December 15, 2014 Lit. No. 67503, Rev. 05

# 67810 **MOUNT KIT**

Ford F-150 4X4 Ford F-150 Heritage Ford F-250LD 4X4

1997 - 03 2004 1997 - 99

Installation Instructions

# **A** CAUTION

Read this document before installing the snowplow.

# **A** CAUTION

See your sales outlet/Web site for specific vehicle application recommendations before installation. The online selection tool has specific vehicle and snowplow requirements.

#### **SAFETY DEFINITIONS**

#### **A** WARNING

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

# **A** 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.

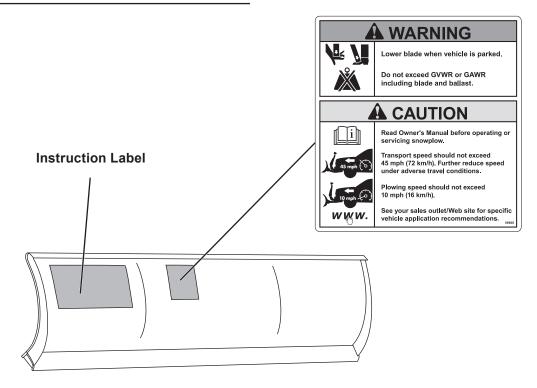
NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

# 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.

# Warning/Caution Label



#### 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.

#### **A** WARNING

Lower the 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.

#### **A** 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.

#### **A 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.

#### **A WARNING**

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

### **A 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.

# **A WARNING**

Remove blade assembly before placing vehicle on hoist.

#### A CAUTION

Refer to the online selection tool 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

#### **A 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, text messaging devices, pagers or two-way radios.

#### **VENTILATION**

#### **A** 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.

# **NOISE**

Airborne noise emission during use is below 70 dB(A) for the snowplow operator.

#### **VIBRATION**

Operating snowplow vibration does not exceed 2.5 m/s² to the hand-arm or 0.5 m/s² to the whole body.

# **TORQUE CHART**

#### **A** 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.

Recommended Fastener Torque Chart					
Inch Fasteners Grade 5 and Grade 8					
Size	Torque (ft-lb)		0:	Torque (ft-lb)	
	Grade 5	Grade 8	Size	Grade 5	Grade 8
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
3/8-24	35.0	49.4	3/4-16	297	420
7/16-14	49.4	69.8	7/8-9	429	606
7/16-20	55.2	77.9	7/8-14	474	669
1/2-13	75.3	106.4	1-8	644	909
1/2-20	85.0	120.0	1-12	704	995
Metric Fasteners Class 8.8 and 10.9					
	Torque (ft-lb)			Torque (ft-lb)	
		(III-ID)			
Size	Class 8.8	Class 10.9	Size	Class 8.8	Class 10.9
<b>Size</b> M6 x 1.00	Class	Class	<b>Size</b> M20 x 2.50	Class	Class
	Class 8.8	Class 10.9		Class 8.8	Class 10.9
M6 x 1.00	Class 8.8 7.7	Class 10.9	M20 x 2.50	Class 8.8	Class 10.9 450
M6 x 1.00 M8 x 1.25	Class 8.8 7.7 19.5	Class 10.9 11.1 26.9	M20 x 2.50 M22 x 2.50	Class 8.8 325 428	Class 10.9 450 613
M6 x 1.00 M8 x 1.25 M10 x 1.50	Class 8.8 7.7 19.5 38.5	Class 10.9 11.1 26.9 53.3	M20 x 2.50 M22 x 2.50 M24 x 3.00	Class 8.8 325 428 562	Class 10.9 450 613 778
M6 x 1.00 M8 x 1.25 M10 x 1.50 M12 x 1.75	7.7 19.5 38.5 67	Class 10.9 11.1 26.9 53.3 93	M20 x 2.50 M22 x 2.50 M24 x 3.00 M27 x 3.00	Class 8.8 325 428 562 796	Class 10.9 450 613 778 1139
M6 x 1.00 M8 x 1.25 M10 x 1.50 M12 x 1.75 M14 x 2.00	7.7 19.5 38.5 67 107	Class 10.9 11.1 26.9 53.3 93 148	M20 x 2.50 M22 x 2.50 M24 x 3.00 M27 x 3.00 M30 x 3.50	Class 8.8 325 428 562 796 1117	Class 10.9 450 613 778 1139 1545

except those noted in the instructions.

#### **INSTALLATION INSTRUCTIONS**

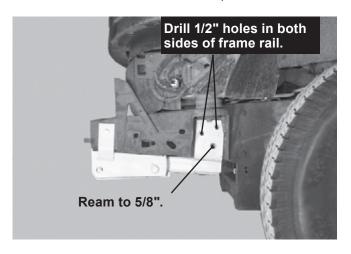
NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

- 1. Remove the bumper, with brackets attached, and tow hooks from the vehicle frame.
- 2. If necessary, remove the skid plate and save the parts for reinstallation if mount is removed from the vehicle.
- 3. Place the mount frame against the driver-side vehicle rail and attach to tow hook holes using existing hardware. Verify the mount frame is tight against the bottom of the vehicle frame.

#### **A** CAUTION

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

4. The larger bottom hole at the back of the mount frame should line up with the top slot on the vehicle frame. Ream this hole to 5/8". Above that, drill two 1/2" holes on each side, using the rear mount frame brackets as a template.

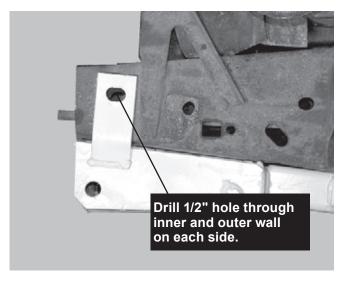


5. Install a nut bar inside each frame rail, aligning it with the drilled holes. Fasten each rear mount frame bracket to nut bar with a 5/8" x 1-1/2" cap screw, lock washers and two 1/2" x 1-1/2" cap screws and lock washers.

# **A** CAUTION

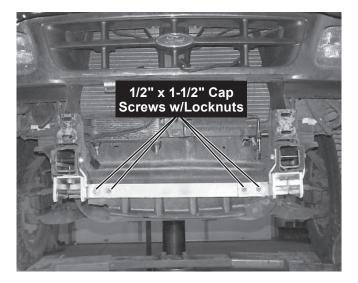
Use caution not to pinch, cut or drill through any wires or hoses running along the frame rail.

6. Using front mount frame brackets as templates, drill a 1/2" hole through the outer and inner wall of each side of the vehicle frame. Insert U-bracket into frame and align with drilled holes. Insert 1/2" x 1-3/4" cap screw through holes in frame sides and U-bracket. Secure with 1/2" locknuts.



7. Repeat Steps 3–6 for other side of frame.

8. Assemble the cross bar to the two tabs welded to the insides of the mount frame using 1/2" x 1-1/2" cap screws and locknuts.



- 9. Tighten all fasteners according to the torque chart.
- Reinstall the bumper to original position using existing fasteners.
- 11. The air deflector will require notching for clearance of mount receivers, or it may be removed from the vehicle. If reinstalling the deflector, use existing fasteners. If the deflector is removed from the vehicle, save the deflector and fasteners for reinstallation in the event the undercarriage kit is removed from the vehicle.

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

The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. This equipment manufacturer or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. The company offers a limited warranty for all snowplows and accessories. See separately printed page for this important information.