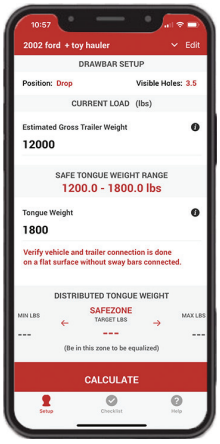
TRUE TOW®

WEIGHT DISTRIBUTION HITCH

LIGHTWEIGHT

OWNER'S MANUAL





DOWNLOAD THE *WEIGH SAFE TRUE TOW* APP

AVAILABLE SIZES

DROP LENGTH	SHANK SIZE
4″	2″
6″	2.5″
8″	
10″	

WEIGHT RATINGS

MAX GROSS TRAILER WEIGHT
(BASED OFF SPRING ARMS)

6,500 LBS
10,000 LBS

For additional tools that simplify installation and use, download the Weigh Safe App (iOS and Android devices) or visit our website at www.weigh-safe.com.

Read the entire manual before installation of the Weigh Safe True Tow Weight Distribution - Lightweight Hitch.

Engineered in the USA — Made in Taiwan

Dealers: Please pass this manual to new Weigh Safe customers after hitch installation.

Last Revised: 09/2026

STEP-BY-STEP INSTALL VIDEO

GETTING STARTED

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REQUIRED TOOLS

- Measuring tape
- Lift Arm with 15⁄16" socket end (provided)
- Torque wrench capable of 150 ft-lb
- 15⁄16" Socket
- 3⁄4" Socket

ADDITIONAL WEIGHT DISTRIBUTION COMPONENTS

ATTENTION WEIGH SAFE HITCH OWNER

Keep This Manual
Please keep this manual available for reference in the event you do not have access to the Weigh Safe True Tow App or to our website at www.weigh-safe.com.

Replacement
This manual is available on the Weigh Safe True Tow App and on our website at www.weigh-safe.com. You can also request a replacement copy by calling Weigh Safe Customer Support at (801) 820-7020.

Further Assistance
For help installing or using your Weigh Safe True Tow Weight Distribution Hitch - Lightweight, please contact a qualified Weigh Safe Dealer in your area, call Weigh Safe Customer Support at (801) 820-7020, or email us at support@weigh-safe.com.

IMPORTANT SAFETY INFORMATION

FAILURE TO FOLLOW ALL SAFETY WARNINGS MAY RESULT IN SEVERE INJURY OR DEATH.

WARNING

Installing, setting up, and measuring weight distribution appropriately does NOT guarantee safe towing. The vehicle operator is responsible to optimize weight distribution and sway control by making necessary adjustments. However, each trip and load are different. The weight distribution setup and towing performance should be evaluated by the vehicle operator and adjusted appropriately both before and during the tow.

Responsibility falls on the driver to properly adjust the towing equipment and to adjust his or her driving habits to account for the trailer requirements, the towing conditions, and the road conditions. The driver alone is responsible for their own safety and the safety of any passengers in the vehicle. Towing with a tongue weight of less than 10% or more than 15% of the gross trailer weight greatly increases the likelihood for loss of vehicle control.

Thoroughly read, understand, and follow all safety warnings, setup, use, and maintenance instructions of your tow vehicle, trailer, and towing/hitching equipment prior to installing your hitch and before towing your trailer.

Even if a dealer installed your hitch, verify that the hitch is properly adjusted after loading your trailer onto the tow vehicle prior to your trip.

This hitch setup does not guarantee that trailer sway will be avoided altogether.

This hitch is not designed to work behind a motorhome with spring arms in use. The recommended max distance from the vehicle's rear axle to tow ball is 70".

ALWAYS load the contents of a trailer correctly and properly. Follow tow vehicle and the trailer manufacturer's recommendations for quantity and placement of cargo.

ALWAYS use a tow ball with a weight rating that meets or exceeds the Gross Vehicle Weight (GVW) requirements for your specific trailer.

ALWAYS use a tow ball size that matches your trailer's coupler size and double check to make sure the tow ball and the trailer coupler are properly and securely joined prior to towing.

ALWAYS inspect all fasteners prior to each trip for wear/tear and fatigue. Ensure all nuts, bolts, pins, and clips are tightly and securely in place. Do NOT tow your trailer until all fasteners have been checked.

NEVER tow until your hitch is properly adjusted.

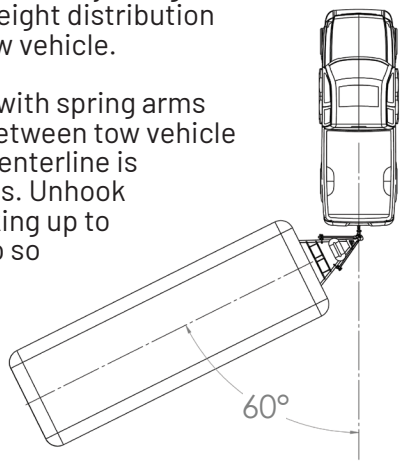
NEVER exceed the weight rating specified for the tow vehicle, trailer, hitch, tow ball, or any other towing equipment.

NEVER cut, weld, grind, bend, or modify any of the hitch components in any way.

NEVER tow with your spring arms attached in extreme road conditions including, but not limited to, on rough roads, through ditches or dips, or while launching a boat. Excessive strain on the spring arms and hitch head may cause hitch fatigue and/or failure.

NEVER transfer your hitch to a different tow vehicle or trailer without re-adjusting the hitch for proper setup and weight distribution required by the new tow vehicle.

NEVER tow or back up with spring arms attached if the angle between tow vehicle centerline and trailer centerline is greater than 60 degrees. Unhook spring arms while backing up to avoid this. Failure to do so may cause damage or hitch failure and will void warranty.



CAUTION

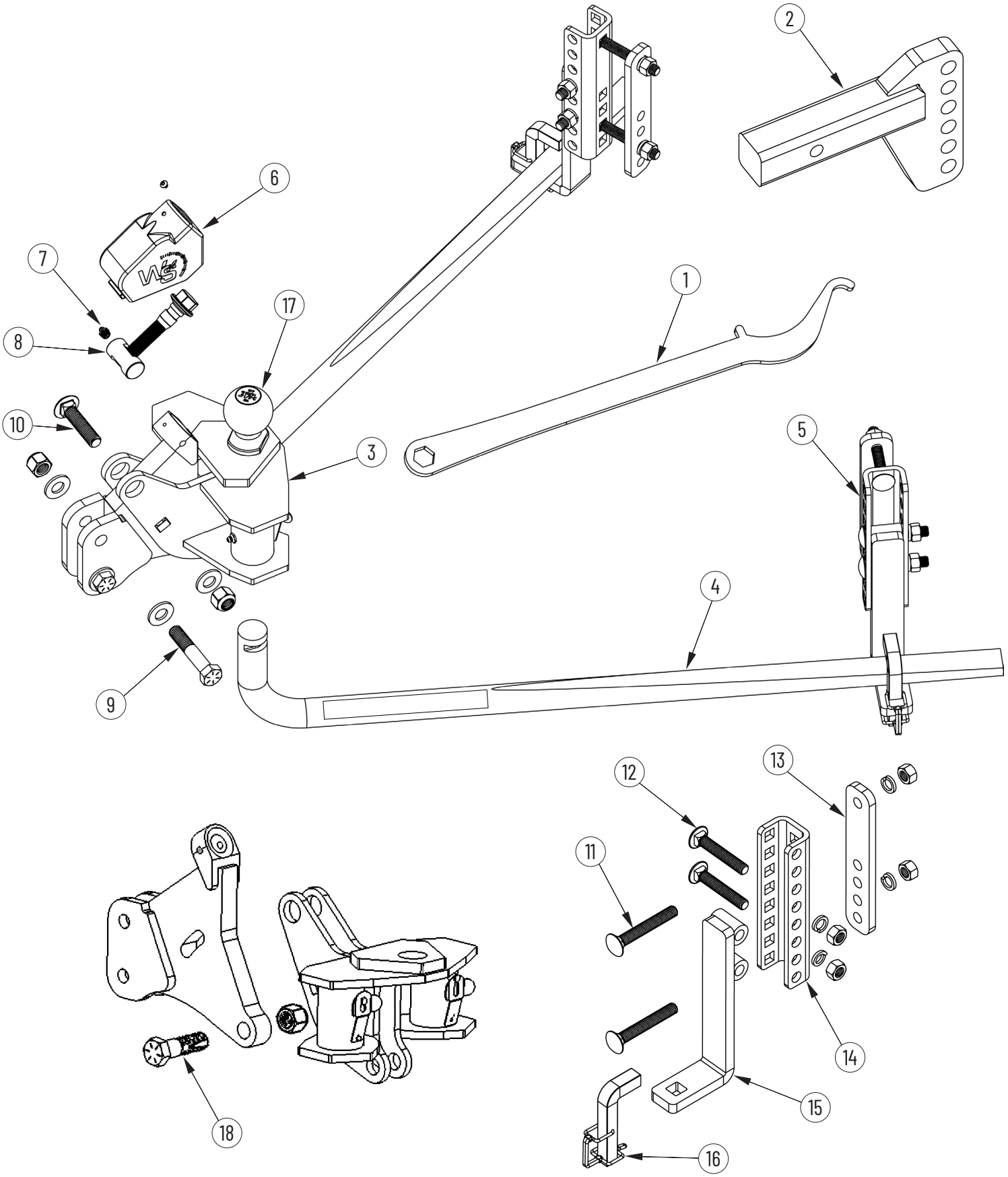
Unless instructed, do ***NOT*** loosen or remove any part of the hitch while the hitch is in use with a trailer hooked up. Use the trailer tongue jack to remove the tension from the Spring Arms prior to removing the L-Fingers.

ALWAYS secure the tow vehicle and trailer by applying the parking brake and wheel stops prior to setup or adjustments.

To avoid excessive strain on the hitch assembly, disengage spring arms prior to towing or backing up the trailer across a significant transition in grade (e.g. backing from a flat street to a steep uphill driveway).

Notice: It is expected that trailer bracket platforms will wear over time as these are the components that create the anti-sway properties. These wear components will not be covered under warranty. Wear components can be purchased on our website.

PARTS BREAKDOWN



PARTS BREAKDOWN

ITEM #	PART #	PART DESCRIPTION	QTY (PER HITCH)
1	TTLA-LW	LIFT ARM WITH 15⁄16" SOCKET END	1
2	LWDB4-2	DRAW BAR; 4" DROP + 2" SHANK	1
	LWDB6-2	DRAW BAR; 6" DROP + 2" SHANK	
	LWDB8-2	DRAW BAR; 8" DROP + 2" SHANK	
	LWDB10-2	DRAW BAR; 10" DROP + 2" SHANK	
3	TTSL-LW	HEAD ASSEMBLY	1
4	LWSARM-LD	6.5K SPRING ARM	2
	LWSARM-MD	10K SPRING ARM	
5	TTBR-LW	TRAILER BRACKET ASSEMBLY	2
6	TT07-LW	LEAD SCREW DUST COVER	1
7	TT08	GREASE ZERKS	3
8	TT09-LW	LEAD SCREW ASSEMBLY	1
9	TT10-LW	HEIGHT ADJUSTMENT BOLT ASSEMBLY	2
10	TT17-LW	CLAMP BOLT ASSEMBLY	1
11	TT19	3.5" CARRIAGE BOLT ASSEMBLY	4
12	TT20	3" CARRIAGE BOLT ASSEMBLY	4
13	TT21-LW	INSIDE FLAT BRACKET	2
14	TT22-LW	OUTSIDE C CHANNEL BRACKET	2
15	TT23-LW	SPRING ARM PLATFORM	2
16	TT24	L-FINGER WITH PIN	2
17	TT27-2-LW	2" TOW BALL	1
	TT27-2 5⁄16 -LW	2 5⁄16" TOW BALL	
18	TT28-LW	PIVOT BOLT	1

INSTALLATION

STEP 1 – PRE-SETUP

Park your trailer and tow vehicle on flat, level ground, in a straight line (See *Figure 1*). Place wheel chocks on the trailer wheels, then uncouple the trailer from the tow vehicle. Pull the tow vehicle forward 4–5 feet to create working space.

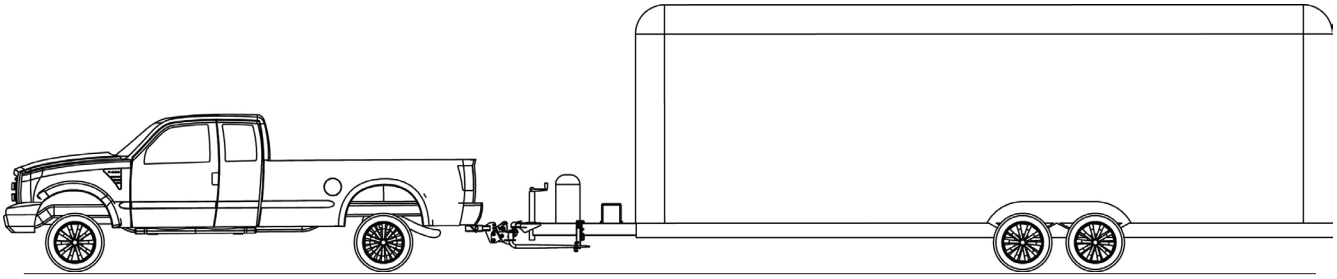


Figure 1

Prior to setting up your hitch, fully load your trailer with all your gear (including water tanks, propane, ATVs, etc.) and inflate all tow vehicle and trailer tires to the proper pressure before every connection.

STEP 2 – TOW BALL INSTALLATION (IF NOT PRE-INSTALLED)

If your hitch ***did not*** come with a tow ball pre-installed, follow these steps:

1. **Choose the Correct Tow Ball**
    - The tow ball must have a 1-¼" shank diameter.
    - Select a ball size that matches the trailer coupler (1 ⅞", 2" or 2 5⁄16").
    - The tow ball's weight rating must be equal to or greater than the Gross Trailer Weight Rating (GTWR).
2. **Install the Tow Ball**
    - Insert the tow ball shank through the tow ball hole in the Head Assembly.
    - Place the lock washer and nut onto the shank.
    - Most 1-¼" tow ball shank nuts require a 1-⅞" socket. Torque the nut to the manufacturer's recommended specification (typically around 450 ft-lbs).

NOTE: If you do not have access to the proper tools, your nearest RV dealer can assist with installing or removing tow balls.

STEP 3 – HEAD ASSEMBLY HEIGHT ADJUSTMENT

THE GOAL OF THIS STEP IS TO ENSURE YOUR TRAILER RIDES LEVEL WHILE TOWING.

Level the Trailer – Use a tape measure to check the trailer frame at the front and back. Adjust until both measurements are equal, ensuring the trailer is parallel to the ground.

INSTALLATION

Measure Coupler Height — With the trailer level, measure from the ground to the top of the coupler. The top of the tow ball on the head assembly should sit above this height. A good starting point is to raise the tow ball about 2" higher than the coupler measurement to accommodate for suspension compression. This may vary depending on trailer weight and tow vehicle suspension (See *Figure 2*).

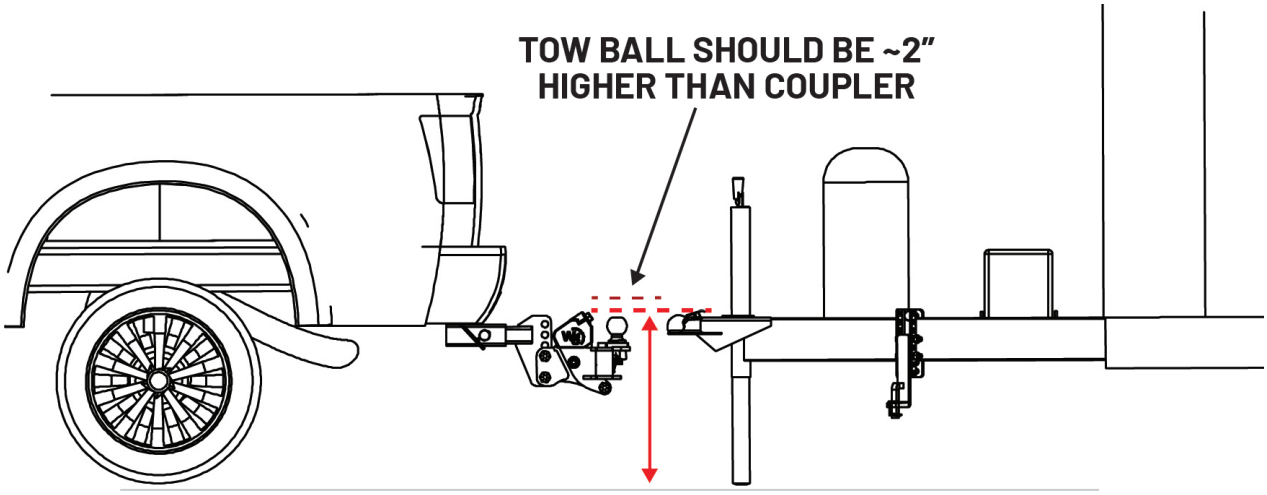


Figure 2

Install the Draw Bar — Insert the correct draw bar size into the vehicle receiver. Depending on coupler height, the draw bar may need to be in the rise or drop position. (See *Figures 3A and 3B*).

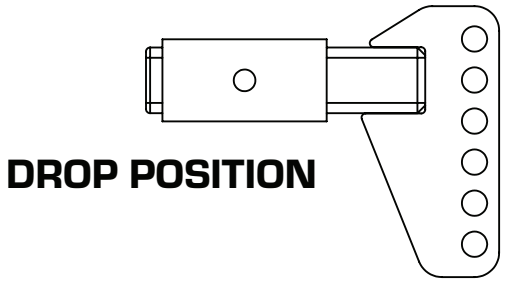


Figure 3A

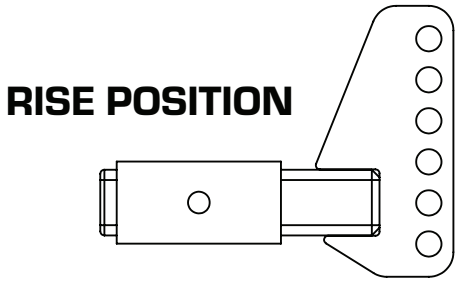


Figure 3B

Set Ball Height — Slide the head assembly onto the draw bar and insert the Grade 8 bolts and washers in the proper holes to set ball height. Ensure a washer and a flat lock washer is placed between the bolt head and slider (See *Figures 4A & 4B*). Torque bolts to 150 ft-lb.

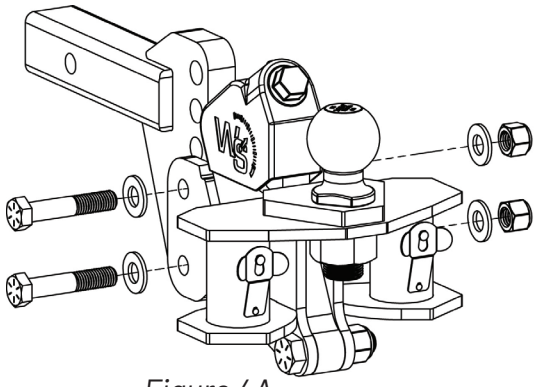


Figure 4A

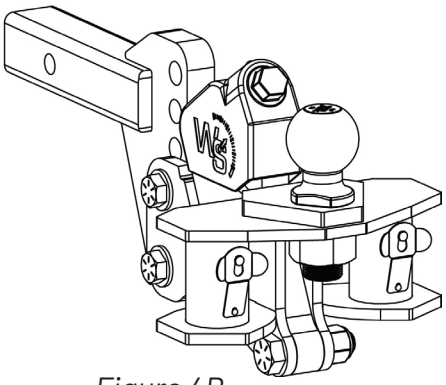


Figure 4B

STEP 4 – TRAILER BRACKET INSTALLATION

1. Locate Bracket Location

- Measure **30" from the trailer coupler center** along each side of the trailer frame and mark the location.
- Ensure no brake lines, wiring, or gas lines obstruct the placement. If necessary, reroute them or adjust bracket position.
- If a permanent obstruction exists (e.g., frame member, propane mount, battery mount), brackets may be moved forward, but no closer than **27" from the coupler center** (See *Figure 5*).

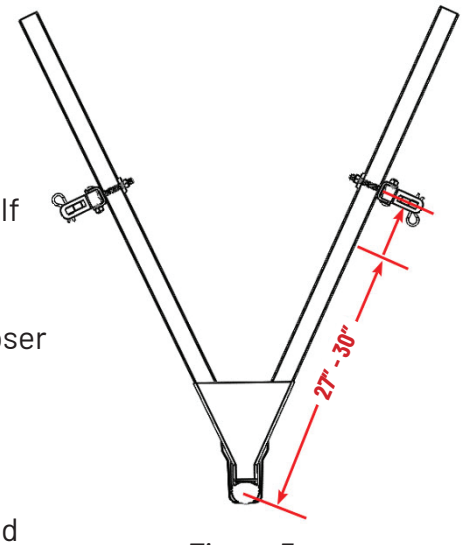


Figure 5

NOTE: Installing brackets at the full 30" mark reduces stress on the tow vehicle, hitch, and trailer, ensuring the safest tow.

If an obstruction prevents installation at the standard **27"–30"** position, and your trailer tongue weight is **less than 800 lbs.**, the brackets may be moved forward to a minimum of **25" from the coupler center**.

Keep in mind that moving the brackets forward may change ride stiffness and affect the weight distribution setup. *Always* check your system and make any necessary adjustments to ensure proper distribution and a safe tow.

2. Install Brackets on Trailer Frame

- Place a ½" x 3½" carriage bolt through the top hole of the outside C channel bracket and align it with the top hole of the inside flat bracket. Add a ½" lock washer and nut, tightening only hand-tight (See *Figure 6*).
- Slip the bracket assembly over the trailer frame, aligning the top bolt with your centerline mark. Hand-tighten the nut.
- Insert a second ½" x 3½" carriage bolt into the highest open hole in the outside C channel bracket under the trailer frame. Push it through the inside flat bracket, add the lock washer and thread on the nut hand tight (See *Figure 7*).
- **IMPORTANT:** Ensure no gap larger than ½" exists between bolts and the trailer frame, as this can cause bracket damage.
- Using a ¾" socket/torque wrench, alternately tighten the top and bottom nuts evenly until both are fully tightened. Do not over-tighten one side, as this can cause bracket damage.

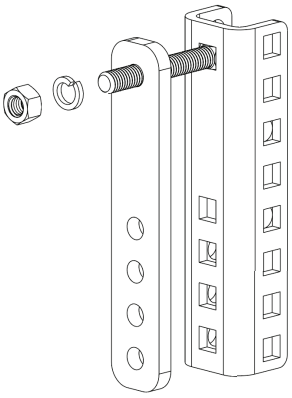


Figure 6

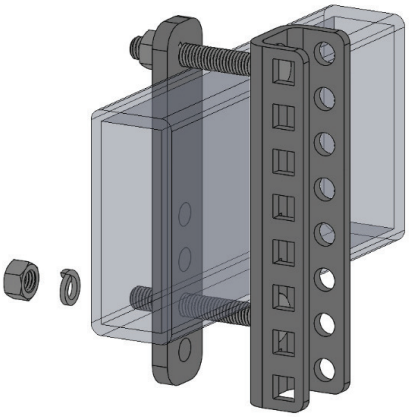


Figure 7

3. Set Spring Arm Platform Height

- Slide the spring arm platform between the outside C channel bracket.

- Adjust the height so the flat portion of the platform sits ~10" below the coupler, allowing spring arms to remain parallel with the trailer frame for the smoothest tow (See *Figure 8*).
- **Note:** In some cases, if the head assembly lead screw tops out before full distribution, the platform may need to be set slightly less than 10". Remember to loosen the clamp bolt before adjusting the lead screw.
- Once height is correct, insert two ½" x 3" carriage bolts into the ***square*** holes of the outside C channel bracket, align with the spring arm platform, and push fully through. Add washers and nuts, hand-tighten, then torque all bolts to **65 ft-lb** (See *Figure 9*).

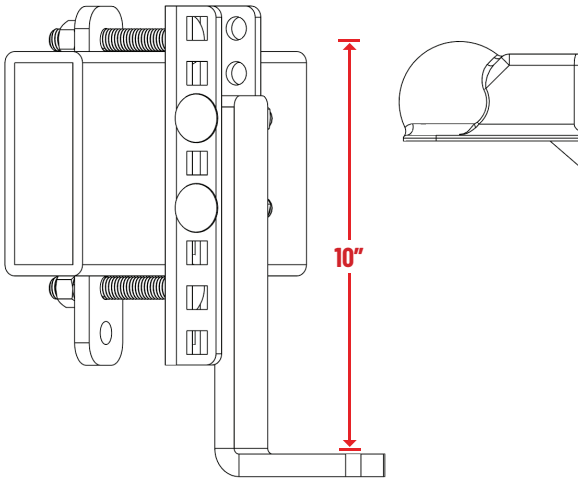


Figure 8

4. Repeat on Opposite Side

Install the second bracket on the other side of the trailer frame using the same process.

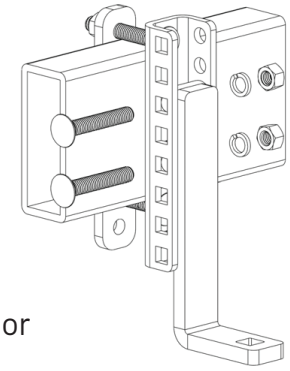


Figure 9

STEP 5 – SPRING ARM ASSEMBLY

- Insert the Spring Arm from the bottom of the Head Assembly into the Spring Arm Sockets, notched end first, until it snaps securely into place (See *Figure 10*). * Spring Arms are not side-specific and can be installed on either the left or right.
- Apply a light coat of bearing grease to the contact surfaces where the Spring Arm meets the Head Assembly to reduce wear and ensure smooth operation. (See Page 14 for maintenance)
- ***ALWAYS*** confirm both Spring Arms are fully seated and locked before towing.
- Repeat these steps on the opposite side.
- To remove, pull the retaining pin tab and pull the arm downward, or rotate the arm forward, past perpendicular to the trailer until it drops free.

TIP: Always swing the Spring Arms outward far enough before backing up to prevent damage to the trailer, brackets, and the arms themselves.

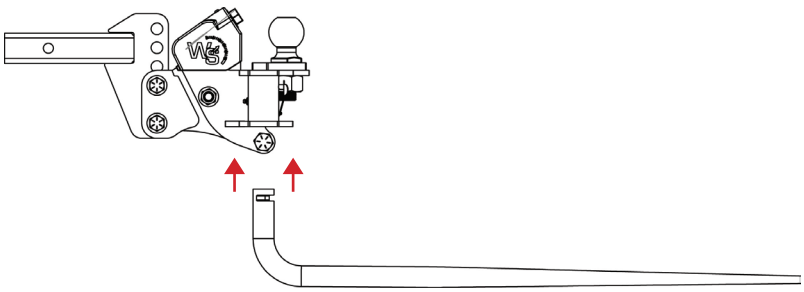


Figure 10

STEP 6 – WEIGHT DISTRIBUTION SETUP

Proper weight distribution is *critical* for safe towing. To ensure your setup is correct, measure the height of the tow vehicle's front wheel well in three different configurations:

1. Trailer uncoupled
2. Trailer coupled with ***NO*** spring arms
3. Trailer coupled ***WITH*** spring arms attached

Take the measurement from the ground to the fender along the axle's centerline for accuracy (See *Figure 11*). Record measurements in *Table 1* below.

TIP: For best results, record measurements from both the driver and passenger sides of the vehicle and use the average to confirm your calculations.

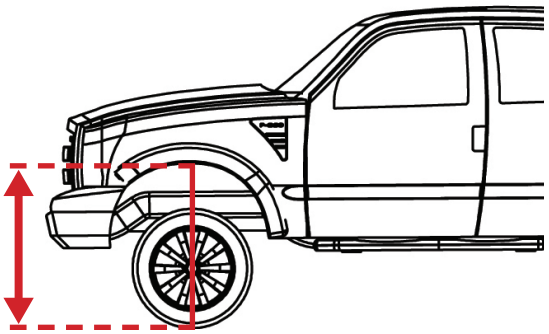


Figure 11

MEASUREMENT	FRONT WHEEL WELL	EXAMPLE
A: Unloaded & Uncoupled		30″
B: Trailer Coupled, No Spring Arms		32″
Find the midpoint height between A and B: (A + B) ÷ 2 =		31″
C: Trailer Coupled, Spring Arms Hooked Up & Weight Distribution engaged. - Hitch should be at least ***halfway to Line A***. - Above = under-adjusted, below = over-adjusted.		<30″ - TOO MUCH 30″-31″ - **GOOD** 31″-32″ - NOT ENOUGH

Table 1

MEASUREMENT A: BASELINE MEASUREMENT | UNLOADED – WITH TRAILER UNCOUPLED

Without the trailer hooked up to the truck, measure from the ground to the bottom of the driver-side front wheel well on your tow vehicle and record the measurement (See *Figure 12*). This establishes your starting point before the trailer is connected.

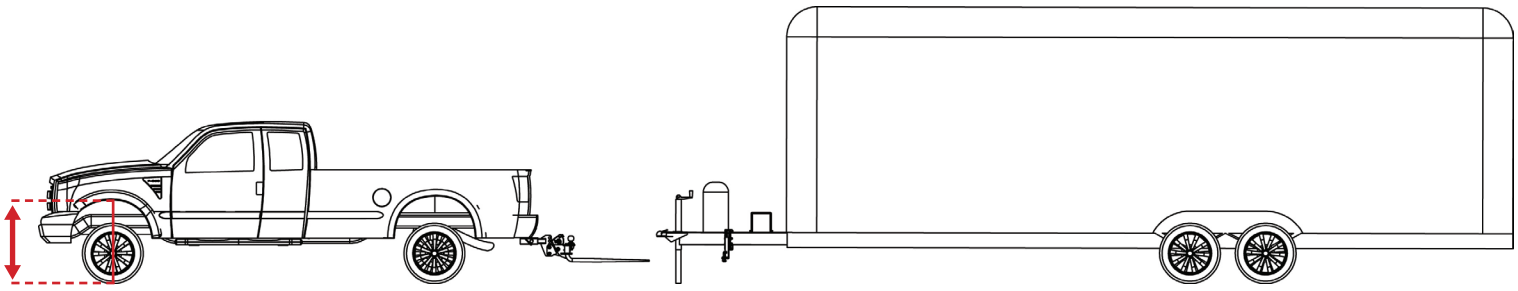


Figure 12

MEASUREMENT B: TRAILER COUPLED, NO SPRING ARMS

Lower the trailer onto the hitch ball and secure the coupler (Do ***NOT*** connect the Spring Arms). The full tongue weight should now rest on the hitch (See *Figure 13*). Measure from the ground to the bottom of the driver-side front wheel well and record the measurement.

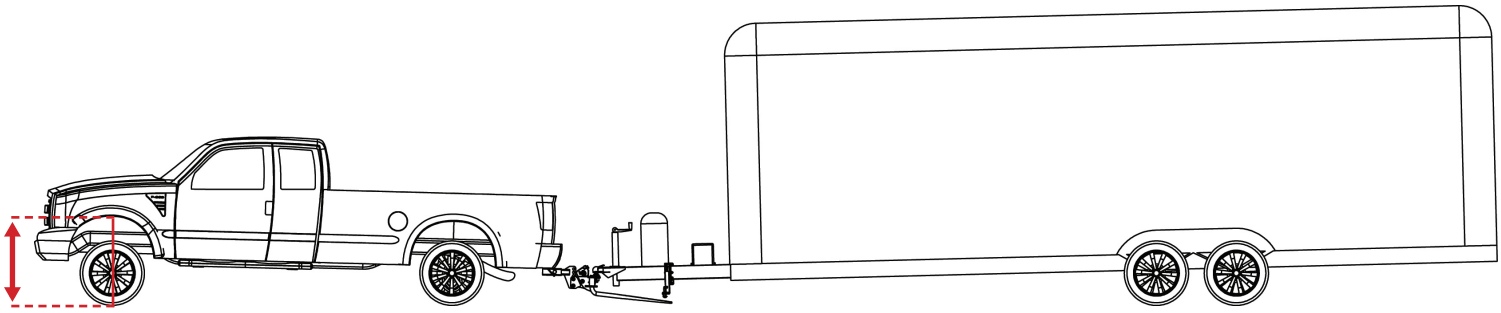


Figure 13

MEASUREMENT C: ENGAGE WEIGHT DISTRIBUTION | TRAILER COUPLED & SPRING ARMS ATTACHED

With the trailer still connected to the tow vehicle, use the tongue jack to raise both the trailer and vehicle until the Spring Arms can be swung into place over the Spring Arm Platforms.

If the Spring Arms cannot be positioned at the highest extension of the tongue jack, use the Lift Arm to move them into place and secure with the L-Fingers (See *Figure 14*A and 14B). Slowly retract the jack until the full tongue weight rests back on the hitch.

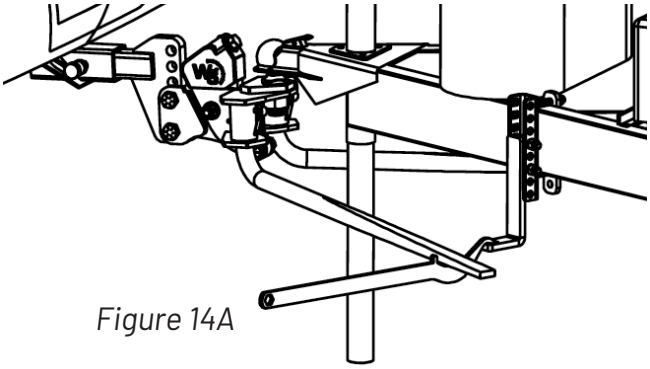


Figure 14A

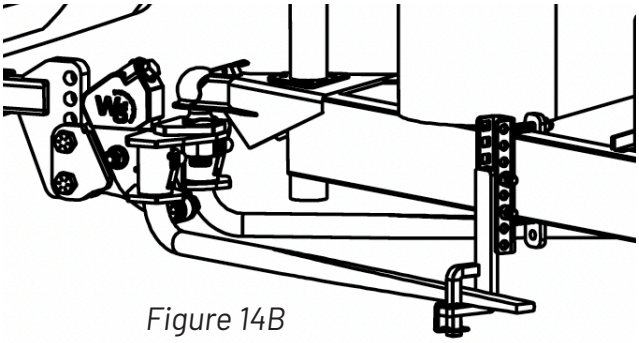


Figure 14B

With weight distribution engaged, spring arms in place and the jack fully retracted, measure from the ground to the bottom of the driver-side front wheel well and record measurement (See *Figure 15*).

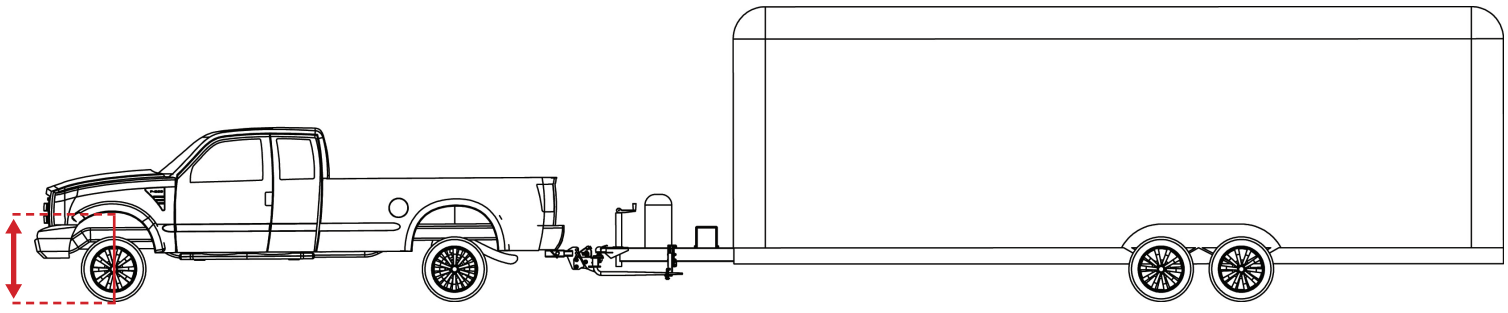
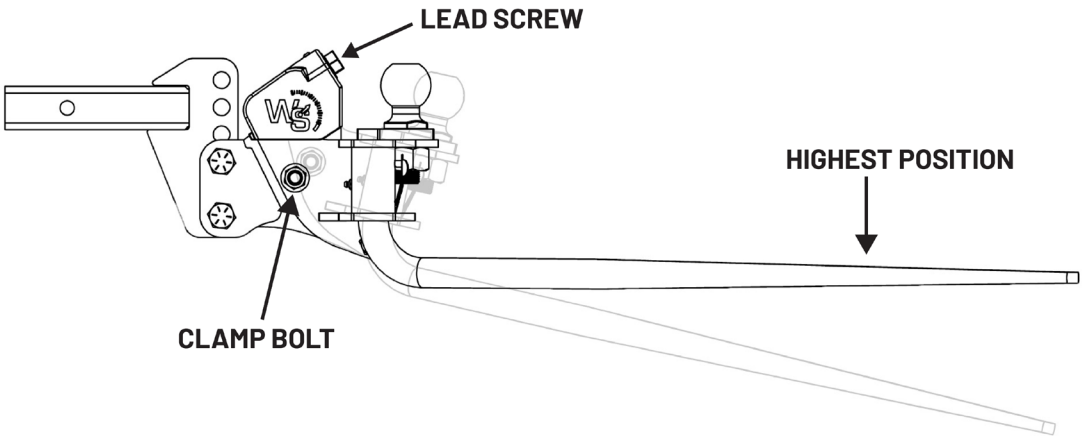


Figure 15

STEP 7 – LIVE WEIGHT DISTRIBUTING SYSTEM



Safe, Effective Distribution

Proper distribution is achieved when the height difference between the unloaded truck and the loaded truck (without spring arms) is reduced by half or all the way to zero.

Example: If the unloaded height is 30" and the loaded (no spring arms) height is 32", the 2" difference should be reduced to 1" or less (final height 30–31").

To Increase Distribution (front end too high):

1. Loosen the clamp bolt.
2. Turn the lead screw clockwise 1–2 full rotations (lowering the front end of the vehicle).
3. Jounce (bounce the trailer tongue with your foot) to release built-up friction.
4. Re-measure the front wheel well. Repeat as needed until measurement is in the safe zone.
5. Tighten clamp bolt to 65–120 ft-lbs.

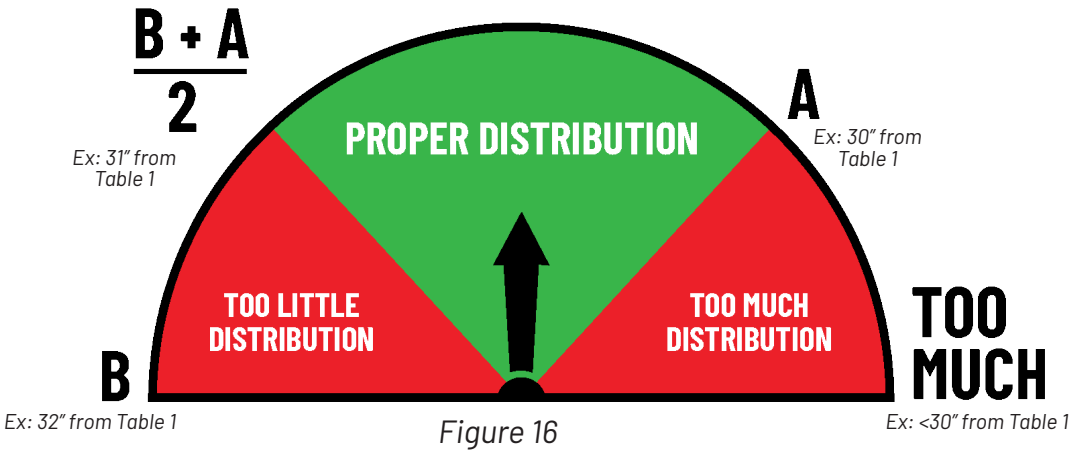


Figure 16

To Decrease Distribution (front end too low):

1. Loosen the clamp bolt.
2. Turn the lead screw counterclockwise 1–2 full rotations.
3. Jounce (bounce the trailer tongue with your foot) to release built-up friction.
4. Re-measure the front wheel well. Repeat as needed until measurement is in the safe zone.
5. Tighten clamp bolt to 65–120 ft-lbs.

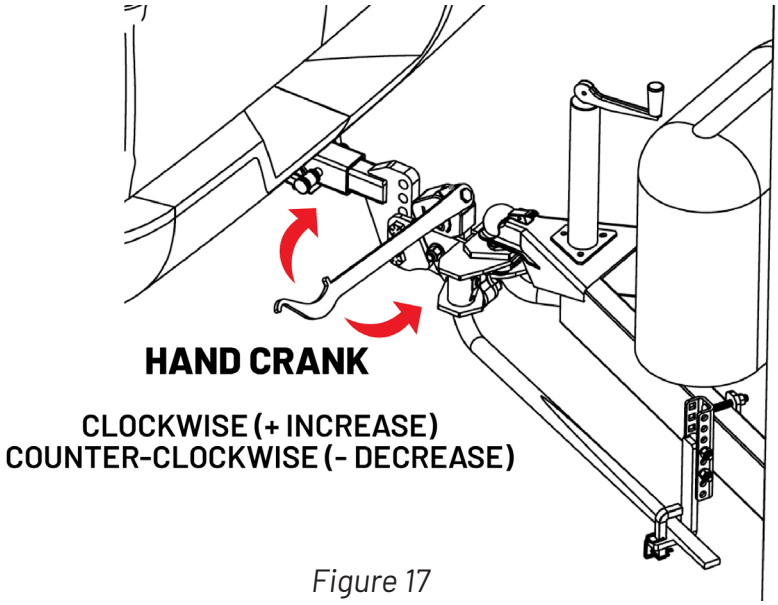


Figure 17

STEP 8 – DISCONNECTING YOUR HITCH

1. Park your trailer in the desired location, ideally on a level surface.
2. Set the tow vehicle's parking brake and place wheel chocks against the trailer tires.
3. Disconnect the electrical cord, safety chains, and breakaway cable from the tow vehicle.
4. Use the trailer tongue jack to raise both the trailer and tow vehicle until the Spring Arms are unloaded. This will allow you to easily remove the arms from the Spring Arm Platforms.
5. Remove the L-Fingers.
6. Slide the Spring Arms away from the trailer frame so they clear the brackets once the jack is lowered.
7. Lower the tongue jack until the trailer tongue rests back on the hitch (with some tongue weight applied) and unlatch the trailer coupler.
8. Raise the tongue jack to lift the trailer off the Tow Ball, then pull the tow vehicle forward to separate it from the trailer.

9. Disconnect the Spring Arms from the Head Assembly.

10. Store your True Tow Weight Distribution Hitch in a secure, weather-protected location.

STEP 9 – REGULAR INSPECTION AND MAINTENANCE

⚠ WARNING

Never tow unless every bolt, nut, pin, and bracket is properly secured. Loose hardware can create excessive stress on the hitch, increasing the risk of accidents, serious injury, or property damage. Always torque all bolts and nuts to the specified values before each tow (see Table 2).

TORQUE SPECIFICATIONS		
PART DESCRIPTION	**LIGHTWEIGHT**	**ITEM #**
Clamp Bolt	65 - 120 ft-lb	12
Trailer Bracket Bolts - Grade 5	65 ft-lb	14 & 15
Slider Bolts	150 ft-lb	10

Table 2

In addition, inspect the Head Assembly to ensure that all pins and screws are tight. Keep the friction surfaces on the Head Assembly clean and well-lubricated using high-pressure multi-purpose or bearing grease.

Lubrication Points

The Head Assembly contains three grease ports (See *Figure 18*):

A) Lead Screw Port – Lubricates the lead screw. Service at the start of each towing season, or twice yearly in warmer climates.

B) Spring Arm Ports (2) – Lubricate the contact surfaces between the spring arms and the spring arm sockets. Grease may also be applied directly to the spring arm ends instead of using the ports (See *Figure 19*). For safe operation, ensure spring arms are well lubricated before each tow.

To service:

1. Fill a grease gun with high-pressure multi-purpose or bearing grease.
2. Pump grease into ports.

Fill ports generously to ensure proper lubrication.

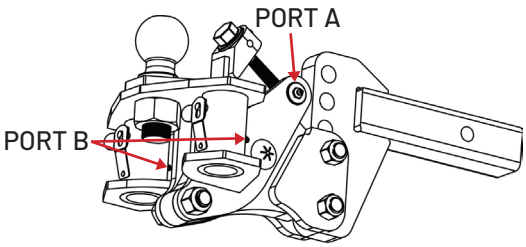


Figure 18

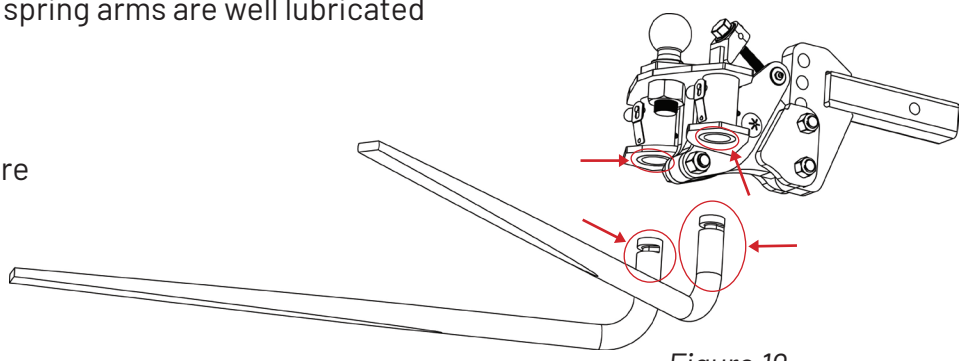


Figure 19

TOW WITH CONFIDENCE!

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