BMA Light Vehicle Compliance Requirements.

As per 030 BMA STD - Vehicles and Mobile Equipment (July 2012), all new, owned or leased light vehicles (excluding light vehicles dedicated and modified for underground use) must have a 5 Star Australasian New Car Assessment Programme (ANCAP) safety rating.

Aftermarket equipment must not be installed to 5 Star ANCAP vehicles (other than special purpose light vehicles such as Hi-Rails and Ambulances) except where necessary to meet the requirements of GLD 010 Appendix 2 for visibility and communications equipment or for load carrying and restraint (e.g. ute trays).

In order to facilitate the transition to these requirements all light vehicles will be required to be 5 Star ANCAP safety rated by 01 January 2016.

Through until 01/01/2016, BMA Equipment Compliance Inspectors will assess light vehicles under one of 2 permissible categories:

- 5 Star ANCAP, or
- Non 5 Star ANCAP

From 01/01/2016, all light vehicles must comply with the 5 star category only.
BMA 5 Star ANCAP Criteria

To be 5 star ANCAP compliant, a light vehicle will require a 5 star ANCAP rating which can be checked at www.ancap.com.au and must also have the following:

- Vehicle colour - white
- ID Signage
- Reflective stripes along length of vehicle
- High Vis flag
- Two-way radio
- Reverse alarm
- Flashing / rotating light
- Elevated tail lights
- Emergency procedures
- Dynamic Brake Test
- Vehicle must be in roadworthy condition
  - Windscreen, windows & mirrors
  - Number plate & rego label
  - Tyres and wheels
  - Spare wheel and tools
  - Lights & indicators
  - Horn
  - Functional brake test
  - Exhaust
  - Pre start inspection
  - General condition & Housekeeping

In this category, non OEM (original equipment manufacturer) approved aftermarket accessories and or modifications which have the potential to affect the vehicles passive and or active safety features and systems will NOT be permitted

This is inclusive of items such as (but not limited to):

- ROPS
- Non OEM compliant bullbars
- Suspension kits/upgrades
- Non-OEM wheels. (Tyres are not considered as a modification but must be correctly rated for the vehicle)
BMA NON 5 Star ANCAP Criteria – (till 01/01/2016)

Vehicle assessed under the Non 5 star ANCAP category will require the items from above:

- Vehicle colour - white
- ID Signage
- Reflective stripes along length of vehicle
- High Vis flag
- Two-way radio
- Reverse alarm
- Flashing / rotating light
- Elevated tail lights
- Emergency procedures
- Dynamic Brake Test
- Vehicle must be in roadworthy condition
  - Windscreen, windows & mirrors
  - Number plate & rego label
  - Tyres and wheels
  - Spare wheel and tools
  - Lights & indicators
  - Horn
  - Functional brake test
  - Exhaust
  - Pre start inspection
  - General condition & Housekeeping

As well as the following:

- ROPS
- Driver’s side air bag
- 3 point seat belts

NOTE: Modified 5 star ANCAP vehicles will be considered as NON 5 star. This includes non-approved modifications or aftermarket accessories.
<table>
<thead>
<tr>
<th></th>
<th>Outgoing</th>
<th>Transition (until 01/01/2016)</th>
<th>New Requirements (Effective 01/08/2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANCAP</strong></td>
<td>Non mandatory</td>
<td>Non-5 star permitted till 1/1/16</td>
<td>5 star ANCAP only</td>
</tr>
<tr>
<td><strong>Airbag</strong></td>
<td>Mandatory - Drivers side</td>
<td>Mandatory – Drivers side</td>
<td>Incorporated in 5 star ANCAP</td>
</tr>
<tr>
<td><strong>ABS</strong></td>
<td>Non mandatory</td>
<td>Non mandatory</td>
<td>Incorporated in 5 star ANCAP</td>
</tr>
<tr>
<td><strong>ESC</strong></td>
<td>Non mandatory</td>
<td>Non mandatory</td>
<td>Incorporated in 5 star ANCAP</td>
</tr>
<tr>
<td><strong>Seat belts – 3 point inertia</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Incorporated in 5 star ANCAP</td>
</tr>
<tr>
<td><strong>Head protecting technology (HPT)</strong></td>
<td>Not mandatory</td>
<td>Non mandatory</td>
<td>Incorporated in 5 star ANCAP</td>
</tr>
<tr>
<td><strong>ROPS</strong></td>
<td>Mandatory (4WD, AWD &amp; 8+ seats)</td>
<td>Mandatory</td>
<td>Not Permitted</td>
</tr>
<tr>
<td><strong>Bull bar</strong></td>
<td>Optional</td>
<td>Non mandatory</td>
<td>Permitted only if specifically approved by the OEM not to reduce the effectiveness of OEM safety systems or 5 Star ANCAP</td>
</tr>
<tr>
<td><strong>Reverse alarm</strong></td>
<td>Mandatory</td>
<td>Mandatory (Wired into Flashing/rotating light preferred-not essential)</td>
<td>Mandatory (Wired into Flashing/rotating light preferred-not essential)</td>
</tr>
<tr>
<td><strong>Starter motor isolator</strong></td>
<td>Mandatory</td>
<td>Non mandatory</td>
<td>Not permitted</td>
</tr>
<tr>
<td><strong>Jump Start receptacle</strong></td>
<td>Mandatory</td>
<td>Non mandatory</td>
<td>Not permitted</td>
</tr>
<tr>
<td><strong>High vis colour - White</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Reflective stripes</strong></td>
<td>Mandatory (2m minimum)</td>
<td>Mandatory (2m minimum)</td>
<td>Mandatory (length of vehicle)</td>
</tr>
<tr>
<td><strong>Flag</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Positive identification</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Flashing/rotating light</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Elevated tail lights</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>2 way radio</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Pre Start inspection</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Emergency procedures</strong></td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Cargo / load restraint barrier</strong></td>
<td>Mandatory</td>
<td>Mandatory in Wagons</td>
<td>Mandatory in Wagons</td>
</tr>
<tr>
<td><strong>Wheel nut indicators</strong></td>
<td>Mandatory</td>
<td>Non mandatory</td>
<td>Non mandatory</td>
</tr>
<tr>
<td><strong>Fire extinguisher</strong></td>
<td>Mandatory</td>
<td>Non mandatory</td>
<td>Non mandatory</td>
</tr>
<tr>
<td><strong>Wheel chocks</strong></td>
<td>Mandatory</td>
<td>Non mandatory</td>
<td>Non mandatory</td>
</tr>
<tr>
<td><strong>Traffic control equipment</strong></td>
<td>Mandatory</td>
<td>Non mandatory</td>
<td>Non mandatory</td>
</tr>
<tr>
<td><strong>1st Aid kit</strong></td>
<td>Mandatory</td>
<td>Non mandatory</td>
<td>Non mandatory</td>
</tr>
</tbody>
</table>
# BMA Equipment Compliance

**Table: Equipment Details**

<table>
<thead>
<tr>
<th>Equipment owner or responsible Person</th>
<th>Equipment Type/Make/Model/Shape</th>
<th>Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company/ Department (that owns or is responsible for the equipment)</th>
<th>Call sign / Equipment ID.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tow capacity</th>
<th>Meter Reading</th>
<th>First inspection</th>
<th>Annual / Re - inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inspected by (print)</th>
<th>Inspection Company</th>
<th>Declaration Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes [ ] No [ ]</td>
</tr>
</tbody>
</table>

**Section A: Mandatory Vehicle Requirements - All Vehicles**

- **Vehicle colour**: white
- **ID Signage**: Pass [ ] Fail [ ]
- **Reflective stripes**: Pass [ ] Fail [ ]
- **High Vis flag**: Pass [ ] Fail [ ]
- **Two-way radio**: Pass [ ] Fail [ ]
- **Reverse alarm**: Pass [ ] Fail [ ]
- **Flashing/rotating light**: Pass [ ] Fail [ ]
- **Elevated tail lights**: Pass [ ] Fail [ ]
- **Emergency procedures**: Pass [ ] Fail [ ]
- **Dynamic brake light**: Pass [ ] Fail [ ]

**Section B: Roadworthy condition - All vehicles**

- **Windscreen, windows & mirrors**: Pass [ ] Fail [ ]
- **Number plate & rego label**: Pass [ ] Fail [ ]
- **Tyres and wheels**: Pass [ ] Fail [ ]
- **Spare wheel and tools**: Pass [ ] Fail [ ]
- **Lights & indicators**: Pass [ ] Fail [ ]
- **Horn**: Pass [ ] Fail [ ]
- **Functional brake check**: Pass [ ] Fail [ ]
- **Exhaust**: Pass [ ] Fail [ ]
- **Pre start inspection**: Pass [ ] Fail [ ]
- **General condition & housekeeping**: Pass [ ] Fail [ ]

**Section C**

- **Is the vehicle 5 Star ANCAP?**
  - Yes [ ]
  - Go to section D
  - No [ ]
  - Go to section E

**Section D: Modifications**

- Are there non-approved modifications to the vehicle? Yes [ ]
- No (Pass) [ ]
- Go to section E [ ]

**Section E: Non 5 Star ANCAP**

(In addition to Section A & B, these items are also required for non-5 Star ANCAP vehicles)

- **ROPS**: Pass [ ] Fail [ ]
- **Drivers side airbag**: Pass [ ] Fail [ ]
- **Seat belts**: Pass [ ] Fail [ ]

**Section F: Approval**

This vehicle complies with the BMA Equipment Compliance Requirements

- Pass [ ]
- Fail [ ]

**Comments**


**Signature (Authorised Inspector)**


**Date**

Identify that this report is a true record of the equipment's compliance with the inspection standards, based on the Equipment Compliance Annual Inspection Guidelines, at the time of the inspection.
High Visibility Colour

To enter sites the colour of the vehicle has to be bright and light.

White is the only approved high visibility colour for light vehicles on BMA sites.

(Any colour white you like.....).

Note for Inspectors:

The intent of this requirement is to improve the visibility of the vehicle, therefore, the predominant colour of the vehicle is to be white.

This vehicle does not comply
Positive ID Signage

All vehicles and mobile equipment must be clearly marked with an identification number used for radio call sign purposes.

All vehicles and mobile equipment should use a unique site and BMA specific numbering system to prevent duplication of two-way radio call-signs, as shown in Table 1. Specific vehicle call-signs should also be standardised across all sites.

<table>
<thead>
<tr>
<th>Area of use</th>
<th>Call-sign format</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>External contractors *1</td>
<td>AAA NNN</td>
<td></td>
</tr>
<tr>
<td>Rescue</td>
<td>RESCUE NN</td>
<td></td>
</tr>
<tr>
<td>Ambulance</td>
<td>AMBULANCE</td>
<td></td>
</tr>
<tr>
<td>OCE</td>
<td>OCE *1</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Call-sign Identification

Identification on vehicles and mobile equipment must be clearly visible at all times and as a minimum be fitted on both sides of the vehicle or mobile equipment. The identification must include:

1. Letters and numbers in the format detailed in Table 1.
2. Reflective yellow coloured letters and numbers on a black background, to the size requirements of Table 2.
3. A type face of Helvetica Narrow Bold, with standard spacing (no compression) and a letter down stroke of 34.5mm thick at 200mm high lettering (proportional for other sizes).
4. Space between letters and numerals, m space.

Note for Inspectors:

BMA site vehicles will have their own identification / call sign sequence which is generally 2 number / 2 number, although there may be a number of variations.

The intent is that there shall be no two pieces of equipment on a site with the same radio call sign. As contract equipment generally access multiple sites, the 3 alpha/3 numeric format must be adhered to and they must confirm with the data centre that the call sign is unique.

Data Centre contact details:
Ph (07)33298991
Email: equipmentcompliance@bhpbilliton.com
Call-sign markings must conform to the **minimum** requirements detailed in Table 2

<table>
<thead>
<tr>
<th>Use</th>
<th>a (letters)</th>
<th>b (width)</th>
<th>c (height)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light, medium and heavy vehicles (road registerable)</td>
<td>200mm</td>
<td>Variable (no compression)</td>
<td>280mm</td>
</tr>
<tr>
<td>Small and medium mobile equipment</td>
<td>290mm</td>
<td></td>
<td>370mm</td>
</tr>
<tr>
<td>Large mobile equipment (such as rear dump, large excavator)</td>
<td>400mm</td>
<td></td>
<td>500mm</td>
</tr>
</tbody>
</table>

**Table 2 Call-sign identification sign minimum size requirements**

**Figure 1 Lettering type face details**

Additional notes:
Avoid leading zero’s Eg. ABC 012. (the zero is pointless and confusing)
Maintain a gap or hyphen between the alpha and numeric
GHI123 (fail),
GHI 123 (pass),
GHI-123 (pass)

**Ancillary Equipment:**
Items of ancillary equipment that do not have an operator, such as welders, pumps etc can use a department number, registration number, asset ID or serial number that is placed in an easily identifiable location. These should still be yellow on black where possible, and size should be appropriate for the size of the item of plant. Expected size is around 100mm high. The number identification system ensures BMA can verify that maintenance is up to date. ID signs can be magnetic, but cannot be moved from one vehicle to another, it must be unique to each vehicle.
Reflective Yellow Tape

50mm high reflective stripes along the length and on both sides of the vehicle.

This should be placed on the vehicle in a location where it will remain visible during most conditions that would be experienced on site. BMA considers class one yellow diamond grade reflective tape to be leading practice and will accept this type of tape as well as the current style reflective yellow striping, as long as the minimum size and location requirements are met. Reflective stripes can be magnetic so they can be removed when not on site but must be correctly affixed to the vehicle whilst on site. (Magnetic stripes should be discouraged where possible in lieu of permanently fixed stripes as lost or missing stripes may necessitate removal of the vehicle from site.)

Explanatory note:

The intent is to improve the visibility of smaller equipment so they can be seen by the operators of larger equipment with inherently poor visibility.

The reflective stripes are not required to be continuous, however, should extend along at least 90% of the length of the vehicle as a guide. Reflective stripes along the tray of a utility and not on the body or cabin of the vehicle clearly does not comply with this intent.

Reflective tape is not required on either the front or rear of a vehicle.
High Visibility Flag

Light vehicles are required to have a high visibility flag that can be fitted prior to entering the mine site. The entire flag must be within 3.4m and 4.2m from the ground, in good condition and be fitted with reflective material.

Drivers are reminded of the following points:
- That flags are to be removed and stored securely when leaving the mine sites.
- Flags are to be replaced if dirty or the reflective material is no longer reflective.
Two Way Radio

All vehicles entering the active site area must have a site compatible two-way radio capable of voting, permanently mounted in the operator cabin; (excludes remote controlled mobile equipment).

Permanently mounted radios avoid issues such as flat batteries and weak signal.

Access to the site’s authorisation can be gained from the Electrical Engineering Manager at each site. Alternatively, the Principal Electrical Engineer in the Central Maintenance Group can provide authorisation for most BMA sites in one letter. The letter of authorisation will permit either Nixon Communications or RCS to program the two way radio on behalf of BMA. Nixon’s and RCS are the only approved BMA radio programmers.

There are restrictions on what brands of two way radios are approved for use on site, please confirm with the Electrical Engineering Manager of the site you are working at prior to purchase.

The only current exemption to the requirement for permanently fitted radios is for hire vehicles. In this situation hand held radios may be used on site for short durations and these must be obtained through the BMA contact on the site you are working at. A risk assessment must be filled out if you intend to use a hand held two way radio on site in place of a permanent one. This risk assessment must address issues such as the battery not lasting the full shift, location of radio when in vehicle as it only has a small wattage output etc.
Reversing / Travel Alarm

Reversing alarms are to be working and audible.

They must be engaged when on site. The preferred (not mandatory) option is to wire them into the rotating / flashing light configuration, which also must be turned on as entering site.

This means of configuration minimises the chances of the switch being left on in local communities, therefore creating unwanted noise at different hours during the day or night.
Flashing / Rotating Light

To enter a mine site, light vehicles must be fitted with a flashing / rotating amber light that must be used at all times other than when parked. The flashing light must be visible from 360 degrees around the vehicle.

For vehicles accessing public roads, a letter of Authorisation is required as per QLD Government Guideline for the installation of auxiliary revolving or flashing warning lamps – see excerpt below. This letter can be authorised by the manager of the vehicles operator and must be carried in each vehicle whilst on public roads.

It is the driver’s responsibility to ensure the flashing / rotating light is turned off when leaving the mine site.

Excerpt:

**QLD Government - Guideline for the installation of auxiliary revolving or flashing warning lamps to motor vehicles in Queensland**

**Form Number 22**

**Version 3**

**October 2010**

- 4.1 A vehicle fitted with a flashing warning lamp operating on public roads must be issued with a letter of authority, endorsed by the worksite manager, specifying the company name, work site location, vehicle registration number and a statement indicating that the vehicle is currently operating on a particular site up until a specified end date.
- 4.2 The letter of authority must be kept in each vehicle at all times when travelling on public road and must be produced on request by law enforcement officers.
- 4.3 A flashing warning lamp must not be operating when the vehicle is travelling on a public road.
- 4.4 A flashing warning lamp must not be blue, red, magenta or green in colour.
- 4.5 All vehicles not directly involved in the operations of the work, construction or mine site or not issued with a letter of authority must remove all flashing warning lamps from the vehicle before travelling on a public road.

Elevated Tail Lights

Travelling on site roads may result in the original equipment manufacturers (OEM) tail light assemblies being difficult to distinguish.

To align with the visibility requirements light vehicles must have elevated tail light assemblies, which have tail, brake and indicator lights raised to the vehicle roof line (as a minimum).

Reversing lights in the elevated tail light assemblies will be accepted on sites but are not mandatory.

It is the responsibility of the person fitting the light bars to ensure that they meet the Australian Design Rules requirements.
Emergency Procedures

The vehicle must have emergency procedures displayed (or copies readily available) in the event of an emergency on site.

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Dynamic Brake Test

Light vehicles are to have a Dynamic Brake test conducted every year. Inspectors are to take a copy of the dynamic brake test report and attach it to the inspection form and the declaration form which are then to be forwarded to the Brisbane BMA Data Centre.

The dynamic brake test must be conducted within 1 month prior to the BMA Equipment Compliance Inspection.

The dynamic brake test is to include the following:

- Business name of the tester.
- Name of the tester.
- Signature of the tester.
- Vehicle identification — e.g. vehicle registration. BMA Call sign,(VIN would also be acceptable).
- Pass clearly identified – i.e. performance data to be interpreted by the competent tester and pass/fail to be clearly identifiable for the benefit of non-technical persons.
- Date of the test.
Windscreens, Windows and Mirrors

Windscreens
Light vehicle windscreens need to be roadworthy in accordance with Road Transport Authority (RTA) requirements. Inspectors have been asked to record in the comments section any minor defects that at the time do not impede on road worthiness.

Mirrors
The vehicle is to be fitted with two means of rear vision as per the requirements of the RTA. Their condition must be clean and operational.

Wipers
Wipers and washers are to be operational and the wiper blades intact without loose pieces of rubber.

Number Plates / Registration

Whilst it is not mandatory for a vehicle to be registered to operate on a mine site, it is a requirement that it be roadworthy.

If the vehicle is registered, then items such as number plates and registration label must be in place, secure, legible and current.

Tyres and Wheels

Tyres shall be correctly rated (load & speed) for the vehicle, roadworthy with no signs of damage, deterioration or uneven wear. As a very basic indicator the tread left on the tyre, in the most worn section, must be greater than 1.5 mm deep. The TWI (tyre wear indicator) can also be used as a quick reference.

Wheel rims other than OEM are not compliant under the 5 star ANCAP category.

Wheel nut indicators are non-mandatory.
Spare Wheels & Tools

Spare wheel/tyres are not mandatory for compliance, however, where fitted must be in roadworthy condition and have relevant tools to change it if required.

Lights and Indicators

All lights such as head lights, tail lights and indicators etc must be clearly visible, adequate and operational.

There is a ‘lights on’ policy for travelling on sites.

BMA vehicles are fitted with ‘lights on’ relays, however, this is not mandatory.

Horn

Vehicles must be fitted with a horn that is operational and effective.

Functional Brake Test

The function of the vehicle service and park brake shall be tested by the inspector at the time of inspection to ensure that said brakes are functional at the time of inspection.

These functional tests are:

- From a speed of 20kmh, apply the service brakes and bring the vehicle to a complete stop. Stopping distance shall be no more than 4 meters.
- With the park brake applied, gently attempt to move the vehicle forward. Resistance to vehicle movement should be clearly identifiable. (It is not expected that the operator should continue to “drive through” the applied bark brake which could cause damage or require remedial adjustment.)
Exhaust System

Exhaust system is to be secure, within specification and fit for purpose, in that it does not have leaks that could allow exhaust fumes the opportunity to enter the passenger cabin. Exhaust system components fitted externally to the vehicle shall be suitably guarded.

Condition and Housekeeping

The vehicle must pass state and territory legislation associated with the registration of vehicles in relation to structural integrity considerations such as rust, corrosion and structure damage.

The vehicle must also be maintained to a satisfactory level of housekeeping.

Items such as seat belts must all be in good operational order, not frayed, must retract correctly, etc.
Driver’s side airbag

All BMA light vehicles and all Light vehicles entering BMA controlled operations must have an Australian Design Rule approved driver side airbag as a minimum.

All 5 star ANCAP vehicles have air bags inclusive of driver’s side.

Non 5 star vehicles are required to be physically inspected to determine that they are compliant.
Cargo / Load Restraint

Cargo Barrier
Passenger vehicles (i.e. wagons) shall have a cargo barrier to protect all occupants from any item carried in the load space of the vehicle.

Cargo barriers shall be Original Equipment Manufacturer (OEM) or comply with AS4034 “Motor Vehicles - Cargo barriers for occupant protection.”

Load Restraints
It is the operator’s responsibility to restrain their load in an appropriate manner at all times.

Load restraints should be available to be used whenever transporting goods. Load restraints shall be attached to all loads to ensure that they do not shift or fall from the vehicle whilst being transported. All vehicles that transport objects shall have a suitable load restraint applicable for the type of load being transported, restraints may include, but not limited to: ropes, ratchet tie-downs, straps, nets or tarpaulins etc.

Note: It is the responsibility of the operator to ensure the vehicle has enough space and is designed to take the size and weight of the load, without exceeding the vehicle manufacturers design specifications (or modified GVM as per modification plate) legal dimension limits for the vehicle.
First Aid Kits

First aid kits are non-mandatory for BMA compliance.

It is the responsibility of the operator to determine if the journey and/or operating environment necessitate ready access to a first aid kit and what the contents of that kit might be.

Where first aid kits are carried they must be in good condition and adequately stocked.

Fire Extinguisher

Fire extinguishers are non-mandatory for light vehicles.

Where fitted, fire extinguishers shall be the correct type for the application, charged and operational. The inspection and service tags shall be current. Fire extinguishers are not to be mounted in the passenger space of a light vehicle – they should be located behind a cargo barrier, in the boot or in the rear of a utility.

Pre operation checks will remind the driver of the vehicle of their responsibility that even though the equipment compliance inspection is annual, fire extinguishers must be inspected every six months.

If a fire extinguisher is discharged, it is the responsibility of the person who has used the fire extinguisher to replace it with a fully charged unit. Do not re-fit an empty or faulty extinguisher.
Jump Start Receptacles

Jump start receptacles are **not permitted** on 5 star ANCAP vehicles.

Where jump start receptacles are fitted to vehicles that have previously been compliant to older versions of BMA standards, they may continue to be accepted under the “non 5 star” category up until 01/01/2016.

Where a Jump start receptacle is fitted on a non 5 star vehicle it must continue to meet BMA standards. It must be either be a Anderson or CAT style plug.

The three styles/models are the Anderson 175 amp, Anderson 350 amp or the CAT style. (See example photos.)

![Cat Plug](Cat Plug) ![Anderson Plug](Anderson Plug)

It is advisory to use the Anderson 175 amp plug for 12 volt systems and either the Anderson 350 amp or the Cat plug for 24 volt systems.

Where fitted, jump start receptacles must not bypass isolators.
Maintenance (Servicing) & inspection

Equipment must be routinely maintained and records kept ensuring that it remains “fit-for-purpose” and that occupant personnel safety, and environmental standards, are not compromised.

Maintenance and Inspection records may be requested for any vehicle or equipment on site at any time but definitely if the general condition of the equipment is believed to be unsafe. It is advisable to carry a copy of the last maintenance inspection in the vehicle if the company’s process is to keep all the maintenance records at their office.
Modified

“Non-approved” Vehicle modifications are not permitted on 5 star ANCAP vehicles.

Modifications include items such as ROPS, bull bars, suspension upgrades, etc.

Vehicles with modifications which have previously been permitted access to BMA sites may continue to be passed as compliant under the “Non 5 star ANCAP” category through until 01/01/2016.

Examples of Permitted and Not permitted mods/accessories

<table>
<thead>
<tr>
<th>Permitted</th>
<th>Not Permitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bull bar with OEM / ANCAP approval.</td>
<td>ROPS</td>
</tr>
<tr>
<td>Mud flaps</td>
<td>Bull bar (unless approved)</td>
</tr>
<tr>
<td>Window tint</td>
<td>IVMS</td>
</tr>
<tr>
<td>Reverse alarm</td>
<td>Suspension upgrades / high lift kits</td>
</tr>
<tr>
<td>Seat covers (check air bag compliance)</td>
<td>Fuel tank modification or addition</td>
</tr>
<tr>
<td>OEM Side steps</td>
<td>Winch - front mounted</td>
</tr>
<tr>
<td>Tow bar</td>
<td>Nudge bar</td>
</tr>
<tr>
<td>Sump guard</td>
<td>Any sharp protrusion from the front of the vehicle</td>
</tr>
<tr>
<td>Utility tray body</td>
<td>Aftermarket wheel rims</td>
</tr>
<tr>
<td>Utility tool boxes (unless C.G. is compromised)</td>
<td></td>
</tr>
<tr>
<td>Commercially manufactured roof racks</td>
<td></td>
</tr>
<tr>
<td>Tow bars</td>
<td></td>
</tr>
<tr>
<td>Tyres (correctly rated for the vehicle)</td>
<td></td>
</tr>
<tr>
<td>Lights on kit</td>
<td></td>
</tr>
</tbody>
</table>

Note: any approved mod/accessory must still comply with relevant legislation, ADR's, local laws, etc.
ROPs

ROPs not permitted in 5 star ANCAP compliant vehicles.

For non 5 star category vehicles, Roll-over protective structures (ROPs) for all occupant seats in a vehicle shall be fitted to all:
- 4wd vehicles;
- all wheel drive vehicles; and
- 2wd vehicles capable of carrying eight to 20 people.

Internal ROPS must comply with LH8, Queensland Government Specification Guideline for design and installation of internal ROPS requirements and be fitted with an approved modification plate (possible future change to LK8 National Code of Practice).

External ROPS to be designed or design approved by a Professional Engineer. Manufacture and installation must comply with the approved engineering design. External ROPS should be fitted with a manufacturer/installers plate that contains the following information:
- Design Engineer or Engineer approving the design
- Manufacturer/ Installer
- Serial number of ROPS
- Vin number of vehicle

Buses with 20 seats or more manufactured after July 1992 and built to Australian Design Rule (ADR) 59, do not require ROPS.

Other light vehicles not covered by ANCAP testing (generally vehicle over 3,500kg which are able to be operated on a C class Queensland Drivers license) are required to comply with the non 5 star category requirements above.
Seatbelts and Seating

Provide occupants with 3 point inertia reel seat belt, and a 2 point inertia reel seat belt for rear seat passengers where a 3 point inertia reel is not possible.

Seatbelts must be fully functional. They must stay clipped in when checked and have no frayed edges.

Seats must be properly constructed and not be side-mounted. (Seats must be forward or rear facing – i.e. side facing seats are not permitted.)

Seats should not be damaged to allow protrusion of sharp edges or springs which may impede on the safe operation of the vehicle.

Seat covers must not impede the deployment of air bags from the seat.

Seats must meet Road Transport Authority inspection standards.

Any change to a seat or seat belt from the OEM standard constitutes a modification and requires appropriate QLD Transport approval (Blue Plate).

Note to Inspectors:
Seat belts which are not “inertia reel” belts should be tagged out of service.
Speedo and Instrumentation

Vehicles must have operational speedometer and warning instrumentation.
Starter Motor Isolator

Starter (& battery) Isolators are not permitted on 5 star ANCAP vehicles.

Where Isolators are fitted to vehicles that have previously been compliant to older versions of BMA standards, they may continue to be accepted under the “non 5 star” category up until 01/01/2016.

Where fitted, isolators may only be locked whilst in the “off” position, and be fitted so that the starter motor can be “positively” isolated.

(Positive Isolation does not directly relate to the “Positive” terminal on a battery, it relates to the fact that as per BMA’s isolation standard the main source of power has to be broken to ensure “Positive Isolation”. Therefore isolation of the solenoid wire does not equate to “Positive Isolation” as it must break the main lead from the battery to the terminal on the starter motor solenoid.)

The isolation of the starter motor main feed still allows auxiliary power to be “on” when isolated and locked out. To test if the starter motor isolator is wired correctly turn the isolator to the “off” position and then the key “on” and “off”. The solenoid should be heard to click “in and out” if wired correctly. This type of isolation allows lights to be turned on for night-time maintenance, hazard lights to be left on if locked out to change a wheel etc, to allow qualified persons to live fault find without the concern of the machine being able to start. All starter motor isolators must be yellow in colour and be easily identified.

Traffic Control Equipment

Non-Mandatory

Vehicles may carry safety control equipment such as safety warning triangles or beacons to be used in the event of an accident or breakdown. (Three of either) The safety triangles should be checked periodically by the person responsible for the vehicle to ensure they have not been damaged or broken during storage or transport.

If the beacons are carried, the responsible person is accountable to ensure batteries are checked and spares available.

We recommend that a high visibility vest is carried in the vehicle in case of a break down or accident while off site.
Wheel Chocks (chock blocks)

Non-Mandatory

Light vehicles may carry and use wheel chocks.

Light Vehicles – When parking a light vehicle the following shall be carried out;

- Parked in a safe location
- The vehicle shall be placed in gear (or “park” for automatic vehicles) and the engine switched off
- The park brake shall be applied before leaving the vehicle.
- Amber flashing light shall be turned off before leaving the vehicle unless the vehicle is in not parked in a designated parking area
- The vehicle shall be parked on a level surfac e and away from any traffic flows wherever possible
- If the vehicle is parked on a slope then one or more of the following additional requirements shall be applied:
  - Parking against a bank or berm and turning the wheels into a bank or berm
  - Parking across the grade of the hill with the front wheels facing up hill
  - Using a suitable chock for the wheels