May 15, 2017 Lit. No. 96491, Rev. 02

# **Drop Utility Mount**

**Tailgate Spreaders Installation Instructions** 

# **A** CAUTION

Read this document before installing or operating the spreader.

#### **SAFETY DEFINITIONS**

## **A** WARNING

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

## **A** CAUTION

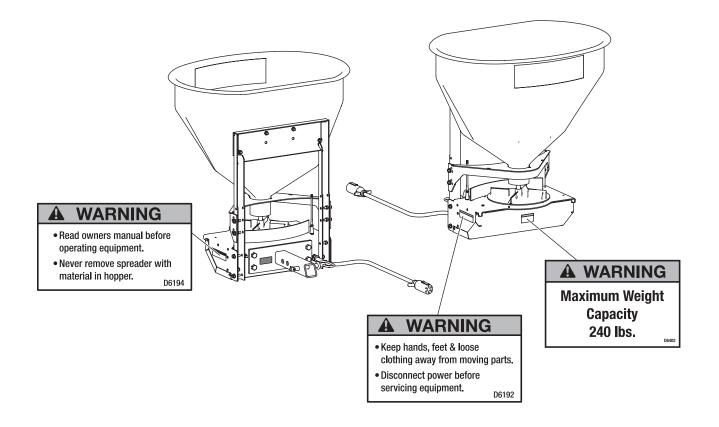
Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

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.

#### WARNING/CAUTION LABELS

Become familiar with and inform users about the warning and caution labels on the spreader.

NOTE: If labels are missing or cannot be read, see your sales outlet.



## SAFETY PRECAUTIONS

Improper installation and operation could cause personal injury and/or equipment and property damage. Read and understand labels and the Owner's Manual before installing, operating, or making adjustments.

#### **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, auger, and spinner to stop.
- · 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** WARNING

Do not install the control for this product in the deployment path of an air bag. Refer to vehicle manufacturer's manual for air bag deployment area(s).

#### **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

- 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.
- Before operating the spreader, read the engine owner's manual, if so equipped.
- 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.

## **FUSES**

The electrical system contains several blade-style automotive fuses. If a problem should occur and fuse replacement is necessary, the replacement fuse must be of the same type and amperage rating as the original. Installing a fuse with a higher rating can damage the system and could start a fire.

#### 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 the 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 spreader vibration does not exceed 2.5 m/s<sup>2</sup> to the hand-arm or 0.5 m/s<sup>2</sup> to the whole body.

# **TORQUE CHART**

## **A** CAUTION

Read instructions before assembling.
Fasteners should be finger tight until instructed to tighten according to the 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                                             |                |               |            |                |            |  |  |  |
| Size                                                                           | Torque (ft-lb) |               |            | Torque (ft-lb) |            |  |  |  |
|                                                                                | Grade 5        | Grade<br>8    | Size       | Grade 5        | Grade<br>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<br>8.8   | Class<br>10.9 | Size       | Class<br>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 installation instructions cover vehicles that have been recommended for carrying the tailgate spreader. Please see your local dealer for proper vehicle applications.

#### **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.

#### **A WARNING**

The use of under-frame or in-bed mounts on half-ton trucks is restricted to spreading only salt or calcium chloride. (Max. 80 lb per cu ft.) Failure to comply could result in exceeding the payload capacity.

## **A** WARNING

Overloading could result in an accident or damage. Do not exceed GVWR or GAWR as found on the driver-side cornerpost of vehicle.

#### A CAUTION

Never use wet materials or materials with foreign debris with any of these spreaders. These units are designed to handle dry, clean, free flowing material.

#### **A** CAUTION



Read and adhere to manufacturer's ice-control 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.

Weight of spreader and mount must be added to struck material weight to determine total spreader weight. Do not exceed maximum material capacity as shown on the safety label (see Safety section).

Use only bagged rock salt with the spreader. Other forms of spreading material are not compatible with the tailgate spreader.

NOTE: If spreader and ice control material loading is in doubt, weigh vehicle for compliance with vehicle ratings.

#### MOUNTING THE SPREADER

## **Drop Utility Mount Installation**

#### **A** CAUTION

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

Installation instructions can vary, depending on which type of UTV you own. Particular uitlity vehicle installation instructions follow.

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

## Kawasaki® Mule™ 550 Utility Vehicle

- 1. Temporarily remove the tailgate. Remove the bed liner if equipped.
- Attach the support rails to the spreader mount using two 1/2" x 2-1/2" cap screws and 1/2" washers. Install the cap screws with washers through the rail first, then through the spreader mount. Install the 1/2" locknut and tighten.

NOTE: Do not overtighten. Overtightening may crush the mounting rail.

- 3. Place the mounting rail hats over the mounting rails and install the hitch pins. Locate the spreader bracket mounting rails on top of the bed by centering left to right and positioning the rear edge of the rails 5/8" beyond the rear of the bed. Transfer the mounting holes to the bed. Check for proper clearance underneath the bed before drilling and drill 7/16" holes.
- Fasten the rails under belt with truss head screws, fender washers, SAE washers, and locknuts.
   Install the spreader bracket before tightening hardware. The tailgate and bed liner may be reinstalled now.
- 5. Install the 550 anti dump bracket with the two 3/8" x 1" cap screws provided.
- Install the gate control cable per the attached instructions.
- 7. Route cables at your discretion and install the switch.

## Kawasaki Mule 2500 Utility Vehicle

Follow the instructions for installation on the Mule 550 utility vehicle with the following differences:

- 1. When positioning the mounting rails, the end of the rail should be 1/2" forward of the rear edge of the bed.
- The universal anti dump threads into the lower weld nut on the spreader bracket assembly. Adjust rubber bumper to be 1/2"-3/4" behind the rear axle-receiver hitch assembly.

## MOUNTING THE SPREADER

#### **A** CAUTION

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

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.

## Club Car® Carryall

- Remove the bed tailgate and bottom angle trim.
   Also remove the two rear carriage fasteners from the floor of the bed. Locate the two front outside mounting rails over the carriage fastener holes and remove.
- 2. Place the mounting rails over the spreader mount and install the hitch pins.
- Install truss head screws, fender washers, SAE washers, and locknuts in the carriage fastener holes. Transfer the remaining mounting rail holes and fastener rails into the bed.

#### John Deere® Gator™ Utility Vehicle

- 1. Remove the bed tailgate.
- 2. Place the mounting rails over the spreader mount and install the hitch pins.
- Locate the spreader bracket mounting rails on top
  of the bed by centering left to right and push the
  main mount flush up against rear of bed to locate
  mounting rails. Transfer the mounting holes to the
  bed.
- 4. Install the truss head screws, fender washers, SAE washers, and locknuts in the 1/2" mounting holes.
- 5. The universal anti dump threads into the lower weld nut on the spreader bracket assembly. The rubber bumper should be adjusted to rest against the frame of the vehicle. The trailer hitch bracket may need to be relocated depending on the configuration.

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