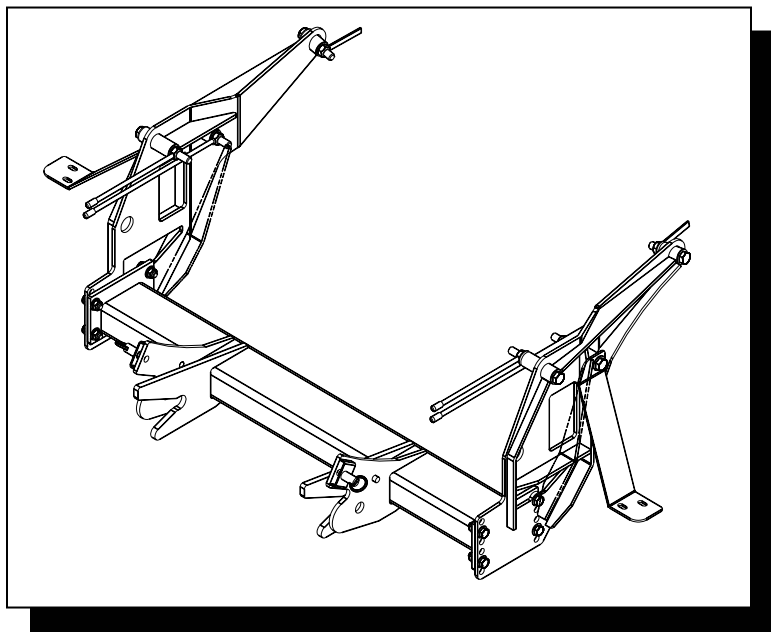


BLIZZARD[®] **SNOWPLOWS**

UNDERCARRIAGE INSTALLATION INSTRUCTIONS



UNDERCARRIAGE **31219**

HARDWARE KIT **61337**

FOR MODELS:

FORD F-250/350 SUPER DUTY PICKUP (1999-2005)

FORD F-450/550 SUPER DUTY PICKUP (1999-2005)

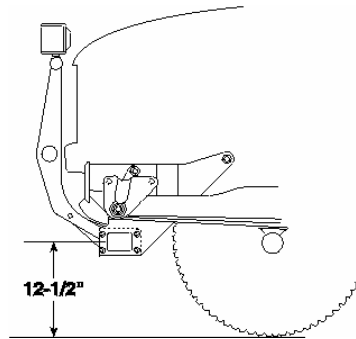
FORD EXCURSION (2000-2005)



INSTALLATION INSTRUCTIONS



A label identifying the undercarriage assembly part number and push beam part number is applied to the rear of the push beam.



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.

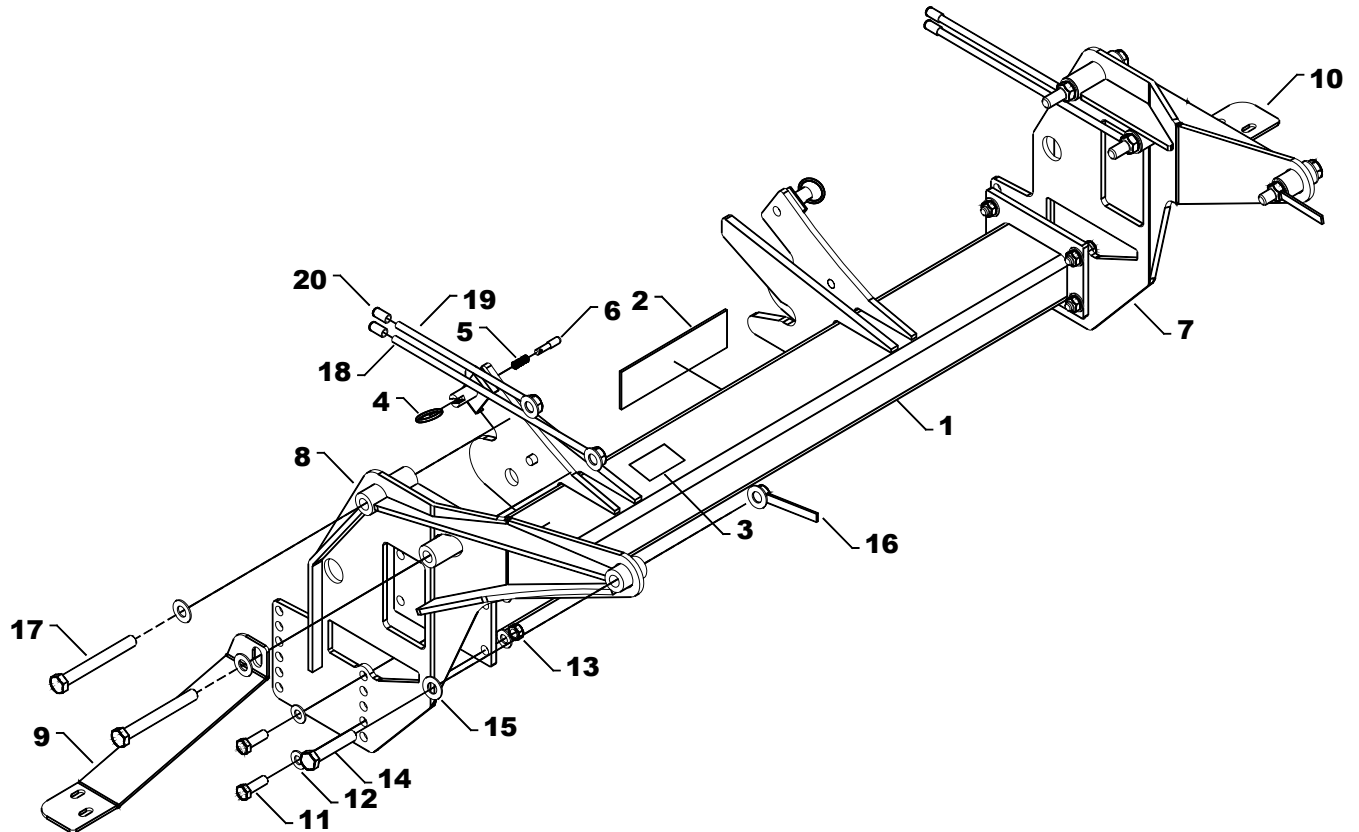
CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle. Adjust steering stops if possible.



If your vehicle is equipped with a Blocker Beam™, review the attached Technical Service Bulletin.

1. Remove the plastic bumper fascia and either notch it for reinstallation or remove it permanently from the vehicle.
2. Remove the outside bumper bracket from each side. Retain hardware. *NOTE: The blocker beam needs to be removed on 2005 F-250's/F-350's and all models for 1999-2004 years for the undercarriage to be installed at the proper height. See attached TSB and recommended pushbeam height to the left. 2005 original bumper brackets can be used on models that do not remove the blocker beam.*
3. Position hanger plates (**Ref 7 & 8**) with the two holes/slots on the outside of the truck frame rail. Secure rear bushing with bolts (**Ref 14**), washers (**Ref 15**) and tab nuts (**Ref 16**). *NOTE: Use the access hole in the truck frame to position the tab nut.* Finger tighten the fasteners until all undercarriage parts are in place.
4. Position the rodnut (**Ref 19**) through the front of the truck frame rail, above the tow hooks, with the front access hole. Secure rod nut to front hole in hanger plates with bolts (**Ref 17**) and washers (**Ref 15**). *NOTE: It may be necessary to adjust the bumper height to accommodate the rodnut installation. NOTE: The fog lamp harness (if applicable) is routed close to the drivers side hanger plate, do not pinch wire between the hanger plate and truck frame.*
5. Mount the push beam (**Ref 1**) square with the bottom of each hanger plate using bolts (**Ref 11**), washers (**Ref 12**) and nuts (**Ref 13**). Tighten the pushbeam hardware to torque specifications.
6. Level the pushbeam with the floor and torque the hanger plate hardware.
7. Mark a center point with an 11/16" drill through the top, center bushing on each hanger plate. Drill a pilot hole through the center mark with a smaller bit, and then an 11/16" hole completely through the frame wall on each side of the vehicle. *NOTE: Use caution when drilling into the frame, hydraulic or electrical lines may be located inside.*
8. Secure top, center hole through bumper brackets, IF blocker beam removed (**Ref 9 & 10**) with bolts (**Ref 17**), washers (**Ref 15**) and rodnut (**Ref 18**) and tighten to torque specifications. *NOTE: Position rodnut through the front of the truck frame rails, above the tow hooks.*
9. Replace the bumper fascia, if notched with existing hardware.
10. 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.
11. 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.

UNDERCARRIAGE PARTS



REF	PN	QTY	DESCRIPTION	NOTES
-	31219	1	Asm, Undercarriage	INCLUDES 1-20
-	61337	1	Kit, Hardware Ford UC	INCLUDES 11-20
1	31105	1	Weldment, Push Beam 3 x 5 x 46	
2	63161	1	Decal, Push Beam 2-1/4" x 9-3/4"	
3	61269	1	Label, Ford Blocker Beam™ 3" x 6"	
4	61309	2	Ring, Standard Split, 1.48" O.D	
5	61000	2	Spring, Draw Latch Lock Pin	
6	40079	2	Pin, 3/8" DIA. x 1-3/4" SS	
7	31221	1	Weldment, Hanger Plate Pass.	
8	31220	1	Weldment, Hanger Plate Drivers'	
9	31229	1	Plate, Bumper Bracket Drivers'	If necessary
10	31230	1	Plate, Bumper Bracket Pass.	If necessary
11	61018	8	Screw, 1/2-13 x 2" HHCS GR8 YZ	
12	61026	16	Washer, 1/2" USS Hardened	
13	61020	8	Nut, 1/2-13 Top Lock Z	
14	61437	2	Screw, 5/8-11 x 3-1/2" HHCS GR8 YZ	
15	61064	6	Washer, 5/8" SAE Hardened	
16	31112	2	Weldment, 5/8-11 Nut w/ welded tab and washer	
17	61253	4	Screw, 5/8-11 x 5-1/2" HHCS GR8 YZ	
18	31181	2	Rodnut, 5/8-11 X 15"	
19	31109	2	Rodnut, 5/8-11 X 10"	
20	61376	4	Cap, 3/8" I.D. X 1" Blk Vinyl	

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 Corporation 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
2005 F-250/350/450/550 SUPER DUTY PICKUP	H13	DUAL RECTANGULAR HALOGEN LAMP	9008	*
2000-2005 FORD EXCURSION 1992-2005 F-250/350 SUPER DUTY PICKUP	2B/2D	DUAL RECTANGULAR/DUAL ROUND HEADLAMP	6014, H6024, H6059, 6052, H6054, HP6054	62220
	HB5	DUAL RECTANGULAR COMPOSITE HALOGEN	9007, H9007	62222
1999-2005 FORD F-450/550 SUPER DUTY PICKUP	HB5	DUAL RECTANGULAR COMPOSITE HALOGEN	9007, H9007	62222

Note: Headlight conversion harness kits are not included with undercarriages. All headlight conversion harness kits sold separately.

*NOTE: These vehicles do NOT require a separate conversion harness. Our new lighting harness plugs directly into these lights and the truck harness.

TORQUE SPECIFICATIONS (For reference only)



Grade Identification Marking for J429-Grade 5 Bolt



Grade Identification Marking for J429-Grade 8 Bolt

Nominal Thread Size	SAE J429 – Grade 5			Nominal Thread Size	SAE J429 – Grade 8		
	Clamp Loads (lbs)	Tightening Torque			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


Diameter (mm)	Metric Class 8.8			Diameter (mm)	Metric Class 10.9		
	Clamp Loads (Pounds)	Tightening Torque			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

TECHNICAL SERVICE BULLETIN

All Blizzard Snowplows

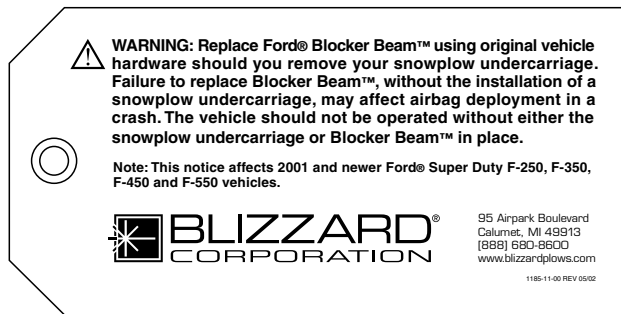
Issued November 27, 2000

This Technical Service Bulletin (TSB) has been issued for all 2001 and newer model year Ford Super Duty F-250, F-350, F-450, and F-550 snowplow undercarriage installations. These vehicles (starting in October 2000) contain a front BLOCKER BEAM™ as standard equipment. This beam is designed to prevent a car from sliding beneath the higher riding front truck bumper during a frontal collision.

 **WARNING: Removal of the Blocker Beam™, without the installation of the snowplow undercarriage, may affect air bag deployment in a crash. The vehicle should not be operated without either the snowplow undercarriage or the Blocker Beam™ in place. Should a Blocker Beam™ be removed from the front of a Ford Super Duty truck to accommodate the installation of a snowplow, it should be tagged, packaged and supplied to the customer with the completed vehicle, along with reinstallation instructions (see diagram).**

1. To install your Blizzard undercarriage on a Ford F-250, F-350, F-450 or F-550 vehicle, first tag the BLOCKER BEAM™ that is to be removed. This tag will serve as a reminder to re-install the beam should the customer ever remove the snowplow undercarriage. *Note: Tags are being added to all applicable undercarriage kits as a running change. Contact Customer Service toll free at 1-888- 680-8600 should you wish to receive tags for undercarriages in inventory.*
2. Loosen the Blocker Beam™ from both SPRING BRACKETS by removing the three fasteners at each end of the Blocker Beam™. Re-attach the fasteners to either end of the Blocker Beam™ for storage.

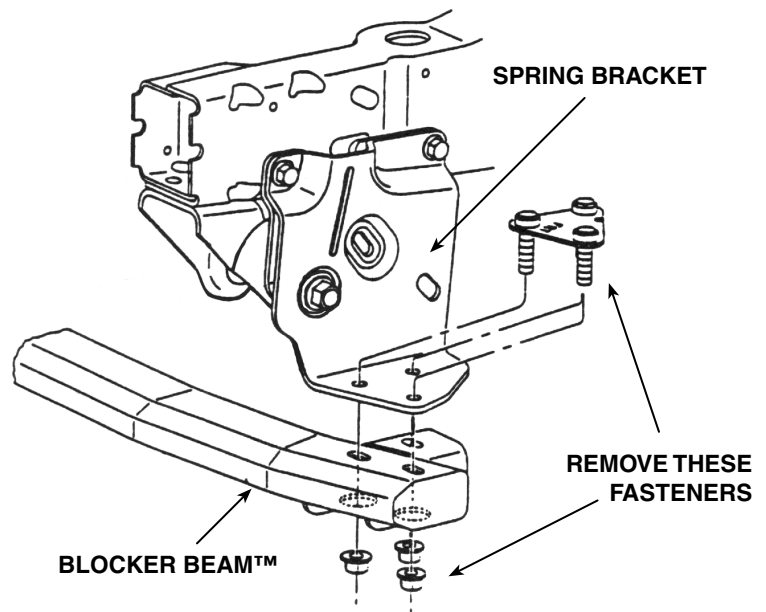
BLOCKER BEAM™ TAG



PUSH BEAM LABEL



DRIVER'S SIDE ILLUSTRATION



95 AIRPARK BOULEVARD ■ CALUMET, MI 49913 ■ (906) 482-5555 ■ (906) 482-5445 FAX