



**33980**

**UNDERCARRIAGE KIT**

**Dodge Ram W1500**

**1994 - 2001**

**Installation Instructions**

**⚠ CAUTION**

Read this document before installing the snowplow.

**⚠ CAUTION**

See your BLIZZARD® outlet/Web site for specific vehicle application recommendations before installation. The Undercarriage Selection Guide has specific vehicle and snowplow requirements.

# 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 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 snowplow and vehicle or other property. Other useful information can also be described.

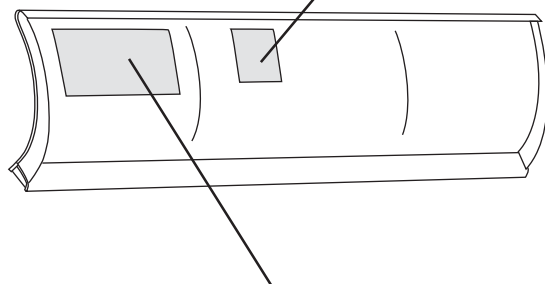
## WARNING/CAUTION & INSTRUCTION LABELS

Become familiar with and inform users about the warning and instruction labels on the back of the blade.

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

### Warning/Caution Label

<b>⚠ WARNING</b>
<p>LOWER BLADE WHEN VEHICLE IS PARKED.</p> <p>DO NOT EXCEED GVWR OR GAWR INCLUDING BLADE AND BALLAST.</p> <p>REMOVE BLADE ASSEMBLY BEFORE PLACING VEHICLE ON HOIST.</p>
<b>⚠ CAUTION</b>
<p>READ <i>OWNER'S MANUAL</i> BEFORE OPERATING OR SERVICING SNOWPLOW.</p> <p>TRANSPORT SPEED SHOULD NOT EXCEED 45 MPH. FURTHER REDUCE SPEED UNDER ADVERSE TRAVEL CONDITIONS.</p> <p>PLOWING SPEED SHOULD NOT EXCEED 10 MPH.</p> <p>SEE YOUR SALES OUTLET/WEB SITE FOR SPECIFIC VEHICLE APPLICATION RECOMMENDATIONS.</p> <p style="text-align: right; font-size: small;">59900</p>



**Attach/Detach Instruction Label**

## SAFETY

### 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.

#### **⚠ WARNING**

**Lower blade when vehicle is parked. Temperature changes could change hydraulic pressure, causing the blade to drop unexpectedly or damaging hydraulic components. Failure to do this could result in serious personal injury.**

#### **⚠ WARNING**

**The driver shall keep bystanders clear of the blade when it is being raised, lowered or angled. Do not stand between the vehicle and the blade or within 8 feet of a moving blade. A moving or falling blade could cause personal injury.**

#### **⚠ WARNING**

**Keep hands and feet clear of the blade and A-frame when mounting or dismounting the snowplow. Moving or falling assemblies could cause personal injury.**

#### **⚠ WARNING**

**Do not exceed GVWR or GAWR including the blade and ballast. The rating label is found on the driver-side vehicle door cornerpost.**

#### **⚠ WARNING**

**To prevent accidental movement of the blade, always turn the ON/OFF switch to OFF whenever the snowplow is not in use. The control indicator light will turn off.**

#### **⚠ WARNING**

**Remove blade assembly before placing vehicle on hoist.**

#### **⚠ CAUTION**

**Refer to the Undercarriage Selection Guide for minimum vehicle recommendations and ballast requirements.**

### 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 snowplow.
- 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.

## SAFETY

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### FIRE AND EXPLOSION

**⚠ 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 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.

**TORQUE CHART**

**⚠ 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 snowplow including proper personal protective safety equipment.



Grade Identification for J429–Grade 5 Bolt



Grade Identification for J429–Grade 8 Bolt

SAE J429 Grade 5 Torque Values				SAE J429 Grade 8 Torque Values			
Nominal Thread Size	Clamp Loads (lb)	Tightening Torque		Nominal Thread Size	Clamp Loads (lb)	Tightening Torque	
		"Lubricated"	"Dry"			"Lubricated"	"Dry"
1/4-20	2,000	6 ft-lb	8 ft-lb	1/4-20	2,850	9 ft-lb	12 ft-lb
5/16-18	3,350	13 ft-lb	18 ft-lb	5/16-18	4,700	18 ft-lb	25 ft-lb
3/8-16	4,950	23 ft-lb	31 ft-lb	3/8-16	6,950	32 ft-lb	44 ft-lb
7/16-14	6,800	37 ft-lb	50 ft-lb	7/16-14	9,600	53 ft-lb	70 ft-lb
1/2-13	9,050	57 ft-lb	75 ft-lb	1/2-13	12,800	80 ft-lb	107 ft-lb
9/16-12	11,600	82 ft-lb	109 ft-lb	9/16-12	16,400	115 ft-lb	154 ft-lb
5/8-11	14,500	113 ft-lb	151 ft-lb	5/8-11	20,300	159 ft-lb	211 ft-lb
3/4-10	21,300	200 ft-lb	266 ft-lb	3/4-10	30,100	282 ft-lb	376 ft-lb
7/8-9	29,435	321 ft-lb	430 ft-lb	7/8-9	41,550	454 ft-lb	606 ft-lb
1-8	38,600	482 ft-lb	640 ft-lb	1-8	54,540	680 ft-lb	900 ft-lb



Grade Identification for Metric–Grade 8.8 Bolt



Grade Identification for Metric–Grade 10.9 Bolt

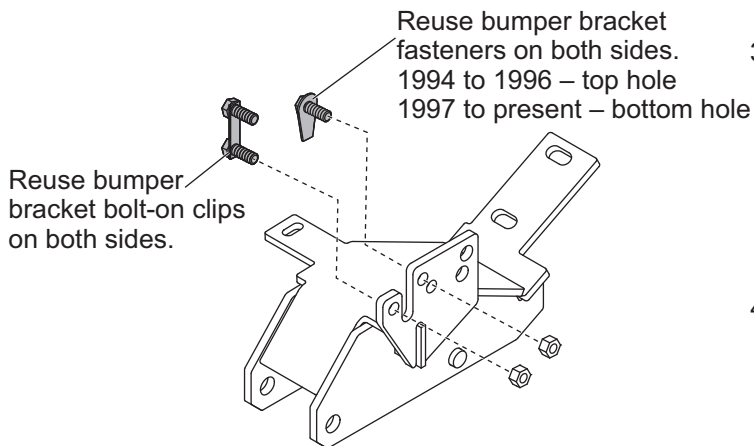
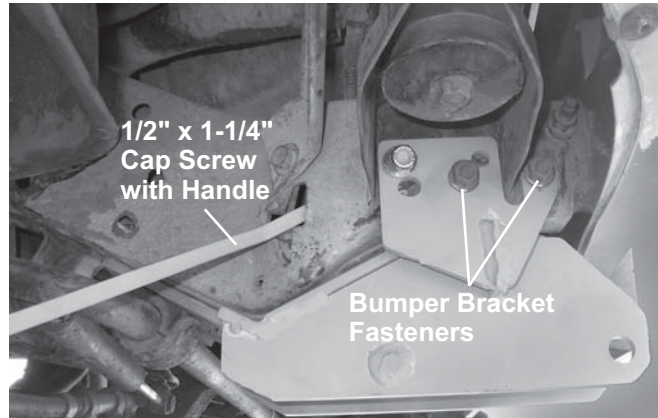
Metric Class 8.8 Torque Values				Metric Class 10.9 Torque Values			
Diameter (mm)	Clamp Loads (lb)	Tightening Torque		Diameter (mm)	Clamp Loads (lb)	Tightening Torque	
		"Lubricated"	"Dry"			"Lubricated"	"Dry"
5	1,389	3 ft-lb	5 ft-lb	5	1,987	5 ft-lb	7 ft-lb
6	1,965	6 ft-lb	8 ft-lb	6	2,812	8 ft-lb	11 ft-lb
7	2,826	10 ft-lb	13 ft-lb	7	4,044	14 ft-lb	19 ft-lb
8	3,579	14 ft-lb	19 ft-lb	8	5,121	20 ft-lb	27 ft-lb
10	5,672	28 ft-lb	37 ft-lb	10	8,116	40 ft-lb	53 ft-lb
12	8,243	49 ft-lb	65 ft-lb	12	11,796	70 ft-lb	92 ft-lb
14	11,246	77 ft-lb	103 ft-lb	14	16,092	111 ft-lb	148 ft-lb
16	15,882	125 ft-lb	167 ft-lb	16	21,970	173 ft-lb	231 ft-lb
18	19,423	172 ft-lb	229 ft-lb	18	26,868	238 ft-lb	317 ft-lb
20	24,784	244 ft-lb	325 ft-lb	20	34,284	338 ft-lb	450 ft-lb

## UNDERCARRIAGE INSTALLATION

### INSTALLATION INSTRUCTIONS

**NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.**

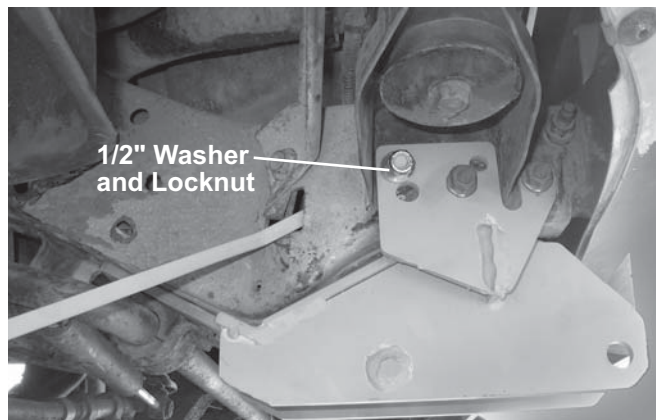
1. Remove the frame brackets from the sway bar and discard the fasteners. Inspect the two forward bumper bracket bolt-on clips. They must point out from the vehicle centerline. If they are pointing toward the centerline, remove and reinstall in the proper orientation by loosely fastening the top nut only (see illustration).



3. Insert a 1/2" x 1-1/4" cap screw with handle and 1/2" washer through the square hole in the frame located just behind the frame cross member. Pass the cap screw through slot in frame and the larger of the three holes in the mount. **Care must be taken to ensure the washer does not fall off cap screw during this operation.**
4. Loosely fasten with a 1/2" washer and 1/2" locknut. Loosely reinstall the single bumper bracket fastener through appropriate hole in the mount.

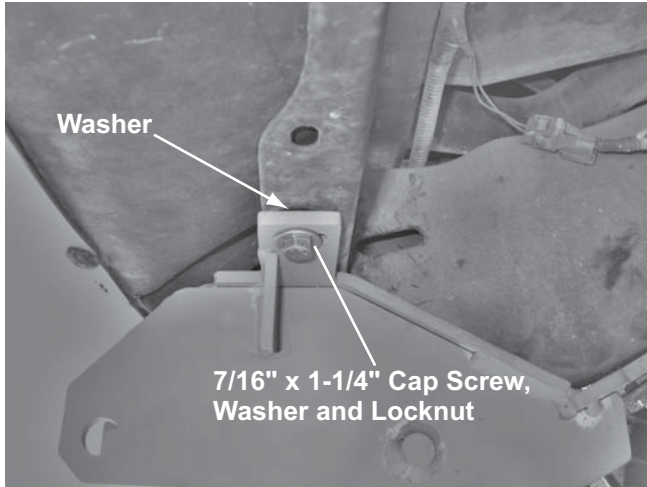
If the bolt-on clips are pointing out from centerline, remove the lower nut and loosen the upper. Remove and save the remaining bumper bracket fastener located to the rear of the bolt-on clip fasteners. On 1500 model trucks the ground wire tap screw interferes with the driver-side mount. Remove and relocate the tap screw.

2. Hang the driver-side mount by the hole in the front of the hanger on the lower bolt in the front bumper bracket. Loosely secure with original nut. **Do not tighten any fasteners until instructed to do so.** Swing the mount into place.

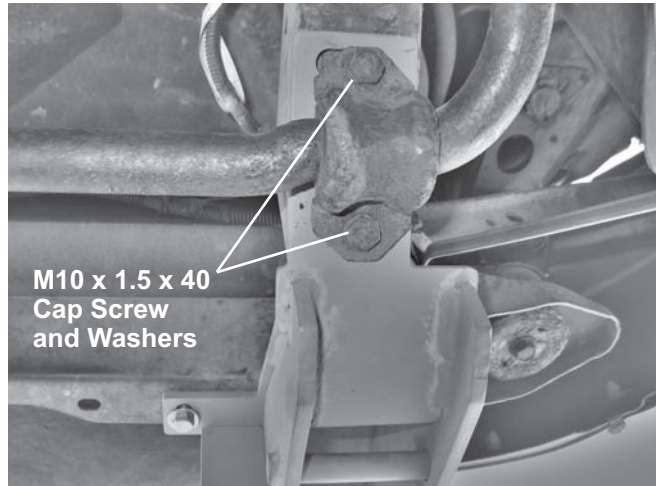


## UNDERCARRIAGE INSTALLATION

5. Install a 7/16" x 1-1/4" cap screw with flat washer through slot in mount and frame cross member. Place a 7/16" washer between the mount and cross member. Loosely fasten 7/16" flat washer and locknut. **Do not tighten any fasteners until instructed to do so.**



6. Repeat steps 2, 3, 4 and 5 for the passenger-side mount. Insert a 1/2" x 1-1/4" cap screw with handle in through the square hole with the bumper brace attached and out through frame and top hole on mount. Fasten with 1/2" locknut.
7. Reattach the sway bar brackets to the mounts and frame with four M10 x 1.5 x 40 cap screws, flat washers and lock washers.



*(Viewed from the back)*

8. Tighten the sway bar bolts first and then all remaining fasteners. Tighten all fasteners per torque chart. Bend or trim the handles on all cap screws with handles to prevent contact with any vehicle components.

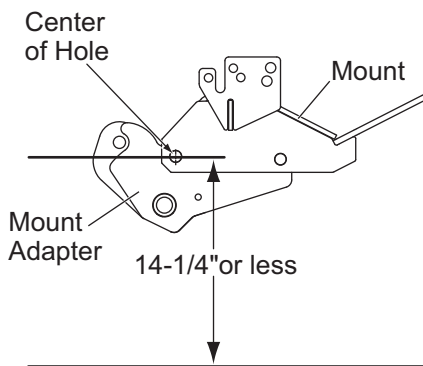
## MOUNT ADAPTER INSTALLATION

### MOUNT ADAPTER MEASUREMENT

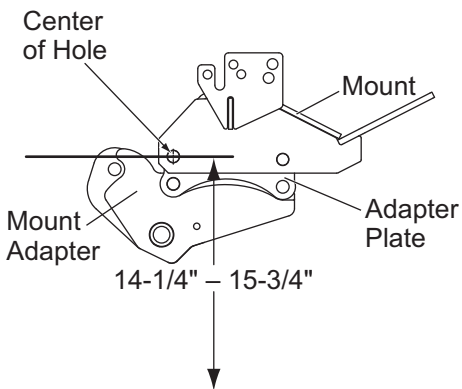
With vehicle on level ground, measure from ground to center of the hole on U-bracket sideplate on mount.

The recommended height of the mount should be 14-1/4" or less from the center of the U-bracket hole to level ground. If the mount is higher than 14-1/4", the enclosed adapter plates need to be attached to the Mount Adapter. (The Mount Adapter comes packaged with the Blade Crate Assembly.)

If measured height is 14-1/4" or less, no height adjustment is needed.



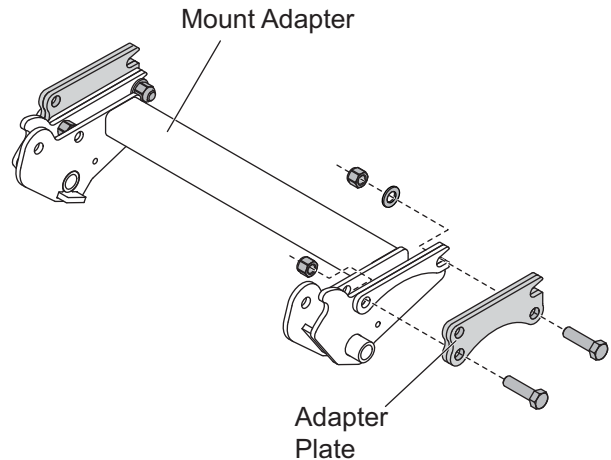
If measured height is 14-1/4" – 15-3/4", install the short height adjustment adapter plates as described.



### MOUNT ADAPTER INSTALLATION

If adapter plates are required, install as follows:

1. Position the adapter plate against the driver's side portion of the mount adapter as shown. Insert a 3/4" x 2-3/4" cap screw through the lower front adapter plate hole and through the appropriate hole on the mount adapter. Secure with a locknut.
2. Insert a cap screw through the rear adapter plate hole, through the slot on the mount adapter and through a washer. Secure with a locknut.



3. Repeat for the passenger's side. Torque all four fasteners according to torque chart on page 4.

**NOTE: After five to ten hours of snowplow usage, retorque all mount assembly fasteners.**







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