SECTION O

THE WHEELS AND TYRES

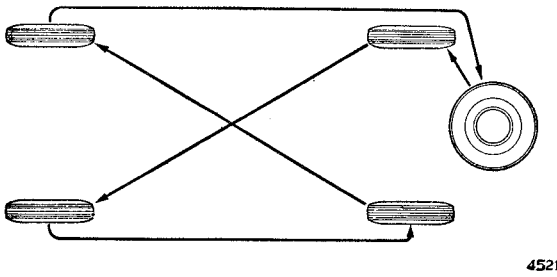

Fig. O.1

Interchange the road wheels diagonally, bringing the spare wheel into use

Section O.1

TYRE MAINTENANCE

IMPORTANT. The insertion of a plug to repair a puncture in a tubeless tyre must be regarded as a temporary repair only and a permanent vulcanized repair must be made as soon as possible.

(1) Maintain the tyres, including the spare at the recommended pressures given in **'GENERAL DATA'.**
(2) Occasionally change the wheels round diagonally and bring the spare into use. See **'TYRE REPLACEMENT'.**
(3) Keep the treads free from grit and stones.
(4) Remove oil and grease with petrol (fuel) and wipe dry.
(5) Inspect the tyres for rapid or uneven wear; if present, check the front wheel alignment (Section J.2.).

Section O.2

TYRE REPLACEMENT

Radial-ply tyres (SP)

Radial-ply tyres (SP) should only be fitted in sets of four, although in certain circumstances it is permissible to fit a pair on the rear wheels; tyres of different construction must not be used on the same axle. A pair must never be fitted to the front wheels with conventional tyres at the rear. Consult your Distributor or Dealer before changing to radial-ply tyres.

The positional changing of wheels must not be undertaken if radial-ply tyres have been fitted to the rear wheels only. **(See Editor's note at end of Section O.)**

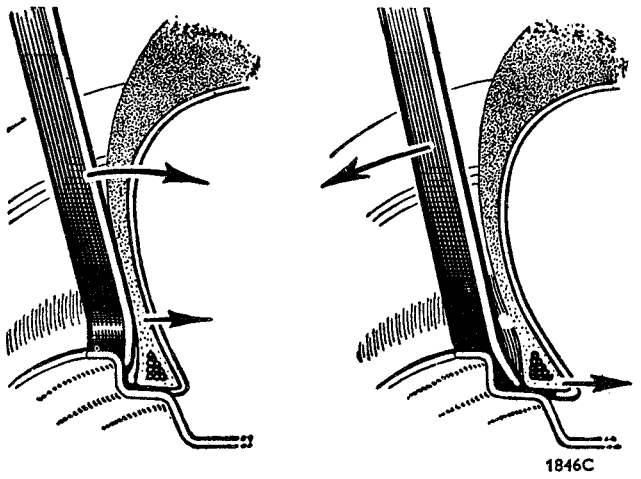

Fig. O.2

The tyres have wired edges and no attempt must be made to stretch them. If the cover fits tightly on the rim seating it should be freed by using the tyre levers as indicated

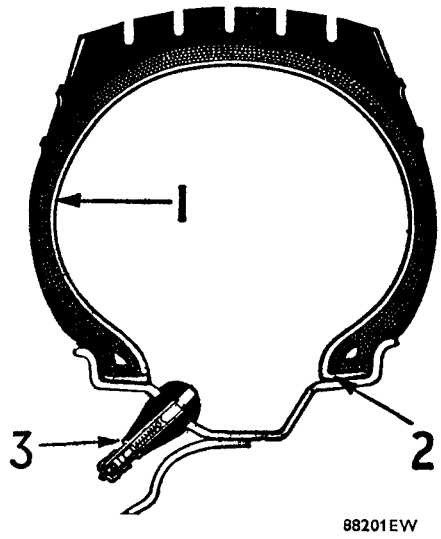

Fig. O.3

A section through a tubeless tyre

1. Air-retaining liner. 2. Rubber air seal. 3. Rubber-sealed valve.

Section O.3

JACKING UP

The jack is designed to lift one side of the car at a time, a jacking socket is provided in each door sill panel.

(1) Apply the hand brake, and place a wedge against each side of one of the wheels on the opposite side of the car to the one being jacked.
(2) Remove the rubber plug from the jacking socket and insert the jack lifting arm, ensure that the arm is pushed fully home into the socket and that the top of the jack leans slightly outwards.
(3) Operate the jack handle until the car is raised to the desired height.

NOTE.—Do not work under the car with the jack as the sole support.

Section O.4

WHEELS

Removing

Pressed type

(1) Insert the wheel disc lever into the recess provided in the road wheel and lever off the disc, using a sideways motion.
(2) Slacken the wheel nuts.
(3) Jack up the car until the wheel is clear of the ground.
(4) Remove the nuts and withdraw the wheel.

Wire type

(5) Slacken the hub nut using the mallet (winged nuts) or the spanner (octagonal nuts), the nuts are marked with the word 'UNDO' and an arrow.
(6) Jack up the car until the wheel is clear of the ground.
(7) Remove the hub nut and withdraw the wheel from the hub splines.

Inspection

Pressed type

(8) Clean the wheel rim with a wire brush and remove all traces of corrosion.
(9) Examine the rim and the welds or rivets securing the rim to the wheel centre. Damage to the rim may be repaired provided it is confined to the flange lip area.
(10) Inspect the wheel centre for cracks or fractures.

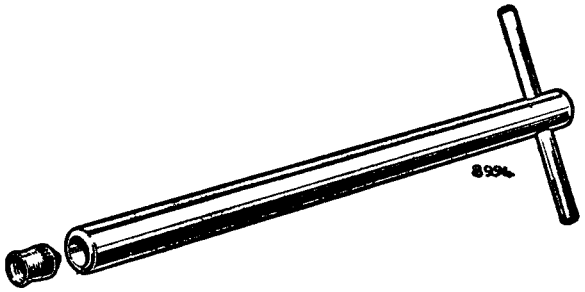

Fig. O.4
A simple tool for fitting tubeless tyre valves

Wire type

(11) Carry out the operations in (8).
(12) Examine the rim and wheel centre. Damage to the rim may be repaired provided it is confined to the flange tip area.
(13) Check the spokes and nipples for security and damage.
(14) Examine the splines in the wheel centre for wear, if the splines are worn, renew the hub centre.

Refitting

Pressed type

(15) Reverse the removing procedure in (1) to (4) noting that the wheel nuts must be fitted with their tapered side towards the wheel and tightened to the torque figure given in **'GENERAL DATA'.**

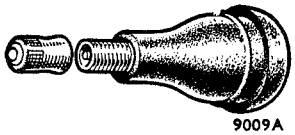

Fig. O.5
Valve for a tubeless tyre

Wire type

(16) Wipe the threads and splines of the hub and wheel and lightly coat them with grease.
(17) Reverse the removing procedure in (5) to (7) and hammer the hub nut tight with the mallet.

Section O.5

VALVES
(Tubeless tyres)

The valves used on tubeless tyres are secured and sealed to the wheel by a stepped flange on the rubber body of the valve and by the air pressure inside the tyre.

A simple but effective tool (see Fig. O.4) for fitting the valves can be made by soldering a valve cap into the end of a short length of steel tube.

To fit a new valve:

(1) Liberally coat the valve body and the perimeter of the valve hole in the wheel with soapy water.
(2) Insert the valve into the hole and screw on the tool.
(3) Pull the tool sharply so that the valve is seated correctly in the wheel.
(4) Fit and inflate the tyre, and check the valve for air-tightness.

Section O.6

WHEEL AND TYRE BALANCE

Unbalance in wheel and tyre assemblies may be responsible for various effects such as wheel wobble, abnormal wear of tyres and suspension parts, vibration in the steering or, in extreme cases, in the whole car, If any of these faults develop, for which no other cause can be found, wheel and tyre balance should be checked and corrected according to instructions supplied by the manufacturer of the balancing machine.

When wheels are to be re-balanced it is essential that the weight of the car be removed from the tyres as soon as possible after a run so that temporary flat spots do not form on the tyres. Nylon tyres are particularly prone to this and re-balancing with the tyres in this condition is pointless.

EDITOR'S NOTES

O. The Wheels and Tires

Removing and Refitting tires
Almost any service station has tire changing equipment which not only does a better job than can be done by hand (in terms of tire damage), but also requires less effort.