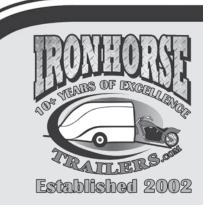
Ironhorse Trailers, Inc. Owner's Manual

For One Bike
Two Bike/One Trike

& WideBody
Endosed Trailers

For your safety, please read carefully and keep with trailer



FOR OUR CUSTOMERS...

Congratulations! You have chosen an Ironhorse Trailer... the motorcycle trailer that set the high bar for bike haulers. Not only is your Ironhorse beautiful to look at, you will find it is a joy to tow, easy to move by hand and kind to your wallet at the gas pump.

We strive for the highest quality possible, but our trailers and the parts that go into them are built by people and we all know that people sometimes make mistakes. That's why your trailer has a four year warranty, just in case. So if you have a problem, don't hesitate to call us. Our objective is to make sure every customer is a happy customer. Should you have a problem with your trailer, even after the warranty expires, call us first, we may be able to save you time and money—and we do, of course, carry replacement parts in our inventory.

Thanks again for choosing an Ironhorse Trailer and please stop by if you're ever in the neighborhood. One of the things we hope makes us stand out from other trailer manufacturers is that when a customer brings his trailer to visit, we'll go over it and do a check and clean up.

We wish you many happy days of towing your bikes to the beautiful places to ride... and many happy hours in the saddle enjoying the beautiful views our vast land has to offer.

Travel safely!

Ed and Julie Heard

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This Owner's Manual contains important safety information and instructions.



Please read and study this manual carefully BEFORE loading or towing your trailer.



Following all safety precautions and instructions can save a life!

A FEW IMPORTANT WORDS ABOUT WIND!

In high winds, the streamlined shape of an Ironhorse Trailer can be a mixed blessing. On one hand, strong winds don't affect Ironhorse Trailers much more than they do a streamlined modern auto, and considerably less than a slab sided SUV or truck. But that wind worthiness is deceptive. If you continue on your way in cross winds, chances are you'll be fine. But there's also a chance that the top will lift and flap around. So to be on the safe side, if the wind is gusting at greater than 40 mph, stop and hole up. But if you get caught in those kind of winds a long way from cover, take a couple of straps and loop them over the gas spring support arms and under the pulley support arm on each corner support. Then continue at a little slower pace until you find cover or the wind slows down.

DISCLAIMER

Ironhorse Trailers is not responsible for any damage or injury caused by the use or misuse of the Ironhorse Trailer. The examples given in the manual are general guidelines for illustration purposes only and cannot cover every possible combination of vehicle, hitch and trailer or every loading situation. Have your particular vehicle inspected by an authorized trailer or hitch installation/repair facility before towing heavy loads. You are solely responsible for the safe loading, unloading and operation of your tow vehicle, trailered vehicle and trailer.



DRONHORSE TRAILERS GENERAL SAFETY WARNINGS



DO NOT OPERATE THIS TRAILER BEFORE READING THE SAFETY INFORMATION AND WARNINGS SHOWN BELOW.

FAILURE TO PROPERLY OPERATE AND MAINTAIN THE TOWING VEHICLE AND TRAILER CAN RESULT IN SERIOUS INJURY.

LOAD CAPACITY: WIDEBODY-2250 LBS; 2 BIKE/ 1 TRIKE-2450 LBS.; 1 BIKE-1150 LBS.

LOAD CAPACITY REFERS TO THE MAXIMUM CARGO CAPACITY IT IS SAFE TO TRANSPORT IN AN IRONHORSE TRAILER. **DO NOT OVERLOAD!!!**

SUMMARY OF IMPORTANT SAFETY WARNINGS & INSTRUCTIONS

- ➤ The responsibility of properly positioning your bike, trike or other cargo in the trailer is yours. We make every effort to correctly position wheel chocks, Pingels® or other restraint systems, but lengths can vary depending on options and add-ons, so always check the positioning with the top open and with the top closed!
- ➤ This is a lightweight, streamlined trailer designed for easy towing at highway speeds NOT for off-road use.
- ➤ Both rear stabilizers must be LOWERED before using the loading ramp if the trailer is not attached to a tow vehicle.
- ➤ Both rear stabilizers must be RAISED before towing. Failure to do so will cause significant damage.
- ➤ The rear stabilizers are NOT jacks they are stabilizers. Using them and the front rolling jack to raise the tires off the ground may cause the top to malfunction, the rolling jack to bend, or both.
- NEVER tow a flip top trailer with the top in the raised position. Close the top, then close and latch the tailgate.
- ➤ When wind speed exceeds 20 MPH, always face a flip top trailer into the wind prior to raising the top. Be mindful of weather conditions when towing... if winds exceed 40 mph, stop in a safe location and wait out the storm!!!
- ➤ Raise and lower the top of a flip top only from the center of the rear never from only one side. Make sure that the pins on the lip of the top are in their corresponding tailgate holes before latching the tailgate.
- ➤ Check your vehicle Owner's Manual before towing to be sure vehicle has the necessary towing capability.
- ➤ The recommended ball height of the towing vehicle is 16" to 17" from the ground. The correct ball size for the coupler is a 2" ball. NEVER SUBSTITUTE A SMALLER BALL. Always use a coupler lock.
- ➤ The tailgate counterbalance spring and cable can inflict serious injury if it breaks, or is incorrectly adjusted, so always stand well clear of the door when opening and inspect the cable for wear each time the door is opened. Do not attempt to service the spring and cable door system yourself. Call a professional.
- ➤ The tailgate loading ramp is heaviest when fully open. Take care when opening or closing the tailgate.
- ➤ Damaged or loose D-rings can break, allowing cargo to shift the trailer's center of gravity resulting in loss of control.
- Never crawl underneath your trailer when coupling or changing a tire. You risk severe injury or death. When installing your wheel chocks and d-rings or changing a tire, be sure your trailer is hooked to a tow vehicle.
- ➤ Gas springs can lose their lifting capability with age and cold weather and can cause the top to fall, resulting in serious injury.
- ➤ Do not transport people inside the trailer, it puts their lives at risk and may be illegal. Do not transport flammable explosive, poisonous or other dangerous materials in your trailer.
- ➤ Do not walk or crawl on the roof or top of any Ironhorse Trailer.
- ➤ Be aware that the loading ramp and floor can be slippery when wet.
- ➤ Never transport a motorcycle on the kick stand or center stand.
- ➤ An improperly coupled trailer can result in death or serious injury.
- ➤ Periodic maintenance will lengthen wheel bearing life. Refer to the instructions in the Owner's Manual.



IRONIHORSE TRAILERS CENERAL SAFETY WARNINGS



EVERY TIME THE TRAILER IS USED

- ➤ Properly secure motorcycles and other items in the trailer check the load each time you stop!
- ➤ Attach safety chains to the tow vehicle, verify that the lights are working and check tire inflation and condition.
- ➤ Raise the rear stabilizers, close, latch and lock the tailgate, and remove exterior wheel chocks before towing.
- ➤ If you are using a drive-in, step-off wheel chock always pull bikes toward the chock with tie-downs.
- ➤ Verify that the front rolling jack and rear drop leg stabilizers are locked in the up position
- Verify that the trailer hitch is properly latched and lock it with a coupler lock





LOSS OF CONTROL OF A TRAILER OR TRAILER AND TOW VEHICLE COMBINATION CAN RESULT IN DEATH OR SERIOUS INJURY.

THE MOST COMMON CAUSES FOR LOSS OF CONTROL OF THE TRAILER ARE:

- ➤ Driving too fast for conditions.
- ➤ Failure to properly gauge unusual road conditions and slow accordingly, for example, ice, snow, rain, wind, gravel, oil on the roadway, deep holes or ruts, etc.

 Sudden, sharp turns and/or swerving
- Overloading the trailer
- Loading the trailer improperly (unbalanced loading)
- ➤ Trailer improperly coupled to the hitch
- ➤ Not maintaining proper tire pressure
- Not keeping lug nuts tight

Read and follow the instructions provided by the manufacturer of your tow vehicle and trailer hitch manufacturer, as well as the instructions in this manual. Please also follow the Operation and Service Manual provided by your trailer axle manufacturer. Check your trailer, it's contents, and your tow vehicle carefully prior to and during every trip!

PREVENTION WORKS!

Drive defensively—and drive with caution!



CERTIFICATIONS AND WARNINGS

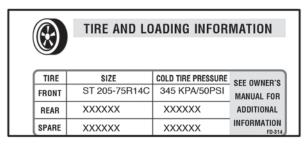


Check your Ironhorse Trailer for the certification and warning labels shown below. If any are missing or incomplete, please call us at 888-793-6184 for a replacement. Gross Trailer Weight (GTW) is the weight of the trailer plus all cargo.

The Capacity Label Certification shown here is mandated by the US Government. It is located on the top of the tongue of your trailer.

MANUFACTURED E	BY:		DATE:		
GVWR GAWR ALL	KG(KG(LB) LB) PER AXLE WI	гн	TIRE	RIM
AT	KPA(PSI) COLD	SINGLE		
THIS VEHICLE CON	NFORMS TO ALL APP	LICABLE US FEDERAL MOT	OR VEHICLE S	AFETY STANDARDS IN	EFFECT ON
THE DATE OF MAN	UFACTURE SHOWN	ABOVE			
VIN:		TYPE: TRAILER	MODEL:		FD-304 REV A

The Tire and Loading Information Certification shown here is mandated by the US Government. It is located on the passenger side of the tongue of your trailer.



CAUTION:

LOWER STABILIZERS BEFORE USING RAMP TO LOAD OR UNLOAD

RAISE STABILIZERS
BEFORE MOVING TRAILER

Proper operation of the rear stabilizer system is critical to your safety as well as the safety of your tow vehicle and trailer. This label is located on the rearmost chassis cross-member on all enclosed Ironhorse Trailers.

Necessary precautions for all enclosed Ironhorse Trailers.

This label is located on the top of the tongue.

CAUTION

- ** DO NOT LOWER RAMP WHEN WIND EXCEEDS 20 MPH
- ** FACE TRAILER INTO SLOWER WINDS BEFORE LOWERING RAMP

IRONHORSE TRAILERS, INC. LIMITED WARRANTY

IRONHORSE TRAILERS, INC., 5638 Manchester Highway, Morrison TN 37357 (Warrantor) warrants to the ORIGINAL CONSUMER PURCHASER and any subsequent purchaser (Purchaser) for a period of FOUR (4) YEARS from the date of purchase by Original Purchaser, that its Ironhorse Trailer (Product) shall be free of defects in material and workmanship attributable to the Warrantor. Upon the discovery of any such defect in material or workmanship during the warranty period, IRONHORSE TRAILERS, INC. shall repair or exchange the product at its principal place of business. Ironhorse Trailers' obligation under this warranty is strictly limited to the repair or replacement of defects of the Product. Paint applied to the original fiberglass body is not covered under this warranty. Ironhorse does not assume or authorize anyone to assume for them any other obligation. This warranty is null and void if trailer is rented commercially.

THINGS EXCLUDED FROM WARRANTY: Warrantor is not responsible for claims relating to the following: (1) defacing, scratches, dents, chips, and tears on any surface not caused by Warrantor; (2) routine maintenance; (3) damage from unauthorized repairs, abuse, misuse or neglect; (4) damage caused by improper hitch ball or tow vehicle hook up; (5) damage caused to the trailer or its contents caused by failure to heed the safety warnings and cautions for safe operating and transporting; (6) damage caused to a paint job by not following the manufacturer's recommendation of having a gravel shield installed; (7) damage to the trailer or to any of its contents while being used as a rental vehicle; (8) acts of God; and, (9) component parts covered by a separate Supplier Warranty such as warranties from the manufacturer of tires, axles, jacks, locks, couplers, wheel chocks, d-rings, etc. These warranty claims must be presented to their respective component manufacturer for warranty service. Ironhorse Trailers, Inc. reserves the exclusive right to make the final determination of whether or not the Product has been abused or misused by the Purchaser.

PURCHASER'S OBLIGATIONS: Purchaser must complete, sign and return the attached Limited Warranty within fifteen (15) days of original purchase to obtain warranty protection. Any unregistered warranty will be considered null and void after fifteen (15) days of original purchase. Purchaser must notify the Warrantor, at the above address, of any defect within thirty (30) days after it is discovered. Purchaser must pay all service, towing and transportation charges incurred to obtain warranty service.

WARRANTOR'S OBLIGATION: Warrantor shall elect to remedy defects in materials and workmanship caused by Warrantor by repair, replacement or refund, if replacement or repair is not possible. All defective products shall be delivered to Warrantor's address listed above unless prior written approval is obtained from Warrantor. Warrantor may, at its option, select another qualified location for the repair to be completed. Warrantor will not be obligated, in any way, to pay for any repairs made without its specific approval. All costs incurred shipping of the trailer to and from Ironhorse's principle place of business for warranty service shall be borne by the Purchaser, these include, associated hotel, vehicle rental and living expenses. Warrantor shall remedy defects within a reasonable time, not to exceed thirty (30) days after delivery by Purchaser.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES: The Purchaser shall not be entitled to recover from Warrantor any consequential or incidental damages resulting from any defect in the Product. Such damages include, but are not limited to, loss of use of trailer, loss of revenue or other commercial loss, subsequent use of rental equipment, loss of time and inconvenience, and loss of or damage to cargo.

LIMITATION AND DISCLAIMER: Warrantor expressly limits the duration of all implied warranties of merchantability, all implied warranties of fitness for a particular purpose and other implied warranties to the warranty period of two (2) years. The Warrantor expressly disclaims all implied warranty of merchantability and fitness for a particular purpose after expiration of the warranty period. There is no warranty made beyond that contained in this Warranty. No person has authority to enlarge, amend or modify this Warranty.

DESIGN CHANGES: Warrantor reserves the right to change the design of its Product at any time without notice and with no obligation to make corresponding changes in its previously manufactured Product.

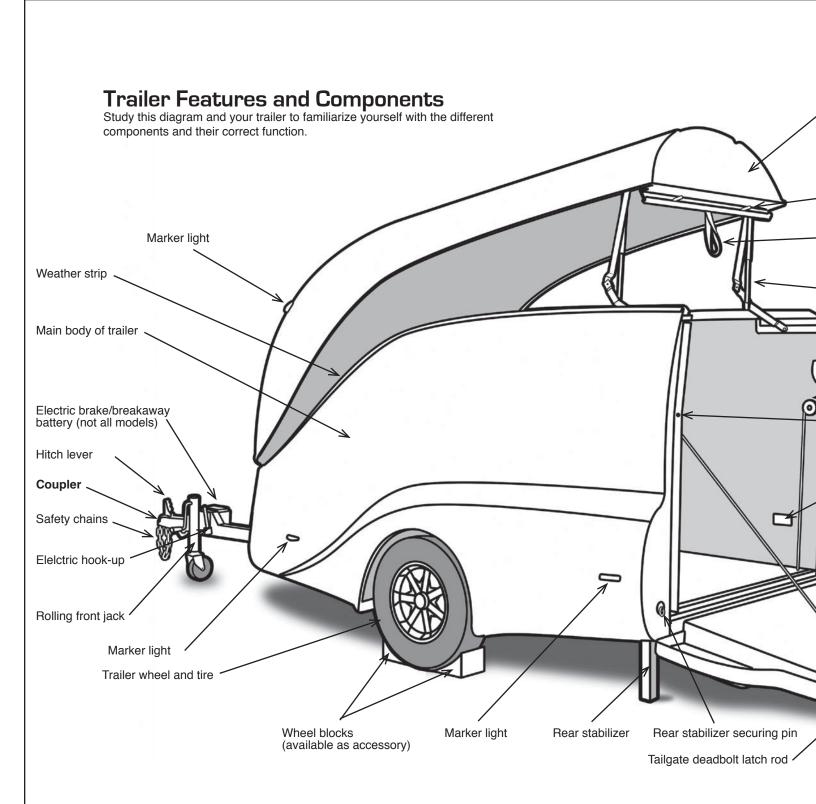
LEGAL REMEDIES OF PURCHASER: This Warranty gives you specific legal rights, and you may have rights which vary from state to state. No action to enforce this Warranty shall start later than six (6) months after the discovery of a defect or after expiration of the Warranty Period.

IN THE EVENT THAT THE IRONHORSE TRAILER (PRODUCT) OR ANY PORTION THEREOF IS NOT INSTALLED OR USED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, ANY AND ALL WARRANTIES AS DESCRIBED ABOVE, EITHER EXPRESS OR IMPLIED, SHALL BE AND ARE HEREBY VOIDED. ONLY UPON THE PROPER INSTALLATION AND USE OF THE PRODUCT SHALL THIS WARRANTY APPLY. BY EXECUTING AND REGISTERING THIS WARRANTY, PURCHASER ACKNOWLEDGES RECEIPT OF THE IRONHORSE TRAILERS SAFETY WARNING INFORMATION AND IRONHORSE TRAILERS OWNERS MANUAL, ATTACHED TO AND MADE PART OF THIS WARRANTY.

IMPORTANT:

Complete the warranty card enclosed with your manual/owners package and mail it within 15 days of purchase to:

Ironhorse Trailers 5638 Manchester Highway Morrison, TN 37110 USA



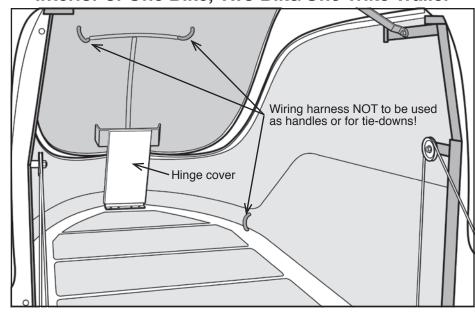
Flip-up top Make sure the pins on the lip of the top are in their corresponding tailgate holes before latching the tailgate.

Lock pins These engage in tailgate when flip-top is down Strap to lower flip-top Raise and lower the top only from the center of the rear – never from only one side. Gas struts and hinge linkages Interior light Will only work when trailer is hitched to tow vehicle with vehicle's lights on. Counter balance cable pulley Holes for tailgate latch rods Access cover for elecrical wiring

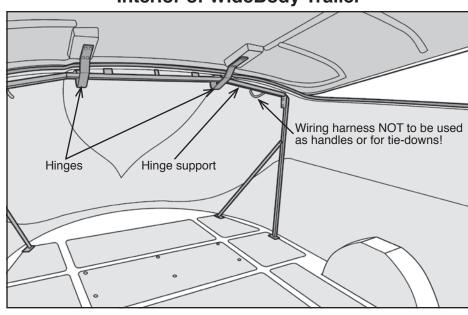
Tailgate counter balance cables Inspect the cable for wear each time the door is opened.

Holes for flip-top lock pins

Interior of One Bike, Two Bike/One Trike Trailer



Interior of WideBody Trailer



Tailgate/loading ramp Always stand clear of the door when opening. Even counterbalanced, the tailgate is heavy so use appropriate lifting techniques to open and close the door. The tailgate can be slippery when wet.

Tow Vehicle Requirements

For trouble free towing, it is essential that your tow vehicle is correctly matched to the Ironhorse trailer you have purchased.

- Match the GVWR of your trailer to the maximum trailer weight allowed for your tow vehicle. See the Tow Vehicle Guidelines table below.
- Match the hitch weight carrying capacity of your tow vehicle with the loaded tongue weight of your trailer.
- Match the size of the brake controller to the number of braking wheels on your trailer.
- Match the electrical wiring of your tow vehicle to the wiring on your trailer. Be sure to check that your tow vehicle has a ground wire running from the receptacle to the frame.
- Match the ball size to the coupler size. We use a two inch ball. Never tow your trailer with an improper size ball. The ball should be lightly greased so the hitch rotates smoothly on it.
- Match the width of your trailer to your tow vehicle. If the overall width of your tow vehicle is considerably less than your trailer, be aware of that and make the necessary allowances when driving.

Tow Vehicle Guidelines Ironhorse trailer specifications				
Ironhorse trailer model	One bike	Two bike/one trike	WideBody	
Hitch class	I & II	II	II	
Empty weight	850 lbs	1050 lbs	1300 lbs	
Axle capacity	2000 lbs	3500 lbs	3500 lbs	
Unloaded tongue weight	60 lbs	80 lbs	100 lbs	
Overall width	6' 8"	8' 4"	8' 6"	
Suggested types of tow vehicle				
Sub-compact & compact cars	X			
Mid-size cars	X	X		
Mid-size pick-ups and SUVs	Х	X	Х	
Minivans	X	X	X	
Full size cars	X	X	Х	
Full-size pick-ups and SUVs	X	X	X	
Full-size vans	Х	X	Х	

The total weight of your trailer should be less than the maximum trailer weight allowed for your tow vehicle.

The actual GVW is the weight of the empty trailer plus the weight of the motorcycle(s) being carried.

Example: a Two bike trailer weighs 1050 lbs empty, one bike weighs 560 lbs, the second bike weighs 720 lbs.

1050 + 560 + 720 = 2330 lbs This is under the maximum axle capacity of 3500 lbs

You match this figure to the maximum trailer weight allowed for your vehicle.

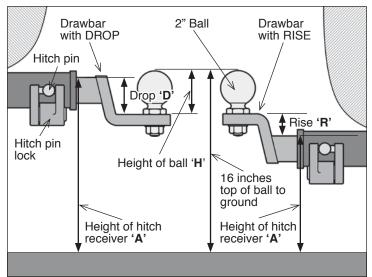
Calculate your own loaded trailer weight

Weight of empty trailer	lbs
+ Weight of 1st bike	lbs
+ Weight of 2nd bike (if carried)	lbs
= Total weight of loaded trailer	lbs

Getting Ready to Tow Your Ironhorse Trailer

Hitches

Already have a hitch on your vehicle? You'll need a drawbar with a 2" diameter ball and the correct drop or rise for the top of the ball to be 16" above the ground (see diagrams below).



If you don't have a hitch, get one installed with the correct drawbar. To calculate what type of draw bar you need see examples below:

For vehicles requiring a DROP drawbar

Example:

Height of ball 'H' = 4", Height of hitch receiver 'A' = 20" 16" - 4" ('H') = 12" 20" ('A') - 12" = **8" DROP** ('D')

For vehicle requiring a RISE drawbar

Example:

Height of ball 'H' = 4", Height of hitch receiver 'A' = 8" 16" - 4" ('H') = 12" 12" - 8" ('A') = **4" RISE** ('R')

Electrical Connectors

Ironhorse trailers with electric brakes need a round 7 pin trailer receptacle and a brake actuator. Ironhorse trailers with no electric brakes use a flat 4 pin receptacle. 7 to 4 pin adapters are available.



If your vehicle is already equipped with a 7 or 4 pin receptacle, check your owner's manual that the correct fuses are in place and operational.

Factory Tow Packages - Check with a Trailer Hitch Install or RV Center to ensure that your vehicle's factory tow package can be configured and is compatible with the Ironhorse trailer you have purchased. We recommend that a Trailer Hitch Install or RV Center sets up the electric brake controller and checks its operation.

Breakaway and Security systems

If your Ironhorse trailer has a breakaway system (it automatically engages the trailer brakes should trailer become detached from tow vehicle), a small battery will charge each time trailer is used.

Electrical cont.

All your lights must work to be legal and safe. The weakest link are the connectors – they can corrode and need occasional attention to keep the system working. When cleaning the connectors, be careful not to short them out. Electric brakes also run through this connector. Have an observer confirm your brake lights, blinkers and running lights are working properly each time you hook up. Your tow vehicle must have the correct plug at the rear and must be connected to the correct tow vehicle circuits for the vehicle to correctly tow the trailer. Trailers equipped with brakes have a 7-way round plug and all other trailers have a flat 4-way plug.

It is very important that there be a ground wire from your tow vehicle's connector to its frame. Hitches, safety chains or ball couplers will not provide an adequate ground for your trailer. If an auxiliary battery is added to your trailer, a fuse should be installed between the battery and the trailer.

4 Way Plug		
Wire color	Function	
Green	R/H Turn and Stop Light	
Yellow	L/H Turn and Stop Light	
Brown	Running Lights	
White	Ground	

7 Way Plug			
Pin label color	Function	Ironhorse wire color	
1 White	Ground	White	
2 Blue	Electric brakes	Black	
3 Green	Running Lights	Brown striped	
4 Black	Breakaway Battery	Red	
5 Red	L/H Turn and Stop Light	Yellow	
6 Brown	R/H Turn and Stop Light	Green	
7 Yellow	Auxillary	None	

Electric Brake Axle/Breakaway Battery

Your vehicle must be equipped with an electric brake actuator for your electric trailer brakes to operate. Refer to your Dexter Axle Operation Maintenance Service Manual for general maintenance.

DO NOT ATTEMPT TO OPEN BATTERY BOX!

Electric Brakes

Before each trip, be sure to check and test the battery and breakaway box for proper charge and operation. Before connecting the electrical system to the tow vehicle, press the test button on your breakaway box. A green light will indicate the battery is charged. The breakaway cable must be connected to the tow vehicle; NOT to the coupler ball or the safety chains.

PLEASE NOTE: ATTACHING AND DETACHING THE TRAILER WIRING HARNESS WITH THE VEHICLE RUNNING CAN CAUSE FUSES IN YOUR VEHICLE TO BLOW.

Breakaway System (not on all Ironhorse models)

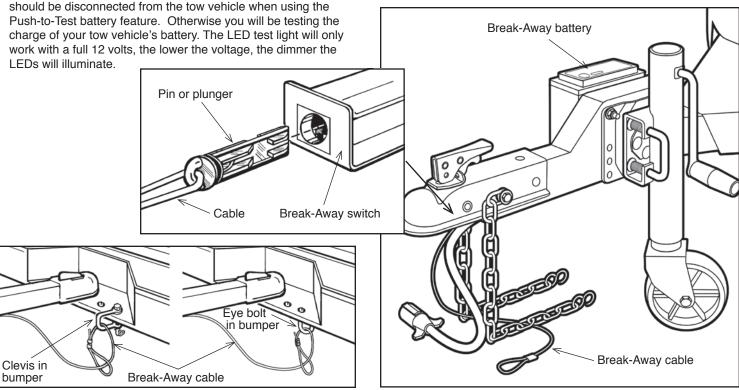
Ironhorse Trailers equipped with electric brakes also have The Engager® Break-Away system installed. This is designed to bring the trailer to a stop by activating the electric brakes should the trailer become disconnected from the tow vehicle while in motion. The following instructions must be precisely followed to ensure proper operation of the Break-Away system.

Operating Instructions

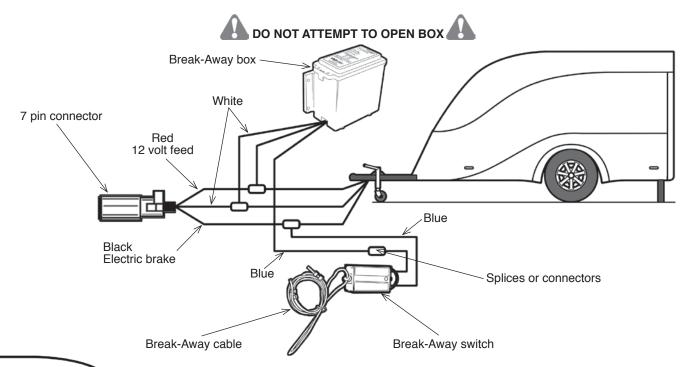
Unit must be charged before testing or use

1) Test your Break-Away Kit before each outing. The trailer plug should be disconnected from the tow vehicle when using the Push-to-Test battery feature. Otherwise you will be testing the work with a full 12 volts, the lower the voltage, the dimmer the

- 2) Test by pulling firmly on the cable of Break-Away Switch. Battery will activate brakes. Note: DO NOT use this kit as a parking brake.
- 3) Once tested, Break-Away cable should be secured to the vehicle bumper or frame. The cable can be attached in many different ways. Two of the most common are illustrated. Note: plunger should always be facing the rear of tow vehicle directly behind where you secure the cable to your tow vehicle. Any other angle may cause Break-Away switch failure.



The Engager™ Break-Away Wiring



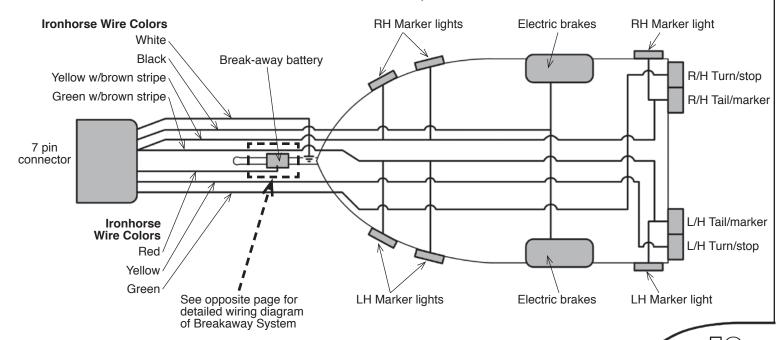
Ironhorse Trailer Specifications

	One bike	Two bike/one trike	WideBody
Total length	15' 4"	15' 4"	16' 0"
Body length	12' 6"	12' 6"	13' 6"
Outside width at fenders	6' 8"	8' 4"	8' 6"
Inside width at wheel well	5' 0"	6' 8"	6' 8"
Tailgate opening width	4' 4"	5' 10"	7' 6"
Tailgate length	4' 4"	4' 4"	4' 4"
Interior height (top down)	5' 2"	5' 2"	5' 3"
Overall, outside height	6' 7"	6' 7"	6' 9"
Deck (floor) height above ground	1' 2"	1' 2"	1' 3"
Empty weight	850 lbs	1050 lbs	1300 lbs
Unloaded tongue weight	60 lbs	80 lbs	100 lbs
Axle capacity	2000 lbs	3500 lbs	3500 lbs
Tire size	ST205/75R14C	ST205/75R14C	ST225/75R15D

Lighting and Brake Trouble Shooting Guide

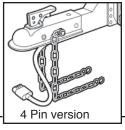
	- N	\A(:	0-1
Function		Wire Color	
4 Pin	7 Pin	Ironhorse	7 Pin label
XXXXX	Electric brake	Black	2 Blue
R/H Turn/Stop	R/H Turn/Stop	Green	6 Brown
L/H Turn/Stop	L/H Turn/Stop	Yellow	5 Red
Ground	Ground	White	1 White
L/H Marker/Tail	L/H Marker/Tail	Green w/Brown stripe	3 Green
R/H Marker/Tail	R/H Marker/Tail	Yellow w/Brown stripe	3 Green
XXXXX	Breakaway battery	Red	4 Black
XXXXX	Auxilary	XXXXX	7 Yellow

7 Pin Wiring DiagramTo make diagram clearer, the white ground wires from each component are not shown. These white ground wires terminate on the metal frame. Refer to above table for 4 pin wire colors.

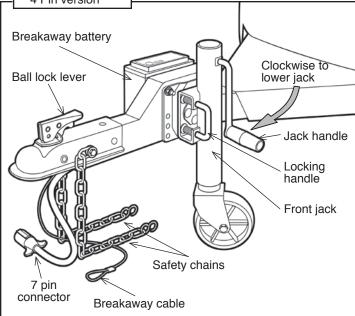


Getting Ready to Tow Your Ironhorse Trailer

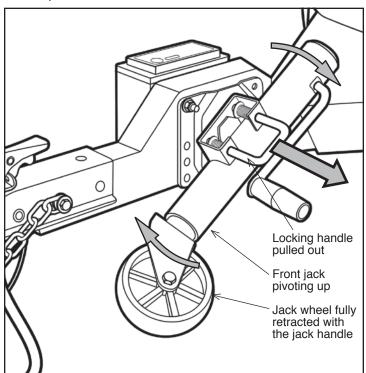
4 Pin and 7 pin coupler components



If your ironhorse trailer has electrically operated brakes and a breakaway system, it will have a 7 pin wiring connector. Trailers without these features have the more common 4 pin connector. Familiarize yourself with these components and how they function.

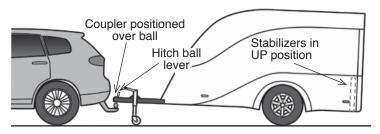


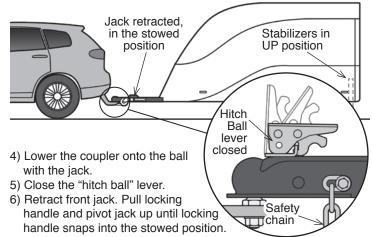
Get familiar with how the front jack swivels up into the stowed or towing position. Make sure the locking handle pins engage fully in the lock pin holes.



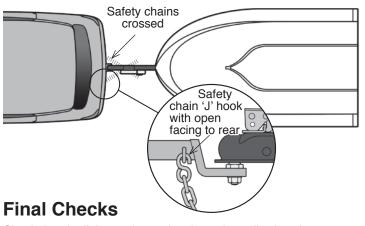
Hitching your trailer to your tow vehicle

- 1) Make sure stabilizers are in the UP position.
- 2) Jack up coupler high enough to clear ball on tow vehicle and be sure the hitch ball lever is in a vertical, open position.
- Either move the trailer to the tow vehicle or back up the tow vehicle to the trailer. Position coupler directly over the ball on the tow vehicle.





- 7) Connect safety chains (see diagram below) and breakaway cable. Make sure the ignition is OFF before connecting the electrical connector; failure to do this could blow a fuse.
- 8) Check operation of lights and check your trailer's tailgate is closed, locked and secure.
- 9) Remove exterior wheel blocks, if used and stow them.



Check that the lights and turn signals on the trailer function correctly. Check the electric brake controller is working and that the breakaway battery is charging, look for yellow light. For information on loading and securing your motorcycle, see page ?

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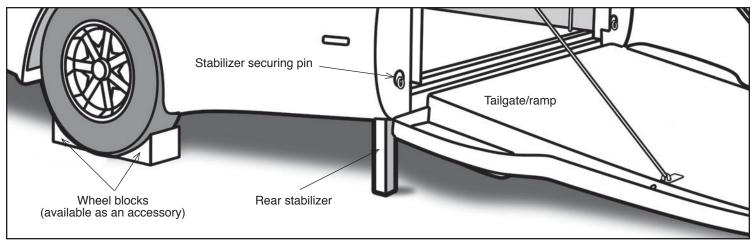
Loading Your Ironhorse Trailer

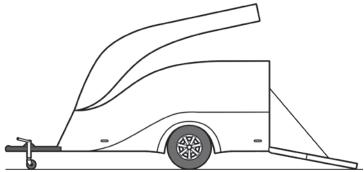
Rear Stabilizers

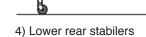
Your Ironhorse trailer is equipped with rear stabilizers. When operated correctly, these enable the trailer to be loaded and unloaded when not hiched to a tow vehicle. This feature allows the trailer to be used as a free standing "garage." These rear stabilizers can be accessed when the tailgate/ramp is lowered. The stabilizers are secured with locking pins. A series of holes in the stabilizer enables you to adjust the depth you lower them by. The locking pins should pass all the way through the stabilizer,

fitting flush against the vertical wall of the trailer.

The rear stabilizers are NOT jacks—they are stabilizers. Block tires before using rear stabilizers. Not blocking the tires may result in failure of the stabilizers, property damage and personal injury. Both rear drop stabilizers must be lowered before using the loading ramp if the trailer is not attached to a tow vehicle. Both rear drop stabilizers must be raised before towing. Failure to raise the stabilizers prior to towing will cause significant damage to the trailer.

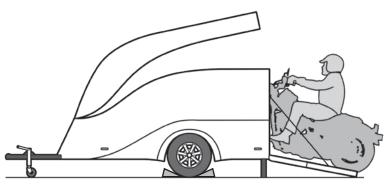


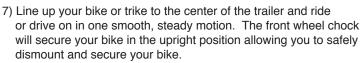




- Park trailer on level ground
 Use jack to elevate front
- 3) Lower tailgte/ramp

- 5) Raise front jack SLIGHTLY to put tension on jack and stabiliers
- 6) Block both wheels with wheel blocks





9)The rear stabilizers are NOT jacks they should NEVER be used to raise the wheels off the ground. Both rear stabilizers MUST be raised before towing. Failure to raise the stabilizers prior to towing will cause significant damage to the trailer.

8) Lower front jack to take pressure off stabilizers.



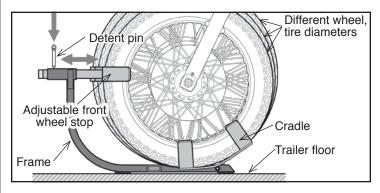
Make sure rear stabilizers are fully retracted before towing



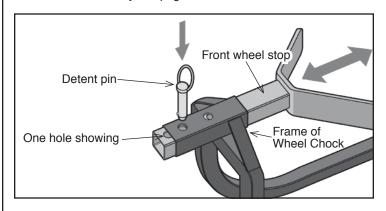
Adjusting Wheel Chock

The Wheel Chock can be easily adjusted to suit a wide variety of wheel/tire diameters; see diagram below.

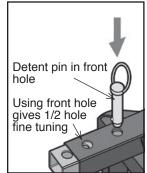
CAUTION: Ironhorse Wheel Chocks may not work with "taildragger/tire -hugger" front fenders. Putting this type of motorcycle into an Ironhorse Wheel Chock may cause damage to the fender. Check your motorcycle carefully! Make sure no portion of the front fender is lower than 6" from where the front tire touches the road.

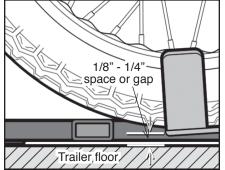


- 1) Insert the detent pin into the main body of the Wheel Chock securing the front wheel stop with one hole exposed. (see diagram below).
- 2) Roll your motorcycle front wheel into the Wheel Chock. The front tire will be "wedged" by the front stop and the rear cradle. These will hold the motorcycle upright in the Chock.



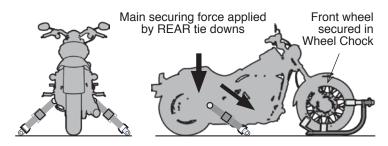
- 3) With an assistant, check to see there is approx. 1/8" 1/4" of space or gap between the bottom front of the cradle and the floor of the trailer or garage. See diagram below right.
- 4) If the space or gap is not correct, have an assistant rock the front wheel backwards or forwards to obtain correct clearance.
- 5) When you have correct adjustment, secure front stop with pin.



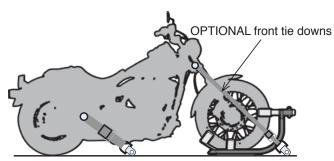


Motorcycle Tie-Down Instructions

Make sure both rear anchor points are approximately 45° IN FRONT of the tie-down attachment points on motorcycle, see diagram below.



- 1) Ride or push motorcycle to secure front wheel in Wheel Chock.
- 2) Use two inch ratchet style tie downs to tie down your motorcycle as shown above. The lower ends of the tie downs should be attached to D rings in the floor. The upper ends should be attached to the motorcycle's frame OR to points NEAR the frame on fixtures rigidly attached to it—like upper shock mounts, passenger peg brackets, bag guards, etc. **NEVER** attach these two tie downs to the swing arm of your motorcycle. Once these two tie downs are properly attached, tightening them will pull the motorcycle FORWARD and downward against the wheel chock's cradle partially compressing both the front & rear motorcycle suspension.



- 3) Front tie downs are not needed when using a Wheel Chock. If you must use them for "peace of mind", 1 inch ratchet style are suitable.
- 4) Only lightly tighten the front tie downs. The Wheel Chock and the rear tie downs secure the motorcycle.

Excessive tightening of front tie downs will loosen the rear ones destabilizing the motorcycle.

NEVER transport a motorcycle using only front tie downs.

WARNING

Read these instructions carefully and make sure you fully understand them. This is important if you have never used a Ride in/Step Off Wheel Chock before as it works in a different way to how you would normally secure a motorcycle.

Before loading a motorcycle into your Wheel Chock make sure the Chock is securely attached to the trailer floor. Make sure the trailer is securely hitched to the tow vehicle or that the rear stabilizers are down and the wheels chocked.

NEVER drive away without tying down your motorcycle!

Ironhorse Wheel Chocks are only designed to hold your motorcycle without tie downs when the trailer is stationary and level.

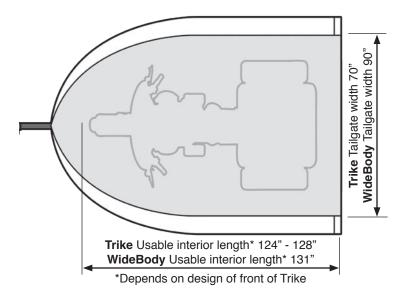
On 1500 Honda® Goldwing® DO NOT use the rear bag guards to tie down the motorcycle. Doing so will pull the guards off!

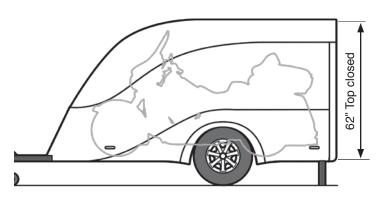
> **NEVER TRANSPORT A MOTORCYCLE USING ONLY FRONT TIE DOWNS.**

When using power tools make sure you follow the manufacturer's directions, always wear eye protection.

Trike or Spyder® Loading and Tie-Down Instructions Will it fit?

The diagrams below show the INTERNAL useable dimensions of an Ironhorse Trike and Ironhorse WideBody trailers.

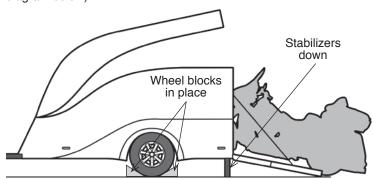




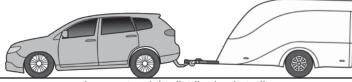
Carefully measure the outside dimensions of your Trike or Spyder® and compare with the diagrams above. Remember, Trikes carry more wieght behind the seat than an equivalent bike. For the correct trailer weight distribution, they have to be positioned further forwards in the trailer.

Loading

The integral loading ramp and hinged roof make loading your Trike or Spyder® a hassle free, simple operation. Built-in rear stabilizers allow you to load and unload when not hitched to a tow vehicle. When choosing this option, always block the trailer wheels (see diagram below).

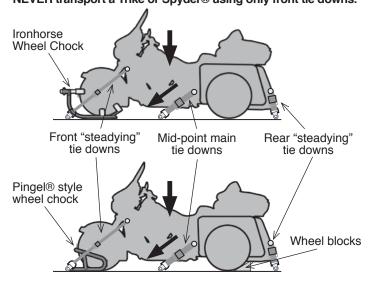


As previously mentioned, generally a Trike or Spyder® has to be secured further forward in the trailer compared to a motorcycle to achieve the correct trailer weight distribution. Having too much weight at the rear of the trailer "un-weights" the tow vehicle's rear wheels causing "fishtailing" and general instability (see below).



Incorrect weight distribution in trailer

- 1) Ride Trike or Spyder® in to secure front wheel in Wheel Chock. Put vehicle in 1st gear and apply emergency brake (if fitted).
- 2) Use two inch ratchet style tie downs to tie down your Trike or Spyder® as shown below. The lower ends of the tie downs should be attached to D rings in the floor. The upper ends should be attached to the Trike or Spyder® frame OR to points NEAR the frame on fixtures rigidly attached to it—like shock mounts, passenger peg brackets, bag guards, etc. Once these two MID tie downs are properly attached, tightening them will pull the Trike or Spyder® FORWARD and downward against the wheel chock's cradle partially compressing both the front & rear Trike or Spyder® suspension. Attach 2 tie downs to rear of vehicle as "steadys". NOTE: If using a Pingel® style (non locking) wheek chock, rear wheel blocks will be needed as shown in diagram.
- 3) Only lightly tighten the front and rear tie downs. The Wheel Chock and the mid tie downs secure the motorcycle. Excessive tightening of front and rear tie downs will loosen the mid ones destabilizing the Trike or Spyder® NEVER transport a Trike or Spyder® using only front tie downs.



WARNING

Read these instructions carefully, make sure you fully understand them. Before loading a Trike or Spyder® into your Ironhorse Trailer make sure the Chock is securely attached to the trailer floor. Make sure the trailer is securely hitched to the tow vehicle or that the rear stabilizers are down and the wheels blocked.

Never drive away without securing your Trike or Spyder®!

NEVER transport a Trike or Spyder®

using only front tie downs.

Tires

Refer to the tire pressure chart below for proper inflation. Invest in a god quality tire pressure gauge. Inspect tires before each trip and when you gas up. A tire that is getting low will be hotter to the touch than the others. Under-inflated tires decrease your gas mileage and increase strain on the tow vehicle. The most common causes of tire failure are overloading and under inflation.

Proper air pressure for your tires is printed on the tire. Check air pressure while tires are cold. Excessive wear and tire failure will result if recommended pressure is not maintained. Improper tire pressure can result in a blowout and loss of control, which can lead to death or serious injury. If a tire has a bald spot, bulge, cuts that show cords, or cracks, replace the tire before towing.

PLEASE NOTE:

WHEN TRANSPORTING/SHIPPING OUR TRAILERS,
WE REDUCE THE TIRE PRESSURE TO AVOID EXCESSIVE BOUNCING.
INFLATE TIRES TO THE PROPER PSI PRIOR TO USE.

Recommended Tire Pressures				
Air pressure taken when tire is COLD				
Ironhorse trailer model One bike Two bike/one trike WideBody				
Empty	35 PSI	45 PSI	55 PSI	
Loaded	45 PSI	50 PSI	65 PSI	
Tire Sizes				
Ironhorse trailer model	One bike	Two bike/one trike	WideBody	
Tires must Special Trailer type	ST205/75R14C	ST205/75R14C	ST225/75R15D	

Proper care of tires

Infrequent use is the number one enemy of trailer tires, and heat is enemy number two. The good news is that according to all reports, Ironhorse Trailers behave well even during catastrophic tire failure.

Infrequent use

Storing/parking the trailer for long periods of time leads to a tire condition commonly called "dry rot." Some dry rot is visible - narrow random cracks in the surface of your tires. But you can't tell how deep the cracks are, and hence, how dangerous they are. While most people understand that unused tires eventually develop dry rot, not everybody understands that infrequently used tires dry rot quickly. Raising your tires off the ground or putting wood blocks between your tires and asphalt or concrete may slow down dry rot, although it won't entirely prevent it. If you do not use your trailer on a regular basis, replace the tires at least every 3 years, irrespective of tread wear.

Heat

As tires and the air inside them get hot, the harder that air searches

for a weak spot. So what makes tires get hotter? Black asphalt and 100 plus degree temperatures, trailers loaded near or beyond the design weight, excessive speed, rough roads and especially under-inflated tires are a recipe for trouble.

Under-inflation

When tires roll, the sidewalls flex and the flimsier the sidewall, the more they flex building up heat in the tire carcass. That's why Special Trailer (STxxx) tires must be used for trailers instead of Passenger Tires (Pxxx). Special Trailer tires have much stronger sidewalls, with less flex, less heat build-up. The heavier the load at a given level of inflation, the more the sidewalls flex. Likewise, the heavier the load, the rougher the road and the faster you drive with given levels of initial inflation and outside temperatures, the more the tires flex and the hotter they get - often resulting in failure.

Maximum recommended towing speed for trailers with ST tires is 65mph

Seven steps to blow-out free trailering

- 1) If your trailer tires are over three years old and your trailer stays parked for weeks at a time, replace them.
- 2) If you park your trailer for more than 30 days, put wood blocks between the tires and the concrete or asphalt.
- 3) If your trailer has been parked for more than 30 days, check tire pressure before driving it.
- 4) Adjust your initial inflation tire pressure to match your load and the outside temperature.
- 5) Adjust your speed to match the load in your trailer, for example: 10-15 mph slower for two big motorcycles than one small dirt bike.
- 6) Adjust your speed to match the roughness of the road and the outside temperature. Slow down if the road is extremely rough or if it is extremely hot outside. Slow down even more if both conditions apply.
- 7) Every time you stop, feel the treads of your trailer tires and your tow vehicle tires. If your trailer tires are hotter than your tow vehicle tires, slow down.

Wheels and Bearings

You must maintain, inspect and properly lubricate the trailer wheel bearings. Wheel lug nuts should be tightened with a torque wrench and checked after 100 miles of initial towing and then every 3,000 miles. Refer to the chart below for proper torque. Lube and check the condition of the bearings every 12,000 miles. For this

procedure, refer to Dexter® Axle Operation Maintenance Service Manual included as part of your Owner's Package. Recheck any wheel that has been removed and replaced after towing the first 100 miles. Do not drive a loaded trailer with a missing lug nut or damaged lug bolt. A hot bearing needs immediate attention!

Wheel Information and Lug Nut Torque				
Ironhorse trailer model One bike Two bike/one trike WideBody				
Lug nut torque - Aluminum wheel	70 - 85 ft lbs	70 - 85 ft lbs	80 - 100 ft lbs	
Wheel Size (rim size)	14 inch	14 inch	15 inch	
Bolt Pattern 5 x 41/2" - 0" offset 5 x 41/2" - 0" offset 5 x 41/2" - 0" offset				

Dexter® Axle E-Z Lube® Lubrication

These instructions, along with a detailed diagram, are located on page 52 of the Dexter Axle Operation Maintenance Service Manual, included as part of your Owner's Package.

Remove the rubber plug from the end of the grease cap. Place a standard 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. Pump grease into the fitting. The old displaced grease will begin to flow back out the cap around the grease gun nozzle. When the new clean grease is observed, remove the grease gun, wipe off any excess, and replace the rubber plug in the cap. Rotate hub or drum while adding grease.

Note: The E-Z Lube® feature is designed to allow immersion in water.

Dexter Axle Limited Warranty

(Full text located on page 79 of the Dexter Axle Operation Maintenance Service Manual)

WHAT PRODUCTS ARE COVERED: All Dexter trailer axles, suspensions, and brake control systems.

LIMITED 2 YEAR WARRANTY: Dexter Axle warrants to the original purchaser that its axles, suspension systems, and Predator SeriesTM E/H hydraulic brake actuators shall be free from defects in material and workmanship for a period of two (2) years from the date of first sale of the trailer incorporating such components.

LIMITED 5 YEAR WARRANTY: Dexter Axle warrants to the original purchaser that its Nev-R-LubeTN bearings and the suspension components only of it's TorflexR axles shall be free from defects in material and workmanship for a period of five years from the date of first sale of the trailer incorporating such components.

EXCLUSIVE REMEDY: Dexter Axle will, at its option, repair or replace the affected components of any defective axle, repair or replace the entire defective axle, or refund the then-current list price of the axle. In all cases, a reasonable time period must be allowed for warranty repairs to be completed. Allowance will only be made for installation costs specifically approved by Dexter Axle.

WHAT YOU MUST DO: In order to make a claim under theses warranties: You must be the original purchaser of the vehicle in which the TorflexR Axles were originally installed. You must promptly notify us within the warranty period of any defect and provide us with any substantiation that we may reasonably request. The axles or suspensions must have been installed and maintained in accordance with good industry practice and any specific Dexter Axle recommendations, including those specified in Dexter Axle's publication "Operation, Maintenance Service Manual."

EXCLUSIONS: These warranties do not extend to or do not cover defects caused by: The connecting of brake wiring to the trailer wiring or trailer wiring to the towing vehicle wiring. The attachment of the running gear to the frame. Hub imbalance, or any damage caused thereby. Parts not supplied by Dexter Axle. Any damage whatever caused by or related to any alteration of the axle including welding supplemental brackets to the axle. Normal wear and tear.

Alignment. Improper installation. Use of an axle on a unit other that the unit to which it was originally mounted. Unreasonable use (including failure to provide reasonable and necessary maintenance as specified in Dexter Axle's publication "Operation, Maintenance Service Manual" including required maintenance after "Prolonged Storage"). Improper wheel nut torque. Cosmetic finish or corrosion. **LIMITATIONS:** In all cases, Dexter Axle reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the then-current list price of the defective axle (or if the axle has been discontinued, of the most nearly comparable current product). Dexter Axle reserves the right to furnish a substitute or replacement component or product in the event an axle or any component of the axle is discontinued or is otherwise unavailable.

These warranties are non-transferable.

GENERAL: THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXCEPT THAT OF TITLE, WHETHER WRITTEN, ORAL OR IMPLIED, IN FACT OR IN LAW (INCLUDING ANY WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE).

These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THE EXPRESS WARRANTIES HEREIN. DEXTER AXLE HEREBY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF TIME, INCONVENIENCE, LOSS OF USE, TOWING FEES, TELEPHONE CALLS OR COST OF MEALS, FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

Inquiries regarding these warranties should be sent to: Dexter Axle, P.O. Box 250 Elkhart, Indiana 46515, USA

Additional Care and Maintenance Instructions

Fiberglass Exterior: Wash your trailer thoroughly when you get it and put a good coat of UV blocking wax on it. Repeat the wax job a couple of times per year. If you leave your trailer in the sun and it eventually dulls, you can bring it back to near new condition by buffing it with a fiberglass boat rubbing compound. If your white Ironhorse receives body damage, take it to a boat repair shop, or a body shop that specializes in Corvette repair.

Painted Exterior: Wait until thirty (30) days to apply wax to your painted Ironhorse. After the initial waxing, we recommend that you wax your trailer once every six months. If you incur body damage to a painted trailer, find an auto collision shop with Corvette experience.

Plastic Gravel Shield (used on the front of painted trailers): Use white vinegar to remove bugs. Do NOT use any abrasives, rubbing compounds or car paint polish as it will scratch the gravel shield. If needed, you can use a plastic polish. Regular waxing will deflect build up and remove small surface scratches.

Diamond Plate: Water clean and air dry. If you scratch or water stain the surface, it will not come out.

Aluminum Rims: Your aluminum rims are clear-coated to protect the finish and provide ease in cleaning. Use a gentle cleaning agent for your rims, and never use a cleaner that contains lye or acid-based solvents. These cleaners will damage the finish of your rims.

Lug Nuts: Check for correct torque every three months, do not over torque.

Lock mechanisms: Lubricate with regularly WD40.

D-Rings: Damaged or loose D-rings can break, allowing cargo to shift the center of gravity and result in loss of control. Be sure to check the D-rings before every trip.

Coupler: Check the coupler for fatigue, damage, cracks or missing parts before towing.

Coupler Lock: For your safety, it is strongly recommended that you use the coupler lock provided when your trailer is hooked to your tow vehicle. Please note: the keys provided with your coupler lock are the only keys that will work in that lock – no replacements are available.

Hitch Ball: The ball should be lightly greased so the hitch rotates smoothly on it.

Breakaway Battery: Refer to the Dexter Axle Operation Maintenance Service Manual for General Maintenance – Electric Brakes. Before connecting the trailer harness to your tow vehicle, test the breakaway box for a proper charge. Then connect the trailer harness to your tow vehicle and pull the breakaway pin to test the automatic braking action. The breakaway cable must be connected to the tow vehicle in direct line with the breakaway switch; NOT to any part of the hitch or chains. Refer to the Engager™ Break-Away Box information in your Owner's Package.

Ironhorse Trailers' Wheel Chock: If your trailer did not come with an Ironhorse Wheel Chock(s) and you wish to instal one, refer to Ironhorse Installation Instruction sheet.

If you need replacement parts for your trailer please call us. We'll send you the parts with instructions for installation (if applicable) and bill you for the cost of the parts plus a nominal shipping and handling fee.

Instructions for Painting Your Ironhorse Flip-Top Trailer

If you purchased a white gelcoat Ironhorse and want to have it painted, find a qualified professional painter. The best paint jobs are done by professional automotive repair shops or shops that work on Corvettes. Any shop you are considering should have a paint booth and bake oven, and it should be CLEAN—no dust, dirt and debris! A good paint job is expensive, so look carefully, check references, and look at samples of paint jobs done by the shops you are considering.

We strongly recommend invisible gravel shield to protect the front and fenders after painting. Finally, we use a softer trim on the top edge of painted trailers. Call us for pricing or to order.

Here's the process we use for paint jobs

(copy this and provide it to your painter!)

- 1) Remove all trim, pin striping, rubber bumpers, and lights
 - If your painter wants to remove the top of a 1 or 2 bike Ironhorse, do it this way:
 - A) Remove the bolts that hold the front hinge to the floor.
 - B) Disconnect the gas springs at the rear.
 - C) Remove the bolts holding the hinge support arms to the upright frame member.
 - D) Remove the entire unit consisting of the top and hinge mechanism.
 - E) Support the top on racks when it is off the trailer.

- 2) Prep and paint trailer.
- 3) Reinstall rubber bumpers, lights, trim, and the top.

If your painter is installing invisible gravel shield the trailer must sit for at least 72 hours prior to gravel shield installation. Failure to allow the paint to breathe will result in bubbles in the gravel shield.

Maintenance Log

We recommend you record your mileage every time you use your trailer
and keep accurate records of maintenance performed

	and keep accurate records of maintenance performed.	İ
Date	Service performed	Mileage
	·	.
		-



IRONHORSE TRAILERS, INC. 5638 Manchester Highway, Morrison, TN 37357, USA