November 15, 2016 Lit. No. 80311, Rev. 01

# **Pivot Mount**

# For Single- and Two-Stage Tailgate Spreaders Installation Instructions

#### **A** CAUTION

Read Owner's Manual before operating or servicing spreader.

#### SAFETY DEFINITIONS

#### **A** WARNING

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

#### A 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.

#### **A 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 that 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.

#### **A** 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.

#### **A** 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.

#### **A** CAUTION

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

#### A 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.

#### **A** CAUTION

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

#### **A** 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.

#### **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

#### **A** WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

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, text messaging devices, pagers or two-way radios.

#### **VENTILATION**

#### **A 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**

#### **A** CAUTION

Batteries normally produce explosive gases, which 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, which 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.

#### **VIBRATION**

Operating snowplow vibration does not exceed 2.5 m/s² to the hand-arm or 0.5 m/s² to the whole body.

#### **TORQUE CHART**

#### **A** 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								
Inch Fasteners Grade 5 and Grade 8								
	Torque (ft-lb)			Torque (ft-lb)				
Size	Grade 5	Grade 8	Size	Grade 5	Grade 8			
1/4-20	8.4	11.9	9/16-12	109	154			
1/4-28	9.7	13.7	9/16-18	121	171			
5/16-18	17.4	24.6	5/8-11	150	212			
5/16-24	19.2	27.3	5/8-18	170	240			
3/8-16	30.8	43.6	3/4-10	269	376			
3/8-24	35.0	49.4	3/4-16	297	420			
7/16-14	49.4	69.8	7/8-9	429	606			
7/16-20	55.2	77.9	7/8-14	474	669			
1/2-13	75.3	106.4	1-8	644	909			
1/2-20	85.0	120.0	1-12	704	995			
Metric Fasteners Class 8.8 and 10.9								
	Torque (ft-lb)			Torque (ft-lb)				
Size	Class 8.8	Class 10.9	Size	Class 8.8	Class 10.9			
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450			
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613			
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778			
M12 x 1.75	67	93	M27 x 3.00	796	1139			
M14 x 2.00	107	148	M30 x 3.50	1117	1545			
M16 x 2.00	167	231	M33 x 3.50	1468	2101			
M18 x 2.50	222	318	M36 x 4.00	1952	2701			
These torque values apply to fasteners except those noted in the instructions.								

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

#### **A** 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

#### **A** 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

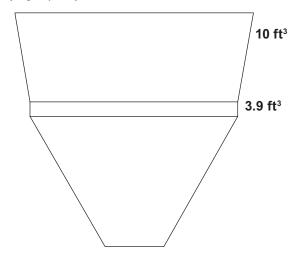
#### **A** CAUTION

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

#### **MATERIAL WEIGHTS**

	Density		
Material	(lb/ft³)	(lb/yd³)	(kg/m³)
Salt	80	2160	1282
Sand	100	2700	1602

Material densities are approximate and are based on dry loose material. It is the responsibility of the operator to know the weight of the material to be spread and the vehicle carrying capacity.

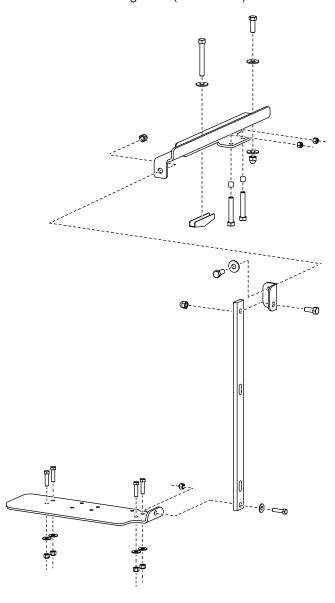


#### **PIVOT MOUNT INSTALLATION**

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. Shut vehicle OFF and remove key from ignition.
- Insert upper and lower pivot rails into main frame of spreader. Line up the pre-punched holes on the pivot rail with the main frame, then bolt together. Holes are pre-determined and can be relocated if spreader is not centered on vehicle.
- 3. Locate top bed rail mounting brackets and set on top of pickup bed rails. Center by moving out towards the bumper. Maintain a minimum of 2" clearance between tailgate and spreader.
- 4. Locate left and right bumper brackets. The left side of the pivot side will have a two piece system that will act as the hinge for the spreader.

The right side will have a two-piece system that will be the latching side. (See below.)

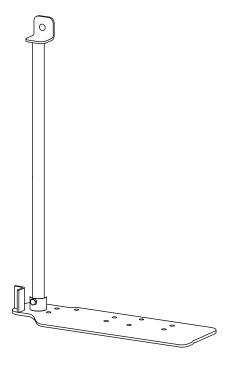


Attach pivot tube and latch bar to the bumper plates using the posts as centering guides. Line up with the bed rail brackets. Be sure that the tailgate will open before locating any of these brackets permanently. Make sure bumper brackets are parallel to the lower main frame so that everything will be straight.

### **A** CAUTION

Before drilling holes, check to be sure that no vehicle wiring or other components could be damaged.

After aligning all pieces, mark and drill holes using the bumper plates as a guide.

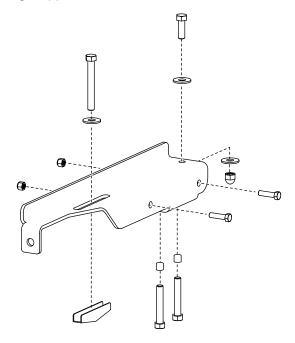


Once holes have been drilled, fasten securely to bumper.

NOTE: Use a minimum of three holes.

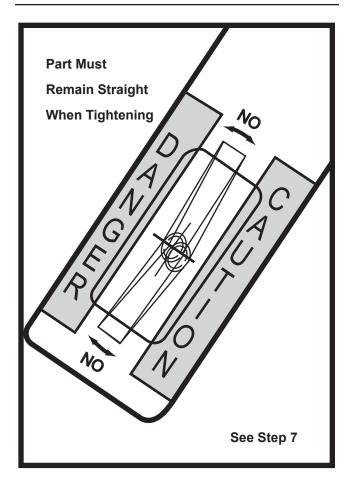
NOTE: Pay special attention when drilling or clamping dissimilar metals to aluminum bodies. Galvanic corrosion can occur if not handled properly. Contact vehicle manufacturer for recommended attachment practices.

- 5. If installing on a newer Chevrolet vehicle with a bumper that has raised ends, you will need to install 1" spacers supplied with kit PMT-175-C.
- 6. Locate toggle bolt assembly and install on left and right upper bed rail brackets.

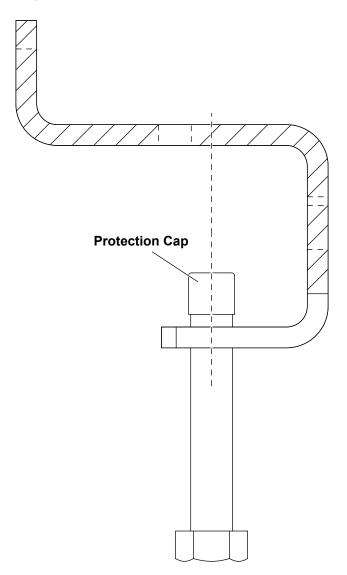


Position toggle bolt to keep in position while tightening. Pull up on the bracket to keep a slight amount of pressure on the toggle bolt.

NOTE: When tightening toggle bolt assembly, do not exceed 30 ft-lb of torque, or you may damage toggle assembly.



Take the two 3" full threaded bolts and screw into bottom of bed rail brackets. Use rubber tip protectors on bolt end.



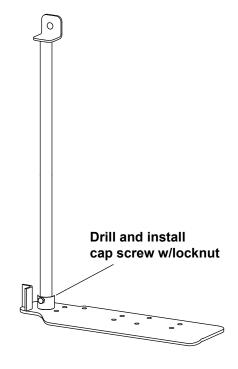
Torque fasteners down using a hand ratchet only. You may also want to use a small amount of medium-strength threadlocker. Do this only as a final assembly once you have proper tailgate clearance established.

- 7. Make sure toggle is positioned front to back in line with vehicle. This is very important. If the toggle makes contact with the rear inside surface of the pickup box, you may cause an internal dent that will show on the exterior of the box or damage the paint.
- 8. Now that the lower bumper brackets and upper bed rail brackets are mounted, check both the pivot tube assembly and latch bar to see if these need to be cut down. To accommodate a variety of vehicles, these two parts are intentionally too long. On the pivot side align the top of the pivot tube hole to the left side bed rail bracket hole. Trim off the amount needed with a cut-off saw.
- 9. Put this piece aside. Now that you have the pivot side assembly cut to length, mount spreader main frame assembly to truck. With an assistant, place pivot side of spreader on truck. Insert pivot tube assembly through pivot rails to the bumper plate locator tube. Fasten the upper pivot tube assembly to the bed rail bracket. Make sure bed rail bracket is secure. Swing spreader until both support pads on lower main frame rail are completely on the bumper.

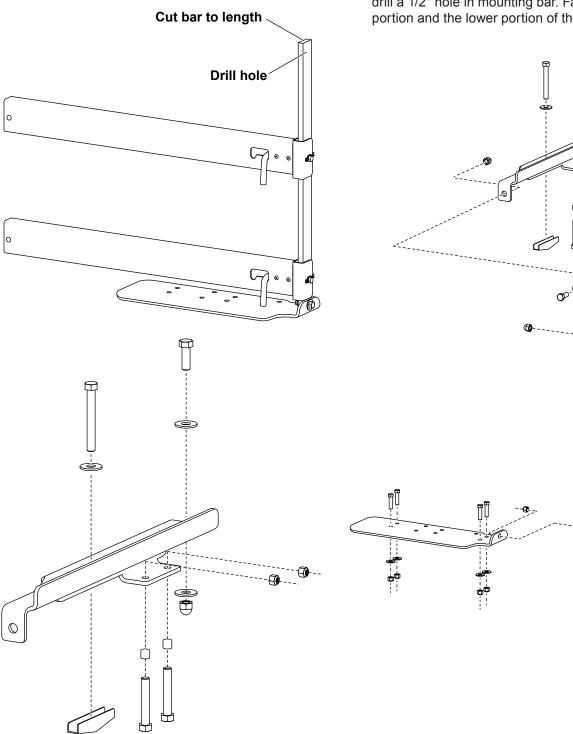
#### **A** CAUTION

Before drilling holes, check to be sure that no vehicle wiring or other components could be damaged.

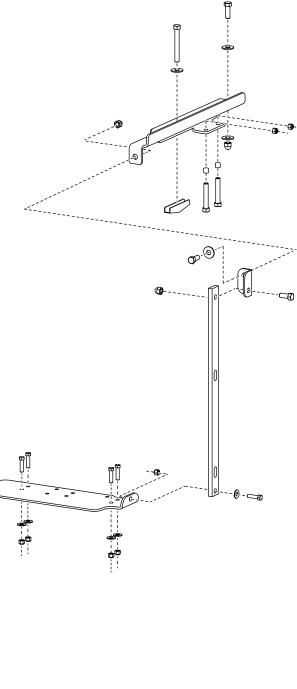
Drill a 5/16" hole, and secure lower portion of pivot tube assembly. This completes pivot side installation.



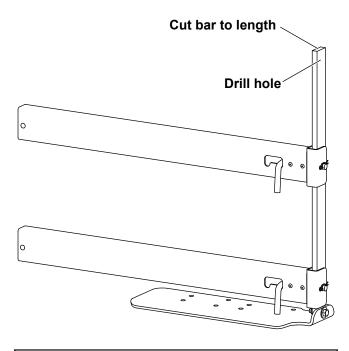
10. Repeat for the latching side, mounting the locator bracket to the right side bed rail bracket.



When finished, trim flush with the top of the locator bracket. After cutting bar to proper length, drill a 1/2" hole in mounting bar. Fasten the upper portion and the lower portion of the latching bar.



11. Locate latching rails and insert into spreader main frame. Position the latch rails so they are latched to the latching bar. Center latching bar in the pocket of the end of the latch rail. This will ensure proper latching when closing spreader.

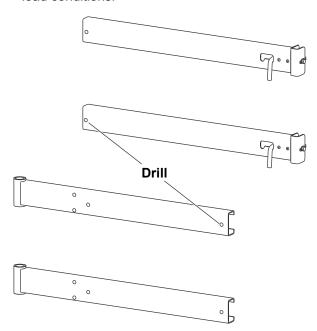


#### **A** CAUTION

Before drilling holes, check to be sure that no vehicle wiring or other components could be damaged.

12. Using an assistant or large vice grip to ensure rails do not move, drill three 3/8" holes using the pre-punched holes as a guide. Repeat this process for the lower rail also. Fasten together. This completes the latch side of the pivot mount.

13. Drill four more 3/8" holes to stiffen the whole frame/rail system. Fasten together. This will ensure minimum frame deflection under extreme load conditions.



- 14. Make sure spreader is level and clear from the tailgate when closed. You can make minor adjustments by loosening the bed rail brackets one at a time, and trimming the unit out. Also at this time, you may want to apply a small amount of medium-strength threadlocker to ensure the fasteners stay secure.
- 15. Lube zerk fittings on pivot tubes.

Tighten all fasteners according to the torque chart.

IMPORTANT: When installing the pivot mount, if any movement is noticed with the bed rail brackets due to weakness or altered conditions of pickup bed, drill and bolt through the pre-punched holes located in the sides of the bed rail brackets and fasten securely.

NOTE: Pay special attention when drilling or clamping dissimilar metals to aluminum bodies. Galvanic corrosion can occur if not handled properly. Contact vehicle manufacturer for recommended attachment practices.

NOTE: After first use, tighten all nuts and fasteners on mount and spreader.

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