



Section J/K - Wheels & Tyres

N.B. Suspension part numbers begin with (G)

contents

..... **A**

Tyre Inspection

..... **B**

Wheel Inspection

..... **C**

Valve Inspection

..... **D**

Tyre pressures




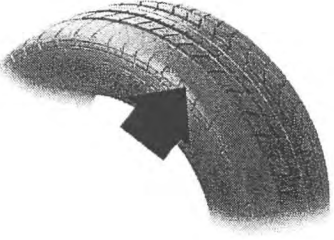
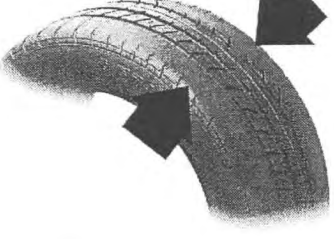
..... **E**

Wheel Balancing

..... **F**

Wheels - Removal & Refitting

CERBERA SERVICE/WORKSHOP MANUAL

FAULT	CAUSE	REMEDY
	<ol style="list-style-type: none"> 1.Track out of adjustment 2. Worn suspension components 3. Excessive cornering speeds 	<ol style="list-style-type: none"> 1.Adjust toe to correct setting 2. Replace as necessary
	<ol style="list-style-type: none"> 1.Wheel out of balance 2. Excessive radial runout 3. Excessive braking 	<ol style="list-style-type: none"> 1.Balance wheel and tyre assembly 2. Check runout and replace tyre if necessary
	<ol style="list-style-type: none"> 1.Tyres over inflated 	<ol style="list-style-type: none"> 1.Deflate to correct pressure
	<ol style="list-style-type: none"> 1.Track out of adjustment 2.Bent track rod 	<ol style="list-style-type: none"> 1.Adjust track to the correct figure 2. Replace worn components
	<ol style="list-style-type: none"> 1.Tyres under - inflated 2.Worn suspension components i.e. ball joints, panhard rod bushes, steering damper 3.Excessive cornering speeds 	<ol style="list-style-type: none"> 1. Inflate to correct pressure 2. Replace worn components

Maintenance

A - Tyre Inspection

If the vehicle is in daily use the tyres should be checked weekly to ensure that they are safe and meet the legal requirements. Check for signs of incorrect inflation and uneven tyre wear, which may indicate the need for wheel balancing or alignment. (Refer to tyre wear chart).

To assist tyre inspection, tread wear indicators are moulded into the bottom of the tread grooves, (See illustration). When the tread has worn down to the legal limit, the indicators appear at the surface as bars which connect the tread pattern across the width of the tyre, (See illustration). When the indications appear in two or more adjacent grooves a new tyre must be fitted.

NOTE : The UK legal limit is 1.6 mm tread. If during a journey, a large impact is received by a tyre i.e. hitting a pot-hole or large stone etc. the tyre/tyres should be inspected as soon as possible for damage.

B - Wheel Inspection

Regularly check the condition of the wheels. Replace any wheel that is bent, cracked, seriously dented or has excessive run-out.

C - Valve Inspection

The inflation valve should be regularly checked and replaced if it is worn, cracked or leaking air.

All valves should be kept in good condition and be protected from dirt and dust by the valve cap, the cap also acts as a positive seal for the valve.

D - Tyre Pressures

The tyre pressures are calculated to provide the best ride, performance and steering characteristics, with out compromising tyre tread life.

The recommended tyre pressures are:

	<i>Unladen</i>	<i>Fully Laden</i>
Pressure Front -	22 PSi	26 PSi
Pressure Rear -	24 PSi	28 PSi

Tyre pressures should be checked at least once a month.

NOTE : Maximum tyre life and performance will be obtained only if the tyres are maintained at the correct pressures. Always check the tyre inflation pressures using an accurate gauge and inflate the tyres to the recommended pressures only.

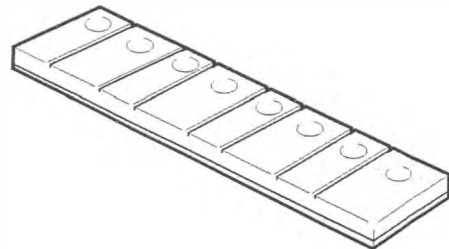
Checking of the inflation pressures should be carried out with the tyres cold and not immediately after the vehicle has been in use. If the pressures are checked after the vehicle has been in use and the tyres are hot, an apparently high reading will be obtained owing to heat expansion. Under no circumstances should an attempt be made to reduce the pressure to the quoted cold reading in this instance, or effective under inflation will result.

NOTE: Always remember to replace all valve caps, as they form a positive seal and keep dust out of the valve.

E - Wheel Balancing

CAUTION : Wheel balancing should always be carried out off the vehicle to prevent the risk of personal injury and damage to the vehicle.

NOTE : Before commencing the balancing process remove any stones and mud from the wheel/tyre, to prevent injury to the operator and ensure that false results are not given.



I - Tyre Changing

When a tyre change is required it is essential that only specialised tyre changing equipment is used to fit or remove tyres. The equipment manufacturer's instruction should be followed to carry out this process. Tyres should always be fitted in pairs and to the manufacturer's specification.

NOTE : It is recommended that hand tools or tyre levers should not be used as they may damage the tyre beads or the aluminium rim of the wheel.

Before fitting a new tyre, the remaining mounting lubricants and old rubber should be removed from the wheel rim. This should be done using a non-abrasive cleaner. Before fitting the new tyre, the area on which the tyre will be seated should be well lubricated with a suitable tyre lubricant.

J - Tyre Fitting

- 1) Fit a new valve assembly.
- 2) Ensure wheel and tyre rims are sufficiently lubricated.
- 3) Mount tyre as instructed by equipment manufacturer (This will vary depending on equipment used.) Inflate tyre and at same time apply pressure to area around valve to aid seating over valve first.
- 4) Inflate the tyre to seat the beads correctly. Finally inflate to the correct pressure.

K - Puncture Repair

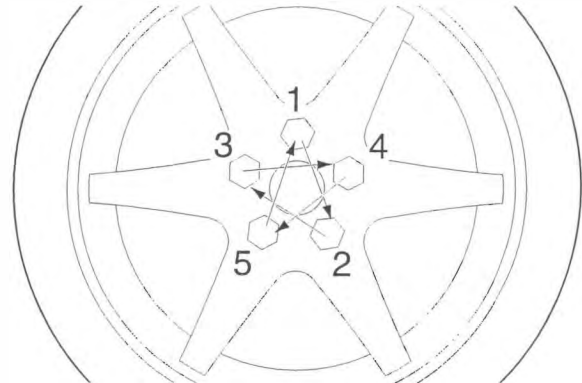
Remove punctured tyre from wheel and repair using a combination service plug and vulcanising patch. Always follow the manufacturer's instructions when using a puncture repair kit.

NOTE : Only punctures in the tread area of the tyre are repairable. Do not attempt to repair punctures in the tyre shoulders or side walls. Do not attempt to repair any tyre that has sustained the following : bulges, blisters, ply separation, broken or cracked beads, wear indicators visible and punctures larger than 6 mm diameter.

L - Wheels - Removal & Refitting

To Remove

- 1) Whilst the vehicle is still on the ground, loosen the five wheel nuts. - see below
- 2) Using a suitable trolley jack raise the vehicle and place on axle stands. (Routine maintenance, Jacking)



- 3) Remove the wheel nuts and carefully remove the wheel.

To Refit

- 1) Ensure that the wheel nuts are clean.
- 2) Apply copperslip or similar anti-seize compound to wheel mounting face.
- 3) Put wheel in position.
- 4) Fit the wheel nuts, ensuring that at least 3 full turns are turned by hand before using any form of wrench.

NOTE : The shown sequence should be followed to ensure the wheel is correctly positioned and fastened.

- 5) Tighten the nuts as much as possible using a suitable wrench in the sequence shown in the diagram on the previous page.
- 6) Lower the vehicle and tighten the wheel nuts to the correct torque setting = 50 to 55 lbft

NOTE : If the road wheel has a separate 'spigot' i.e. An aluminium ring, in the centre of the wheel, ensure that it is correctly located before fitting back on the vehicle.

WARNING : It is essential that the Jacking Procedure is followed correctly and that axle stands are used to support the vehicle whilst the vehicle is being worked on.

NOTE : As a precautionary measure it is recommended that wheel nuts are checked for tightness periodically.

