



**B32207**

**UNDERCARRIAGE KIT**

**Jeep Liberty**

**2004 - \_\_\_\_**

**Parts List and 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 can not be read, see your sales outlet.

### Warning and Caution Label

#### **⚠ WARNING**

LOWER BLADE WHEN VEHICLE IS PARKED.

DO NOT EXCEED GVWR OR GAWR INCLUDING BLADE AND BALLAST.

REMOVE BLADE ASSEMBLY BEFORE PLACING VEHICLE ON HOIST.

#### **⚠ CAUTION**

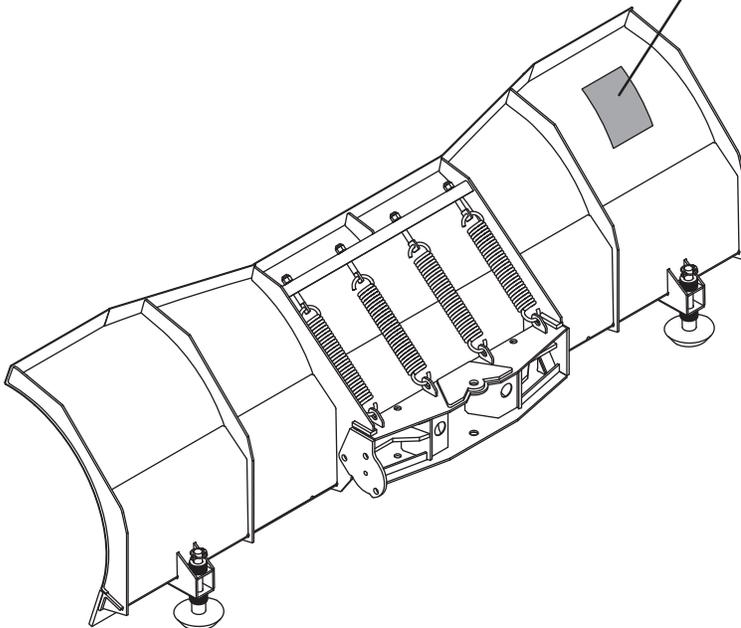
READ *OWNER'S MANUAL* BEFORE OPERATING OR SERVICING SNOWPLOW.

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.

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# 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.

## 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.

## 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 SPECIFICATIONS

## 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

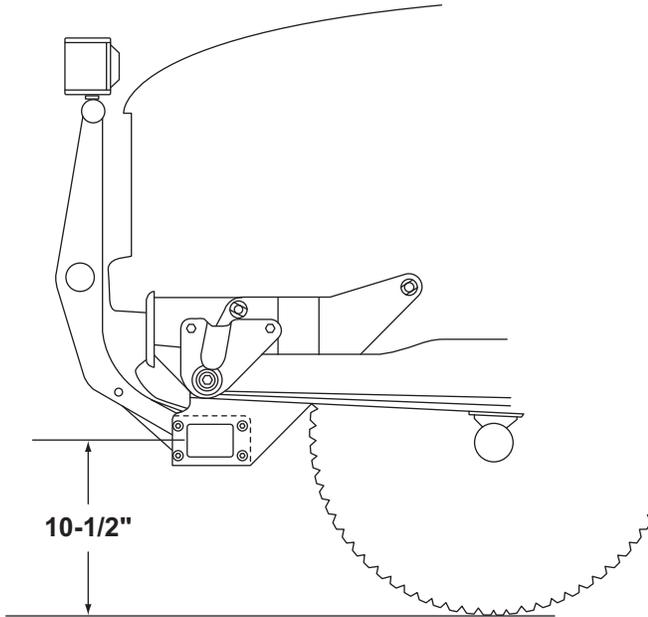
Metric Class 8.8 Torque Values				Metric Class 10.9 Torque Values			
Diameter (mm)	Clamp Loads (lb)	Tightening Torque		Diameter (mm)	Clamp Loads (lb)	Tightening Torque	
		"Lubricated"	"Dry"			"Lubricated"	"Dry"
5	1,389	3 ft-lb	5 ft-lb	5	1,987	5 ft-lb	7 ft-lb
6	1,965	6 ft-lb	8 ft-lb	6	2,812	8 ft-lb	11 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

# PUSHBEAM

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## PUSHBEAM HEIGHT

The recommended pushbeam height for this undercarriage assembly is 10-1/2" from the center of the pushbeam to level ground. DO NOT exceed 12-1/2" in height for this undercarriage.



# UNDERCARRIAGE INSTALLATION

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

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1. Disconnect lamp harnesses, if applicable.
2. Remove the grille assembly and bumper.

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**NOTE: The bumper is mounted to the frame with plastic push rivets on the top, and plastic rivets on the bottom. The top rivets should be saved for reuse and the bottom rivets will need to be replaced with hardware provided. The plastic air dam will need to be permanently removed or notched to accommodate the undercarriage.**

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3. Remove both frame rail end caps. Save original hardware for reuse.
4. Position each hanger plate (**Item 6** and **7**) underneath the truck frame rail and against the front flange at the end of the frame and clamp it in place.

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**NOTE: The 90° bend should face inward.**

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5. Mount the pushbeam (**Item 1**) square with the bottom of each hanger plate using cap screws (**Item 10**), washers (**Item 9**) and locknuts (**Item 11**). Fully tighten the pushbeam hardware according to the torque chart.

**⚠ CAUTION**

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

6. With this assembly in place, mark the hole locations for each hanger plate on the bottom of the truck frame. Remove the undercarriage and drill pilot holes through the marked locations. Bore each pilot hole to a 9/16" diameter.

7. Position each nutplate (**Item 8**) through the end of the frame and align it with the holes in the frame. Secure hanger plates with cap screws (**Item 12**) and washers (**Item 9**) through each of the holes.

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**NOTE: Use a floor jack to help facilitate the installation procedure.**

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Finger tighten the fasteners until all undercarriage parts are in place.

8. Level the pushbeam with the floor and tighten the hanger plate hardware according to the torque chart.
9. Replace the frame rail end caps, bumper and grille assembly. Reinstall plastic air dam, notching to fit.

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**NOTE: The bottom bumper rivets will need to be replaced by cap screws (Item 13), washers (Item 14 and 15) and nuts (Item 16).**

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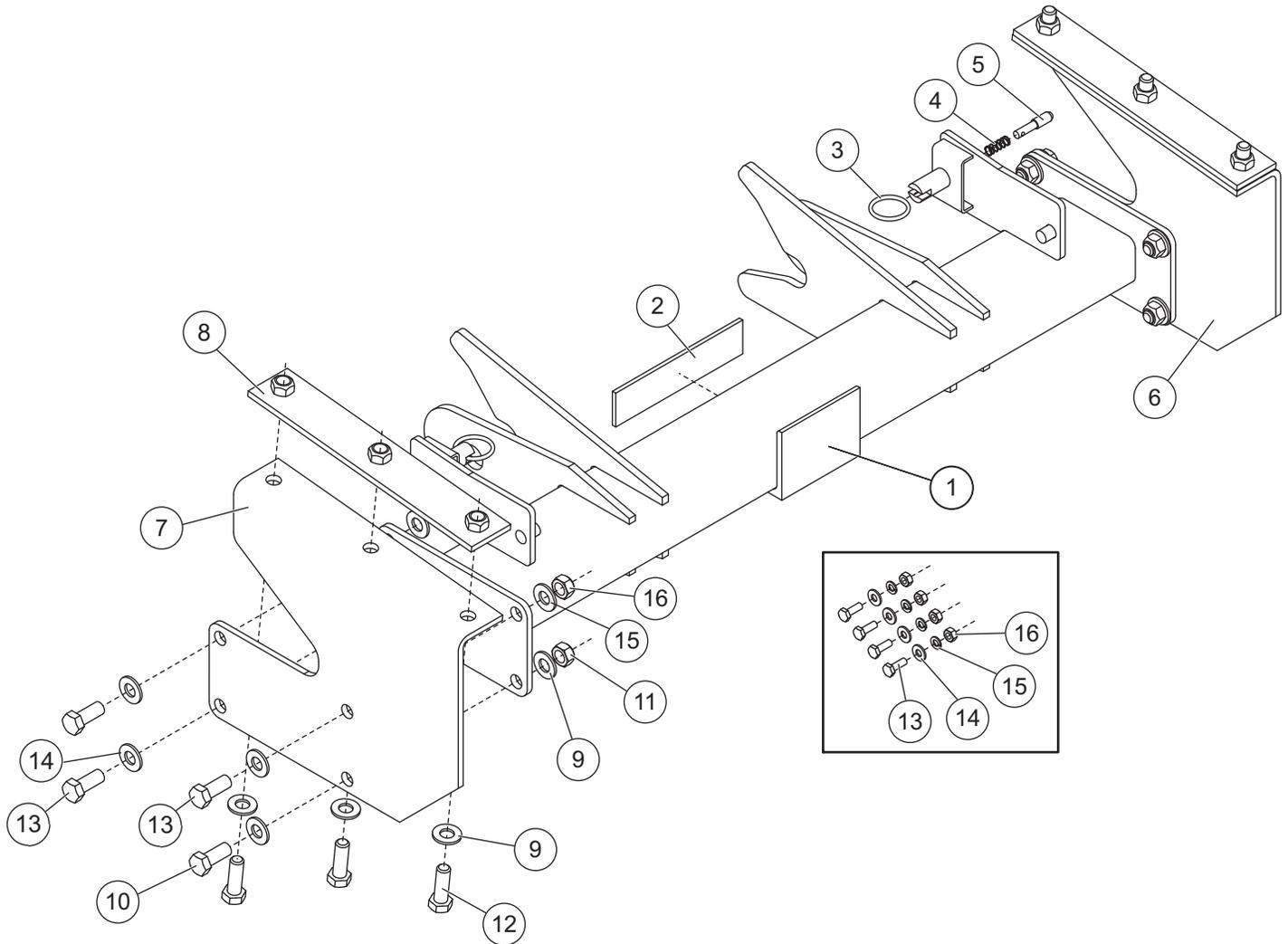
10. Reconnect lamp harnesses, if applicable.

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

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# UNDERCARRIAGE PARTS LIST



<b>B32207 Undercarriage Kit</b>							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	B32086	1	Pushbeam	5	B40079	2	A-Frame Latch Pin
2	B63162	1	Decal, Pushbeam	6	B32208	1	Hanger Plate – PS
3	B61309	2	Split Ring, 1.25 OD	7	B32209	1	Hanger Plate – DS
4	B61000	2	Compression Spring SS	ns	B61557	1	Hardware Kit
<b>B61557 Hardware Kit</b>							
8	B32211	2	Nutplate	13	90461	4	1/4-20 x 3/4 Hex Cap Screw G5
9	90572	22	1/2 Hardened Flat Washer	14	90311	4	1/4 Flat Washer
10	90575	8	1/2-13 x 1-1/4 Hex Cap Screw G5	15	91201	4	1/4 Spring Lock Washer
11	90593	8	1/2-13 Hex Locknut GC	16	91411	4	1/4-20 Hex Nut
12	90210	6	1/2-13 x 1-1/2 Hex Cap Screw G5				
			G = Grade				ns = not shown
							SS = Stainless Steel



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