Weberlane Highway Trailers
Owner's / Operater's Manual

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Pre-Trip Inspection Checklist

Wheel Lugs * ..... ❑

Brakes / Brake Controller ..... ❑

Bearing Lube and Tightness ..... ❑

Running Lights ..... ❑

Turn Signals ..... ❑

Safety Chains ..... ❑

Hitch ..... ❑

Tire Pressure and Condition ..... ❑

Breakaway Battery Charged ..... ❑
(For trailers with electrical brakes)

Test for Proper Operation ..... ❑
Doors, Windows, Roof Vents Closed and Locked

All Jacks are Up in Travel Position..... ❑

Load Distribution and Security ..... ❑

* Check after first 50 km
then every 3000 km or every 3 months

Important Safety Features

1. Make sure coupler and safety chains are securely fastened before towing trailer.

2. When adjusting or removing jack, ramps or coupler, make sure hands and feet are out of the way.

3. Do not exceed axle limit when hauling large loads.

4. All safety latches and hooks should be carefully fastened before moving trailer.

5. Trailer should be attached to a tractor or truck when loading and unloading.

6. Do not allow passengers to ride on/in trailer for any reason.

7. When attaching to towing vehicle, be sure all persons are out of the way of vehicle.

8. Loads must always be securely fastened and tied down.

9. Loads on open trailers must be covered with a securely fastened tarp.

10. Loads should be placed on trailer deck at slow speeds.

11. Make sure the coupler and ball are the same size and that the coupler is securely closed before towing.

12. Ensure the trailer brakes are properly adjusted and the breakaway kit is attached to the towing vehicle.

13. All trailer lights need to be working properly.

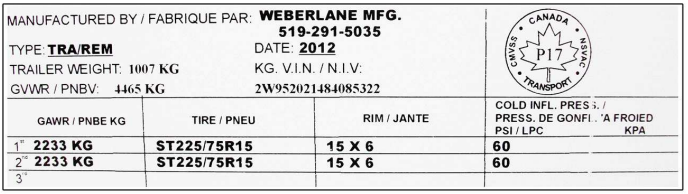
14. Secure safety chains and insert all applicable pins before towing.

Remember, these are only a few safety precautions you should always observe when using your trailer.

Warning Instructions

Check your Weberlane trailer for the warning and instruction labels on the following pages. Many of those listed are mandated by the law and others will help you for the safe use of your trailer. ***Not all of these labels may apply to, or be found on, the trailer you have*.**

VIN – located driver side exterior front bottom



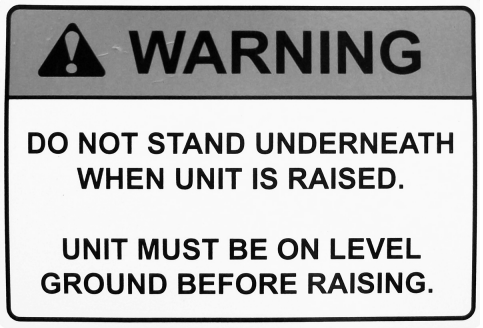
MANUFACTURED BY / FABRIQUE PAR: **WEBERLANE MFG.**
519-291-5035
TYPE: **TRA/REM** DATE: **2012**
TRAILER WEIGHT: **1007 KG** KG. V.I.N. / N.I.V:
GVWR / PNBV: **4465 KG** **2W952021484085322**

CANADA CANVAS P17 TRANSPORT

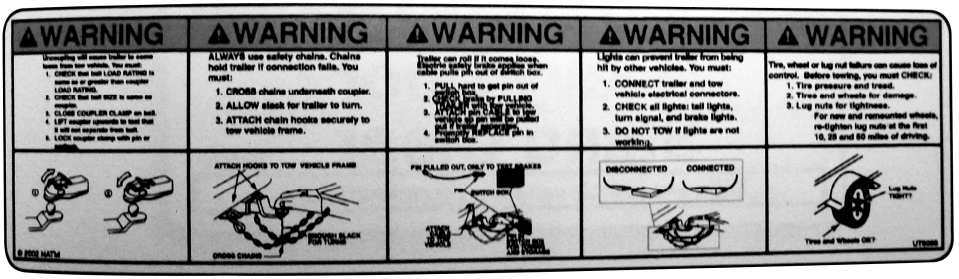
GAWR / PNBE KG	TIRE / PNEU	RIM / JANTE	COLD INFL. PRES . / PRESS. DE GONFL . 'A FROIED PSI / LPC KPA
1" **2233 KG**	**ST225/75R15**	**15 X 6**	**60**
2" **2233 KG**	**ST225/75R15**	**15 X 6**	**60**
3"			

Wheel Stud Warning – located on tongue

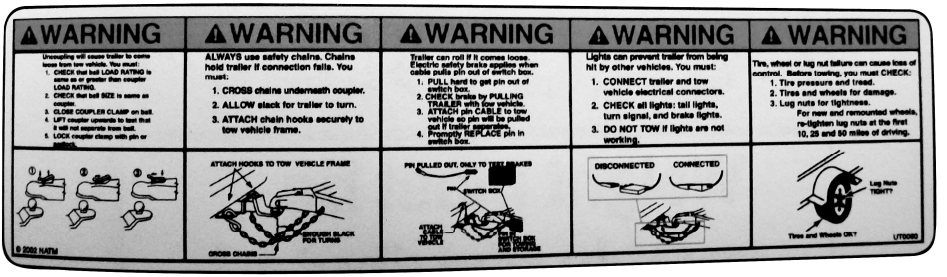
Box Dump Warning – located on front of dump box



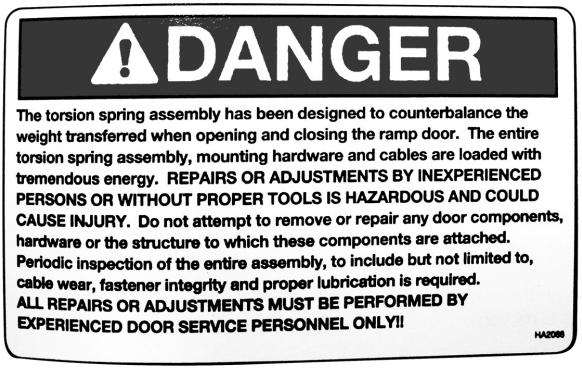
Located on the tongue (3500 lb 2” ball)



Located on the tongue (5200 lb 2 5/16” ball)

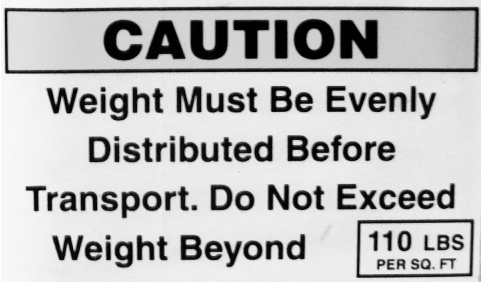


Located inside on rear header (ramp gates only)



Located on ramp door by the hasp (ramp gates only)

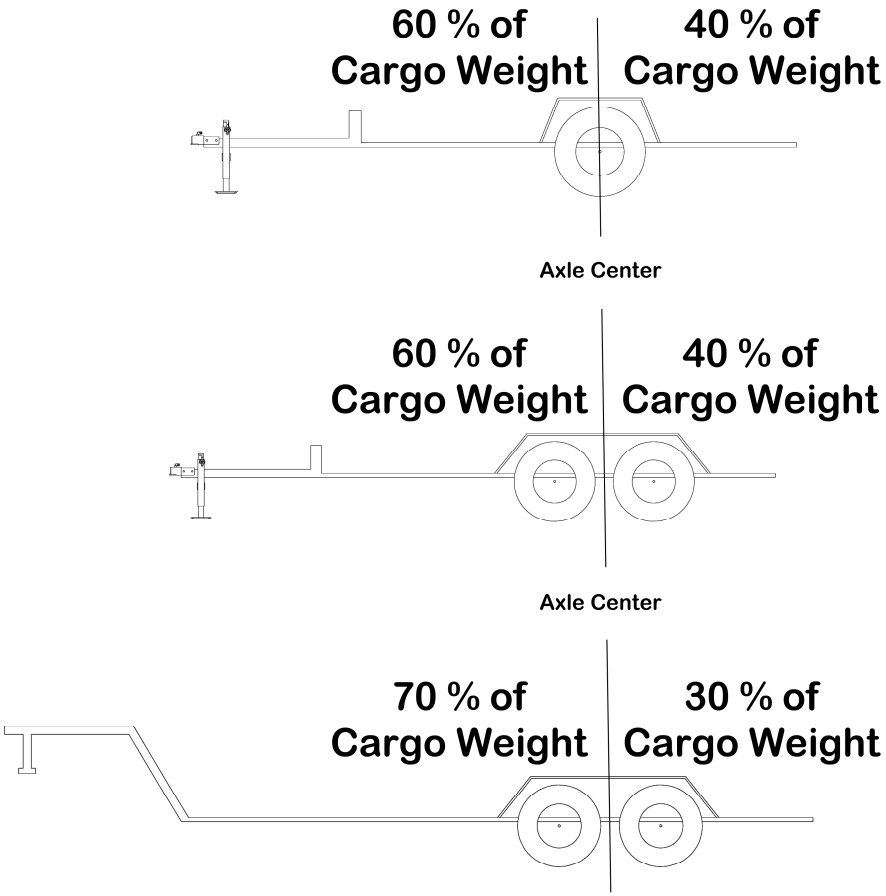
Located inside trailer



Loading Distribution and Security

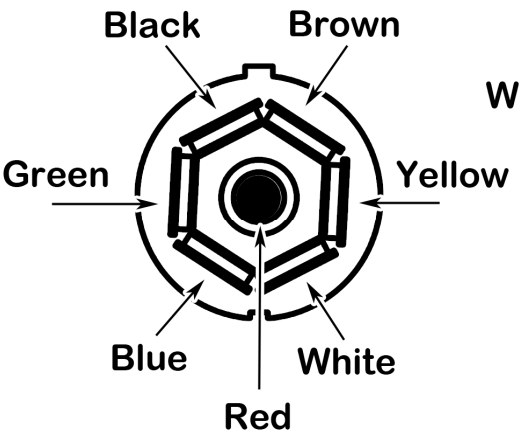
- All cargo in trailer must be securely fastened so that contents will not shift when trailer is in motion.

- Improper weight distribution can cause damage to your trailer and excessive wear of tires. Also, it will cause the trailer to sway to one side which could result in serious injury or death.

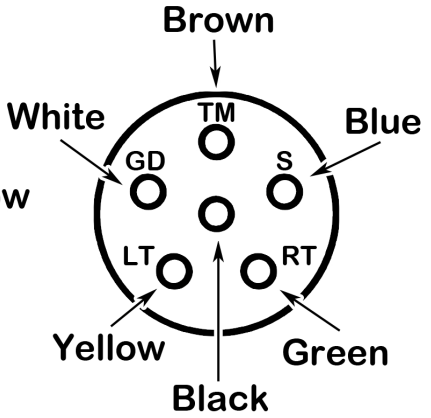


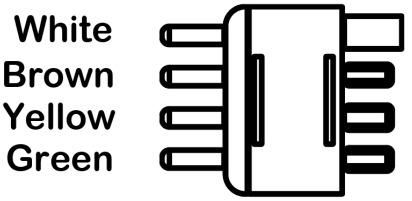
Electrical Systems

7 – WAY PLUG WIRE DIAGRAM



6 – WAY PLUG WIRE DIAGRAM





4 – WAY PLUG WIRE DIAGRAM

NOTE: Identify contacts by looking into the open end of trailer plug.

Plug	Colour	Description
GD	White	Ground
S	Blue	Electrical Brakes (if equipped)
LT	Yellow	Left Turn Signal
RT	Green	Right Turn Signal
TM	Brown	Tail Lights
CENTER (6 pin)	Black	Charge Line
CENTER (7 pin)	Red	Back Up Lights

Trailer Maintenance and Care

Welds: We recommend that you check the welds on your trailer every 6-9 months or 5000 miles for any cracks or fractures. If you spot any cracks or fractures in steel or in the welds, contact your dealer or Weberlane Mfg. immediately.

Steel Edges: Take extra precaution when touching exposed steel. Edges may still have burrs on them from cutting during manufacturing. Use a file to get rid of burrs. These burrs can cause serious injuries.

Frame: To prevent deterioration of your trailer, it is highly recommended that you under coat the bottom of the trailer at least once a year. Normal road use will eventually chip away the factory undercoating.

Aluminum Rims: Wash your aluminum rims only with soap water. Any lye or acid-based cleaner will damage the clear coating finish of your rims.

Exterior: Clean the exterior of your trailer as you would clean your vehicle. Use only a gentle soap and water.

Floor: Weberlane recommends painting the floor with oil-based enamel for maximum protection and to promote longer life. This added protection will also help with routine cleaning.

Brakes: Your trailer brakes must be inspected and serviced annually or more often as required.

Screws: If screws need to be replaced, use a #2 square bit or a 5/16" hex bit. These can be purchased at any hardware store.

Ramp Door: Ramp door hinges must be lubricated monthly or as required with lithium grease.

Tires: Improper tire pressure can result in a blowout and loss of control which can cause serious injury or death. Check Owners Manual for proper inflation in Tire Specification and Care. If a tire has a bald spot, bulge, wire showing or cracks, replace the tire before towing the trailer.

Huck Bolts: These may be at various locations on the sub-frame. Huck bolts are not user serviceable. If you detect a loose Huck bolt fastener, do not tow the trailer. Contact your dealer for instructions.

Tire Repair

Load / Inflation Information

TIRE LOAD LIMITS (LBS) AT VARIOUS COLD INFLATION PRESSURES (PSI) HIGHWAY STEER AND ALL POSITION TREAD DESIGNS USED IN NORMAL HIGHWAY SERVICE.

Inflation Pressure – PSI

Tire Size	15	20	25	30	35	40	45	50	55	60	65	80
530x12c												1045
ST175/80R13	670	795	905	1000	1100(B)	1190	1270	1360(C)				
ST175/80D13	670	795	905	1000	1100(B)	1190	1270	1360(C)				
ST185/80R13	740	870	990	1100	1200(B)	1300	1400	1480(C)				
ST205/75R14	860	1030	1170	1300	1430(B)	1530	1640	1760(C)	1850	1950	2040(D)	
ST205/75D14	860	1030	1170	1300	1430(B)	1530	1640	1760(C)	1850	1950	2040(D)	
ST215/75R14	953	1110	1270	1410	1520(B)	1660	1790	1870(C)				
ST205/75R15	905	1070	1220	1360	1480(B)	1610	1720	1820(C)				
ST225/75R15	1060	1260	1430	1600	1760(B)	1880	2020	2150(C)	2270	2380	2540(D)	

If a tire loses all or most of its air pressure, it should be removed from the wheel for a complete inspection for possible internal damage. Tires that are run even for short distances while flat are often damaged beyond repair.

Remember these important points on tire repair:

- Most punctures and nail holes in the tread area up to ¼" can be repaired
- Only trained personnel, using industry approved methods and materials, should repair a tire.
- Tires with sidewall punctures or a tread depth of less than 1/16" should be replaced and not repaired.

Storing your vehicle without removing the tires:

Ideally, a vehicle in storage should be placed on blocks to remove all weight from the tires. If the vehicle cannot be put on blocks, follow these steps for tire protection.

- Completely unload the vehicle so minimum weight will be placed on the tires.
- Keep the tires inflated to recommended operating inflation pressure.
- Be sure the storage surface is firm, clean, well drained, and reasonably level.
- Avoid moving the vehicle during extremely cold weather.
- Move the vehicle at least every three months to prevent ozone cracking in the tire bulge area as well as "flat spotting" from the prolonged strain of sidewalk and tread deflection
- Adjust inflation to recommended operating pressure before putting the vehicle back into service

Tire Specification & Care

Tire Inflation

Proper tire inflation is the key for tire care. Since individual tire loads will vary, follow the recommended inflation pressure for each tire in your owner's manual. It is recommended that your fully loaded vehicle (with any tow vehicles attached) be weighed to determine the tire loading at each wheel position. **Inflation pressure should be adjusted to handle the maximum tire load, and all tires on the axle should carry the same inflation pressure.** Tire pressure should be checked cold, or before driving each day, and at least once a month. Valves and caps should be free of dirt and moisture. **It may be necessary to inflate your tires at a truck stop service center in order to find adequate air pressure for your vehicle's needs.**

How overloading affects your tires: Remember, tire pressure enables your trailer to support loads. Overloading tires carries serious consequences for passengers and your trailer. Excessive loads or under inflation can cause abnormal tire flexing, leading to excessive amount of heat and tire failure or other systems problems. If your tires cannot handle the load, lighten the weight or install tires with a higher carrying capacity according to manufacturer's specs.

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

Section 1.1 contains "Steps for Determining Correct Load Limit – Trailer".
Section 1.2 contains "Steps for Determining Correct Load Limit – Tow Vehicle".
Section 1.3 contains a "Glossary of Tire Terminology", including "cold inflation pressure", "maximum inflation pressure", "recommended inflation pressure", and other non-technical terms.
Section 1.4 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 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 description and explanation of the following:
    A. Locating and understanding the load limit information, total load capacity, and cargo capacity
    B. Determining compatibility of tire and vehicle load capabilities
    C. Adverse safety consequences of overloading on handling and stopping on tires

Section 1.5 contains "Safety First – Basic Tire Maintenance".
Section 1.6 contains "Tire Safety Tips".

1.1.1 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 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 a particular axle can weigh. If there are multiple axles, the GAWR of each axle will be provided. The VIN label with also state trailer weight, which is the weight of the trailer as it came from the factory, with no modifications and no cargo on it. The maximum cargo capacity can be calculated by subtracting the trailer weight from the GVWR. The difference in those two weights is the weight you may load in cargo. 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 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 deflation 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.

1.2.1 Steps for Determining Correct Load Limit – *tow vehicle*

Locate the statement, "The combined weight of occupants and cargo should never exceed XXX lbs.," on your vehicle's placard. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight my not safely exceed the stated cargo and luggage capacity.

1.3.1 Glossary of Tire Terminology

Accessory Weight
The combined weight of additional installed equipment

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 that 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 components

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 radically 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 of 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

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

Inner liner separation
The parting of the inner liner 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 at a given inflation pressure

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

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^{th} 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 separable, 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 tractate forces from the roadway to the vehicle, generates the tractate forces that provide the directional control of the vehicle or 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

Open splice
Any parting at any junction of tread, sidewall, or inner liner 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 Certificate/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
The industry of manufacturer’s designation for a rim by style or code

Rim width
This means the nominal distance between the 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 by 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

Tread wear indicators (TWI)
The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread

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, 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 tests

1.4.1 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: 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. Deflated 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. 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 deflation 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 could 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 at all times
- 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 deflated.

- Step 6: Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tire are supposed to be different amounts of pressure). If you have been driving your vehicle and think that a tire is deflated, 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 deflated 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 deflated 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.

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

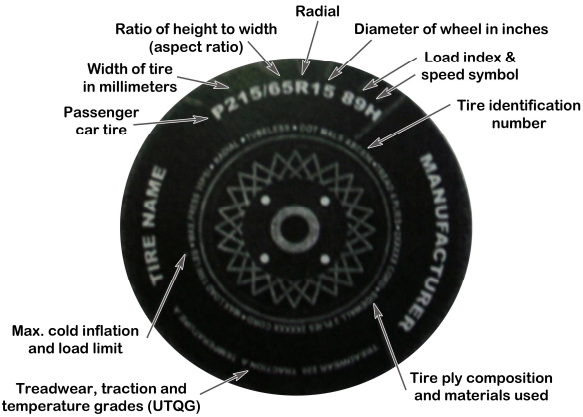
The proper repair of a punctured tire requires a plug for a hole and a patch for the area inside the tire that surrounds the puncture hole. Punctures through the tread can be repaired if they are not too large, but punctures to the sidewall should not be repaired. Tires must be removed from the rim to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



First Letter

The “P” indicates the tire is for passenger vehicles.

Three-Digit Number

The following three-digit number gives the width in millimeters of the tire from sidewall edge to sidewall edge. Generally, the larger the number, the wider the tire.

Two-Digit Number

The two-digit number following the dash, 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 Two-Digit Number

The following 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
The next 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.

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 Material 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.

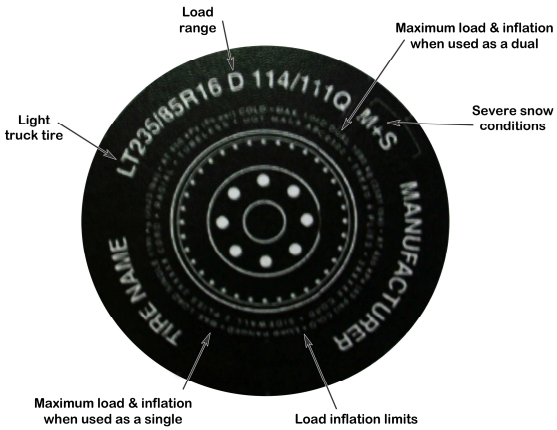
Maximum Permissible inflation Pressure
This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions. 1.5.9.2. UTQGS Information

Tread Wear Number
This number indicates the tire's wear rate. The higher the tread wear 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, deflation 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".

Additional Information on Light Truck Tires
Please refer to the diagram below.



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 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 its inflation limits.

1.6 Tire Safety Tips Preventing Tire Damage

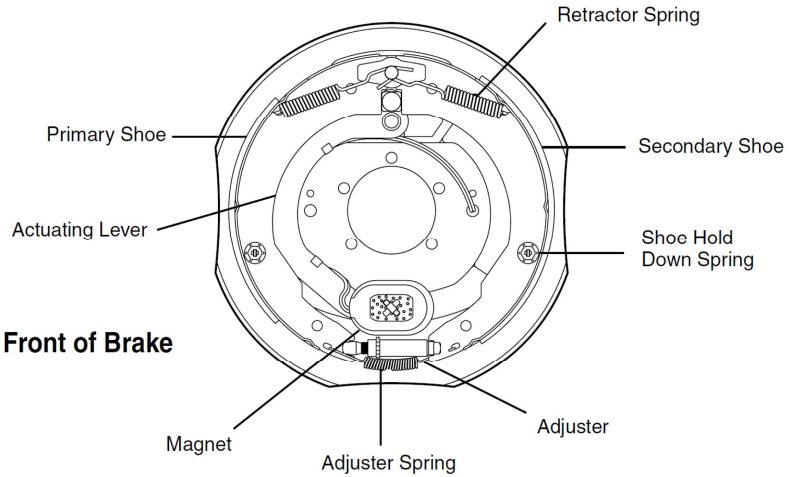
- Slow down if you have to go over a pothole or other object in the road
- Do not run over curbs or other foreign objects in the roadway, and try not to strike the curb when parking.

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, the VIN, or the User's Manual for the maximum recommended load for the vehicle.

Electric Brake Specification and Care

The electric brakes on your trailer are similar to the drum brakes on your automobile. The basic difference is that your automotive brakes are actuated by hydraulic pressure while your electric trailer brakes are actuated by and electromagnet. With all of the brake components connected into the system, the brakes will operate as follows:



When the electrical current is fed into the system by the controller, it flows through the electromagnets in the brakes. The high capacity electromagnets are energized and are attracted to the rotating armature surface of the drums which moves the actuating levers in the direction that the drums are turning.

The resulting force causes the actuating cam block at the shoe end of the lever to push the primary shoe out against the inside surface of the brake drum. The force generated by the primary shoe acting through the adjuster moves the secondary shoe out into contact with the brake drum.

Increasing the current flow to the electromagnet causes the magnet to grip the armature surface of the brake drum more firmly. This results in increasing the pressure against the shoes and brake drums until the desired stop is accomplished.

FEATURES: Electrically actuated brakes have several advantages over other brake actuation systems.

1. They can be manually adjusted at the controller to provide the correct braking capability for varying road and load conditions.
2. They can be modulated to provide more or less braking force, thus easing the brake load on the towing vehicle.
3. They have very little lag time from the moment the tow vehicle's brakes are actuated until the trailer brakes are actuated.
4. In an emergency situation, they can provide some braking independent of the tow vehicle.

SELF ADJUSTING FEATURE ***(Not available on all models)***

Dexter electric brakes may be equipped with a forward self-adjust feature. This will allow the brakes to adjust on both forward and reverse stops. Brake adjustment occurs when lining wear results in enough gap between the shoes and the brake drum surface. This added clearance will allow the adjuster mechanism to rotate the screw assembly at the bottom of the brake. That action expands the distance between the shoes and thus closes the gap to the drum surface.

Brake Controllers

Electric brake controllers provide power to the magnets to actuate the trailer brakes. Most electric brake controllers provide a modulation function that varies the current to the electric brakes with the pressure on the brake pedal or amount of deceleration of the tow vehicle. Electronic or timing controllers do not provide proportional modulation. These controllers tend to be inexpensive but are not the best choice for optimum braking. It is important that your brake controller provide approximately 2 volts to the braking system when the brake pedal is first depressed and gradually increases the voltage to 12 volts as brake pedal pressure is increased. If the controller "jumps" immediately to a high voltage output, even during a gradual stop, then the electric brakes will always be fully energized and will result in harsh brakes and potential wheel lockup.

How to Use Your Electric Brakes Properly

Your trailer brakes are designed to work in synchronization with your tow vehicle brakes. Never use your tow vehicle or trailer brakes alone to stop the combined load.

Your brake controller must be set up according to the manufacturer's recommendations to ensure proper synchronization between the tow vehicle and the trailer. Additionally, you may have to make small adjustments occasionally to accommodate changing loads and driving conditions.

Proper synchronization of tow vehicle to trailer braking can only be accomplished by road testing. Brake lockup, grabbing, or harshness is quite often due to the lack of synchronization between the tow vehicle and the trailer being towed, too high of a threshold voltage (over 2 volts), or under adjusted brakes.

Before any synchronization adjustments are made, your trailer brakes should be burnished in by applying the brakes 20-30 times with approximately a 30 km/hr decrease in speed, e.g. 50 km/hr to 20 km/hr. Allow ample time for brakes to cool between applications. This allows the brake shoes and magnets to slightly "wear-in" to the drum surfaces.

Synchronizing Your Trailer Brakes

To ensure safe brake performance and synchronization, read the brake controller manufacturer's instructions completely before attempting any synchronization procedure.

BEFORE road testing, make sure area is clear of vehicular and pedestrian traffic. Failure to brake safely could result in an accident and personal injury to yourself and/or others. If possible, test in a large vacant parking lot.

Make several hard stops from 30 km/hr on a dry paved road free of sand and gravel. If the trailer brakes lock and slide, decrease the gain setting on the controller. If they do not slide, slightly increase the gain setting. Adjust the controller just to the point of impending brake lockup and wheel skid.

NOTE: Not all trailer brakes are capable of wheel lockup. Loading conditions, brake type, wheel and tire size can all affect whether a brake can lock. It is not generally considered desirable to lock up the brakes and slide the tires. This can cause unwanted flat spotting of the tires and could also result in a loss of control.

If the controller is applying the trailer brakes before the tow vehicle brakes, then the controller adjustments should be made so the trailer brakes come on in synchronization with the tow vehicle brakes. For proper braking performance, it is recommended that the controller be adjusted to allow the trailer brakes to come on just slightly ahead of the tow vehicle brakes. When proper synchronization is achieved there will be no sensation of the trailer "jerking" or "pushing" the tow vehicle during braking.

General Maintenance – Electric Brakes

Brake Cleaning and Inspection

Your trailer brakes must be inspected and serviced immediately if a loss of performance is indicated. With normal use, servicing at one year intervals is usually adequate. With increased usage, this work should be done more frequently as required. Magnets and shoes must be changed when they become excessively worn or scored, a condition which can reduce vehicle braking.

Clean the backing plate, magnet arm, magnet and brake shoes. Make certain that all the parts removed are replaced in the same brake and drum assembly. Inspect for any loose or worn parts, stretched or deformed springs and replace as necessary.

POTENTIAL ASBESTOS DUST HAZARD! SOME older brake linings may contain asbestos dust, which has been linked to serious or fatal illnesses. Certain precautions need to be taken when servicing brakes:

1. **Avoid creating or breathing dust.**
2. **Avoid machining, filing or grinding brake linings**
3. **Do not use compressed air or dry brushing for cleaning (dust can be removed with a damp brush)**

Brake Lubrication

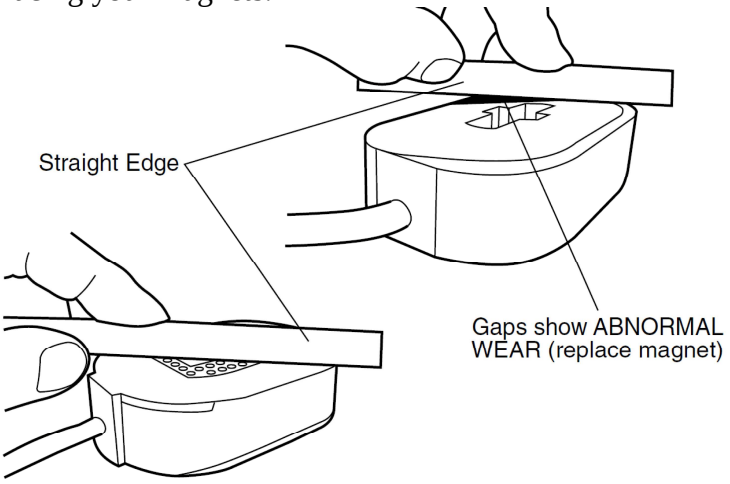
Before reassembly, apply a light film of grease or anti-seize compound on the brake anchor pin, the actuating arm bushing and pin, and the areas on the backing plate that are in contact with the brake shoes and magnet lever arm. Apply a light film of grease on the actuating block mounted on the actuating arm.

DO NOT get grease or oil on the brake linings, drums or magnets.

Brake Magnets

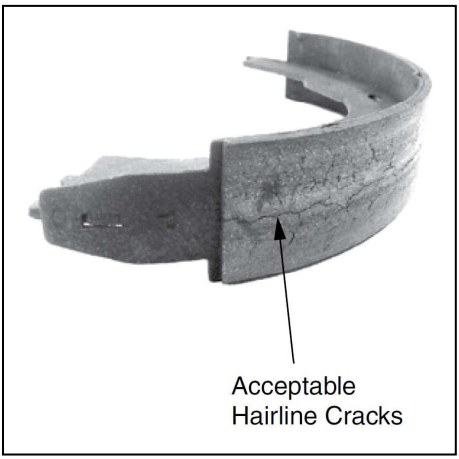
Your electric brakes are equipped with high quality electromagnets that are designed to provide the proper input force and friction characteristics. Your magnets should be inspected and replaced if worn unevenly or abnormally. As indicated on the following page, a straightedge should be used to check magnet condition. For best results, the magnet should be flat.

Even if wear is normal as indicated by your straightedge, the magnets should be replaced if any part of the magnet coil has become visible through the friction material facing of the magnet. It is also recommended that the drum armature surface be refaced when replacing magnets (see section on brake drum inspection). Magnets should also be replaced in pairs – both sides of an axle. Use only genuine Dexter replacement parts when replacing your magnets.



Shoes and Linings

A simple visual inspection of your brake linings will tell if they are usable. Replacement is necessary if the lining is worn to 1/16" or less. Shoes contaminated with grease or oil, or abnormally scored or gouged should also be replaced. Hairline heat cracks are normal in bonded linings and should not be cause for concern. When replacement is necessary, it is important to replace both shoes on each brake and both brakes of the same axle. This will help retain the balance of your brakes.



After replacement of brake shoes and linings, the brakes must be re-burnished to seat in the new components. This should be done by applying the brakes 20 to 30 times from an initial speed of 60 km/hr, slowing the vehicle to 30 km/hr. Allow ample time for brakes to cool between applications. This procedure allows the brake shoes to seat in to the drum surface.

General Maintenance – E-Z Lube® Lubrication

If your axle is equipped with the Dexter E-Z Lube® feature, the bearings can be periodically lubricated without removing the hubs from the axle. This feature consists of axle spindles that have been specially drilled and reassembled with grease fittings in their ends. When grease is pumped into the fitting, it is channeled to the inner bearing and then flows back to the outer bearing and eventually back out the grease cap hole.

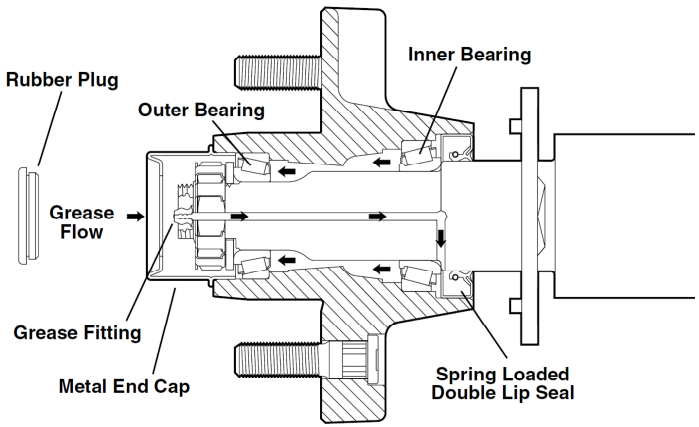
E-Z Lube® Lubrication

The procedure is as follows:

1. Remove the rubber plug from the end of the grease cap.
2. Place a standard manual grease gun onto the grease fitting located in the end of the spindle. Make sure the grease gun nozzle is fully engaged on the fitting.
3. While rotating the hub, pump grease slowly into the fitting. The old displaced grease will begin to flow back out the cap around the grease gun nozzle.
4. When the new clean grease is observed, remove the grease gun, wipe off any excess, and replace the rubber plug in the cap.
5. Rotate hub or drum while adding grease.

Note: The E-Z Lube® feature is designed to allow immersion in water. Axles not equipped with E-Z Lube® are not designed for immersion and bearings should be repacked after each immersion. If hubs are removed from an axle with the E-Z Lube® feature, it is imperative that the seals be replaced BEFORE bearing lubrication. Otherwise, the chance of grease getting on brake linings is greatly increased.

Note: We strongly recommend not using pneumatic powered grease guns as these can inject grease too fast and force grease past the seal, or in rare cases dislodge the seal.



General Maintenance – Hubs/Drums/Bearings

Before attempting any disassembly of your Dexter axle, make sure you read and follow the instructions for the appropriate axle type.

1. Elevate and support the trailer by main structural points.
2. Remove the wheel.
3. Remove the grease cap by carefully prying progressively around the flange of the cap. If the hub is an oil lube type, then the cap can be removed by unscrewing it counterclockwise while holding the hub stationary.
4. Remove the cotter pin from the spindle nut.

   For E-Z Lube® axles produced after February of 2002, a new type of retainer is used. Gently pry off retainer from the nut and set aside.

5. Unscrew the spindle nut (counterclockwise) and remove the spindle washer.
6. Remove the hub from the spindle, being careful not to allow the outer bearing cone to fall out. The inner bearing cone will be retained by the seal.

Brake Drum Inspection

There are two areas of the brake drum that are subject to wear and require periodic inspection. These two areas are the drum surface where the brake shoes make contact during stopping and the armature surface where the magnet contacts.

The drum surface should be inspected for excessive wear or heavy scoring. If worn more than .020" oversized, or the drum has worn out of round by more than .015", then the drum surface should be re-machined. If scoring or other wear is greater than .090" on the diameter, the drum must be replaced. When turning the drum surface, the maximum rebore diameter is as follows:

- 7" Brake Drum 7.090" diameter
- 10" Brake Drum 10.090" diameter
- 12" Brake Drum 12.090" diameter
- 12¼" Brake Drum 12.340" diameter
- 6K,7K and 8K Rotor 1.030" minimum thickness
- 3.5K Rotor 0.085" minimum thickness

The machined inner surface of the brake drum that contacts the brake magnet is called the armature surface. If the armature surface is scored or worn unevenly, it should be refaced to a 120 micro inch finish by removing not more than .030" of material. To ensure proper contact between the armature face and the magnet face, the magnets should be replaced whenever the armature surface is refaced and the armature surface should be refaced whenever the magnets are replaced.

General Maintenance – Hubs/Drums/Bearings

Note: It is important to protect the wheel bearing bores from metallic chips and contamination which result from drum turning or armature refacing operations. Make certain that the wheel bearing cavities are clean and free of contamination before reinstalling bearing and seals. The presence of these contaminants will cause premature wheel bearing failure.

Bearing Inspection

Wash all grease and oil from the bearing cone using a suitable solvent. Dry the bearing with a clean, lint-free cloth and inspect each roller completely.

⚠ CAUTION

NEVER spin the bearing with compressed air. This can damage the bearing.

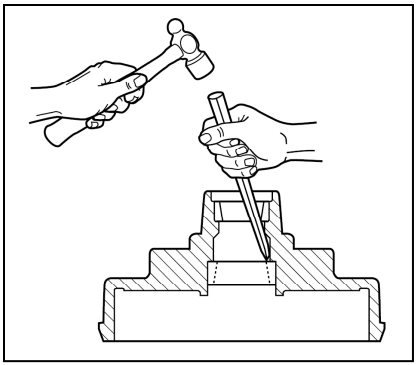
If any pitting, spalling, or corrosion is present, then the bearing must be replaced. The bearing cup inside the hub must be inspected.

Important: Bearings must always be replaced in sets of a cone and a cup.

⚠ CAUTION

BE SURE to wear safety glasses when removing or installing force fitted parts. Failure to comply may result in serious eye injury.

When replacing the bearing cup proceed as follows:



1. Place the hub on a flat work surface with the cup to be replaced on the bottom side.

2. Using a brass drift punch, carefully tap around the small diameter end of the cup to drive out.

3. After cleaning the hub bore area, replace the cup by tapping in with the brass drift punch. Be sure the cup is seated all the way up against the retaining shoulder in the hub.

Replace only with compatible bearings as specified by the manufacturer.

General Maintenance – Hubs/Drums/Bearings

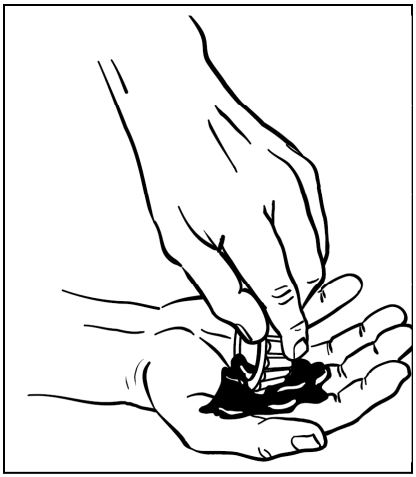
Bearing Lubrication - Grease

⚠ CAUTION

DO NOT mix Lithium, calcium, sodium or barium complex greases due to possible compatibility problems. When changing from one type of grease to another, it is necessary to ensure all the old grease has been removed.

Along with bearing adjustment, proper lubrication is essential to the proper function and reliability of your trailer axle. Bearings should be lubricated every 12 months or 26,000 km. The method to repack bearing cones is as follows.

1. Place a quantity of grease into the palm of your hand.
2. Press a section of the widest of the widest end of the bearing into the outer edge of the grease pile closest to the thumb, forcing grease into the interior of the bearing.
3. Repeat this while rotating the bearing from roller to roller.
4. Continue this process until you have the entire bearing completely filled with grease.
5. Before reinstalling, apply a light coat of grease on the bearing cup.



Note: The convenient lubrication provisions of the E-Z Lube® and the oil lubrication must not replace periodic inspection of the bearings.

Bearing Lubrication - Oil

If your axles are equipped with oil lubricated hubs, periodically check and refill the hub as necessary with a high quality hypoid gear oil to the level indicated on the clear plastic oil cap. The oil can be filled from either the oil fill hole, if present, in the hub or through the rubber plug hole in the cap itself.

Recommended Wheel Bearing Lubrication Specifications

Grease

Thickener Type	**Lithium Complex**
Dropping Point	**215℃ (419℉) Minimum**
Consistency	**NLGI No. 2**
Additives	**EP, Corrosion & Oxidation Inhibitors**
Viscosity Index	**80 Minimum**

Approved Grease Sources

Conoco Phillips / 76 Lubricants / Kendall	**Multiplex RED #2 L427 Super Blu Grease**
CITGO	**Lithoplex MP #2 and Lithoplex CM #2 Mystik JT-6 Hi-Temp Grease #2**
Exxon / Mobil Co.	**Ronex, MP, Mobilith AW 2, Mobil I Synthetic**
Oil Center Research of Oklahoma	**Liquid-O-Ring No, 167L**
Pennzoil-Quaker State Co.	**Synthetic Red Grease**
Shell	**Gadus S3 V220C, Gadus S5 V220 Rotella Heavy Duty Lithium Complex #2**
Royal Mfg. Company	**Royal 98 Lithium Complex EP #2**
Chevron Texaco	**Chevron Ulti-Plex Grease EP #2 Texaco Starplex Moly MPGM #2**
Valvoline	**Valvoline Multi-Purpose GM, Valvoline Durablend**
Great Plains Lubricants	**Lithium Complex EP #2**
Chem Arrow	**Arrow 2282**

Oil

SAE 90, SAE 80W-90, SAE 75W-90

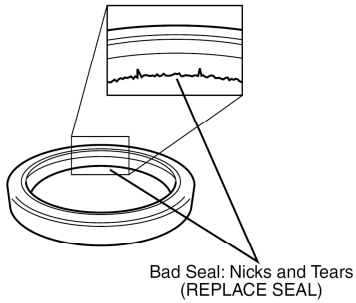
Approved Oil Sources

Ashland Oil	**Valvoline Dura Blend, Valvoline Power Lube**
CITGO Petroleum Co.	**CITGO Premium Gear Oil MP Mystik JT-7, Mystik Power Lube**
Exxon Company USA	**Gear Oil GX 80W-90**
Industrial Oils Unlimited	**Super MP Gear Oil 80W-90**
Kendall Refining Co.	**Kendall NS-MP Hypoid Gear Lube**
Lubriplate Division/Fiske Bro.	**Lubriplate APG 90**
Mobil Oil Corporation	**Mobilube SHC, Mobil 1 Synthetic Gear Lube**
Phillips 66 Petroleum	**Superior Multi-Purpose Gear Oil Philguard Gear Oil, Philsyn Gear Oil**
Pennzoil Products Co.	**Gear Plus 80W-90 GL-5, Gear Plus Super 75W-90 Gear Plus Super EW 80W-90 Multi-Purpose 4092 Gear Lube**
Oil Center Research	**Liquid-O-Ring 750 GX**
Sun Refining & Marketing Co.	**Sonoco Ultra, Sonoco Dura Gear**
Shell Oil Company	**Spirax A, Spirax G, Spirax HD, Spirax S**
Texaco Oil Company	**Multigear EP, Multigear SS**
Troco Division / Royal Mfg.	**Multigear Select Gear Oil**
Union Oil Company	**Unocal MP Gear Lube, 76 Triton Syn Lube EP**

General Maintenance – Hubs/Drums/Bearings

Note: The convenient lubrication provisions of the E-Z Lube® and the oil lubrication must not replace periodic inspection of the bearings.

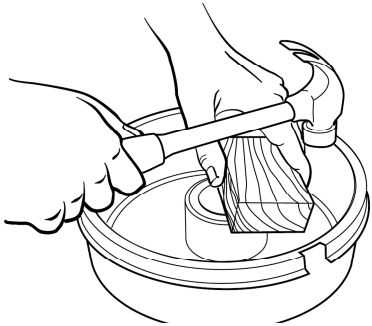
Whenever the hub is removed, inspect the seal to assure that it is not nicked or torn and is still capable of properly sealing the bearing cavity. If there is any question of condition, replace the seal. Use only the seals specified by the manufacturer.


Bad Seal: Nicks and Tears
(REPLACE SEAL)

To replace the seal:

1. Pry the seal out of the hub with a screwdriver. Never drive the seal out with the inner bearing, as you may damage the bearing.
2. Apply a sealant similar to PERMATEX® High-Temp Red RTV Silicone Gasket to the outside of the new seal.

   Note: A sealant should not be used on rubber encased seals.
3. Tap the new seal into place using a clean wood block.



Bearing Adjustment and Hub Replacement

If the hub has been removed or bearing adjustment is required, the following adjustment procedure must be followed:

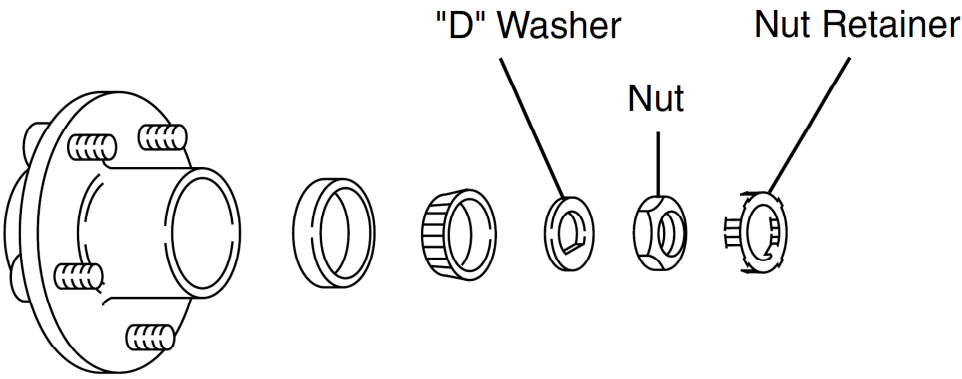
1. After placing the hub, bearings, washers, and spindle nut back on the axle spindle in reverse order as detailed in the previous section on hub removal, rotate the hub assembly slowly while tightening the spindle nut to approximately **50 Ft. Lbs.** (12" wrench with full hand force.)
2. Loosen the spindle nut to remove the torque. Do not rotate the hub.
3. Finger tighten the spindle nut until snug.
4. Back the spindle nut out slightly until the first castellation lines up with the cotter key hole and insert the cotter pin.
5. Bend over the cotter pin legs to secure the nut.
6. Nut should be free to move with only restraint being the cotter pin.

General Maintenance – Hubs/Drums/Bearings

For E-Z Lube® axles using the new nut retainer:

1. After placing the hub, bearings, washers, and spindle nut back on the axle spindle in reverse order as detailed in the previous section on hub removal, rotate the hub assembly slowly while tightening the spindle nut to approximately **50 Ft. Lbs.** (12" wrench with full hand force.)
2. Loosen the spindle nut to remove the torque. Do not rotate the hub.
3. Finger tighten the nut until snug, align the retainer to the machined flat on the spindle and press the retainer onto the nut. The retainer should snap into place. Once in place, the retainer/nut assembly should be free to move slightly.
4. If the nut is too tight, remove the retainer and back the nut off approximately one twelfth of a turn and reinstall the retainer. The nut should now be free to move slightly.
5. Reinstall grease cap.

Typical E-Z Lube® After Spring 2002



General Maintenance – Suspension Systems

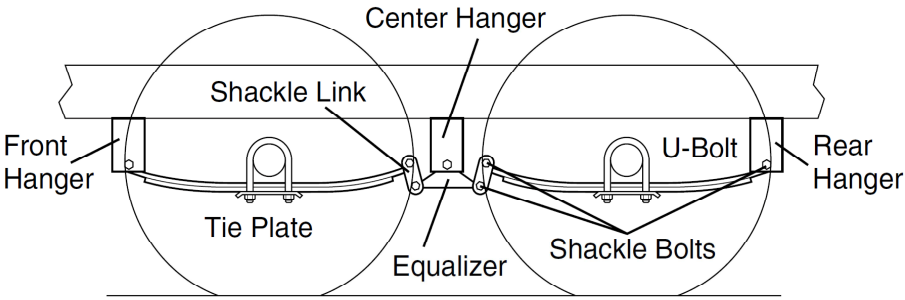
The suspension systems incorporated into Dexter axles are designed to provide the trailer owner three basic functions:

1. Attach the axle to the trailer
2. Dampen the effects of road shock
3. Cushion the cargo or load

All Dexter suspension systems are available in single and multiple axle configurations. The three types most commonly available are double eye leaf spring, slipper spring, and Torflex®.

Double Eye Leaf Springs

Double eye springs have eyes formed in each end of the spring with anti-friction bushings fitted for wear resistance. The springs are held to the axle tube using a system of U-bolts and tie plates and are attached to the trailer as shown.



Underslung Shown

Articulation of this suspension occurs when the spring becomes loaded and consequently lengthens. The double pivot action of the shackle links accommodates this articulation and allows the system to move freely.

In multiple axle installations, the action is the same with the additional movement of the equalizer assembly. This serves to transfer instantaneous loads from one axle to another in an effort to “equalize” the load between the axles.

Grease Lubricated Suspension Bushings

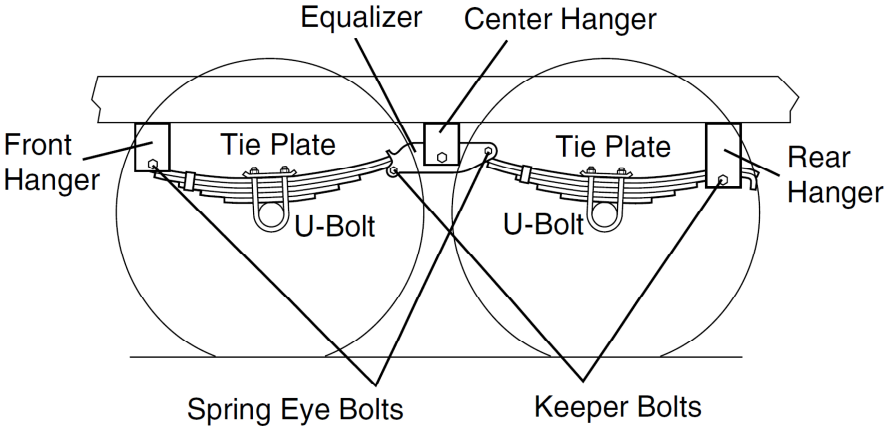
Dexter Axle offers a variety of optional heavy duty attaching parts kits for double eye leaf spring suspensions up to 8,000 lb. axle capacity. The kits contain extra heavy shackle links, bronze bushings for the slipper eyes, and suspension bolts and equalizers equipped with grease fittings to provide a convenient means to lubricate all the pivot points. For availability, contact your nearest ***Dexter Axle*** facility or go to www.dexteraxle.com.

General Maintenance – Suspension Systems

Slipper Leaf Springs

Slipper springs have an eye formed in one end only, with the other end formed into a reverse curve. The attachment of these springs is as follows:

1. The front eye is attached directly into the front hanger with a bolt and nut.
2. The rear end of the spring is captured in the rear hanger or equalizer with a “keeper bolt” that prevents the spring from coming out when the trailer is jacked up for service.



Over slung shown

The articulation of this suspension occurs when the rear end of each slipper spring slides against the wear surfaces provided in the rear hangers or equalizers. This suspension is also available in single and multiple axle configurations.

Inspection and Replacement

All the components of your suspension system should be visually inspected at least every 13,000 km for signs of excess wear, elongation of bolt holes, and loosening of fasteners. Whenever loose or replaced, the fasteners in your suspension system should be torqued as detailed in the following charts. All wet bolts and equalizers should be greased every 6,000 km.

⚠ CAUTION

YOU MUST follow the maintenance procedures to prevent damage to important components. Damage to components such as wheel bearings can cause the wheel to come off the axle. Loss of a wheel while the trailer is moving can result in serious injury or death.

General Maintenance – Suspension Systems

Suspension Fastener Torque Values

Item	Torque (Ft. Lbs.) Min	Max
3/8" U-Bolt	30	50
7/16" U-Bolt	45	70
1/2" U-Bolt	45	70
9/16" U-Bolt	65	95
5/8" U-Bolt	100	120
Non shoulder type with 9/16" threads Shackle Bolt Spring Eye Bolt Equalizer Bolt	Snug fit only. Parts must rotate freely. Locking nuts or cotter pins are provided to retain nut-bolt assembly.	
Shoulder Type Shackle Bolt with 7/16" threads	30	50

Worn spring eye bushings, sagging springs, or broken springs should be replaced using the following method.

1. Support the trailer with the wheels just off the ground.

⚠ CAUTION

DO NOT lift or support the trailer on any part of the axle or suspension system. NEVER go under any trailer unless it is properly supported on jack stands which have been rated for the load. Improperly supported vehicles can fall unexpectedly and cause serious injury or death.

2. After the unit is properly supported, place a suitable block under the axle tube near the end to be repaired. This block is to support the weight of the axle only, so that suspension components can be removed.
3. Disassemble the U-bolts, nuts and tie plates.
4. Remove the spring eye bolts and remove the spring and place on a suitable work surface.
5. If the spring eye bushings are to be replaced, drive out the old bushing using a suitable drift punch.

⚠ CAUTION

BE SURE to wear safety glasses when removing or installing force fitted parts. Failure to comply may result in serious injury.

6. Drive the new bushing into the spring eye using a piloted drift punch or a close fitting bolt inserted through the bushing.
7. Reinstall repaired or replaced components in reverse order.

Note: For multiple axle units, the weight of each axle must be supported as outlined in Step 2 before disassembly of any component of the suspension system.

If the equalizer or equalizer bushings must be replaced, follow the instructions above for lifting and supporting the trailer unit, then proceed as follows:

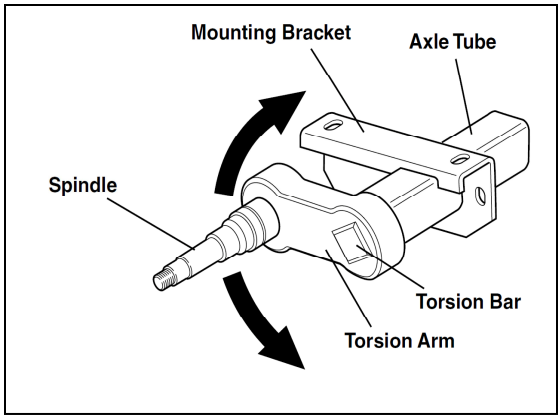
1. With both axles block up, remove the spring eye bolt, shackle bolt and equalizer bolt from the equalizer to be repaired or replaced.
2. Take the equalizer to a suitable work surface and remove the worn bushings using a suitable drift punch.
3. Drive the new bushings into place using a piloted drift punch or a close fitting bolt through the bushing.
4. Reassemble in reverse order.

All of the pivot points on your standard suspension system have been fitted with anti-friction bearing materials which do not require routine lubrication. When otherwise servicing the unit, these pivot points may be lubricated if you so desire. If your trailer has been fitted with the Heavy Duty Attaching Parts Kit, you should lubricate periodically to ensue long component life.

General Maintenance – Suspension Systems

Torflex® Suspension

The Torflex® suspension system is a torsion arm type suspension which is completely self contained within the axle tube. It attaches directly to the trailer frame using brackets which are an integral part of the axle assembly. The Torflex® axle provides improved suspension characteristics relative to leaf spring axles through the unique arrangement of a steel torsion bar surrounded by four natural rubber cords encased in the main structural member of the axle beam.



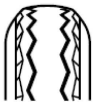
The wheel/hub spindle is attached to a lever, called the torsion arm, which is fastened to the rubber encased bar. As load is applied, the bar rotates, causing a rolling/compressive resistance in the rubber cords. This action provides the same functions as conventional spring axles with several operating advantages including independent suspension.

Except for periodic inspection of the fasteners used to attach the Torflex® axle to the vehicle frame, no other suspension maintenance is required on Torflex® axles. They are, of course, subject to the maintenance and inspection procedures regarding brakes, hubs, bearings, seals, wheels and tires as outlined in this manual.

⚠ CAUTION

DO NOT weld on the Torflex® beam. It has rubber cords inside and the heat generated by welding could damage the cords.

Tire Wear Diagnostic Chart

Wear Pattern	Cause	Action
 **Center Wear**	Over Inflation	Adjust pressure to particular load per tire catalog
 **Edge Wear**	Under Inflation	Adjust pressure to particular load per tire catalog
 **Side Wear**	Loss of camber or overloading	Make sure load doesn't exceed axle rating. Align at alignment shop
 **Toe Wear**	Incorrect toe-in	Align at alignment shop
 **Cupping**	Out-of-balance	Check bearing adjustment and balance tires
 **Flat Spots**	Wheel lockup & tire skidding	Avoid sudden stops when possible and adjust brakes

⚠ CAUTION

TIRE WEAR should be checked frequently. Once a wear pattern becomes firmly established in a tire, it is difficult to stop, even if the underlying cause is corrected.

General Maintenance – Storage Preparation

If your trailer is to be stored for an extended period of time or over the winter, it is important that the trailer be prepared properly.

1. Remove the emergency breakaway battery and power pack battery (if your trailer is equipped with these) and store them inside, out of the weather. Charge the batteries at least every 90 days.
2. Jack up the trailer and place jack stands under the trailer frame so that the weight will be off the tires. Never jack up or place jack stands on the axle tube, equalizers, springs or any other suspension component.

⚠ CAUTION

DO NOT lift or support the trailer on any part of the axle or suspension system. NEVER go under any trailer unless it is properly supported on jack stands which have been rated for the load. Improperly supported vehicles can fall unexpectedly and cause serious injury or death.

3. Lubricate mechanical moving parts such as the hitch and suspension parts that are exposed to the weather.
4. For boat trailer axles or any others that are subject to repeated immersions, remove brake drums; clean, dry and re-lubricate moving brake components; inspect bearings – clean and re-lubricate, before storing.
5. On oil lubricated hubs, the upper part of the roller bearings are not immmersed in oil and are subject to potential corrosion. For maximum bearing life, it is recommended that you revolve your wheels periodically (every 2-3 weeks) during periods of prolonged storage.

After Prolonged Storage Inspection Procedure

Before removing trailer from jack stands:

1. Remove all wheels and hubs or brake drums. Note which spindle and brake that the drum was removed from so that it can be reinstalled in the same location.
2. Inspect suspension for wear.
3. Check tightness of hanger bolt, shackle bolt and U-bolt nuts per recommended torque values.
4. Check brake linings, brake drums and armature faces for excessive wear or scoring.
5. Check brake magnets with an ohmeter. The magnets should check 3.2 ohms. If shorted or worn excessively, they must be replaced.
6. Lubricate all brake moving parts, using a high temperature brake lubricant (LUBRIPLATE or equivalent).

DO NOT get grease or oil on brake linings or magnet face.

7. Remove any rust from braking surface and armature surface of drums with fine emery paper or crocus cloth. Protect bearings from contamination while doing so.
8. Inspect oil or grease seals for wear or nicks. Replace if necessary.
9. Lubricate hub bearings. Refer to procedure in manual.
10. Reinstall hubs and adjust bearings per instructions in manual.
11. Mount and tighten wheels per instructions in manual.
12. Insure batteries are fully charged and securely installed in their proper locations.
13. After attaching to tow vehicle, carefully inspect wiring and lights for any shorts or blinking. Replace bulbs if necessary.

Power Pack Specification

Your trailer may be equipped with a hydraulic power pack, if so, the following information will apply to you.
Your power pack is designed to give a long trouble free service life with only a few minor maintenance checks at regular intervals. Please read the instructions carefully and always operate this equipment in a safe manner. For more technical problem solving, please consult a qualified hydraulic technician.

Your powerpack is already assembled, installed in your trailer, and ready to use. The following information is for reference only, however, please insure you have a battery pack installed before attempting to use your power pack.

⚠ CAUTION

YOUR TRAILER is shipped from the manufacturer without a battery pack for the power unit. You must not attempt to operate the power unit before the proper battery pack is installed. Doing so may overstress the electrical system and could result in damage to your trailer as well as to your tow vehicle. We recommend a deep cycle marine battery or equivalent, which can be purchased from your local dealer.

Depending on the type of power pack you may have, there are a number of differences that my be obvious between your power pack and the unit shown. All power packs have some common features and a quick review of your pack should help you better understand what each component is.

The electric motor is coupled to the pump via the endhead. The endhead provides oil flow direction through galleries inside the endhead. The endhead also houses the various valve options that are available for our power packs.

There are three basic types of power packs:

1. Single acting
2. Double acting
3. Remote valve

Power Pack Specification

Fig 1.1 shows a basic **single acting** power pack which has a solenoid lower valve (item 3) to lower the load under gravity.

Fig 1.2 shows the manual lowering valve that fits in place of the solenoid operated version (item 3)

The **double acting** version (not shown) has a special adaptor plate that mounts the double acting valve to the endhead. It does not have a solenoid lowering valve (item 3)

The **remote valve** version looks similar to the unit in *Fig 1.1* however it does not have a solenoid lowering valve (item 3). The remote valve unit also utilizes the return port (see *Fig 2.1*).

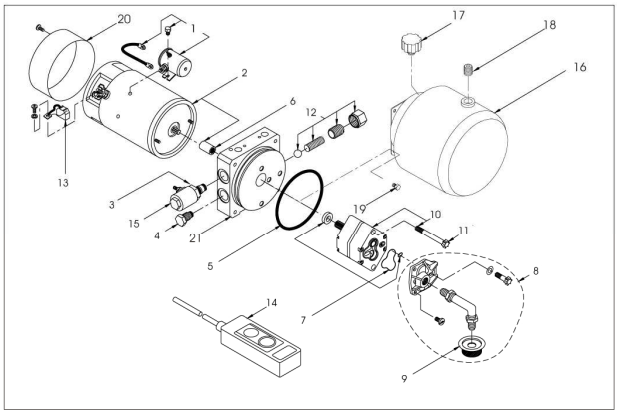


Fig 1.1 *Power pack exploded view*

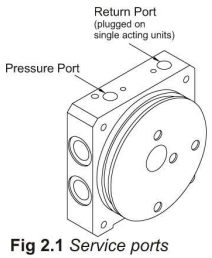


Fig 2.1 *Service ports*

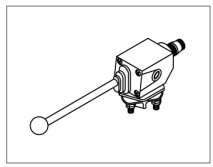


Fig 1.2 *Manual Lowering valve*

Item	Description	QTY	Item	Description	QTY
1	Solenoid starter assembly	1	14	Electric pendant control (Optional)	1
2	DC Motor	1	15	Solenoid coil	1
3	Solenoid lowering valve	1	16	Oil reservoir	1
4	Check cartridge	1	17	Filler breather	1
5	Reservoir O-ring	1	18	Alternate breather plug	1
6	Coupling	1	19	Tank fastening screw	4
7	Pump O-ring kit	1	20	Motor cover	1
8	Inlet plumbing kit	1	21	Endhead	1
9	Suction strainer	1			
10	Pump assembly	1			
11	Pump mounting bolt	2			
12	Adjustable relief valve assembly	1			
13	Motor brush	2			

Power Pack Specification

Your power pack is usually fitted with a solenoid starter assembly (item 1) that is mounted to the DC motor. It has two large terminal posts and depending on the type of unit, it may have one or two small terminals.

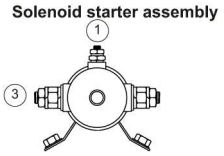


Fig 3.1 Single terminal (for negative earth)

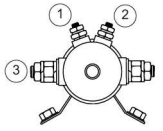


Fig 3.1 Single terminal (for insulated earth)

The unit with only one small terminal is for use on vehicles that are negative to ground. The two terminal model is for use on insulated earth vehicles. *Fig 3.1 & 3.2* show the two available options.

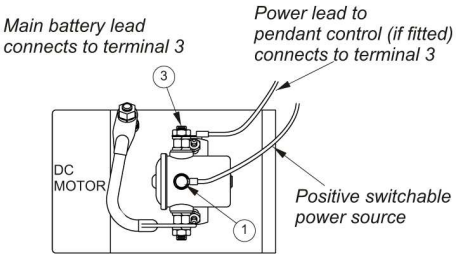


Fig 3.1 Connecting single terminal motors

A positive switchable power source must be connected to terminal 1 and a negative power source must be connected to terminal 2.

The main positive battery lead must be connected to terminal 3.

See *Fig. 3.3.* It is important to ensure that the correct size battery leads are used for your particular installation.

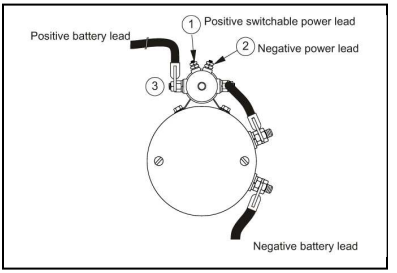
⚠ CAUTION

LOW VOLTAGE could cause damage to the DC motor. DC motors should not be run for extended periods.

(Consult technical data for duty cycles – Available from most dealers)

The negative supply to your power pack can be connected a number of ways:

1. Single terminal motors



The chassis of the vehicle to which the power pack is to be mounted may be negative (-) ground. Therefore the process of mounting the power pack to the vehicle chassis will provide a negative (-) supply to the motor. Alternatively, a battery lead from the negative (-) terminal of the battery can be connected directly to the body of the power pack.

The most suitable point of connection for the negative (-) battery lead is at the mounting bolts that fix the power pack to the vehicle (for single terminal motors).

2. Dual terminal motors

Where the power pack is fitted with a dual terminal motor, independent battery leads must be connected to the connection terminals of the DC motor. See *Figure* for correct connection of battery terminals.

Power Pack General Maintenance

Oil Levels:

Prior to each operation, the oil level in the reservoir should be checked and topped up if necessary. ***Use SHELL Tellus 32 or equivalent***. If regular top ups of the oil are required, there may be a system problem where oil is leaking from the hydraulic circuit. Check each hose connection, all actuator seals and reservoir seal to indentify the source of the leak and rectify immediately.

Filters:

Each unit is fitted with a filtered filler breather (item 17) to help prevent the ingress of foreign particles into the oil system. Over time the breather can become clogged and should be replaced regularly. The breather should be inspected regularly for clogging and replaced as necessary.

Your power pack is also fitted with a suction strainer (item 9) which is mounted to the intake of the hydraulic pump and is located inside of the oil reservoir. The suction filter helps prevent ingress of harmful material entering the hydraulic circuit through the pump intake which can cause damage to the power pack or other hydraulic components.

The suction filter should be replaced as part of a regular maintenance routine.

Motor and Electrical Connections:

The motor is fitted with carbon brushes (item 13) that wear over time. The brushes should be checked regularly by a qualified automotive electrician and replaced when necessary.

Regularly inspect all electrical connections to ensure that they are secure and that terminals are in good condition. Poor connections can produce electrical arcing which could create a fire hazard.

⚠ CAUTION

DO NOT pressure wash the hydraulic power pack.

Battery Pack:

With regular use, your battery for the power pack will be recharged with a trickle charge from your tow vehicle and should not need to be charged. However if you have heavy use with little drive time, you may find it necessary to recharge your battery from time to time. Alternatively you can hook up your power pack with a direct wet line from your tow vehicle. This should only be done by a qualified automotive electrician.

⚠ CAUTION

DO NOT attempt to operate the power unit without a proper battery pack. Doing so may overstress the electrical system and could result in damage to your trailer as well as to your tow vehicle.

Power Pack Trouble Shooting

If for any reason you are experiencing some difficulty with your power unit, check the following table for possible causes of the problem. If you cannot rectify any issue with these simple check procedures, take your vehicle to an approved trailer servicing facility.

Motor will not run	**Faulty electrical connections**	**Check all electrical connections in accordance with instructions**
	Insufficient battery power	**Charge or replace battery**
	Faulty starter solenoid	**Replace starter solenoid**
	Faulty motor	**Replace motor**
Motor starts but load will not move	**Faulty electrical connections**	**Check all valves' electrical connections (if fitted with electric operated valves)**
	Faulty valve solenoid	**Replace valve solenoid**
	Faulty valve	**Replace valve**
	Insufficient oil	**Check oil level and replenish if necessary (Using SHELL Tellus 32 or equivalent)**
	Faulty pump coupling	**Return to service centre**
Load moves but stops prematurely	**Insufficient oil**	**Check oil level and replenish if necessary (Using SHELL Tellus 32 or equivalent)**
	Faulty electrical connections	**Check all valves' electrical connections (if fitted with electric operated valves)**
	Incorrect orientation of suction filter	**Reposition suction filter**
Erratic movement of actuators	**System not bled properly**	**Bleed system by "cracking" the supply line to the hydraulic actuator and briefly operating the power pack until all air is expelled from the supply line and a clear stream of oil flows out**
	Faulty electrical connections	**Check all electrical connections in accordance with instructions**

Basic Operating Instructions – Standard Dump Trailer

1. Always distribute load evenly across the trailer deck.
2. Never load your trailer beyond the specified load limits.
3. Before attempting to dump the load, ensure a suitable battery is installed in the tongue box and that it is fully charged.

⚠ CAUTION

YOUR TRAILER is shipped from the manufacturer without a battery pack for the power unit. You must not attempt to operate the power unit before the proper battery pack is installed. Doing so may overstress the electrical system and could result in damage to your trailer as well as to your tow vehicle. We recommend a deep cycle marine battery or equivalent, which can be purchased from your local dealer.

4. Open rear doors and secure them to the side of the trailer box with the provided rubber bungee cords.
5. Ensure that your trailer and tow vehicle are safely parked on level ground before attempting to dump your load.

⚠ CAUTION

DO NOT stand underneath any part of the trailer when unit is raised. Trailer must be on level ground before unit is raised. Failure to comply may result in serious physical injury or death.

6. Remove the hand held remote from the tongue box and push the “up” button until the cylinders are fully extended.
7. Replace the remote in the tongue box, then slowly move the tow vehicle forward until the trailer box is completely empty.
8. Park your vehicle again before removing the hand held remote from the tongue box, and pushing the “down” button to return the trailer dump box to the travel position. Ensure all foreign objects are clear of the unit when it is descending.
9. Return the remote to the tongue box and close rear doors.
10. Carefully check coupler, safety chains, electrical hook-up and lights for proper hook-up and functioning, before driving away.

Basic Operating Instructions – Super Roll-Off System

⚠ CAUTION

PLEASE read and head all safety precautions on the previous page for "standard dump trailers". These precautions will also apply to your *Super Roll-Off System*.

Placing your *Roll-Off* bin or deck:

1. Ensure your vehicle and trailer are safely parked on level ground before attempting to place your *Roll-Off* bin or deck.
2. Remove the two locking pins on the front of your bin or deck before operating the winch or raising the unit.
3. Your trailer will need two hand held remotes to operate correctly. (Unless you have the optional combined wireless remote). One remote will be attached to the power pack in your tongue box; this is to raise the unit. The other remote you will need to plug into the control box mounted on the front of your *Roll-Off* trailer chassis; this is to operate the winch.
4. Before attempting to operate the remotes, ensure a suitable battery is installed in the tongue box and that it is fully charged
5. Press the "up" button on the tongue box remote to raise the unit and toggle the switch on the chassis remote to unwind.
6. For optimal performance and for least stress to your vehicles, try to operate these two remotes either together, or staggered, so that as the unit is being raised, the *Roll-Off* bin or deck is also sliding off the back of the chassis.
7. Ensure sufficient area is cleared behind trailer to allow the entire bin or deck to slide off unhindered.
8. When bin or deck is completely on the ground, remove the winch hook, then rewind the winch and lower the unit before storing the remotes in the tongue box again.

Loading your *Roll-Off* bin or deck:

1. Back up your *Roll-Off* chassis to within range of the winch cable; trying to align the chassis sliders with the correct location on your bin or deck. Optimum performance will be achieved when the chassis and unit are relatively closely aligned with each other.
2. Raise unit by pushing the "up" button on the tongue box remote until the back of the sliders are low enough to start into the slider channel on your bin or deck.
3. Extend winch cable. Maintain slight tension on the cable by pulling on the hook while the winch is unwinding.

4. After securing hook to bin or deck, ensure surrounding area is clear and rear doors are latched, before attempting to load.
5. Retract the winch first until bin or deck is started 12" to 24" unto the sliders, then push the "down" button as well, to lower the unit. Ensure all foreign objects are clear of the unit when it is descending.
6. Load with the same method as you unloaded; balancing the unit lowering, with the winch cable retraction.
7. When bin or deck is completely loaded and unit is completely lowered, reinsert the load pins on the front of the bin or deck to secure the load for transport.
8. Stow both remotes in the tongue box for transport.
9. Always distribute load evenly across the bin or deck.
10. Never load your trailer beyond the specified load limits.
11. Carefully check coupler, safety chains, electrical hook-up and lights for proper hook-up and functioning, before driving away.

Dumping your *Roll-Off* bin:

1. Your *Roll-Off* bin can be emptied or dumped in the same manner as a standard dump trailer.
2. When emptying your bin by dumping, you do not need to plug in or operate your remote for the winch.

ENSURE locking pins are in place to secure the bin to the chassis before attempting to empty the bin by dumping. Failure to comply may cause over stressing of the winch cable and could lead to serious injury.

3. Open rear doors and secure them to the side of the trailer box with the provided rubber bungee cords.
4. Ensure that your trailer and tow vehicle are safely parked on level ground before attempting to dump your load.
5. Remove the hand held remote from the tongue box and push the "up" button until the cylinders are fully extended.
6. Replace the remote in the tongue box, then slowly move tow vehicle forward until the bin is completely empty.
7. Park your vehicle again before removing the hand held remote from the tongue box, and pushing the "down" button to return the bin to the travel position. Ensure all foreign objects are clear of the unit when it is descending.
9. Return the remote to the tongue box and close rear doors.
10. Carefully check coupler, safety chains, electrical hook-up and lights for proper hook-up and functioning, before driving away

Basic Operating Instructions – EZE-Lift Float Trailer

1. Before attempting to lower or raise the deck, ensure a suitable battery is installed in the tongue box and that it is fully charged.

⚠ CAUTION

YOUR TRAILER is shipped from the manufacturer without a battery pack for the power unit. You must not attempt to operate the power unit before the proper battery pack is installed. Doing so may overstress the electrical system and could result in damage to your trailer as well as to your tow vehicle. We recommend a deep cycle marine battery or equivalent, which can be purchased from your local dealer.

2. Safely park your vehicle and trailer on level ground.
3. Unlatch the locking bars on each side of the rear of the trailer.
4. Ensure area beneath trailer is free of obstructions and keep yourself and all others clear of descending box.
5. Remove the remote from the tongue box and press the “down” button to lower the deck to ground level.
6. Remove the locking pins for the ramps and lower ramps.
7. Load trailer and securely chain or strap down your load.
8. Always distribute your load evenly across the deck.
9. Never load your trailer beyond the specified load limits.
10. Raise ramps and secure in travel position.
11. Press the “up” button on your remote until the deck is raised to original travel height.
12. Secure the locking bars on each side of the rear of the trailer and lock into travel position.
13. Return the hand held remote to the tongue box.
14. Carefully check coupler, safety chains, electrical hook-up and lights for proper hook-up and functioning, before driving away

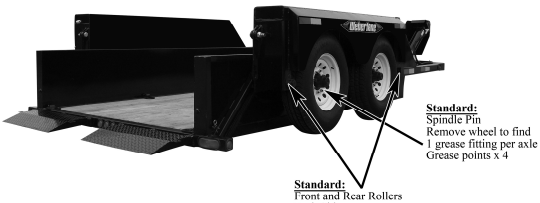
Additional Grease and Lubrication Points

Depending on your model of trailer, it may have some of these additional lubrication points which should be lubricated at regular intervals. Please check these photos and compare with your trailer.

Standard Dump Trailer

Standard Livestock Trailer

EZE-Lift Float Trailer



Super Roll-Off System

If any of these grease fittings are present on your trailer, please keep them well lubricated with a high lithium grease. These grease points are only in addition to the standard greasing of axle components as specified elsewhere in this manual.

Manufacturers' Warranty

Thank you for choosing to purchase a ***Weberlane*** trailer. You have chosen a fine product in which design and construction have received the attention that quality demands. This important warranty covers many items and shows our desire to stand behind our products and assure customers' complete satisfaction, providing that the following conditions are met and satisfied. This warranty must be signed and acknowledged by the dealer and the purchaser; and returned by the authorized dealer to **Weberlane Mfg. (1990) Co.,** no later than 10 days following the purchase of the trailer by the purchaser.

WARRANTY COVERAGE

Weberlane Mfg. (1990) Co. warrants only the *Original Consumer Purchaser* for a period of 1 year on all ***Weberlane*** trailers, that the entire trailer will by fully free of substantial defects in materials and workmanship attributable to **Weberlane Mfg. (1990) Co**.

WARRANTY EXCLUSIONS

Weberlane Mfg. (1990) Co. expressly disclaims any responsibility for damages to the trim and appearance items located in or on the unit where damage is due to condensation, normal wear and tear, or exposure to the elements. **Weberlane Mfg. (1990) Co.** makes no warranty with regard to tires, tubes, batteries, brakes, routine maintenance, equipment and appliances which show signs of normal wear and tear. Some of these items may be warranted by their respective manufacturers and suppliers. Warranty information with respect to these items is available from your dealer.

Weberlane Mfg. (1990) Co. makes no further warranty with regard to any product used as a rental unit, or any product not registered and normally used within the United States or Canada.

LIMITATION

The sole responsibility of **Weberlane Mfg. (1990) Co.** under this limited warranty shall be to repair and replace parts at the **Weberlane Mfg. (1990) Co.** factory, or at a **Weberlane Mfg. (1990) Co.** authorized dealer or facility with prior written approval by **Weberlane Mfg. (1990) Co.** 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 but not limited to any general or specific, foreseen or unforeseen, unless applicable provincial law provides otherwise. **Weberlane Mfg. (1990) Co.** will not reimburse any claimant for any adjustment or repair of a ***Weberlane*** trailer without prior written approval by **Weberlane Mfg. (1990) Co.**

WARRANTY VOID

Weberlane Mfg. (1990) Co. is not responsible for damages caused by accidents, negligence, abuse, misapplication, or misuse of a trailer or any of its component parts. Loading in excess of gross vehicle load ratings stated on the certificate will invalidate any and all warranties. Any modifications, alterations, or repair to any product manufactured by **Weberlane Mfg. (1990) Co.** without **Weberlane Mfg. (1990) Co.** prior knowledge and consent will void manufacturer's warranty.

DISCLAIMERS

This warranty is expressly given in lieu of all other warranties and representations. **Weberlane Mfg. (1990) Co.** makes no representation or warranty of any kind, express or implied, with respect to **Weberlane Mfg. (1990) Co.** whether as to merchantability, fitness for a particular purpose or any other matter. No one, including an authorized **Weberlane Mfg. (1990) Co.** dealer is authorized to make further or additional warranties on behalf of **Weberlane Mfg. (1990) Co.**

TRANSPORTATION COSTS EXCLUDED

It is the responsibility of the trailer owner to cover the costs of transportation to and/or from the dealer and/or repair facility. **Weberlane Mfg. (1990) Co.** shall not have any responsibilities to cover such costs.

OWNER ASSISTANCE

Your personal satisfaction and good will are most important to us as well as a confident and pleasant relationship with our dealers. We at **Weberlane Mfg. (1990) Co.** recognize that there may be occasions where a warranty problem is not handled satisfactorily resulting in misunderstandings. If you encounter a problem that has not been handled to your satisfaction after discussing it with the dealership management, we ask that you would contact **Weberlane Mfg. (1990) Co.** at **519-291-5035** and we will communicate with the local dealer our recommendations for an agreeable solution.

Dealer Responsibilities

The dealer is responsible for submitting to the manufacturer any claim you wish to make under this Warranty.

Warranty Claim Procedure

1. In order to validate this Warranty, your trailer must be registered no later than 10 days following the purchase of your ***Weberlane*** trailer, via fax, mail or email.
2. Within 5 days after discovering a problem with your ***Weberlane*** trailer, return your trailer for inspection to the dealer where it was purchased.
3. If your dealer cannot repair the problem free of charge and you want to file a claim under this Warranty, your local dealer must send to **Weberlane Mfg. (1990) Co.,** by registered letter or fax, a warranty form, together with all required information, within 10 days of your discovery of the defect.
4. **Weberlane Mfg. (1990) Co.** will acknowledge receipt of warranty claim by fax, mail or e-mail from a **Weberlane Mfg. (1990) Co.** dealer or claimant. **Weberlane Mfg. (1990) Co.** will respond as soon as possible.
5. Any defect part must be sent by prepaid freight to **Weberlane Mfg. (1990) Co.** in order to qualify the claimant for replacement or reimbursement under this Warranty. Any defective part must be returned to **Weberlane Mfg. (1990) Co.** within 30 days from the date of approval to qualify for reimbursement.
6. **Weberlane Mfg. (1990) Co.** will not reimburse any claimant for any adjust or repair of a ***Weberlane*** trailer without written approval by **Weberlane Mfg. (1990) Co.**
7. **Weberlane Mfg. (1990) Co.** reserves the right to not pay for unreasonable costs for replacement or repair of defects in ***Weberlane*** trailers and may, at its discretion, establish reasonable reimbursement for any authorized work performed under the terms of this Warranty.
8. When required, photos of defective parts or the actual parts may have to accompany the warranty approval before payment can or will be made.
9. **Weberlane Mfg. (1990) Co.** makes no other express or implied warranties and there are no other warranties which extend beyond the description on the face of this Warranty.

The undersigned dealer, by signing this manufacturers' Warranty, states that he/she has informed and explained to the purchaser all Warranty procedures and will perform all responsibilities of the dealer under this Warranty.

By signing this manufacturers' Warranty, the purchaser acknowledges that he/she has read the above Warranty and agrees that, should any warranty claims be made by the purchaser, purchaser will follow the proper procedures as set forth on this form.

WARRANTY VOID IF NOT REGISTERED

(Purchaser's Name) (Purchaser's Signature)

(Purchaser's Complete Address)

(Phone No.)

(Date of Product Purchase) (Product Invoice No.)

(Product Model No.) (VIN of Product)

(Tire info. DOT Code & Date Code for all tires)

(Authorized Dealer) (Sales Representative)

(Dealer's Complete Address)

(Phone No.) (Fax No.)

(Authorized Dealer)

Send to:

Weberlane Manufacturing (1990) Co.
5036 Line 82, RR 4
Listowel, ON Canada N4W 3G9
Tel: (519) 291-5035 - Fax: (519) 291-5281
www.weberlane.com