

## Owner's Manual for Marine Trailers

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**Congratulations** on the selection of an AmeraTrail trailer. It is the ideal match for boaters seeking quality and easy launching and loading. ***Please take a few minutes to read this Manual completely before using the AmeraTrail trailer for the first time.*** It provides substantial information about the trailer. If you still have questions after reviewing this Manual, please contact AmeraTrail, Inc ("Ameratrail") at 407-593-9222 or at our website, [www.ameratrail.com](http://www.ameratrail.com).

Ameratrail goes to great effort to ensure information in this Manual is based on the latest product information available at the time of printing. Due to rapid changes in technology and regulations, however, some information could be dated. Because of our policy of continuous product improvement, Ameratrail reserves the right to make changes in specifications, models, parts and/or accessories ("product changes") at any time. Ameratrail also reserves the right to make product changes at any time without incurring any obligation to equip the same on models manufactured before the date of the change. Due to product changes which may occur after publication of this Manual, the Manual may not reflect those changes. These changes, along with future potential service information, can be found on our website at [www.ameratrail.com](http://www.ameratrail.com). Each trailer operator is responsible for reviewing our website to ensure he or she is up-to-date with any product changes and future potential service information relevant to his or her trailer.

Information about certain components furnished by the suppliers other than Ameratrail is provided separately. This information is available at [www.ameratrail.com](http://www.ameratrail.com).

*The information in this Manual may not be applicable to international rules of the road. Please contact your local authorities if you have any questions or concerns regarding applicable road rules, whether domestic or international.*

Failure to adhere to and comply with the safety warnings and cautions that appear in this Manual can lead to illness, injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. In addition, the consumer has a personal responsibility to utilize a commonsense approach to towing, launching, and loading and is ultimately responsible maintaining safety standards for the trailer and maintaining a safe towing, launching, and loading environment. Ameratrail strongly encourages you to read this Manual in its entirety and review our website before using your trailer, adhere to all warnings and cautions contained in the Manual and posted on your trailer, and adhere to all recommendations set forth in the Manual and our website. You **MUST** be familiar with state and local ordinances regarding driving and towing. Ameratrail also recommends reviewing applicable insurance coverage and any insurance carrier's restrictions and coverage for towing.

The terms "you," "trailer owner," and "trailer operator" are used interchangeably throughout this Manual.

Table of Contents

- A. Trailer Wheels ..... 3**
- B. Tire Safety Information ..... 3**
- C. Trailer Lights..... 17**
- D. Trailer Brakes ..... 18**
- E. Tow Vehicle Mirrors ..... 18**
- F. Trailer Jack ..... 19**
- G. Cleaning Your Trailer ..... 19**
- H. Trailer Storage..... 19**
  
- I. TOWING CAPACITY & LOAD DISTRIBUTION .....19**
  - A. Towing Capacity of Your Tow Vehicle and Hitch ..... 19**
  - B. Maximum Weight of Trailer Load ..... 20**
  - C. Trailer Load Distribution..... 20**
  
- II. HOOKING UP YOUR TRAILER.....20**
  - A. Initial Installation ..... 20**
  - B. Mounting Trailer to the Tow Hitch ..... 21**
  - C. Attaching the Safety Cables..... 21**
  - D. Securing Your Boat—Tie Down System..... 21**
  - E. Cargo and Gear..... 22**
  
- III. TOWING YOUR TRAILER .....22**
  - A. Review of Safety Requirement and Required Maintenance ..... 22**
  - B. Driving..... 22**
  - C. Common Causes of Loss of Control..... 23**
  
- IV. LAUNCHING AND LOADING YOUR BOAT .....23**
  - A. Launching Your Boat..... 23**
  - B. Loading Your Boat ..... 24**
  
- V. REPORTING SAFETY DEFECTS.....24**
  
- VI. AMERATRAIL’S LIMITED WARRANTY AND LIMITATION OF LIABILITY .....25**
  - A. Warranty Registration ..... 25**
  - B. Limited Warranty and Term ..... 25**
  - C. Warranty Exclusions ..... 25**
  - D. Disclaimer and Limitation of Implied Warranties ..... 26**
  - E. Limitation of Liability..... 26**
  - F. Warranty Claims..... 27**

## TRAILER MAINTENANCE AND PRE-TOWING SAFETY REQUIREMENTS

### A. Trailer Wheels

*Wheels and Tires Generally.* Inspect all tires before each tow. For safety and convenience, always carry a spare wheel and tire in case of unexpected or sudden issues with a tire.

*Tire Pressure.* Always maintain the proper air pressure in each tire. The proper tire pressure is listed on the Certification / VIN label, normally mounted on front left side of the trailer. Failure to maintain the proper tire pressure may result in tire failure and loss of control, which may result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. Check the tire pressure before each tow when the tires are cold. Allow a minimum of 3 hours cool-down after driving as much as 1 mile at 40 mph before checking tire pressure.

*Tire Condition.* Inspect the trailer tires before each tow. Tires in suboptimal condition and/or with improper tire pressure can result in loss of control or tire blowout and may lead to injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. If a tire has a bald spot, bulge, cut, crack, etc. or is showing any cords or is otherwise worn or damaged, replace the tire before towing. Note that tires with too little tread will not provide adequate frictional forces on wet roadways and can result in loss of control. If a tire has uneven tread wear, do not use the trailer to tow and take it to a dealer service center for diagnosis and repair. Uneven tread wear can be caused by tire imbalance, axle misalignment or incorrect inflation.

*Lug Nuts.* Failure to maintain the proper torque on the lug nuts attached to the wheel bolts may result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. Lug nuts are to be torqued between 90-100 foot-pounds. Lug nuts are prone to loosen after first being assembled. If lug nuts are not tight, the wheel can separate from the trailer. Check to make sure that they are tight before each tow. In addition, when driving a new trailer or after wheels have been remounted, check to make sure they are tight after the first 10, 25 and 50 miles of driving.

*Wheel Bearings.* Keep the wheel bearings lubricated and inspect the wheel bearings for proper lubrication before each use. Failure to do so may cause wheel failure and possible wheel loss, which may result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. Wheel bearings should be inspected annually. If the bearings or bearing race show signs of scoring, the trailer should not be used until the bearings or bear race are replaced.

### B. Tire Safety Information

This portion of the User's Manual contains tire safety information as required by 49 CFR 575.6.

**Section 2.1 contains** "Steps for Determining Correct Load Limit - Trailer".

**Section 2.2 contains** "Steps for Determining Correct Load Limit - Tow Vehicle".

**Section 2.3 contains** a Glossary of Tire Terminology, including "cold inflation pressure", "maximum inflation pressure", "recommended inflation pressure", and other non-technical terms.

**Section 2.4 contains** information from the NHTSA brochure entitled "Tire Safety — Everything Rides On it". This brochure, as well as the preceding subsections, describes the following items.

☑ Tire labeling, including a description and explanation of each marking on the tires, and information about the DOT Tire Identification Number (TIN).

☑ Recommended tire inflation pressure, including a description and explanation of:

- A. Cold inflation pressure.
- B. Vehicle Placard and location on the vehicle.
- C. Adverse safety consequences of under inflation (including tire failure).
- D. Measuring and adjusting air pressure for proper inflation.
- Tire Care, including maintenance and safety practices.
- Vehicle load limits, including a description and explanation of the following items:

- A. Locating and understanding the load limit information, total load capacity, and cargo capacity.
- B. Calculating total and cargo capacities with varying seating configurations including quantitative examples showing / illustrating how the vehicles cargo and luggage capacity decreases as combined number and size of occupants' increases. This item is also discussed in Section 3.
- C. Determining compatibility of tire and vehicle load capabilities.
- D. Adverse safety consequences of overloading on handling and stopping on tires.

### **1.1. Steps for Determining Correct Load Limit - Trailer**

Determining the load limits of a trailer includes more than understanding the load limits of the tires alone. On all trailers there is a Federal certification/VIN label that is located on the forward half of the let (road) side of the unit. This certification/VIN label will indicate the trailer's Gross Vehicle Weight Rating (GVWR). This is the most weight the fully loaded trailer can weigh. It will also provide the Gross Axle Weight Rating (GAWR). This is the most a particular axle can weigh. If there are multiple axles, the GAWR of each axle will be provided.

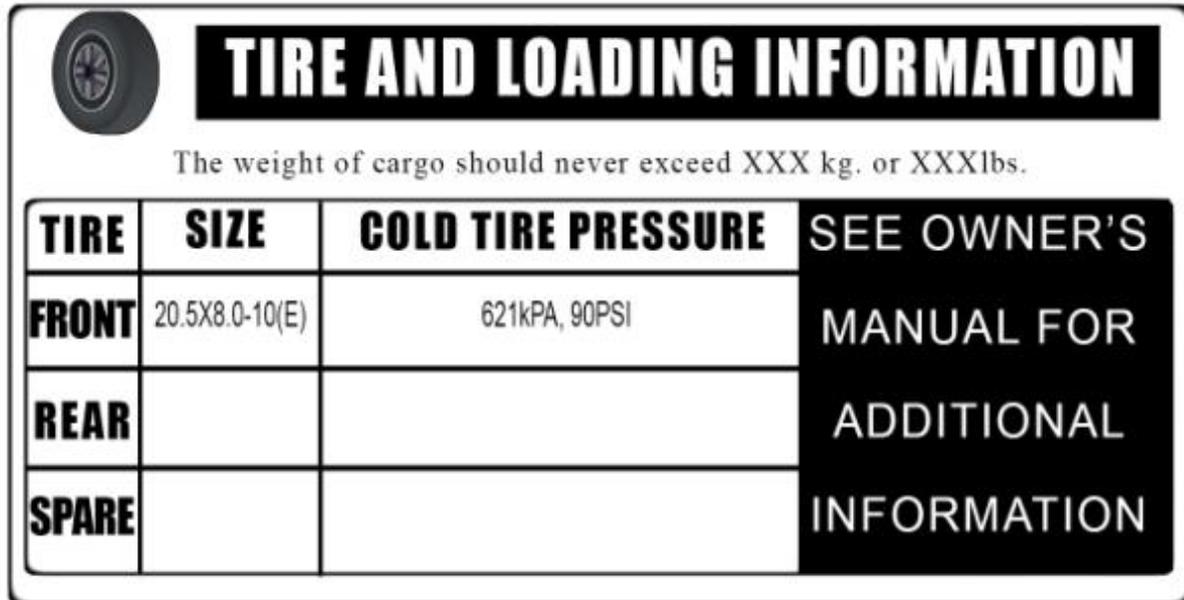
If your trailer has a GVWR of 10,000 pounds or less, there is a vehicle placard located in the same location as the certification label described above. This placard provides tire and loading information. In addition, this placard will show a statement regarding maximum cargo capacity. Cargo can be added to the trailer, up to the maximum weight specified on the placard. The combined weight of the cargo is provided as a single number. In any case, remember: the total weight of a fully loaded trailer cannot exceed the stated GVWR.

For trailers with living quarters installed, the weight of water and propane also need to be considered. The weight of fully filled propane containers is considered part of the weight of the trailer before it is loaded with cargo and is not considered part of the disposable cargo load. Water however, is a disposable cargo weight and is treated as such. If there is a freshwater storage tank of 100 gallons, this tank when filled would weigh about 800 pounds. If more cargo is being transported, water can be off-loaded to keep the total amount of cargo added to the vehicle within the limits of the GVWR so as not to overload the vehicle. Understanding this flexibility will allow you, the owner, to make choices that fit your travel needs.

When loading your cargo, be sure it is distributed evenly to prevent overloading front to back and side to side. Heavy items should be placed low and as close to the axle positions as reasonable. Too many items on one side may overload a tire. The best way to know the actual weight of the vehicle is to weigh it at a public scale. Talk to your dealer to discuss the weighing methods needed to capture the various weights related to the trailer. This would include the weight empty or unloaded, weights per axle, wheel, hitch, or king-pin, and total weight.

Excessive loads and/or under inflation cause tire overloading and, as a result, abnormal tire flexing occurs. This situation can generate an excessive amount of heat within the tire. Excessive heat may lead to tire failure. It is the air pressure that enables a tire to support the load, so proper inflation is critical. The proper air pressure may be found on the certification/VIN label and/or on the Tire Placard. This value should never exceed the maximum cold inflation pressure stamped on the tire.

**1.1.1 Trailers 10,000 Pounds GVWR or Less**



Tire and Loading Information Placard – Figure 1-1

1. Locate the statement, "The weight of cargo should never exceed XXX kg or XXX lbs.," on your vehicle's placard. See figure 1-1.
  2. This figure equals the available amount of cargo and luggage load capacity.
  3. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity.
- The trailer's placard refers to the Tire Information Placard attached adjacent to or near the trailer's VIN (Certification) label at the left front of the trailer.

**1.1.2 Trailers Over 10,000 Pounds GVWR (Note: These Trailers are not Required to Have a Tire Information Placard on the Vehicle)**

1. Determine the empty weight of your trailer by weighing the trailer using a public scale or other means. This step does not have to be repeated.
2. Locate the GV\NR (Gross Vehicle Weight Rating) of the trailer on your trailer's VIN (Certification) label.
3. Subtract the empty weight of your trailer from the GVWR stated on the VIN label. That weight is the maximum available cargo capacity of the trailer and may not be safely exceeded.

**1.2 Steps for Determining Correct Load Limit – Tow Vehicle**

1. Locate the statement, "The combined weight of occupants and cargo should never exceed XXX lbs.," on your vehicle's placard.
2. Determine the combined weight of the driver and passengers who will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kilograms or XXX pounds.
4. The resulting figure equals the available amount of cargo and luggage capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.).
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage capacity calculated in Step # 4.

6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult the tow vehicle's manual to determine how this weight transfer reduces the available cargo and luggage capacity of your vehicle.

### **1.3 Glossary of Tire Terminology**

#### **Accessory weight**

The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not).

#### **Bead**

The part of the tire that is made of steel wires, wrapped or reinforced by ply cords and that is shaped to fit the rim.

#### **Bead separation**

This is the breakdown of the bond between components in the bead.

#### **Bias ply tire**

A pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90 degrees to the centerline of the tread.

#### **Carcass**

The tire structure, except tread and sidewall rubber which, when inflated, bears the load.

#### **Chunking**

The breaking away of pieces of the tread or sidewall.

#### **Cold inflation pressure**

The pressure in the tire before you drive.

#### **Cord**

The strands forming the plies in the tire.

#### **Cord separation**

The parting of cords from adjacent rubber compounds.

#### **Cracking**

Any parting within the tread, sidewall, or inner liner of the tire extending to cord material.

#### **CT**

A pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire.

#### **Curb weight**

The weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine.

#### **Extra load tire**

A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

**Groove**

The space between two adjacent tread ribs.

**Gross Axle Weight Rating**

The maximum weight that any axle can support, as published on the Certification /VIN label on the front left side of the trailer. Actual weight determined by weighing each axle on a public scale, with the trailer attached to the towing vehicle.

**Gross Vehicle Weight Rating**

The maximum weight of the fully loaded trailer, as published on the Certification / VIN label. Actual weight determined by weighing trailer on a public scale, without being attached to the towing vehicle.

**Hitch Weight**

The downward force exerted on the hitch ball by the trailer coupler.

**Innerliner**

The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire.

**Innerliner separation**

The parting of the innerliner from cord material in the carcass.

**Intended outboard sidewall**

The sidewall that contains a white-wall, bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire or the outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle.

**Light truck (LT) tire**

A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

**Load rating**

The maximum load that a tire is rated to carry for a given inflation pressure.

**Maximum load rating**

The load rating for a tire at the maximum permissible inflation pressure for that tire.

**Maximum permissible inflation pressure**

The maximum cold inflation pressure to which a tire may be inflated.

**Maximum loaded vehicle weight**

The sum of curb weight, accessory weight, vehicle capacity weight, and production options weight.

**Measuring rim**

The rim on which a tire is fitted for physical dimension requirements.

**Pin Weight**

The downward force applied to the 5" wheel or gooseneck ball, by the trailer kingpin or gooseneck coupler.

**Non-pneumatic rim**

A mechanical device which, when a non-pneumatic tire assembly incorporates a wheel, supports the tire, and attaches, either integrally or separately, to the wheel center member and upon which the tire is attached.

**Non-pneumatic spare tire assembly**

A non-pneumatic tire assembly intended for temporary use in place of one of the pneumatic tires and rims that are fitted to a passenger car in compliance with the requirements of this standard.

**Non-pneumatic tire**

A mechanical device which transmits, either directly or through a wheel or wheel center member, the vertical load and tractive forces from the roadway to the vehicle, generates the tractive forces that provide the directional control of the vehicle and does not rely on the containment of any gas or fluid for providing those functions.

**Non-pneumatic tire assembly**

A non-pneumatic tire, alone or in combination with a wheel or wheel center member, which can be mounted on a vehicle.

**Normal occupant weight**

This means 68 kilograms (150 lbs.) times the number of occupants specified in the second column of Table I of 49 CFR 571.110.

**Occupant distribution**

The distribution of occupants in a vehicle as specified in the third column of Table I of 49 CFR 571.110.

**Open splice**

Any parting at any junction of tread, sidewall, or innerliner that extends to cord material.

**Outer diameter**

The overall diameter of an inflated new tire.

**Overall width**

The linear distance between the exteriors of the sidewalls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs.

**Ply**

A layer of rubber-coated parallel cords.

**Ply separation**

A parting of rubber compound between adjacent plies.

**Pneumatic tire**

A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel provides the traction and contains the gas or fluid that sustains the load.

**Production options weight**

The combined weight of those installed regular production options weighing over 2.3 kilograms (5 lbs.) in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.

**Radial ply tire**

A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90 degrees to the centerline of the tread.

**Recommended inflation pressure**

This is the inflation pressure provided by the vehicle manufacturer on the Tire Information label and on the Certification / VIN tag.

**Reinforced tire**

A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

**Rim**

A metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

**Rim diameter**

This means the nominal diameter of the bead seat.

**Rim size designation**

This means the rim diameter and width.

**Rim type designation**

This means the industry of manufacturers designation for a rim by style or code.

**Rim width**

This means the nominal distance between rim flanges.

**Section width**

The linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands.

**Sidewall**

That portion of a tire between the tread and bead.

**Sidewall separation**

The parting of the rubber compound from the cord material in the sidewall.

**Special Trailer (ST) tire**

The "ST" is an indication the tire is for trailer use only.

**Test rim**

The rim on which a tire is fitted for testing, and may be any rim listed as appropriate for use with that tire.

**Tread**

That portion of a tire that comes into contact with the road.

**Tread rib**

A tread section running circumferentially around a tire.

**Tread separation**

Pulling away of the tread from the tire carcass.

**Treadwear indicators (TWI)**

The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread.

**Vehicle capacity weight**

The rated cargo and luggage load plus 68 kilograms (150 lbs.) times the vehicle's designated seating capacity.

**Vehicle maximum load on the tire**

The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two.

**Vehicle normal load on the tire**

The load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table I of CRF 49 571.110) and dividing by 2.

**Weather side**

The surface area of the rim not covered by the inflated tire.

**Wheel center member**

In the case of a non-pneumatic tire assembly incorporating a wheel, a mechanical device which attaches, either integrally or separately, to the non-pneumatic rim and provides the connection between the non-pneumatic rim and the vehicle; or, in the case of a non-pneumatic tire assembly not incorporating a wheel, a mechanical device which attaches, either integrally or separately, to the non-pneumatic tire and provides the connection between tire and the vehicle.

**Wheel-holding fixture**

The fixture used to hold the wheel and tire assembly securely during testing.

**1.4 Tire Safety – Everything Rides on It**

The National Traffic Safety Administration (NHTSA) has published a brochure (DOT HS 809 361) that discusses all aspects of Tire Safety, as required by CFR 575.6. This brochure is reproduced in part below. It can be obtained and downloaded from NHTSA, free of charge, from the following web site:

<http://www.nhtsa.dot.gov/cars/rules/TireSafety/ridesonit/tiresindex.html>

Studies of tire safety show that maintaining proper tire pressure, observing tire and vehicle load limits (not carrying more weight in your vehicle than your tires or vehicle can safely handle), avoiding road hazards, and inspecting tires for cuts, slashes, and other irregularities are the most important things you can do to avoid tire failure, such as tread separation or blowout and flat tires. These actions, along with other care and maintenance activities, can also:

- Improve vehicle handling
- Help protect you and others from avoidable breakdowns and accidents
- Improve fuel economy
- Increase the life of your tires
  
- This booklet presents a comprehensive overview of tire safety, including information on the following topics:
  - Basic tire maintenance
  - Uniform Tire Quality Grading System
  - Fundamental characteristics of tires
  - Tire safety tips

Use this information to make tire safety a regular part of your vehicle maintenance routine. Recognize that the time you spend is minimal compared with the inconvenience and safety consequences of a flat tire or other tire failure.

## **1.5 Safety First-Basic Tire Maintenance**

Properly maintained tires improve the steering, stopping, traction, and load-carrying capability of your vehicle. Underinflated tires and overloaded vehicles are a major cause of tire failure. Therefore, as mentioned above, to avoid flat tires and other types of tire failure, you should maintain proper tire pressure, observe tire and vehicle load limits, avoid road hazards, and regularly inspect your tires.

### **1.5.1 Finding Your Vehicle's Recommended Tire Pressure and Load Limits**

Tire information placards and vehicle certification labels contain information on tires and load limits. These labels indicate the vehicle manufacturer's information including:

- Recommended tire size
- Recommended tire inflation pressure
- Vehicle capacity weight (VCW—the maximum occupant and cargo weight a vehicle is designed to carry)
- Front and rear gross axle weight ratings (GAWR- the maximum weight the axle systems are designed to carry).

Both placards and certification labels are permanently attached to the trailer near the left front.

### **1.5.2 Understanding Tire Pressure and Load Limits**

Tire inflation pressure is the level of air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure— measured in pounds per square inch (psi)-a tire requires to be properly inflated. (You will also find this number on the vehicle information placard expressed in kilopascals (kpa), which is the metric measure used internationally.)

Manufacturers of passenger vehicles and light trucks determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. The proper tire pressure for your vehicle is referred to as the "recommended cold inflation pressure." (As you will read below, it is difficult to obtain the recommended tire pressure if your tires are not cold.) Because tires are designed to be used on more than one type of vehicle, tire manufacturers list the "maximum permissible inflation pressure" on the tire sidewall. This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

### **1.5.3 Checking Tire Pressure**

It is important to check your vehicle's tire pressure at least once a month for the following reasons:

- Most tires may naturally lose air over time.
- Tires can lose air suddenly if you drive over a pothole or other object or if you strike the curb when parking.
- With radial tires, it is usually not possible to determine underinflation by visual inspection.

For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets. The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper psi when a tire is cold. The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure in warm tires.

#### **1.5.4 Steps for Maintaining Proper Tire Pressure**

- Step 1: Locate the recommended tire pressure on the vehicle's tire information placard, certification label, or in the owner's manual.
- Step 2: Record the tire pressure of all tires.
- Step 3: If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.
- Step 4: If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.
- Step 5: At a service station, add the missing pounds of air pressure to each tire that is underinflated.
- Step 6: Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tires are supposed to have different amounts of pressure).

If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire's pressure when you can obtain a cold reading.

#### **1.5.5 Tire Size**

To maintain tire safety, purchase new tires that are the same size as the vehicle's original tires or another size recommended by the manufacturer. Look at the tire information placard, the owner's manual, or the sidewall of the tire you are replacing to find this information. If you have any doubt about the correct size to choose, consult with the tire dealer.

#### **1.5.6 Tire Tread**

The tire tread provides the gripping action and traction that prevent your vehicle from slipping or sliding, especially when the road is wet or icy. In general, tires are not safe and should be replaced when the tread is worn down to 1/16 of an inch. Tires have built in tread wear indicators that let you know when it is time to replace your tires. These indicators are raised sections spaced intermittently in the bottom of the tread grooves. When they appear "even" with the outside of the tread, it is time to replace your tires. Another method for checking tread depth is to place a penny in the tread with Lincoln's head upside down and facing you. If you can see the top of Lincoln's head, you are ready for new tires.

#### **1.5.7 Tire Balance and Wheel Alignment**

To avoid vibration or shaking of the vehicle when a tire rotates, the tire must be properly balanced. This balance is achieved by positioning weights on the wheel to counterbalance heavy spots on the wheel-and-tire assembly. A wheel alignment adjusts the angles of the wheels so that they are positioned correctly relative to the vehicle's frame. This adjustment maximizes the life of your tires. These adjustments require special equipment and should be performed by a qualified technician.

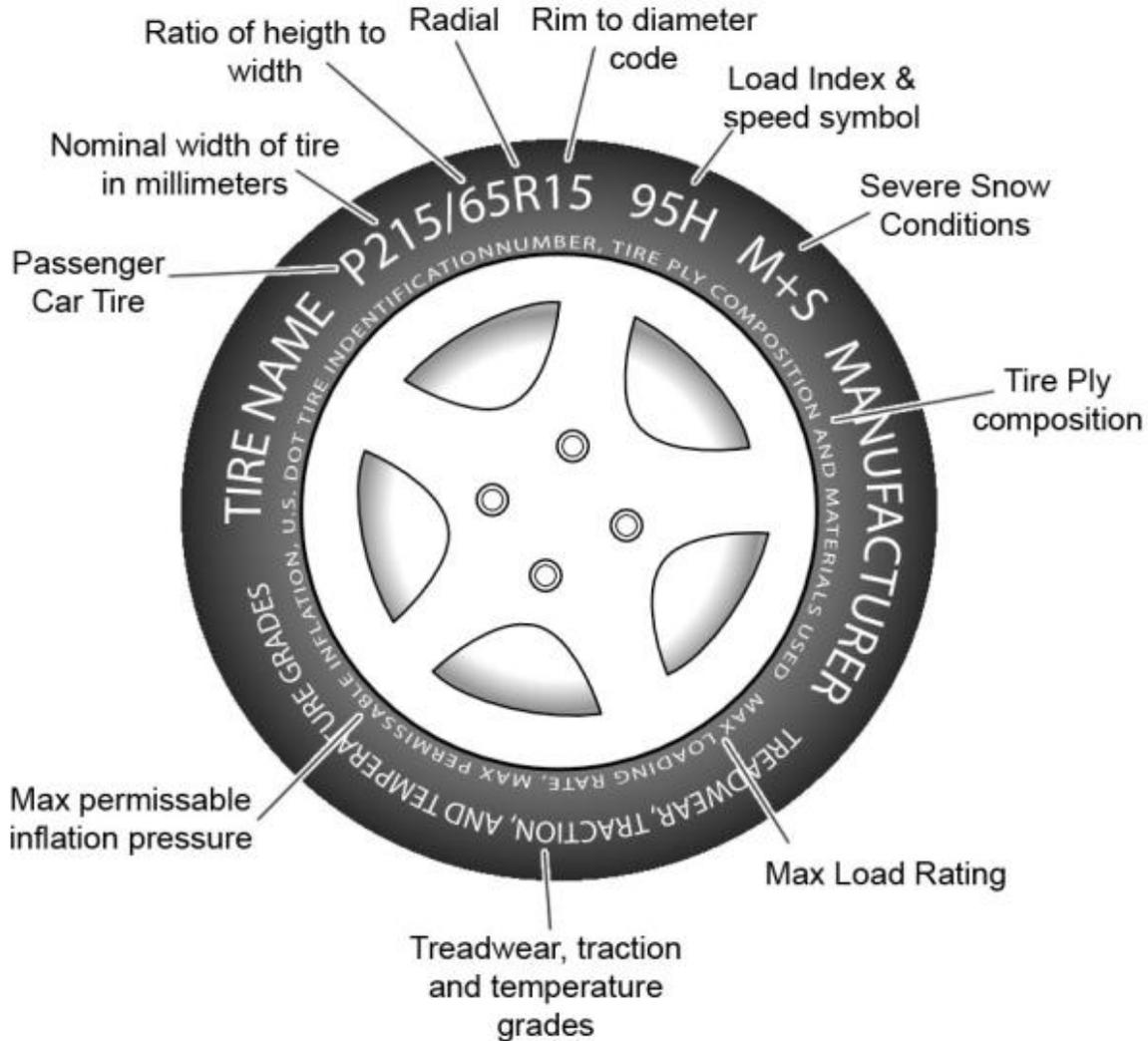
#### **1.5.8 Tire Repair**

The proper repair of a punctured tire requires a plug for the hole and a patch for the area inside the tire that surrounds the puncture hole. Punctures through the tread can be repaired if they are not too large, but punctures to the sidewall should not be repaired. Tires must be removed from the rim to be properly inspected before being plugged and patched.

### 1.5.9 Tire Fundamentals

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a tire identification number for safety standard certification and in case of a recall.

#### 1.5.9.1 Information on Passenger Vehicle Tires



#### P

The "P" indicates the tire is for passenger vehicles.

#### Next number

This three-digit number gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

**Next number**

This two-digit number, known as the aspect ratio, gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall for improved steering response and better overall handling on dry pavement.

**R**

The "R" stands for radial. Radial ply construction of tires has been the industry standard for the past 20 years.

**Next number**

This two-digit number is the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

**Next number**

This two- or three-digit number is the tire's load index. It is a measurement of how much weight each tire can support. You may find this information in your owner's manual. If not, contact a local tire dealer. Note: You may not find this information on all tires because it is not required by law.

**M+S**

The "M+S" or "M/S" indicates that the tire has some mud and snow capability. Most radial tires have these markings; hence, they have some mud and snow capability.

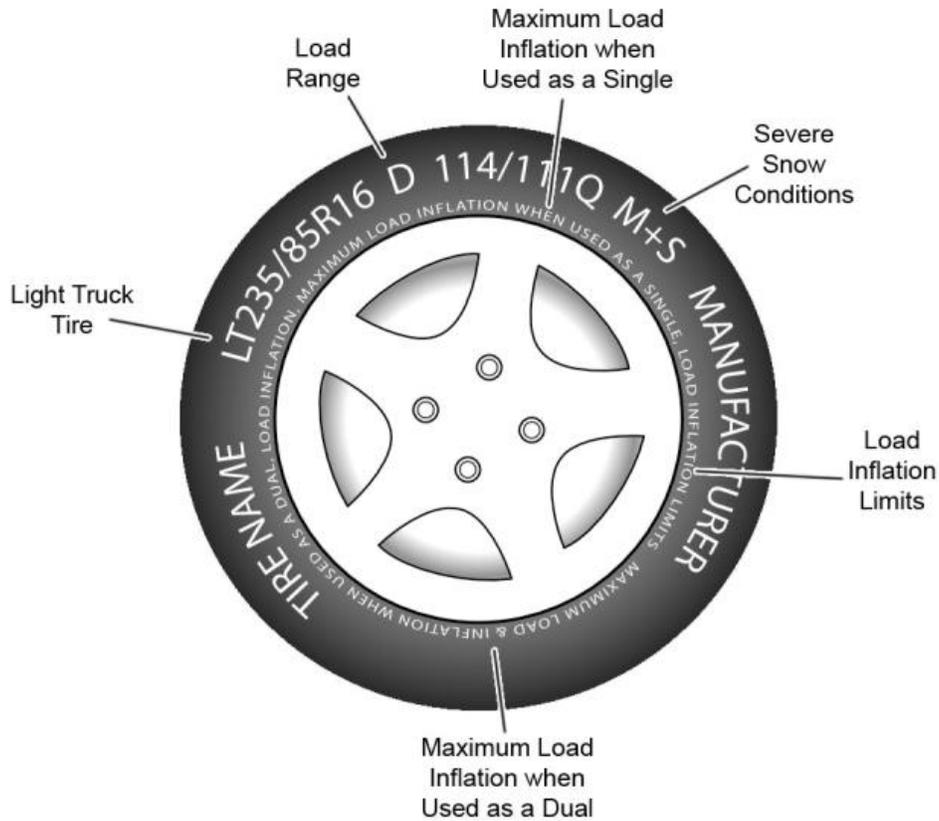
**Speed Rating**

The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time. The ratings range from 99 miles per hour (mph) to 186 mph. These ratings are listed below. Note: You may not find this information on all tires because it is not required by law.

**1.5.9.2 Additional Information on Light Truck Tires**

Please refer to the following diagram.

Tires for light trucks have other markings besides those found on the sidewalls of passenger tires.



**LT**

The "LT" indicates the tire is for light trucks gr trailers.

**ST**

An "ST" is an indication the tire is for trailer use only.

**Max. Load Dual kg (lbs) at kPa (psi) Cold**

This information indicates the maximum load and tire pressure when the tire is used as a dual, that is, when four tires are put on each rear axle (a total of six or more tires on the vehicle).

**Max. Load Single kg (lbs) at kPa (psi) Cold**

This information indicates the maximum load and tire pressure when the tire is used as a single.

**Load Range**

This information identifies the tire's load-carrying capabilities and its inflation limits.

## 1.6 Tire Safety Tips

### Preventing Tire Damage

- Slow down if you have to go over a pothole or other object in the road.
- Do not run over curbs or other foreign objects in the roadway, and try not to strike the curb when parking.

### Tire Safety Checklist

- Check tire pressure regularly (at least once a month), including the spare.
- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.
- Remove bits of glass and foreign objects wedged in the tread.
- Make sure your tire valves have valve caps.
- Check tire pressure before going on a long trip.
- Do not overload your vehicle. Check the Tire Information and Loading Placard or User's Manual for the maximum recommended load for the vehicle.

### Tire Safety Information

Letter Rating	Speed Rating
Q	99 MPH
R	106 MPH
S	112 MPH
T	118 MPH
U	124 MPH
H	130 MPH
V	149 MPH
W	168* MPH
Y	186* MPH

\*For tires with a maximum speed capability over 149 mph, tire manufacturers sometimes use the letters ZR. For those with a maximum speed capability over 186 mph, tire manufacturers always use the letters ZR.

### **U.S. DOT Tire Identification Number**

This begins with the letters “DOT” and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code where it was manufactured, and the last four numbers represent the week and year the tire was built. For example, the numbers 3197 means the 31st week of 1997. The other numbers are marketing codes used at the manufacturer’s discretion. This information is used to contact consumers if a tire defect requires a recall.

### **Tire Ply Composition and Materials Used**

The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others.

### **Maximum Load Rating**

This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

### **Maximum Permissible Inflation Pressure**

This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

## **1.5.9.2 UTQGS Information**

### **Treadwear Number**

This number indicates the tire’s wear rate. The higher the treadwear number is, the longer it should take for the tread to wear down. For example, a tire graded 400 should last twice as long as a tire graded 200.

### **Traction Letter**

This letter indicates a tire’s ability to stop on wet pavement. A higher graded tire should allow you to stop your car on wet roads in a shorter distance than a tire with a lower grade. Traction is graded from highest to lowest as “AA”, “A”, “B” and “C”.

### **Temperature Letter**

This letter indicates a tire’s resistance to heat. The temperature grade is for a tire that is inflated properly and not overloaded. Excessive speed, underinflation or excessive loading, either separately or in combination, can cause heat build-up and possible tire failure. From highest to lowest, a tire’s resistance to heat is graded as “A”, “B”, or “C”.

## **C. Trailer Lights**

The trailer harness is specifically designed to mate with Original Equipment Manufacturer (O.E.M.) automotive equipment. The harness is designed to disengage the trailer lights with the use of the tow vehicle’s O.E.M. harness. Do not use the trailer with a tow vehicle which no longer has its O.E.M. harness.

When connecting the trailer harness, be sure that the seven or four-wire connector on the trailer is properly connected to the seven or four-wire connector on the tow vehicle. If any of these parts are damaged or worn, do not use the trailer until the appropriate replacements or repairs have been made. Note: placing a small amount of waterproof Dielectric grease on the plug contacts will help prevent rust and corrosion.

Be sure that all lights on your trailer are functioning properly before towing your trailer. Failure to do so can result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. Check the trailer lights with the assistance of a second person as follows:

- Check the trailer taillights by turning on the tow vehicle headlights.

- Check the trailer brake lights by stepping on the tow vehicle brake pedal.
- Check the trailer turn signal lights by turning on the tow vehicle turn signal lights.

If there are any lights not working, do not use the trailer until the appropriate replacements or repairs have been made. Do not use the trailer if any of the lights are not otherwise in good working order.

#### **D. Trailer Brakes**

Failure to properly maintain the braking system, including maintaining proper brake fluid levels, can lead to the loss of adequate (or any) braking, which could result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others.

Inspect the brake system on a regular basis and at least annually. If the braking system shows any sign of wear, do not use the trailer until the appropriate replacements or repairs have been made.

Regularly verify, and at least twice a year, that the brake fluid level comes to the top of the reservoir (as marked). AmeraTrail's specification for brake fluid is type DOT 3 Premium. Brake fluid should be replaced every two (2) years at a minimum. If, at any time, it appears that fluid is leaking, take the trailer to a certified trailer repair shop for a check and possible repair. Note that braking system corrosion is not covered under AmeraTrail's Limited Warranty.

Be sure that the brakes on your trailer are functioning properly before towing your trailer.

Electric over hydraulic brakes on a trailer are controlled via a connection to the tow vehicle. Electric over hydraulic brake systems will have an controller that sends power to the trailer brakes. The tow vehicle must have a seven-wire connector for the brakes to function properly. It is important to properly connect and check the seven-wire connector's connection between the trailer and the tow vehicle. Before towing the trailer on the road, check the electric over hydraulic brakes by operating the brake controller while trying to pull the trailer in order to confirm that the electric over hydraulic brakes operate. You should feel the operation of the trailer brakes.

If equipped with an actuator/hydraulic braking system, check the brakes by pulling the emergency break-away brake lanyard to ensure that the surge mechanism is fully operational. Your trailer will also be equipped with a breakaway brake cable that can apply the brakes on your trailer if your trailer comes loose from the hitch ball for any reason. You will have a separate set of instructions for the breakaway brake if your trailer is so equipped. Failure to properly attach the breakaway cable between the trailer and the tow vehicle may result a run-away trailer if the trailer actuator becomes detached from the hitch. This may cause serious injury or death and/or property damage.

After use in saltwater, you must completely and thoroughly wash the trailer in fresh water to retard rusting. Saltwater is very corrosive, and even aluminum or galvanized parts of the trailer can corrode. Exposure to saltwater can cause brake pads to stick and malfunction, so be sure to thoroughly rinse the brake system. AmeraTrail highly recommends carrying a handheld pump-up sprayer to rinse brakes after launching and loading at the ramp (not in lieu of thorough rinse).

#### **E. Tow Vehicle Mirrors**

Standard mirrors on tow vehicles usually do not provide adequate visibility for viewing traffic to the sides and rear of a towed trailer. You must provide and use mirrors that allow you to safely observe approaching traffic.

## **F. Trailer Jack**

The trailer jack requires regular maintenance to continue functioning properly. Keep the trailer jack clean. The drive gear and the rack and pinion should be greased frequently, and the coaster and wheel bearings should be oiled frequently.

## **G. Cleaning Your Trailer**

Due to oxygenation and other conditions, aluminum trailers can become dull in appearance. The aluminum can be cleaned with a simple wash and/or the use of the Scotch Brite pad.

## **H. Trailer Storage**

When the trailer will not be used for several months or more, the following steps may increase the life and performance of the trailer:

- Park the boat trailer in a protected area such as a garage, carport, or similar shelter.
- Loosen the tie-downs and winch strap, but be sure the boat is still resting properly on the hull supports.
- Remove the drain plug and elevate the trailer tongue slightly (just an inch or two) to allow water to drain out so the boat will be dry.
- Service or re-pack the wheel bearings.
- Replace damaged tie-downs, winch straps, wiring, etc.
- Lubricate moving parts such as the rollers and winch, as well as the ball coupler.
- Maintain proper tire inflation. Shield tires from UV rays. Relieve the load on the tires by supporting the trailer frame with concrete blocks or jack stands.
- Tighten any loose nuts and bolts.

## **I. TOWING CAPACITY & LOAD DISTRIBUTION**

### **A. Towing Capacity of Your Tow Vehicle and Hitch**

Do not exceed the lesser of the maximum towing capacity of your tow vehicle and your trailer hitch's weight rating. Towing a trailer that weighs more than that amount can lead to injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others.

*Tow Vehicle Towing Capacity.* Trailers and loads that weigh too much for the towing vehicle can cause stability problems, which can lead to injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. The additional strain put on the engine and drivetrain may lead to serious tow vehicle maintenance problems. Accordingly, do not exceed the maximum towing capacity of your towing vehicle. The towing capacity of your tow vehicle, in terms of maximum Gross Trailer Weight (GTW) and maximum Gross Combined Weight Rating (GCWR), should be listed in the tow vehicle's Owner's Manual. If not, contact your tow vehicle's manufacturer to determine its towing capacity.

*Trailer Hitch Capacity.* Trailers and loads that weigh too much for the trailer hitch may break free during towing, which can lead to injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. Your hitch has a hitch weight rating which is located on the hitch manufacturer's label. If the hitch is missing the label or there are questions, contact the manufacturer of your hitch if you do not know its weight rating. Always use a hitch with a hitch weight rating equal to or greater than the load rating (Gross Vehicle Weight Rating) of the trailer (found on VIN sticker).

## “How – To” – Calculating Load Limits

- (1) Locate the statement “The weight of cargo should never exceed XXX kg or XXX lbs.” on your vehicle's placard.
- (2) This figure equals the available amount of cargo and luggage load capacity.”
- (3) Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity.

### **B. Maximum Weight of Trailer Load**

Trailers that are overloaded can cause stability problems, which can lead to injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. The total weight of the load put on the trailer (this includes your boat and everything in it), plus the empty weight of the trailer itself, must not exceed the trailer's Gross Vehicle Weight Rating (GVWR). If you do not know the empty weight of the trailer plus the cargo weight, you must weigh the loaded trailer at a commercial scale.

Your trailer is equipped with a Tire & Loading Information Placard, mounted next to the Certification / VIN label, the cargo capacity weight stated on that placard is only a close estimate. The GVWR is listed on the Certification / VIN label mounted on the front left side of the trailer.

### **C. Trailer Load Distribution**

Improper distribution of the load in the trailer can cause stability problems, which can lead to injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. In particular, improper load distribution can cause the trailer to sway or result in poor tow vehicle handling.

*Left/Right Load Distribution.* The load in the trailer must be distributed such that the load on any axle does not exceed the Gross Axle Weight Rating (GAWR). The GAWR is listed on the Certification / VIN label mounted on the front left side of the trailer. Uneven left / right load distribution can cause tire, wheel, axle or structural failure. Be sure your trailer is evenly loaded left / right.

*Front/Rear Load Distribution.* Improper front / rear load distribution can cause the tongue weight to be too high or too low. Tongue weights that are too high can cause poor tow vehicle stability. Tongue weights that are too low can cause the trailer to sway.

For example, a trailer with a loaded weight of 12,000 pounds, should have 8-12% of that weight (960 – 1,440 lbs.) on the tongue/gooseneck. Tongue weight can be determined with scale designed for measuring tongue weights. If your tongue weight is heavier or lighter, adjust load if possible. Call the AmeraTrail factory with any questions regarding tongue weight.

*Vertical Load Distribution.* Towing stability also depends on keeping the center of gravity of the trailer low and stable. Keep the trailer load as low as possible (i.e., do not tow if your trailer load is top heavy).

## **II. HOOKING UP YOUR TRAILER**

### **A. Initial Installation**

Install the appropriate trailer hitch on your tow vehicle and secure the ball mount per the instructions provided by the manufacturer of your hitch. See Section I for guidance regarding tow capacity.

Your trailer will have a wiring harness which controls the electronic features of the trailer (lights, brakes, etc.) Plug this harness into the trailer receptacle located in the hitch area of the vehicle. In the event you cannot find the trailer receptacle, refer the vehicles owner's manual.

#### **B. Mounting Trailer to the Tow Hitch**

*Trailer Jack.* AmeraTrail recommends using the trailer jack to lift the coupling of a loaded trailer from the hitch ball of the towing vehicle. Failure to engage jack pins may result in the collapse of the trailer jack, which could result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others.

*Aligning Tow Vehicle.* Remember that tow vehicles must always approach the trailer slowly prior to being hitched to the trailer. This allows the operator to retain greater control. Note that impact with the trailer or improper alignment on the trailer may result injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. This is not covered under AmeraTrail's Limited Warranty.

*Attaching Trailer to Hitch.* Line up your trailer hitch trailer ball under the coupler. With the coupler in the loose/open position, use the jack to lower the coupler onto the hitch ball. Securely lock the coupler latch mechanism. Failure to properly engage the hitch ball in the coupler ball socket and to securely lock the coupler latch mechanism can cause the trailer to become detached from the tow vehicle while traveling, which may result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others.

IMPORTANT: the trailer should sit level to ensure weight is properly distributed between each axle. This will assist in not causing unnecessary wear of tires, hubs/bearings, and axles.

#### **C. Attaching the Safety Cables**

Failure to properly attach the safety cables or chains between the trailer and the tow vehicle may result a run-away trailer if the trailer coupler becomes detached from the hitch. This may result in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others.

Before each tow, ensure that the proper cables or chains are correctly attached between the tow vehicle and the trailer. The trailer hitch should provide a place for attaching safety cables or chains through holes or rings on both sides of the hitch ball. It is strongly recommended, and most states require, that the cables be crisscrossed under the trailer tongue (e.g., the cables on the left side of the trailer tongue should be attached to the hole or ring on the left side of the hitch ball, and the right cable should be attached to the hole or ring on the right side of the hitch ball). This will prevent the trailer tongue from dropping to the road if the trailer coupler separates from the hitch ball.

If a safety cable needs to be replaced, do not substitute with any part other than a genuine AmeraTrail-supplied cable.

#### **D. Securing Your Boat—Tie Down System**

Ensuring that a boat will be held securely in place on the trailer's hull support, especially when underway, is extremely important. If the boat is not firmly and properly secured, the boat can be damaged as it bounces against the hull supports and/or cause injury, death and/or damage to the trailer, the towing vehicle, and/or the property of others.

Ameratrail's tie-down system is located in the front and rear of the trailer. Most boats have tie-downs on both the bow and transom of the boat. Tie-downs must be used while towing a boat.

Note that it is very important to be sure that the transom of the boat is resting fully and securely on the supports provided at the rear end of the trailer, and that it remains in place when parked or underway.

### **E. Cargo and Gear**

Cargo must be secured so that it does not shift while the trailer is being towed. If the door latch is equipped with a catch that has a hole for a linchpin, use a linchpin to prevent the door latch from unexpectedly opening.

Do not tow a boat with gear in racks (such as fishing poles, skis, etc.). Doing so may create a hazard for, or cause damage to, vehicles following behind the tow vehicle as the gear may become disengaged while traveling, possibly resulting in injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. AmeraTrails' Limited Warranty does not cover any such damage.

## **III. TOWING YOUR TRAILER**

### **A. Review of Safety Requirement and Required Maintenance**

In addition to following all of the requirements set forth in this Manual, and particularly those in Sections 0 through II, AmeraTrail advises that, immediately before towing, you do each of the following:

- Recheck the load tie-downs to ensure that the load will not shift during towing.
- Recheck the coupling, safety chain, safety brake, tires, wheels, and lights. Note: Check coupler tightness again after towing 50 miles.
- Recheck the lug nuts or bolts for tightness.
- Check the tow vehicle's brake controller (if applicable) to ensure the brake controller is properly functioning. Follow the instructions given with the brake controller manufacturer's literature.

### **B. Driving**

The driver of the towing vehicle is responsible for maintaining a safe operating speed. Under ideal road conditions, the maximum recommended speed for safely towing a trailer is sixty (60) miles per hour. If you drive too fast, the trailer is more likely to sway, thus increasing the possibility for loss of control. In addition, your tires may overheat, thus increasing the possibility of a tire blowout. Driving conditions and speed limits should always be considered when towing and the speed adjusted accordingly.

When towing a trailer, the driver of the towing vehicle will have decreased acceleration, increased stopping distance, and increased turning radius (which means you must make wider turns to keep from hitting curbs, vehicles, and anything else that is on the inside corner). The trailer will change the handling characteristics of the towing vehicle, making the vehicle more sensitive to steering inputs and more likely to be pushed around in windy conditions or when being passed by large vehicles. Because of the vehicle's decreased acceleration and the length of the trailer behind the vehicle, longer distances are required to safely pass other vehicles. In addition:

- Be alert for slippery conditions. You are more likely to be affected by slippery road surfaces when driving a tow vehicle with a trailer, than when driving a tow vehicle without a trailer.
- Anticipate the trailer "swaying." Swaying can be caused by excessive steering, wind gusts, roadway edges, or by the trailer reaction to the pressure wave created by passing trucks and busses. When encountering trailer sway, take your foot off the gas and steer as little as possible in order to stay on the road. Use small "trim-like" steering adjustments. Application of the trailer brakes (and not the tow vehicle brakes), especially when going downhill, can assist in correcting the sway.
- Check rearview mirrors frequently to observe the trailer and traffic. Use your mirrors to verify that you have room to change lanes or pull into traffic. Use your turn signals well in advance.
- Be aware of your trailer height, especially when approaching bridges, roofed areas, and trees.

- Check coupler tightness after towing 50 miles.

The following are additional guidelines when towing:

- Use a low gear for climbing and descending grades. Use the engine and transmission as a brake. Do not ride the brakes, as they can overheat and become ineffective.
- Shift your automatic transmission into a lower gear for city driving.
- Slow down for bumps in the road. Take your foot off the brake when crossing the bump.
- Do not brake while in a curve unless absolutely necessary. Instead, slow down before you enter the curve.
- Allow plenty of stopping space for your trailer and tow vehicle.
- Make regular stops, about once each hour. Confirm that:
  - The coupler is secure to the hitch and is locked,
  - Electrical connections are made,
  - There is appropriate slack in the safety chains,
  - There is appropriate slack in the breakaway switch pull pin cable,
  - The tires are not visibly low on pressure, and
  - The cargo is secure and in good condition.

### C. Common Causes of Loss of Control

Loss of control of the trailer or trailer/tow vehicle combination can result in possible injury, death and/or damage to the trailer, your boat, the towing vehicle, and/or the property of others. The most common causes for loss of control of the trailer are:

- Improper sizing of the trailer for the tow vehicle, or vice versa.
- Driving too fast for the conditions.
- Failure to adjust driving behavior when towing a trailer.
- Improper or mis-coupling of the trailer to the hitch.
- Improper braking and steering under sway conditions.
- Not maintaining proper tire pressure.
- Not keeping wheels or lug nuts tight and/or worn tires.
- Shifting or inappropriate cargo.
- Using brakes, lights, and/or mirrors that are not fully operational or suited to the trailer and/or towing vehicle.

These common causes of loss of control, and how to reduce the risk of losing control, are discussed in more detail throughout this Manual.

## IV. LAUNCHING AND LOADING YOUR BOAT

### A. Launching Your Boat

To launch your boat from your trailer, follow the instructions below:

- **Check the ramp.** Whether launching from an unimproved or surfaced ramp, check it out before starting the launch procedure. How steep is it? Is the surface firm enough to support the weight of the trailer and tow vehicle? Is it wide enough? How deep is the water at the end of the ramp? If the ramp is not suitable for your trailer and/or tow vehicle, do not use it.
- **Use great care when walking, standing, or loading and unloading boats on or around any launch ramps as some launch ramps may be slippery when wet.**
- **Prepare for launching.** Install the drain plugs in your boat and detach the trailer tie-downs.

- **Slowly back the trailer down the ramp.** If possible, have someone stand to one side of the ramp to provide directions. Backing up a trailer can be tricky. A good way to simplify the procedure is to grasp the steering wheel with one hand at its lowest point (6 o'clock). To make the trailer go right, move your hand on the wheel to the right; to make the trailer go left, move your hand to the left. (In other words, remember that to turn the wheel in the opposite direction that you want the trailer to go.)
- **Slowly back the trailer into the water until the trailer tire wheel well is about even with the water surface.** (This may vary with the angle of the ramp.) Set the parking brake and shift into park (*automatic transmission*) or first gear (*manual transmission*). Shut off the engine. Unlock the winch hook and/or safety cable, then slowly back the boat off the trailer.

## **B. Loading Your Boat**

Before loading, clean any dirt or sand off the bunks. Debris on the bunks can abrade the boat's bottom while trailering.

To load the boat back on the trailer, simply reverse the procedure for launching your boat, including setting your winch latch to the proper position. Proper loading depth on trailers will vary with conditions, but a good starting point would be the same as launch depth or slightly shallower. Remember to load the boat onto the trailer at a slow pace. AmeraTrail trailers are designed so that the rear bunks are flush (or very close) to the stern areas of the boat so place the boat accordingly when loading.

Be certain all the boat tie-downs are properly fastened down before departing from the launching ramp area.

After use in saltwater, you must completely and thoroughly wash the trailer in fresh water to retard corrosion. Saltwater is very corrosive, and even aluminum or galvanized parts of the trailer can corrode. Exposure to saltwater can result in damage to various parts of the trailer, such as the braking system.

**Wet brakes may not hold and/or may cause brakes to have diminished performance characteristics. A few braking applications at a slow speed will help to dry them out. Extra care must be used when braking after brakes have become wet.**

## **V. REPORTING SAFETY DEFECTS**

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying AmeraTrail, Inc.

If NHTSA receives similar complaints, it may open an investigation and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved individual problems between you, your dealer, or AmeraTrail, Inc.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or Write To: NHTSA, US Department of Transportation, 1200 New Jersey SE, Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

With regards to possible tire recalls (required by 49 CFR 575.6) fill out and mail attached tire registration card.

## **VI. AMERATRAIL'S LIMITED WARRANTY AND LIMITATION OF LIABILITY**

### **A. Warranty Registration**

Trailers must be registered within thirty (30) days of the first retail sale (the "Registration Period"). Failure to meet this condition will cause this warranty to be null and void. You can register your trailer at AmeraTrail's website, [www.ameratrail.com](http://www.ameratrail.com) or by filling out the registration sheet which is the last page of the Owner Manual, and mailing it to AmeraTrail, Inc., 2525 Amera Trl, St. Cloud, FL 34773. If you use a warranty registration card, it must be post-marked within the Registration Period for the registration to be effective; otherwise, this warranty will be null and void.

### **B. Limited Warranty and Term**

The AmeraTrail warranty is limited to the original retail purchaser and is non-transferable. AmeraTrail however will honor reasonable warranty claims with regards to manufactures defects to the trailer frame and assemble (as defined below).

Ameratrail warrants that each new AmeraTrail trailer be to free from material defects in materials and workmanship to the extent set forth below, under normal use and when operated and maintained in accordance with this Owner's Manual and AmeraTrail's website, [www.ameratrail.com](http://www.ameratrail.com), for a period of one (1) year from the date of first retail sale (the "Warranty Period"). This warranty is referred to as the "Limited Warranty".

This Limited Warranty only applies to the trailer frame and assembly. This includes all parts/components manufactured by AmeraTrail and AmeraTrail's craftsmanship in assembling components. Items such as side rails (main beams), cross-member and bunk brackets, winch stands/V-blocks, lighting connections, fender assemblies, and the connections between vendor purchased parts and the frame and assemble. This Limited Warranty does not cover any other components manufactured outside of AmeraTrail, including rubber torsion axles, hubs, drums, spindles, stainless steel and other braking systems, surge break actuators, winches, lights, couplers, actuators, breaks, tongue jacks, springs and tires or wheels. Some or all of these components may be warranted separated by their manufacturer.

The Limited Warranty constitutes the final, complete, and exclusive statement of warranty terms, and no other person or entity is authorized to make any other warranties or representations on behalf of AmeraTrail or otherwise modify the scope of this Limited Warranty. This Limited Warranty is intended to comply with the Magnusson Moss Warranty Federal Trade Commission Improvement Act and any provisions of this warranty or actions taken by AmeraTrail pursuant to this Limited Warranty shall be construed accordingly.

Please call AmeraTrail's warranty department with any question regarding the warranty of trailer or components not manufactured by AmeraTrail but on the trailer.

### **C. Warranty Exclusions**

This Limited Warranty does not cover the following:

1. Damage to anything other than the AmeraTrail trailer;
2. Damage caused by misuse, negligence, accident, or collision or impact with any person, animal, or object;
3. Damage caused by failure to maintain or use the trailer in accordance with the provisions in the Owner's Manual and AmeraTrail's website or otherwise improper maintenance or use of the trailer and/or tow vehicle;
4. Damage resulting from use of the trailer for rental, commercial or industrial purposes;
5. Damage caused by theft, vandalism, improper storage, overloading, or other similar

- occurrences;
6. Damage caused by any improper alteration, modification, repair, or replacement to the trailer or any of its component parts or accessories, including, but not limited to, damage resulting from alteration, modification, repair, or replacement that renders the trailer different from its originally manufactured condition;
  7. Damage to or caused by hardware and other components fastened or adhered to the trailer;
  8. Damage caused by the installation of options or accessories by someone other than AmeraTrail;
  9. Damage to or caused by any component parts and accessories not manufactured by AmeraTrail; and
  10. Damage caused by environmental factors, including, but not limited to, chemicals (whether applied by the trail owner or otherwise), spills, salt, saltwater, brackish water, hazardous materials, fire, freezing, explosions, lightning, wind, hailstorms, flooding, other natural disasters, abrasions, rock chips, or rust.

#### **D. Disclaimer and Limitation of Implied Warranties**

AMERATRIL MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, OTHER THAN THE LIMITED WARRANTY SET FORTH IN THIS SECTION VI. AMERATRIL DISCLAIMS, AND THE TRAILER OWNER EXPRESSLY WAIVES, ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH EXCEED THE WARRANTY PERIOD OF THIS LIMITED WARRANTY. SOME STATES DO NOT ALLOW WARRANTY TIME LIMITATIONS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

#### **E. Limitation of Liability**

*Liability Limitation; Exclusion of Consequential Damages.* This Limited Warranty is for the benefit of the trailer owner and AmeraTrail and shall not create or evidence any right to any third party. THE REPAIR OR REPLACEMENT OF DEFECTIVE COMPONENT PARTS AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE TRAILER OWNER. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL AMERATRIL BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES OR LOST PROFITS WHATSOEVER ARISING OUT OF THE USE OR INABILITY TO USE THE TRAILER OR ANY COMPONENT PART THEREOF, OR FOR ANY BREACH OF THIS LIMITED WARRANTY OR OTHERWISE, EVEN IF AMERATRIL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR SUCH DAMAGES COULD REASONABLY HAVE BEEN FORESEEN BY AMERATRIL. Some states do not allow the exclusion or limitation of incidental, consequential, or other damages, so the above limitation may not apply to you.

*Purchase Price Limitation.* In any event, AmeraTrail's entire liability under any provision of this Limited Warranty shall be limited to the repair or replacement of the defective trailer or component part or the refund of the purchase price paid by the original retail purchaser for the defective trailer or component. This shall constitute AmeraTrail's sole liability and obligation in the event of any claim arising out of its performance or non-performance of any provision of this Limited Warranty. Because some states and jurisdictions do not allow the exclusion or limitation of liability, the above limitations may not apply to you.



2525 Amera Trail  
Harmony, FL 34773

#### **F. Warranty Claims**

To make a claim under this Limited Warranty, the first trailer owner must bring the trailer to AmeraTrail or an AmeraTrail authorized facility within thirty (30) days of discovery of the defect and within the Warranty Period. To contact AmeraTrail or obtain information regarding the nearest AmeraTrail authorized facility, contact AmeraTrail at the following address or telephone number:

AmeraTrail, Inc.  
Attention: Warranty/Customer Service Department  
2525 Amera Trail  
St. Cloud, FL 34773  
407-593-9222

If the defect is covered by the Limited Warranty, AmeraTrail or an AmeraTrail authorized facility will affect correction action as follows: The defective trailer or component will be repaired or replaced, at AmeraTrail's sole option, without charge to the trailer owner for parts and labor and subject to the following terms and conditions:

1. AmeraTrail shall be obligated only to repair or replace those items that prove defective, in AmeraTrail's sole discretion, upon examination by personnel at AmeraTrail or an AmeraTrail authorized facility, as applicable.
2. AmeraTrail shall, in its sole discretion, fulfill its obligation to repair or replace any defective item at its factory or authorized repair facility.
3. AmeraTrail warrants its repairs or replacements only for the remainder of the applicable Warranty Period.
4. The trailer owner shall be responsible for all costs associated with the transportation of the trailer or component part(s) to AmeraTrail or the AmeraTrail authorized facility and for any return transportation.

Trailer Registration Sheet

Dealer Name

Purchase Date

MFG. if not purchased from Dealer

Trailer VIN Number

Customer Name

Today's Date

Email Address

Phone Number

Address

City and State

Zip

Make of Boat and Model of Boat

Message