (RIB)
Designed for steer and trailer applications giving excellent handling and resistance to irregular wear.



R184



R297



R296



R192



R225

BRIDGESTONE TBR



M857

M SERIES (MIX)
Designed as all position tyres offering a superb balance of on/off road traction and resistance to cut/chip damage.



M840



M748



M729



M716



M711

BRIDGESTONE

TBR

G SERIES (RIB-LUG)

Designed as all position tyres for mid speed operations



G611



G530



L301



L317



L355

L SERIES (LUG)

Premium traction tyres offering maximum off road grip and resistance to cut/chip damage.

Suggested amendment to the NZ Police - NZ Transport Agency inspection guide

To: Senior Sergeant (CVIU: Standards and Training),

Police National Headquarters,

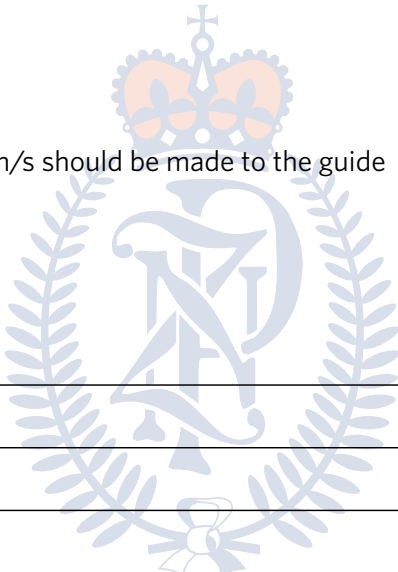
PO Box 3017, Wellington 6140

Fax: (04) 498 7404

I suggest the following change/s or addition/s should be made to the guide

Page no: _____

Suggested amendment:



Attach copies of the guide pages if necessary

Name: _____ QID: _____

