



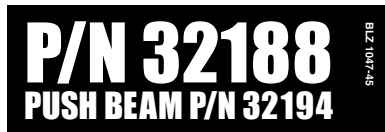
# **VEHICLE UNDERCARRIAGE INSTALLATION INSTRUCTIONS**

**DODGE DURANGO (2004)**

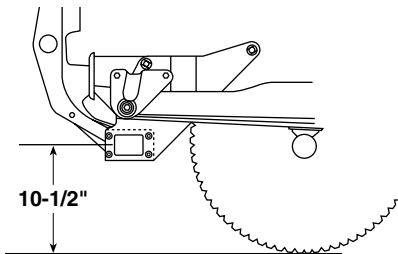
**UNDERCARRIAGE PART NO.  
32188  
HARDWARE KIT PART NO.  
61549**

**SEE REVERSE FOR ADDITIONAL INSTALLATION INSTRUCTIONS**

# UNDERCARRIAGE 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 10-1/2" from the center of the push beam to level ground. **DO NOT** exceed 12-1/2" 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.**

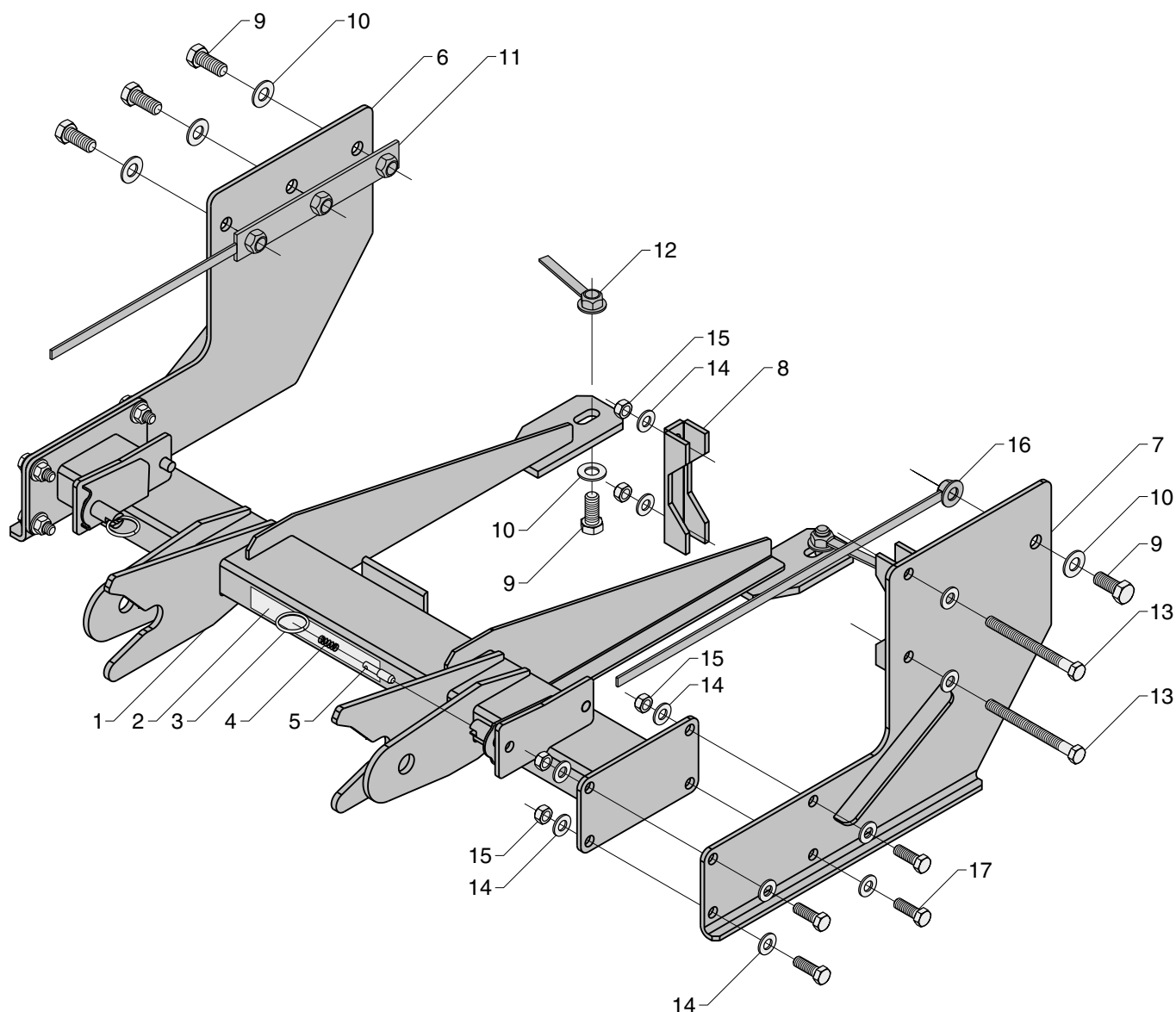


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the GRILL ASSEMBLY and BUMPER from the vehicle. The grill assembly uses clips to attach to the frame and can be easily removed. The bumper is mounted to the frame with 18MM nuts. Remove these fasteners and save for reuse. *Note: The plastic bumper fascia may need to be permanently removed or notched to accommodate the undercarriage assembly. Disconnect all lamp harnesses before removing the grill assembly and bumper.*
2. Position the driver's side hanger plate at the outside of the vehicle frame rail and behind the washer fluid/engine coolant reservoir. Attach the hanger plate to the frame using the clamp weldment. Secure the clamp with two 1/2"-13 x 5-1/2" bolts, four 1/2" SAE washers and two 1/2" top lock nuts. *Note: Locate the nuts and washers on the inside of the truck frame rail.* Finger tighten the fasteners until all undercarriage parts are in place.
3. Bolt the driver's side HANGER PLATE to the PUSH BEAM using four 1/2"-13 x 1-1/2" bolts, eight 1/2" SAE washers and four 1/2" top lock nuts. *Note: Use a hydraulic floor jack to position the push beam under the vehicle.*
4. Bolt the passenger's side hanger plate to the push beam using the same hardware identified in step #3. *Note: Square-up each end of the push beam with the hanger plate ends. Tighten bolts to hold the hanger plates and push beam in position.*
5. Using a hydraulic floor jack, position the assembly under the vehicle such that the push beam support arm mount holes align with the holes in the vehicle crossmember. The top of the passenger's side hanger plate should be even with the top of the octagonal frame rail and the holes in the plate should locate in the middle of the frame rail face.
6. With the undercarriage in position under the vehicle, verify the push beam weldment is level and square. Next, mark the hole locations (for each hanger plate) on the vehicle frame rails. There are three holes in the passenger's side hanger plate and one rear hole on the driver's side.
7. Remove the assembly from the vehicle and proceed to drill the pilot holes into each frame rail. *Note: Use caution when drilling into the frame. Hydraulic and/or electrical lines may be located on the interior of the frame rails. Drill each pilot hole (through the outside truck frame wall only) to an 11/16" diameter.*
8. Proceed to install the undercarriage on the vehicle. Follow all applicable steps above. Use the access holes (at each end of the vehicle crossmember) to locate both 5/8"-11 top lock nuts with welded tabs. Secure the push beam support arms to the crossmember using two 5/8"-11 x 1-1/2" bolts and 5/8" SAE washers.
9. Position the NUT PLATE WELDMENT into the passenger's side frame rail and align it with the holes in the frame. Secure the hanger plate to the outside of the frame with three 5/8"-11 x 1-1/2" bolts and 5/8" washers. *Note: The extra flat stock (from the nut plate) will not interfere with the bumper installation.*
10. With the driver's side hanger plate clamped in place, position the 5/8"-11 top lock nut/washer with 21" welded flat stock into the frame rail. Align the nut with the hole in the frame and secure it using one 5/8"-11 x 1-1/2" bolt and 5/8" washer. Again, the flat stock, extending from the end of the truck frame rail, will not interfere with the bumper.
11. Once the undercarriage has been positioned and all hardware is in place, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
12. Replace the grill assembly and bumper using the existing hardware. *Reconnect all lamp harnesses and test for proper working condition (if applicable).*
13. 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.

Complete the assembly by plugging 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 LIST

Ref. No.	Part No.	Qty.	Part Description
N/A	32188	1	<b>Assembly, Undercarriage: Nos. 1-17</b>
1	32194	1	Push Beam Weldment
2	61128	1	Decal, Push Beam, 1-1/2" x 9"
3	61309	2	Ring, Standard Split, 1-1/4" O.D., 1-1/16" I.D., SS
4	61000	2	Spring, Compression, 0.94" O.A.F.L. x 0.36" O.D., 0.029" Wire DIA., SS
5	40079	2	Pin, 3/8" DIA. x 1-3/4", SS
6	32190	1	Plate, Hanger, Passenger's Side
7	32189	1	Plate, Hanger, Driver's Side
8	32203	1	Clamp Weldment, Driver's Side
9	61338	6	Screw, Hex Head Cap, 5/8"-11 x 1-1/2" Grade 8, YZ
10	61064	6	Washer, SAE Mil-Carb High-Strength, 5/8", 1-5/16" O.D., 21/32" I.D., YZ
11	32195	1	Nut Plate Weldment, Triple Top Lock Nut, 5/8"-11 Grade C, Z with 12" Welded Flat Stock
12	31112	2	Nut, Top Lock, 5/8"-11 Grade 8, Z with Welded Tab
13	61584	2	Screw, Hex Head Cap, 1/2"-13 x 5-1/2" Grade 8, YZ
14	61026	20	Washer, SAE Mil-Carb High-Strength, 1/2", 1-1/16" O.D., 17/32" I.D., YZ
15	61020	10	Nut, Top Lock, 1/2"-13 Grade C, Z
16	32197	1	Nut, Top Lock 5/8"-11 Grade 8, Z with 21" Welded Flat Stock and Washer, 5/8", 1-5/16" O.D., 21/32" I.D., YZ
17	61055	8	Screw, Hex Head Cap, 1/2"-13 x 1-1/2" Grade 8, YZ
N/A	61549	1	<b>Kit, Hardware - Undercarriage P/N 32188: Nos. 9-17</b>

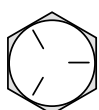
Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only. Always review the part number given for proper component identification. Blizzard Corporation reserves the right, under its Continuous Improvement Policy, to change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

# HEADLIGHT ADAPTER KIT GUIDE

VEHICLE APPLICATION	HEADLIGHT CONNECTOR(S)	HEADLIGHT DESCRIPTION	HEADLIGHT NUMBERS	HEADLIGHT ADAPTER KIT
1998-2004 DODGE DURANGO	HB5	DUAL RECTANGULAR COMPOSITE HALOGEN	9007, H9007	62012

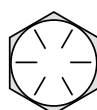
Note: Headlight adapter kits are not included with vehicle undercarriage mounts. All headlight adapter kits sold separately.

## TORQUE SPECIFICATIONS



### Grade Identification Marking for J429 - Grade 5 Bolt

- Material: Medium carbon steel: quenched and tempered
- Minimum Proof Strength: 85,000 psi
- Minimum Tensile Strength: 120,000 psi
- Core Hardness Rockwell (min.): C25, (max.): C34
- Minimum Yield Strength: 92,000 psi



### Grade Identification Marking for J429 - Grade 8 Bolt

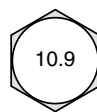
- Material: Medium carbon alloy steel: quenched and tempered
- Minimum Proof Strength: 120,000 psi
- Minimum Tensile Strength: 150,000 psi
- Core Hardness Rockwell (min.): C33, (max.): C39
- Minimum Yield Strength: 130,000 psi

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	75 in-lbs	100 in-lbs	1/4-20	2,850	107 in-lbs	143 in-lbs
5/16-18	3,350	157 in-lbs	210 in-lbs	5/16-18	4,700	220 in-lbs	305 in-lbs
3/8-16	4,950	23 ft-lbs	31 ft-lbs	3/8-16	6,950	32.5 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	482.5 ft-lbs	640 ft-lbs	1-8	54,540	680 ft-lbs	900 ft-lbs



### Grade Identification Marking for Metric - Grade 8.8 Bolt

- Material: Medium carbon steel: quenched and tempered
- Minimum Proof Strength: 580 MPa
- Minimum Tensile Strength: 800 MPa
- Core Hardness Rockwell (min.): C22, (max.): C32
- Minimum Yield Strength: 640 MPa



### Grade Identification Marking for Metric - Grade 10.9 Bolt

- Material: Low carbon alloy steel: quenched and tempered
- Minimum Proof Strength: 830 MPa
- Minimum Tensile Strength: 1040 MPa
- Core Hardness Rockwell (min.): C32, (max.): C39
- Minimum Yield Strength: 940 MPa

Diameter (millimeters)	Metric Class 8.8			Diameter (millimeters)	Metric Class 10.9		
	Clamp Loads (Newton)	Tightening Torque			Clamp Loads (Newton)	Tightening Torque	
		“Lubricated”	“Dry”			“Lubricated”	“Dry”
5	6177	4.63 N-m	6.18 N-m	5	8840	6.63 N-m	8.84 N-m
6	8743	7.87 N-m	10.5 N-m	6	12512	11.3 N-m	15.0 N-m
7	12570	13.2 N-m	17.6 N-m	7	17990	18.9 N-m	25.2 N-m
8	15921	19.1 N-m	25.5 N-m	8	22784	27.3 N-m	36.5 N-m
10	25230	37.8 N-m	50.5 N-m	10	36105	54.1 N-m	72.2 N-m
12	36670	66.0 N-m	88.0 N-m	12	52475	94.5 N-m	125 N-m
14	50025	105 N-m	140 N-m	14	71587	150 N-m	200 N-m
16	70650	170 N-m	226 N-m	16	97732	235 N-m	313 N-m
18	86400	233 N-m	311 N-m	18	119520	323 N-m	430 N-m
20	110250	330 N-m	441 N-m	20	152513	458 N-m	610 N-m

**Disclaimer:** All torque values included in the charts above are advisory only, and their use by anyone is entirely voluntary. Reliance on the contents for any purpose by anyone is the sole risk of that person and Blizzard Corporation is not responsible for any loss, claim or damages arising therefrom. Blizzard Corporation has made an effort to present the above contents accurately, but we do not guarantee its completeness or validity. This information is subject to change at any time, without notice. Blizzard Corporation makes no representations or warranties, express or implied, in connection with the information.