

**SAFETY WARNING: disregarding any of the safety precautions and instructions contained in this book may result in tyre failure or explosion causing serious personal injury or death.**

## How to get the best results from your tyres

### SELECT THE CORRECT TYPE OF TYRE FOR YOUR MACHINE

Use combined information from owners handbook and tyre manufacturers fitment guide, to fit the correct tyres which meet with the motorcycles requirements.

### PRESSURES ARE VITALLY IMPORTANT

Warning! Driving on any tyre that does not have the correct inflation pressure is dangerous. Keep your tyres inflated to the correct pressure for load and speed as shown in your motorcycle manufacturer's handbook. Any underinflated tyre builds up excessive heat that may result in sudden tyre destruction. The correct inflation pressures for your tyres must be maintained as a minimum.

### PRESSURE TESTING

Test pressures at least once a week with an accurate tyre pressure gauge when tyres are cold and always before long journeys. Do not 'bleed' air off when tyres are hot as pressures rise due to heat but fall again when the tyres cool.

### VALVE CORES AND CAPS

Loss of pressure may sometimes be due to valve cores not seating properly or being worn. Check valve cores, tighten for correct seating or replace as necessary. Always fit valve caps (finger tight) as they keep dust from the valve mechanism and act as an extra seal.

### TUBELESS TYRES

Valves should be kept in good condition and replaced when a new tyre is fitted.

### WIRE WHEELS

Ensure that proprietary rim tapes are in good condition; a protruding spoke head can damage a tube and cause a puncture.

### ALIGNMENT

Ensure wheels are correctly aligned and inspect regularly. Be aware of your tyres through frequent visual examination and before any long journey. Worn tyres are more susceptible to damage and road holding is reduced in the wet. To maintain full stability on high performance machines it is advisable to change the tyres before the legal 1mm ( $\frac{1}{32}$ " remaining pattern depth is reached.

### DAMAGED TYRES

Damage which exposes the casing is dangerous and contravenes tyre legislation. Replace damaged tyres immediately.

### STONES

Remove any stones or nails which may become embedded in the treads of tyres. If left they will eventually penetrate through the casing and cause a puncture, leading to breakdown on the road or even an accident.

### OIL AND GREASE

Rubber deteriorates when in contact with oil and grease. Remove from tyres using a cloth slightly dampened with petrol.

### CARE OF TUBES

Repairs to tubes should ideally be carried out by an expert and should be vulcanised – hot or cold process. It is recommended that a new tube should be fitted with a new tyre. Tubes which have given long service become stretched and when fitted with new tyres may fail prematurely because of creasing or thinning of the tube rubber. Tubes with several repairs should be discarded.

### REPAIRS TO TUBELESS TYRES

The main advantage of a tubeless tyre is its ability to withstand penetration by nails etc without a rapid loss of air. This also means that a rider can be unaware of a puncture and if the tyre continues to be used for long distances, the area of damage will spread and could become serious. Tyres must therefore be inspected regularly for nails etc, and repairs carried out as quickly as possible.

In instances where deflation has occurred, such as a nail penetration, it is essential to remove the tyre from the rim for a full external and internal examination before attempting any form of temporary or permanent repair.

Providing there is not other damage to the tread or casing Cooper-Avon recommends that only certain types of repairs should be carried out and these only in the crown area of the tyre. Plug repairs to punctures in the shoulder or sidewall area of the tyre are not recommended.

It is essential to follow the material manufacturer's instructions. Repair by buffing the tubeless lining and applying a cold cure, or vulcanised repair, of minimum 25mm (1") diameter to seal a penetration of not more than 3mm ( $\frac{1}{8}$ " diameter. The external hole should be sealed with rubber sealant to prevent the ingress of moisture which could affect the casing cords.

NB. Straight plug type repairs must not be attempted as there may be insufficient tread rubber and casing material to provide sufficient security for the plug location.

In the event of an emergency 'get-you-home' repair, it is permissible to use an inner tube of the correct size and type but the Motorcycle Manufacturers' Instruction Manual should be consulted. In some instances, an adaptor collar may be required if car-type rubber tubeless valves of greater diameter than the standard metal type have been used originally.

If tyre foam filler repairs are used as an emergency measure the tyre will have to be replaced when you return home. The chemicals in these products decompose the rubber linings of tyres.

For repairs other than those already described, a tyre fitter, working to the BS159F repair condition standard and expert in permanent repairs, should be consulted. If any major reinforcement is required to repair the damage the tyre must not be used, particularly on a high performance machine, because of possible problems with impaired vehicle stability and imbalance at speed.

These recommendations may appear to be over-cautious, but riders who have experienced sudden tyre deflation will appreciate how dangerous this can be.

### BALANCE

Avon tyres are made to fine tolerances but it is essential that the tyre/wheel assemblies should be balanced – particularly if high speed runs are contemplated. The wheels themselves should run true to within 1mm ( $\frac{1}{32}$ " and be free from distortion. Tubeless tyres and wheel assemblies can be balanced by using self-adhesive or clip-on weights. Spoked wheels should be balanced by using spoke weights, or by wrapping the outer end of the spoke adjacent to the light spot with lead wire until the wheel, freely rotating on its bearing, shows no tendency from one particular section (a heavy spot) to swing to the bottom-most point. If using lead wire, bind the lower end with the adhesive tape to prevent moving. Fine balance is more important on front than rear wheels.

### ON THE ROAD

Drive reasonably. Excessive acceleration and braking shortens tyre life considerably. Some uneven wear on front tyres is inevitable due to the effect of braking and cornering, particularly if the machine is used to its full capacity.