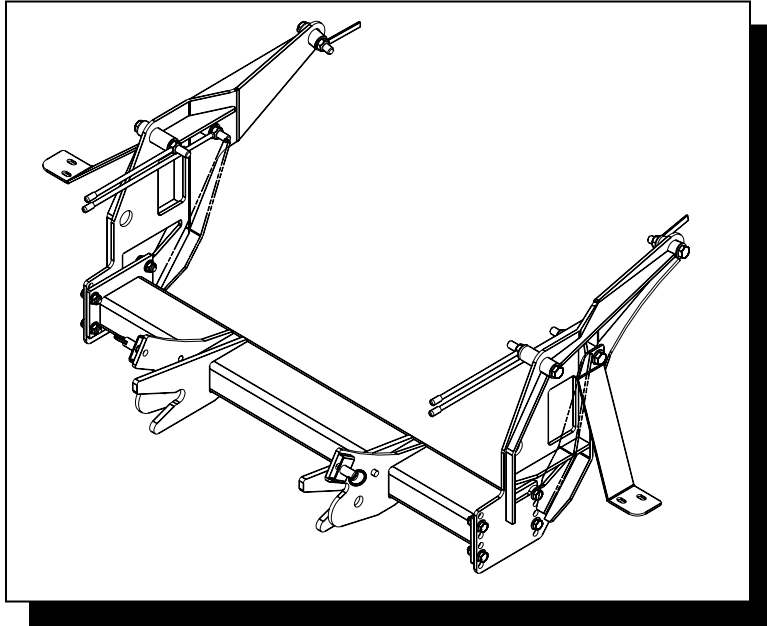


BLIZZARD[®] **SNOWPLOWS**

UNDERCARRIAGE INSTALLATION INSTRUCTIONS



UNDERCARRIAGE **31219**

HARDWARE KIT **61337**

FOR MODELS:

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

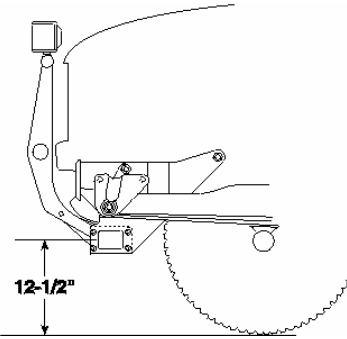
FORD F-450/550 SUPER DUTY PICKUP (1999-2005)

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.

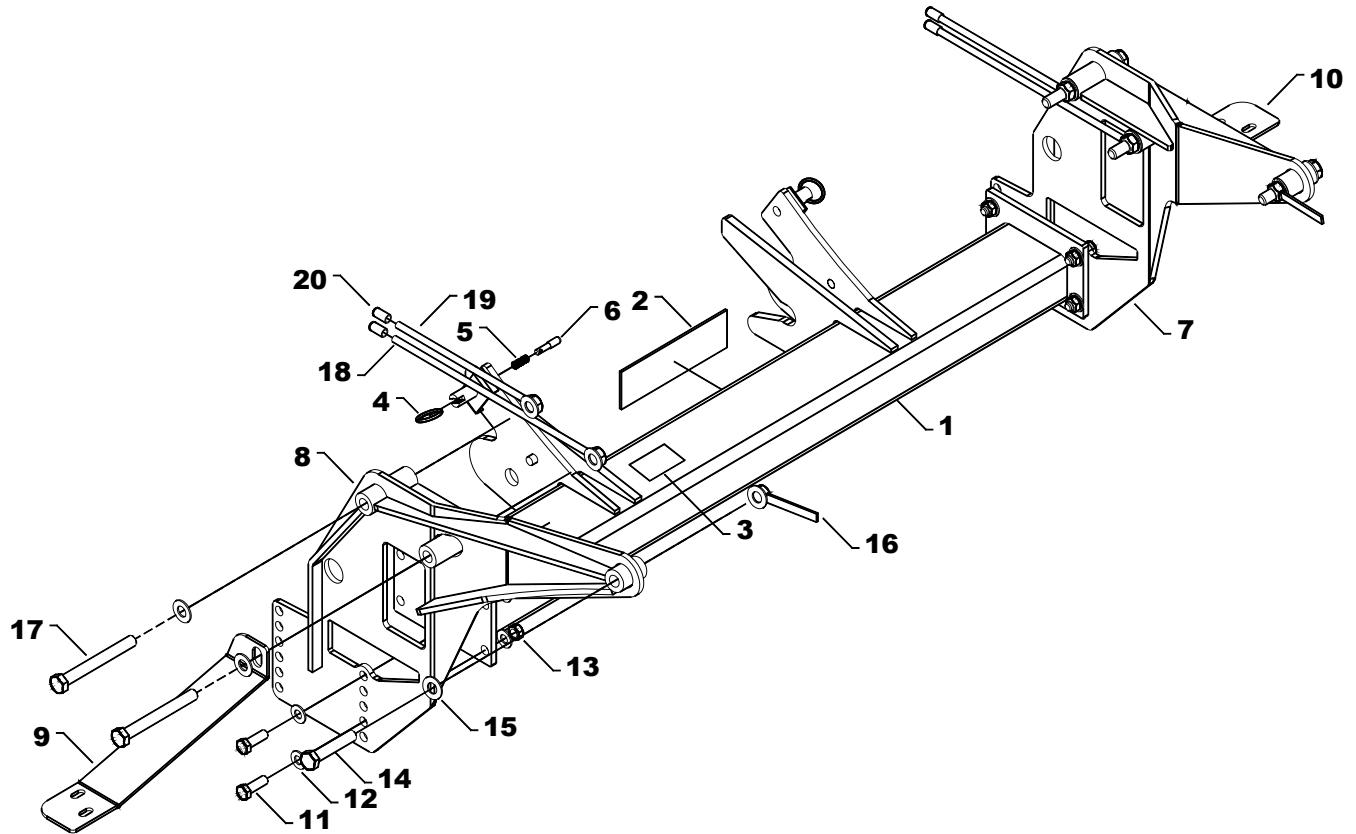
CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle. Adjust steering stops if possible.



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

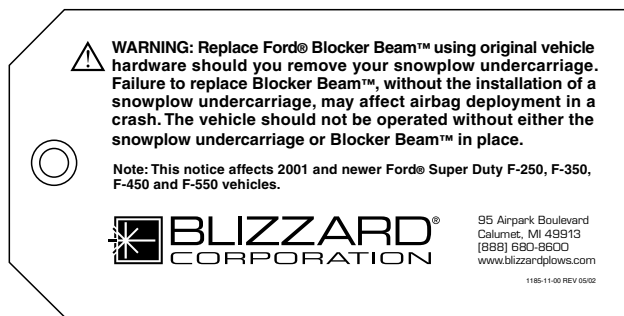
Issued November 27, 2000

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.

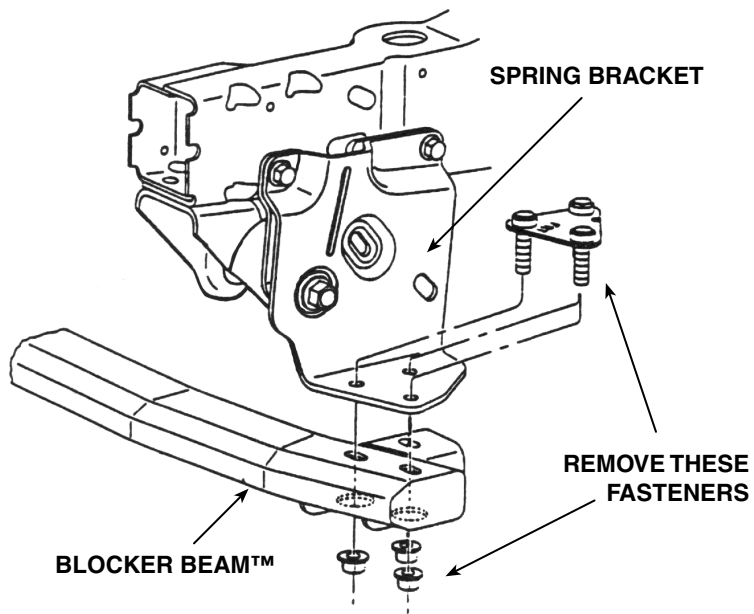
WARNING: Removal of the Blocker Beam™, without the installation of the snowplow undercarriage, may affect air bag deployment in a crash. The vehicle should not be operated without either the snowplow undercarriage or the Blocker Beam™ in place. Should a Blocker Beam™ be removed from the front of a Ford 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



DRIVER'S SIDE ILLUSTRATION



PUSH BEAM LABEL

