

### ■ Advice on tyre pressure

Motorcycle manufacturers always go into the subject of air pressure in great detail in their vehicle manuals. It is possible to find instruction on air pressure for every driving situation. In addition it is usually possible to find a sticker on the vehicle with the necessary information written on it.

The manufacturers make a distinction between load (riding solo or with a pillion passenger, with or without luggage) and speed (on secondary roads or motorways).

Naturally in such a short fitment guide it is not possible to give the necessary tyre pressure details for every motorbike and because of this we refer you to the recommendations of the motorcycle manufacturers.

From years of experience we are aware that motorcyclists sometimes ride on tyres for which the air pressure is not suited to the driving conditions. We do however advise you always to ride at the highest pressure level given in the manual.

Some amount of comfort will be lost, but that loss will be outweighed by improved safety. In addition the rolling resistance will be lower which will help to save fuel.

Incorrect inflation pressure reduces the service life and may have a negative influence on the riding characteristics of the motorcycle.

Under-inflated tyres flex excessively, easily over-heat and can suffer damage. Over-inflation can cause uneven wear. Improper inflation, either too high or too low, can adversely affect overall handling and ride quality.

Tyre pressure will be measured when the tyres are cold. During riding the tyre becomes warm and the tyre pressure is therefore higher (up to 0,5 bar). This excess pressure should not be let off as it will automatically be balanced out as the tyre cools down again.

If you have no tyre pressure recommendations for your motorcycle at your disposal, please follow the inflation pressure recommendations given in the Continental fitment guide.

Please note that the maximum load of the tyre depends on the inflation pressure. This means that you have to increase the inflation pressure up to the maximum pressure stated on the sidewall of the tyre to achieve the maximum load carrying capacity.

### ■ Balancing

Balancing and tyre service are best performed by your Continental motorcycle tyre dealer who has the equipment and know how.

Ask your dealer to check the concentricity and balance of your tyre/wheel assembly after mounting. Do not use balancing liquids.

### ■ Bias belted tyres

see Tyre designs, page 144

### ■ Breaker tyres

see Tyre designs, page 144

### ■ Breaking-in

New tyres have a smooth surface after the production process, which gets abraded only through the moderate breaking-in of the tyres. Sudden braking and acceleration, and hard cornering should be avoided until the breaking-in process has been completed. Only after the surface of the tyre is sufficiently abraded is the

tyre able to build up its maximum grip level. The tyre's size/information sticker should be removed before the first ride.

Every tyre needs a certain operating temperature to ensure its optimal grip performance. To ensure this, tyres should be warmed up by riding at a moderate speed at the start of each ride.

### ■ Clearance

To prevent tyre damages by touching parts of vehicle sufficient clearance is important under all riding conditions.

### ■ Crossply tyres

see Tyre designs, page 144

### ■ Designs

see Tyre designs, page 144

### ■ Directional Arrows

Where a tyre has directional arrows moulded upon it, the tyre must be fitted so that the relevant front or rear arrow follows the direction of rotation. Road handling and tyre wear may worsen, or damage to the tyre can occur in extreme circumstances if these instructions are not followed.

### ■ Dynamometer Testing

Never put a tyre in use that has been subjected to on-the-motorcycle dynamometer engine testing. This severe use of the tyre may result in tread compound degradation and subsequent failure.

### ■ ECE approval

Please note that it is not legal to use motorcycle tyres without ECE approval in the EU.

### ■ ECE/ISO standard

Motorcycle tyres from Continental meet the high quality standard according to ISO 9000, ISO 9001, ISO 9001:2000 and ECE.

### ■ Fitting tyres

Only specially trained persons should fit tyres. Fitting tyres requires that you lubricate both sides of the tyre bead and rim, all the way around. Use a commercial tyre-bead lubricant or soapy water. Do not use a petroleum-based or silicone-based lubricant. Observe the directional arrow on the sidewall. Do not use sealing liquids.

### ■ Identification

see Tyre identification, page 144

### ■ Inflation pressure

see Advice on tyre pressure

### ■ Load carrying capacity

Never exceed the accessory restrictions and vehicle load capacity found in the motorcycle owner's manual or the maximum load moulded on the tyre sidewall.

### ■ Maintenance

Continental does not recommend repairing a damaged tyre by simply fitting a new inner-tube. Due to safety reasons Continental recommends to always fit a new tyre instead of repairing it.

### ■ Mileage

A tyre which can achieve high mileage is an asset because a longer lifespan leads to lower costs.

The mileage attained by motorcycle tyres and in particular that by the rear wheels of performance bikes cannot be measured in the same way as that of car or truck tyres. Because the motorcycles themselves weigh comparatively less they are able to accelerate faster and during this acceleration the rear tyre slips. This slipping leads to wear on the tyres.

A pillion passenger whose weight is mainly placed on the rear tyre helps to prolong the life of the tyre. The rear wheel is pressed onto the road with more force, thereby reducing the amount of slipping. The tyre therefore lasts longer.

### ■ Radial tyres

see Tyre designs, page 144

### ■ Regrooving

It is prohibited to regroove motorcycle tyres.

### ■ Rims

see tyre rims, page 145

### ■ The most important safety rules for motorcycle tyres:

- Observe specified minimum air pressure. (See motorcycle owner's manual)
- Check inflation pressure, and adjust if necessary.
- Do not exceed maximum load capacity. (See motorcycle registration papers)
- Avoid impact strain (E.g. curbstones)
- Check tyres regularly for signs of damage
- Never ride on tyres with less than 2mm tread depth (More is better)
- Only buy specified tyres. Handling characteristics can only be optimized through proper tyre fitment
- Use the right inner-tubes to match the tyres (if necessary). New tubes for new tyres
- Make sure valve caps are fitted. New valve for new tubeless tyre
- Only use specified rims in perfect condition. Specialty rims require special approval
- Only have tyres fitted by a skilled tyre fitter

### ■ Selection

see Tyre selection, page 145

### ■ Speed ratings

Look at the table for speed ratings (page 138) to find the right tyre for your motorcycle. Continental does not recommend the use of any of its products in excess of legal speed limits.

### ■ Storage

see Tyre storage, page 145

### ■ Tread depth

Worn out tyres influence the handling of a motorcycle and thereby reduce the capacity for safe driving. The recommended minimum tread depth is 2 mm.

**Tubeless and tubetype tyres**

It is generally true that the fitting of tyres to a motorcycle should be in accordance with what is written in the vehicle papers, otherwise the licence becomes invalid. For example, if tubeless tyres are prescribed in the vehicle papers then tubeless tyres must be fitted. If tubetype tyres are prescribed then tubetype tyres must be fitted. A Continental tubeless tyre can be fitted on a tube type rim with the correct sized Continental tube up to a maximum speed of 210 km/h (130 mph), depending on the maximum speed allowed for the mounted tyre. Please consult the vehicle manufacturer if in doubt.

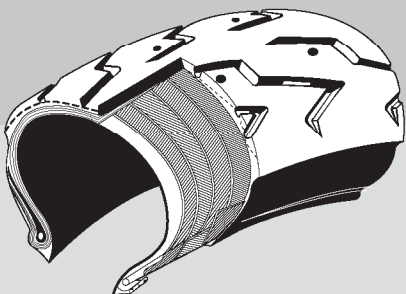
**Tyre age**

The production date of every tyre is marked on the sidewall after the DOT-number. For tyres manufactured since January 2000, the last four digits represent the production date. The first two digits refer to the week of production (from 01 to 52). The last two digits represent the production year (e.g. "DOT XXXXXX2705" was produced in week 27 2005).

**Tyre designs - Crossply tyres**

On today's market the crossply tyre is the „classic" design. Its advantages are its simple structure and its sturdy sidewalls, which particularly in off-road use offer many benefits (impact protection). Crossply tyres have a maximum design speed of 240 km/h (150 mph). Material used: usually rayon or nylon fabric. Typical designation: 4.00 - 18 M/C 64H TL TKH 24

*Crossply tyre (TKH 24)*

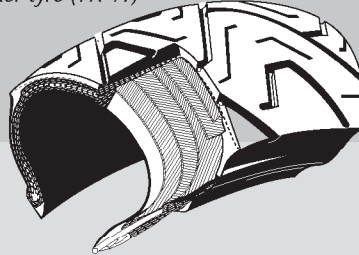


**Tyre designs - Breaker tyres**

The breaker tyre originated from the crossply design, to provide a tread area which was effectively reinforced from the inside, giving the tyre a longer service life through reduced transverse slip and making it less prone to failure. Transverse slip originates from the tyre design and results from the lateral deformation of the rolling tyre. Slip always results in wear: the greater the slip, the greater the wear. Although circumferential wear (also known as longitudinal wear) can be substantially reduced through a defensive riding style and also careful acceleration, it cannot be totally avoided, because slip is always needed to transmit the tyre forces to the road. Continental uses this design on its TK 16/17 and Milestone. Material used: usually rayon or nylon fabric. Normally the breaker and casing feature the same material.

Typical designation: 130/90 - 16 M/C 73H TL reinforced TK 17.

*Breaker tyre (TK 17)*

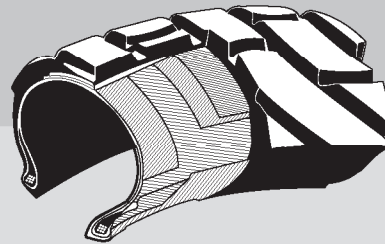


**Tyre designs - Bias belted tyres**

The bias belted tyre is the precursor of the radial tyre. Whilst the casing is still crossply in design, the tyre features a belt, usually made from Kevlar. The bias belted tyre can be recognised by the B (=bias belted) in the designation on the outside of the tyre.

Example: 150/70 B 17 M/C 69H TL ContiEscape

*Bias belted tyre (ContiEscape)*



**Tyre designs - Radial tyres**

Radial tyres feature a casing angle of approx. 90° to the circumferential direction (direction of travel) and a belt angle of 0 - 25° approximately. The belt, located under the tread area, gives the tyre stability and permits far higher speeds, as the centrifugal force deformation is substantially lower. Reduced material thickness in the sidewall section means the tyre heats up less and the high speed strength is further increased.

In terms of riding dynamics, modern motorcycles are geared to radial tyres. As an example: a 4.00 - 18 M/C 64H TT Conti TKH 24 tyre „grows" by approximately 2 cm on average at a speed of 210 km/h (131 mph), whereas a comparable radial tyre only expands by a few millimetres. The radial tyre can be recognised by the R in the designation on the sidewall of the tyre. Example: 190/50 ZR 17 M/C (73W) TL ContiRoadAttack

*Radial 0° tyre (ContiSportAttack)*



**Tyre identification**

The tyre identification number gives information on:

- the nominal section width (in inches or mm)
- the ratio: height / width
- the registered maximum speed
- the rim diameter
- the tyre load

some examples:

**3.50-18 M/C 62P TT reinforced**

- 3.50 = nominal section width 3.5 inches
- = diagonal casing construction
- 18 = rim diameter in inches
- M/C = Abbreviation for „Motorcycle", to prevent a mix-up with passenger car tyres.
- 62 = load index - see page 138 for further information
- P = speed index, symbol for registered maximum speed (P = 150 km/h, approx. 93 mph)
- TT = tubetype
- reinforced = increased tyre load capacity

**150/70 B17 M/C 69H TL**

- 150 = nominal section width in mm
- /70 = ratio of height to width = 70 : 100
- B = bias belted (construction type)
- 17 = rim diameter in inches
- M/C = Abbreviation for „Motorcycle", to prevent a mix-up with passenger car tyres.
- 69 = load index - see page 138 for further information
- H = speed index, symbol for registered maximum speed (H = 210 km/h approx 130mph)
- TL = tubeless

An older type of identification from ECE/ETRTO/ JATMA is for example:

**130/90 H16**, which is identical to **130/90 - 16 M/C 67H**

Further examples:

#### 180/55 ZR 17 M/C (73W) TL

|      |  |
|------|--|
| 180  | = nominal section width in mm  |
| /55  | = ratio of height to width = 55 : 100  |
| ZR   | = radial construction  |
| 17   | = rim diameter in inches   |
| M/C  | = Abbreviation for „Motorcycle“, to prevent a mix-up with passenger car tyres. |
| TL   | = tubeless   |
| (73) | = load index (see page 138)  |
| (W)  | = > 270 km/h   |

Load and speed index in brackets allows higher speed than 270 km/h.

The load need to be reduced according ECE and ETRTO.

#### MT 90-16 T M/C 71H TL

|     |  |
|-----|--|
| M   | = motorcycle   |
| T   | = symbol for tyre width. T = 5.10 inch (see page 139)                              |
| 90  | = ratio of height to width = 90 : 100  |
| 16  | = rim diameter in inches   |
| T   | = rim contour  |
| M/C | = Abbreviation for „Motorcycle“, to prevent a mix-up with passenger car tyres.     |
| 71  | = load index - see page 138 for further information                                |
| H   | = speed index, symbol for registered maximum speed<br>H = 210km/h (approx 130 mph) |
| TL  | = tubeless   |

#### E4 R75-000 6224

|          |                       |
|----------|-----------------------|
| E4       | = country of approval |
| R75      | = ECE Guideline       |
| 000 6224 | = approval no.        |

Please note that it is not legal to use motorcycle tyres without ECE approval in the EU.

#### ■ Tyre rims

In the past the development of tyre and rim technology has led to various rim constructions. One for tubeless tyres and the other for tubetype tyres.

For tyres which use an inner-tube, that is tube-type tyres, the WM rim is used (fig 1).

First, the MT rim (without illustration) was developed for tubeless tyres then the humped MT H2 rim (fig 2). The hump prevents the tyre from slipping down to the well in case of an air loss.

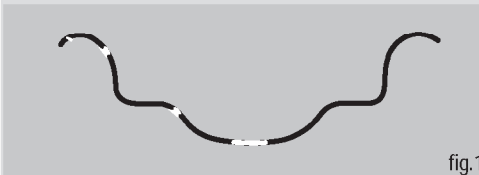


fig.1

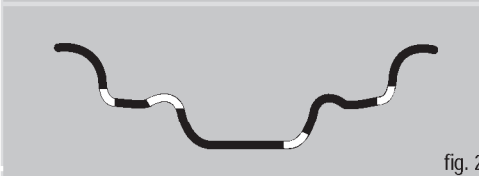


fig. 2

#### ■ Tyre selection

When selecting new Continental motorcycle tyres, be sure they meet the requirements of your motorcycle and its expected usage.

#### ■ Tyre storage

Tyres should be stored in a cool, dry and dark environment.

#### ■ Valve cap

Please mount the valve cap after mounting a tyre! The valve cap must have an O-ring. The valve cap avoids air loss in case of high speeds or a faulty valve core.

#### ■ Valve nut (tube type)

Only a fitting aid. Should be twisted against the valve cap after fitting the tyre.

**We wish you a pleasant journey at all times.**

**Your Continental motorcycle team**