

- SUPER HITCH -SUPER TRUSS EXTENSION

IMPORTANT OWNER-OPERATOR INSTALLATION INSTRUCTIONS

D1102/SH04DGFR

APPLICATION FITS 03-08 DODGE 2500/3500 HD LONG OR SHORT BED WITH FACTORY INSTALLED RECEIVER

PLEASE GIVE THIS BOOKLET TO YOUR CUSTOMER AS IT CONTAINS CRITICAL OPERATOR INFORMATION



INSTALLATION INSTRUCTIONS 03 - 08 DODGE 2500/3500 HD WITH FACTORY INSTALLED RECEIVER HITCH

WARNING: DO NOT LUBRICATE THREADS, BOLT FAILURE MAY OCCUR DUE TO OVERTIGHTENING. DO NOT DRILL ON THIS HITCH.

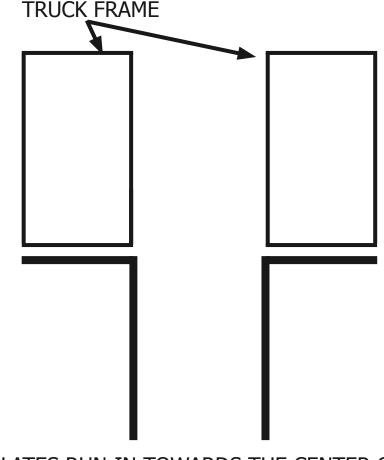
NOTE: THIS PRODUCT IS NOT RECOMMENDED FOR USE ON A 1/2 TON VEHICLE.

NOTE: DO NOT REMOVE FACTORY HITCH!!!

WARNING: It is **VERY IMPORTANT** that you read and follow installation instructions on this particular installation. Be sure to identify and familiarize yourself with the hitch and all hardware. Any modification to this hitch will **VOID** your warranty!!!

D1102 PARTS LIST

- 2 FRAME SIDE PLATES
- 1 SINGLE RECEIVER CROSS TUBE
- 10 1/2" x 2" GRADE 8 HEX BOLTS
- 20 GRADE 8 NUTS
- 6 2" X 2" X 5/16" PLATE WASHERS WITH CENTER HOLE
- 2 2" X 2" X 5/16" PLATE WASHERS WITH OFFSET HOLE
- 8 1" X 2" 1/4" PLATE WASHERS
- 16 1/2" FLAT WASHERS
- 20 1/2" LOCK WASHERS
- 2 1/2" x 2" ROUND PLATED FLAT WASHERS
- 8 1/2" x 1 1/2" GRADE 5 RIB NECK BOLTS
- 2 1/2" X 1 1/2" GRADE 5 HEX BOLTS
- 2 8 1/2" X 2 1/2" SIDE STRAPS
- 1 1/2" BOLT FISHER
- 2 5/8" PIN AND CLIP

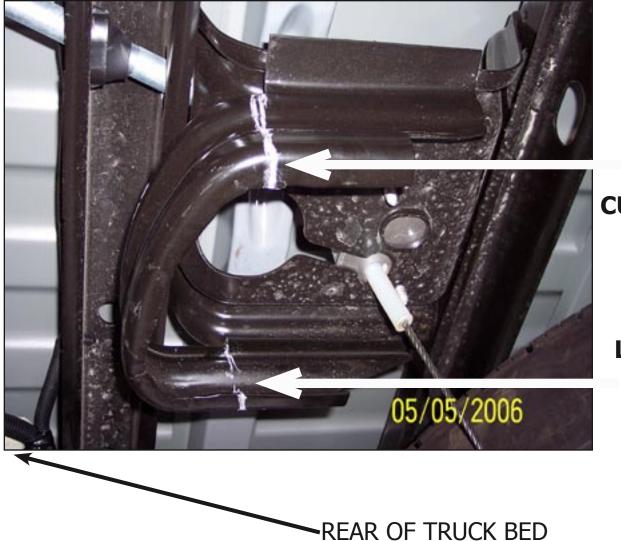


SUPERHITCH PLATES RUN-IN TOWARDS THE CENTER OF THE TRUCK FRAME IN THIS APPLICATION

SHORT BED SPARE TIRE ADDENDUM

On short bed models fitted with 17" tires and wheels, the spare tire will stow away approximately 2" lower than it's original position. This lower storage height has been tested and does not present any ground, exhaust or differential clearance issues.

In the event that the original spare tire stowage position is preferred, the spare tire locator loop can be removed. Simply remove the loop by cutting on the marks shown below. Apply a good quality rust inhibiting paint to the cut edge and reinstall the spare tire.



CUT POINTS TO REMOVE SPARE TIRE LOCATOR

PLATE WASHER GUIDE

Offset hole plate washer



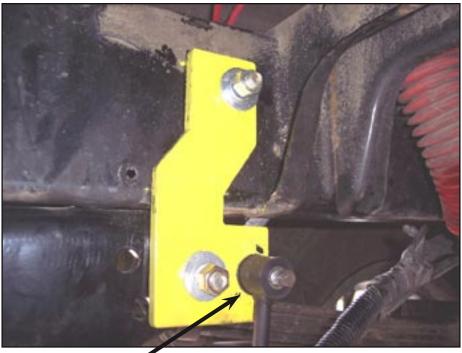
Center hole plate washer



Offset hole plate washer will be installed into the frame in the oversized factory hole on the bottom rear of the frame (Hole #3).

Center hole plate washer will be used for the oversized hole in the bottom of the frame towards the front of the truck (Hole #2), the side of the truck frame (Hole #1), and as a spacer between the SuperHitch frame plate and 8 $1/2'' \ge 1/2''$ side straps.

SWAYBAR ADDENDUM



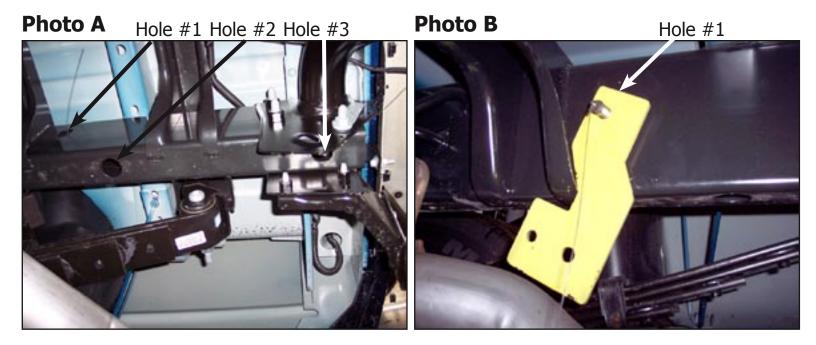
Hellwig swaybar attachment

If you are equipping your truck with an Hellwig swaybar, install as seen above.

SHORT BED ADDENDUM PASSENGER SIDE

Fastener in this location for a short bed





1. Temporarily remove spare tire.

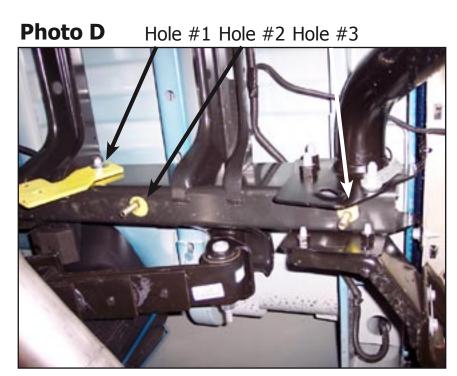
2. Beginning on the passenger side, fish a $2'' \times 2'' \times 5/16''$ center hole plate washer (see washer guide on page 4) and $1/2'' \times 2''$ hex bolt through Hole #1 (see bolt fishing guide on page 12). All bolt assemblies will be fished through the lower part of the open end of the truck frame.

Note: By putting your hand into the end of the truck frame, you will notice an opening at the top and the bottom of the frame. All bolt assemblies fished into the frame MUST pass through the lower opening.

3. Carefully slide an 8 1/2'' side strap onto the bolt fisher line and onto the bolt . Remove the bolt fisher and loosely install one flatwasher, lockwasher, and nut. See Photo B.

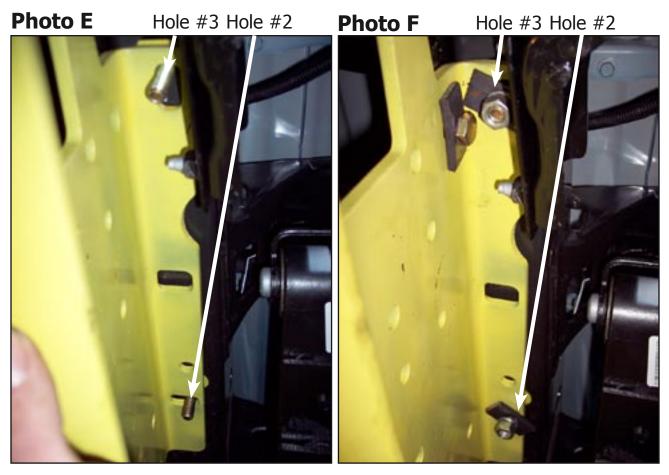
Photo C





4. Repeat the bolt fishing process with another $2'' \ge 2'' \ge 5/16''$ center hole plate washer and $1/2'' \ge 2''$ bolt into hole 2.

5. For Hole #3 you will use a 2" x 2" x 5/16" offset hole plate washer and a 1/2" x 2" bolt (See Photos C & D). *Note: The offset hole in the plate washer for Hole #3 MUST be installed as in the example found in Photo C.*



6. Hold the SuperHitch side plate in position as seen in Photo E. Be very careful not to push the bolts previously fished back into the frame. *Note: for correct SuperHitch side plate installation, see diagram on page 2.*

7. Attach the SuperHitch side plate as seen in Photo F, utilizing one $1/2'' \times 1'' \times 2''$ plate washer, lock washer and nut for each bolt.

8. Install one $1/2" \ge 1" \ge 2"$ plate washer and $1/2" \ge 2"$ bolt through the bumper bracket and vertical portion of the SuperHitch side plate as in Photo F and H.



9. Using a 2" x 2" x 5/16" center hole plate washer as a spacer (see Photo G), attach the 8 1/2" side strap to the SuperHitch side plate using a 1/2" x 2" bolt with 2 flatwashers under the head of the bolt, followed by two flatwashers, a lock washer and a nut. See Photos G and H. DO NOT TIGHTEN ANY FASTENERS UNTIL FINAL STEP!

10. Repeat Steps 2 through 8 on the driver side.

11. Install one ribneck bolt into the SuperHitch side plate as seen in Photo I and attach the SuperHitch crosstube with one 1/2" lockwasher and nut. See Photos J and K.

Photo J



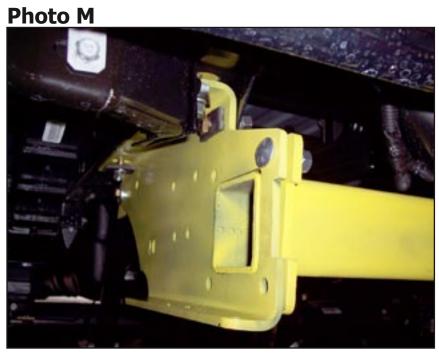
Photo I

Page 8

Photo K

Photo L





12. Repeat Step 10 on driver side as seen in Photos L and M.

13. Loosely install the remaining 8 ribneck bolts on both the driver and passenger sides. See Photo N.



Photo O



I/2" flat washers used as spacers

14. Attach the SuperHitch receiver to the factory receiver using a $1/2" \ge 1/2"$ bolt with $1/2" \ge 2"$ round plated flat washer and two 1/2" flat washers (as spacers) followed by one flat washer, lock washer and nut on both the driver and passenger side. See Photos O and P. All fasteners should be loosely installed at this time.

15. Use a straight edge to align the SuperHitch receiver so that both receiver hitches are in alignment vertically. Using two 3/4'' wrenches, snug (do not tighten) the two $1/2'' \ge 1/2''$ bolts to hold the two receiver hitches in proper alignment. See Photo Q.

16. Torque down the rib neck bolts to 75 ft lbs. See Photo R.

17. Tighten the rear-most (Hole #3) SuperHitch side plate bolts, followed by the forward (Hole #2) bolts (see Photo T). Torque down the rear-most horizontal bolts (visible in Photo S) and then the forward 8 1/2" side strap bolts. All of these should be torqued to 100 ft. lbs.

18. Torque the two $1/2'' \ge 1/2''$ bolts attaching the two hitch receivers in step 14.

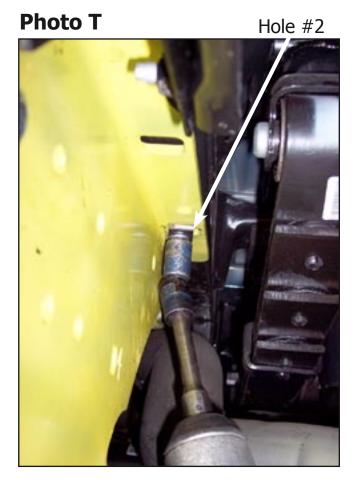
Photo Q



Photo R

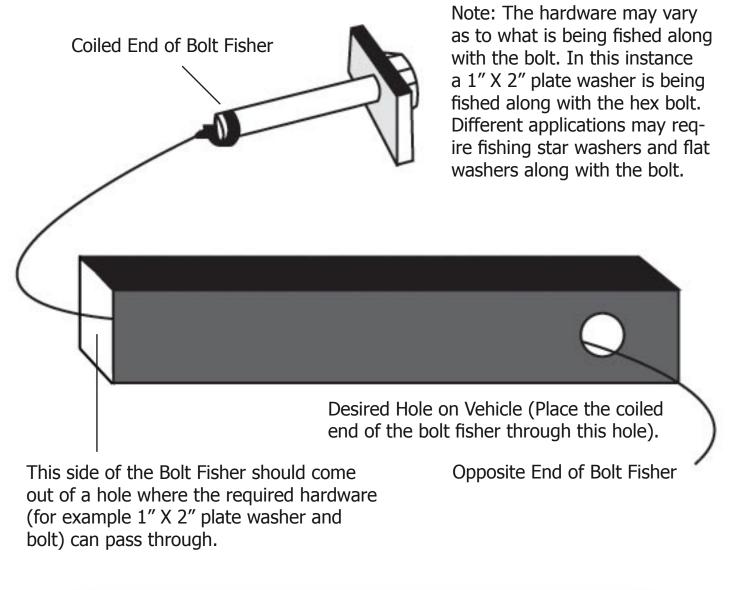






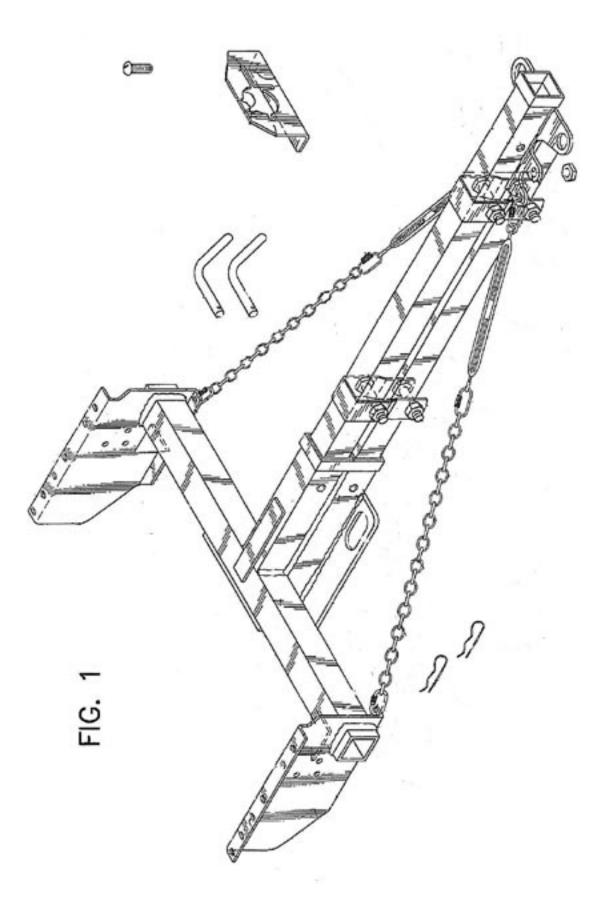
TORKLIFT'S BOLT FISHING GUIDE

Your guide to understanding the installation of fasteners into a box frame.





This bottom example shows the bolt when it's completely fished through the vehicle. You may find it easier to keep the bolt fisher attached until you get the parts being installed in place so that the bolt doesn't fall into the vehicle frame.



SUPERHITCH DIAGRAM

SUPERTRUSS EXTENSION WEIGHT CAPACITIES (SUPERTRUSS SOLD SEPARATELY)

ASSEMBLE THE CHAIN, BOW SHACKLES, & TURNBUCKLES AS SHOWN. TIGHTEN BOW SHACKLES AND TURNBUCKLE JAM NUTS WITH HAND TOOLS (TIGHTEN TURNBUCKLES BY HAND

DO NOT USE TOOLS TO TENSION TURNBUCKLES)



WARNING - READ CAREFULLY

Dead Weight (weight carrying)Weight Distributing (load equalizing)Tongue WeightPull WeightTongue WeightPull WeightPull WeightPull Weight

48″	600 lb.
42″	600 lb.
36″	650 lb.
32″	650 lb.
28″	750 lb.
24″	750 lb.
21″	750 lb.

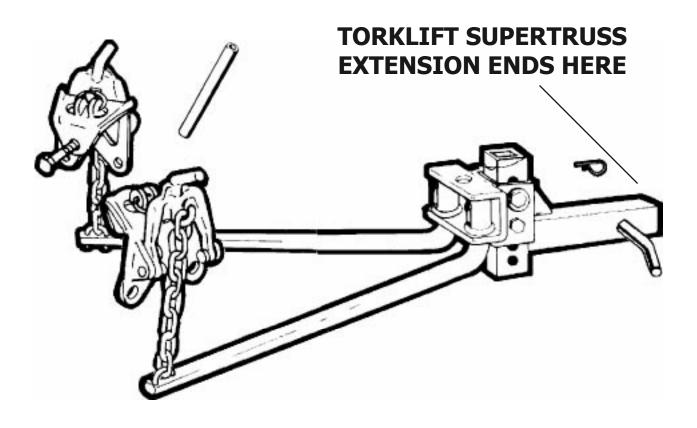
6,000 lb. 6,000 lb. 6,500 lb. 6,500 lb. 7,500 lb. 7,500 lb. 7,500 lb. 1,200 lb. 1,200 lb. 1,200 lb. 1,200 lb. 1,200 lb. 1,400 lb. 1,400 lb.

12,000 lb. 12,000 lb. 12,000 lb. 12,000 lb. 12,000 lb. 14,000 lb. 14,000 lb.

THE USE OF THIS PRODUCT WITHOUT A WEIGHT DISTRIBUTION SYSTEM LIMITS YOUR CAPACITY TO THE DEAD WEIGHT (WEIGHT CARRYING) CA-PACITY. FAILURE TO STAY WITHIN THESE LIMITATIONS WILL RESULT IN DAMAGE AND VOID YOUR WARRANTY!!!!

The Torklift SuperTruss Extension <u>cannot</u> be used with any other type of trailer hitch receiver. Any attempt to modify or recreate a SuperHitch receiver will result in a loss of warranty. The modification of another factory or aftermarket trailer hitch receiver in an attempt to use a Torklift SuperTruss extension can result in death or damage. The SuperHitch receiver made by Torklift is a special extra heavy-duty trailer hitch receiver, and the capacities stated for the SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension are solely with the use of a Torklift SuperTruss extension. Please call if you have any questions on installations or otherwise at 1-800-246-8132.

THESE STEPS MAY VARY DEPENDING ON WEIGHT DISTRIBUTION HITCH MANUFACTURER WEIGHT DISTRIBUTING (LOAD EQUALIZING HITCH)



THIS TYPE OF HITCH IS REQUIRED IN ADDITION TO YOUR SUPERHITCH TO OBTAIN THE MAXIMUM RATED CAPACITY. INCORRECT INSTALLATION OF THE WEIGHT DISTRIBUTION SYSTEM MAY RESULT IN DAMAGE TO YOUR VEHICLE.

WEIGHT DISTRIBUTION - CONTINUED

When towing trailers that exceed the dead weight rating on your extension it is mandatory to use a weight distributing type hitch/ball mount and related hardware (SPRINGBARS, QUICK HOOKUP CLIPS ETC).

Not all weight distribution systems are rated at the same capacity. Your weight distributing ball mount and bars must be rated at least 100 lbs higher in regards to tongue weight, than the pre-existing tongue weight of your trailer **when fully loaded.**

It is of critical importance that your weight distribution system is not only rated high enough to match your existing tongue weight, but that you also have the system set up correctly.

We have supplied a formula to assist you in accurately determining the tongue weight load of your trailer when fully loaded. After accuarately determining your tongue weight and making sure that your weight distribution system is rated high enough, your next step is to ensure the set up of the system is correct.

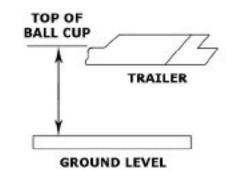
PLEASE READ CAREFULLY

STEPS ONE AND TWO ARE MANDATORY

REQUIREMENTS FOR THE SUPERHITCH/SUPERTRUSS SYSTEM AND STEPS THREE AND FOUR OF THESE WEIGHT DISTRIBUTIONS INSTRUCTIONS ARE

GENERAL IN NATURE AND MAY OR MAY NOT APPLY TO YOUR SPECIFIC BRAND DESIGN. TO ASSURE CORRECT ASSEMBLY AND ADJUSTMENT CONTACT YOUR DEALER OR WEIGHT DISTRIBU-TION SYSTEM MANUFACTURER.

1. The height of the ball must be determined before any weight distribution system assembly work can be started. To obtain the cor-



rect ball height, measure trailer from ground level to top of ball coupler. Be sure trailer is parallel to ground. With your camper on your truck, fully loaded with gear and overloads adjusted, slide the weight distribution ball mount into the SuperTruss extension. Be sure the truck is on level ground. The measurement from ground to top of ball should be 1 1/2" higher than the level height of trailer top of ball measurement.

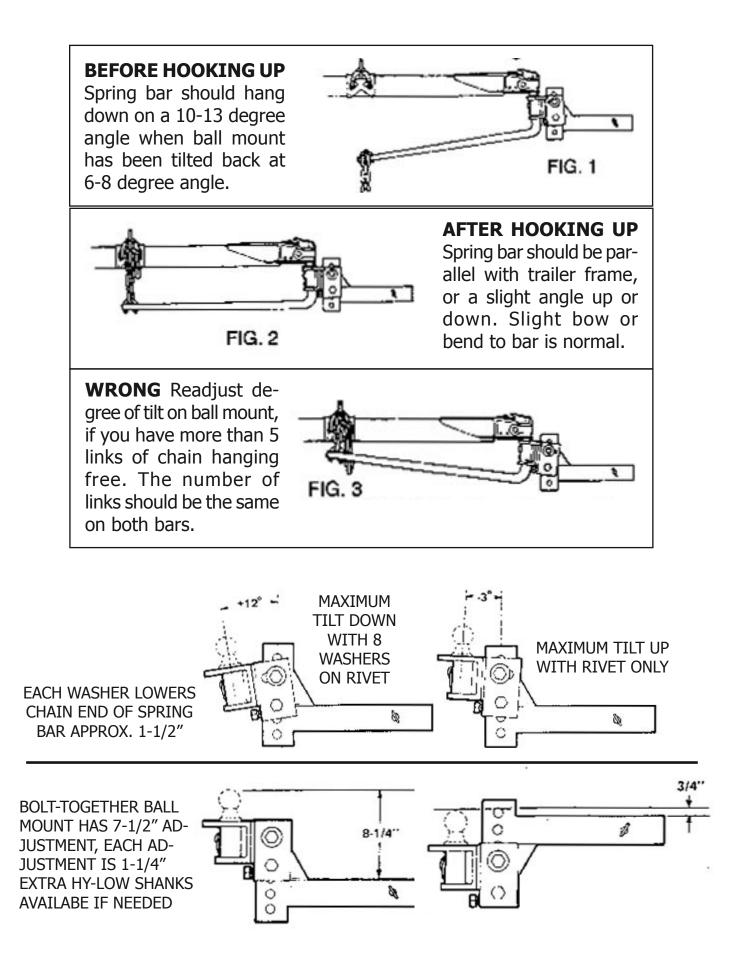
2. After ball height has been determined write down the ascertained height. EXAMPLE: Measured top of coupler height was 17" from ground, ball height should be 18 1/2".

3. Slide the shank into the SuperTruss receiver, insert hitch pin and spring clip. With the ball attached to the ball mount, slide the ball mount up or down the shank until nearest dimension is obtained and the holes line up with shank. Insert the bolt in the bottom hole first (rest hitch head).

4. The rivet and 8 spacer washers are supplied in order to gain the correct downward angle of the spring bars. Insert rivet, and depending on the angle or the slope of bars that must be gained, use either 8 or the least amount of washers necessary in order to establish correct angle. The rivet and its accompanying washers are placed in the 1/2" hole between the "U" on the ball mount to acquire desired angle of spring bar. Once the spring bar angle has been determined, insert the top bolt with a flat washer, both sides, the lockwasher, and nut to secure the unit in correct position, now insert the bottom bolt, use the lock washerand nut. Before tightening the bolts, lock the set screw. (After the first day of towing, check set the screw for tightness.

See the following page for further illustrated diagrams

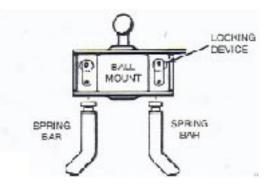
ILLUSTRATED DIAGRAMS



THESE STEPS MAY VARY DEPENDING ON WEIGHT DISTRIBUTION HITCH MANUFACTURER

1. Put the ball mount into the sleeve and insert the 5/8" hitch pin using spring clip to lock the pin into place, hitch balls are not furnished with the hitch as there are several sizes. Normally they are supplied or may be purchased from the dealer to match the coupler of the trailer. Ball shank bushings are supplied to reduce the size of the ball hole in the hitch down to 1" if needed.

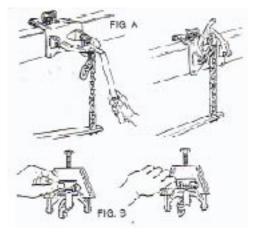
2. Measure the towing vehicle ball height before adding load to towing behicle. Hook the trailer to the truck. Lock on the ball. To make hooking up easier and safer - raise front ofthe trailer and back of the towing vehicle above level with the trailer tongue jack. This removes some of the tension by reducing the distance between the spring bar and hook-up arm.



3. This step may vary depending on the manufacturer. The spring bars can be inserted into either side of the ball mount. (There is no 'right' or 'left' bar). To insert and lock spring bar in socket, hold the bar under socket and push up. The spring bar will automatically be locked into position by the spring bar locking device. (Check to make sure the bar is locked in by moving it up and down at the chain end.) To remove the spring bars, just pull out the locking device or swing the bar around under the bumper and it will drop free.

4. To find correct location on trailer frame for quick hook-up bracket, hold the chain straight up and down and free of twist cnter hook-up bracket on frame and tighten. Set the screw 1/4 turn only. **DO NOT OVERTIGHTEN**. On straight tongue trailers a poli-tongue adapter is necessary

5. You are now ready to put tension on the spring bars. When using the quick hook-up, lower the arm and slip link of chain over hook. Insert hook-up handle over the end of the quick hook-up arm. Lift and flip over center. (See fig A).



CAUTION: MAKE SURE THAT THE HOOK-UP ARM IS COMPLETELY SEAT-ED AND THAT THE SPRING BAR IS PUSHED DIRECTLY UNDER THE HOOK-UP CHAIN HOOK. Now install the hook-up locking clip through locking ears and over hook on hook-up arm. (See fig B)

6. Release the trailer tongue jack by adjusting the chain links up or down, the desired load on the bars will be gained. Now lock the coupler on to the ball and raise the front of the trailer approximately 3" above level. Now attach the chain link to the hook-up clip. It should require 50-100 lbs. of force to properly tension the spring bars. Bow or bend to the spring bar is normal.

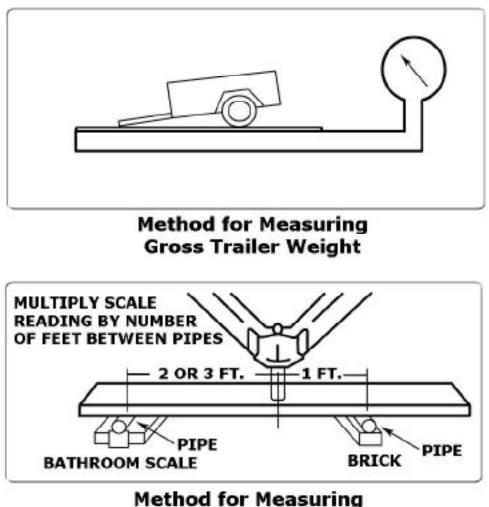
7. To release tension on the spring bars, raise the front of the trailer and the back of the towing vehicle above level (approx. 3") with the trailer tongue jack. Remove the locking clip from the bracket. Insert the handle over arm. Carefully lower the arm with the handle. It will require effort to bring the arm over the center and then to resist the chain tension as the arm rotates downward.

MAINTENANCE:

Use heavy lubrication such as fibre type wheel bearing grease on the hitch ball and on spring bars inside the ball mount. This is Recommended every day. Also keep the hitch painted to prevent rust and check the tightness of bolts regularly. Clean out old grease and do not let it harden inside of the ball mount

IMPORTANT CONSUMER INFORMATION ON TOWING

TOWING EQUIPMENT OWNERS: Make sure all of the operators of your equipment read and understand this information before towing. Save for reference. This will help you properly select, use, and maintain your towing equipment. Refer to your owner's manuals for your tow vehicle, trailer, and other parts of your towing system. Learn the capabilities and limitations of each part. The **GROSS TRAILER WEIGHT** and **TONGUE WEIGHT** are two of the most important items to consider. **THESE WEIGHTS MUST NEVER EXCEED THE LOWEST RATING OF ANY PART OF YOUR TOWING SYSTEM**. **GROSS TRAILER WEIGHT** with the fully loaded trailer on a level surface. Measure the **TONGUE WEIGHT** with the fully loaded trailer on a level surface. The tongue weight is the downward force exerted on the ball by the trailer coupler. The coupler must be at its normal towing height. Use a commercial scale or a bathroom scale. Set up the bathroom scale as shown for heavy tongue



Trailer Tongue Weight

YOUR TOWING EQUIPMENT

HITCH BALLS

Select by gross trailer weight rating, mounting platform thickness, hole size and coupler socket size. Platform must be at least 3/8 inch thick. Hole must not exceed threaded shank diameter by more than 1/16 inch. Use lock washer. Tighten per instructions. When tightened, shank must protrude beyond bottom of nut. Gross trailer weight rating and ball diameter are marked on REESE balls.

TRAILER COUPLERS

The coupler socket should be smooth, clean and lightly lubricated. Tighten or adjust per coupler manufacturer's instructions.

SAFETY CHAINS

Connect safety chains properly EVERY TIME YOU TOW. Cross chains under coupler. Attach securely to the hitch or tow vehicle so they can't bounce loose. Leave only enough slack to permit full turning. Too much slack may prevent chains from maintaining control if other connections separate. Don't let chains drag on the road.

TRAILER LIGHTS, TURN SIGNALS, ELECTRIC BRAKES AND BREAK AWAY SWITCH CONNECTIONS

Make these safety-critical connections EVERY TIME YOU TOW, no matter how short the trip. Check operation, including electric brake manual control, before getting on the road.

SWAY CONTROLS

Sway controls can lessen the effects of sudden maneuvers, wind gusts and buffeting caused by other vehicles. We recommend them for trailers with large surface areas, such as travel trailers. Adjustable friction models can help control trailers with low tongue weight percentage.

OTHER USEFUL EQUIPMENT

AIR SPRINGS, or HELPER SPRINGS are useful for some hitch applications. A TRANSMISSION COOLER may be necessary for heavy towing. Many states require TOWING MIR-RORS on both sides.

TIRE INFLATION

Check often. Follow tow vehicle and trailer manufacturer's recommendations. Improper tire inflation can cause trailer sway.

NO PASSENGERS IN TRAILERS: NEVER allow people in trailers or campers while towing, under any circumstances.



TRAILER LOADING

Proper loading helps prevent sway. Place heavy object on the floor ahead of the axle. Balance the load side-to-side. Secure it to prevent shifting. Tongue weight should be 10-15 percent of gross weight for most trailers. Too low a percentage of tongue weight can cause sway. NEVER load the trailer rear heavy. LOAD THE TRAILER HEAVIER IN FRONT

DRIVING

The additional weight of a trailer affects acceleration, braking, and handling. Allow extra time for passing, stopping, and changing lanes. Severe bumps can damage your towing vehicle, hitch, and trailer. Drive slowly on rough roads. STOP AND MAKE A THOROUGH INSPECTION IF ANY PART OF YOUR TOWING SYSTEM STRIKES THE ROAD. CORRECT ANY PROBLEMS BEFORE RESUMING TRAVEL.

CHECK FOR EXCESSIVE SWAY AND ELIMINATE IT

Excessive sway can lead to loss of control. Sway motion should settle out quickly. Sway tends to increase on a downgrade. Starting slowly, increase speed in gradual steps. If sway occurs, adjust your trailer load and equipment. Repeat until the trailer is stable at highway speed. Do this whenever your trailer loading changes.

IF TRAILER SUDDENLY STARTS TO SWAY

Turbulence from another vehicle, a wind gust, or a downgrade can cause sudden sway. So can a shift of the trailer's load or a trailer tire blowout. IF THE TRAILER SWAYS, IT IS THE DRIVER'S RESPONSI-BILITY TO ASSESS THE SITUATION AND TAKE APPROPRIATE ACTION. Below are suggestions that may apply, depending on conditions:

<u>D0</u>

-Reduce your speed gradually -Hold the steering wheel as steady as possible

-If your trailer has electric brakes, apply the brakes alone, without using the tow vehicle's brakes.

DON'T

-Don't hit your brake pedal hard unless absolutely necessary. A "jack-knife" can result.

-Don't try to steer out of the sway condition. Sudden or violent steering can make it worse.

-Don't speed up. Sway increases as you go faster.

-Don't continue towing a trailer that tends to sway. You may lose control during an emergency maneuver or if the conditions listed above occur.

TORKLIFT LIMITED WARRANTY

322 N RAILROAD AVE KENT, WA 98032 (800) 246-8132

LIMITED WARRANTY

TorkLift warrants its hitches, custom hitch receivers, frame mounted tiedowns and FastGun Turnbuckles from date of purchase against defects in material and workmanship under normal use and service, ordinary wear and tear excepted, for the ownership life of the original consumer purchaser. TorkLift will replace FREE OF CHARGE any part that proves defective in material or workmanship when presented to TorkLift, TRANS-PORTATION CHARGES PREPAID, at the address above. THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS RE-PLACEMENT ONLY. LABOR CHARGES AND/OR DAMAGE INCURRED IN INSTALLATION OR REPLACEMENT AS WELL AS INCIDENTAL AND CONSEQUENTIAL DAMAGES CON-NECTED THEREWITH ARE EXCLUDED. This warranty does not include the finish or paint on our products. Rusting, cracking or peeling of the finish is also excluded. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Any damage to the hitch, custom hitch receiver or frame mounted tiedowns as a result of misuse, abuse, neglect, accident, improper installation or any use violative of instructions furnished by us WILL VOID THE WARRANTY. This warranty gives you specific legal rights, and you may also have rights which vary from state to state. With warranty service or performance, you may be able to go to a small claims court, a state court or a federal district court.



322 N RAILROADPHONE (800) 246-8132KENT, WA 98032FAX (253) 854-8003

OR VISIT OUR WEBSITE: WWW.TORKLIFT.COM

Dear Valued Customer,

Thank you for making TorkLift your choice for truck, camper packages and accessories for your vehicle. By choosing TorkLift products, you have chosen a company that has been serving the RV industry for nearly 30 years and whose name has become synonomous with strength, quality and advanced design and installation.

Please take a few moments of your time to complete the Product Registration Warranty Card on the next page and send it back to us at the address listed above. When registering your newly purchased TorkLift products, you can be assured that your contact information is secure and that you and your product are getting the attention and respect that you deserve.

Thank you again for choosing TorkLift quality products.

	ORK-LIRL
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U U	WARRANTY REGISTRATION CARD
	THIS FORM COMPLETELY AND RETURN TO TORKLIFT WITHIN HASE ACCOMPANIED BY A COPY OF YOUR ORIGINAL RECEIPT
	TODAY'S DATE:
. PART(S) PURC	HASED
PART#:	PART#:
PART#:	PART#:
CITY:	STATE: ZIP / POSTAL CODE:
PHONE:	EMAIL:
. TRUCK INFOR	MATION
YEAR:	MAKE:
	BED LENGTH:
. CAMPER INFO	RMATION
YEAR:	MAKE: MODEL:
5. DEALER INFO	
PURCHASED FROM:	
	STATE: ZIP / POSTAL:
	OWNER ABOVE DEALER ANOTHER DEALER
IF ANOTHER DEALER	, WHO:

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