GENERAL INSTRUCTIONS

CARE & STORAGE

Always inspect your tyres for punctures, impacts, damage and wear before using your motorcycle.

The way you store your tyres when they are not being used will affect the life and performance of your tyres. They should be stored in a cool, dry, dark, and moderately ventilated area. The storage temperature should be relatively stable, and should remain below 25° C/77° F. Direct contact with pipes and radiators must be avoided. Ozone will accelerate tyre aging, so never place tyres near electric motors or other types of equipment which produce high concentrations of ozone. Prolonged contact with oil or gasoline can contaminate the rubber compound, making the tyre unsuitable for use. Always wipe off any oil or gasoline with a clean cloth.

CAUTION

To avoid the danger of air leakage, use only balancing weights approved by the motorcycle manufacturer, e.g. spoke nipple weights, lead wire or self adhesive rim weights. We do not recommend the use of liquid balancers or liquid balance/sealers. PIRELLI does not guarantee tyres that have been injected with these substances.

DIFFERENT CONSTRUCTIONS

PIRELLI has three distinct tyre types: Bias tyres (“ - ”), bias belted tyres (“B”), and radial tyres (“R”). The tyre’s ability to carry side and peripheral forces differs for each distinct construction type. This means a combination of different construction types can influence the motorcycle’s performance. Only the tyre combinations listed in the motorcycle manufacturers fitment charts should be used.

DIFFERENT PATTERNS

PIRELLI offers both front and rear tyres in different profiles for different types of use. Different types of tyres are not able to be used in conjunction with each other, for example, a street tyre cannot be used with an off road tyre.

DYNAMOMETER USE

Dynamometer measurements place extreme loads on tyres. It is possible that damage, often unnoticeable, can be caused during testing. This can lead to an eventual failure in the tyre. Motorcycle tyres that have been used on a dynamometer must not be later used on the road.

FRONT AND REAR BRAND

Using different brands of front and rear tyres simultaneously may cause problems. Regrettably, we cannot test PIRELLI tyres in combination with all our competitors’ tyres, so it is recommended you use front and back PIRELLI tyres in conjunction with each other.

LIQUID SEALANTS

We do not recommend the use of liquid sealants. Liquid sealants are a form of temporary repair which can cause negative affects to ply material and can hide any secondary damage caused by the object.

LOAD CAPACITY

Tyres are offered in different load carrying capacities. It is extremely important not to exceed the maximum load rating. It is important to take the weight of the motorcycle, the weight of any additional equipment, as well as the weight of the passenger into consideration before determining the “Load Capacity” of your tyres. A tyre’s load carrying ability can be reduced by deflation. You can overload a tyre even if it is the size specified by the manufacturer. Before travelling, you must calculate the total weight (luggage, equipment, passengers) to be added to the motorcycle.

NEW TYRES - NEW TUBES

PIRELLI tubes fit with PIRELLI tyres. Tubes are a vital part of the tube-type wheel assembly. They should be handled with care. A new tube should be fitted at the same time a new tyre is fitted. An old stretched tube fitted into a new tyre can cause it to crease and fail. Always make sure your tyre size is printed on the tube, thereby ensuring that you have the correct tube size.

NEW TUBELESS TYRES - NEW VALVES AND VALVE STEMS

When fitting a new tubeless tyre onto the tubeless-type rim of your motorcycle you should always use a new valve. This is highly recommended as the body of valves used in tubeless rims are made out of a rubber material, which will harden and age with time. The aging and hardening process is accelerated when the valve comes into contact with oil, ozone and other hostile elements. When braking or accelerating, the valve is bent by dynamic forces. At high speeds the strong centrifugal forces work on the valve and the tension of the spring. An old valve could brake under such forces and cause a sudden loss of air.

PIRELLI recommends the use of short valve stems, as due to their smaller mass, the valve remains closed at high speeds.

PIRELLI TUBELESS TYRES

When installing a tube in a PIRELLI tubeless tyre, never tighten the valve stem lock nut until the tyre is properly seated and inflated to the proper riding pressure.

Whenever you install a tube, be sure to avoid pinching and thoroughly dust the tube with talcum powder. Always use a valve cap.

RADIAL TYRES

The fitment of tubes in radial tyres is possible under certain specific conditions. Please consult directly with PIRELLI before installing a tube in a radial tubeless tyre. It is not recommended to fit a tube in a Radial Tubeless tyre marked “ZR”.

REPLACING A WORN TYRE

Remember, precise matching of front and rear tyres is necessary to obtain optimum performance and handling. When fitting a new front tyre, check the wear on the rear tyre. A new front tyre combined with a worn rear tyre may cause instability. Please bear in mind that many other factors can affect the handling of a motorcycle, including the weight and height of the rider, and the addition of luggage. Please consult the motor-cycle manufacturer before making non standard modifications.

RIMS

Please consult the technical data section of this booklet or call us to ensure the tyres you choose are suitable for the rims. The correct rim width is vital for handling and stability. If a tyre is installed on a wider than recommended rim, the tyre will have a flattened profile, and the rider may reach the edge of the tread when cornering. A tyre installed on a rim which is too narrow, will alter the tyre profile, reducing the contact patch and concentrating tyre wear in a small area.

RUN-IN

All new tyres should be ridden with care for the first 100-200 kms.

After new tyres are mounted, sudden acceleration, heavy braking, and hard cornering should be avoided until after the first 100-200 Kms.

SPEED RATINGS

The speed index (SI) indicates the maximum speed the tyre is homologated for. Even though PIRELLI tyres allow high speed performance ability, we do not recommend the use of any of our products in excess of legal speed limits. Tyres can have the same pattern and size, but a different speed rating. As a result, they will perform differently. When selecting your new PIRELLI motorcycle tyres, be sure to choose the right speed rating. Before buying, consult the fitment chart and the technical data in your PIRELLI manual or call us directly. Maximum speed capability varies from size to size, but is always equal to or greater than that of the original tyres when fitted in accordance with PIRELLI recommendations. The use of a tyre with a higher speed rating (e.g. "H" instead et "S") is allowed only if listed in the fitment chart. This is particularly important in cases where the speed rating exceed 210 km/h.

SUFFICIENT CLEARANCE

Before installing wheels/tyres onto your motorcycle be sure to check clearances. Indicated sizes will vary between brands and models. Remember to consult the motorcycle manufacturer before you decide to mount sizes other than those specified in this booklet. The physical dimensions must provide for adequate clearance fenders, swing arm, etc. If you increase the tyre size, it may be necessary to increase the width of the rim as well. If you increase the tyre size and/or rim width, it is very important to rotate the wheel and examine it closely for ample clearance. Please refer to our "technical data" section for more information on the dynamic radius of the tyre.

TUBELESS TYRES

Tubeless tyres require a special bead seat, because the beads have to form an airtight seal on the rim. Not all cast wheels, aluminium or magnesium, are suitable for tubeless tyre fitment. Do not mount tyres without tubes, unless the wheel manufacturer recommends it. If a tube is inserted, it is then possible to fit a tubeless tyre to a tubetype rim.

TYRE MOUNTING - IMPORTANT INFORMATION

WARNING: These tyres are only to be used on vehicles that require motorcycle tyres. Any other use can be dangerous.

Check if the tyre has directional arrows. If it does, you must mount the tyre so that the arrow points in the direction of rotation. Some PIRELLI tyres have a red dot on the side wall. This indicates the lightest point, and should be positioned next to the valve. To lubricate the bead, use tyre mounting lubricant or soapy water. To seat the bead: remove the valve stem core and inflate the tyre. For safety reasons do not inflate motorcycle tyres to more than 50 psi (3,5 bar); for scooters tyres do not exceed 150 % of the indicated maximum pressure. Be sure to reinstall the valve stem core and inflate the tyre/tube to the recommended riding pressure. Check the bead control lines for proper seating. If the beads are not properly seated, deflate the tyres/tubes and repeat the above procedure.

TYRE PRESSURE

Always inflate the tyre to the correct pressure. Be sure to check cold inflation pressure frequently, i.e. once a week. Although most motorcyclists love to work on their bikes, they rarely remember to check tyre pressure. Correct tyre pressure is critical for safe handling. Over-inflation or extreme tyre pressure will impair your riding comfort and decrease contact between the tyre and the road. Under-inflation or too little air pressure will result in poor handling and the bike will be inclined to "wander". Improper and insufficient tyre pressure will also cause rapid tyre wear, an increase in fuel consumption, lower top speed, and less control. Remember to check the inflation pressure of your tyres weekly.

You will find the correct pressure in the operating manual of the motorcycle. The manufacturer's information is the minimum value only. With luggage or with a second rider the rear tyre needs an extra 0,2 bar, and for high speed riding the pressure of the front tyre should also be increased by 0,2 bar. Attention: When the recommended pressure has been changed for use off-road (race track, off-road), it must be reset to the correct value before riding on the street.

TYRE REPAIR

Tubeless tyres: Due to the specific regulations of different national governments, it is impossible to give a general recommendation regarding tyre repair.

Please refer to your distributor for information on your country's regulations. In the case that you are allowed to repair a tyre, we recommend that you repair only small punctures which are restricted to the tread area, by using a mushroom head type plug. The repairer is solely responsible for the repair and any instructions given to the user concerning the repaired tyre. Repaired tubeless tyres should never be used with a tube.

Tubetype tyres: Tube repair is not permitted. Punctured tubetype tyres must have a new tube fitted. If punctured, the tyre and the rim have to be inspected by an expert. The puncture in the tyre should be repaired by local vulcanisation, performed by a tyre repairer, so as to prevent moisture attacking the tyre casing. The repairer is solely responsible for the repair and any inspection of the repaired tyre.

TYRE SELECTION

When choosing your new PIRELLI motorcycle tyres, you must make sure that they meet the requirements of your motorcycle and that they are suitable for the type of road you intend to ride on. If you cannot find your brand or model in our "Fitment Guide", please contact us before you have your tyres fitted.

VALVE CAPS

Centrifugal forces work on the valve stem. At high speeds they have the same effect as pushing on the valve with your finger. This may result in the tyre deflating. The valve cap is the only part preventing this from occurring. Normally this phenomenon happens only at very high speeds. But an old or low quality valve stem can open at speeds lower than 200 km/h. Therefore the cap should always be tightly closed. PIRELLI suggests the use of airtight metal caps with a rubber seal.

VEHICLE FITMENT AND SIZE MATCHING

When choosing a tyre always make sure the selected tyre has:

- a load capacity which is never lower than the maximum permitted load for the wheel on which the tyre is to be fitted (front - rear), including the passenger, luggage and accessories; a maximum speed higher than the approved maximum speed of the motorcycle at the maximum load it is designed to carry;
- an external diameter very similar to that of the original set of tyres;
- a section width which does not interfere with the mechanical parts of the vehicle under any running conditions, especially at high speeds;

NOTE: High performance motorcycles should be fitted with front and rear tyres of a compatible type in order to avoid dynamic instability.

Variations of tyre size from those indicated by vehicle manufacturers, even if technically possible, must be in accordance with existing local regulations.

WHEEL ALIGNMENT

Be sure to align your wheels every time the rear wheel is removed or the chain adjusted. Every rotation of an incorrectly aligned wheel results in additional tread wear, decreases tyre mileage, and affects steering and cornering.

WHEEL BALANCING

Elastic bodies like tyres cannot be constructed in a perfect, circular form. As a result, make sure you balance a new tyre after installing it. There are two ways to balance a tyre: static and dynamic balancing. Static balancing can be performed without rotating the wheel, and also measures the deviation of masses with respect to the wheel's centre plane. PIRELLI recommends dynamic balancing for rims over 2.5 inches in width.

GENERAL INFORMATION

COMPETITION TYRES

When off-road competition tyres are used on road PIRELLI recommends running at maximum speed for a short time only as uneven wear of the tread pattern can be expected. This has a negative effect on the off-road performance.

CORSA

This is the name given to PIRELLI street tread compounds designed for competition use. One of the features of the PIRELLI Corsa is a much higher level of grip in comparison to standard tyres.

DOT

This marking stands for Department of Transport (USA) and the code following DOT indicates the tyre meets all the requirements set out by the US Dept. of Transport. The last three numbers indicate the production date of the tyre.
Example 5002 = week 50 of 2002.

M/C

Abbreviation for "motorcycle". This marking is to ensure there is no confusion when mounting motorcycle tyres of similar rim diameter to automobile tyres. Motorcycle tyres must not be mounted on automobile rims as important differences exist between the two. The new tyre marking regulation has the M/C (=MotorCycle) symbol on the sidewall of the tyre description.

NHS

The abbreviation for "Not for Highway service". Motorcycle tyres with this marking are only for racing or off road purposes and cannot be used on public roads.

PR NUMBER

The designation ply number refers to the tyre load index. The PR marking is now only applied by the Japanese standard (JATMA). European standards (ERTO) do not require motorcycle tyres to carry a PR number. The Japanese standard can be compared to the European standard as follows:

4PR - normal version
6PR - reinforced version
The PR number does not refer to the number of plies in the tyre.

REINFORCED

(abbreviation rf. or reinf.) This refers to the construction of a tyre, and shows an increase in its load capacity.

TL

Abbreviation for tubeless. Tyres with this indication, when fitted to a tubeless type rim do not require a tube.

TT

Abbreviation for tubetype. Tyres with this indication must have a tube installed.

TREAD DEPTH

Many countries worldwide have different legal regulations regarding the minimum depth of the tread pattern of a tyre. Please contact your local dealer or technical service for the correct minimum legal tread depth in your country.

TWI

Tread wear indicator. Indicates minimum level of tread depth for safe use. Many countries have different regulations regarding minimum tread depth, so please consult your local authorized PIRELLI dealer for the correct minimum legal tread permitted.

LOAD & SPEED INDEXES

LOAD INDEX

LI	Kg.	LI	Kg.	LI	Kg.	LI	Kg.	LI	Kg.	LI	Kg.	LI	Kg.	LI	Kg.
15	69	25	92.5	35	121	45	165	55	218	65	290	75	387	85	515
16	71	26	95	36	125	46	170	56	224	66	300	76	400	86	530
17	73	27	97.5	37	128	47	175	57	230	67	307	77	412	87	545
18	75	28	100	38	132	48	180	58	236	68	315	78	425	88	560
19	77.5	29	103	39	136	49	185	59	243	69	325	79	437	89	580
20	80	30	106	40	140	50	190	60	250	70	335	80	450	90	600
21	82.5	31	109	41	145	51	195	61	257	71	345	81	462		
22	85	32	112	42	150	52	200	62	265	72	355	82	475		
23	87.5	33	115	43	155	53	206	63	272	73	365	83	487		
24	90	34	118	44	160	54	212	64	280	77	375	84	500		

SPEED INDEX

Symbol	Max Speed Km/h	Symbol	Max Speed Km/h	Symbol	Max Speed Km/h	Symbol	Max Speed Km/h	Symbol	Max Speed Km/h	Symbol	Max Speed Km/h
F	80	K	110	N	140	R	170	U	200	(V)(VB)	over 240
G	90	L	120	P	150	S	180	H	210	W	270
J	100	M	130	Q	160	T	190	V/VB	240	(W)	over 270

STRUCTURE AND CONSTRUCTION PRINCIPLES

As motorcycles have existed for over 100 years now their appearance has changed enormously. Modern Superbikes of the 90s have little in common with early motorcycles. In fact, only one part still looks similar to what it did 100 years ago- the motorcycle tyre. Despite the similarity in appearance, the modern radial tyres of PIRELLI are high-tech products with little in common with the motorcycle tyres of yesteryear. Listed below are the various construction principles PIRELLI uses today. Each tyre, street, on-/off-road, moto cross, or scooter, generally has the following construction characteristics:

TREAD PATTERN AND COMPOUND

The tread pattern is the outer part of the tyre, in contact with the road. The profile and rubber compound are chosen based on the use of the tyre. The rubber compound requires a high level of experience and technical know-how. In general it can be said that with a harder rubber compound mileage increases, and grip decreases. The softer the rubber compound, the more grip a tyre has, but mileage is reduced.

SIDEWALL

The sidewall is the “name plate” of a tyre. The combinations of numbers and letters indicate not only the name of the tyre but also the maximum speed and load allowed. The sidewall plays an important role in allowing for bump absorption and the transferring of circumferential and side forces.

CARCASS

The carcass is the basis of the whole system and gives the tyre its form. The materials used are comprised of one or more plies of Nylon, Rayon or Polyester. The main function of the carcass is to provide a flexible driving force from the bead to the tread.

BEAD

This is the component by which the tyre is fitted on the rim. It is reinforced by steel cores coated in rubber. They aid in transmitting the accelerating and braking torques, as well as mechanically connecting the tyre to the rim and ensuring against loss of inflation pressure.

THE MOST POPULAR MOTORCYCLE RIMS

WM Contour

Suitable for all PIRELLI tyres either tube or tubeless type.

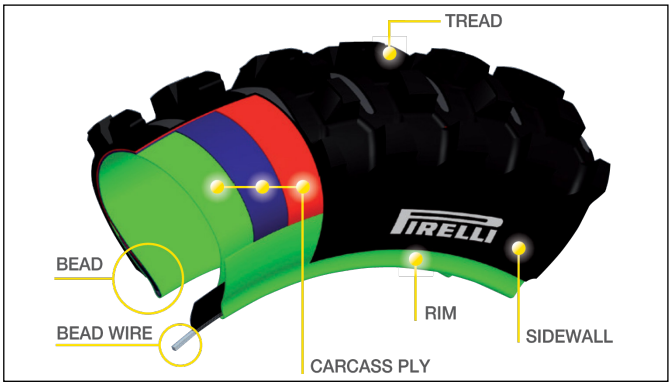
MT H2 Contour

Suitable for all PIRELLI tyres either tube or tubeless type.

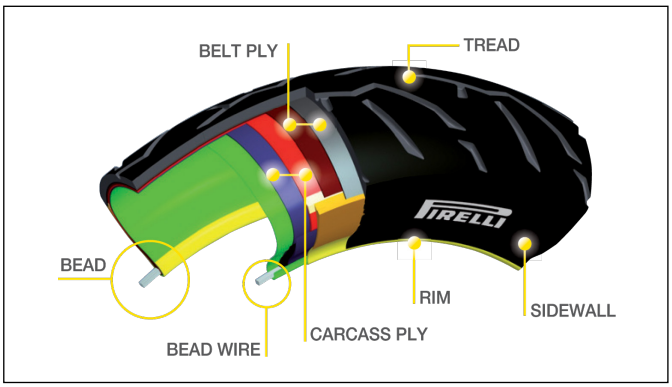
Recommendations of the bike manufacturer have to be observed.

WHEN USING A TUBE IN A PIRELLI TYRE IT HAS TO BE A PIRELLI TUBE.
WHEN USING A TUBE IN A PIRELLI TUBELESS TYRE IT HAS TO BE A PIRELLI TUBE.
WHEN USING A TUBE IN A PIRELLI TUBELESS TYRE IT HAS TO BE A PIRELLI TUBE FOR ALL TYPES OF RIMS.
CAUTION: MAXIMUM SPEED FOR “V” RATED TUBELESS TYRES USED WITH A TUBE IS 230KM/HR.

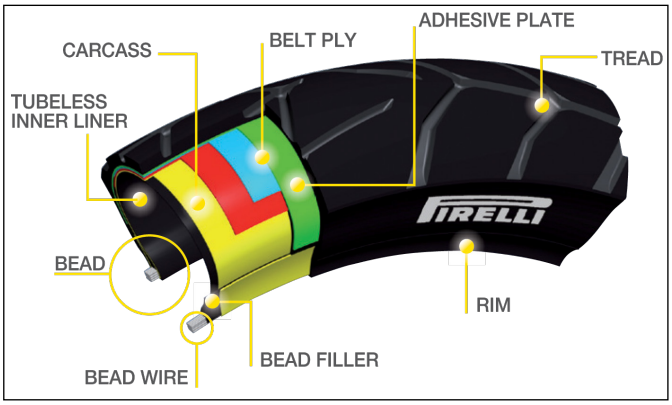
CROSS PLY CONSTRUCTION



BIAS BELTED CONSTRUCTION



RADIAL CROSS BELTED



RADIAL CARCASS WITH ZERO DEGREE STEEL BELT