

# INSTALLATION MANUAL

# 17352

## Level of Difficulty

Moderate

## Parts List

#	Qty	Description
1	1	Hitch head
2	1	Adjustable shank
3	2	Spring trunnion bar, pin-style
4	2	Snap-up bracket
5	1	Pipe handle
6	2	Spring bar pin
7	2	Spring bar clip
8	2	Snap-up bracket clip
9	4	Hex bolt, 1/2" - 13 x 4" long
10	1	Hitch pin
11	1	Hitch pin clip
12	2	Nylock nut, 3/4" - 10
13	2	Head tilt spacer
14	1	Hex bolt, 3/4" - 10 x 5" long
15	1	Hex bolt, 3/4" - 10 x 4" long
16	2	Hex bolt, 1/2" - 13 x 2" long

## Capacity without spring bars

Gross trailer weight (GTW)	Not to exceed 10,000 lbs.
Tongue weight (TW)	Not to exceed 1,000 lbs.

When spring bars are not used, the weight rating is dependent upon the trailer ball manufacturer's weight ratings. Do not exceed the maximum weight rating of the trailer ball.

## Capacity with spring bars

Gross trailer weight (GTW)	8,000 to 10,000 lbs.
Tongue weight (TW)	800 to 1,000 lbs.

The tongue weight rating of the spring bars represents the capacity of a pair of bars, not an individual bar. Always use a pair of spring bars. Be sure they are the same weight rating.

## ⚠ WARNING

Never exceed the vehicle manufacturer's recommended towing capacity.

The loaded ball height should never be greater than the uncoupled ball height. Front wheel overload and loss of rear wheel traction can result and can lead to unstable handling. It can reduce braking ability and create a tendency to jackknife when turning and braking at the same time.

If the loaded trailer ball height is greater than the uncoupled height, reduce take-up on the spring bar chains, remeasure and adjust until the proper height is obtained.

## Product Photo



## Notes and Maintenance

Before you begin installation, read all instructions thoroughly.

Keep the socket-mounted ends of the spring bars and the lock pins in the head assembly free from dirt and well lubricated. Excessive wear in this area may indicate an overload or inadequate lubrication.

Keep the head assembly exterior clean. Do not allow dirt or stones to lodge between the spring bars and the head.

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

Keep lift brackets clean and lubricated to ensure ease of operation.

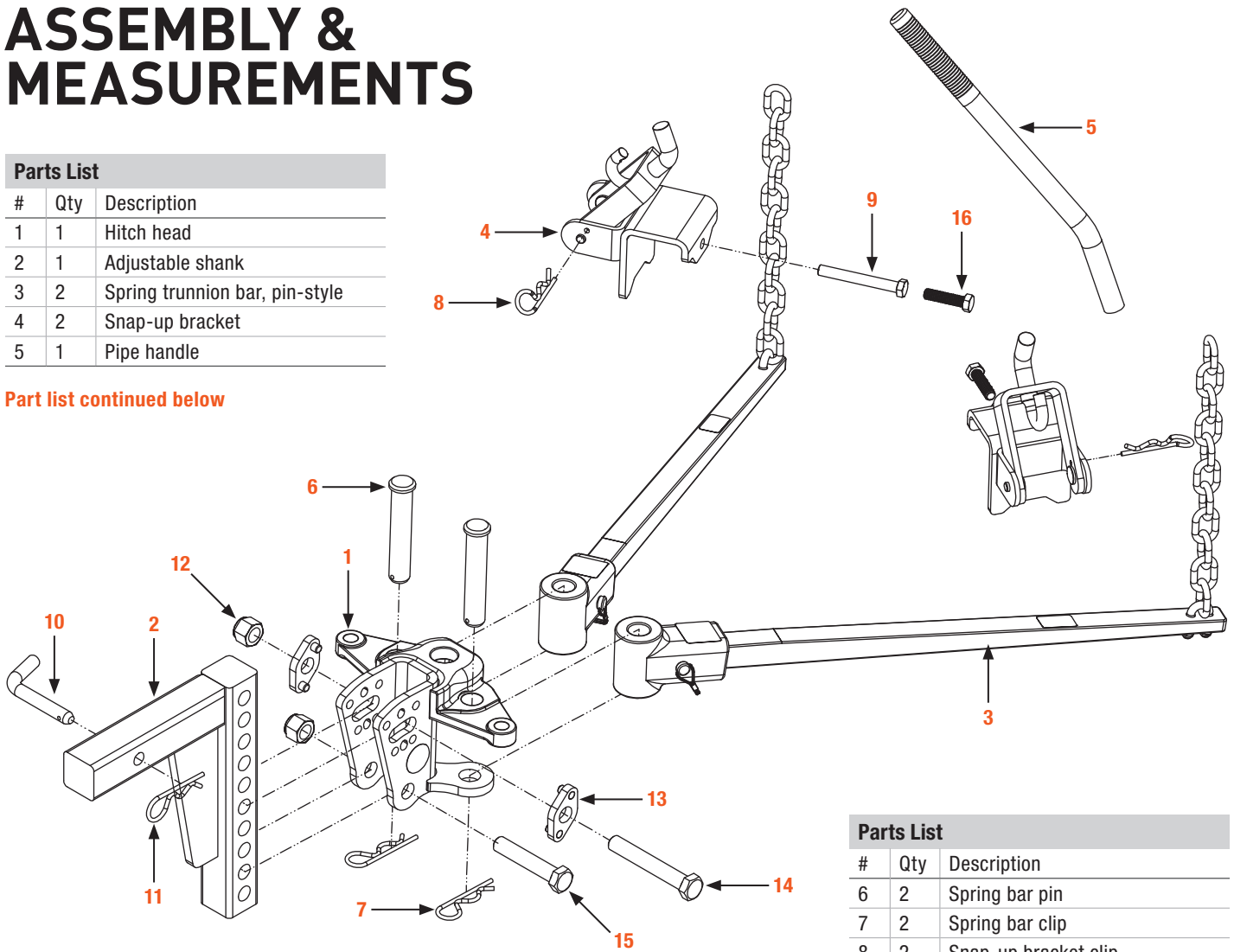
**CAUTION:** If the lift chain is angled fore or aft at the top within the lift bracket, it may catch on the bracket when turning. This could damage the lift bracket or pry it open.

# ASSEMBLY & MEASUREMENTS

## Parts List

#	Qty	Description
1	1	Hitch head
2	1	Adjustable shank
3	2	Spring trunnion bar, pin-style
4	2	Snap-up bracket
5	1	Pipe handle

Part list continued below



## Parts List

#	Qty	Description
6	2	Spring bar pin
7	2	Spring bar clip
8	2	Snap-up bracket clip
9	4	Hex bolt, 1/2" - 13 x 4" long
10	1	Hitch pin
11	1	Hitch pin clip
12	2	Nylock nut, 3/4" - 10
13	2	Head tilt spacer
14	1	Hex bolt, 3/4" - 10 x 5" long
15	1	Hex bolt, 3/4" - 10 x 4" long
16	2	Hex bolt, 1/2" - 13 x 2" long

## Measure Trailer Coupler Height

Line up the tow vehicle and trailer in a level straight position on level pavement. Use the trailer tongue jack to level the trailer. Measure the distance from the pavement to the top of the coupler socket and record here:

\_\_\_\_\_



## Measure the Tow Vehicle

Pick reference points on the front and rear bumper of the towing vehicle. Measure and record height to pavement.

Front bumper to pavement: \_\_\_\_\_ / Rear bumper to pavement: \_\_\_\_\_

For vehicles with air springs, air shocks or automatic leveling systems only, check the vehicle's owners manual or other instructions on these items. Unless otherwise indicated, air springs and air shocks should be deflated to their minimum recommended pressure before assembling and adjusting the weight distributing hitch.

## Determine the 'Target' Uncoupled Ball Height for the Tow Vehicle

The tow vehicle's uncoupled ball height will be set higher than the coupler height measured in the figure in 'Measure Trailer Ball Height' to allow for vehicle squat when coupled to the trailer.

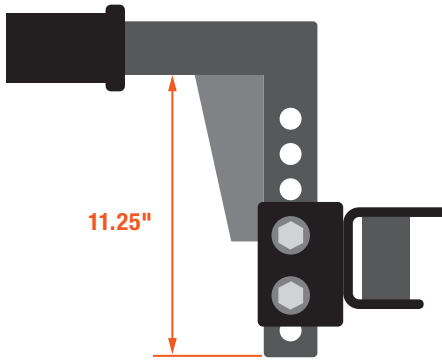
For passenger cars, add 1/8" for each 100 lbs. of tongue weight. Record ball height: \_\_\_\_\_

# INSTALLATION

## Step 1

Insert the adjustable shank (#2) into the receiver tube on the tow vehicle and secure with the provided hitch pin & clip (#10, #11).

**IMPORTANT:** Shank must be used in the inverted position only. Check for adequate ground clearance.



## Step 2

Select a 1 1/4" threaded-shank trailer ball to match the trailer coupler and load capacity equal to or exceeding the gross trailer weight.

Attach the trailer ball to the hitch head (#1) using a lock washer and nut.

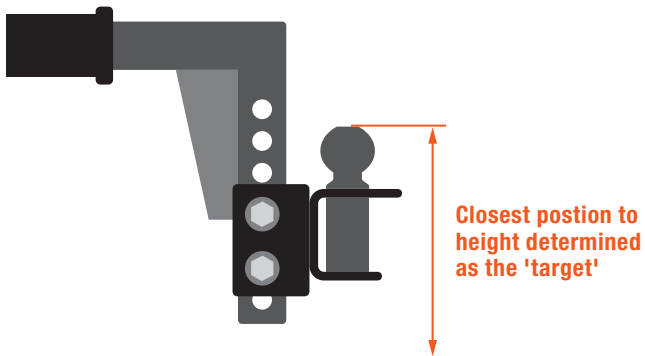
**Note:** If a 1" threaded-shank trailer ball is desired, a CURT reducer bushing #21101 must be used (sold separately).

## Step 3

Position the hitch head (#1) on the adjustable shank (#2). Slide the head up or down to the nearest bolt hole alignment position, which corresponds with the target ball height determined on page 2.

Mark the position on the shank.

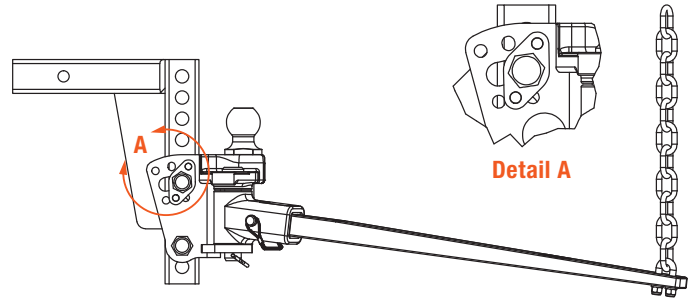
Set the initial tilt position and loosely attach the hitch head (#1) to the adjustable shank (#2) in the position determined above.



## Step 4

For initial setup, place the head tilt spacers (#13) into the position shown.

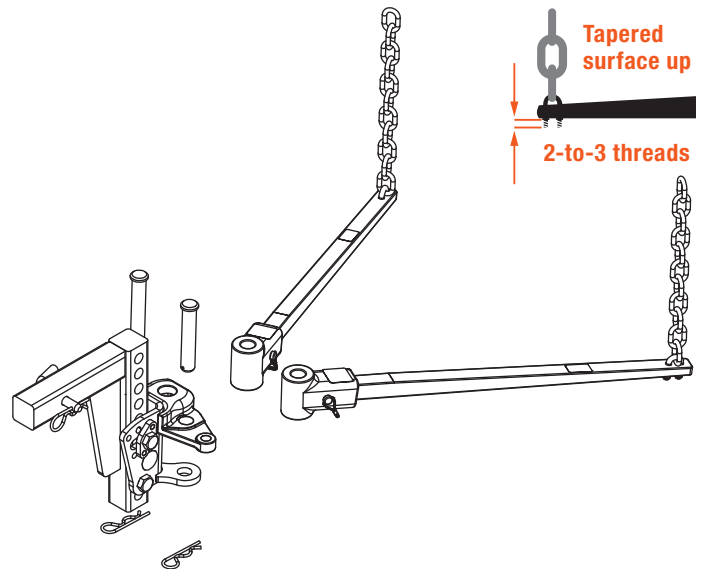
Tighten the top 3/4" - 10 bolts (#14, #15) just enough to hold the spacers (#13) into the hitch head (#1). These bolts will be tightened after the correct tilt setting has been determined.



## Step 5 - Installing the Spring Bars

Secure the two spring bar assemblies (#3) with the provided spring bar pins & clips (#6, #7). Ensure the chain assemblies are on the top side of the spring bars before pinning the bars in position.

Be sure that two-to-three threads are exposed past the end of the nylock nut (#12) before applying tension to the bars.



## Step 6 - Trailer Attachment

Using the trailer tongue jack, lower coupler onto the trailer ball and close coupler latch. Do not retract jack fully at this time. Allow the jack to support some of the tongue weight.

Raise the front of the trailer and back of the tow vehicle approximately 3" with tongue jack. This will allow easier installation of the chains on to the hook of each lift bracket.

# LIFT BRACKET INSTALLATION & OPERATION

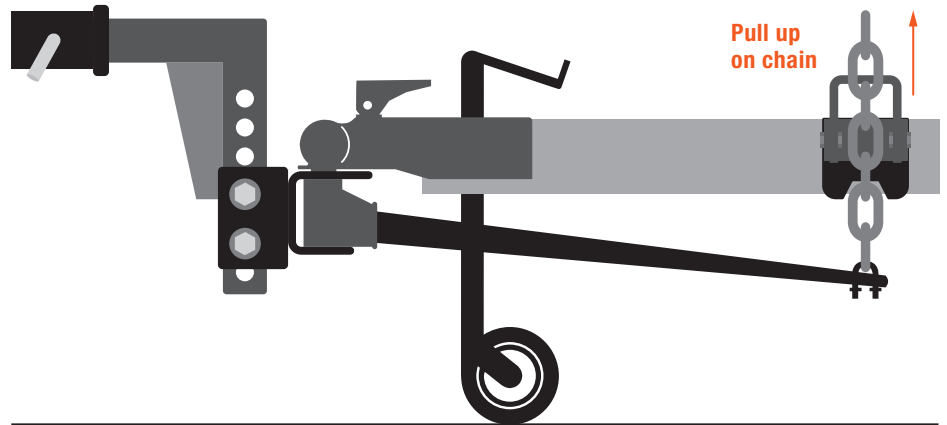
## Step 1

Position the spring bar, which has been attached to the hitch head, parallel with the trailer tongue.

Hold the lift chain vertical up alongside the trailer tongue. Position the lift bracket on the trailer tongue so that the chain is centered between the lift bracket, as shown.

**Note:** Some trailers may have an obstruction on one side of the frame. Order the offset lift bracket kit from your local dealer. Follow the installation instructions provided with that kit for proper installation.

**CAUTION:** If chain is angled fore or aft at the top within the lift bracket, it may catch on the lift bracket when trailer is turning. This could damage the lift bracket or pry it open.



## Step 2

Mark the location of the lift bracket on the trailer tongue.

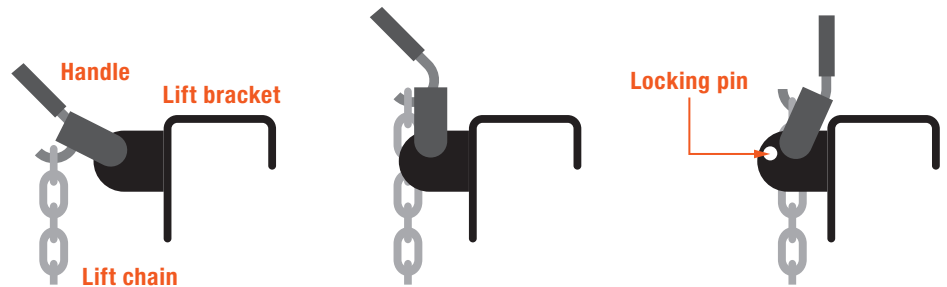
Install a 1/2" - 13 bolt (#16) into the threaded hole in the lift bracket. Turn the bolt in until it contacts the trailer tongue, then tighten a 1/4-turn with a wrench. Do not over tighten.

The amount of leveling is adjusted by engaging different spring bar chain links with the lift unit. Follow the steps in the 'Lift Bracket Operation' section.

## Lift Bracket Operation

Before raising or lowering the lift bracket, raise the front of the trailer to reduce the spring bar chain tension. This will make the lift bracket operation easier and safer.

**WARNING:** Keep clear of the pivot path of all moving parts when there is tension on the spring bar chain. Maintain control of the lift handle at all times when raising or lowering the spring bar. Be sure that the locking hair pin is in place once lift bracket is in the up position.



## Raising the Lift Bracket

Slip the marked chain link over the hook on the lift bracket. Refer to the figure above in 'Lift Bracket Operation'.

Insert the lift handle onto the heavier rod above the lift chain attachment. Using the handle, raise the lift bracket up and over the center so that it is fully seated against the mounting bracket. Secure with a clip through the lift and mounting bracket. **Note:** Ensure the chain is not twisted and the hook extends through the link.

## Lowering from Fully Raised and Locked Position

Remove the locking pin from lift bracket. Insert the lift handle onto the rod above lift chain attachment.

Carefully lower bracket with handle. It will require effort to bring the bracket over center and then to resist the chain tension as the bracket rotates downward.

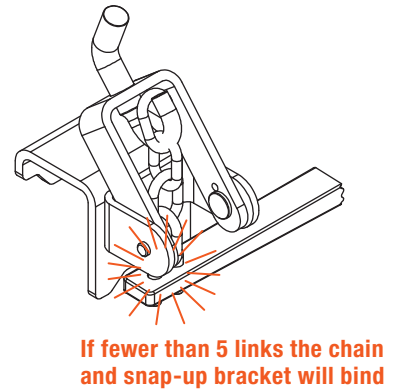
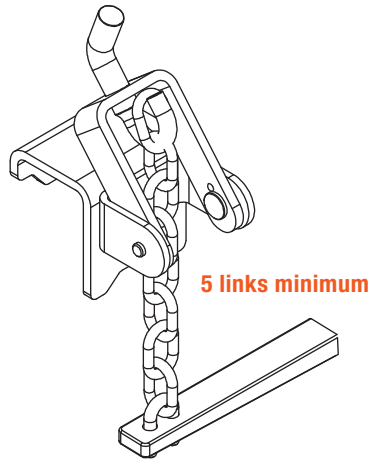
# ADJUSTMENTS

## Checking Vehicle Height and Spring Bar Adjustment (if necessary)

The vehicle should settle evenly. Re-measure the front and rear bumper reference points. If the front has settled much more than the rear, increase the number of chain links between the lift bracket and the spring bar. The spring bars should be nearly horizontal when correct height is achieved.

When even settling and correct spring bar position have been achieved, mark the spring bar chain at the hooked position with paint for future hook up reference.

**Note:** The figures to the right show the correct and incorrect hook-up position of the spring bars. To allow movement when turning, there should be at least five links between the lift bracket and the spring bar. The number of links should be the same on both bars. Adjust the head tilt to accomplish the correct chain length.



## Adjusting Head Tilt

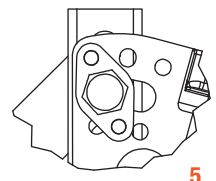
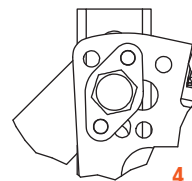
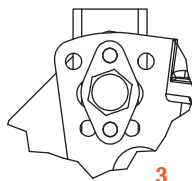
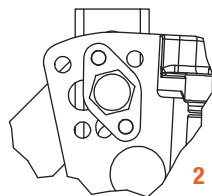
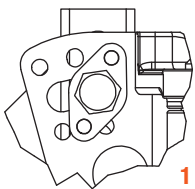
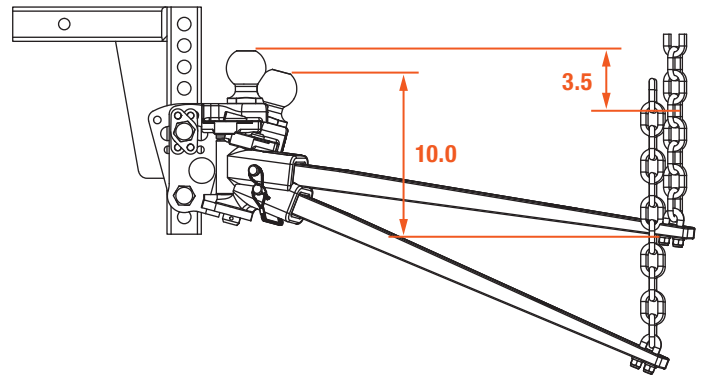
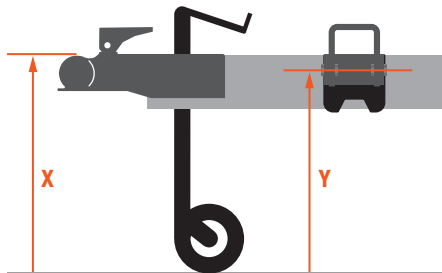
If your tow vehicle cannot be leveled with the initial 'Position 1' head setting, increase the tilt position. Increasing head tilt will allow more tension to be applied to the arms without exceeding the minimum five link clearance shown above.

The table below can be used as a guide for the maximum tension setting in each position. The calculation may also be used to determine the tilt position if the snap-up bracket is mounted significantly below the trailer coupler.

The maximum tension for each position is achieved when only five chain links remain between the snap-up bracket and spring bars.

### Tilt Positions ( $X - Y = Z$ )

If Z is	Use Position#
3.5	1
5.0	2
7.0	3
8.5	4
10.0	5



## Tighten Head Fasteners

After the correct tilt position has been determined and the tow vehicle is sitting level, the 3/4" bolts must be torqued.

Tighten 3/4" bolts and locknuts to 200 ft. lbs. Failure to tighten bolts may result in a complete system failure.

## Check All Connections Before Towing

1. Pin & clip securing the adjustable shank to receiver
2. Head to shank fasteners
3. Trailer ball nut
4. Coupler latch
5. Snap-up bracket bolt
6. Safety chains
7. Lights and turn signals
8. Braking system (including breakaway switch)



# TOWING TIPS

Towing Tips	
<b>Driving a tow vehicle</b>	Good habits for normal driving need extra emphasis when towing a trailer. The additional weight of the trailer affects acceleration and braking. 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 occurred in any way, pull over and make a thorough inspection. Correct any problems before resuming travel.
<b>Check your equipment</b>	Periodically check the condition of all your towing equipment and keep in top condition.
<b>Trailer loading</b>	Proper trailer loading is very important. Heavy items should be placed close to the floor near the trailer axle center line. The load should be balanced side to side and firmly secured in the trailer to prevent shifting. Tongue weight should be 10-15% of the gross trailer weight for most trailers. Too low a tongue weight often produces tendency to sway.
<b>Sway control</b>	A sway control device is recommended, as it can help minimize the effects of sudden maneuvers, wind gusts and buffeting caused by passing vehicles. Use of a sway control device is recommended for trailers with a large surface area, such as travel trailers. This head assembly will accept two sway control attachment balls.
<b>Check all trailer to towing vehicle connections for security and operation</b>	<p>Surge brakes require a small amount of fore and aft movement for their actuating mechanism to function correctly. To avoid restricting movement, it may be necessary to increase the number of chain links between the lift brackets and spring bars, by tilting the head down. Tighten the two 3/4" bolts to 200 ft. lbs. torque once head angle is set.</p> <p>Surge brake actuators not designed for use with a weight distributing hitch may bind and not operate freely. Check surge brake operating instructions for specific requirements regarding their use with weight distributing hitches.</p>
<b>Remove hitch when not towing</b>	Remove weight distribution hitch from the trailer hitch on towing vehicle when not towing a trailer to reduce the chances of striking weight distribution hitch on the driveway or other objects. This also reduces the chance of parts being stolen.
<b>Towing vehicle and trailer manufacturer's recommendations</b>	Review the owner's manual for your towing vehicle and trailer for specific recommendations, capacities and requirements.
<b>Pole tongue trailer</b>	If your trailer has a straight (pole) tongue, instead of an A-frame tongue, as shown in the illustrations in this instruction manual, it will be necessary to use a pole tongue adapter for hook up of the weight distributing hitch lift brackets.
<b>Passengers in trailers</b>	Trailers should not be occupied while being towed. Most states enforce this regulation.
<b>Trailer lights, turn signals and electric brakes</b>	Always hook up all of the trailer lights, electric brakes and break-away switch connections whenever trailer is being towed.
<b>Tire inflation</b>	Unless specified by the towing vehicle or trailer manufacturer, tires should be inflated to their maximum recommended pressure.
<b>At the beginning of every tow day</b>	<p>Coat the clevis pins in head assembly with a fibrous grease.</p> <p>Clean ball and coupler socket. Coat ball lightly with grease.</p> <p>Check spring bar chains and U-bolts for wear and security. Replace if they become worn.</p> <p>Check to see that all trailer balls are properly tightened and that the locking pins in the lift brackets are securely in place. Also, check that the hitch pin is in place and secure.</p> <p>Check to see that all electrical hook-ups are in working order and that the security chains are securely connected.</p>
<b>Notes</b>	<p>Some states require a clear view of license plates.</p> <p>Remove trailer ball when not in use if it restricts view.</p> <p>This product complies with regulation V-5, C.S.A. Standard D-264 and safety requirements for connecting devices and towing systems of the State of New York.</p>