

# PARTS & INSTALLATION INSTRUCTIONS MDII™ SNOW PLOW MOUNTING 1999 & LATER 4X4 VEHICLES FORD SUPERDUTY F-250 thru F-550

End user must be given this instruction sheet prior to delivery of this Snow Plow.

The equipment you have just purchased should only be used on vehicles equipped with the Manufacturer's Snow Plow Preparation Packages. Snow Plowing without the original Snow Plow Preparation Package may damage your vehicle and the added weight to the equipment may impair the operation and control of the vehicle. Snow Plowing with a vehicle that the manufacturer does not recommend for that purpose may void your new vehicle warranty. If your vehicle is not originally equipped with the Snow Plow Package, additional parts may be necessary before snow plowing. Owners of these vehicles should consult their dealers before purchase or installation of such parts. CAUTION: the installation, on any vehicle, of these parts is not a full substitute for the original equipment Snow Plow Preparation Package. Warning: Lift Arm extends beyond bumper of vehicle. To minimize damage from a front-end collision, Lift Arm should be removed from vehicle when Snow Plow is removed.

IMPORTANT NOTICE

ow Plow is removed.  Parts List								
Item	Part No.	Qty	Description					
	17142	1	MDII Mounting Carton					
1	19356	1	R.H. Mount Assembly					
2	19355	1	L.H. Mount Assembly					
3	19346	2	Bracket Weldment					
4	11652	1	R.H. Side Mount Weldment					
5	11773	1	L.H. Side Mount Weldment					
6	19345	1	Rear Brace Weldment					
	08807	1	• Har	Hardware Bag				
7	11661	2	•• Sle		3			
8	14595	2	•• Sp	ecial I	3olt 3/4"			
9	20027	1			/16-18 x 1" Gr.2			
10	20098	8	•• Bolt H 1/2-13 x 2-1/4" Gr. 5					
11	20096	8	•• Bolt H 1/2-13 x 1-3/4" Gr. 5					
12	20139	2	•• Bolt H 5/8-11 x 1-1/2" Gr. 5					
13	20141	16	•• Bolt H 5/8-11 x 2" Gr. 5					
14	20153	2	•• Bolt H 5/8-11 x 5-1/2" Gr. 5					
15	20164	2	•• Bolt H 3/4-10 x 2" Gr. 5					
16	20304	1	•• Locknut ESNA 5/16-18					
17	20307	16	•• Locknut ESNA 1/2-13					
18	20309	18	•• Locknut ESNA 5/8-11					
19	20310	4	•• Locknut ESNA 3/4-10					
20	20352	2	Flatwasher 5/16					
21	20355	16	Flatwasher 1/2"					
22	20357	6	Flatwasher 5/8"					
23	20359	4	• • Flatwasher 3/4"					
	08813	1	Hardware Bag					
24	19354	2	•• Spacer - 0.50" x 1.50" x 4.00"					
25	11968	2	• • Spacer - 0.50" x 2.00" x 5.00"					
26	11944	1	Angle Mount					
27	22283	2	• • Handle Nut 5/8-11					
*	11770	1	Universal Clevis (Packed in CLF carton)					
	11" Sector	15"	Sector		MEYER			
	Part No.	Pai	rt No.	Qty	Description			
	16515	10	16516		Sector A-Frame Carton			
	21534	21534		2	<ul> <li>Lift Chain 5/16 x 36"</li> </ul>			
	12326	1:	12793 13715		Sector			
	13711	1:			<ul> <li>A-Frame (11" x 34" x 22-1/4")</li> </ul>			
	07017			3	<ul> <li>Trip Spring</li> </ul>			
		0.	7017	4	<ul> <li>Trip Spring</li> </ul>			
	09916	0:	9916	1	<ul> <li>Plow Marker kit</li> </ul>			
	00700		0700		. Handrian Ban			

1 Parts indented are included in the carton, bag or assembly under which they are indented.

1

2

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Hardware Bag

Cylinder Collar

Plow Marker

Push Frame

Hardware Bag

Common Attaching Kit

Chain 5/16" PR Coil Lift 59"

Meyer Products and Diamond Equipment reserves the right, under its continuing product improvement program, to change construction or design details, specifications and prices without notice or without incurring any obligation.

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DIAMOND



## **General Information**

**CAUTION: Always** disconnect battery before beginning installation.

**DO NOT BURN** holes or **WELD** vehicle frame. This may cause frame failure.

After first use, retighten all mounting bolt connections to specified torque. All mounting bolt connections to be checked periodically for tightness.

Locknuts are furnished **DO NOT** tighten bolts and nuts until installation is complete (unless otherwise specified), then be sure to tighten all attaching parts per specified torque chart.

#### FOLLOW THESE INSTRUCTIONS EXPLICITLY.

Warranty does not apply to a Meyer or Diamond product which has been negligently or improperly assembled or installed.

SAFETY PRECAUTIONS should be used when Hydraulic Unit is in OPERATION and plow is in a RAISED position. Lower plow to ground when vehicle is PARKED.

NOTE: It is important that the Meyer/Daimond harness, all wires from the Meyer/Diamond light switch, and all other electrical wires be routed around hot or moving engine parts, and any sharp metal. Protection must be provided to guard against wire damage at these points. All excess or loose wires must be neatly secured using wire ties.

Check contents against the parts list to determine all are correct and included, and also to familiarize yourself with them.

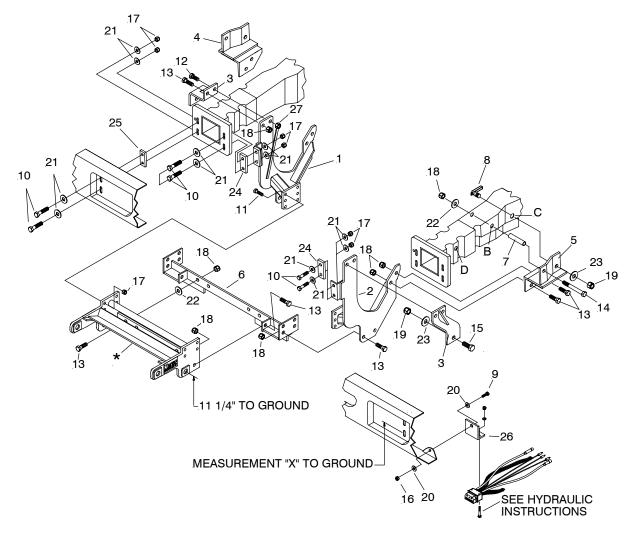
**OVERHAUL** and **SERVICE INFORMATION** are covered on separate instructions.

### **VEHICLE RECOMMENDATIONS**

1999 - 2000 - Snowplow Prep Package Option (86M) Spring information located on the driver's-side door jam.

F250/F350	Spr. Code (V)	5200 lb. Frt. G.A.W.R.
F250/F350 HD	Spr. Code (X)	6000 lb. Frt. G.A.W.R.
F450/F550	Spr. Code (X)	6000 lb. Frt. G.A.W.R.

Set Tire Pressure to - 75 P.S.I



#### INSTALLATION INSTRUCTIONS

- A. Looking at the front of the vehicle take a measurement from the ground to the center of one of the lower acorn nuts located on either side of the tow hook (This is shown as measurement "X" on the diagram). Retain for use later in installation.
- **B.** Remove bumper and 1/8" bumper mounting plates from vehicle frame. Retain bumper mounting plates and hardware. They will not be reused.

Caution: Regular cab trucks equipped with diesel engines have a light harness attached to the inside of the bumper. Detach harness before removing the bumper.

- C. Once bumper is removed from the vehicle, position bracket weldments (3) over the top of the vehicle frame horns. Note: Before putting the L. H. & R.H. Mount Assemblies into place position spacers (24) behind the flanges of the vehicle frame horns. Attach bracket weldments (3) to Mount Assembly (1&2) at rear hole (nearest the radiatior of the vehicle) using 5/8-11 x 1-1/2" bolts (12), handle nuts (27) and to the hole toward the front of the vehicle using 5/8-11 x 2"bolts (13) with locknuts (18).
- **D.** Attach LH & RH Mount Assemblies (1 & 2) at angle brackets to vehicle frame horn flanges using 1/2-13 x 2-1/4" bolts (10), flatwashers (21), spacers (24) and nuts (17).
- E. Attach L.H. & R.H. Side Mount Weldments (4 & 5) to the rear tails of the Mount Assemblies (1&2) using 5/8-11 x 2" bolts (13) and locknuts (18).
- F. While holding Side Mounts (4 & 5) tight to the bottom and side of the vehicle frame scribe hole locations to be drilled at "B" and "C" per illustration. Remove Side Mounts.
- **G.** At scribed hole "B" in vehicle frame, drill a 11/16" hole thru both sides of the vehicle frame. Enlarge hole "B" to 7/8" drilling thru only the outside section of the vehicle frame to accommodate Sleeve (7).
- H. At scribed hole "C" in vehicle frame drill a 1" diameter hole, drilling thru only the outside section of the vehicle frame.
- I. Reattach Side Mounts (4 & 5) to vehicle frame at hole "B" using 5/8-11 x 5-1/2" Bolt (14), Sleeve (7), Flatwasher (22), and Locknut (18) and at hole "C" using Special Bolt 3/4 (8), Flatwasher (23), and Locknut (19).

Note: Per illustration. Spacer (25) is to be added between the bumper and front flange of the vehicle frame when reinstalling the bumper.

Note: Snug all bolts during installation, do not tighten at this time.

Note: If measurement "X" in step (A) is approximately 24" from the ground, attach clevis frame (\*) to the upper four holes mount assemblies (1& 2). If measurement "X" is closer to 25-1/2", attach in lower four holes.

- J. Attach the Universal Clevis (\*) between the LH & RH Mount Assemblies (1&2) using 1/2-13 x 1-3/4" bolts (11), and Locknuts (17).
- K. Attach Rear Brace Weldment (6) to the rear of the Universal Clevis (\*) using six 5/8-11 x 2" Bolts (13) and Locknuts (18). Note: Flatwashers (22) should be sandwiched the between the Universal Clevis (\*) and the Rear Brace Weldment on the four rear holes

Note: Before tightening the fasteners, the Clevis Frame (\*) should be level with the ground and pushed back as far under the vehicle as possible.

- L. Tighten all fasteners to their proper torque. Tighten bolts in the same order they were assembled to the vehicle.
- M. Fasten the bracket assemblies (3) to the frame using the brackets bolted in place to drill a 13/16 hole in both outer sides of the frame located at "D". Use the 3/4-10 x 2" bolts(15), locknuts(19), and flatwashers(23) to secure the brackets.
- N. Reinstall the bumper using 1/2-13 x 2-1/4" bolts(10), flatwashers (21), Spacers (25) and locknuts (17).
- O. On driver side attach Connector Bracket (26) to bumper using 5/16 x 1" bolt (9), Flatwashers (20) and Locknut (16) as shown per illustration.
- P. Install remaining snowplow hardware per separate instructions.

#### TORQUE CHART FOOT LBS.

Bolt Nut Size	Gr. O	Gr. 5	Gr. 8
1/4 - 20	4-5		
5/16 - 18	9-11		
3/8 - 16	17 - 20	26 - 29	
7/16 - 14		42 - 46	60 - 66
1/2 -13		64 - 72	90 - 100
5/8 - 11		127 - 141	179 - 198
3/4 - 10		227 - 251	