



Dear Motorcycle Owner:

As the world leader in motorcycle tires, Dunlop has become increasingly concerned about the lack of attention paid by many cyclists to proper use and maintenance of their tires, particularly when fitted to motorcycles intended for touring.

Dunlop technical personnel have recently attended touring rallies all over North America to collect vital data and give instructional seminars.

What we have observed at these rallies alarms us; many touring riders are not following proper tire maintenance procedures.

The requirements for proper tire usage are not complicated, but they do require consistent attention.

Owners and operators of motorcycles should closely monitor vehicle loadings to insure that they are within the maximum loads and corresponding inflation pressures for their tires. This basic load and pressure information is clearly stamped on the tire sidewalls.

The tire does not support the load... the air pressure does. The manufacturer's ratings for the maximum load and inflation pressure are critical tire design elements. If not observed, the handling and performance of your motorcycle will be greatly affected.

At several touring rallies (for example "Aspencade" and "Wing Ding") we checked inflation pressures. An incredible 70.5% of the rear tires we inspected were underinflated, some as much as 24 psi less than the motorcycle manufacturer's recommendation!

In addition, a weight check at a Gold Wing rally held this fall at Watkins Glen, New York, indicated 38% of the rear tires on these motorcycles were loaded beyond maximum tire capacity and many more were underinflated.

Our inspection was not limited to those cycles fitted with Dunlop tires; the situation existed for all brands of tires.

Regardless of the make of tire, this is a serious problem. Riders of motorcycles with significantly underinflated and overloaded tires will experience handling and steering difficulty. In addition, this abuse will result in disappointing premature tire wear and may cause catastrophic tire failure.

The addition of accessories, cargo, and dual riding to touring motorcycles aggravates the problems of overloading and underinflation. The excessive flexing that results from underinflation or overload causes build-up of internal heat, fatigue cracking, and eventual carcass break-up resulting in complete failure. A consequence of such failure may be an accident with serious personal injury or death.

The appearance of stress cracks in the tread grooves is one indicator of overload and/or underinflation; if you find evidence of tread groove cracking you should remove and replace the tire immediately. This damage is permanent and non-repairable.

Our inspection of tires of various style and manufacture at rallies and our subsequent testing have confirmed that underinflation (and/or excessive load) causes tread groove cracking and can result in more serious damage within the tire body. Uneven wear may also accompany underinflated use. Failure to heed these visual warnings can result in tire failure or blowout.

The use of trailers can also contribute to tire damage and touring motorcycle instability. Although most motorcycle manufacturers recommend against their use, a percentage of the motorcycles we inspected were so equipped. The trailer "tongue weight" added to an already heavily laden motorcycle can fail a rear tire. The percentage of overloaded motorcycle rear tires found at Watkin's Glen, for example, would have been higher if trailer tongue weight had been considered. The forces of rapid acceleration and deceleration may also multiply the effects of trailer tongue weight.

To get the maximum safe use out of your tires and maximum touring enjoyment you should:

1. Properly maintain all aspects of your vehicle in accordance with manufacturer's recommendations. Read and re-read your motorcycle owner's manual.
2. Never exceed the loading and accessories restrictions found in your motorcycle owner's manual, or the maximum load displayed on the tire sidewalls. Know your loaded vehicle weight!
3. Check air pressure at frequent, regular intervals, particularly just before and during long trips. Always use an accurate tire gauge* and check pressures only when the tires are cold (i.e. wait one hour after running).
*We have found many cheap gauges to be off more than 5 psi, so be sure to use a top quality gauge and preferably one that retains the pressure reading until reset!
4. Inspect your tires as often as possible; look for irregular wear, any signs of cracking in the sidewalls and tread, blisters, knots, cuts or punctures. Immediately remove and replace damaged tires.

If in doubt, ask your motorcycle tire dealer to check your loading, inflation, and tires. Remember, your tires stand between you and a serious accident.

For touring motorcycle loading, follow these general guidelines...

- a. Light loads... single rider with some luggage (up to 200 lbs. total)... minimum tire pressures of 32 psi front and 36 psi rear must be maintained.
- b. Heavier loads... dual riding and/or luggage (from 200 lbs. up to maximum motorcycle capacity stated in the owner's manual -- for example, the Honda GL1100 maximum load is 395 lbs.)... pressure of 34 psi front and 40 psi rear must be maintained.

PLEASE NOTE:

For any dual riding or fully loaded use, 40 psi must be maintained in all Dunlop rear tires fitted to touring motorcycles.

In addition to following these recommendations, notice what your tires are telling you while you're riding. If your steering response is slow or mushy, or if cornering and braking response is heavy, there's a good chance your tires are underinflated. Vibration or wobble may signal that actual tire damage has occurred and failure is imminent!

If you conscientiously follow our recommendations, you will enjoy better, longer, and safer tire performance and many, many miles of touring pleasure.

Very truly yours,

DUNLOP TIRE & RUBBER CORPORATION



A. M. Mills,
Technical Manager - Motorcycle Tires

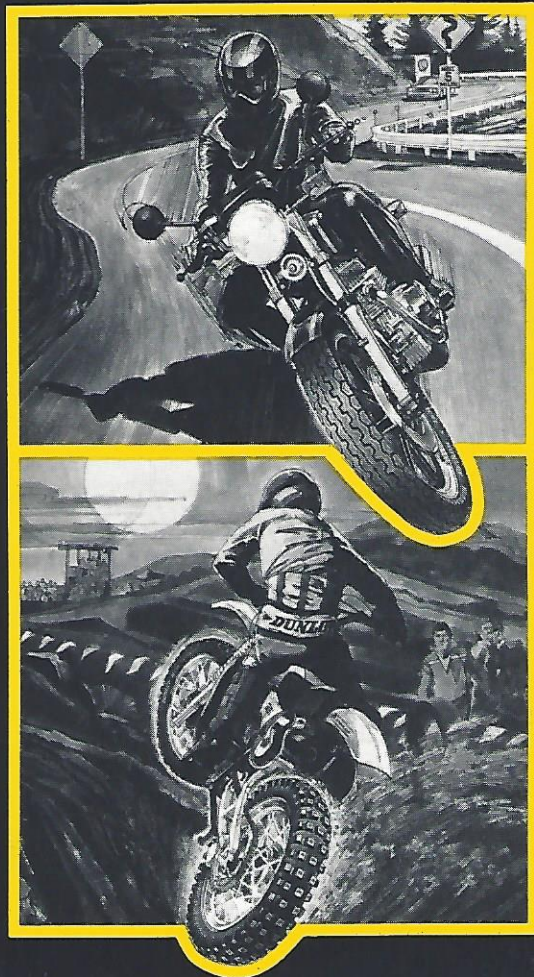


**More cycles ride on Dunlop
than any other tire in the world.**

 ***DUNLOP***

Dunlop Tire & Rubber Corporation
Motorcycle Tire Division
P.O. Box 1109
Buffalo, New York 14240
716-879-8424 or 8258

Limited Warranty **DUNLOP** **MOTORCYCLE TIRES**



LIMITED WARRANTY DUNLOP MOTORCYCLE TIRE ADJUSTMENT POLICY

WHAT IS WARRANTED

Every new Dunlop motorcycle tire that becomes unserviceable for conditions other than those which are listed under "WHAT IS NOT COVERED" will be replaced on the basis specified under "REPLACEMENT COST" below.

ELIGIBILITY

This warranty is extended to the first retail purchaser.

REPLACEMENT COST

UP TO 50% WORN

If, during the first fifty percent (50%) of tread wear, the tire becomes unserviceable for a condition covered by this warranty, it will be replaced with a comparable new Dunlop tire. You pay only for retailer services such as mounting and balancing.

AFTER 50% TREAD WEAR

If, after the first fifty percent (50%) tread wear, the tire becomes unserviceable for a condition covered by this warranty, your Dunlop motorcycle tire retailer will replace it with a comparable new Dunlop tire at a cost calculated in the following manner:

1. Either your original buying price substantiated by invoice, or the retailer's current selling price, times (x)
2. Fifty percent (50%)
3. Plus (+) all applicable federal excise taxes and local taxes and all charges for retailer services such as mounting and balancing.

A cash refund will not be extended in lieu of the above.

DURATION OF WARRANTY

As long as there is at least one thirty-second of an inch (1/32") of original tread depth remaining. Beyond this point the tire has delivered its original tread life and there is no warranty regardless of its age or mileage.

WHAT IS NOT COVERED

- Tires worn beyond the last one thirty-second of an inch (1/32") of original tread depth.
- Tires on motorcycles normally operated outside the U.S.A.
- Tires used in racing or other competition.
- Highway type tires used for off-the-road service or in any application not recommended by the motorcycle manufacturer.
- Claims made by anyone other than the first retail purchaser of the tire.
- Tires branded "Blem", which will not be adjusted for cosmetic reasons.
- Tubeless tires fitted without innertubes to rims requiring innertubes.
- Tires molded or branded "tube type" fitted without innertubes.
- Tires fitted with used, damaged or incorrect size innertubes.
—New replacement tires should always be fitted with new tubes for safety.
- Tires improperly repaired, with section repairs, or whose sidewalls have been modified by the addition or removal of material.
- Tires injected with liquid balancers or sealants, or in which anything other than air has been used as the supporting medium.
- Tires rendered unserviceable by road hazard-type damage such as impact breaks, punctures, cuts or snags; or as a result of an obstruction on the motorcycle, fire, corrosives, running while flat, misalignment, improper inflation, overloading, improper mounting or rim fitment; or by spinning, as in mud, snow, sand, on ice or during on-the-motorcycle balancing.

OWNER OBLIGATIONS

- *You are responsible for proper tire care and prudent motorcycle operation. Maintain tire inflation and load in accordance with motorcycle owners manual, tire information placard and restrictions molded on tire sidewalls.* Frequently check inflation pressure with a tire gauge and inspect for damage or irregular wear.*
**Exception - K291T Touring Elite - Tires molded for "rear" use must be inflated to a minimum of 36 PSI for light to medium loads, and 40 PSI for dual riding and other higher loads.*

FOR REPLACEMENT CONSIDERATION

- You must present the tire to the retailer from whom you bought the tire, any other retailer who sells Dunlop motorcycle tires, or, if the Dunlop tire in question is fitted as original equipment, to the retailer from whom you bought the motorcycle.
Should you be unable to contact any of those retailers, please contact the Dunlop Motorcycle Tire Division, Buffalo, New York.
- Except for tires which become unserviceable during the first 50% of tread wear, you must pay the previously specified 50% replacement cost.
- You must pay the difference in retailer's price for any more expensive replacement tire of different design.
- You must pay all applicable taxes and any charges for retailer services.

LEGAL RIGHTS

No implied warranties, either of merchantability or otherwise, are extended beyond the time when the tire has delivered its original tread life as shown by tread wear to one thirty-second of an inch (1/32").

Dunlop shall not be responsible (1) for any commercial loss, (2) for any damage to, or loss of property other than the tire itself, or (3) to the extent permitted by law, for any other type of incidental or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

MODIFICATIONS

No retailer, distributor or representative has authority to make any commitment, promise or agreement binding upon Dunlop, except as stated herein.



TIRE CARE AND MAINTENANCE GUIDE

Load Carrying Capabilities

Tires offering different load carrying capacities are available. Consider carefully the weight of your motorcycle, the weight of any optional equipment and the frequency with which you carry passengers. And remember, the load carrying capability of the tires is also affected by underinflation. It is possible to overload a tire even though it is the size specified by the cycle manufacturer. Maximum loads and pressures are indicated on the sidewall of all Dunlop street tires.

Front and Rear Tire Matching

Remember, correct matching of front and rear tires is important to obtain optimum performance and handling. When fitting a new front tire, consider the wear on your rear tire. A new front tire with a worn rear tire can cause instability.

Maintaining Clearance

Fitting tires which are larger than standard can have mileage and handling benefits. However, if you intend to mount larger tires, remember that their physical dimensions are important. Adequate clearance of fenders, swing arm, etc., must be maintained, as well as correct rim size fitment. Increasing tire size may require an increase in the rim width.

Tubes

Tubes are a critical part of the wheel assembly. They should be treated with respect. When fitting a new tire, it is recommended that a new tube is fitted at the same time. Old tubes become stretched. If they're fitted with a new tire, they can create or fail due to thinning of the tube rubber.

Always check the size marking on the tube, to assure that one of the tube sizes is shown on the tire. Tubes should be repaired by an expert.

Tire Installation

Dunlop street tires have yellow balance dots on the sidewall to indicate the lightest point of the tire. All Dunlop street tires should be installed with this balance dot at the valve.

All Dunlop high performance street tires have arrows on the sidewall, which indicate the correct direction of rotation.

Positioning of balance marks and inclusion of directional arrows are not universal among tire manufacturers.

Break-in Period

- When new tires are fitted they should not be subjected to maximum power until a reasonable "run-in" distance has been covered - approximately 100 miles.

Tire Pressures

Always follow the recommendations of the motorcycle manufacturer with respect to tire pressure.* Keep in mind that hard cornering, additional passengers, heavy loads and sustained high speeds will require higher pressures. Regular checking of tire pressures is the most important tire maintenance function you may perform.

**Exception - K291T Touring Elite - Tires molded for "rear" use must be inflated to a minimum of 36 PSI for light to medium loads, and 40 PSI for dual riding and other higher loads.*

- Underinflated tires will result in imprecise cornering, over-stressing of the tire carcass, higher running temperatures and increased tire wear at the edge of the contact patch.

- Overinflated tires will result in a hard ride and accelerated tire wear in the center of the contact patch.
- Check cold-tire pressures frequently and always before extended trips.
- Loss of pressure may be due to worn or badly seated valve cores. Check valve cores, and if necessary, tighten for correct seating, or remove and replace.
- Metal valve caps should be used and installed finger tight to protect the valve core from dust.

Tire Repair

Some punctures in motorcycle tires may be repaired. Dunlop recommends only permanent repairs performed from within the tire by a qualified tire repair shop or motorcycle dealer.

No form of temporary repair should be attempted, because secondary damage caused by the penetrating object may not be detected and tire or tube deflation may occur at a later date.

Liquid Sealants

Dunlop *does not recommend* the use of liquid sealants. These are a form of temporary repair and may mask secondary damage caused by the penetrating object.

Motorcycle Maintenance

Dunlop strongly recommends regular inspection of your motorcycle generally, and of your wheels in particular, because tire mileage and performance is adversely affected by a poorly maintained vehicle.

Wheel Balance

It is essential that tire/wheel assemblies be balanced before use, and rebalanced each time the tire is removed or replaced. Unbalanced tire/wheel assemblies can vibrate at certain speeds, with tire wear greatly accelerated.

Wheels may be balanced with spoke nipple weights, lead wire or self adhesive rim weights. *Dunlop does not recommend the use of liquid balancers or liquid balancer/sealants.*

The tire is correctly balanced when it will rotate freely in its bearings, showing no tendency for one particular section to swing to the bottom.

Wheel Alignment

Be sure to align your wheels each time the rear wheel is removed or the chain adjusted.

Each revolution of an incorrectly aligned wheel scuffs off tread rubber, reduces tire mileage, and impairs steering and cornering.

Spokes

Replace immediately any broken spokes and tighten any loose ones. After tightening or replacing spokes, be sure that wheel rims run true.

Broken spokes transfer additional tension to adjoining spokes, creating the potential for further spoke failures. Both broken and loose spokes may cause wheel wobble, thus accelerating tire wear, and could cause instability.

Wheel Inspection

Bent wheel rims, broken spokes and bent or cracked cast wheels should be replaced immediately.

Bent rims may cause wheel wobble, bead unseating and, in the case of tubeless tires, gradual air loss. Sudden wheel failure may result from the use of cracked cast wheels.

Note: Not all cast wheels, whether aluminum or magnesium, are suitable for tubeless tire fitment. Mount tires as tubeless only when the wheel manufacturer recommends it. With a tube inserted, a tubeless tire may be fitted to a tube-type wheel.

Rim Size

Consult the Dunlop Technical Data Chart or your Dunlop Motorcycle Dealer to ensure that the tires you select are correct for your rims.

A tire which is installed on a wider than recommended rim will have a "flattened" profile, and a rider may easily reach the edge of the tread during cornering. A narrow rim will alter the tire profile, concentrating tire wear in a very small area during cornering, with a smaller contact patch during braking.

TIRE STORAGE

The treatment your tires receive during extended periods of inactivity may directly affect their mileage and performance.

Temperature

Try to avoid frequent and varied extremes of temperature during storage. Do **not** keep tires next to radiators or sources of heat. Tires subject to these conditions will age more quickly than those stored in a cool, constant environment.

Sunlight

Tires stored in direct sunlight for long periods of time will harden and age more quickly than those kept in a dark or dimly lit area.

Ozone

Do not store tires where electric motors are present. The high concentration of ozone will accelerate tire aging.

Oil and Gasoline

Prolonged contact with oil or gasoline may cause contamination of the rubber compound making the tire unsuitable for use. Wipe off any oil or gasoline immediately with a clean rag, cleaning the tread grooves as well.

WARNING

Improper mounting can cause tire explosion and serious injury.

Follow These Mounting Precautions:

- Clean and lubricate beads and rim
- Centralize rim band & tube to prevent pinching
- Note directional arrows on sidewall where applicable
- Set air hose relief valve at **40 PSI**
- Use extension gauge and hose with clip-on air chuck
 - **STAND BACK**
- Inflate with core in valve stem
- Never inflate above 40 PSI to seat beads
- Spin wheel to check bead seating and alignment