LOGAN COACH TRAILERS

Under The Hat Family™

www.LoganCoach.com

OWNER'S MANUAL

LOGAN COACH, INC.

RAMPAGE

RIOT

EDGE

RAZOR

XT

XTR

WARM BLOOD

STOCKMAN

ULTIMATE

LIMITED

HORSE POWER

CROSS FIRE

COWBOY

SILVER EAGLE

CONTRACTOR

Fill Out And Mail Us Your Warranty Registration Card To Validate Ownership of Your Logan Coach Trailer.

Warranty Registration Card

(Warranty only valid when purchaser reads Owner's Manual then submits signed warranty registration card as verification that they understand warranty provisions. Must be mailed to Logan Coach no later than 10 days after date of purchase. This information is for official use only by Logan Coach and its affiliates. Warranty validated only when signed and dated by purchaser.)

1. Where did you first hear about Logan Coach?
❑ Advertisement ❑ Friend/Family ❑ Dealer ❑ Other

A. If an advertisement, which one?

B. What other dealers did you shop? What other brands did you consider?

2. Is this the first Logan Coach trailer you have owned? ❑ Yes ❑ No

3. Please mark the reasons for selecting your Logan Coach trailer:
❑ Price ❑ Quality Construction ❑ Value ❑ Appearance
❑ Other _____

4. What activities do you participate in? (check all that apply)
❑ Rodeo ❑ Trail Riding ❑ Ranch/Farm Work ❑ Competitions ❑ Travel/Trips
❑ Racing ❑ Shows ❑ Endurance Riding ❑ Hunter/Jumper

5. What breed(s) of Horse(s) do you use?

6. Age ❑ Less than 25 ❑ 25-34 ❑ 35-44 ❑ 45 & Older

7. Average annual household income:
❑ 50,000 and below ❑ 75,000 ❑ 100,000 ❑ 150,000 ❑ 200,000 ❑ 250,000+

8. How often do you pull your trailer?
❑ Daily ❑ 2-3 times/week ❑ Weekly ❑ Bi-monthly ❑ Monthly ❑ Other

9. What types of trailers do you use?
❑ ATV ❑ Snowmobile ❑ Enclosed Cargo ❑ Open Utility Equip. ❑ Horse ❑ Other

Name: _____

Address: _____

City: _____ **State:** _____

Phone: _____ **Zip:** _____

Purchase Date (mm/dd/yyyy)**:** **/** **/**

Place of Purchase (Dealer Name): _____

City: _____ **State:** _____

Vehicle ID #: _____

Model: _____

Key #: _____

I have read and understand the limited warranty and the owners information packet. Warranty validated only when signed and dated by purchaser and received by Logan Coach.

Printed Name _____ Date _____

Signed _____

Place in an envelope and mail to:

Logan Coach
2990 S. 800 W.
Nibley, UT 84321

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Logan Coach, Inc. Limited Warranty

Logan Coach, Inc. warrants that each Logan Coach trailer will be free from defects in materials and workmanship for the periods and pursuant to the terms set forth below. Logan Coach, Inc. is committed to assuring customer satisfaction, so any trailer defect deemed to be the fault of Logan Coach, Inc. will be repaired or have parts replaced at an authorized repair facility at no charge to the original purchaser. Logan Coach, Inc. reserves the right to refuse warranty service for issues relating to negligence, abuse, misuse, accidents or normal wear; or for trailers used as rentals.

Warranty Period

The Warranty Period begins on the date of purchase or delivery. To validate the warranty, the Warranty Registration Form must be signed and returned to Logan Coach, Inc. no later than (10) days after the date of purchase. Signing the Warranty Registration Card validates that the Logan Coach purchaser has read and understands the Logan Coach, Inc. warranty limitations. (Warranty Registration form is found inside the front cover of the owner's manual or can be completed on-line at logancoach.com)

Pre-Approval to Perform Warranty Repairs

Please contact the dealership where you purchased your trailer to report defects that may be under warranty. Your dealer will coordinate with Logan Coach, Inc. to receive permission to perform Warranty Repairs. All warranty repairs must be pre-approved by an authorized Logan Coach, Inc. factory representative. After approval is given by Logan Coach, Inc. to perform warranty repairs, the work should preferably be performed by the Logan Coach dealership where the trailer was purchased because of that dealer's personal interest in their customer. Dealers shall be responsible for handling all warranty claims in an efficient and timely manner for customers who bought their Logan Coach, Inc. trailer from their dealership. At the discretion of Logan Coach, Inc., customers may be subject to pay a deductible in order to have warranty repairs performed at a more conveniently located Logan Coach authorized dealer than the one where they purchased their trailer. Also at the discretion of Logan Coach, Inc. an authorized repair facility may be defined as a competent service center other than a Logan Coach authorized dealership.

Payment of Authorized Warranty Repairs

All pre-approved warranty repairs covered by Logan Coach, Inc. must be performed at a Logan Coach, Inc. authorized repair facility. Payment from Logan Coach to cover the costs of Warranty Repairs will only be issued to the dealership where the trailer was purchased and will not be issued directly to the owner or non-dealer repair facility. The Logan Coach dealer where the trailer was purchased is responsible to pay the repair facility for Authorized Warranty Repairs. Payment for repairs made without Logan Coach, Inc. approval, at the discretion of Logan Coach, Inc. may be denied.

Incidental or Consequential Damages

All other obligations or liabilities, including Incidental or Consequential Damages or Contingent Liabilities arising out of the failure of any parts to operate properly, are hereby excluded, including any damages resulting from loss of use, inconvenience, loss of time, commercial loss or any other type of damages, general or specific, foreseen or unforeseen. There is no express or implied warranty of merchantability or fitness for a particular purpose. (Some states do not allow for the exclusion of limitation of consequential or incidental damages in which case the above limitations or exclusions may not apply.)

Transportation to and from Warranty Repair Facility

Cost of transportation to and from the authorized repair facility where warranty repairs will be performed will be the responsibility of the retail customer, unless applicable law interprets otherwise.

Non-transferrable Warranty

The Logan Coach, Inc. Limited Warranty is extended to the original purchaser only. The warranty will be terminated upon sale, assignment or other transfer of the trailer by the original purchaser.

Structural Warranty (8-Years)

The structure of each Logan Coach, Inc. trailer has a warranty for 8 years to the original purchaser only. If a Logan Coach, Inc. representative determines in writing that there is a legitimate Structural Warranty on your Logan Coach trailer, the labor and material costs associated with the repair of defective structural welds and material will be free of charge to the original purchaser. The structure is the portion of the trailer consisting of the top rail, bottom rail, floor cross members, wall posts, inside stationary wall frames, roof bows, roof rail, head-gate wall, hitch frame, and axle sub-frame. Logan Coach trailers being towed by 550/5500 series pick-up trucks, or larger, will not qualify for warranty coverage for structural damage, unless, at the discretion of a Logan Coach Representative a proper cushion hitch was in use when being pulled by such vehicle.

Structural Corrosion Warranty (Lifetime to Original Owner)

The Galva-Strong Galvanized Structural frame produced by Logan Coach, Inc. carries a Lifetime Structural Corrosion Warranty which covers structural failure caused by the effects of corrosion to the Original Purchaser. The first 8 years from the purchase date of a trailer, the Structural Corrosion Warranty is included in the guidelines of the Structural Warranty (See above). Effective the 9th year of trailer service to the Original Purchaser, and until the trailer changes ownership, Logan Coach, Inc. will repair any structural failures that resulted from corrosion. The repairs must be made at the Logan Coach production facility with the only cost incurred by the original owner being freight to and from Logan, Utah.

Hitch-to- Bumper Warranty (2 Years)

All models have a Logan Coach 2-year hitch to bumper warranty. The Hitch to Bumper Warranty includes doors, gates, dividers, moveable walls, saddle racks, blanket racks, exterior skins, lights, electrical and all items that are not considered structural or component features. .

Floor Warranty (8-Years)

Logan Coach, Inc. wood and aluminum floors have a warranty of 8 years on all horse and stock trailer models. This includes the Sure Grip Permanent Rubber attached to the floor.

Component Warranty

Axles, tires, brakes, brake parts, couplers, jacks, generators and Living Quarter appliances have separate warranties covered by the respective manufacturer of these items. A separate warranty from each of the manufacturers of these items is included in your trailer packet. Warranty for each of these items may occur if repairs are pre-approved by a service representative from the respective manufacturer and/or a Logan Coach factory representative. Component warranty repairs will take place at an authorized repair facility agreed upon by the respective component manufacturer and/or Logan Coach Inc.

Conditions of Warranty

1. Disclaimer: THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND REPRESENTATIONS. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY, OR OF FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE DURATION OF THIS LIMITED WARRANTY.

   No one is authorized to give any other warranty or to assume any additional obligation on behalf of Logan Coach, Inc. Only a duly authorized officer of Logan Coach, Inc. may make changes and he/she will do so in writing.

2. Normal Use: This warranty covers only defects in original parts manufactured by Logan Coach, Inc. when the trailer has been operated under normal conditions. Negligence, accidents, alteration or overload, or repair without prior written authorization from Logan Coach, Inc. are not covered.

3. Required Procedure: To speed the correction of any problem covered by this warranty, you must follow these procedures, unless applicable state law dictates otherwise:

   a. Within five days after discovering a problem, return your trailer to your Logan Coach, Inc. dealer for inspection. **All claims must be submitted through a dealer**, preferably the dealer from whom you purchased your trailer. The dealer will give you instructions how to proceed with your claim. **Dealers are responsible for fixing minor problems without charge to you or the factory.**
   b. If your local dealer cannot repair the problem, and you wish to make a claim under this warranty, bring your trailer to the Logan Coach, Inc. factory for inspection. If you cannot come to the factory, you must notify Logan Coach, Inc. at 2990 S. 800 W. Nibley, Utah 84321 by registered mail within ten days after discovering the defect. Include your name, address, home and work phone numbers, and a complete description of the problem. You must also include the serial number of your trailer, the location of the trailer, an estimate of the cost of repair, the name of the dealer you bought your trailer from, and photographs which clearly show the defect.
   c. Logan Coach, Inc. will contact you within three working days after receiving your letter and photographs. Corrective action, if required, will be completed within sixty days from this contact, unless applicable state law provides otherwise.
   d. Logan Coach, Inc. will not reimburse purchaser for any repairs of a Logan Coach, Inc. trailer without prior written approval by Logan Coach, Inc..
   e. If you return your trailer for repair to the factory, Logan Coach, Inc. will warrant the repair and/or replacement parts for one year from the date of repair. **If authorized repair must be done other than at the Logan Coach factory, Logan Coach, Inc. will not warrant the repair or replacement parts.**

What is NOT Defined as Warranty by Logan Coach, Inc.

- Surface rust and damage caused by the environment.
- Accidents or damage caused from objects striking the trailer.
- Windows breaking.
- Horses pawing depressions in the Sure Grip permanent rubber floor.
- Undue wear on tires caused by improper inflation or road hazards. (Refer to Component warranty for tires in the is not considered warranty.)
- Overloading axles. (It is the responsibility of the trailer user to know what the limitations of the axles are. Trailer tires that show wear on the inside is typically a sign the axles were overloaded.)
- Bent spindles. (Axle spindles that have received severe pressure applied to them from hitting potholes, curbing, or turning sharply when the trailer is loaded will bend the spindle and cause the tire to wear on the outside.)
- Accidents, defects, and/or liabilities caused by failure to properly attach coupler and/or safety chains.
- Accidents, defects, and/or liabilities resulting from an alteration of the original trailer design.
- Accidents defects and/or liabilities that result from failure to properly lubricate applicable parts.
- Accidents, defects, and/or liabilities that result from failure to properly secure all doors and gates. (All doors have a lockable latch, if a door and/or gate comes open during transit it is typically because the door was not locked.)
- It is the responsibility of the trailer owner/user to keep accurate records of maintenance. Proper documentation of trailer service may be key in determining warranty.

Tips for Travel

Adequate space, sensible driving practices, and a few preliminary precautions can minimize hauling problems.

Most people develop bad hauling habits through bad driving habits. Before loading your trailer, practice starting, stopping, and turning. Practice making turns without accelerating, and making smooth starts and stops. Understanding horses and how to load and haul them is the responsibility of the trailer owner.

Check the Following:

Tire Air Pressure - Frequently check air pressure in tires on your Logan Coach trailer and on your towing vehicle. Maintain pressure according to tire manufacturer specifications.

Suspension Components - Check suspension for bent spindles or other worn parts. MAKE SURE THAT LUG NUTS ARE TIGHT.

Coupler - Check the coupler to make sure it is closed, locked, and fits tightly on the hitch ball.

Brake System with Optional Manual Control - Test the trailer brakes after properly connecting parts to the towing vehicle. While driving at a slow speed, apply the trailer's brakes using only the manual control. If the trailer stops, the brakes are working properly. If not, double check the connectors and try the manual brakes again. If the system still fails, make additional adjustments.

Emergency Breakaway System - With your trailer connected to the towing vehicle, pull the cable to activate the Breakaway System, then pull the trailer a few feet; the brakes should be operating. After testing, reset the Breakaway System.

Crank Up Vents - Close all crank up vents before moving trailer to avoid covers getting blown off or broken. Broken or lost vent covers are not covered under warranty.

Loading - Most injuries occur when loading. An inept attempt to load a horse can cause physical injury and psychological scarring making your horses become fearful of trailers. To prevent injuries, train the horse to load and haul properly. There are many training methods you can use and it is the responsibility of the person loading horses to find a proper loading method.

Towing - Familiarize yourself with state or provincial laws on connecting devices, safety chains, brakes, and breakaway switches. There are some basic factors related to connecting devices which can cause separation or loss of control:

- Failure to close coupler
- Improper or poorly installed equipment
- Wrong size ball
- Improperly connected safety chains or inoperable breakaway systems
- Wrong size or under-inflated tires
- Suspension problems
- Improper or uneven loading in the trailer
- Excessive speeds
- Hitting bumps or depressions in the road
- Erratic or unequal braking action
- Rounding corners at excessive speeds

Maintenance

Owner Maintenance Items

- Lug Nuts - They need to be torqued each trip 90 FP.
- Worn Brakes - Worn brakes are not considered defective.
- Bearing Lubrication - Our factory lubrication should last the first 180 days. It is the responsibility of the owner after that.

Operation and Care - Considering the investment you have made in your new Logan Coach, Inc. trailer you will want to operate and maintain it properly. We urge you to follow the instructions contained in your Owner's Manual folder.

Maintenance Records - We recommend that you retain receipts covering regular maintenance. This warranty does not cover damage to your Logan Coach, Inc. trailer caused by lack of maintenance. Receipts are important if questions arise whether a failure is caused by lack of maintenance or a defect in material or workmanship.

The Owner's Manual folder is a good place to file your receipts. For your convenience, you will find a "Maintenance Record" form at the end of your Owner's Manual to record services performed.

You should observe the following maintenance suggestions to enhance and preserve the appearance, value, and performance of your Logan Coach, Inc. trailer. If you let your Logan Coach, Inc. trailer sit for some time, check all of the below components and parts before loading up and taking it on the road.

Roof - It is advised that you inspect the roof seams, vents and any other areas on the roof of your trailer that have been sealed with roof seal tape or caulk every 6 months. Look to see that the tape is maintaining good adhesion to the roofs service and that the caulk is free of voids. Logan Coach uses quality materials in sealing the roofs of our trailers but exposure to extreme heat and UV light over time can affect the performance of some of these products. As with any elevated surface extreme caution should be used when accessing such areas. Be sure that the surface is dry and free from any debris that could cause slipping and a possible fall. Roof should not be accessed if it is iced over or wet. Failure to perform the maintenance could void this portion of the 2 year hitch to BP warranty.

Floorboards (on models with wood floors) - To guard against dry rot, often check floorboards for weakness visually and by pulling the rubber floor mats out. To prevent the process of dry rot, pull the mats out regularly and sweep out debris, and allow the wood to dry.

Mats - Clean the mats and let them dry after each use.

Whiz Proof Floor (Rubber Coated Aluminum Slats) - The advantage of the uniquely designed Whiz Proof floor is that it is the only aluminum floor on the market that drains because the heavy aluminum slats are gapped to allow moisture to drain while the trailer is in use. Combined with the extra benefit of having Vortex rubber coating applied to each aluminum slat as an additional protective barrier against moisture, there is little maintenance required other than removal of barnyard chemicals by washing.

Sure Grip Rubber Floor (Permanent, Draining, Seamless, Rubber Floor) (STD. Equipment) - Sure Grip is adhered to the top of the Whiz Proof Floor and because it is a one-piece permanent rubber the hassle of removing mats for maintenance is eliminated. Because of the adhesive used to bond the Sure Grip to the Whiz Proof, cleaning can be accomplished by washing the rubber surface with a mixture of detergent and water followed by rinsing. Sanitizing is accomplished by mixing one ounce of Clorox to a gallon of water then using a hand held weed sprayer and lightly spraying a mist on the clean floor. NEVER use alcohol on the Sure Grip floor as it is detrimental to the adhesive used to bond the rubber. Sure Grip is designed to allow moisture to drain through the pores of rubber. Once through the rubber, moisture drains past the Whiz Proof Floor. Having moisture drain through to the outside of the trailer eliminates the concern of having standing moisture in direct contact with aluminum. Following these cleaning and sanitizing instructions will keep the floor in excellent condition for years and years.

Rubber Floor Mats (Optional Equipment) - Removable rubber floor mats will shift, bend and fold while in use. This allows debris and moisture to migrate between the structural floor surface and the bottom of each mat. Thus, removal of the floor mat in order to clean the floor is required. Because the aluminum floor has a rubber coating, moisture will not be able to effect the floor detrimentally. Once the mat and floor are cleaned, you must let them dry before restoring the mat inside the trailer.

Mangers & Feedbags- Clean hay out of mangers or feedbags after each trip because hay left in the trailer increases dust, and will help add to the health and comfort of your horse.

Tires - Check for proper inflation of all tires, including the spare which is shown on the tires sidewall. If you use your trailer infrequently, check tires for brittleness and cracking due to weather. Brittle tires may cause a blowout while traveling on the highway.

If a blowout occurs, you can pull a standard tandem-torsion axle, two horse trailer on three tires. If the tire that blows out is a back tire, switch it with one of the front tires, if a spare isn't available, before proceeding to the nearest service station.

Aligning Trailer Hitch - Getting the hitch ball directly under the trailer tongue of a bumper pull trailer can be difficult; however, placing a board under the tongue wheel after each trip will ensure your ease in hitching later. The board will allow the wheel to move freely, making it easier to align the hitch. The board also prevents the tongue wheel from sinking in the mud and freezing during cold weather.

Hooking Up - Inspect the hitch every time you use your trailer. Check for cracks, and make sure the coupler lock closes around the ball. Check the interior, brake and signal lights.

Wheels and Axles - Your dealer has checked the lug nuts on each wheel before delivery of your trailer; however, it is your responsibility to check them after the first 50 miles and before each use. Grease the wheel bearings every 3,000 miles or at least once a year. Also, add grease periodically to the dolly wheel crank.

Brakes - Your trailer has electric brakes on all four wheels. Have the brakes inspected at least once a year. If you have a trailer with optional disc brakes, make sure the oil reservoir is properly filled. Your trailer is equipped with a Breakaway Braking System. The Breakaway System includes a rechargeable 12-volt battery. Check the connections and battery periodically.

Bumper Pull Coupler - Always be certain to lock the coupler properly and see that the pin is in place. The ball and coupler must be the same size. When towing a trailer it is important that you adjust the ball height so there is an equal amount of weight distributed on each of the (4) tires when the trailer is loaded and attached to the tow vehicle. We recommend that the top of the ball of the tow vehicle be approximately 19" to 19.5" above the ground. A copy of "Trailer Towing Guide" issued by Hammer Blow, the coupler manufacturer, is included in your Owner's Manual folder. Carefully read and follow its recommendations.

GN Coupler - Always be certain to lock the coupler properly and see that the pin is in place. The ball and coupler must be the same size. When towing a GN trailer it is important that you adjust the coupler so there is an equal amount of weight distributed on each of the (4) tires when the trailer is loaded and attached to the tow vehicle. A copy of "Trailer Towing Guide" issued by Hammer Blow, the coupler manufacturer, is included in your Owner's Manual folder. Carefully read and follow its recommendations

Doors, Dividers and Gates - Always check all doors, dividers and gates to assure they are properly secured while in transit.

Latches and Hinges - We designed the latches and hinges on all doors to fit tightly so they will offer security for your horse. To ensure lasting operation and to reduce rust, apply a silicone base spray lubricant to all door latches and hinges every six months.

Parking - You should raise the jack so that the front of the trailer is slightly elevated and block the wheels whenever the trailer is not in use.

Tire Safety Information

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

Section 1.1 - Determining Correct Load Limit - Trailer.
Section 1.2 - Determining Correct Load Limit - Tow Vehicle.
Section 1.3 - Glossary of Tire Terminology.
Section 1.4 - Information from NHTSA brochure "Tire Safety–Everything Rides On It".
Section 1.5 - Safety First: Basic Tire Maintenance.
Section 1.6 - Tire Safety Tips

This section 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 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 left (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 weight a particular axle can carry. If there are multiple axles, the GAWR of each axle will be provided.

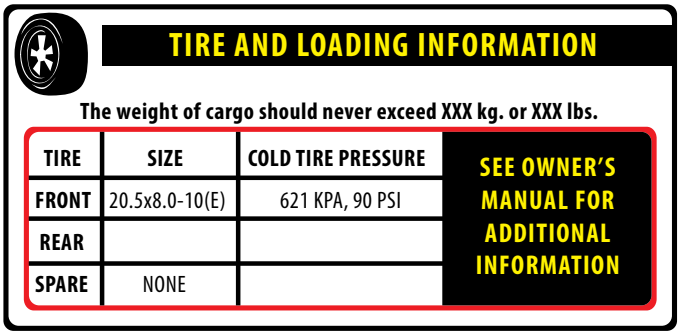
There is a vehicle placard located in the same location as the certification label described above. This placard provides tire and loading information. In addition, this placard shows a statement regarding maximum cargo capacity. Cargo can be added to the trailer, up to the maximum weight specified on 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 can not 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 fresh water 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 underinflation 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.

1.2 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. Example: 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 5th 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 separably, 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 manufacturer's 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 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 two.
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 separably, 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 separably, 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 Brochure: "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/tires_index.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 under inflated 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 treadwear 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

Please refer to the diagram below:

P - The "P" indicates the tire is for passenger vehicles.
First 3 numbers - 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 2 numbers - 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 2 numbers - 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 2 or 3 numbers - 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. You may not find this information on all tires because it is not required by law. These ratings are listed as follows:

Speed Rating					
Q	99 mph	T	118 mph	V	149 mph
R	106 mph	U	124 mph	W	168 mph*
S	112 mph	H	130 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".

1.5.9.3 Additional Information on Light Truck Tires
Tires for light trucks have other markings besides those found on the sidewalls of passenger tires. Please refer to the diagram below:

LT - The "LT" indicates the tire is for light trucks or 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 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.

Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Logan Coach, 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 in any individual problems between you, your dealer, or Logan Coach, Inc..

To contact NHTSA you may either call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY 1-800-424-9153, go to http://www.safercar.gov: or write to:

Administrator

NHTSA

1200 New Jersey Avenue S.E.

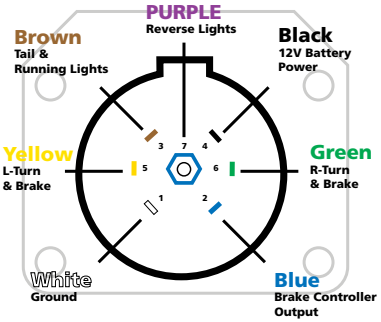
Washington, DC 20590

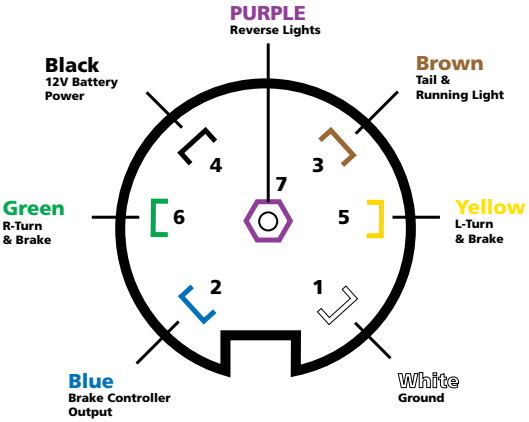
You can also obtain other information about motor vehicle safety from:
http://www.safercar.gov

Date	Action

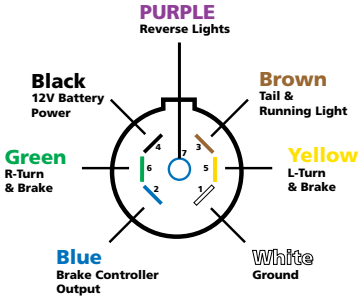
Gooseneck Models

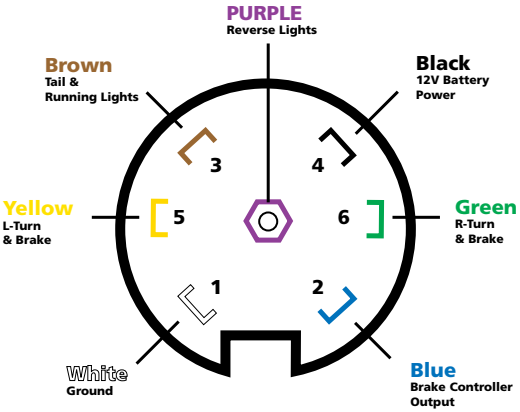
7- Way Vehicle Connector





7- Way Trailer Connector





Bumper Pull Models

- **White** - Ground
- **Red** - Left Turn
- **Green** - Tail / Clearance Lights
- **Black** - Hot Lead
- **Brown** - Right Turn
- **Blue** - Brakes

Please Note: Prior to the Spring of 2010 wiring harnesses for Logan Coach GN Models and BP Models were not the same. Check with a Logan Coach Service Rep for further information.

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