

UNDER-FRAME AND SUPPORT-FRAME MOUNTS

For Single- and Two-Stage Tailgate Spreaders

Chevy/GMC 2500 1999 - 10

Chevy/GMC 2500HD/3500 2001 - 10

Installation Instructions

 CAUTION

**Read Owner's Manual before operating or
servicing spreader.**

SAFETY

SAFETY DEFINITIONS

⚠ WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

⚠ CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor to moderate injury. It may also be used to alert against unsafe practices.

NOTE: Indicates a situation or action that can lead to damage to your spreader and vehicle or other property. Other useful information can also be described.

SAFETY PRECAUTIONS

Park the vehicle on a level surface, place shift lever in PARK or NEUTRAL and set the parking brake. Turn OFF the engine and remove keys.

⚠ WARNING

- Driver to keep bystanders minimum of 25 feet away from operating spreader.
- Before working with the spreader, secure all loose-fitting clothing and unrestrained hair.
- Before operating the spreader, verify all safety guards are in place.
- Before servicing the spreader, wait for conveyor or spinner to stop, then lock out power.
- Do not climb into or ride on spreader.

⚠ WARNING

Overloading could result in an accident or damage. Do not exceed GVWR or GAWR ratings as found on the driver-side vehicle door cornerpost. See Loading Section to determine maximum volumes of spreading material.

⚠ CAUTION

If rear directional, CHMSL light or brake stoplights are obstructed by the spreader, the lights shall be relocated, or auxiliary directional or brake stoplights shall be installed.

⚠ CAUTION

During the hopper installation we recommend the addition of an OSHA compliant Backup Alarm. This alarm is required for OSHA governed employers.

⚠ CAUTION

- Do not operate a spreader in need of maintenance.
- Before operating the spreader, reassemble any parts or hardware removed for cleaning or adjusting.
- Before operating the spreader, remove materials such as cleaning rags, brushes, and hand tools from the spreader.
- While operating the spreader, use auxiliary warning lights, except when prohibited by law.
- Tighten all fasteners according to the Torque Chart. Refer to Torque Chart for the recommended torque values.

⚠ CAUTION

Disconnect electric and/or hydraulic power and tag out if required before servicing or performing maintenance.

⚠ CAUTION

DO NOT leave unused material in hopper. Material can freeze or solidify, causing unit to not work properly. Empty and clean after each use.

NOTE: Lubricate grease fittings after each use. Use a good quality multipurpose grease.

SAFETY

PERSONAL SAFETY

- Remove ignition key and put the vehicle in park or in gear to prevent others from starting the vehicle during installation or service.
- Wear only snug-fitting clothing while working on your vehicle or spreader.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

FIRE AND EXPLOSION

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

CELL PHONES

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate Mobile Communication Equipment such as cell phones or two-way radios.

VENTILATION

⚠ WARNING

Vehicle exhaust contains lethal fumes. Breathing these fumes, even in low concentrations, can cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

BATTERY SAFETY

⚠ CAUTION

Batteries normally produce explosive gases that can cause personal injury. Therefore, do not allow flames, sparks, or lit tobacco to come near battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- **Batteries contain sulfuric acid that burns skin, eyes and clothing.**
- **Disconnect the battery before removing or replacing any electrical components.**

NOISE

Airborne noise emission during use is below 70 dB(A) for the spreader operator.

TORQUE CHART

⚠ CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to torque chart. Use standard methods and practices when attaching spreader including proper personal protective safety equipment.

Recommended Fastener Torque Chart (ft-lb)			
Size	Torque		
	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893
Metric Grade 8.8 (ft-lb)			
Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155
These torque values apply to fasteners except those noted in the instruction.			

WEIGHT/LOADING RESTRICTIONS

These instructions cover vehicles recommended for carrying the spreader. Please see your sales outlet for proper vehicle applications.

⚠ WARNING

Overloading could result in an accident or damage. Do not exceed GVWR or GAWR ratings as found on the driver-side cornerpost of vehicle. See Loading Section to determine maximum volumes of spreading material.

CERTIFICATION

⚠ WARNING

New untitled vehicle installation of a spreader requires National Highway Traffic Safety Administration altered vehicle certification labeling. Installer to verify that struck load of snow or ice control material does not exceed GVWR or GAWR rating label and complies with FMVSS.

CLASS IV RECEIVER HITCH

The following table contains information regarding the Class IV receiver hitch.

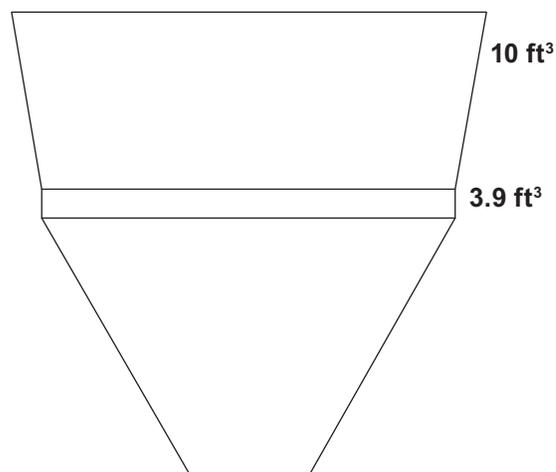
Hitch Type	Max. Gross Trailer Wt. (lb)	Max. Tongue Wt. (lb)
Weight Distributing	10,000	1,000
Weight Carrying Ball Mount	10,000	1,000

APPROXIMATE MATERIAL WEIGHTS

⚠ CAUTION

Read and adhere to manufacturer's ice control package labeling including Material Safety Data Sheet requirements.

Material	Density (lb per cubic ft)
Very Coarse Salt	35
Coarse Salt	45
Fine Salt	50
Sand	95



Salt = 40 lb/ft³ (Average)
 10 ft³ x 40 lb/ft³ = 400 lb

Sand = 95 lb/ft³
 10 ft³ x 95 lb/ft³ = 950 lb

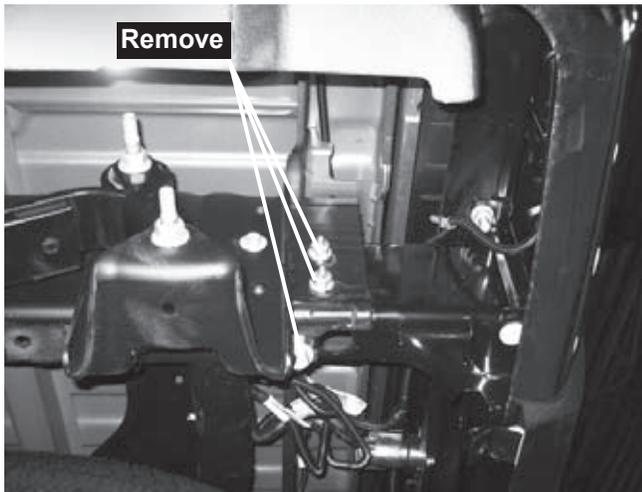
UNDER-FRAME MOUNT INSTALLATION

Frame Mount Installation

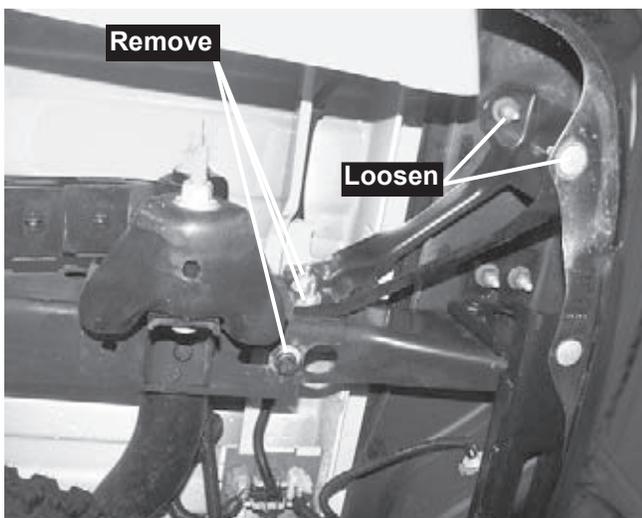
NOTE: Remove any existing trailer hitch and other after-market equipment that may interfere with the installation of this product according to these instructions.

1. Remove two nuts and the bolt bar from the side of the frame rail and fastener from the lower frame rail flange.

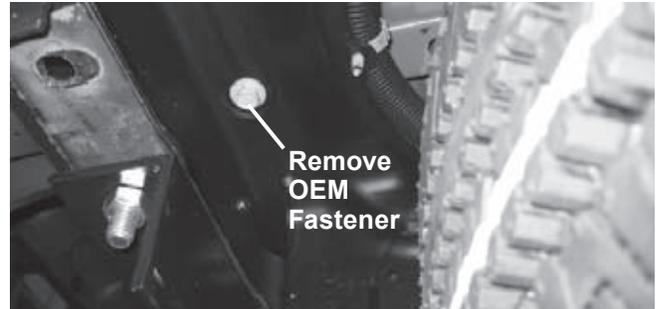
For 2007 and Later Models:



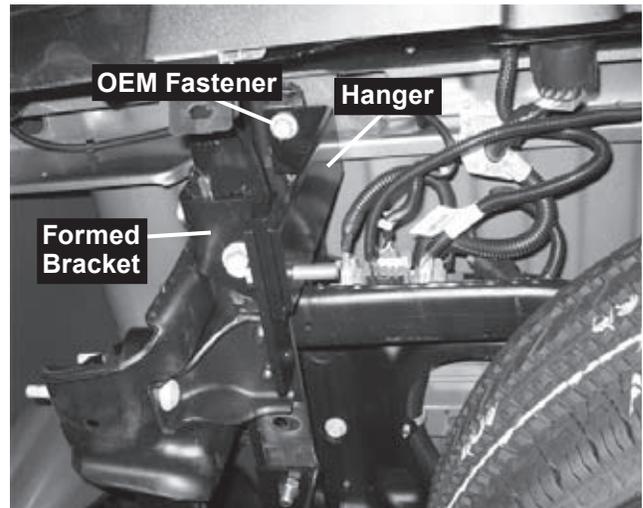
For 2007 Classic and Prior Models: Also, loosen the two nuts securing the bumper support bracket.



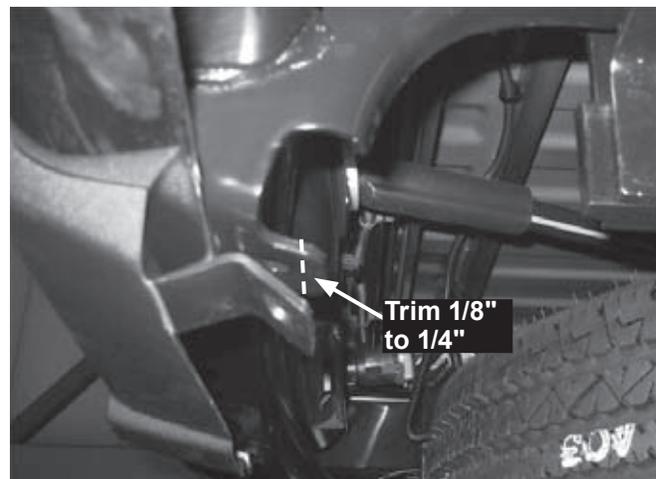
2. Remove the OEM fastener from the frame rail and use this fastener to mount the hanger to the upper flange at the rear of the frame rail.



Align the hanger hole with the hole of the formed bracket and position the hanger vertically.

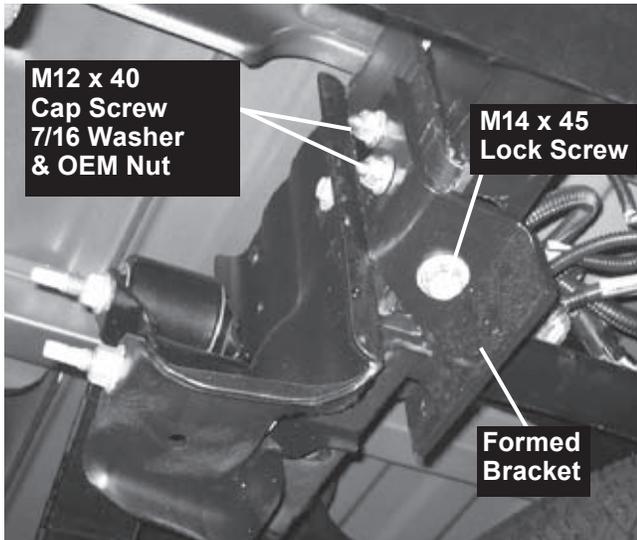


3. **For 2007 and Later Models:** Trim the bumper bracket tab 1/8"–1/4" as shown below.



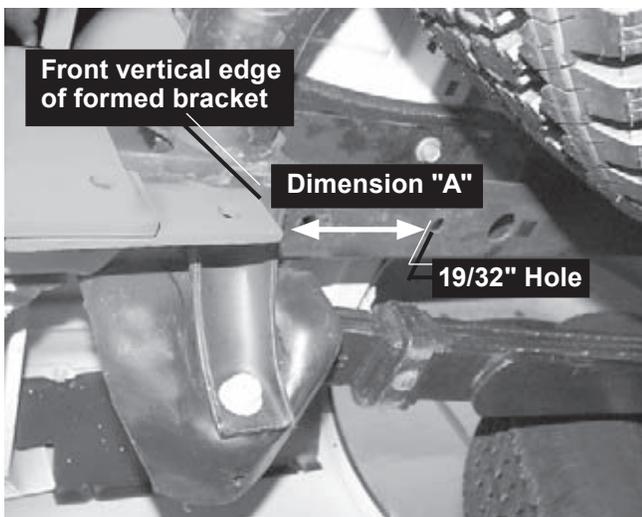
UNDER-FRAME MOUNT INSTALLATION

- Position the formed bracket between the frame rail and the bumper support bracket. Secure with M14 x 45 serrated flange lock screw, two M12 x 40 cap screws, 7/16" washers and OEM-supplied M12 nuts.



- Repeat for other side.
- Locate the 19/32" hole on the lower flange of the frame rail forward of the front edge of the formed bracket. (See Table 1 for dimension "A".)

Table 1	
Dimension "A"	
2500	7-9/16"
2500 HD Short Box	6-7/16"
2500 HD Long Box	8-7/16"
3500	8-7/16"

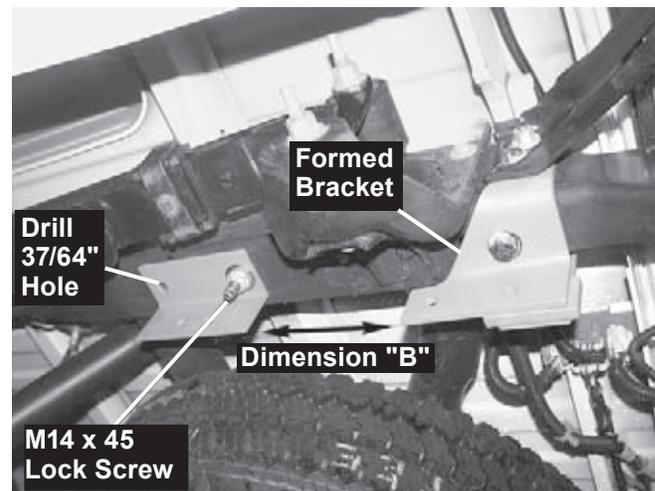


- Position the short leg of the angle bracket up against and parallel to the vehicle frame rail and align the rear hole of the angle bracket to the hole located in Step 6. Temporarily hold the angle bracket in place with an M14 x 45 serrated flange lock screw, 1/2" washer and M14 locknut.
- Verify the correct position of the angle bracket by measuring dimension "B" between the formed bracket and the angle bracket. (See Table 2 for dimension "B".)

Table 2	
Dimension "B"	
2500	6-13/16"
2500 HD Short Box	5-11/16"
2500 HD Long Box	7-11/16"
3500	7-11/16"

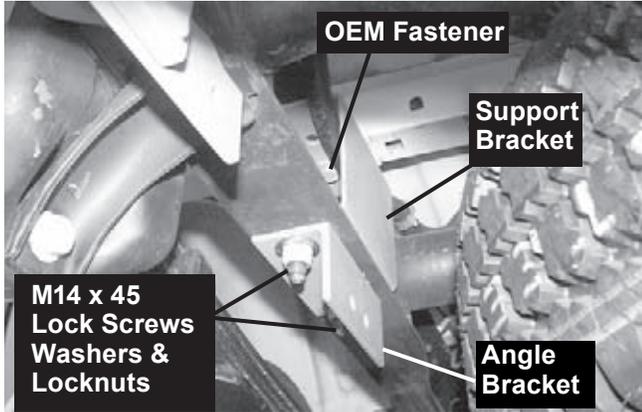
⚠ CAUTION
Use caution not to pinch, cut or drill through any wires or hoses running along the frame rails.

- Using the angle bracket as a template, mark hole with center punch. Remove the bracket and drill a 37/64" hole in the lower flange of the vehicle frame rail.



UNDER-FRAME MOUNT INSTALLATION

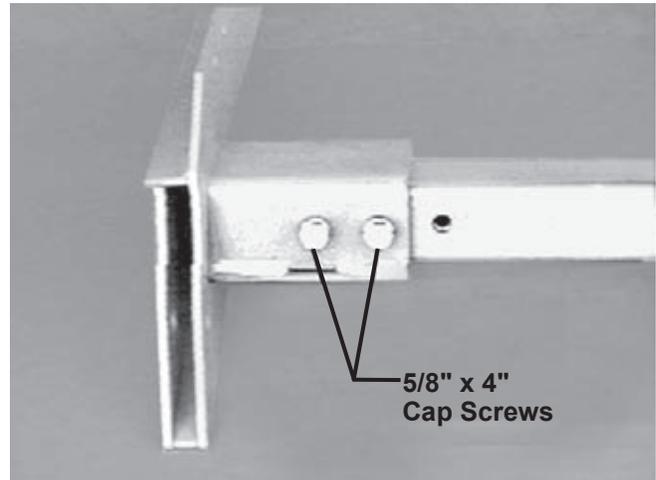
10. Insert the support bracket between the upper and lower flanges of the frame rail with the four-holed leg on bottom. Secure with the OEM-supplied fastener.



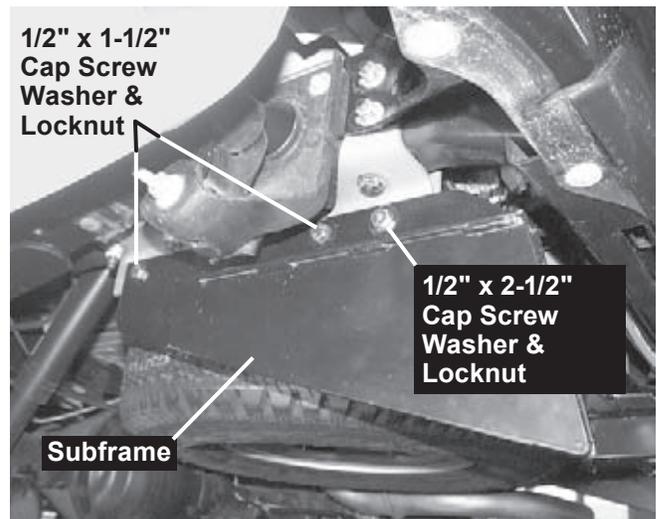
11. Secure the angle bracket to the lower flange of the frame rail with M14 x 45 serrated flange lock screws with 1/2" washers and M14 locknuts.
12. Repeat for the other side.
13. Tighten all fasteners according to the torque chart.

SUBFRAME ASSEMBLY INSTALLATION

1. Insert the receiver hitch into the subframe mounts to first position (widest) and align the holes (four per side).
2. Install two 5/8" x 4" cap screws and washers per side. Secure with another washer and locknut.



3. Position the assembled subframe under the truck outside of both formed brackets and angle brackets. Install a 1/2" x 2-1/2" cap screw through the hanger and the rear hole of the formed bracket on each side. Secure with a 1/2" washer and 1/2" locknut.
4. Install 1/2" x 1-1/2" cap screws in remaining locations and secure with 1/2" washers and 1/2" locknuts.

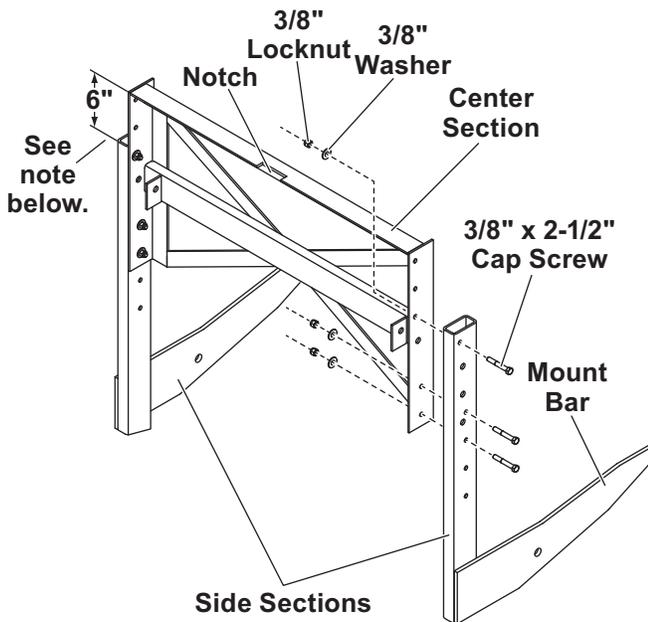


5. Tighten all fasteners according to the torque chart.

UNDER-FRAME MOUNT INSTALLATION

SECONDARY FRAME ASSEMBLY

1. Place the center section on the ground with the notch in the top cross member facing downward. Position the L-shaped side sections on either side of the center section so that the 3/8" thick mount bars are pointing upward and are outboard of their tubes (wide configuration). Locate the two L-shaped side sections so that the tops of their tubes are approximately 6" below the top cross member of the center section.



Highest Center Section Position Shown

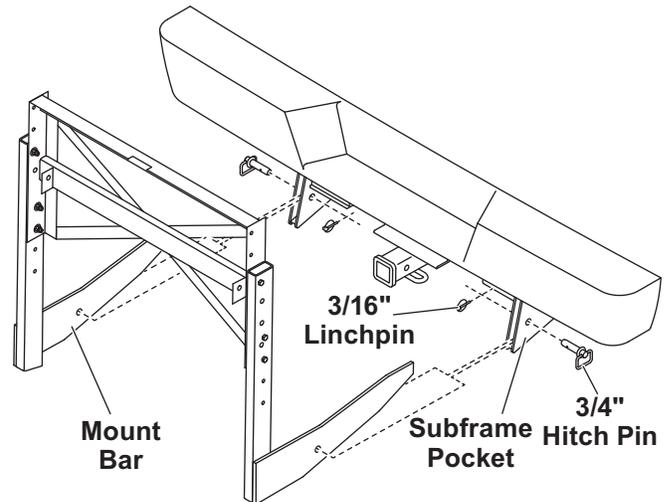
2. Align the holes and install six 3/8" x 2-1/2" cap screws through the tubes of the L-shaped side sections and the center section side plates. Retain with washers and locknuts, using three on each side.

NOTE: The center section may be assembled to the L-shaped side sections three or six inches lower for use with higher trucks.

3. Tighten all fasteners according to the torque chart.

MOUNTING THE SECONDARY FRAME

1. Position the secondary frame behind the truck and insert the mount bars of the secondary frame into the subframe pockets.



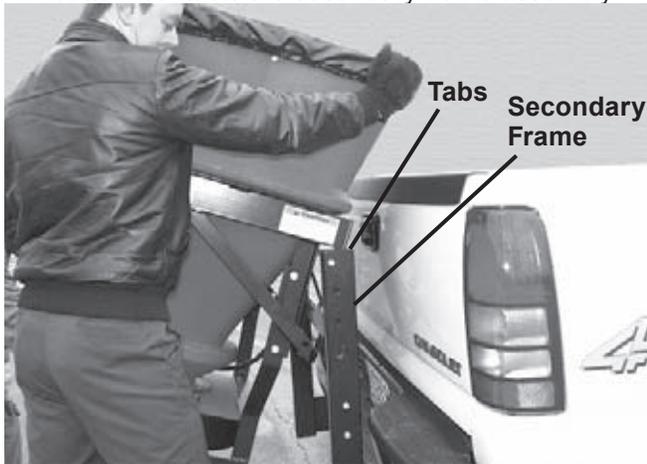
2. Slide the secondary frame into the subframe until the holes align.
3. Install two 3/4" hitch pins through the holes in the subframe and the secondary frame.
4. Install a 3/16" linchpin into the hole of each 3/4" hitch pin.

UNDER-FRAME MOUNT INSTALLATION

SPREADER INSTALLATION

NOTE: If the spreader obstructs the view of the license plate, check for any local regulations that may apply.

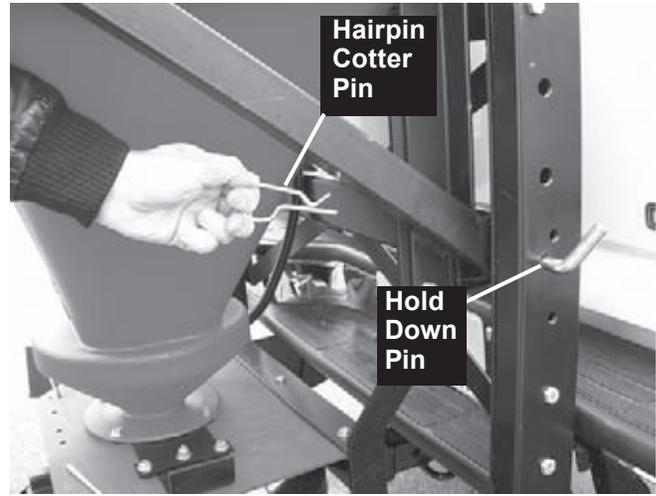
1. Lift the spreader assembly and tip slightly forward. Position tabs on the spreader assembly over the top of the installed secondary frame assembly and lower the spreader assembly.
2. Allow the spreader assembly to rotate until the bottom contacts the secondary frame assembly.



⚠ CAUTION

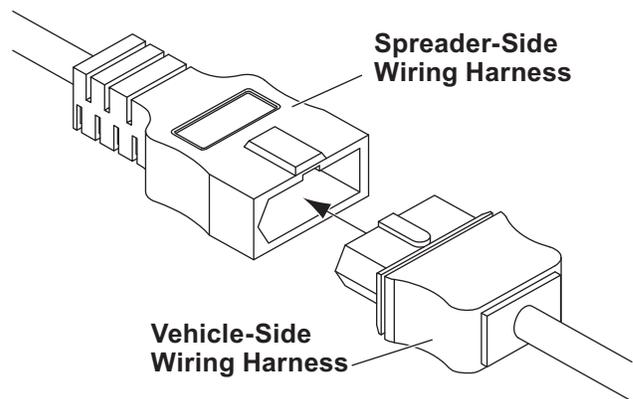
Both hold-down pins must be in place and secured with hairpin cotter pins. The hopper assembly may become unstable if the pins are not properly secured while the vehicle is in motion.

3. Insert hold-down pins on each side and secure with hairpin cotter pins.



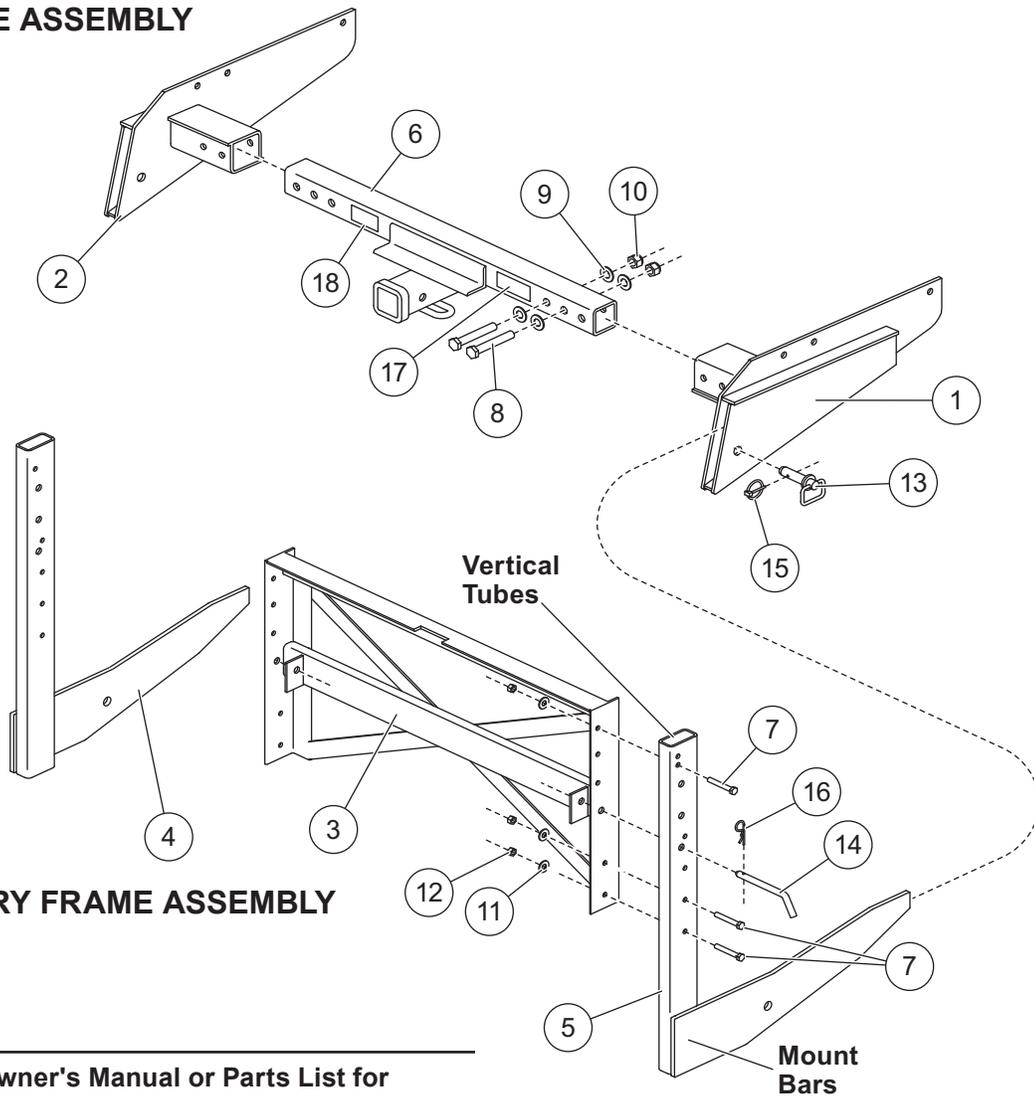
NOTE: Coat all electrical connections with dielectric grease.

4. Connect the spreader-side wiring harness to the vehicle-side wiring harness.



ASSEMBLY DIAGRAMS

SUBFRAME ASSEMBLY



SECONDARY FRAME ASSEMBLY

NOTE: See Owner's Manual or Parts List for service parts part numbers.

Under-Frame Mount					
Item	Qty	Description	Item	Qty	Description
1	1	Mount Subframe – PS	6	1	Receiver Hitch with Labels (Incl. Items 17 and 18)
2	1	Mount Subframe – DS	17	1	Label – Information (Warning)
3	1	Secondary Frame – Center	18	1	Label – Information (Rating)
4	1	Secondary Frame	ns	1	Bolt Bag
5	1	Secondary Frame			
Bolt Bag					
7	6	3/8-16 x 2-1/2 Hex Cap Screw G8	12	6	3/8-16 Hex Locknut GB
8	4	5/8-11 x 4 Hex Cap Screw G8	13	2	3/4 x 2-3/4 Hitch Pin
9	8	5/8 Plain Washer Narrow	14	2	1/2 x 5-1/2 Pin
10	4	5/8-11 Hex Locknut GB	15	2	3/16 Linchpin
11	6	3/8 Plain Washer Wide	16	2	1/8 Hairpin Cotter
ns = not shown			G = Grade		



The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. This equipment manufacturer or the vehicle manufacturer may require or recommend optional equipment for spreaders. Do not exceed vehicle ratings with a spreader. The company offers a limited warranty for all spreaders and accessories. See separately printed page for this important information.

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