



B31184

UNDERCARRIAGE KIT

Ford F-150

2004 -

Parts List and Installation Instructions

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your BLIZZARD® outlet for specific vehicle application recommendations before installation. The Undercarriage Selection Guide has specific vehicle and snowplow requirements.

SAFETY

SAFETY DEFINITIONS

WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

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

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.

⚠ 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.

⚠ WARNING

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.

⚠ 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.

⚠ WARNING

Do not exceed GVWR or GAWR including the blade and ballast. The rating label is found on the driver-side vehicle door cornerpost.

⚠ WARNING

Remove blade assembly before placing vehicle on hoist.

⚠ CAUTION

See your BLIZZARD® outlet for application recommendations.

⚠ CAUTION

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

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

⚠ 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

⚠ WARNING

Vehicle exhaust contains deadly carbon monoxide (CO) gas. Breathing this gas, even in low concentrations, could cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

TORQUE SPECIFICATIONS

TORQUE CHART

⚠ 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.



Grade Identification for J429–Grade 5 Bolt



Grade Identification for J429–Grade 8 Bolt

SAE J429 Grade 5 Torque Values				SAE J429 Grade 8 Torque Values			
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 for Metric–Grade 8.8 Bolt



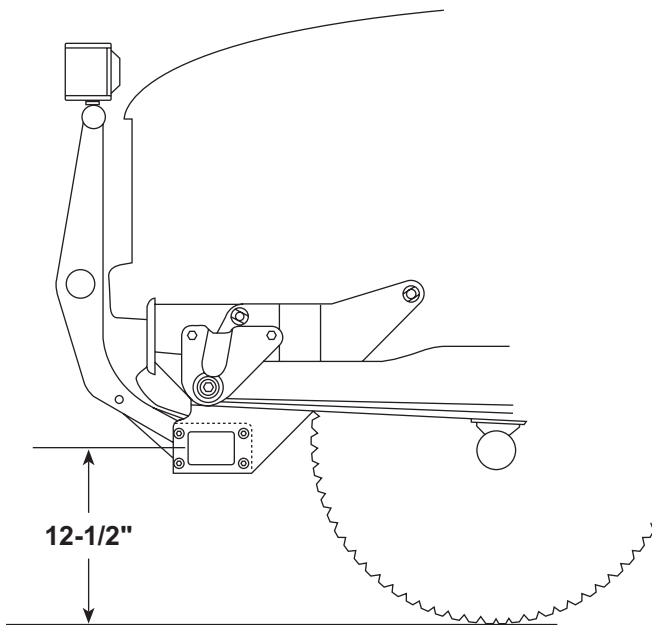
Grade Identification for Metric–Grade 10.9 Bolt

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

PUSHBEAM

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.



UNDERCARRIAGE INSTALLATION

NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

1. Remove bumper and disconnect fog lights, if equipped.
2. Loosen tow hooks.
3. Position the passenger-side hanger plate (**Item 3**) with the three holes in the truck frame. Position the driver-side hanger plate (**Item 4**) with the two holes in the truck frame.

NOTE: The third hole will be drilled later.

Fasten hanger plates using cap screws (**Item 13**), washers (**Item 14**), locknuts (**Item 15**) and rod & nuts (**Item 8 & 9**). Finger tighten the fasteners.

4. Mount the pushbeam (**Item 1**) square with the bottom edge of each hanger plate using eight cap screws (**Item 10**), sixteen washers (**Item 11**) and eight locknuts (**Item 12**). Tighten pushbeam hardware according to torque chart.
5. Level the pushbeam with the floor, and fully tighten the hanger plate hardware.

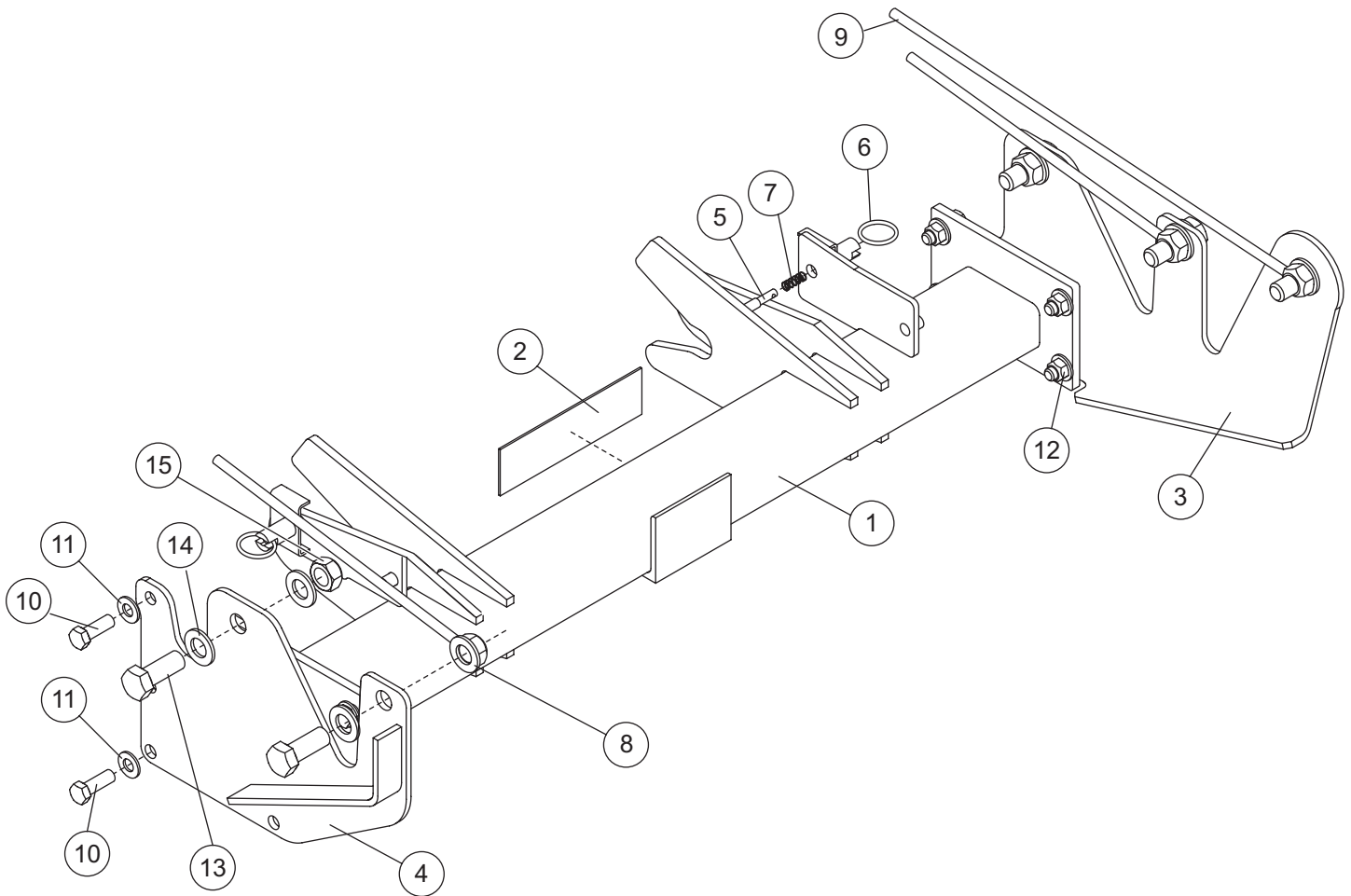
CAUTION

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

6. Drill a 17/32" hole through the front hole on the driver-side hanger plate. Install hardware (**Item 10, 11 & 12**) and tighten according to torque chart.
7. Reinstall the bumper and reconnect the fog light wiring, if equipped. Fully tighten the tow hooks.

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

UNDERCARRIAGE PARTS LIST



B31184 Undercarriage Kit							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	B31185	1	Pushbeam	5	B40079	2	A-Frame Latch Pin
2	B63162	1	Decal, Pushbeam	6	B61309	2	Split Ring, 1.48 O.D
3	B31187	1	Hanger Plate – PS	7	B61000	2	Compression Spring
4	B31188	1	Hanger Plate – DS	ns	B61560	1	Hardware Kit
B61560 Hardware Kit							
8	B31192	2	3/4-10 x 13-1/2 Rod & Nut	12	90593	9	1/2-13 Hex Locknut GC
9	B31191	1	3/4-10 x 21 Rod & Nut	13	90286	5	3/4-10 x 2 Hex Cap Screw G5
10	67240	9	1/2-13 x 1-1/2 Hex Cap Screw G8	14	63575	7	3/4 Hardened Flat Washer
11	90572	18	1/2 Hardened Flat Washer	15	90645	2	3/4-10 Hex Locknut GB
G = Grade				ns = not shown			



Blizzard Snowplows
23199 Airpark Blvd.
Calumet, MI 49913

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