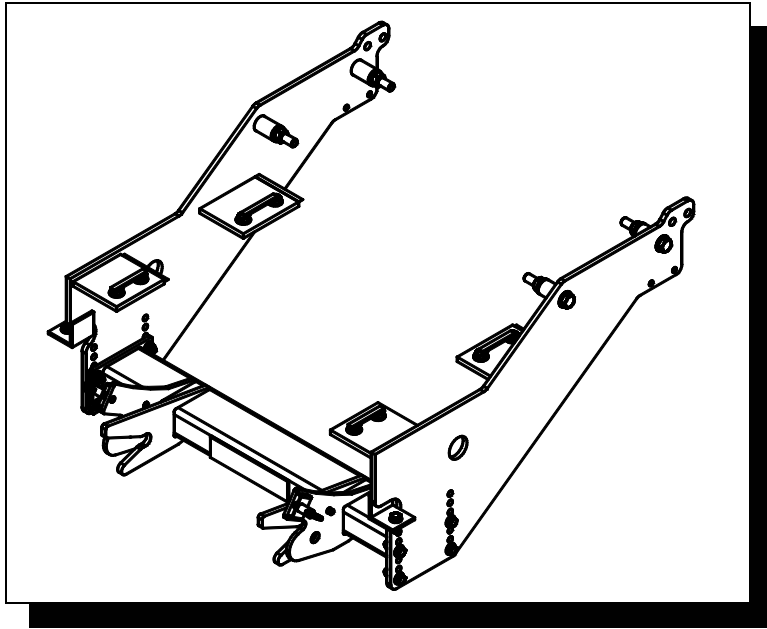


BLIZZARD[®] **SNOWPLOWS**

UNDERCARRIAGE INSTALLATION INSTRUCTIONS



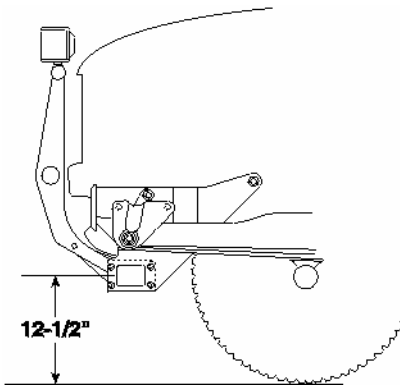
UNDERCARRIAGE **33038**

HARDWARE KIT **61722**

FOR MODELS:

FREIGHTLINER FL40, FL50 (1999-2003)

INSTALLATION INSTRUCTIONS



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

WARNING: Always perform vehicle undercarriage installations with the keys removed from the vehicle's ignition. Properly tag the ignition switch to alert others work is being performed on the vehicle.

Most newer trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

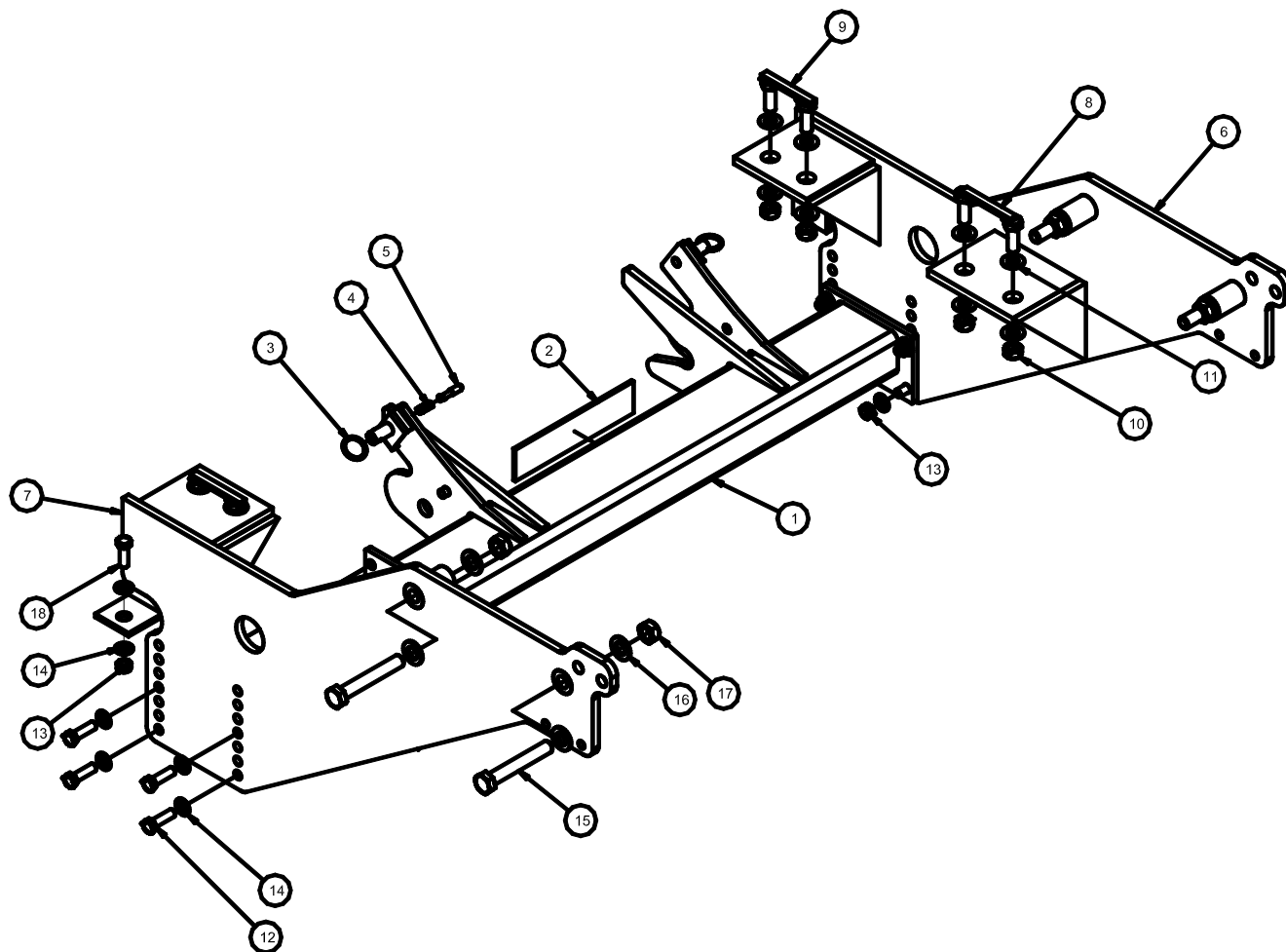
ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

FAILURE TO COMPLY WITH THE ABOVE WARNINGS MAY RESULT IN SERIOUS INJURY OR DEATH.

NOTE: Actual placement to be determined by installer based on recommended pushbeam height.

1. Remove tow hooks from bottom of truck if applicable.
2. Remove bumper to gain access for inner plates.
3. Check inner frame mount plates and truck frame for fit with the bolt bars before attaching the hanger plates.
4. Check the hole mounting locations and sizes of the side mounting holes. The rear hole may need to be drilled or made larger. The front and under frame holes are undercarriage mounting holes.
5. Position hanger plates (**Ref 6 & 7**) on the outside of the truck frame rail. Secure top holes with bolts (**Ref 15**) washers (**Ref 16**) and nuts (**Ref 17**). Finger tighten the fasteners until all undercarriage parts are in place.
6. Secure inner horizontal mount surfaces, on hanger plates, through the frame with one of each bolt weldment (**Ref 9 & 8**) on each side and secure with washers (**Ref 11**) and nuts (**Ref 10**).
7. Secure outer horizontal mount surface, on hanger plates, to frame with bolts (**Ref 18**), washers (**Ref 14**) and nuts (**Ref 13**).
8. Mount the pushbeam (**Ref 1**) square with the bottom of each hanger plate and attach with bolts (**Ref 12**), washers (**Ref 14**) and nuts (**Ref 13**). Torque the pushbeam hardware according to specifications.
9. Level the pushbeam with the floor and tighten the hanger plate hardware according to torque specifications
10. Replace bumper.
11. Position the **Light Tower** into the mount pockets on the push beam. Each pocket has a lock pin that secures both light tower arms. Pull out and twist each ring handle to temporarily unlock the pins. Place the light tower into the pockets and relock the pins. Mount each **Plow Headlight** to the light tower with the hardware kit provided. *NOTE: Light tower will need to be removed to open hood or plow lights may also be mounted to the hood of the vehicle and the light tower not used.*
12. Plug the connectors from the snowplow headlights into the connectors on the vehicle wire harness. Adjust both lights with the plow in the raised position. *NOTE: Use of a headlight connector or wiring to allow for switching of the headlights is mandatory. Conversion harnesses will vary and the harness may be installed outside of the headlight pocket by using an aftermarket generic conversion harness and shrink/solder connections to protect from corrosion.*

UNDERCARRIAGE PARTS



REF	PN	QTY	DESCRIPTION	NOTES
-	33038	1	Asm, Undercarriage	INCLUDES 1-18
-	61722	1	Kit, Hardware UC	INCLUDES 8-18
1	33037	1	Weldment, Push Beam 3 x 5 x 38	
2	63161	1	Decal, Pushbeam 2-1/4" x 9-3/4"	
3	61309	2	Ring, Standard Split, 1.48" O.D	
4	61000	2	Spring, Draw Latch Lock Pin	
5	40079	2	Pin, 3/8" DIA. x 1-3/4" SS	
6	33041	1	Wldmt, Hanger Plate Passengers Side	
7	33042	1	Wldmt, Hanger Plate Drivers Side	
8	33045	2	Bolt Weldment, 5/8-11 x 4"	
9	33047	2	Bolt Weldment, 5/8-11 x 3"	
10	61063	8	Nut, 5/8-11 UNC Hex Top Lock	
11	61064	16	Washer, 5/8 SAE Hardened	
12	61150	8	Screw, 1/2-13 x 1-3/4" HHCS GR8 YZ	
13	61020	10	Nut, 1/2-13 Top Lock Z	
14	61026	20	Washer, 1/2" SAE Hardened	
15	61002	4	Screw, 3/4-10 UNC x 5 HHCS	
16	61304	8	Washer, 3/4" SAE Hardened	
17	61006	4	Nut, 3/4-10 Hex Top Lock	
18	61055	2	Screw, 1/2-13 x 1-1/2 HHCS GR8 YZ	

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only. Always review the part number given for proper component identification. Blizzard reserves the right, under its Continuous Improvement Policy, to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications.

HEADLIGHT CONVERSION HARNESS GUIDE

VEHICLE APPLICATION	HEADLIGHT CONNECTOR	HEADLIGHT DESCRIPTION	HEADLIGHT NUMBERS	CONVERSION HARNESS
1999-2003 FL40, FL50	2B/2D*	DUAL RECTANGULAR HEADLAMP	H6054, HP6054	62220

Note: Headlight conversion harness kits are not included with undercarriages. All headlight conversion harness kits sold separately.
 *Connector may vary with different headlight options or aftermarket lights. Use of a headlight connector or wiring to allow for switching of the headlights is mandatory.

TORQUE SPECIFICATIONS (For reference only)



Grade Identification Marking for J429-Grade 5 Bolt



Grade Identification Marking for J429-Grade 8 Bolt

SAE J429 – Grade 5				SAE J429 – Grade 8			
Nominal Thread Size	Clamp Loads (lbs)	Tightening Torque		Nominal Thread Size	Clamp Loads (lbs)	Tightening Torque	
		“Lubricated”	“Dry”			“Lubricated”	“Dry”
1/4-20	2,000	6 ft-lbs	8 ft-lbs	1/4-20	2,850	9 ft-lbs	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



Grade Identification Marking for Metric-Grade 8.8 Bolt



Grade Identification Marking for Metric-Grade 10.9 Bolt

Metric Class 8.8				Metric Class 10.9			
Diameter (mm)	Clamp Loads (Pounds)	Tightening Torque		Diameter (mm)	Clamp Loads (Pounds)	Tightening Torque	
		“Lubricated”	“Dry”			“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