January 1, 2009 Lit. No. 40799, Rev. 01



30865

UNDERCARRIAGE KIT Chevy/GMC 1500 4X4 1988 - 2000

Installation Instructions

A CAUTION

Read this document before installing the snowplow.

A 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 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 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.



LOWER BLADE WHEN VEHICLE IS PARKED.

DO NOT EXCEED GVWR OR GAWR INCLUDING BLADE AND BALLAST.

REMOVE BLADE ASSEMBLY BEFORE PLACING VEHICLE ON HOIST.

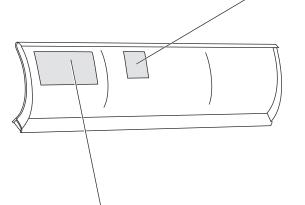


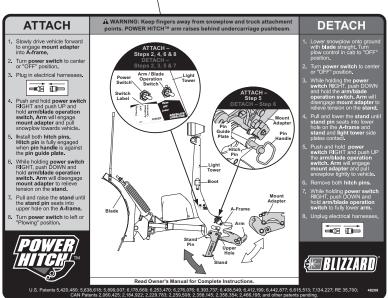
READ *OWNER'S MANUAL* BEFORE OPERATING OR SERVICING SNOWPLOW.

TRANSPORT SPEED SHOULD NOT EXCEED 45 MPH. FURTHER REDUCE SPEED UNDER ADVERSE TRAVEL CONDITIONS.

PLOWING SPEED SHOULD NOT EXCEED 10 MPH.

SEE YOUR SALES OUTLET/WEB SITE FOR SPECIFIC VEHICLE APPLICATION RECOMMENDATIONS.





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.

A 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.

A WARNING

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

A 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.

A WARNING

Remove blade assembly before placing vehicle on hoist.

A 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.

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 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.

TORQUE SPECIFICATIONS

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 snowplow including proper personal protective safety equipment.



Grade Identification for J429-Grade 5 Bolt



Grade Identification for J429-Grade 8 Bolt

S	AE J429 Grade	5 Torque Value	es	SAE J429 Grade 8 Torque Values			
Nominal	Clamp Loads	Tightening Torque		Nominal	Clamp Loads	Tightening Torque	
Thread Size	(lb)	"Lubricated"	"Dry"	Thread Size	(lb)	"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

8.8 Grade Identification for Metric-Grade 8.8 Bolt 10.9 Grade Identification for Metric-Grade 10.9 Bolt

Metric Class 8.8 Torque Values				Metric Class 10.9 Torque Values			
Diameter	Clamp Loads	Tightening Torque		Diameter	Clamp Loads	Tightening Torque	
(mm)	(lb)	"Lubricated"	"Dry"	(mm)	(lb)	"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

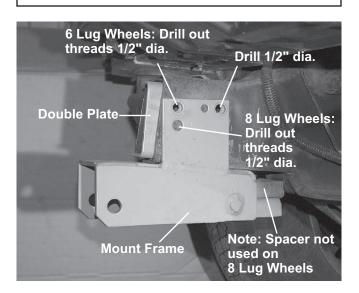
NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

MOUNT FRAME

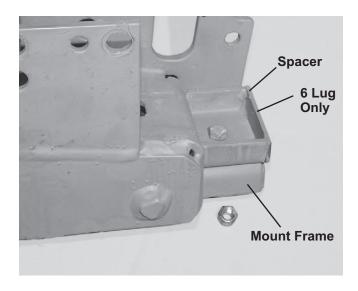
- Remove the air dam, bumper with end braces, splash shield, tow hooks and tapped bars from the inside of the boxed frame rails. The bumper with end braces will be reinstalled during installation. Save all other removed parts and replace whenever the mount assembly is removed from the vehicle.
- 2. On the passenger's side, place the mount frame to the in-board side of the boxed vehicle frame rail.

A CAUTION

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



- **6-Lug Wheels:** Attach the spacer to the rear of the mount frame using 3/8" hardware provided. Align the **top** hole in the mount frame with the threaded hole in the inner wall of the vehicle frame rail.
- **8-Lug Wheels:** No spacer required. Align the **bottom** hole in the mount frame with the threaded hole in the inner wall of the vehicle frame rail.



A CAUTION

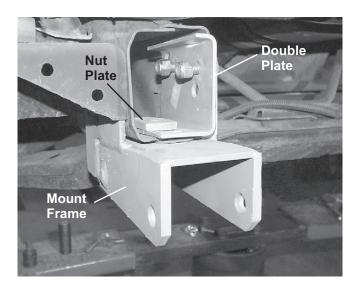
Use caution not to pinch, cut or drill through any wires or hoses running along the frame rails.

NOTE: If the vehicle has cooler lines that interfere with the mount, they must be relocated. If the interface occurs between the driver-side mount frame and the brake lines or brackets, remove the mount frame material as required to provide clearance. On vehicles with power steering cooler lines inside of the vehicle frame, use the mount frame as a guide to drill a 1/2" clearance hole to reattach the cooler line bracket.

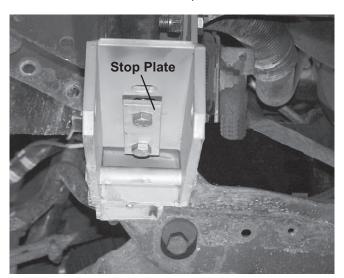
- 3. Make sure the mount frame is tight against the bottom and inner wall of the vehicle frame. Drill out the threaded hole in the inner vehicle frame wall using a 1/2" drill. Using the rear hole in the mount as a guide, drill a 1/2" hole in the inner frame wall. Remove any burrs from inside of the vehicle frame.
- 4. Install the formed double plate that matches the multi-slotted mount frame plate inside the vehicle frame rail and against the inner wall.

UNDERCARRIAGE INSTALLATION

- 5. Attach the mount frame to the drilled out inner vehicle frame wall and double plate with a 1/2" x 1-1/2" cap screw and flat washer to the double plate and locknut. Torque to 75 ft-lb.
- 6. Install a nut plate on top of the double plate inside the vehicle frame and align with the tow hook holes.



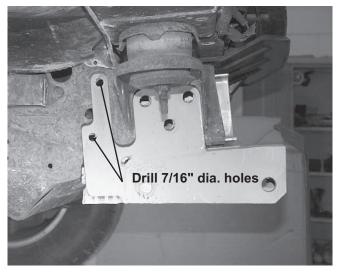
7. Install two 1/2" x 2-1/2" cap screws with washers outside the frame rail through the stop plate, vehicle tow hook holes, double plate and mount frame. Thread into the nut plate.



A CAUTION

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

8. Using the rear hole in the mount frame bracket as a guide, drill a 7/16" hole through the vehicle frame.



- 9. Secure the rear mount frame hole with a 7/16" x 1-1/2" cap screw, flat washer to inner frame and locknut.
- 10. Repeat Steps 2 9 on the driver's side.

SPLASH GUARD

- 1. Drill out the top splash guard mounting holes with a 1/2" diameter drill.
- Bend the brackets inward slightly to clear the mount frame.
- 3. Reinstall the splash guard using the mount hardware and original screws.

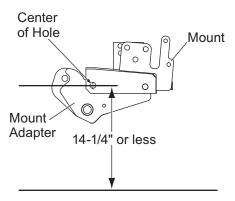
www.storksplows.com UNDERCARRIAGE INSTALLATION

MOUNT ADAPTER MEASUREMENT

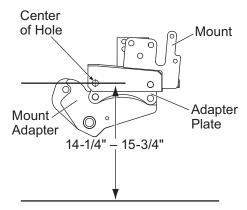
With the vehicle on level ground, measure from the ground to center of the hole on U-bracket sideplate on the mount.

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. Skip to the Bumper Reinstallation section.



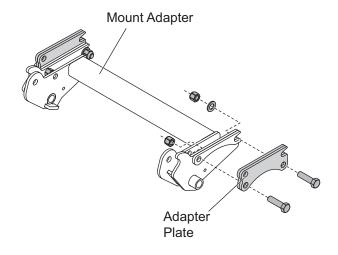
If measured height is 14-1/4" – 15-3/4", install the short height adjustment adapter plates as described.



MOUNT ADAPTER INSTALLATION

If adapter plates are required, install as follows:

- 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.

BUMPER REINSTALLATION

Reinstall the bumper using six 14mm x 45mm serrated flange screws through the support brackets and vehicle frame. Thread the screws into the weld nuts on each bumper bracket. Tighten all fasteners according to torque chart.

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



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