



**MICHELIN**

*A better way forward*

*Passenger and Light Truck Tire Owner's Manual and Limited Warranty,  
Including the Applicable Treadwear Limited Warranty and the  
Self-Supporting Zero Pressure™ (ZP) Tire Limited Warranty*

## MICHELIN® PASSENGER AND LIGHT TRUCK TIRE LIMITED WARRANTY

### ABOUT THE LIMITED WARRANTIES AND OWNER'S MANUAL BOOKLET

As the purchaser of a Michelin® brand passenger or light truck tire, you are encouraged to read this booklet carefully to determine which warranty coverages apply to the specific tires that you own. Please also pay close attention to the Owner's Manual part of this booklet since it provides essential safety and maintenance information.

#### Self Supporting Zero Pressure™ Tires (ZP)

Michelin® Self-Supporting Zero Pressure™ Tires (ZP) are covered by the limited warranty for workmanship and materials and a Road Hazard Replacement Plan. The terms and conditions of this limited warranty begin on page 5. **ONLY** ZP tires are covered by this Road Hazard Replacement Plan.

#### Definitions

The "legal life of the tire" is six years from the date of purchase or the life of the "usable tread," which is defined as the original tread worn down to the level of the treadwear indicators - 2/32nds of an inch (1.6 mm) of tread remaining, whichever occurs first. The date of purchase is documented by a new vehicle registration or tire sales invoice. If no proof of purchase is available, the date of manufacture, as molded on the sidewall, will be used.

Uneven wear is defined as a tread groove difference of 2/32nds of an inch or more on the same tire.

### WHAT IS COVERED AND FOR HOW LONG

#### Workmanship and Materials

Michelin® passenger and light truck tires, used in normal service on the vehicle on which they were originally fitted and in accordance with the maintenance recommendations and safety warnings contained in the attached owner's manual, are covered by this limited warranty against defects in workmanship and materials for the life of the original usable tread, or six years from date of purchase, whichever comes first. At that time, all warranties, express or implied, expire. Replacement will be made in accordance with the terms and conditions described under "How Replacement Charges are Calculated."

#### Treadwear - For Tires with Mileage Warranty Coverage

Some Michelin® passenger tires are covered by a manufacturer's limited warranty for treadwear. These tires (hereafter referred to as "mileage tires") have mileage coverage as follows:

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## MICHELIN® PASSENGER AND LIGHT TRUCK TIRE LIMITED WARRANTY

<u>Tread Design</u>	<u>Warranted Miles</u>
HydroEdge™	90,000 miles
Destiny™ <sup>5</sup>	80,000 miles
X-One® <sup>1</sup>	80,000 miles
Harmony™	80,000 miles
X®-Radial <sup>3</sup>	80,000 miles
X®-Radial Plus™ <sup>3</sup>	80,000 miles
Symmetry®	65,000 miles
Cross Terrain™ SUV <sup>2</sup>	65,000 miles
Exalto A/S <sup>4</sup>	45,000 miles
Pilot XGTH <sup>6</sup>	45,000 miles
Pilot XGTV <sup>6</sup>	45,000 miles

1. Applies only to tires purchased after May 24, 1999;
2. Applies to tires sold on or after March 1, 2002;
3. Applies to tires sold on or after May 1, 2002. Distributed by Membership Clubs only;
4. Applies to tires sold on or after June 1, 2005;
5. Distributed by Discount Tire only;
6. Applies to tires sold on or after July 1, 2005.

No tire manufacturer can guarantee you a certain number of miles from a given tire. Driving habits, driving conditions, road conditions, and vehicle maintenance all play a part in the tread life of a tire. If a tire does not reach the warranted mileage, and the owner of the tires has complied with the terms and conditions of the warranty, Michelin® will replace the tires as follows.

If, as indicated by your new tire invoice, your Michelin® mileage tires wear evenly across the tread, down to the treadwear indicators (2/32nds of an inch of tread remaining) before providing the warranted miles of service as indicated by the properly functioning vehicle odometer, they will be replaced with comparable new Michelin® passenger tires for a *pro rata* charge based on mileage received. The mileage received will be based on the current vehicle mileage on the odometer compared to the vehicle mileage at the time of new tire installation, which must be listed on the new tire invoice and the Original Owner/Tire Installation Information record.

Tires which wear out evenly before delivering the warranted mileage will be replaced on a *pro rata* basis only if:

- 1) You are the original purchaser of the tires, you own the vehicle on which they were originally installed, and the tires have been used only on that vehicle;
- 2) The tires have been rotated and inspected by a participating Michelin® tire retailer every 7,500 miles, and the attached Mounting and Rotation Service Record has been fully completed and signed;
- 3) The completed Service Record form, Original Owner/Tire Installation Information form, and the Original Invoice are presented to a participating Michelin® tire retailer at the time of adjustment claim; and
- 4) The tires have not become unserviceable due to a condition listed under WHAT IS NOT COVERED (see page 3).

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## MICHELIN® PASSENGER AND LIGHT TRUCK TIRE LIMITED WARRANTY

### Temporary Spares

Michelin® temporary spare tires are covered by this limited warranty for 6 years from date of purchase or until the first 2/32nds of an inch (1.6mm) of the original tread is worn off. At that time, all warranties, express or implied, expire. Date of purchase is documented by new vehicle registration or tire sales invoice. If no proof of purchase is available, coverage will be based on the date of manufacture.

### WHAT IS NOT COVERED

Tires which become unserviceable due to:

- Road hazard injury (e.g., a cut, snag, bruise, impact damage, or puncture);
- Incorrect mounting of the tire, tire/wheel imbalance, or improper repair;
- Misapplication, improper maintenance, racing, underinflation, overinflation or other abuse;
- Uneven or rapid wear which is caused by mechanical irregularity in the vehicle such as wheel misalignment, (a measured tread difference of 2/32nds of an inch or more across the tread on the same tire);
- Accident, fire, chemical corrosion, tire alteration, or vandalism;
- Use in commercial applications for treadwear;

- Flat spotting caused by improper storage;
- The addition of liquid, solid or gaseous materials other than air, nitrogen or carbon dioxide (for example, waterbase sealers or balancing substances);
- Ozone or weather checking.

Tires branded "Blemished" or "BLEM" are not adjustable for appearance conditions.

### HOW REPLACEMENT CHARGES ARE CALCULATED

#### Workmanship/Materials

A tire which becomes unserviceable due to a condition covered by this workmanship and materials limited warranty will be replaced with a comparable new Michelin® tire, free of charge, when 2/32nds of an inch (1.6mm) or less of the original tread is worn, (or 25% or less, whichever is more beneficial to the user) and within 12 months of the date of purchase. Mounting and balancing of the tire is included. You pay the cost of any other service charges and applicable taxes.

When more than 2/32nds of an inch of original tread has been worn (or more than 25%, whichever is more beneficial to the user) or after 12 months from date of purchase, you must pay the cost of a comparable new Michelin® passenger or light truck replacement tire on a *pro rata* basis. The retailer will determine the charge by multiplying the percentage of the original usable tread worn, by the current selling price at the adjustment location or

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## MICHELIN® PASSENGER AND LIGHT TRUCK TIRE LIMITED WARRANTY

the price in the current Michelin® Base Price List, whichever is lower. This list is based on a predetermined price intended to fairly represent the actual selling price of the tire. You pay the cost of mounting, balancing and any other service charges and applicable taxes.

### Treadwear

A tire meeting the conditions for *pro rata* replacement, which wears evenly across the tread, down to the tread wear indicators (2/32nds of an inch tread remaining) within 6 years of the date of purchase, and before delivering the warranted miles of service, will be replaced with a comparable new Michelin® tire based on mileage received. The participating Michelin® tire retailer will determine the charge by multiplying the percent of mileage received by the current actual selling price at the adjustment location or the price of the tire in the current Michelin® Base Price List, whichever is lower. This list is based on a predetermined price intended to fairly represent the actual selling price of the tire. You pay the cost of mounting, balancing and any other dealer services and applicable taxes.

### Temporary Spares

A Michelin® Temporary Spare used in temporary service on the vehicle in which it was originally installed, which becomes unserviceable due to a condition covered by this warranty, will be replaced with a comparable new Michelin® Temporary Spare tire,

free of charge, when it is worn less than 1/32nd of an inch (0.8mm). The cost of mounting and balancing is included. You pay the cost of any other service charges and applicable taxes.

When 1/32nd of an inch (0.8mm) of the original tread has been worn, but less than 2/32nds of an inch (1.6mm) the tire will be replaced at 50% according to current actual selling price at the adjustment location. You pay the cost of mounting, balancing, and any other service charges and applicable taxes.

### WHAT THE CONSUMER MUST DO WHEN MAKING A CLAIM

When making a claim under the term of this limited warranty, you must present your tire(s) to a participating Michelin® retailer. The vehicle on which the tires were used must be available for inspection.

For treadwear replacement claims, you must also present your original invoice and the original copy of this warranty with both sides of the completed Original Owner Tire Installation Information form. Personal identification (i.e. Driver's license, Credit Card, etc.) and vehicle registration may be required.

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## **SUPPORTING Zero Pressure™ (ZP) TIRE LIMITED WARRANTY/ZP ASSURANCE PLAN**

normal vehicle and tire maintenance.  
ins and Exclusions pertaining to all lim-  
s booklet.

### **ARRANTY**

lin® Self-Supporting Zero Pressure™ (ZP)  
vehicle approved for ZP tires, equipped  
w tire pressure warning system, you are  
u are encouraged to read this booklet  
arranty coverages that apply to your ZP  
tention to the Owner's Manual part of  
des specific safety and maintenance

o Pressure™ (ZP) tires are part of a very  
designed to provide a very simple benefit:  
es, you can still maneuver the vehicle up  
o 55 miles per hour, even though the tire  
ne to exit from the highway and get to a  
pected, replaced, or possibly returned to  
safely be travelled following an air loss  
he conditions under which the vehicle is  
ss, the extent of the damage causing the  
ure, the load, and the operating speed of  
you travel after an air loss incident, the

greater the likelihood that the tire can be reinflated (or, if punctured, repaired) and returned to service.

### **WHAT IS COVERED AND FOR HOW LONG**

#### **Workmanship and Materials**

Michelin® Self-Supporting Zero Pressure™ (ZP) tires, used in normal service on the vehicle on which they were originally fitted and in accordance with the maintenance recommendations and safety warnings contained in this limited warranty booklet/owner's manual, are covered against defects in workmanship and materials, for the life of the original usable tread or 6 years from the date of purchase, whichever comes first. At that time, all warranties, express or implied, expire. Replacement will be made in accordance with the terms and conditions described under "HOW REPLACEMENT CHARGES ARE CALCULATED" on pages 6-7.

NOTE: Some Michelin® Self-Supporting Zero Pressure™ (ZP) tires can only be mounted on special SH-M (Symmetric Hump - Modified) wheels. These tires bear the special SH-M designation, molded into the sidewall of the tire, next to the ZP designation. DO NOT MOUNT A TIRE WITH THE SH-M DESIGNATION ON THE SIDEWALL ON A STANDARD WHEEL. DOING SO VOIDS THIS LIMITED WARRANTY AND COULD CAUSE THE TIRE TO BECOME UNSERVICEABLE AT LOW OR ZERO PRESSURE, RESULTING IN SERIOUS PERSONAL INJURY OR DEATH.

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## **SUPPORTING ZERO PRESSURE™ (ZP) TIRE LIMITED WARRANTY/ZP ASSURANCE PLAN**

warranty coverage described above,  
Zero Pressure™ (ZP) tires also carry  
urance Plan.

repaired if the puncturing object is  
f tire air loss. No tire, regardless of its  
l even a self-supporting zero pressure  
/iceable by road hazard injury. If this  
lace your tire under the same terms  
HOW REPLACEMENT CHARGES ARE  
ance Plan is not a warranty or protec-  
d injuries. It is an added value to the  
r replacement of tires that come out  
onditions not covered by the limited

### **WHAT IS NOT COVERED BY THE LIMITED WARRANTY OR THE ZP ASSURANCE PLAN**

#### **Tires which become unserviceable due to:**

- Incorrect mounting of the tire, tire/wheel imbalance, or improper repair;
- Misapplication, improper maintenance, racing, underinflation, overinflation or other abuse;
- Uneven or rapid wear which is caused by mechanical irregularity in the vehicle such as wheel misalignment, (a measured tread difference of 2/32nds of an inch or more across the tread on the same tire);
- Accident, fire, chemical corrosion, tire alteration, or vandalism;
- Use in commercial applications for treadwear;
- Flat spotting caused by improper storage;
- The addition of liquid, solid or gaseous materials other than air, nitrogen or carbon dioxide (for example, waterbase sealers or balancing substances);
- Ozone or weather cracking;
- Use of Michelin® Self-Supporting Zero Pressure™ (ZP) tires without a correctly operating low air pressure warning system.

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## **MICHELIN® SELF-SUPPORTING ZERO PRESSURE™ (ZP) TIRE LIMITED WARRANTY/ZP ASSURANCE PLAN**

### **HOW REPLACEMENT CHARGES ARE CALCULATED**

#### **MICHELIN® SELF-SUPPORTING Zero Pressure™ (ZP) - TIRE**

If a Michelin® Self-Supporting Zero Pressure™ (ZP) tire becomes unserviceable due to a workmanship or materials condition or a road hazard injury during the first 24 months of service or before 50% of the tread is worn, whichever occurs first, Michelin® will furnish a comparable new Michelin® Self-Supporting Zero Pressure™ (ZP) replacement tire at NO CHARGE. No charge will be made for demounting/mounting/balancing, but the consumer will be responsible for paying any other dealer charges and applicable taxes.

If a Michelin® Self-Supporting Zero Pressure™ tire becomes unserviceable due to a workmanship or materials condition or a road hazard injury after the free replacement period, Michelin® will furnish a comparable Michelin® Self-Supporting Zero Pressure™ (ZP) tire on a *pro rata* basis, up to 6 years from date of purchase. Date of purchase is documented by new vehicle registration or new tire sales invoice. After the free replacement period, the owner pays any charges for demounting/mounting/balancing and any other dealer charges and applicable taxes.

### **WHAT THE CONSUMER MUST DO WHEN MAKING A CLAIM**

When making a claim under the terms of this limited warranty, the consumer must present the tire to a participating Michelin® retailer. To locate a participating Michelin® retailer, check the yellow pages under "Tire Dealers - Retail", or visit our website, listed below for dealer locations.

The vehicle on which the tire was used should be available for inspection.

IF YOU REQUIRE FURTHER ASSISTANCE WITH ANY OF THE LIMITED WARRANTIES CONTAINED IN THIS BOOKLET, PLEASE CONTACT:

**United States:** 1-800-847-3435

**Or Write:** Consumer Relations Department  
P.O. Box 19001  
Greenville, South Carolina 29602-9001.

**Or Email:** [www.michelinman.com](http://www.michelinman.com)

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## **MICHELIN® PASSENGER AND LIGHT TRUCK TIRE LIMITED WARRANTY**

### **CONDITIONS AND EXCLUSIONS**

These limited warranties do not provide compensation for loss of time, loss of use of vehicle, inconvenience or consequential damage. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Tires presented for claim remain the property of the consumer and Michelin® accepts no responsibility for loss of or damage to tires which are in the custody or control of a Michelin® tire retailer for the purpose of inspection for warranty adjustment. Tires accepted for claim become the property of Michelin® North America, Inc. (MNA). **In the event of a disputed claim, the consumer must make the tire available for further inspection.**

No MNA representative, employee or retailer has the authority to make or imply any representation, promise or agreement, which in any way varies the terms of this warranty.

These limited warranties apply only in the United States.

### **CONSUMER RIGHTS**

This warranty gives the user specific legal rights, and the user may also have other rights which vary from state to state.

### **SAFETY MAINTENANCE INFORMATION**

Read the owner's manual portion of this brochure, the information on the sidewall of your tires, your vehicle owner's manual and vehicle tire information placard for essential safety and maintenance information.

**You should have complete confidence in your new Michelin® tires. Still, it's important to register your tires in the event that we need to contact you. For online tire registration, visit [www.michelinman.com/register](http://www.michelinman.com/register).**

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## **WARNING**

**Disregarding any of the safety precautions and instructions contained in this manual may result in tire failure or explosion causing serious personal injury or death.**

### **DRIVING ON ANY TIRE THAT DOES NOT HAVE THE CORRECT INFLATION PRESSURE IS DANGEROUS**

Any underinflated tire builds up excessive heat that may result in sudden tire destruction. For replacement tires, the correct inflation pressure will be provided by your tire retailer. If not, refer to the vehicle placard. The pressure(s) listed on the placard must be maintained as a minimum. However, do not exceed the maximum pressure rating indicated on the tire sidewall.

### **SELF SUPPORTING ZERO PRESSURE™ (ZP) TIRES AT LOW OR ZERO AIR PRESSURE**

The handling characteristics of a vehicle with a deflated Self-Supporting Zero Pressure™ (ZP) tire (whether front or rear) are not the same as those of a vehicle with normally inflated tires. Avoid high speeds and hard cornering whenever a low pressure warning is activated.

Even a Michelin® Self-Supporting Zero Pressure™ (ZP) tire can build up excessive heat when run under-inflated for an extended period of time. The length of time and distance a Self-Supporting Zero Pressure™ (ZP) tire will perform at low or zero air pressure will depend upon the severity of the event causing air loss, ambient temperature, speed at which the tire is operated, and the conditions under which the tire is operated (i.e. hard braking, cornering and other sharp maneuvers will greatly reduce the length of time the tire can perform at low or zero air pressure.) Continuous use of an under-inflated tire may lead to sudden tire destruction. If a tire at low or zero pressure™ begins to vibrate or cause difficulty in vehicle handling, remove the tire immediately and replace with the temporary spare. If Michelin® Self-Supporting Zero Pressure™ (ZP) tires are supplied as original equipment, refer to the vehicle owner's manual for complete details on the low air pressure warning system designed to alert you in the event of a low pressure condition.

**NOTE: MICHELIN® SELF-SUPPORTING ZERO PRESSURE™ (ZP) TIRES ARE TO BE USED ONLY IN CONJUNCTION WITH AN OPERATIONAL, MICHELIN® APPROVED, LOW AIR PRESSURE WARNING SYSTEM.** Otherwise, all provisions of the limited warranty are void. For a list of approved systems, see your participating Michelin® retailer, or call **1-800-847-3435**.

For all types of tires, consult your vehicle tire placard or owner's manual for recommended operating pressures. If the tires are purchased as replacement tires, operating instructions for the low pressure warning system will be provided by the manufacturer of that system. Recommended operating pressures will be provided by a participant-

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ing Michelin® retailer. These inflation pressures must be maintained as a minimum. However, do not exceed the maximum pressure rating indicated on the tire sidewall.

### **CHECK THE COLD INFLATION PRESSURES IN ALL YOUR TIRES, INCLUDING THE SPARE, AT LEAST ONCE EACH MONTH**

Failure to maintain correct inflation may result in improper vehicle handling and may cause rapid and irregular tire wear, sudden tire destruction, loss of vehicle control and serious personal injury. Therefore, inflation pressures should be checked at least once each month and always prior to long distance trips. This applies to all tires, including sealant types, and Self-Supporting Zero Pressure™ (ZP) tires which are as susceptible to losing air pressure as any other type if not properly maintained.

Pressures should be checked when tires are cold; in other words, before they have been driven on. Driving, even for a short distance, causes tires to heat up and air pressure to increase.

### **CHECKING PRESSURE WHEN TIRES ARE HOT:**

If pressures are checked after tires have been driven for more than three minutes or more than one mile, the tires become hot and the pressures will increase by approximately 4 psi. Therefore when the tire pressure is adjusted under these conditions, it should be increased to a gauge reading of 4 psi greater than the recommended cold inflation pressure.

**For Example Only:** Recommended cold inflation is 30 psi. The gauge reading of hot tire was found to be 32 psi (Actual pressure is 28 psi). Therefore, to achieve the 30 psi recommended pressure, inflate to 34 psi (add 2 psi).

**Check cold pressure as soon as possible, preferably within 24 hours. "Bleeding" air from hot tires could result in underinflation. Use an accurate tire pressure gauge to check pressures. Never allow children to inflate or deflate tires.**

### **FOR SELF-SUPPORTING Zero Pressure™ (ZP) TIRES CHECK INFLATION PRESSURES AS SOON AS POSSIBLE FOLLOWING A LOW PRESSURE WARNING**

Low pressure warning systems are designed to alert the driver to a low air pressure situation in at least one tire on the vehicle. While your ZP tires are designed to provide continued mobility in the event of an air loss, the sooner you respond to a warning and take corrective action, the greater the likelihood that the tire can be returned to service.

**Always visually inspect your Michelin® self-supporting tires and use a pressure gauge to check the air pressure in all 4 tires following any low pressure warning. (Unless advised to do otherwise by the manufacturer of your low pressure warning system.)**

**If the tire pressure is at or below 18 PSI, proceed to the nearest participating Michelin® retailer (or a representative of your vehicle manufacturer if advised to do so in your vehicle**

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owner's manual) and have the tire demounted and thoroughly inspected for possible internal damage.

If you are unable to see any damage to the tire, and the tire pressure is more than 18 PSI, reinflate your tire to the proper air pressure. (See instructions for checking pressures when tires are hot.) When tires have cooled, check air pressure again. If any tire has lost more than 5 psi. from the previous pressure check, have the tire inspected at once by a participating Michelin® tire retailer (or representative of your vehicle manufacturer if your vehicle owner's manual so advises). Failure to do so may cause irreparable damage to the tire and result in sudden tire destruction and personal injury.

#### TIRE SPINNING

Do not spin wheels in excess of 35 MPH (55 km/h) as indicated on the speedometer. Excessive speed in a free-running, unloaded tire can cause it to "explode" from centrifugal force. The energy released by such an explosion is sufficient to cause serious physical injury or death. Never allow anyone to stand near or behind the spinning tire.

When in mud, sand, snow, ice, or other slippery conditions, do not engage in excessive wheel spin. Accelerating the motor excessively, particularly with automatic transmission vehicles, may cause a drive tire that has lost traction to spin beyond its speed capability. This is also true when balancing a drive tire/wheel assembly on the vehicle using the vehicle engine to spin the tire/wheel assembly.

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#### SPEED RATINGS

Speed Symbols are shown on the sidewall of some Michelin® tires. The following table shows the maximum speed corresponding to the symbol

\*Some V (or VR) rated tires may have a speed capacity greater than 149 mph (240 km/h). Consult your participating Michelin® tire retailer for maximum speed rating if your vehicle capability exceeds this speed.

\*\*Z (or ZR) rated tires are designed for use on cars with maximum speed capabilities in excess of 149mph (240 km/h).

SPEED Ratings	MaximumSpeed	
	Km/hr	mph
M	130	81
N	140	87
P	150	93
Q	160	100
R	170	106
S	180	112
T	190	118
H	210	130
V	240	149
V*	240+	149+
W	270	168
Y	300	186
	300+	186+

ZR\*\*  
↓

(W and Y speed ratings are sub-categories of Z).

Consult your Michelin® tire retailer for maximum speed capabilities.

Although a tire may be speed-rated, we do not endorse the operation of any vehicle in an unsafe or unlawful manner. Speed ratings are based on laboratory tests which relate to performance on the road, but are not applicable if tires are underinflated, overloaded, worn out,

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#### HIGH SPEED DRIVING CAN BE DANGEROUS

Correct inflation pressure is especially important. However, at high speeds, even with the correct inflation pressure, a road hazard, for example, is more difficult to avoid and if contact is made, has a greater chance of causing tire damage than at a lower speed. Moreover, driving at high speed reduces the reaction time available to avoid accidents and bring your vehicle to a safe stop.

If you see any damage to a tire or wheel, replace it with the spare at once and visit a participating Michelin® tire retailer.

Exceeding the maximum speeds shown on the following page for each type of Michelin® tire will cause the tire to build up excessive heat which can cause tire damage that could result in sudden air loss and rapid tire destruction. Failure to control a vehicle if a tire experiences sudden air loss can lead to an accident.

In any case, you should not exceed reasonable speeds as indicated by the legal limits and driving conditions.

damaged, altered, improperly repaired, or retreaded. Furthermore, a tire's speed rating does not imply that vehicles can be safely driven at the maximum speed for which the tire is rated, particularly under adverse road and weather conditions or if the vehicle has unusual characteristics.

Michelin® highway passenger tires that do not have a speed symbol on the sidewall have a maximum speed rating of 105 mph. Light truck highway tires that do not have a speed symbol on the sidewall of the tire have a maximum speed rating of 87 mph. Some light truck tires may have higher maximum speeds; consult any Michelin® retailer.

The speed and other ratings of retreaded tires are assigned by the retreader and replace the original manufacturer's ratings.

**IMPORTANT:** In order to maintain the speed capability of the vehicle, replacement tires must have speed ratings equal to or higher than those fitted as original equipment (as indicated on the vehicle tire placard or owner's manual). If tires with lower speed ratings are fitted, the vehicle's handling may be affected and the speed capability of the vehicle will be lowered to the maximum speed capability of the replacement tires as indicated in the above table.

**REMEMBER...**High speed driving can be dangerous and may damage your tires.

**AND...**When driving at highway speeds, correct inflation pressure is especially important.

## **INSPECT YOUR TIRES – DO NOT DRIVE ON A DAMAGED TIRE OR WHEEL**

### **Hazards**

Driving over potholes, glass, metal, rocks, wood debris and the like, can damage a tire and should be safely avoided. Unavoidable contact with such hazards should prompt a thorough tire inspection.

If you see any damage to your tires or wheels, replace with a spare at once and immediately visit any participating Michelin® tire retailer for advice.

### **Inspection**

When inspecting your tires, including the spare, check air pressures. If the pressure check indicates that one of your tires has lost pressure of two pounds or more, look for signs of penetrations, valve leakage, or wheel damage that may account for the air loss.

Always look for bulges, cracks, cuts, penetrations and abnormal tire wear, particularly on the edges of the tire tread, which may be caused by misalignment or underinflation. If any such damage is found, the tire must be inspected by any participating Michelin® tire retailer at once. Use of a damaged tire could result in tire destruction.

All tires will wear out faster when subjected to high speeds as well as hard cornering, rapid starts, sudden stops, frequent driving on roads which are in poor condition, and off road use. Roads with holes and rocks or other objects can damage tires and cause misalignment of your vehicle. When driving on such roads, drive carefully and slowly, and before driving again at normal or high-way speeds, examine your

tires for any damage, such as cuts, bulges, penetrations, unusual wear patterns, etc.

### **WEAR BARS**

Michelin® tires contain "Wear-Bars" in the grooves of the tire tread which show up when only 2/32nds of an inch (1.6mm) of tread is remaining. At this stage, tires are worn out and must be replaced. Driving on worn tires can be extremely dangerous.

### **DO NOT OVERLOAD. DRIVING ON ANY OVERLOADED TIRE IS DANGEROUS**

The maximum load rating of your tires is molded on the tire sidewall. Do not exceed this rating. Follow the loading instructions of the manufacturer of your vehicle and this will ensure that your tires are not overloaded. Tires which are loaded beyond their maximum allowable loads for the particular application will build up excessive heat that may result in sudden tire destruction.

Do not exceed the gross axle weight rating for any axle on your vehicle.

### **TRAILER TOWING**

If you anticipate towing a trailer, you should see any participating Michelin® tire retailer for advice concerning the correct size of tire and pressures. The size and pressures will depend upon the type and size of trailer and hitch utilized, but in no case must the maximum cold inflation pressure or tire load rating be exceeded. Check the vehicle placard and the owner's manual supplied by the manufacturer of your vehicle for further recommendations on trailer towing.

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### **Self-Supporting Zero Pressure™ (ZP) Tires and Trailer Towing**

Operation of ZP tires at low or zero air pressure with a trailer in tow, is dangerous and is not recommended. If the low pressure warning indicator is activated when a trailer is in tow, stop, disconnect the trailer, and do not continue to tow the trailer until the tire has been repaired and re-inflated to the proper air pressure. If the tire cannot be repaired, it must be replaced with a new full size ZP tire, and inflated to the proper air pressure, before the trailer can be safely towed again.

### **WHEEL ALIGNMENT AND BALANCING ARE IMPORTANT FOR SAFETY AND MAXIMUM MILEAGE FROM YOUR TIRES. CHECK HOW YOUR TIRES ARE WEARING AT LEAST ONCE EACH MONTH**

If your tires are wearing unevenly, such as the inside shoulder of the tire wearing faster than the rest of the tread, or if you detect excessive vibration, your vehicle may be out of alignment or balance. These conditions not only shorten the life of your tires but also adversely affect the handling characteristics of your vehicle, which could be dangerous. If you detect irregular wear or vibration, have your alignment and balance checked immediately. Tires which have been run underinflated will show more wear on the shoulders than in the center of the tread.

### **TIRE MIXING**

Michelin® tires are radial tires and for best performance it is recommended that the same size and type of tire be used on all four wheel positions. In certain tires, casing ply material and ply construction may

vary as indicated on the sidewall of the tire. All Michelin® tires of the same size and tread design and type of ply construction are fully compatible. Before mixing tires of different types in any configuration on any vehicle, be sure to check the vehicle manufacturer's owner's manual for its recommendations.

It is especially important to check the vehicle manufacturer's owner's manual when mixing, matching, or replacing tires on 4-wheel drive vehicles, as this may require special precautions.

MICHELIN® DOES NOT RECOMMEND MIXING SELF-SUPPORTING ZERO PRESSURE™ (ZP) TIRES WITH NON-ZP TIRES OTHER THAN THE TEMPORARY USE OF THE SPARE TIRE.

### **WINTER DRIVING**

Tires which meet the Rubber Manufacturers Association (RMA) definition of snow tires are marked M/S, M+S, or M&S. On such tires, this designation is molded into the sidewall. Tires without this notation are not recommended for snow driving.

**While All-Season tires are designed to provide reliable performance in moderate winter conditions, the use of four (4) winter tires is recommended for optimal performance. Tires designated for use in severe winter conditions are marked on at least one sidewall with the letters "M" and "S" plus a pictograph of a mountain with a snowflake on it.**



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## TIRE ROTATION

To obtain maximum tire wear, it may be necessary to rotate your tires. Refer to your vehicle owner's manual for instructions on tire rotation. If you do not have an owner's manual for your vehicle, Michelin® recommends rotating your tires every 6,000 to 8,000 miles.

To remain in compliance with the terms and conditions of the Michelin® Treadwear Limited Warranty coverage, you must have your tires rotated every 7,500 miles and be able to document each rotation. A page for documenting dates and mileage at the time of rotation is provided at the back of this brochure.

Monthly inspection for tire wear is recommended. Your tires should be rotated at the first sign of a difference in tread depth between front and rear tires even if it occurs before 6,000 miles. If any irregular wear is found, the cause must be corrected to prevent further excessive wear. This is true for all vehicles.

When rotating tires with a directional tread pattern, observe the arrows molded on the sidewall which show the direction in which the tire should turn. Care must be taken to maintain the proper turning direction.

As a general rule, whenever only two tires are replaced, the new ones should be put on the rear.

## CUSTOMIZATION OF TIRES, WHEELS OR SUSPENSION ON SUVs AND LIGHT TRUCKS

Due to their size, weight and higher center of gravity, vehicles such as SUVs and light trucks do not have the same handling characteristics as automobiles. Because of these differing characteristics, failure to operate your SUV/truck in a proper and safe manner can increase the likelihood of vehicle rollover. Modifications to your SUV/truck tire size, tire type, wheels or suspension can change its handling characteristics and further increase the likelihood of vehicle rollover. Whether your SUV/truck has the original equipment configuration for tires, wheels and suspension or whether any of these items have been modified, always drive safely, avoid sudden, sharp turns or lane changes and obey all traffic laws. Failure to do so may result in loss of vehicle control leading to an accident and serious injury or death.

## TIRE ALTERATIONS

Do not **make or allow to be made** any alteration on your tires. Alterations may prevent proper performance, leading to tire damage which can result in an accident. Tires which become unserviceable due to alterations such as truing, whitewall inlays, addition of balancing or sealant liquids, **or the use of tire dressings containing petroleum distillates**, are excluded from warranty coverage.

## REPAIRS - WHEREVER POSSIBLE, SEE ANY MICHELIN® TIRE RETAILER AT ONCE

If any Michelin® tire sustains a puncture, have the tire demounted and thoroughly inspected by any Michelin® tire retailer for possible damage that may have occurred.

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A tread area puncture in any Michelin® passenger or light truck tire can be repaired provided that the puncture hole is not more than 1/4" in diameter, not more than one radial cable per casing ply is damaged, and the tire has not been damaged further by the puncturing object or by running underinflated. Tire punctures consistent with these guidelines can be repaired by following the Rubber Manufacturers Association (RMA) recommended repair procedures.

Plug-only repairs done on-the-wheel are considered improper and therefore, not recommended. Such repairs are not reliable and may cause further damage to the tire. If the tire has a puncture in the tread which exceeds the limits listed above, or if more than one radial cable per casing ply is damaged, the tire has been damaged further by the puncturing object or by running underinflated, the tire must be replaced.

## STORAGE

Tires contain waxes and emollients to protect their outer surfaces from ozone and weather checking. As the tire rolls and flexes, the waxes and emollients continually migrate to the surface, replenishing this protection throughout the normal use of the tire. Consequently, when tires sit outdoors, unused for long periods of time (a month or more) their surfaces become dry and susceptible to ozone and weather checking, and the casing becomes susceptible to flat spotting. For this reason, tires should always be stored in a cool, dry, clean, indoor environment. If storage is for one month or more, eliminate the weight from the tires by raising the vehicle or by removing the tires from the vehicle. Failure to store tires in accordance with these instructions could result in damage to your tires or premature aging of the tires and sudden tire failure.

When tires are stored, be sure they are placed away from sources of heat and ozone such as hot pipes and electric generators. Be sure that surfaces on which tires are stored are free from grease, gasoline, and other substances which could deteriorate the rubber. (Tires exposed to these materials during storage or driving could be subject to sudden failure.)

## FOLLOW THESE MOUNTING RECOMMENDATIONS

Tire changing can be dangerous and must be done by professionally trained persons using proper tools and procedures as specified by the Rubber Manufacturers Association (RMA).

Your tires should be mounted on wheels of the correct size and type and which are in good, clean condition. Bent, chipped or rusted wheels may cause tire damage. The inside of the tire must be free from foreign material. Have your tire retailer check the wheels before mounting new tires. Mismatched tires and rims can explode during mounting. Also, mismatched tires and rims can result in dangerous tire failure on the road. If a tire is mounted by error on the wrong-sized rim, do not remount it on the proper rim — scrap it. It may have been damaged internally (which is not externally visible) by having been dangerously stretched and could fail on the highway.

Old valves may leak. When new tubeless tires are mounted, have new valves of the correct type installed. Tubeless tires must be mounted only on wheels designed for tubeless tires, i.e., wheels which have safety humps or ledges.

It is recommended that you have your tires and wheels balanced. Tires and wheels which are not balanced may cause steering difficulties, a bumpy ride, and irregular tire wear.

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Be sure that all your valves have suitable valve caps. The valve cap is the primary seal against air loss.

**SPECIAL MOUNTING INSTRUCTIONS FOR SELF-SUPPORTING ZERO PRESSURE™ (ZP) TIRES**

ZP tires can be more difficult to mount than conventional tires. They should be mounted and demounted only by a properly trained tire professional. ZP tires can generate a tremendous amount of heat when run at low or zero pressure. ALWAYS ALLOW A ZP TIRE TO COOL BEFORE ATTEMPTING TO HANDLE IT. FAILURE TO DO SO COULD RESULT IN INJURY.

Michelin® ZP tires are tubeless tires designed to operate in emergency conditions at low or zero air pressure.

**MICHELIN® SELF SUPPORTING ZERO PRESSURE™ (ZP) TIRES AND SPECIAL SH-M (SYMMETRIC HUMP-MODIFIED) WHEELS**

Some Michelin® ZP tires can only perform with zero pressure capability when mounted on special SH-M wheels. These tires bear the SH-M designation immediately following the ZP designation on the sidewall of the tire. DO NOT MOUNT ZP TIRES WITH THE SH-M DESIGNATION ON STANDARD WHEELS. IN SUCH APPLICATIONS, THE TIRES MAY BECOME UNSERVICEABLE AT LOW OR ZERO PRESSURE, CAUSING SERIOUS PERSONAL INJURY OR DEATH.

**TEMPORARY TYPE SPARE TIRES**

When using any temporary type spare tire, be sure to follow the vehicle manufacturer's instructions.

**FAILURE TO OBSERVE RECOMMENDED PRECAUTIONS CONTAINED IN THIS OWNER'S MANUAL CAN LEAD TO ERRATIC VEHICLE BEHAVIOR AND/OR TIRE DAMAGE POSSIBLY RESULTING IN AN ACCIDENT.**

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**MOUNTING AND ROTATION SERVICE RECORD (For Mileage Limited Warranties Only)**

Installed Mileage \_\_\_\_\_

DATE OF ROTATION	ODOMETER READING	RETAILER'S NAME AND ADDRESS	RETAILER SIGNATURE	PSI (check)

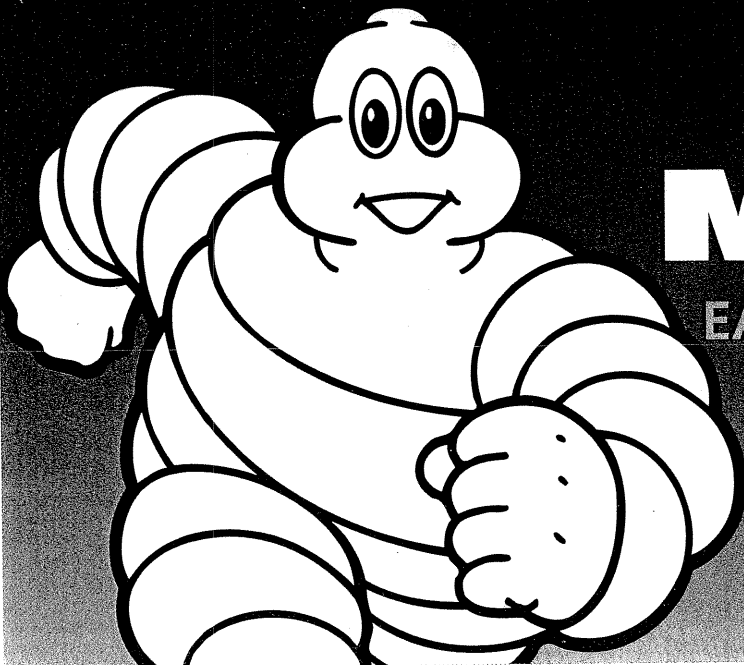
To validate the mileage portion of this warranty, your tires must be inspected and rotated every 7,500 miles and the PSI set as recommended on the vehicle placard.  
**Owner Certification:** I hereby certify that these services were performed as indicated and that I am the original purchaser of the tires and the owner of the vehicle on which they were originally installed and exclusively used.

Consumer Signature \_\_\_\_\_ Date \_\_\_\_\_

As the original purchaser of Michelin Earthmover, Off-The-Road, or Industrial tires, you are covered by all the benefits and conditions contained in the following limited warranty, provided you have complied with the technical and maintenance recommendations and safety warnings set forth in the current Michelin Earthmover Technical Data Book (part number MEL40017) and The Michelin Industrial and Special Application Tire Data Book (part number MWL40733). Hereafter, both

## About This Warranty

publications are referred to as "data books." These data books can be obtained, at no charge, by calling 1-800-677-3322 and requesting the appropriate part number(s) or by request from either your servicing Michelin Dealer or your Michelin Sales Representative. It is essential that you read and understand the safety and maintenance recommendations contained in the data books before putting your tires into service.



# MICHELIN®

EARTHMOVER, OFF-THE-ROAD,  
AND INDUSTRIAL TIRES  
LIMITED WARRANTY

## MICHELIN EARTHMOVER, OFF-THE-ROAD, AND INDUSTRIAL TIRES LIMITED WARRANTY

### Who Is Covered

The original purchaser of new Michelin Earthmover, Off-The-Road, or Industrial tires bearing a Michelin serial number and purchased on or after June 1, 1997, is covered by the terms and conditions of this limited warranty.

### What Is Covered and For How Long

Michelin Earthmover, Off-The-Road, and Industrial tires used in normal service on the vehicle on which they were originally fitted and in accordance with the data books are covered against defects in workmanship and materials for the life of the original usable tread or 5 years from date of purchase, whichever comes first. At that time, all warranties, express or implied, are terminated. The life of the original usable tread is the original tread down to the level of 2/32nds of tread remaining. Date of purchase is documented by new equipment sales invoice or by new tire sales invoice. If proof of purchase cannot be documented, the age of the tire and replacement eligibility will be determined at the sole discretion of the Michelin Representative inspecting the tire in question. For this reason, it is very important that you retain your proof of purchase documentation. Replacement charge (if any) will be made based on the condition of the tire, as assessed by the Michelin Representative inspecting the tire in question.

### What Is Not Covered

Tires Which Become Unserviceable Due To:

- Impact damage, cuts, snags, machine damage, machine accident/collision, fire, mis-mounting, chemical corrosion, lightning or contact with electrical power lines, underinflation, overinflation, overload, misapplication, misuse, neglect, operation at excessive speed, rim or chain damage, and/or mechanical condition of the vehicle;
- Operation in excess of the tire rated Ton-Mile-Per-Hour (TMPH) or Tonne-Kilometre-Per-Hour (TKPH) factor AND/OR tires operated in excess of the tire rated Work Capability Factor (WCF). These values for TMPH, TKPH, and WCF and formulas for the use of these values are published in the appropriate data books;

- Loss of time, inconvenience, loss of use of vehicle, or consequential damage;
- Tires used with improper tubes, flaps or o-rings;
- Tires over 5 years old, based on new vehicle sales invoice, new tire sales invoice or determination by a Michelin Representative;
- The addition of tire fillers, sealants, balancing substances, ballast, etc.;
- Improper repair;
- Ozone or weather cracking.

### How Replacement Charges For Warranty Claims Are Determined

Any Michelin Earthmover, Off-The-Road, or Industrial tire covered by this limited warranty that becomes unserviceable due to a workmanship or materials condition, within the time and tread depth limits indicated above, will be replaced with a comparable new Michelin Earthmover, Off-The-Road, or Industrial tire at the sole discretion of the Michelin Representative inspecting the tire. The replacement charge will be determined using such factors as the age of the tire and how long it has been in service, the usable tread remaining, and the nature of the application in which the tire was being used. (See "What Is Covered and For How Long.")

### What the Owner Must Do

When making a claim under the terms and conditions of this limited warranty, the owner must present the tire and documentation showing date of purchase to the appropriate Michelin Sales Representative. Personal identification may be required and the vehicle on which the tire(s) was/were mounted must be available for inspection.

**ONLY CLAIMS SUBMITTED ON THE CURRENT MICHELIN EARTHMOVER/OFF-THE-ROAD/INDUSTRIAL TIRE WARRANTY CLAIM FORM, PROPERLY EXECUTED AND SIGNED BY THE APPROPRIATE MICHELIN SALES REPRESENTATIVE, AND SIGNED BY THE OWNER, WILL BE RECOGNIZED AS VALID.**

**! WARNING:** DISREGARDING ANY OF THE SAFETY PRECAUTIONS AND INSTRUCTIONS CONTAINED IN THE DATA BOOKS MAY RESULT IN TIRE FAILURE OR EXPLOSION CAUSING SERIOUS PERSONAL INJURY OR DEATH.

# MICHELIN®





## MICHELIN®/KLÉBER® AGRICULTURAL TIRES LIMITED WARRANTY

### ABOUT THIS WARRANTY

As the owner of Michelin® or Kléber® Agricultural tires (hereafter "Covered Tires"), you have all the benefits and are subject to all the conditions contained in the following limited warranty, provided you have complied with the technical and maintenance recommendations and the safety warnings contained in the current Michelin® Agricultural Tire Data Book (part number MUT 41305) hereafter referred to as "Data Book." It is essential that you carefully read and understand the safety and maintenance recommendations contained in the data book before putting your tires into service. For additional information about covered tires, consult any participating Michelin® Agricultural Tire Retailer or refer to the data book pertaining to the product in use. Michelin North America, Inc. ("MNA") is the processor of warranty claims for Michelin® and Kléber® Agricultural tires.

### WHO IS COVERED

The original purchaser of new Covered Tires which bear a Michelin® serial number, and which were purchased on or after October 1, 1999 is covered by the terms and conditions of this limited warranty. Date of purchase is documented by a new equipment sales invoice or by a new tire sales invoice. If proof of purchase is not available, the age of the tire is determined from the date of manufacture. This limited warranty applies only to tires sold and used in the United States of America.

### WHAT IS COVERED, FOR HOW LONG – HOW REPLACEMENT CHARGES ARE CALCULATED

Covered Tires used on the machine on which they were originally fitted are covered on a *pro rata* basis against one or more of the following as outlined below:

**Coverage A:** defects in workmanship and materials for a period of eight years (see table below);

**Coverage B:** field hazards for five years (see table opposite page);

**Coverage C:** stubble damage for five years (see table opposite page).

**Coverage D: 90 DAY SATISFACTION PROMISE** – If for any reason, the original purchaser of a covered drive tire is not completely satisfied, the tire may be returned to the selling dealer within 90 days of purchase for a refund of the full purchase price of the tire. Tires that become unserviceable during the 90 day period are covered by the limited warranty and are ineligible for replacement under this satisfaction promise. Mounting and demounting charges, other dealer services and applicable taxes are the responsibility of the original purchaser. The original purchase invoice must accompany any claim.

Michelin®/Kléber® drive tires used in normal agricultural service have coverages A, B, C and D.

Michelin®/Kléber® drive tires used in Industrial applications have coverages A and D.

Michelin® steer tires used in normal agricultural service have coverages A and C.

Michelin® forestry drive tires have coverage A.

A tire covered by this limited warranty that becomes unserviceable (i.e. cannot be repaired using standard Rubber Manufacturers Association repair procedures and returned to service) due to a workmanship/materials condition, field hazard or stubble damage, will be replaced with a comparable new Michelin/Kléber Agricultural tire. Wear for drive tires is calculated as a percentage of the tread depth at the time of replacement compared to the original tread depth

of the specific tire. *Pro rata* for steer tires is determined by the number of years in service. The respective charts, A, B, or C are used to convert the percent of wear to the percent of charge. Consumer charges are calculated as the percentage from the chart multiplied by the "current retail selling price" of the new tire at the time of replacement. Mounting and field service charges are paid by Michelin North America, Inc., **only** for Coverage A, workmanship and materials, "no charge" replacements. The consumer is responsible for all other mounting and field service charges. The replacement charge, if any, will be based on the condition of the tire as assessed by the Michelin®/Kléber® Agricultural Sales Retailer who inspects the tire.

### WHAT IS NOT COVERED

Loss of time, inconvenience, loss of use of machine, or consequential damages;

Ozone or weather checking that does not render the tire unserviceable;

Tires used for pulling scrapers for ground leveling;

Tires Which Become Unserviceable Due To:

- machine damage, machine accident/collision, fire, mis-mounting, chemical corrosion, lightning or contact with electrical power lines, underinflation, overinflation, overload, misapplication, misuse, neglect, operation at excessive speed, rim or chain damage, and/or mechanical condition of the machine;
- damage by non-agricultural uses such as tractor pulls and/or improper applications such as when the size and load range of the tire are not equivalent to or greater than that specified by the equipment's manufacturer;
- tires used with improper tubes or O-rings;
- the addition of tire fillers, sealants, balancing substances, ballast, etc.;
- improper repair;

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	STEER TIRES AGE ONLY	PERCENT WORN					
	0% to 10%	11% to 25%	26% to 50%	51% to 60%	61% to 70%	71% to 80	81% to 100%
TIRE AGE	CUSTOMER CHARGE						
1 Year or Less	No Charge	No Charge	No Charge	No Charge	No Charge	No Charge	No Charge
2 Year or Less	25%	40%	50%	60%	70%	80%	90%
3 Year or Less	40%	50%	60%	70%	80%	80%	90%
4 Year or Less	50%	60%	60%	70%	80%	80%	90%
5 Year or Less	60%	70%	70%	70%	80%	80%	90%
6 Year or Less	70%	70%	70%	80%	80%	80%	90%
7 Year or Less	80%	80%	80%	80%	80%	90%	90%
8 Year or Less	90%	90%	90%	90%	90%	90%	90%

When these limits are exceeded, all warranties, express or implied, expire.





### Coverage B: Field Hazard

If a tire is rendered unserviceable by punctures, cuts or snags caused by stones or stumps while it is being used in normal agricultural operations, Michelin will provide a comparable new tire. The following chart shows replacement charges based on percentage worn and tire age.

	PERCENT WORN						
	0% to 10%	11% to 25%	26% to 50%	51% to 60%	61% to 70%	71% to 80	81% to 100%
TIRE AGE	CUSTOMER CHARGE						
1 Year or Less	No Charge	No Charge	No Charge	25%	50%	75%	90%
2 Year or Less	No Charge	No Charge	No Charge	50%	75%	80%	90%
3 Year or Less	No Charge	No Charge	No Charge	75%	80%	90%	90%
4 Year or Less	No Charge	No Charge	75%	80%	90%	90%	90%
5 Year or Less	No Charge	75%	80%	90%	90%	90%	90%

When these limits are exceeded, all warranties, express or implied, expire.

### Coverage C: Stubble Damage

A tire which is rendered unserviceable as a result of scarring, penetrations or chunking caused by stubs or stubble in the fields will be replaced with a new tire of comparable type and size. The following chart shows replacement charges based on percent worn and tire age.

	STEER TIRES AGE ONLY	PERCENT WORN					
	0% to 10%	11% to 25%	26% to 50%	51% to 60%	61% to 70%	71% to 80	81% to 100%
TIRE AGE		CUSTOMER CHARGE					
1 Year or Less	No Charge	No Charge	No Charge	40%	60%	75%	90%
2 Year or Less	No Charge	25%	40%	60%	75%	80%	90%
3 Year or Less	20%	40%	50%	75%	80%	90%	90%
4 Year or Less	40%	60%	70%	75%	80%	90%	90%
5 Year or Less	60%	70%	75%	80%	80%	90%	90%

When these limits are exceeded, all warranties, express or implied, expire.

**ONLY CLAIMS SUBMITTED ON THE CURRENT MNA AGRICULTURAL TIRE LIMITED WARRANTY CLAIM FORM, PROPERLY EXECUTED AND SIGNED BY THE MICHELIN®/KLÉBER® SALES RETAILER, AND THE OWNER WILL BE RECOGNIZED AS VALID.**

### SAFETY/MAINTENANCE INFORMATION

Read the safety warning portion and the maintenance recommendations in the current Michelin® Agricultural Tire data book, the information on the sidewall of your tires, your vehicle owner's manual, and the inflation information in the appropriate data book for essential safety and maintenance information.

#### If additional service is required:

1. Visit your Michelin®/Kléber® Agricultural tire retailer, or call 1-888-552-1213 for help in locating a tire retailer;
2. Or write to:  
Michelin Consumer Relations  
P.O. Box 19001  
Greenville, SC 29602-9001

**WARNING! DISREGARDING ANY OF THE SAFETY PRECAUTIONS AND INSTRUCTIONS CONTAINED IN THE APPROPRIATE DATA BOOK MAY RESULT IN TIRE FAILURE OR EXPLOSION CAUSING SERIOUS PERSONAL INJURY OR DEATH.**

Stock # XUW41727 (9/99)





**MICHELIN**

*A better way forward*

**TRUCK TIRE OPERATOR'S MANUAL AND LIMITED WARRANTY,  
INCLUDING APPLICABLE LIMITED WARRANTY COVERAGE FOR COMMERCIAL USE,  
FOR THE MICHELIN® LONG HAUL TIRES WITH EXTENDED WARRANTY, AND  
FOR LIMITED WARRANTY COVERAGE FOR CONSUMER USE**



## MICHELIN® TRUCK TIRE LIMITED WARRANTY

### ABOUT THIS WARRANTY

As the original purchaser of a Michelin® brand truck tire, you are covered by all the benefits and conditions (subject to the maintenance recommendations and safety warnings) contained in this booklet. To ensure your understanding of and compliance with the terms and conditions of this warranty, please read it carefully. It is essential that you also read and understand the safety and maintenance recommendations for your tires beginning on page 6.

### What is covered and for how long Commercial Use

#### Workmanship and Materials

Except as limited below, Michelin® truck tires bearing the Michelin® name and complete serial and identification numbers, used in commercial service according to the instructions contained in this Operator's Manual, are covered by this limited warranty against defects in workmanship and materials for the life of the original tread. At that time, all warranties, express or implied, expire.

#### Long Haul Tires with Extended Warranty

Certain Michelin® truck tires bearing the Michelin® name and complete serial and identification numbers, used only in long-haul service according to the instructions contained in this Operator's Manual, are covered by this limited

warranty against defects in workmanship and materials for 700,000 miles, and up to 3 retreads for 7 years from the date of manufacture. At that time, all warranties, express or implied, expire. (See Reference Chart for list of tires covered by this extended warranty on page 4.)

Casings covered under this Extended Warranty which become unserviceable due to a covered condition, will be replaced under Extended Warranty coverage only if:

1) The tires have been used in long haul highway service for the life of the casing.

2) The tires have been inspected and retreaded by a participating Michelin® dealer, in accordance with the retreading standards set by the American Retreader's Association, the National Tire Dealers/Retreader's Association, Michelin® Retread Technologies, Inc. (MRTI), Bandag or Oliver Rubber Company, and in accordance with Michelin's specifications for the particular tire treads/sizes covered. (see retread specifications listed on page 5.)

3) The casings have not become unserviceable due to a condition listed under "WHAT IS NOT COVERED" (see page 2).

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## MICHELIN® TRUCK TIRE LIMITED WARRANTY

### What is covered and for how long Consumer Use

Michelin® truck tires bearing the Michelin® name and complete serial and identification numbers, used in consumer service, such as on a motorhome, according to the instructions contained in this Operator's Manual, are covered by this limited warranty against defects in workmanship and materials for the life of the original tread, or five years from the date of purchase, whichever occurs first. At that time, all warranties, express or implied, expire.

#### Definitions

The life of the original usable tread is the original tread down to the level of the treadwear indicators - 2/32nds of an inch (1.6mm) of tread remaining. Date of purchase is documented by new vehicle registration or tire sales invoice. If no proof of purchase is available, coverage will be based on the date of manufacture, as molded on the sidewall. The date of manufacture is based on the original Michelin® DOT number molded on the tire sidewall. The mileage received will be based on fleet records. Replacement will be made in accordance with the terms and conditions described under "HOW REPLACEMENT CHARGES ARE CALCULATED."

### WHAT IS NOT COVERED

Tires/casings which become unserviceable due to:

- Road hazard injury (e.g., a cut, snag, bruise, impact damage or puncture);
- Incorrect mounting of the tire, tire/wheel imbalance, improper retread or improper repair;
- Misapplication, improper maintenance, racing, underinflation, overinflation or other abuse resulting in casing damage or fatigue;
- Accident, fire, chemical corrosion, contamination, tire alteration or vandalism;
- Flat spotting caused by improper storage;
- The addition of liquid, solid or gaseous materials other than air, nitrogen or carbon dioxide;
- Uses other than long haul service for any extended warranty casing claims;
- Uneven or rapid wear caused by mechanical irregularity in the vehicle such as wheel misalignment, resulting in damage to the under-tread, carcass or steel belts;
- Ozone or weather checking.

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## MICHELIN® TRUCK TIRE LIMITED WARRANTY

### HOW REPLACEMENT CHARGES ARE CALCULATED COMMERCIAL AND CONSUMER USE

#### Workmanship/Materials

A tire which becomes unserviceable due to a condition covered by this workmanship and materials limited warranty will be replaced with a comparable new Michelin® truck tire, for a pro rata charge. The retailer will determine the charge by multiplying the percentage of the original usable tread worn by the current selling price at the adjustment location or the price on the current Michelin® Americas Truck Tires Base Price List, whichever is lower. This list is based on a predetermined price intended to fairly represent the actual selling price of the tire.

**You pay the cost of mounting, balancing, and any other service charges and applicable taxes.**

#### Long Haul Tires with Extended Warranty

The following tire sizes are covered by the 700,000 mile/7 year/3 retread warranty.

If your Long Haul tire becomes unserviceable due to a condition covered by this warranty before providing 700,000 miles or 3 retreads of service, Michelin® will provide casing credit based on the following schedule:

Tread Design	Size	Load Range
XZA2	11R22.5	G, H
XZA2	11R24.5	G
XZA2	275/80R22.5	G, H
XZA2	275/80R24.5	G
XZA3	11R22.5	G, H
XZA3	11R24.5	G
XZA3	275/80R22.5	G, H
XZA3	275/80R24.5	G

Tread Design	Size	Load Range
XDA2	11R22.5	G
XDA2	11R24.5	G
XDA2	275/80R22.5	G
XDA2	275/80R24.5	G
XDA3	11R22.5	G
XDA3	11R24.5	G
XDA3	275/80R22.5	G
XDA3	275/80R24.5	G
XDA Energy	275/80R22.5	G

#### Life of casing up to 7 years

Original Tread  
First, second or third retread

#### Casing Credit

\$130.00  
\$100.00

### WHAT YOU MUST DO WHEN MAKING A CLAIM

When making a claim under the terms of this limited warranty you must present your tire/casing to a participating Michelin® truck tire retailer. **You pay any service charges for normal vehicle and tire maintenance.**

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## MICHELIN® TRUCK TIRE LIMITED WARRANTY

### CONDITIONS AND EXCLUSIONS

Unless this limitation is prohibited by state law, this warranty does not provide compensation for loss of time, loss of use of vehicle, inconvenience or incidental or consequential damages.

Tires/casings presented for claim remain the property of the owner/consumer and Michelin® brand accepts no responsibility for loss of, or damage to, tires/casings, which are in the custody or control of a Michelin® truck tire retailer for the purpose of inspection for warranty adjustment.

Tires accepted for claim become the property of Michelin® North America, Inc. ("MNA").

**In the event of a disputed claim, the owner/consumer must make the tire available for further inspection.**

No Michelin® representative, employee or retailer has the authority to make or imply any representation, promise or agreement, which in any way varies the terms of this limited warranty.

This limited warranty applies only in the United States.

### CONSUMER RIGHTS

This limited warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

### SAFETY MAINTENANCE INFORMATION

Read your Tire Operator's Manual, the information on the sidewall of your tires, your vehicle owner's manual and vehicle tire information placard for essential safety and maintenance information.

When service is required:

1. Contact a participating Michelin® truck tire retailer listed in your yellow pages.
2. If additional assistance is needed in locating a Michelin® truck tire retailer, please call the phone number for your area which is listed on page 14 or write Consumer Relations at the address listed on page 14.

### MICHELIN® RETREAD SPECIFICATIONS FOR ALL SIZES OF EXTENDED WARRANTY TIRES\*:

- Buff radius: 675 mm.
- Buffing rim width: 9.0"
- Buffing inflation pressure: 1.2 to 1.5 bar.
- Minimum undertread thickness: 0.5 mm.
- Maximum undertread thickness: 4.0 mm.
- Minimum pre-cure cap width: 219 mm.
- Maximum pre-cure cap width: 232 mm.

\* This is the preferred specification.

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## **WARNING**

**Disregarding any of the safety precautions and instructions contained in this manual may result in tire failure or explosion causing serious personal injury or death.**

### **DRIVING ON ANY TIRE THAT DOES NOT HAVE THE CORRECT INFLATION PRESSURE IS DANGEROUS**

Any underinflated tire builds up excessive heat that may result in sudden tire destruction. For replacement tires, the correct inflation pressure will be provided by your tire retailer. If not, refer to the vehicle placard.

The placard indicates the minimum inflation pressures which must be maintained. However, do not exceed the maximum inflation pressure for the tire or for the wheel on which it is mounted.

### **CHECK THE COLD INFLATION PRESSURES IN ALL YOUR TIRES, INCLUDING THE SPARE, AT LEAST ONCE EACH WEEK**

Failure to maintain correct inflation pressure may result in improper vehicle handling and may cause rapid and irregular tire wear, sudden tire destruction, loss of vehicle control and serious personal injury. Therefore, inflation pressures should be checked at least once each week and always prior to long distance trips.

Pressures should be checked when tires are cold; in other words, before they have been driven on. The ideal time to check tire pressures is early morning. Driving, even for a short distance, causes tires to heat up and air pressure to increase.

Never bleed air from hot tires. Bleeding air from hot tires could result in underinflation.

Use an accurate tire gauge to check pressures. Never allow children to inflate or deflate tires.

If your pressure check indicates that one of your tires has lost pressure of four pounds or more, look for signs of penetration, valve leakage or wheel damage that may account for the air loss.

Any tire suspected of having been run flat or run at very low air pressure (less than 80% of normal operating pressure) should not be re-inflated without careful inspection of the entire tire. Visit a Michelin® Truck Tire retailer.

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### **INSPECT YOUR TIRES DAILY. IF YOU SEE ANY DAMAGE TO YOUR TIRES OR WHEELS, VISIT A MICHELIN® TRUCK® TIRE DEALER AT ONCE.**

#### **HAZARDS**

Driving over potholes, curbs, glass, metal, rocks, wood debris and the like, can damage a tire and should be safely avoided. Unavoidable contact with such hazards should prompt a thorough tire inspection.

If you see damage to your tires or wheels, replace with a spare and immediately visit any participating Michelin® Truck Tire retailer for advice.

#### **INSPECTION**

**Always examine your tires for bulges, cracks, cuts, penetrations and abnormal tire wear, particularly on the edges of the tire tread, which may be caused by misalignment or underinflation. If any such damage is found, the tire must be inspected by any participating Michelin® Truck Tire retailer at once. Use of a damaged tire could result in sudden tire destruction and rapid air loss. Failure to control a vehicle when one or more tires experience a sudden air loss can lead to an accident.**

All tires will wear out faster when subjected to high speeds as well as hard cornering, rapid starts, sudden stops, frequent driving on surfaces which are in poor condition, and off-road use. Surfaces with holes and rocks or other objects can damage tires and cause vehicle misalignment. When driving on such surfaces, drive carefully and slowly, and before driving

again at normal or highway speeds, examine your tires for any damage, such as cuts, bulges, penetrations, unusual wear patterns, etc.

#### **WEAR BARS**

Michelin® truck tires contain "Wear-Bars" in the grooves of the tire tread which show up when only 2/32nds of an inch (1.6mm) of tread is remaining. At this stage, tires must be replaced. Tires worn beyond this stage are dangerous.

(Federal law requires the tires on front axles of a Bus, Truck or Truck Tractor to have at least 4/32nds of an inch of tread depth remaining.)

### **HIGH SPEED DRIVING CAN BE DANGEROUS**

**Correct inflation pressure is especially important.** However, at high speeds, even with the correct inflation pressure, a road hazard, for example, is more difficult to avoid and if contact is made, has a greater chance of causing tire damage than at a lower speed. Moreover, driving at high speed reduces the reaction time available to avoid accidents and bring your vehicle to a safe stop.

If you see any damage to a tire or wheel, replace it with the spare at once and visit a participating Michelin® truck tire retailer.

The maximum speed at which Michelin® truck tires can be operated is indicated in the Michelin® Commercial Light Truck and Truck Tire Data Book. This speed varies for each type of tire and depends on the type of application. Consult a Michelin® truck tire dealer for assistance in determining the maximum speed for your application.

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**Exceeding this maximum speed will cause the tire to build up excessive heat, which can cause tire damage that could result in sudden air loss and rapid tire destruction. Failure to control a vehicle when one or more tires experience a sudden air loss can lead to an accident, property damage, and personal injury.**

**In any case, you should not exceed reasonable speeds as indicated by the legal limits and driving conditions.**

## **WHEEL ALIGNMENT, TRACKING, AND BALANCING ARE IMPORTANT FOR SAFETY AND MAXIMUM MILEAGE FROM YOUR TIRES**

### **CHECK HOW YOUR TIRES ARE WEARING AT LEAST ONCE EACH MONTH**

If your tires are wearing unevenly, such as the inside shoulder of the tire wearing faster than the rest of the tread, your vehicle may be out of alignment. This condition not only shortens the life of your tires but also adversely affects the handling characteristics of your vehicle, which could be dangerous. If you detect irregular wear, have the alignment of the wheels and the parallelism of the axles checked immediately. Also check to see that your tires are properly inflated. Tires which have been run underinflated will show more wear on the shoulders than in the center of the tread. Tires which have been run overinflated will show more wear in the center of the tread than on the shoulders.

For optimum tire life and performance, the front end alignment on trucks equipped with Michelin® truck tires should be in accordance with the recommendations of the vehicle manufacturer.

It is recommended that you have your tires and wheels dynamically balanced. Tires and wheels which are not balanced may cause steering difficulties, a bumpy ride, and irregular tire wear.

## **DO NOT OVERLOAD - DRIVING ON ANY OVERLOADED TIRE IS DANGEROUS**

The maximum load rating marked on the tire sidewall of any truck tire is based on a specific maximum speed of operation. Consult a Michelin® Truck Tire Data Book for complete information on allowable loads for the tires in your application. Tires which are loaded beyond their maximum allowable loads for the particular application, will build up excessive heat that may cause sudden tire destruction, property damage, and personal injury.

Do not exceed the gross axle weight rating for any axle on your vehicle. For detailed information about weighing your Recreational Vehicle, please call the Consumer Relations telephone number listed on page 14. A free copy of the Michelin® Recreational Vehicle Tire Guide will be mailed to you.

## **TIRE MIXING**

**FOUR WHEEL TRUCKS:** For best performance it is recommended that the same size and type of tire be used on all four wheel positions. If only two Michelin® radial truck tires are mounted with two non-radial tires, the radial tires should be mounted on the rear axle.

Before mixing different types of tires in any configuration on any vehicle, be sure to check the vehicle manufacturer's owner's manual for its recommendations.

It is especially important to check the vehicle manufacturer's owner's manual when mixing, matching or replacing tires on 4-wheel drive vehicles, as this may require special precautions.

**TRUCKS WITH MORE THAN FOUR WHEEL POSITIONS:** For best performance, it is strongly recommended that radial and non-radial tires not be mixed in a dual fitment.

## **TIRE ALTERATIONS**

Do not make or allow to be made any alteration to your tires. Alterations may prevent proper performance, leading to tire damage which can result in an accident. Tires which become unserviceable due to alterations such as, but not limited to, truing, whitewall inlays, addition of balancing or sealant liquids or the use of tire dressings containing petroleum distillates, are excluded from warranty coverage.

## **IMPROPERLY RETREADED AND/OR REPAIRED TIRES ARE DANGEROUS AND CAN CAUSE TIRE DESTRUCTION, PROPERTY DAMAGE, AND PERSONAL INJURY.**

Retreading and repairing of Michelin® Truck Tires should be performed only by qualified personnel with proper equipment using the procedures contained in Michelin® Retread and Repair manuals.

If any Michelin® tire sustains a puncture, have the tire demounted and thoroughly inspected by a participating Michelin® tire retailer for possible damage that may have occurred.

Plug-only repairs done on-the-wheel are considered improper and are therefore, not recommended. Such repairs are not reliable and may cause further damage to the tire and may result in tire failure.

## **STORAGE**

Tires contain waxes and emollients to protect their outer surfaces from ozone and weather checking. As the tire rolls and flexes, the waxes and emollients continually migrate to the surface, replenishing this protection throughout the normal use of the tire. Consequently, when tires sit outdoors, unused for long periods of time (a month or more) their surfaces become dry and more susceptible to ozone and weather checking, and the casing becomes susceptible to flat spotting. Serious problems occur with tube type tires when mounted with water trapped between the tire and the tube. Due to pressurization, the liquid can pass through the inner liner and into the casing plies. **For these reasons, tires should always be stored in a cool, dry, clean indoor environment. If storage is for one month or more, eliminate the weight from the tires by raising the vehicle or by removing the tires from the vehicle. Failure to store tires in accordance with these instructions could result in premature aging of the tires and sudden tire failure.**

When tires are stored, be sure they are placed away from sources of heat and ozone, such as hot pipes and electric generators. Be sure the surfaces

on which tires are stored are clean and free from grease, petroleum products or other substances which could deteriorate the rubber. **(Tires exposed to these materials during storage or driving could be subject to sudden failure.)**

### **FOLLOW THESE MOUNTING RECOMMENDATIONS TO PREVENT TIRE DESTRUCTION, PROPERTY DAMAGE AND PERSONAL INJURY**

Regulations and recommendations published by the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA) deal in detail with mounting and demounting of tires for trucks. You should ensure that you are always in compliance with these regulations and recommendations. In addition, Michelin® urges you to bear in mind the following considerations:

Tire changing can be dangerous and must be done by professionally trained persons using proper tools and procedures as specified by the Rubber Manufacturers Association (RMA).

Tires should be mounted on wheels of the correct size and type which are in good, clean condition. Bent, chipped or rusted wheels, rims or rim components may cause tire damage and can also malfunction causing an accident.

All rim components (i.e. flanges, lock rings, rim base, etc.) must match. Be sure to check rim/wheel manufacturer's specifications.

When changing any tire, always deflate the tire before loosening any wheel or rim lugs. Always install new valve cores with new mountings.

**TUBES:** Always fit a new Michelin® tube of the proper size in a new mounting. A tube through normal use will experience growth; therefore, if an old tube is re-used, there is a probability of creasing it with subsequent chafing and eventual failure of the tube causing tire damage. Michelin® tubes are made of butyl rubber and marked with the trade name "AIRSTOP®". Because of the extreme flexibility of the Michelin® 'X' tire, it is essential to use an "AIRSTOP®" tube. These tubes are made with an overlap splice which is stronger than the butt splice used in many other tubes. The use of other tubes, not designed for Michelin® 'X' radial tires, could result in tube failure causing tire damage.

**FLAPS:** Always install a new Michelin® Flap when you install a new tire. A flap through extended use becomes hard and brittle. After a limited time it will develop a set to match the tire and rim in which it is fitted; therefore, it will not exactly match a new tire/rim combination.

**LUBRICANT:** Always use a proper lubricant when mounting tires. Use only a approved tire mounting lubricant. Never use anti-freeze, silicones or petroleum-based lubricants. Do not allow excess lubricant to run down and collect inside the tire.

**SAFETY CAGE:** Always use a safety cage when inflating a truck tire. Never stand over the tire or in front of the valve when inflating. Use an inline gauge and stand to the side. Before final inflation, check the assembly carefully for signs of weakness or irregularities.

**VALVE CAPS:** It is essential that all valves be fitted with pressure-sealing metal valve caps, which are the PRIMARY seal of the valve, to avoid leaks.

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After mounting, check the assemblies for leaks. When wheel assemblies are mounted on a vehicle, be sure that the valves do not touch the brake drums or any mechanical part of the vehicle.

**DUAL MOUNTING:** Tires mounted in duals must be matched so that the maximum difference between the diameters of the tires does not exceed 1/4 inch. Failure to properly match dual tires will result in the tire with the larger diameter carrying a disproportionate share of the load which can cause sudden tire destruction, property damage, and personal injury.

Proper dual spacing must be provided to prevent the tires from rubbing together and to allow for the flow of cooling air. Consult the Michelin® Truck Tire Data Book or visit a Michelin® Truck Tire retailer for information on the minimum dual spacing required for a particular tire/wheel fitment.

### **PREPARATION OF WHEELS AND RIMS**

Prior to fitment, wheel assemblies should be thoroughly inspected for cracks, warpage, deformation of flanges, side rings, lock rings, etc. The condition of the stud holes on wheels should also be checked. If any of these conditions are discovered, the rim/wheel should be discarded. All burrs, welds, hammer dents, etc., that are present on the tire side of the rim must be made smooth with a file and/or emery cloth. Remove rust with a wire brush and apply a rust inhibiting paint.

**FAILURE TO OBSERVE ANY OF THE RECOMMENDED PRECAUTIONS CONTAINED IN THIS OWNER'S MANUAL CAN LEAD TO ERRATIC VEHICLE BEHAVIOR AND/OR TIRE DAMAGE POSSIBLY RESULTING IN AN ACCIDENT.**

Any time you see damage to your tires or wheels, contact your local participating Michelin® truck tire retailer listed in the yellow pages at once. If further assistance is required, contact:

**In the United States** 1-888-622-2306

**Or Write:**

Consumer Relations  
P.O. Box 19001  
Greenville, SC 29602-9001

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### **REMEMBER . . . TO AVOID DAMAGE TO YOUR TIRES AND POSSIBLE ACCIDENT:**

- CHECK TIRE PRESSURES AT LEAST ONCE EACH WEEK WHEN TIRES ARE COLD;
- DO NOT UNDERINFLATE;
- DO NOT OVERLOAD;
- DRIVE AT MODERATE SPEEDS, OBSERVE LEGAL SPEED LIMITS;
- AVOID DRIVING OVER POTHOLES, OBSTACLES, CURBS OR EDGES OF PAVEMENT;
- IF YOU SEE ANY DAMAGE TO A TIRE, REPLACE WITH A SPARE AND VISIT ANY MICHELIN® TRUCK TIRE DEALER AT ONCE;
- IF YOU HAVE ANY QUESTIONS, CONTACT YOUR MICHELIN® TRUCK TIRE DEALER.



MICHELIN® NORTH AMERICA, P.O. BOX 19001, GREENVILLE, SOUTH CAROLINA 29602-9001

AN EQUAL OPPORTUNITY EMPLOYER