



B31251

UNDERCARRIAGE KIT

Ford Super Duty F250/350/450/550 2008 - 10

Parts List & Installation Instructions

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your BLIZZARD® outlet/Web site 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.

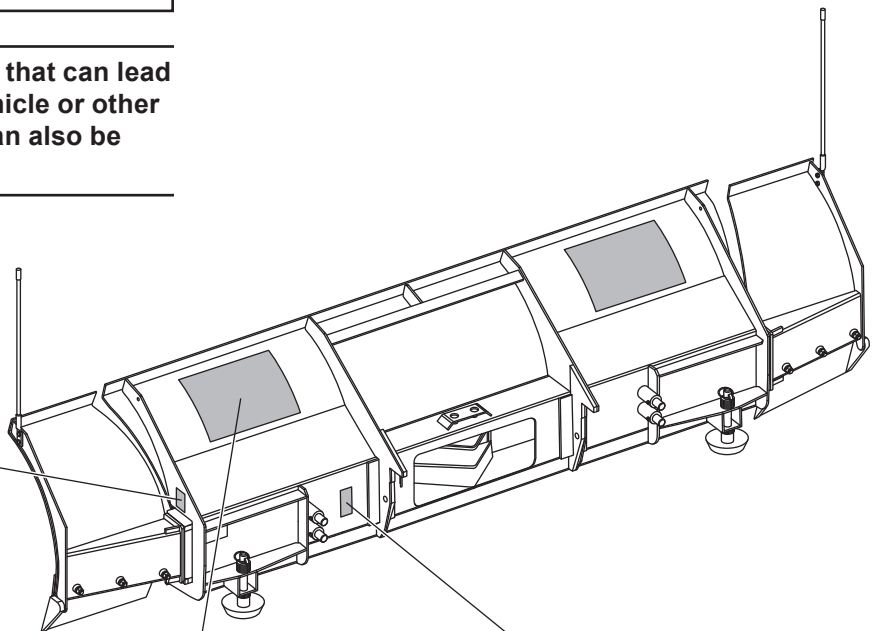
WARNING/CAUTION & INSTRUCTION LABELS

Become familiar with and inform users about the warning and instruction labels on the back of the blade.

NOTE: If labels are missing or cannot be read, see your sales outlet.



**POWER PLOW® and
SPEEDWING™ Blades Only
(both sides)**



ATTACH	⚠ WARNING: Keep fingers away from snowplow and truck attachment points. POWER HITCH™ arm raises behind undercarriage pushbeam.	DETACH
<ol style="list-style-type: none">1. Slowly drive vehicle forward to engage mount adapter into A-frame.2. Turn power switch to center or "OFF" position.3. Plug in electrical harnesses.4. Push and hold power switch RIGHT and push UP and hold arm/blade operation switch. Arm will engage mount adapter and pull snowplow towards vehicle.5. Install both hitch pins. Hitch pin is fully engaged when pin handle is against the pin guide plate.6. While holding power switch RIGHT, push DOWN and hold arm/blade operation switch. Arm will disengage mount adapter to relieve tension on the stand.7. Pull and raise the stand until the stand pin seats into upper hole on the A-frame.8. Turn power switch to left or "Flowing" position.	<p>Read Owner's Manual for Complete Instructions.</p>	<ol style="list-style-type: none">1. Lower snowplow onto ground with blade straight. Turn plow control in cab to "OFF" position.2. Turn power switch to center or "OFF" position.3. While holding the power switch RIGHT, push DOWN and hold the arm/blade operation switch. Arm will disengage mount adapter to relieve tension on the stand.4. Pull and lower the stand until stand pin seats into lower hole on the A-frame and stand and light tower side plates contact.5. Push and hold power switch RIGHT and push UP the arm/blade operation switch. Arm will engage mount adapter and pull snowplow tightly to vehicle.6. Remove both hitch pins.7. While holding power switch RIGHT, push DOWN and hold arm/blade operation switch to fully lower arm.8. Unplug electrical harnesses.

POWER HITCH™

BLIZZARD

U.S. Patents 5,420,480; 5,638,615; 5,899,007; 6,178,669; 6,253,470; 6,276,076; 6,393,737; 6,408,549; 6,412,199; 6,442,877; 6,615,513; 7,134,227; RE 35,700; CAN Patents 2,060,425; 2,194,922; 2,220,743; 2,250,536; 2,355,145; 2,358,354; 2,460,190; and other patents pending.



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 removing 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

To prevent accidental movement of the blade, always turn the control OFF whenever the snowplow is not in use. The power indicator light will turn OFF.

WARNING

Remove blade assembly before placing vehicle on hoist.

CAUTION

Refer to the Undercarriage Selection Guide for minimum vehicle recommendations and ballast requirements.

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.

CELL PHONES

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate Mobile Communication Equipment such as cell phones or two-way radios.

VENTILATION

WARNING

Vehicle exhaust contains lethal fumes. Breathing these fumes, even in low concentrations, can 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 (lb)	Tightening Torque		Nominal Thread Size	Clamp Loads (lb)	Tightening Torque	
		"Lubricated"	"Dry"			"Lubricated"	"Dry"
1/4-20	2,000	6 ft-lb	8 ft-lb	1/4-20	2,850	9 ft-lb	12 ft-lb
5/16-18	3,350	13 ft-lb	18 ft-lb	5/16-18	4,700	18 ft-lb	25 ft-lb
3/8-16	4,950	23 ft-lb	31 ft-lb	3/8-16	6,950	32 ft-lb	44 ft-lb
7/16-14	6,800	37 ft-lb	50 ft-lb	7/16-14	9,600	53 ft-lb	70 ft-lb
1/2-13	9,050	57 ft-lb	75 ft-lb	1/2-13	12,800	80 ft-lb	107 ft-lb
9/16-12	11,600	82 ft-lb	109 ft-lb	9/16-12	16,400	115 ft-lb	154 ft-lb
5/8-11	14,500	113 ft-lb	151 ft-lb	5/8-11	20,300	159 ft-lb	211 ft-lb
3/4-10	21,300	200 ft-lb	266 ft-lb	3/4-10	30,100	282 ft-lb	376 ft-lb
7/8-9	29,435	321 ft-lb	430 ft-lb	7/8-9	41,550	454 ft-lb	606 ft-lb
1-8	38,600	482 ft-lb	640 ft-lb	1-8	54,540	680 ft-lb	900 ft-lb



8.8 Grade Identification for Metric-Grade 8.8 Bolt



10.9 Grade Identification for Metric-Grade 10.9 Bolt

Metric Class 8.8 Torque Values				Metric Class 10.9 Torque Values			
Diameter (mm)	Clamp Loads (lb)	Tightening Torque		Diameter (mm)	Clamp Loads (lb)	Tightening Torque	
		"Lubricated"	"Dry"			"Lubricated"	"Dry"
5	1,389	3 ft-lb	5 ft-lb	5	1,987	5 ft-lb	7 ft-lb
6	1,965	6 ft-lb	8 ft-lb	6	2,812	8 ft-lb	11 ft-lb
7	2,826	10 ft-lb	13 ft-lb	7	4,044	14 ft-lb	19 ft-lb
8	3,579	14 ft-lb	19 ft-lb	8	5,121	20 ft-lb	27 ft-lb
10	5,672	28 ft-lb	37 ft-lb	10	8,116	40 ft-lb	53 ft-lb
12	8,243	49 ft-lb	65 ft-lb	12	11,796	70 ft-lb	92 ft-lb
14	11,246	77 ft-lb	103 ft-lb	14	16,092	111 ft-lb	148 ft-lb
16	15,882	125 ft-lb	167 ft-lb	16	21,970	173 ft-lb	231 ft-lb
18	19,423	172 ft-lb	229 ft-lb	18	26,868	238 ft-lb	317 ft-lb
20	24,784	244 ft-lb	325 ft-lb	20	34,284	338 ft-lb	450 ft-lb

UNDERCARRIAGE INSTALLATION

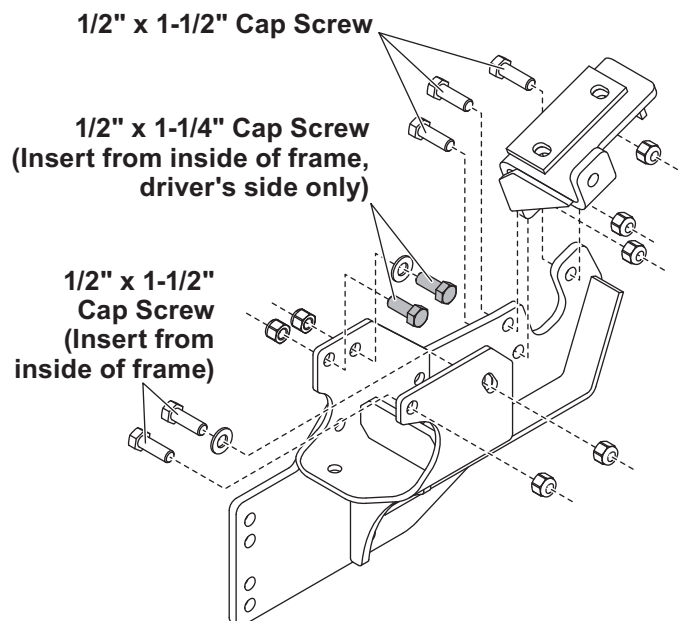
INSTALLATION INSTRUCTIONS

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

1. Remove the air dam and bumper. Retain fasteners for later installation.
2. Remove the metal sway bar brackets and retain for reinstallation later in this procedure.
3. Completely remove the sway bar fasteners and bolt clips from the keyholes in the truck frame. Retain the fasteners and clips for future reinstallation if the mount kit is removed from the vehicle.
4. Place a spacer inside the passenger side of the truck frame with the slots closest to the center of the vehicle. Insert a 7/16" x 2-1/2" cap screw down through a 7/16" flat washer, the spacer and the truck frame.
5. Position the passenger-side rear bracket so the cap screw goes through the appropriate hole. Then place the sway bar in position and align the sway bar bracket so the fastener is in the correct hole. Attach a 7/16" locknut and hand tighten.
6. Insert a 7/16" x 2-1/2" cap screw through a washer, the spacer, truck frame, rear bracket and sway bar bracket. Attach a 7/16" locknut and hand tighten.
7. Insert a 1/2" x 1-1/2" cap screw and 1/2" washer into the truck frame and out through the front hole in the rear bracket. Attach a 1/2" locknut and hand tighten.
8. Position the passenger-side hanger plate so that the rear hole is aligned with the rear hole in the bracket. Insert a 1/2" x 1-1/2" cap screw through the hole in the hanger plate and rear bracket, attach a 1/2" locknut and hand tighten.
9. Rotate the hanger plate up against the truck frame. Insert a 1/2" x 1-1/2" cap screw into the inner rear hole at the front of the hanger plate and through the truck frame. Attach a 1/2" washer and locknut on the inside of the truck frame and hand tighten.
10. Insert a 1/2" x 1-1/2" cap screw into the inner front hole in the hanger plate. Attach a 1/2" locknut on the inside of the truck frame and hand tighten.
11. Insert a 1/2" x 1-1/2" cap screw and 1/2" washer into the truck frame and out through the outer rear hole in the hanger plate. Attach a 1/2" washer and locknut and hand tighten.
12. Insert a 1/2" x 1-1/2" cap screw into the truck frame and out through the outer front hole in the hanger plate. Attach a 1/2" locknut and hand tighten.
13. Install two more cap screws through the holes in the hanger plate and rear bracket. Attach locknuts to fully secure the rear bracket to the hanger plate. Hand tighten fasteners.
14. Repeat steps 4–8 on the driver's side.
15. Rotate the hanger plate up against the truck frame. Insert a 1/2" x 1-1/4" cap screw and 1/2" washer into the truck frame and out through the inner rear hole at the front of the hanger plate. Attach a 1/2" locknut and hand tighten.
16. Insert a 1/2" x 1-1/4" cap screw into the truck frame and out through the inner front hole in the driver-side hanger plate. Attach a 1/2" locknut and hand tighten.

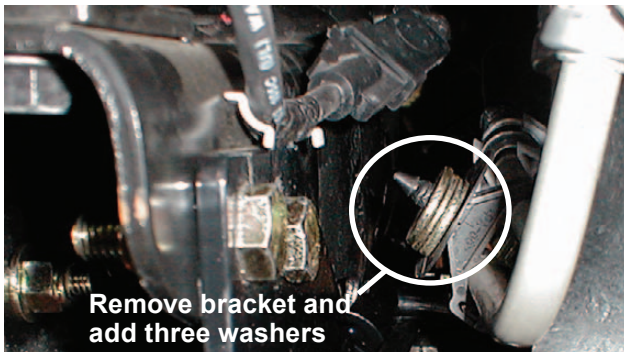
⚠ CAUTION

Diesel equipped vehicles must use supplied 1/2" x 1-1/4" cap screws between frame and intercooler to prevent intercooler damage during assembly and use.

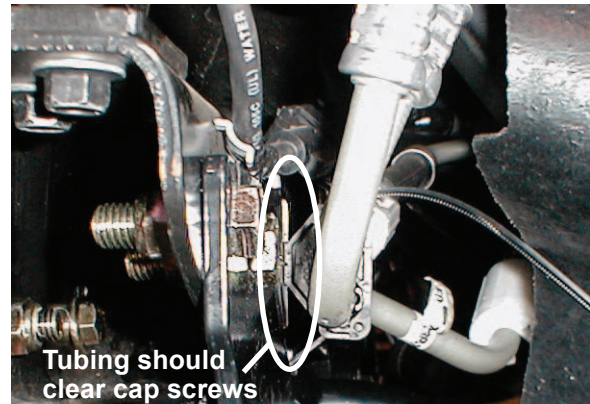
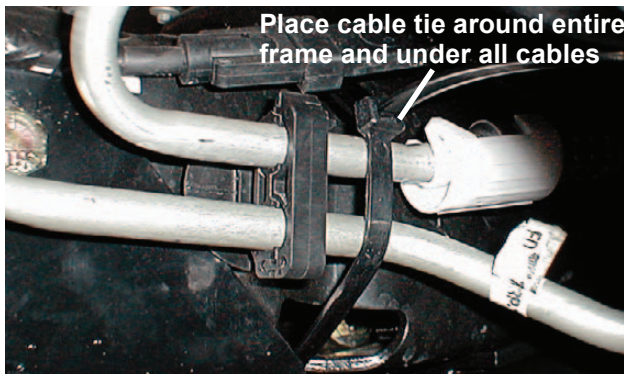


UNDERCARRIAGE INSTALLATION

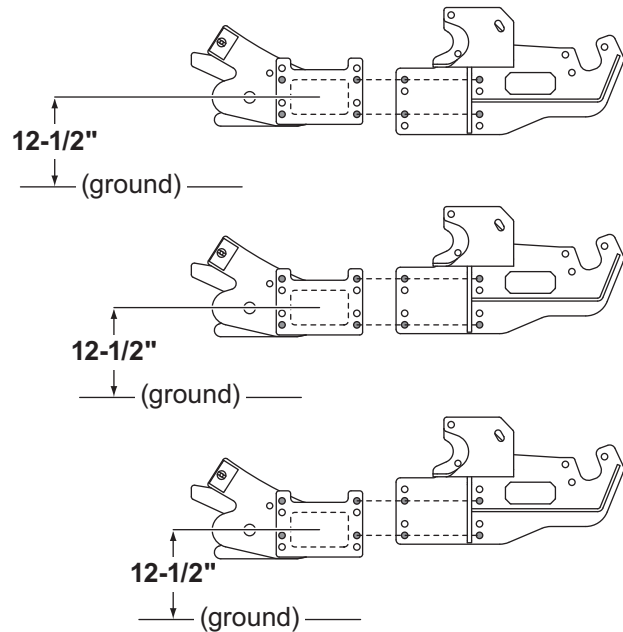
17. Insert a 1/2" x 1-1/2" cap screw and 1/2" washer into the truck frame and out through the outer rear hole in the hanger plate and a 1/2" washer. Insert a 1/2" x 1-1/2" cap screw into the truck frame and out through the outer front hole in the hanger plate. Attach a 1/2" locknut to each and hand tighten.
18. Install two more 1/2" x 1-1/2" cap screws through the holes in the hanger plate and rear bracket. Attach locknuts to fully secure the rear bracket to the hanger plate. Hand tighten fasteners.
19. Fully tighten rear bracket fasteners according to the torque chart.
20. Make sure the hanger plates are tight up against the truck frame. Fully tighten the fasteners securing the hanger plate to the truck frame and rear bracket according to the torque chart.
21. Remove the plastic bracket holding the metallic cooling lines from the passenger side of the truck frame. Stack three 1/2" washers over the fastener.



22. Reinsert the fastener into the original hole to hold its position. Wrap the cable tie around the entire frame and tubing behind the bracket. Do not wrap cable tie over any other wires or tubes, or go inside the truck frame.



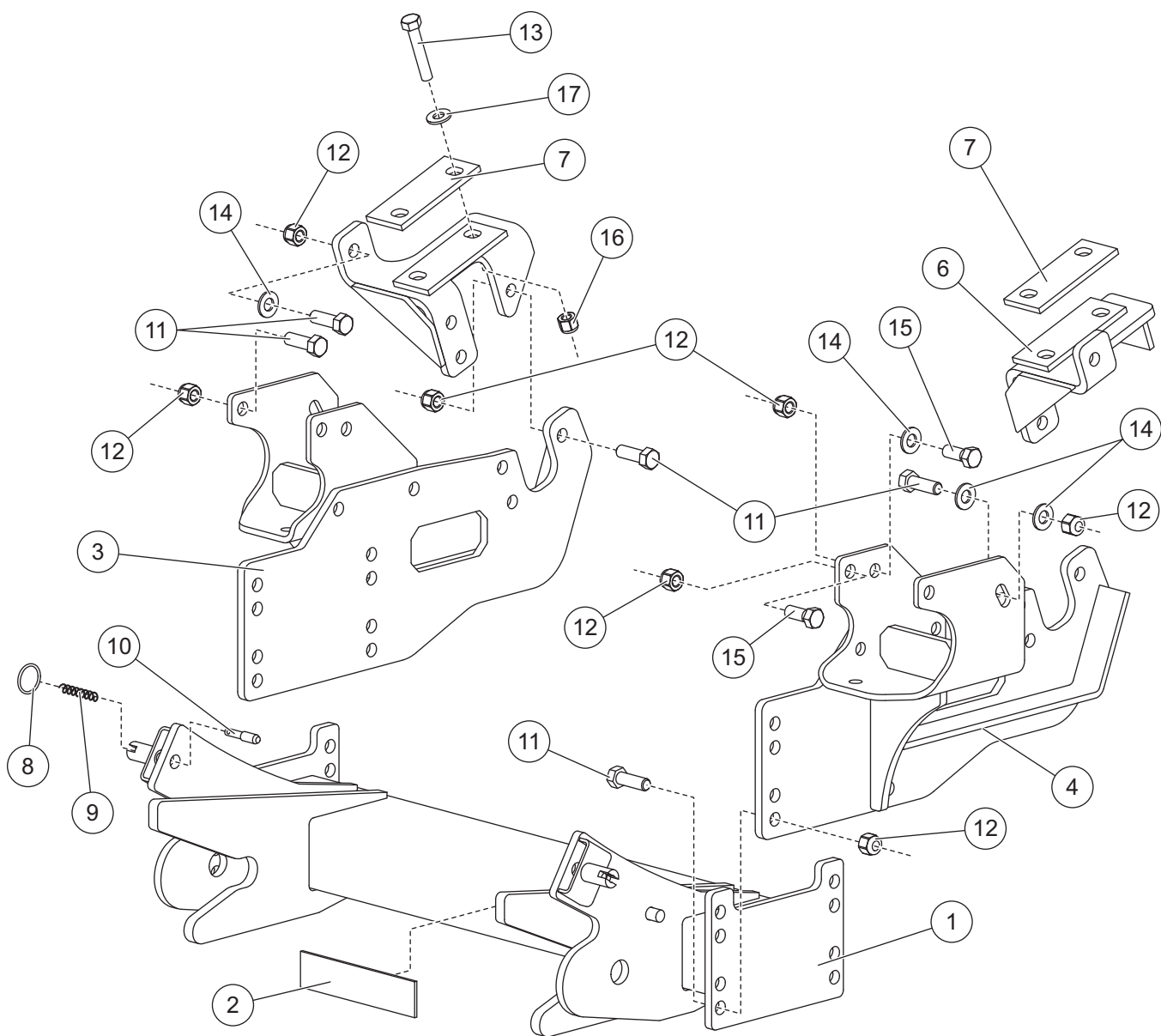
23. Tighten cable tie until it is snug, taking care not to crimp tubing. Trim excess length.
24. Align four holes on each side of the pushbeam with the holes in the hanger plates. Choose the set of holes that will bring the pushbeam closest to the dimension shown in the following illustration.



25. Insert four 1/2" x 1-1/2" fasteners through the chosen set of holes in the pushbeam and hanger plates. Attach 1/2" locknuts and hand tighten. Level the pushbeam with the floor and fully tighten fasteners according to the torque chart.
26. Reattach the air dam and bumper using the original fasteners. If the air dam does not clear the hanger plates, notch as needed.

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

UNDERCARRIAGE PARTS LIST



B31251 Undercarriage Kit							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	44964	1	Pushbeam	7	68206	2	Spacer
2	B63162	1	Label, Pushbeam	8	B61309	2	Split Ring, 1.25 OD
3	44960	1	Hanger Plate – PS	9	B61000	2	Compression Spring SS
4	44962	1	Hanger Plate – DS	10	B40079	2	A-Frame Latch Pin
5	68192	1	Rear Bracket – PS	ns	44966	1	Hardware Kit – B31251
6	68194	1	Rear Bracket – DS				
44966 Hardware Kit – B31251							
11	90210	22	1/2-13 x 1-1/2 Hex Cap Screw G5	15	90575	2	1/2-13 x 1-1/4 Hex Cap Screw G5
12	91335	24	1/2-13 Hex Locknut GB	16	29599	4	7/16-20 Hex Locknut G8
13	29598	4	7/16-20 x 2-1/2 Hex Cap Screw G8	17	91104	4	7/16 Hardened Flat Washer
14	90572	11	1/2 Hardened Flat Washer	ns	28445	1	Cable Tie, Extra Heavy Duty
G = Grade				SS = Stainless Steel		ns = not shown	



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