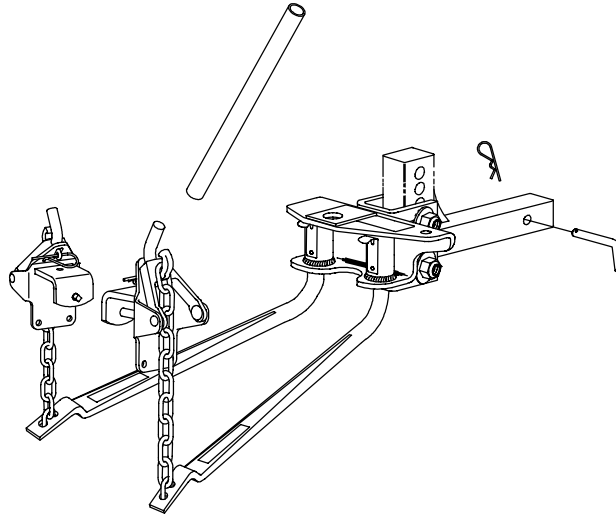




INSTALLATION / OPERATION INSTRUCTIONS

WEIGHT DISTRIBUTING HITCH SYSTEMS 3201, 3202, 3203 AND 3279



RATING WHEN USED AS A WEIGHT DISTRIBUTING HITCH WITH SPRING BARS:

PART NUMBER	MAX. TONGUE WEIGHT	MAX. GROSS TRAILER WEIGHT
3201	550	10,000
3202	750	10,000
3203	1000	10,000
3279	RATING OF SPRING BARS	10,000

RATING WHEN USED AS A WEIGHT CARRYING BALL MOUNT WITHOUT SPRING BARS:

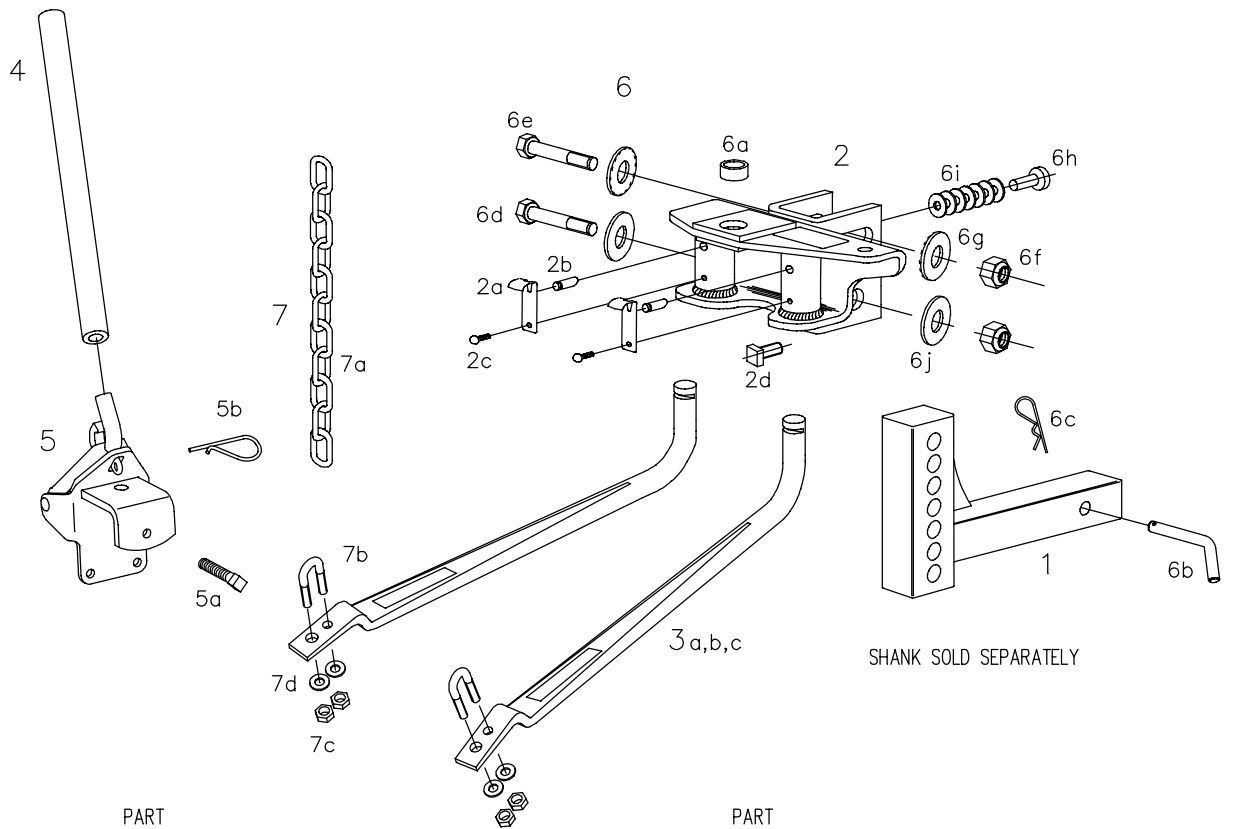
PART NUMBER	MAX. TONGUE WEIGHT	MAX. GROSS TRAILER WEIGHT
3201, 3202, 3203 & 3279	500	5,000

INTRODUCTION

The purpose of a weight distributing hitch is to remove excessive weight from the tow vehicle's rear axle and distribute it to the front wheels and the trailer wheels. A weight distributing system is properly set up and coupled when; the trailer is level, the tensioned spring bars have at least six links between them and the lift units, and the tow vehicle has settled front to rear evenly or slightly lower in the rear.

For proper installation and adjustment of the hitch, the towing vehicle and trailer must be loaded as when in use. Gross weight and tongue weight of the loaded trailer must be known to assure that the capacities of the hitch, receiver, hitch ball, towing vehicle, trailer and any other elements of the towing system are not exceeded.

DO NOT EXCEED TOWING VEHICLE MANUFACTURER'S LOAD RATINGS



REF.	PART NUMBER	QTY.	DESCRIPTION
1	See Catalog	1	Shank Assembly (Sold Separately)
2	3223	1	Head Assembly, Bolt Together
2a	*	2	Retainer
2b	*	2	Pin, Spring Bar Retaining
2c	*	2	Drive Screw
2d	3640	1	Bolt, 5/8-11 X 1 1/2, Grade 5
3a	3361	2	Spring Bar, 550
3b	3362	2	Spring Bar, 750
3c	3363	2	Spring Bar, 1000
4	6634	1	Handle
5	6636	2	Lift Unit Assembly
5a	3388	2	Bolt, 1/2-13 X 3 1/2
5b	2867	2	Clip
6	3229	1	Fastener Kit
6a	3233 **	1	Bushing
6b	1040 **	1	Pin, Hitch

REF.	PART NUMBER	QTY.	DESCRIPTION
6c	1128 **	1	Clip, Hair Pin
6d	1376-018 **	1	Bolt, 3/4-10 X 4 1/2, Grade 5
6e	1376-020 **	1	Bolt, 3/4-10 X 5, Grade 5
6f	1410 **	2	Locknut, 3/4-10
6g	3232 **	2	Conical Toothed Washer, 3/4
6h	3305 **	1	Pin
6i	3306 **	7	Washer, Hardened
6j	1160-012 **	2	Flat Washer, 3/4
7	3216	1	Chain Kit
7a	3217 ***	2	Chain
7b	1436 ***	2	U-Bolt
7c	1243 ***	4	Locknut, 3/8-16
7d	1160-006 ***	4	Flat Washer, 3/8

* INCLUDED IN 3311 RETAINER KIT, INDIVIDUAL ITEMS NOT SOLD SEPARATELY
 ** INCLUDED IN 3229 FASTENER KIT, ALSO SOLD SEPARATELY
 *** INCLUDED IN 3216 CHAIN KIT, ALSO SOLD SEPARATELY

FIGURE 1

READ ALL INSTRUCTIONS AND CHECK PACKAGE CONTENTS

SETUP DIMENSIONS

1. Line up tow vehicle and trailer on level pavement, in a straight-ahead position, uncoupled.
2. For vehicles with air springs, air shocks or automatic leveling systems, check vehicle owner's manual. Unless otherwise specified, level the vehicle with the vehicle loaded as it will be when towing. With automatic leveling system, make sure system is deactivated before coupling the trailer and adjusting the spring bar tension.
3. Pick reference points on front and rear wheel openings. Measure and record height to pavement.

Front wheel opening height _____ Rear wheel opening height _____

- Level trailer and measure and record distance from ground to top of coupler ball socket. (See figure 2)

$$H = \frac{\quad}{\quad}$$

- Determine uncoupled ball height for tow vehicle. Tow vehicle uncoupled ball height should be greater than coupler height (H) to compensate for tow vehicle settling. Light duty pick-ups and cars will settle about 1/8" per hundred pounds of tongue weight. Allow 1/16" per hundred pounds for heavy duty trucks and stiffly sprung utility vehicles.

Example: Trailer coupler height (H) measures 18" with a tongue weight of 1000 pounds
 For a light duty pick up or car, set ball height to 19 1/4" (18 + 1 1/4)
 For a heavy duty truck, set ball height to 18 5/8" (18 + 5/8)

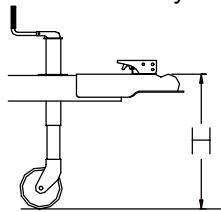


FIGURE 2

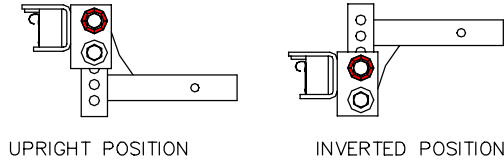


FIGURE 3

INSTALL SHANK, HITCH HEAD AND BALL

- Insert shank (1) into receiver and install pin (6b) and clip (6c) [See figure 1]. Shank (1) may be inserted in the upright or inverted position depending on uncoupled ball height [See figure 3].
- Select hitch ball to match trailer coupler socket, having 1" or 1 - 1/4" threaded shank and capacity equal to or exceeding the gross trailer weight. When using a ball with a 1" shank, bushing (6a) must be used. Attach the ball to the head assembly (2) using a **lockwasher** and nut.
- Place four hardened washers (6i) over pin (6h) and insert into unthreaded hole in upper portion of head assembly channel.
- Position head assembly (2) on the shank (1). Align the bolt holes to the nearest holes that correspond to the desired "Uncoupled Ball Height." Insert 3/4" x 5" bolt (6e) with toothed washer (6g) through upper slotted hole. Back out the set screw (2d) and insert 3/4" x 4 - 1/2" bolt (6d) with flat washer (6j) through lower hole. Install second toothed washer (6g) on upper bolt (6e), second flat washer (6j) on lower bolt (6d), and start locknuts (6f) on both bolts, finger tight [See figure 1].
- Tighten ball nut according to manufacturer's specs. **Always use a lockwasher.**

ASSEMBLE AND INSTALL SPRING BARS

- Attach chains (7a) to spring bars (3) using u-bolts (7b), flatwashers (7d) and locknuts (7c) [See figure 1]. Allow 2 - 3 threads to protrude below locknut [See figure 4]. Chain must not bind.
- Coat hitch ball lightly with grease (such as Draw-Tite Hitch Ball Lubricant P/N 6939). Lower coupler onto ball and close coupler latch. **Using the tongue jack, raise the trailer coupler and the rear of the tow vehicle 3" at the ball.**
- Apply a heavy oil or grease (such as Draw-Tite Hitch Ball Lubricant P/N 6939) to the upper grooved end of each spring bar (3) on top surface and on vertical portion above bend.
- Line up spring bars (3) parallel to trailer frame. Insert them into head sockets and push upward. A "click" will be heard when the retaining pin (2b) engages the spring bar groove.
- To remove spring bars, lift up on spring bars and gently pull out retainer (2a). Lower spring bars from head sockets.

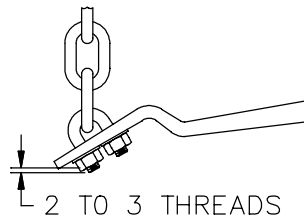


FIGURE 4

INSTALL LIFT UNITS

- Position lift units (5) on trailer "A" frame. If trailer tongue consists of a single tube or other narrow member, a pole tongue adapter (Draw-Tite P/N 3280) must be used.
- Hold spring bar chain (7a) vertical. Center lift units (5) with chain [See figure 5].

- Turn 1/2-13 x 3-1/2 bolt (5a) until it contacts the frame. Then tighten 1/2 - 3/4 turn with wrench. **DO NOT OVER TIGHTEN.**

NOTE:

Optional mounting holes are provided for trailers that do not permit use of 1/2 - 13 bolt [See figure 6]. **CONSULT TRAILER FRAME MANUFACTURER FOR APPROVAL PRIOR TO DRILLING HOLES.** 3/8" hardware is recommended whether it is self-tapping or nut and bolt.

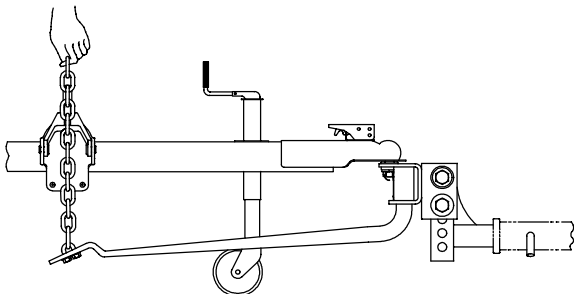


FIGURE 5

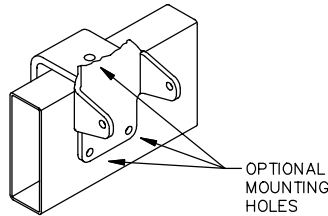


FIGURE 6

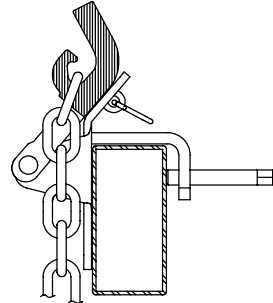


FIGURE 7

CAUTION: FOR SAFE AND PROPER OPERATION, LIFT UNIT MUST BE MOUNTED LEVEL AND WITH THE SPRING BAR CHAINS AGAINST THE TRAILER FRAME (SEE FIGURE 7).

HOOK UP SPRING BARS

The purpose of a weight distributing hitch is to remove excessive weight from the rear axle of the tow vehicle and distribute it to the front wheels and the trailer wheels. A weight distributing system is properly set up and coupled when the tow vehicle has settled front to rear evenly or slightly lower in the rear. Smaller vehicles with front wheel drive have less reserve capacity on the front wheels and should not be completely level but slightly lower in the rear. The amount of leveling or load transfer is adjusted by engaging different spring bar chain links (7a) with the lift units (5) and changing the angle of the head assembly (2)

SPRING BAR CHAIN CONNECTION

- With lift unit (5) in raised position, pull straight up firmly on spring bar chain (7a). Note which link is closest to chain hook [See figure 5]. The next lower link will be used for hook up.

NOTE:

BEFORE OPERATING LIFT UNIT, RAISE COUPLED TRAILER WITH THE TONGUE JACK APPROXIMATELY THREE INCHES. THIS WILL REDUCE SPRING BAR TENSION AND MAKE LIFT UNIT OPERATION EASIER.

- Remove spring clip (5b) from back of lift unit (5).
- Slide handle (4) over the large hook on the lift unit (5) and lower unit.

WARNING:

KEEP CLEAR OF THE SWING PATH OF ALL MOVING PARTS WHEN OPERATING LIFT UNIT.

- Attach upper end of chain link to lift unit hook, while allowing remaining free links to fall down to the outside of the trailer frame (See figure 8).
- There must be at least 6 links between the lift unit and the spring bar.** This is necessary for proper operation of the spring bars during turns(See figure 8), **If there will be less than 6 links** between the lift unit (5) and u-bolt (7b), the angle of the head assembly (2) must be increased. The trailer must be uncoupled and the upper bolt (6e) removed from the head assembly. The head assembly is then pivoted down and an additional washer (6i) is added underneath the pin (6h) [See figure 1]. Reassemble.

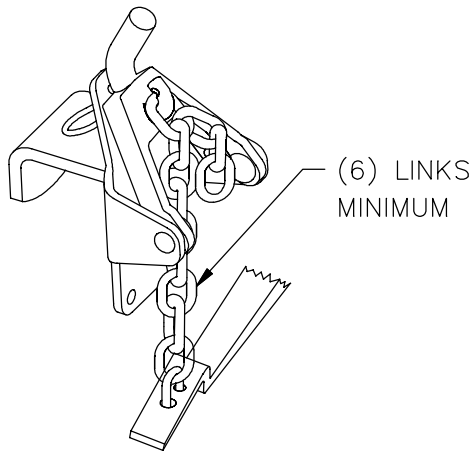


FIGURE 8

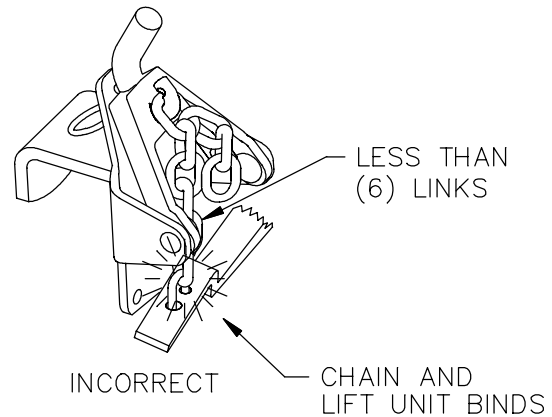


FIGURE 9

CAUTION: FAILURE TO CONNECT THE SPRING BAR CHAIN CORRECTLY AND PROVIDE AT LEAST 6 LINKS BETWEEN LIFT UNIT AND SPRING BAR CAN RESULT IN DAMAGE TO THE LIFT UNIT. FIGURE 9 SHOWS INCORRECT SPRING BAR CHAIN

HOOK UP.

6. Use handle (4) to raise lift unit (5). Use both hands on the handle and maintain control at all times.
7. Insert spring clip (5b).
8. Repeat for opposite spring bar, using same number of links between hook and spring bar.
9. Retract trailer tongue jack so hitch is now carrying the full trailer weight.

CHECK VEHICLE SETTling AND READJUST IF NECESSARY

1. Measure the front and rear wheel openings. Vehicle should settle evenly to slightly lower in the rear.
2. If front settles lower than rear, increase the number of chain links between lift unit and spring bar. If rear settles excessively lower than front, decrease the number of chain links between lift unit and spring bar.
3. **There must be at least 6 links between the lift unit and the spring bar.** This is necessary for proper operation of the spring bars during turns, If there are less than 6 links, the angle of the head assembly must be increased.
4. When the desired settling is achieved, mark the hooked chain link with paint for future reference.

NOTE: SURGE BRAKES

Surge brakes usually require a small amount of fore-aft movement for their actuating mechanisms to function. To avoid restricting movement, it may be necessary to increase the number of chain links between the lift units and the spring bars. **CHECK TRAILER AND/OR SURGE BRAKE OPERATING INSTRUCTIONS FOR SPECIAL REQUIREMENTS REGARDING WEIGHT DISTRIBUTING HITCHES.**

TIGHTEN HEAD FASTENERS

1. Tighten 3/4 bolts (6d & 6e) and locknuts (6f) to 250 lb - ft. Tighten set screw (2d) to 50 lb - ft.

CHECK ALL CONNECTIONS BEFORE TOWING

1. Check the following: pin (6b) and clip (6c) securing shank to receiver, head to shank fasteners (6d-6f), ball nut, coupler latch, lift unit bolt (5a), safety chains, lights and turn signals, and braking system, including breakaway switch if equipped.

LUBRICATION

1. **SPRING BARS AND HEAD SOCKETS SHOULD BE LUBRICATED EACH TOWING DAY. FAILURE TO DO SO WILL RESULT IN EXCESSIVE SPRING BAR AND HEAD SOCKET WEAR.** Use a heavy oil or grease (such as Draw-Tite Hitch Ball Lubricant P/N 6939).
2. Excessive oil, dirt, and grit should be wiped out of sockets whenever trailer is uncoupled.
3. Clean hitch ball and coupler socket. Coat ball lightly with grease (such as Draw-Tite Hitch Ball Lubricant P/N 6939).

WARNINGS

COUPLED BALL HEIGHT SHOULD NEVER BE GREATER THAN UNCOUPLED BALL HEIGHT. Front wheel overload and loss of rear wheel traction can result. This can lead to unstable handling, reduced braking ability, and a tendency to “jackknife” when turning. This may result in **vehicle accident, property damage and personal injury.**

USE EXTREME CAUTION WHEN BACKING UP AND TURNING. DO NOT ALLOW TOW VEHICLE AND TRAILER TO MANEUVER INTO A “JACKKNIFE” POSITION. Components of the hitch and sway control, if applicable, may be forced into damaging contact. This can lead to structural failure which may result in **vehicle accident, property damage and personal injury.** If a “jackknife” maneuver has occurred, examine all towing system components for damage or loosening immediately. Repair or replace any damaged components before resuming towing.

DO NOT TOW MULTIPLE TRAILERS. Towing multiple trailers may cause severe instability, loss of control and structural failure. This may result in **vehicle accident, property damage and personal injury.**

DO NOT ATTEMPT TO HOOK-UP OR TOW WITH A FRONT WHEEL DRIVE VEHICLE WITH THE REAR WHEELS REMOVED. This will cause severe instability, loss of control and structural failure. This may result in **vehicle accident, property damage and personal injury.**

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 before a maneuver to let other drivers know your intentions. Severe bumps and badly undulating road 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 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 often produces a tendency to sway.

SWAY CONTROLS

A sway control can help minimize the effects 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, and for trailers with low tongue weight percentage (see “towing tip” on trailer loading).

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 owner’s manual 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 LIGHT, TURN SIGNALS AND ELECTRIC BRAKES

Always hook up trailer lights, turn signals, electric brakes and break-away switch connection (if equipped). Even for short trips.

REMOVE HITCH HEAD WHEN NOT TOWING

Remove hitch head from towing vehicle receiver when not towing. This will prevent contamination of head pockets, reduce chance of striking hitch head on driveway ramps or other objects, and minimize damage in event of a rear-end collision.