September 15, 2007 Lit. No. B64100, Rev. 01



# **B30089**

## **UNDERCARRIAGE KIT**

### GM K1500 Blazer/Jimmy GM K10/K1500

1980 - 91 1980 - 87

GM K10/K1500 Suburban

1980 - 91

**Parts List and Installation Instructions** 

#### 

Read this document before installing the snowplow.

#### 

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

**A DIVISION OF DOUGLAS DYNAMICS, L.L.C.** 

#### 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.

#### 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.

#### 

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 dismounting 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.

#### A WARNING

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

#### A WARNING

Remove blade assembly before placing vehicle on hoist.

#### 

See your BLIZZARD<sup>®</sup> outlet for application recommendations.

#### 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.

#### 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 CHART**

 $\land$ 

#### **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.

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

 $\bigtriangleup$ 

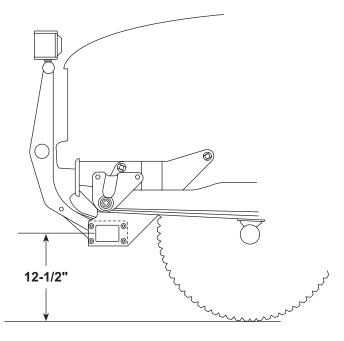




Diameter	Clamp Loads	Tightening Torque		Diameter	Clamp Loads	Tightening Torque	
(mm)	(lbs)	) "Lubricated" "Dry" (mm)		(mm)	(lbs)	"Lubricated"	"Dry"
5	1,389	3 ft-lbs	5 ft-lbs	5	1,987	5 ft-lbs	7 ft-lbs
6	1,965	6 ft-lbs	8 ft-lbs	6	2,812	8 ft-lbs	11 ft-lbs
7	2,826	10 ft-lbs	13 ft-lbs	7	4,044	14 ft-lbs	19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

#### **PUSHBEAM HEIGHT**

The recommended pushbeam height for this undercarriage assembly is 12-1/2" from the center of the pushbeam to level ground. DO NOT exceed 14-1/2" in height for this undercarriage.



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 nuts and washers that attach the tow hooks to the truck frame on both sides of the truck. Discard hardware. Remove any additional bumper accessories.
- 2. Remove the bolts and washers from the rear mount of each bumper support bracket.

NOTE: Each hole contains a welded nut on the inside of the truck frame eliminating the need for new hardware; however, locknuts and washers are provided should the welded nuts, or threads, be damaged.

3. Position each hanger plate (**Item 7 & 8**) on the inside of the truck frame and in front of the sway bar cross member.

NOTE: The bushings should rest against the frame and the gussets should face the vehicle tires.

Align the top and bottom rear bushings with the holes for the bumper support bracket. Secure the plates with cap screws (**Item 13**) and washers (**Item 14**). If needed, replace the welded nuts on the frame with washers (**Item 14**) and locknuts (**Item 15**). Finger tighten the fasteners until all undercarriage parts are in place.

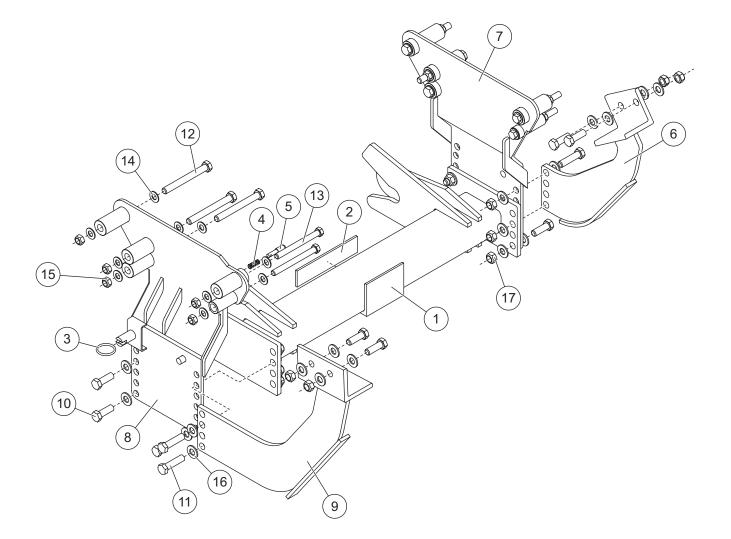
- Align the three front bushings on the hanger plates with the holes for the tow hook mounts. Secure the plate bushings with cap screws (Item 12), washers (Item 16) and locknuts (Item 17).
- Mount the pushbeam (Item 1) square with the bottom of each hanger plate. Secure the front two holes with cap screws (Item 10), washers (Item 16) and locknuts (Item 17).

#### **A** CAUTION

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

- Position the top hole of the support arms (Item 6 & 9) with the top hole on the outside of the hanger plates. Fit the support arms against the frame and mark the hole locations on the frame. Drill two holes into the frame to properly mount the support arms.
- Secure each arm to the vehicle with cap screws (Item 10), washers (Item 16) and locknuts (Item 17). Fasten the support arms to the hanger plates with cap screws (Item 11), washers (Item 16) and locknuts (Item 17). Torque the pushbeam hardware according to the torque chart.
- 8. Level the pushbeam with the floor and tighten the hanger plate hardware according to the torque chart.

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



B30089 Undercarriage Kit								
Item	Part	Qty	Description	ltem	Part	Qty	Description	
1	B30092	1	Pushbeam		B30124	1	Pushbeam Support Arm – PS	
2	B63162	1	Decal, Pushbeam		B30090	1	Hanger Plate – PS	
3	B61309	2	Split Ring, 1.25 OD	8	B30091	1	Hanger Plate – DS	
4	B61000	2	Compression Spring SS		B30120	1	Pushbeam Support Arm – DS	
5	B40079	2	A-Frame Latch Pin		B61156	1	Hardware Kit	
B61156 Hardware Kit								
10	67240	10	1/2-13 x 1-1/2 Hex Cap Screw G8	14	29232	8	7/16 Hardened Flat Washer	
11	90218	4	1/2-13 x 2 Hex Cap Screw G8	15	90353	4	7/16-14 Hex Locknut GB	
12	90109	6	1/2-13 x 4-1/2 Hex Cap Screw G5	16	90572	40	1/2 Hardened Flat Washer	
13	B61153	4	7/16-14 x 4-1/2 Hex Cap Screw G8	17	90593	20	1/2-13 Hex Locknut GC	
	G = Grade		ade SS = Stair	Stainless Steel			ns = not shown	



Blizzard P.O. Box 245038 Milwaukee, WI 53224-9538 www.blizzardplows.com

**A DIVISION OF DOUGLAS DYNAMICS, L.L.C.** 

Copyright © 2007 Douglas Dynamics, L.L.C. All rights reserved. This material may not be reproduced or copied, in whole or in part, in any printed, mechanical, electronic, film or other distribution and storage media, without the written consent of Blizzard. Authorization to photocopy items for internal or personal use by Blizzard outlets or snowplow owner is granted.

Blizzard reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. Blizzard or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. Blizzard offers a limited warranty for all snowplows and accessories. See separately printed page for this important information. The following is a registered (<sup>®</sup>) trademark of Douglas Dynamics, L.L.C.: BLIZZARD<sup>®</sup>.

Printed in U.S.A.