

# INSTALLATION INSTRUCTIONS

**66557**

250LB – 400LB

## REESE Steadi-Flex Weight Distributing Kits

**66558**

400LB – 600LB

PART	QTY	DESCRIPTION
A	1	BALL MOUNT
B	1	DRAW BAR
C	2	3/4-10 x 4-1/2" GR.8 HEX HEAD BOLT
D	2	3/4" FLAT WASHER
E	2	3/4-10 NUT
F	1	1/2-13 x 1-1/4" GR.5 HEX HEAD BOLT
G	2	1/2" x 2-1/4" SPRING BAR PIN
H	2	CLIP
J	1	ADJUSTMENT PIN
K	6	ADJUSTMENT WASHERS

**Fig. 1**

### TOOLS REQUIRED

TORQUE WRENCH

TAPE MEASURE

3/4" SOCKET

1-1/8" SOCKET & WRENCH

### SIZING WD AND TRAILER HITCH SYSTEMS

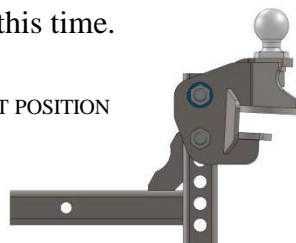
- Weigh loaded trailer tongue to determine proper system size.
- Choose a system with tongue rating at or above the actual trailer tongue weight.
- Tongue rating of trailer hitch must meet or exceed the measured tongue weight of the trailer. OEM hitches may not be rigid enough for tongue weight and may need to be replaced (too much flex and won't carry the load).
- Total trailer gross weight rating must never exceed tow vehicle rated gross tow rating.

### DRAW BAR AND BALL MOUNT ASSEMBLY

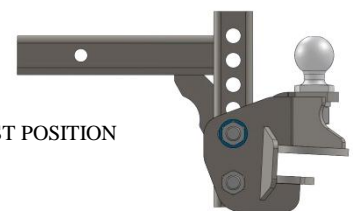
- Insert draw bar (B) into the tow vehicle receiver in the desired orientation and install the pull pin and clip.
- Install either a 2" or 2-5/16" ball, (check trailer for correct ball size), with a 1" shank, onto the ballmount and torque the nut to the ball's instruction sheet requirements.
- Measure the coupler height of your loaded trailer. Make sure trailer is setting level.
- To begin with, install 2 washers (K) on adjustment pin (J) and insert into top hole in ball mount (A), see Fig. 1 above. Up to 6 washers (K) can be used.
- Set the ball mount so that the ball height is approx. 1" higher than the coupler height with the trailer setting level. See Fig. 2 below for the range of height adjustments.
- Install bolt (C) in the bottom hole of the ball mount and bolt (C) with washers (D) in the upper hole. Attach nut (E) to both bolts. Leave nuts loose at this time.

**Fig. 2**

HIGHEST POSITION

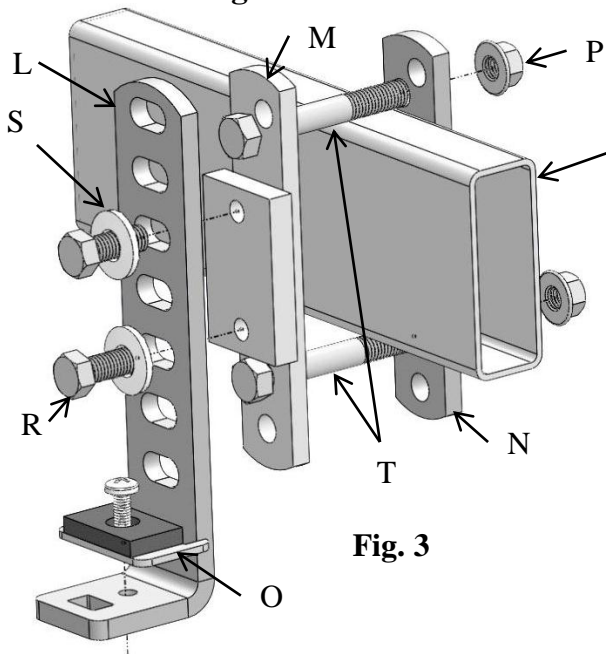


LOWEST POSITION



**FRAME BRACKET ASSEMBLY FOR (66557) 250LB - 400LB SYSTEM (shown below.)**

Use Fig. 3 for 4" & 5" tall frames. Otherwise use Fig. 4 on the next page.

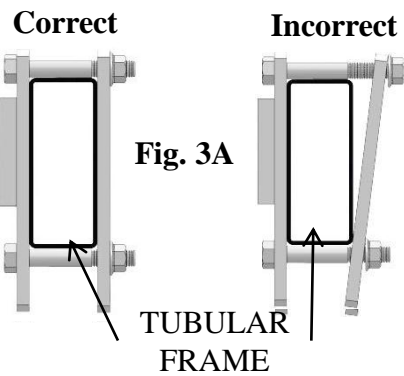


4" TRAILER FRAME SHOWN

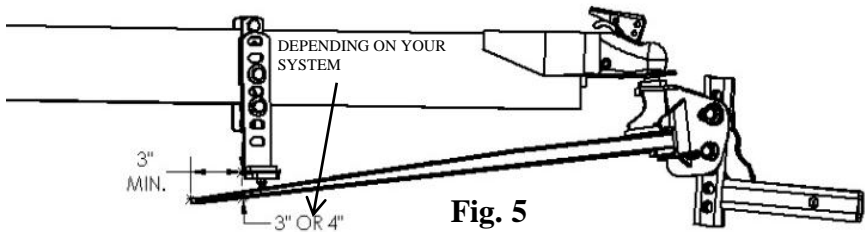
PART	QTY	DESCRIPTION
L	2	L - BRACKET
M	2	OUTER FRAME BRACKET ASSY.
N	2	INNER STRAP
O	2	FRICITION PAD
P	4	1/2-13 FLANGE LOCK NUT
Q	2	1/2-13 x 4" GR.5 HEX HEAD BOLT
R	4	1/2-13 X 1-1/2" HEX HEAD BOLT
S	4	1/2" SERRATED WASHER
T	4	1/2-13 x 3.50" GR5 HEX HEAD BOLT
U	4	1/2-13 NUT

**Fig. 3**

- Place the upper bolt (T) thru outer frame bracket (M) and inner strap (N). Place this over the A-frame. See chart 1 below for frame placement location..
- Always keep the bottom bolt (T) close to the bottom of the frame. If it is not, move the top bolt (T) slightly up and over to the higher setting.
- Start out by placing L-bracket (L) into the middle of its height adjustment. Thread bolts (R) with washers (S) into threaded holes in the outer frame bracket assembly (M). Leave the bolts (R) finger tight at this time.
- Repeat for the other side.
- Keep at least 3" of spring bar extending beyond the L-bracket (L) as shown in Fig. 5 below.
- Torque flange nuts (P) to 75 ft.\*lbs. Tighten them evenly. Do not tighten one all the way before tightening the other. Tighten evenly. See fig. 3A. Inner strap (N) will bend if done incorrectly.



**Fig. 3A**

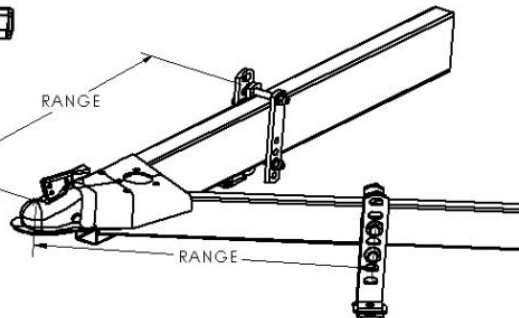


**Fig. 5**

**NOTE: Propane bottles, batteries, etc. may obstruct installation of the frame brackets to the trailer frame. The frame brackets can be located within the following specified range from coupler ball center to the center of friction pad:**

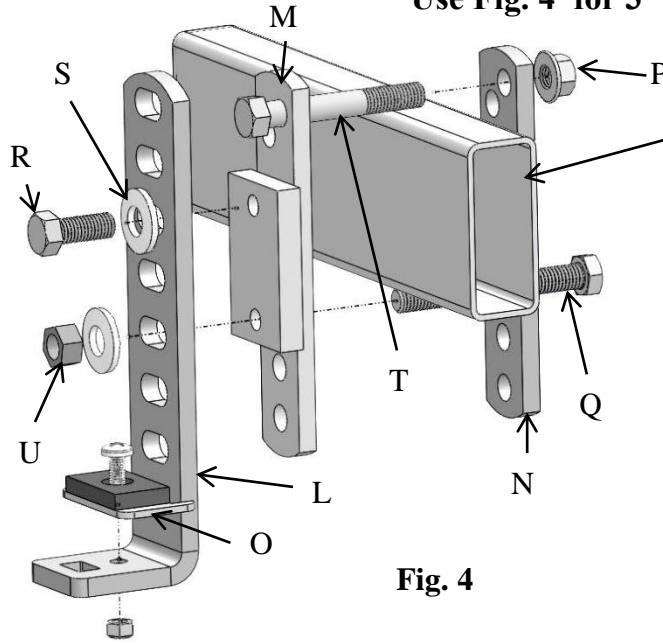
**Chart 1**

Bracket Mounting Range = 25" to 32"



**FRAME BRACKET ASSEMBLY FOR (66557) 250LB - 400LB SYSTEM (shown below.)**

**Use Fig. 4 for 3" to 3-1/2" tall frames.**

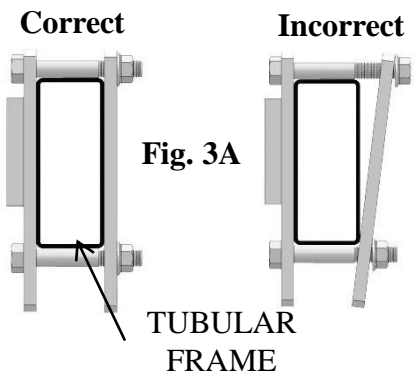


3-1/2" TRAILER FRAME SHOWN

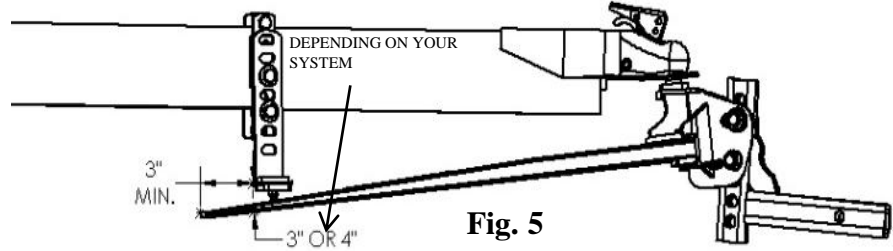
PART	QTY	DESCRIPTION
L	2	L - BRACKET
M	2	OUTER FRAME BRACKET ASSY.
N	2	INNER STRAP
O	2	FRICTION PAD
P	4	1/2-13 FLANGE LOCK NUT
Q	2	1/2-13 x 4" GR.5 HEX HEAD BOLT
R	4	1/2-13 X 1-1/2" HEX HEAD BOLT
S	4	1/2" SERRATED WASHER
T	4	1/2-13 x 3.50" GR5 HEX HEAD BOLT
U	4	1/2-13 NUT

**Fig. 4**

- Place the upper bolt (T) thru outer frame bracket (M) and inner strap (N). Place this over the A-frame. See chart 1 below for frame placement location. Always keep the bottom bolt (Q) close to the bottom of the frame. If it is not, move the top bolt (T) slightly down and over to the lower setting. Thread bolt (Q) through the Outer Frame Bracket assy. (M).
- Start out by placing L-bracket (L) into the middle of its height adjustment. Thread bolt (R) and with washer (S) into threaded hole in the outer frame bracket assembly (M). Thread nut (U) with washer (S) over the bolt (Q). Leave the bolt (R) and nut (U) finger tight at this time. Repeat for the other side.
- Keep at least 3" of spring bar extending beyond the L-bracket (L) as shown in Fig. 5 below.
- Torque nut (P) and bolt (Q) to 75 ft.\*lbs. Tighten them evenly. Do not tighten one all the way before tightening the other. Tighten evenly. See fig 3A. Inner strap (N) will bend if done incorrectly.



**Fig. 3A**

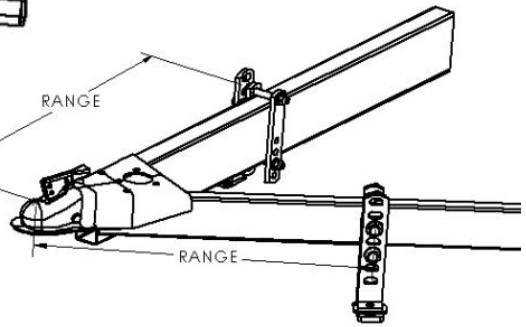


**Fig. 5**

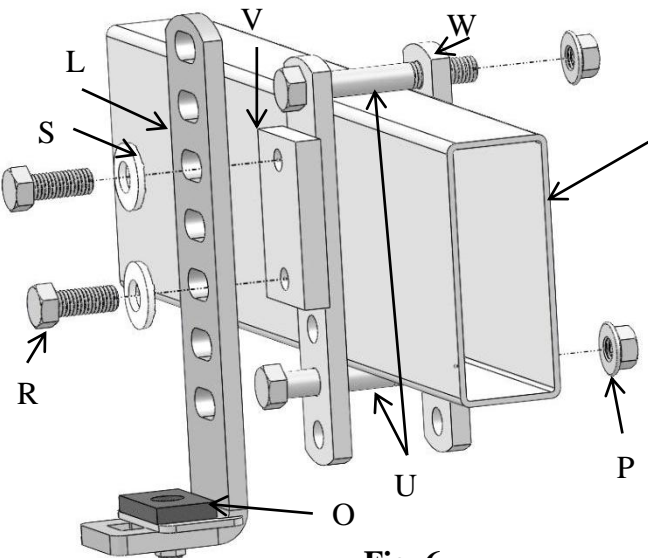
**NOTE: Propane bottles, batteries, etc. may obstruct installation of the frame brackets to the trailer frame. The frame brackets can be located within the following specified range from coupler ball center to the center of friction pad:**

**Chart 1**

Bracket Mounting Range = 25" to 32"



**FRAME BRACKET ASSEMBLY FOR (66558) 400LB - 600LB. SYSTEM, (shown in Fig.6 below).**

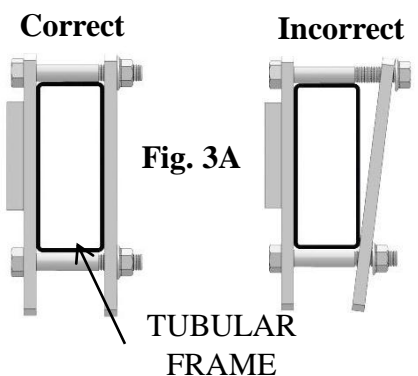


5" TRAILER FRAME SHOWN

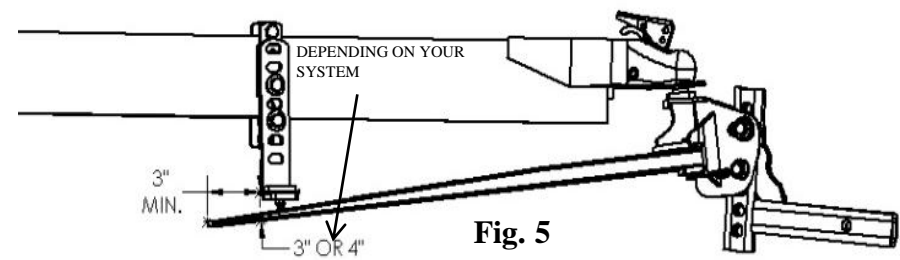
PART	QTY	DESCRIPTION
L	2	L - BRACKET
O	2	FRICTION PAD
P	4	1/2-13 FLANGE LOCK NUT
R	4	1/2-13 x 1.50" HEX HEAD BOLT
S	4	1/2" SERRATED WASHER
U	4	1/2-13 x 3.50" GR5 HEX HEAD BOLT
V	2	OUTER FRAME BRACKET ASSY.
W	2	INNER STRAP

**Fig. 6**

- Place the upper bolt (U) thru outer frame bracket assy. (V) and inner strap (W). Place this over the A-frame. See chart 1 below for the location.
- Place another bolt (U) into the bottom hole in the bracket. Keep this as high and close to the frame as possible. Install nut (P) on the bolts.
- Place L-bracket (L) in about the middle of its height adjustment and secure by threading bolts (R) with washers (S) into threaded Frame Bracket assy. (V). Leave bolts (R) finger tight at this time.
- Repeat for the other side.
- Keep at least 3" of spring bar extending beyond the L-bracket (L) as shown in Fig. 5 below.
- Torque flange nuts (P) to 75 ft.\*lbs. Do not tighten one all the way before tightening the other. Tighten evenly. See fig. 3A. Inner strap (W) will bend if done incorrectly.



**Fig. 3A**

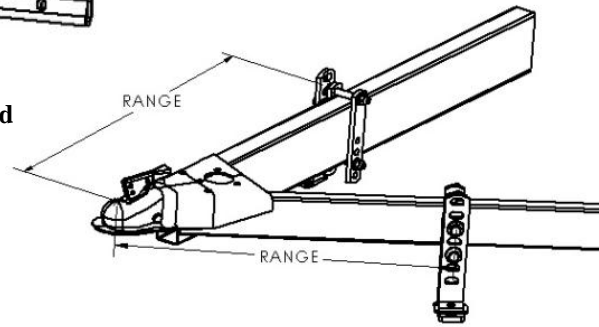


**Fig. 5**

**NOTE: Propane bottles, batteries, etc. may obstruct installation of the frame brackets to the trailer frame. The frame brackets can be located within the following specified range from coupler ball center to the center of friction pad:**

**Chart 1**

Bracket Mounting Range = 25" to 32"



## BALLMOUNT ADJUSTMENT

- With your trailer NOT CONNECTED to the vehicle, pick reference points on front and rear wheel wells of your vehicle. Measure and record distance to pavement. Front wheel well to pavement \_\_\_\_\_ Rear wheel well to pavement \_\_\_\_\_.
- Insert the spring bars into the ball mount (A) and secure with pin (G) and clip (H). Apply a lubricant on the spring bars as you insert them into the ball mount.
- With the trailer coupled to the ball and the trailer setting level, (use the tongue jack to level the trailer), the angle adjustment in the ball mount should have the spring bar 3" below the friction pad for the 400 lb. system and 4" below the friction pad for the 600 lb. system. See Fig. 5. If needed add or subtract washers (K) shown in Fig. 1 to get the needed dimension. Each washer added will move the spring bars down approx. 5/8" to 3/4".
- If you have the 66557 and a tongue wt. of only 250 lbs., you may need only 1-2 washers.
- If you have the 66558 and a tongue wt. of 600 lbs., you may need 3-4 washers.
- Install and tighten bolt (F) shown in Fig.1

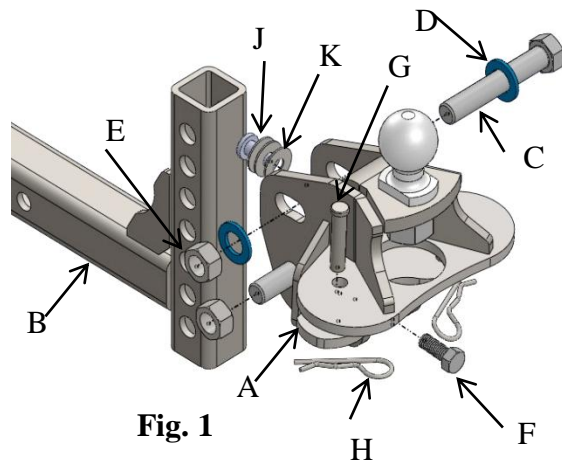


Fig. 1

PART	QTY	DESCRIPTION
A	1	BALL MOUNT
B	1	DRAW BAR
C	2	3/4-10 x 4-1/2" GR.8 HEX HEAD BOLT
D	2	3/4" FLAT WASHER
E	2	3/4-10 NUT
F	1	1/2-13 x 1-1/4" GR.5 HEX HEAD BOLT
G	2	1/2" x 2-1/4" SPRING BAR PIN
H	2	CLIP
J	1	ADJUSTMENT PIN
K	6	ADJUSTMENT WASHERS

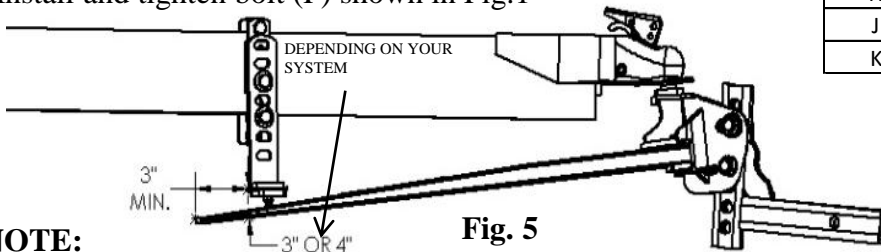


Fig. 5

### NOTE:

- During ball mount adjustment, it may be necessary to raise or lower the L-bracket (L) to get the proper spring bar load if there is not enough head angle adjustment. If there are not enough washers to get the dimension shown in fig. 5, move the L-bracket (L) up 1 set of holes.
- If you have a 6" tall frame with a bottom mounted coupler (inverted coupler) it may be necessary to install brackets (V) and (W) upside down in order to get the L-bracket (L) mounted low enough. This will lower the L-bracket 1.75" Otherwise there may be too much spring bar pressure.
- Torque both 3/4" nuts (E) to 300 ft.\*lbs. when the desired angle is achieved. If a large enough torque wrench is not available, torque nuts to 150 ft.\*lbs. then tighten the nuts an additional 1/4 turn. Do not lubricate the threads.

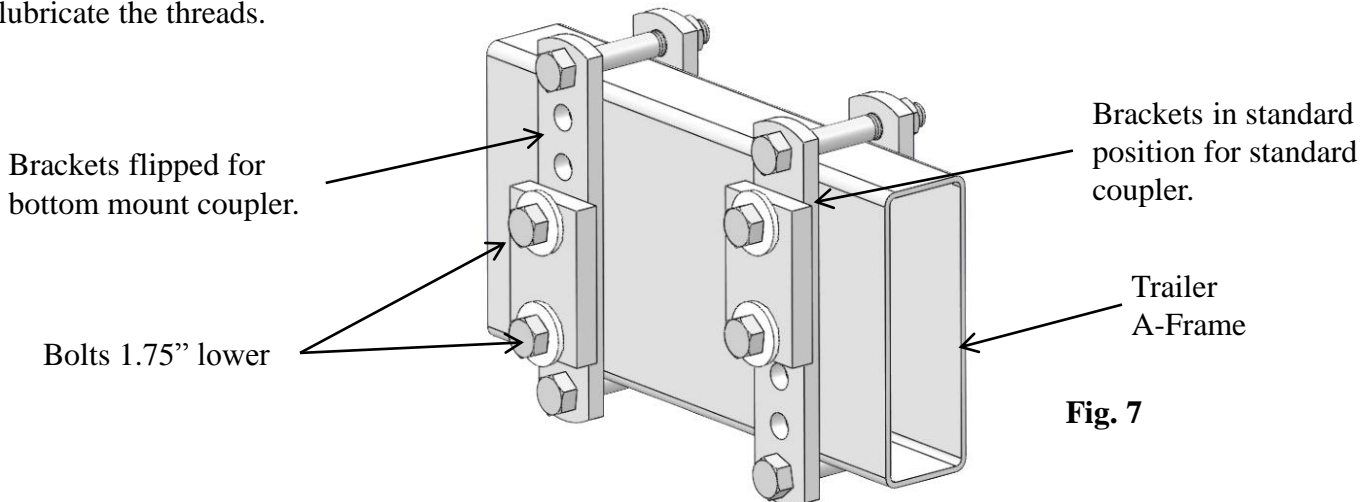


Fig. 7

## SPRING BAR HOOK-UP

- To place the spring bar on the L-bracket (L), keep the coupler attached to the ball. Raise the coupler using the tongue jack until the spring bar will go onto the L-bracket (L).
- If the jack will not raise the coupler high enough, use the lifting handle shown in the Fig. 8 below. Place the hooked end of the handle in the rectangular hole of the L-bracket (L). Place the end of the spring bar as shown and lift the handle. Remove the handle.
- Place spring bar retention bracket (I) into the L-bracket (L) and secure with clip (H) as shown in Fig. 9.

**WARNING: to avoid serious injury, always stand to the side of the lift handle. Never stand at the end of the handle or allow any part of your body under the handle.**

- Lower tongue jack. Re-measure the front wheel well reference point. Front wheel height must be equal to the original measurement. If the front wheel height is higher than previously measured, the head tilt angle must be increased (tilted downward). If the front wheel well height is substantially lower than originally measured (1" or more), the head tilt angle must be reduced (tilted upward). For coarse adjustment, the L-bracket (L) can be lowered one hole to bring the front wheel well back up. The spring bars must be unloaded and removed from the L-bracket (L) prior to adjusting the head tilt angle or removal of the nuts (T). If the head angle or L-bracket adjustments are made, repeat hook up steps until the front wheel well height is approx. equal to the original measurement. It is preferred that the rear of the vehicle settle about the same amount or more than the front.

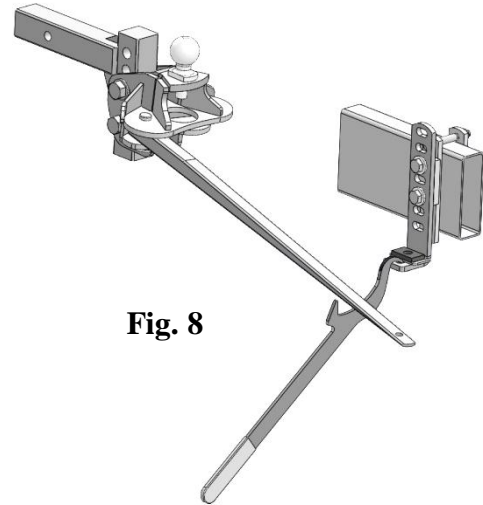


Fig. 8

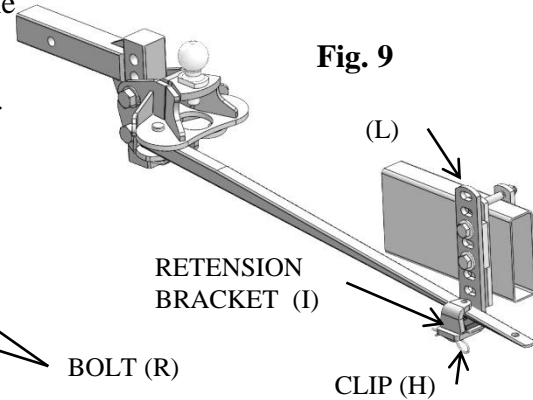


Fig. 9

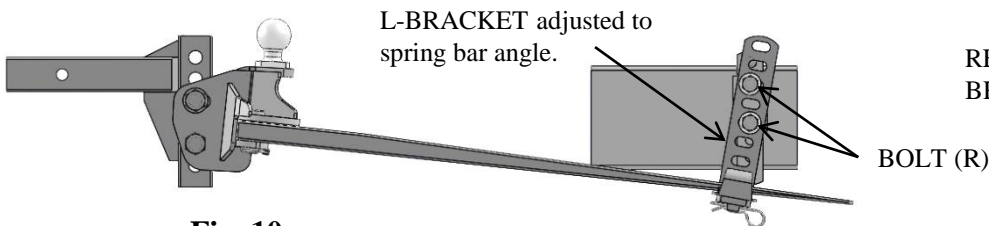


Fig. 10

## IMPORTANT

### ADJUSTING & TIGHTENING THE L-BRACKETS

- Always keep bolts (R) finger tight until the spring bars are in place and loaded with pressure on the L-brackets (L). This will allow the L-brackets (L) to adjust themselves to the spring bar angle giving the maximum contact with the friction pad (O) and resulting in better sway control. See Fig. 10 above. Tighten bolts (R) to 75 ft.-lbs.
- If you tightened the bolts before you applied the spring bar tension, loosen the bolts (R) slightly. Do not remove the bolts completely. They are under pressure from the spring bars. The L-bracket (L) will then adjust to the spring bar angle by itself. Re-tighten the bolts (R) to 75 ft.-lbs.

## UNHITCHING

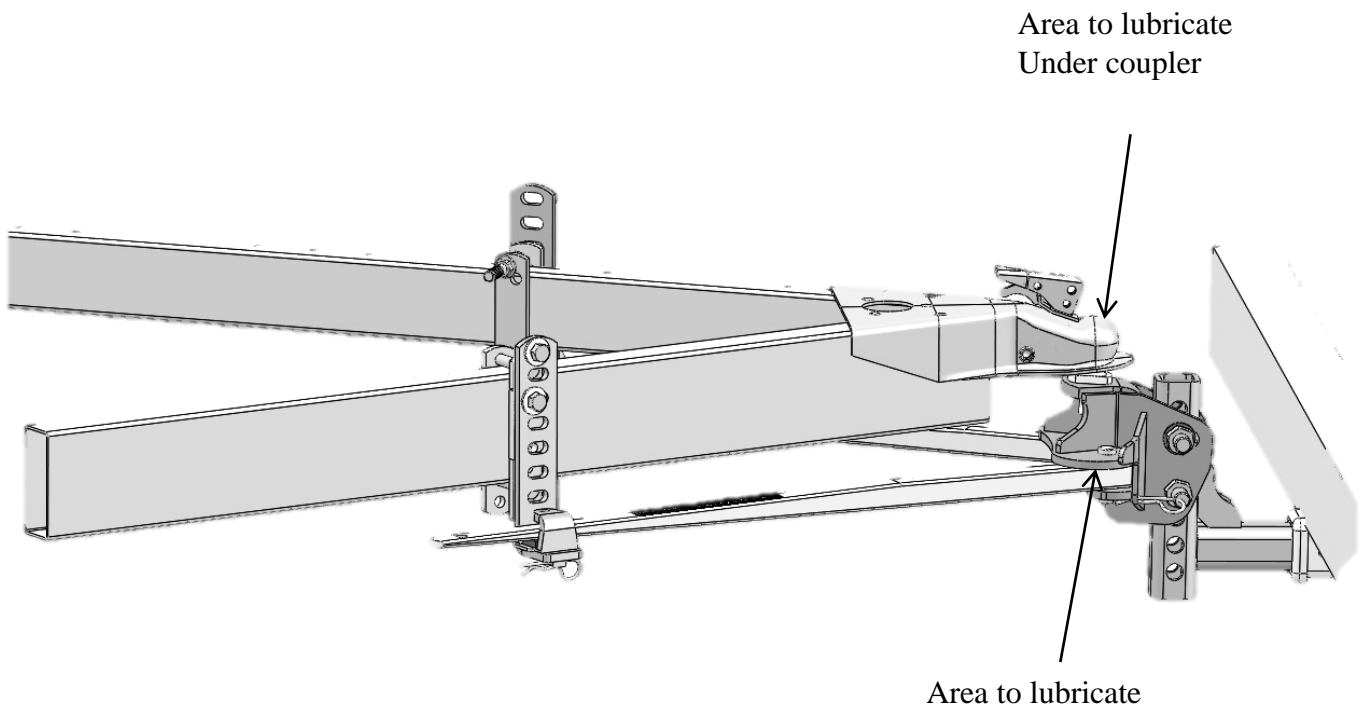
- Block trailer wheels front and rear.
- Raise tongue of trailer with tongue jack as high as possible, usually 8-12 inches.
- Remove spring clip (H), fig. 9, from spring bar retention bracket (I). Remove bracket.
- Push the spring bar off the friction pad.

**WARNING: To avoid serious injury, always stand to the side of the lift handle. Never stand at the end of the handle or allow any part of your body under the handle or spring bar.**

- Remove clip (H) and pin (G), fig. 1. Pull the spring bar out of head (A).
- Repeat for the other side.
- Lower the tongue of the trailer until the jack is slightly off the ground and unlatch the trailer coupler. Once unlatched, the trailer may be raised again to clear the top of the ball and vehicle can be driven away.

## LUBRICATION

- Lubricate the hitch ball to prevent unnecessary wear. Lubricate the contact area in the ball mount where the spring bars insert. Excess oil and dirt should be wiped out whenever the trailer is uncoupled.
- Do not lubricate the friction pads.



**WARNINGS:** LOADED BALL HEIGHT SHOULD NEVER BE GREATER THAN UNCOUPLED BALL HEIGHT. Front wheel overload and loss of rear wheel traction can result, and can lead to unstable handling, reduced braking ability, and a tendency to "jackknife" when turning and braking at the same time. IF LOADED BALL HEIGHT IS GREATER THAN UNCOUPLED HEIGHT, re-adjust head and re-measure until proper height is obtained.

**DO NOT TOW MULTIPLE TRAILERS:** Do not attempt to tow any type of trailer behind another trailer. Towing multiple trailers may cause severe instability, loss of control and/or structural failure, and may result in vehicle accident, property damage and personal injury. Towing multiple trailers is illegal in many jurisdictions.

**FRONT-WHEEL-DRIVE VEHICLES:** DO NOT ATTEMPT TO HOOK-UP OR TOW WITH REAR WHEELS OF TOWING VEHICLE REMOVED. Severe structural damage to towing vehicle, hitch, and trailer may result. A towing vehicle/trailer combination cannot be controlled adequately unless the towing vehicle's rear wheels are carrying their share of the load.

**MAINTENANCE:** Keep the head assembly free of dirt and well lubricated. Excessive wear may indicate overload or inadequate lubrication.

Keep hitch painted to prevent rust and maintain a good appearance. (Do not paint over labels)

AT THE BEGINNING OF EVERY TOWING DAY:

Clean ball and coupler socket and coat ball lightly with grease.

Check to see that all bolts are properly tightened and hitch pin and clip are securely in place.

Check to see that electrical hookups are in working order, and that safety chains are connected.

#### **TOWING TIPS**

**DRIVING:** Good habits for normal driving need extra emphasis when towing. The additional weight affects acceleration and braking, and extra time should be allowed for passing, stopping, and changing lanes. Signal well in advance of a maneuver to let other drivers know your intentions. Severe bumps and badly undulating roads can damage your towing vehicle, hitch, and trailer, and should be negotiated at a slow steady speed. IF ANY PART OF YOUR TOWING SYSTEM "BOTTOMS" OUT, OR IF YOU SUSPECT DAMAGE MAY HAVE OCCURED IN ANY OTHER WAY, PULL OVER AND MAKE A THOROUGH INSPECTION. CORRECT ANY PROBLEMS BEFORE RESUMING TRAVEL.

**CHECK YOUR EQUIPMENT:** Periodically check the condition of all your towing equipment and keep it in top condition.

**TRAILER LOADING:** Proper trailer loading is important. Heavy items should be placed close to the floor near the trailer axle. The load should be balanced side-to-side and firmly secured to prevent shifting. Tongue weight should be about 10-15 percent of the gross trailer weight for most trailers. Too low a percentage of tongue weight will often produce a tendency to sway. Excess weight on the tongue can also lead to sway and damage hitch and / or tow vehicle.

**SWAY CONTROLS:** A sway control can help minimize the affects of sudden maneuvers, wind gusts, and buffeting caused by other vehicles. Use of a sway control is recommended for trailers with large surface areas, such as travel trailers.

**TIRE INFLATION:** Unless specified otherwise by the towing vehicle or trailer manufacturer, tires should be inflated to their maximum recommended pressure.

**TOWING VEHICLE AND TRAILER MANUFACTURERS' RECOMMENDATIONS:** Review the owners' manuals for your towing vehicle and trailer for specific recommendations, capacities, and requirements.

**PASSENGERS IN TRAILERS:** Trailers should NOT be occupied while being towed, under any circumstances.

**TRAILER LIGHTS, TURN SIGNALS, AND ELECTRIC BRAKES:** Always hook up and verify function of the trailer lights, turn signals, electric brakes and break-away switch connection (if so equipped) even for short trips.

**REMOVE HITCH WHEN NOT TOWING:** Remove hitch from towing vehicle receiver when not towing, to prevent contamination of head sockets, reduce chance of striking hitch on driveway ramps or other objects, and minimize damage in the event of a rear-end collision.