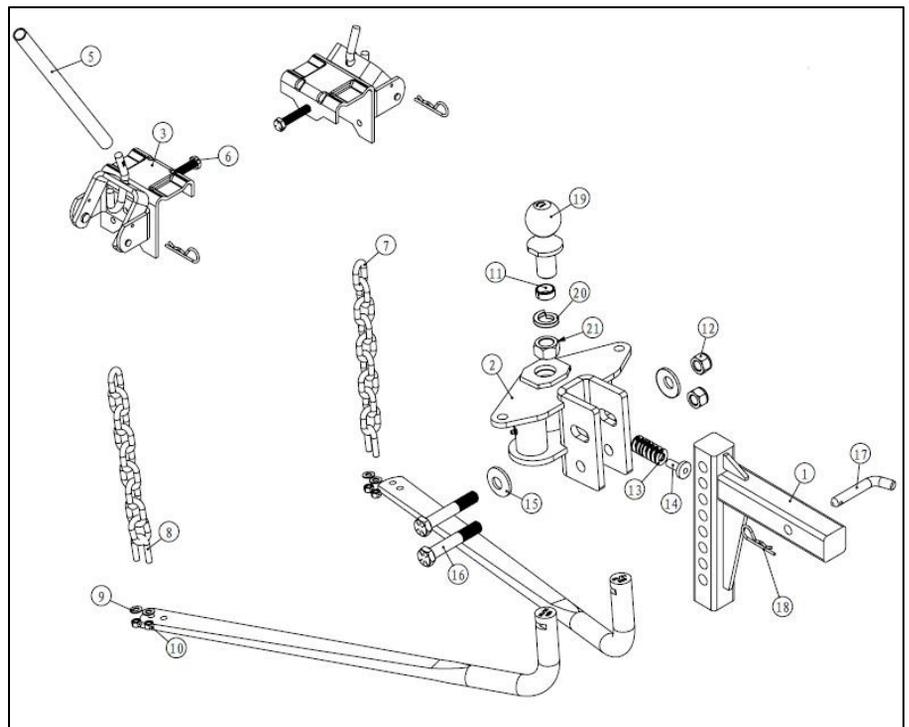




Installation Instructions
Weight Distribution Hitch
Part# 87750

WWW.SMITTYBILT.COM

Item #	Qty	Description
1	1	Adjustable Shank
2	1	Hitch Head
3	2	Snap-up Bracket
4	2	Hairpin for snap up bracket
5	1	Handle pipe
6	2	M12-1.75x100mm Hex Head Bolt gr. 10.9
7	2	Lift chain
8	2	U-bolt
9	4	M10 Flat Washer
10	4	M10-1.5 Lock Nut
11	1	Reducer bushing
12	2	3/4"-10 grade 8 nylock nut
13	7	1/2" flat washer
14	1	Adjustment pin
15	2	Conical washer
16	2	3/4"-10x5" hex head bolt grade 8
17	1	5/8" hitch pin
18	1	hair pin for hitch pin
19	1	2 5/16" hitch ball 14k lbs. 1 1/4" shank
20	1	1 1/4" flat washer
21	1	1 1/4"-7 Hex nut



For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220

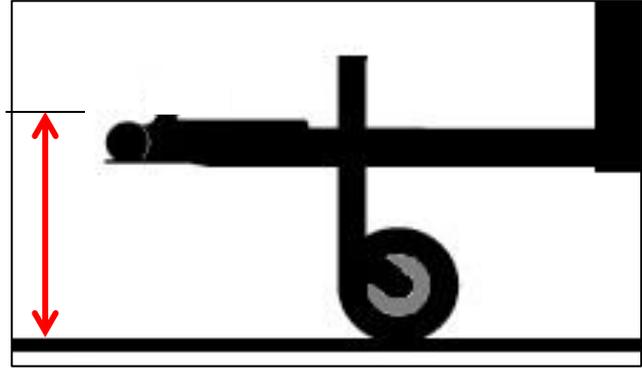


WWW.SMITTYBILT.COM

Installation Instructions
Weight Distribution Hitch
Part# 87750

1. On level ground, position the tow vehicle ahead of the trailer. Level the trailer using the tongue jack. Measure the distance from the ground to the top of the coupler socket. Record this measurement.

Trailer tongue height: _____



2. For vehicles with load assist, check owners manual or other instructions on these items. Unless otherwise noted, air springs and air shocks should be deflated to their minimum recommended pressure before adjusting the hitch.

4. Determine the target uncoupled ball height for tow vehicle. The tow vehicles uncoupled ball height will be set up higher than the coupler height. Take the measurement from Step 1 and add 1/8" for every 100 lbs. of tongue weight.

Record this height.
Vehicle ball height: _____

3. Choose some reference points on the front and rear bumper of the towing vehicle. Measure and record the distance to the ground from these points.

Front bumper to ground: _____

Rear bumper to ground: _____

5. Insert adjustable shank into receiver on tow vehicle and secure with hitch pin and hair pin. Shank can be used in either an upward or downward position. If in the downward position, check for adequate ground clearance.

For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220



Installation Instructions

Weight Distribution Hitch

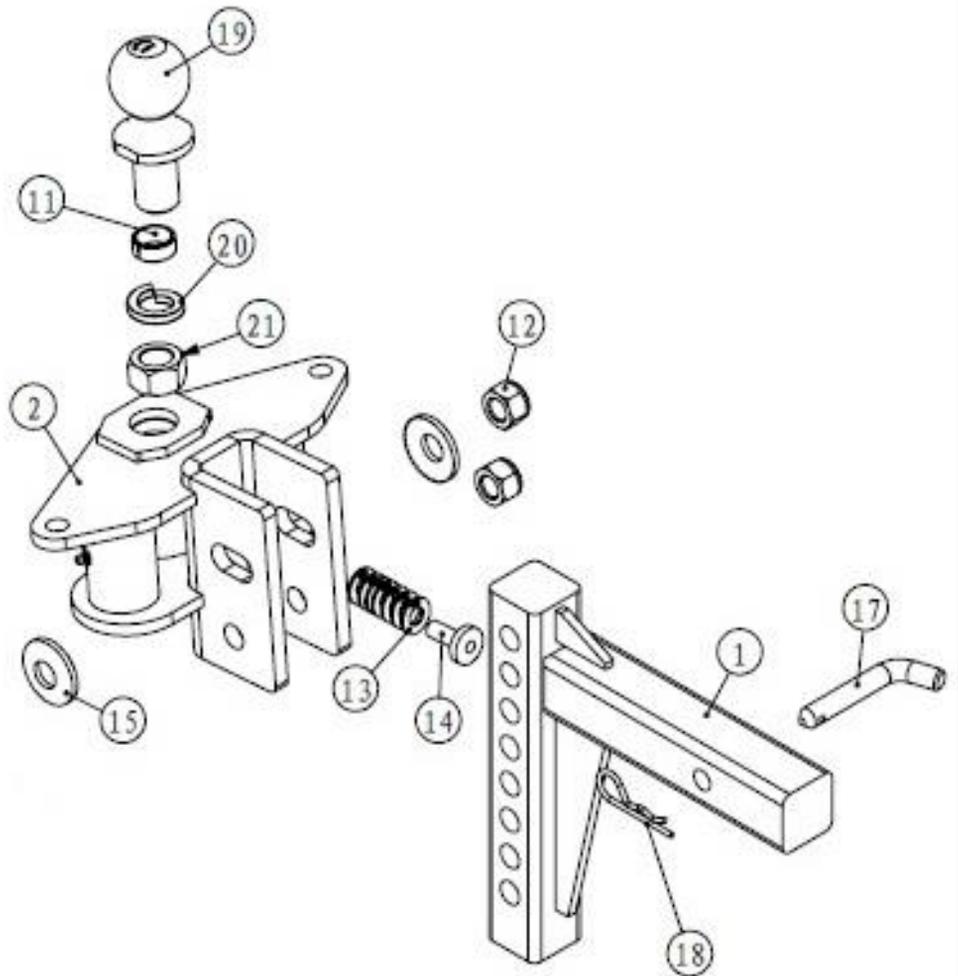
Part# 87750

WWW.SMITTYBILT.COM

6. Attach hitch ball to coupler. coupler is setup to use a 1 ¼" shank hitch ball. If 1" shank hitch ball is used, the reducer bushing must be used on the shank. Torque 1" shank diameter balls to 250 ft. lbs., and 1-1/4" shank diameter balls to 450 ft. lbs.

8. Place 7 flat washers(#13) on to the adjustment pin(#14) and insert pin into the unthreaded hole in the coupler. The number of washer will be changed later. Use a piece of tape to help hold it in place.

7. Position coupler on to shank in the nearest position which corresponds with the target ball height measurement from step 4.



For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220



WWW.SMITTYBILT.COM

Installation Instructions
Weight Distribution Hitch
Part# 87750

9. Install coupler onto the shank in the marked position. Use $\frac{3}{4}$ "x5" bolt in the round hole on the coupler and $\frac{3}{4}$ " nut. Do not tighten hardware. Rotate coupler as far forward as it will go. Install $\frac{1}{2}$ " bolt into the front hole on the coupler head. Use this to remove any play in the coupler head before tightening the $\frac{3}{4}$ " hardware. The ball should be vertical or slightly tilted back. If not, change the number of washers on the adjustment pin. Each washer lowers chain end of spring bar by approximately 1.5". Install the remaining $\frac{3}{4}$ " bolt with conical washers into the oblong hole. The peak of the washer will be towards the head of the bolt and nut. Tighten the bolt with the conical washer only enough to prevent coupler from moving. Hardware will be tightened at a later time.

10. Assemble, lube and install spring bars. Secure lift chains to the tapered ends of the spring bars. The tapered surface should face upwards. Use $\frac{3}{8}$ " U-bolts and nylock nuts. Tighten U-bolts so that 2-3 threads of the U-bolt extend past the nylock nut. The chain must move freely around the U-bolt.



11. Lube the ends of the spring bars with a high pressure heavy duty grease, then insert into the head socket. Push end of spring bar into coupler head until a click is heard, this indicates the lock pin has engaged the spring bar. To remove spring bar rotate spring bar outward and it will drop free. Always grease spring bars before each use. Remove any old or contaminated grease from spring bars and coupler head.

For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220



WWW.SMITTYBILT.COM

Installation Instructions
Weight Distribution Hitch
Part# 87750

12. Attach the trailer to the ball. Using the trailer tongue jack, lower the trailer onto the hitch ball. Do not retract the jack fully at this time. Raise the front of the trailer and rear of the tow vehicle approximately 3" with the tongue jack. This will allow easier installation of the chains on to the lift bracket.

13. Installing the lift chain brackets. Position the spring bar parallel with the trailer tongue. Hold the lift chain in a vertical position. This will determine the position of the lift bracket on the trailer tongue. Mark location.

WARNING: if the lift chain is angled on the lift bracket, it may catch on the lift bracket when the trailer is turning. This could damage the lift bracket or release the lift chain.

14. Install a M12 bolt into the threaded hole on the lift bracket. Turn the bolt until it contacts the trailer tongue, then tighten an extra ¼ turn. DO NOT overtighten.



CAUTION: Keep clear of all moving parts of the lift chain and bracket. Maintain control of the lift handle at all times when raising or lowering the spring bars. Be sure the locking hair pin is secured once the lift bracket is in the up position.

For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220

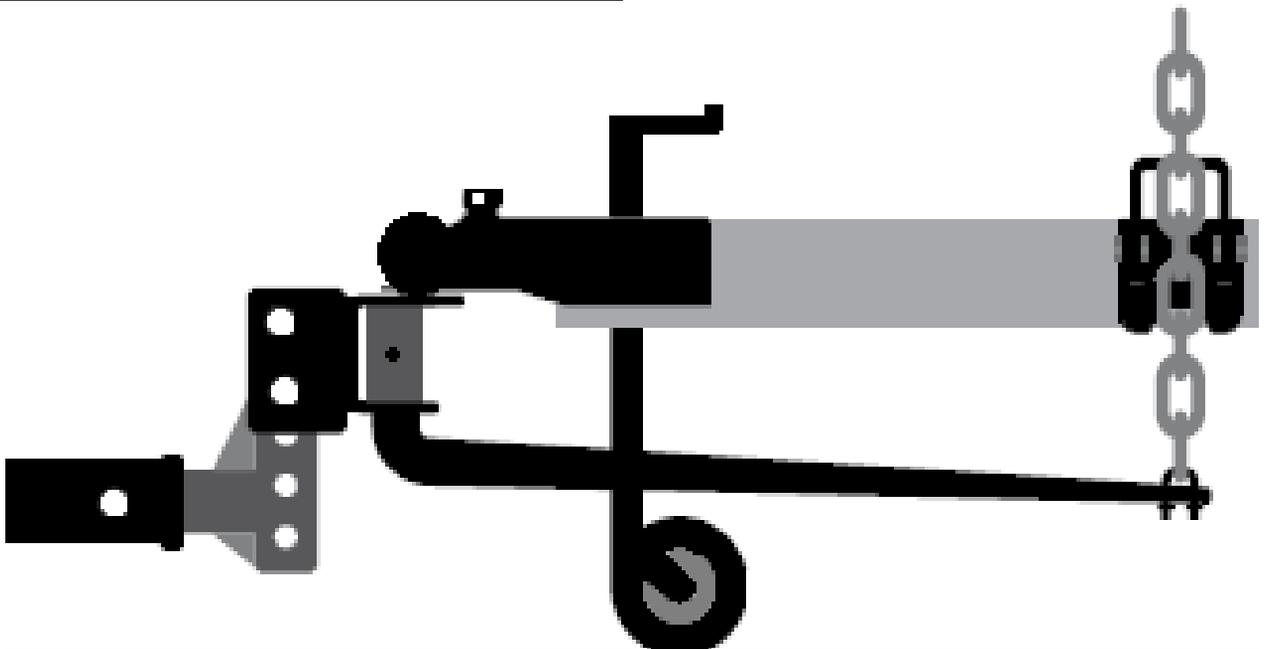


WWW.SMITTYBILT.COM

Installation Instructions
Weight Distribution Hitch
Part# 87750

15. Raising the lift bracket. Determine which chain link to attach to the lift bracket. Always have a minimum of 5 links of chain before attaching to lift bracket. Failure to do so will bind the lift bracket and lift chain. Slip the chain link over the hook on the lift bracket. Using the handle, carefully raise the lift bracket up and over center so that it is fully seated against the mounting bracket, secure with pin. Be sure chain links are not twisted and hook passes completely thru the chain link.

16. To lower lift bracket. Install handle on lift bracket. Remove pin from lift bracket. Carefully lower the bracket with the handle. It will require force to bring the bracket over center and then some resistance when the chain is tensioned as the bracket rotates downward.



For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220



WWW.SMITTYBILT.COM

Installation Instructions
Weight Distribution Hitch
Part# 87750

Check vehicle height and adjust spring bars.

17. Lower tongue with trailer jack. The vehicle should settle evenly (within ½") Re-measure the front and rear bumper reference points from step 3. If the front has settled more than the rear, increase the number of chain links between the lift bracket and the spring bar. The spring bars should be almost horizontal when the correct height is achieved.
18. Once even settling and spring bar positions have been achieved, mark the spring bar chain with paint to ensure the same hook up next time you hook up your trailer. Always ensure there are at least 5 links of chain between the lift bracket and the spring bar. The number of links should be the same on both sides.
19. In order to adjust correct chain length, adjust coupler head tilt by adding or removing washers on the adjustment pin.
20. Always disconnect trailer from coupler before making any adjustments. Once correct coupler head angle is achieved. Tighten all hardware. ¾" hardware needs to be tightened to 200ft. Lbs.

Check all connections before towing. Check for proper fastener torque and any abnormal wear on components. Replace any damaged components before use.

1. Head to shank fasteners.
2. Trailer ball nut
3. coupler latch
4. Snap-up bracket bolt
5. Hitch pins
6. Safety chains
7. Lights and turn signals
8. Brake system , including break away system.
9. Lube spring bars and trailer ball.

For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220



WWW.SMITTYBILT.COM

Installation Instructions
Weight Distribution Hitch
Part# 87750

Towing tips

Always consult the owners manual for the vehicle and trailer you are towing for specific capacities, recommendations and requirements.

1. Check your equipment
Check all towing equipment before each use. Replace any worn or damaged components.

2. Trailer loading
Proper load placement is key. Heavy items should be placed close to the floor near the trailer axle centerline. The load should be balanced from left to right. Take in consideration any auxiliary fuel or water tanks.

Tongue weight should be 10-15% of the gross trailer weight for most trailers. Consult trailer manufacture for specific details. Too low of tongue weight will produce excessive sway.

Sway control

The coupler head will accept two sway control attachment balls, available separately.

A sway control device is recommended, it can help reduce sway especially during sudden maneuvers, gusty winds and buffeting caused by passing vehicles. It is highly recommended on high profile and large surface area trailers such as travel trailers.

Braking systems

Surge brakes require a small amount of fore and aft movement for their actuating system to function correctly. Avoid restricting movement, if necessary, increase the number of chain links between the lift brackets and spring bars by tilting coupler head down. Reminder: torque $\frac{3}{4}$ " hardware to 200 ft. lbs.

Some surge brake actuators are not designed to be used with a WDH system and may bind and/ or not operate freely or correctly. Check surge brake instructions for specific requirements when used with a WDH.

For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220



WWW.SMITTYBILT.COM

Installation Instructions
Weight Distribution Hitch
Part# 87750

Limited Warranties

Smittybilt's products are covered under the following limited warranties only. Note that the duration of the limited warranty differs according to the material and finish of the product purchased. Subject to the duration and conditions of the limited warranty stated below, Smittybilt warrants to the original retail purchaser that its products are free from defects in material and workmanship. All other warranties and representations express or implied, are hereby disclaimed, including fitness for merchantability and buyer's intended use or purpose. All parts are sold "AS IS" except for the limited warranties granted herein. Buyer assumes all risks as to the selection, suitability and performance of all goods and products selected. This limited warranty does not cover damage or impairment in any part due to misuse, improper installation, accident or contact with on-road or off-road hazards, product modification, improper or inadequate cleaning and/or maintenance. Smittybilt is not responsible for items damaged during shipping. This warranty is not transferable from the original buyer. For the original Buyer to be eligible for the limited warranty coverage, the Buyer must provide proof of purchase. Smittybilt strongly recommends returning the warranty registration card.

Customer's remedy hereunder shall be limited only to repair or replacement (at Smittybilt's option) of any defective part(s) returned to Smittybilt at customer's expense. The determination of whether or not a returned part is defective or subject to coverage under the limited warranties stated herein shall be made at Smittybilt's sole discretion.

To assure product quality, Smittybilt reserves the right to change product design, material, specification and finishes without prior notice to customers. This limited warranty gives you specific legal rights and you may also have other rights, which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply as to you. Also, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Smittybilt reserves the right to discontinue product lines and substitute products, or provide other remedies than those listed in this limited warranty for those discontinued products.

Warning

Rollover and other types of vehicle accidents may result in serious injury or death to you, your passengers and others sharing the road. Smittybilt accessories are decorative and are not intended to reduce or avoid injury or damage in the event of an accident. The weight and location of Smittybilt accessories may affect your vehicles' handling, stability and performance, creating an increased risk of accident or rollover. Before installing any accessory, check state laws and assure that the accessory will not obscure any lights or interfere with proper operation on your vehicle's safety equipment. Consult your owner's manual and the Smittybilt instructions, or additional safety information. Smittybilt products, nor the warnings contained herein, are not a substitute for your safe driving. Don't drink and drive, always use seat belts and don't drive faster than conditions permit.

For Technical Support/Warranty Information please call 310-762-9944
Smittybilt, 400 W. Artesia Blvd Compton, CA 90220