





# PARTS & INSTALLATION INSTRUCTIONS

# MDII<sup>™</sup>and EZ MOUNT PLUS<sup>™</sup>

### SNOW PLOW MOUNTING 17150

# 1999 & Later FORD F250 thru F550

### 4x4 MODELS

## Snow Plow Preparation Package 86M

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

#### SAFETY DEFINITIONS

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
A DANGER	DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
AWARNING	WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION Indicates an potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
CAUTION	CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, will result in property damage.

### **IMPORTANT NOTICE**

In conjunction with FMVSS (Federal Motor Vehicle Safety Standards) and OEM (Original Equipment Manufacturer) guidelines, Meyer Products has designed this plow package with the following guidelines:

CAUTION	Installation of a snowplow may effect your new vehicle warranty. For more information consult your Vehicle Owner's Manual / Vehicle Dealer.
AWARNING	The vehicle must not be operated when overloaded. In all cases, the loaded vehicle weight, including the entire snowplow system, all aftermarket accessories, driver, passenger, options, nominal fluid levels, and cargo must not exceed the front/rear Gross Axle Weight Rating (GAWR), and total Gross Vehicle Weight Rating (GVWR). These weights ratings are specified on the safety compliance certification label on the driver's side door opening. The use of rear ballast weight may be required to prevent exceeding the front GAWR.

According to the NHTSA (National Highway Traffic Safety Administration) new and untitled vehicles need to be verified by the installer that snowplow and ballast (if needed) do no exceed the front/rear GAWR and total GVWR.

AWARNING	Read the Meyer Owner's Manual before operating or servicing a snowplow. FOLLOW THESE INSTRUCTIONS EXPLICITLY.	
	EXPLICITLY.	

#### GENERAL INFORMATION

AWA PNING	SAFETY PRECAUTIONS should be used when Hydraulic Unit is in OPERATION and plow is in a RAISED
AWARINING	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 in case of hydraulic failure.

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

CAUTION	Warranty does not apply to a Meyer or Diamond product which has been negligently or improperly assembled or installed.
CAUTION	CAUTION: To avoid harm to vehicles electrical system always disconnect battery before beginning installation. DO NOT BURN holes or WELD vehicle frame. This may cause frame failure.

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

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.

Meyer Products Inc.
18513 Euclid Ave. • Cleveland, Ohio 44112-1084
Phone 486-1313 (Area Code 216)
www.meyerproducts.com • email info@meyerproducts.com



Diamond Equipment 6 Angell Lane • Damariscotta, ME 04543-4507 Phone 563-2227(Area Code 207) www.diamondplow.com • email info@diamondplow.com

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#### PARTS LIST

			FARISLIST
ITEM	PART NO.	QTY.	DESCRIPTION
	17150	1	MOUNTING CARTON
1	19488	1	R.H. Mount Assembly
2	19489	1	L.H. Mount Assembly
3	19496	1	R.H. Hanger
4	19497	1	L.H. Hanger
5	19346	2	Bracket Assembly
6	19476	1	<ul> <li>R.H. Side Mount Weldment</li> </ul>
7	19477	1	<ul> <li>L.H. Side Mount Weldment</li> </ul>
8	19345	1	Rear Brace Weldment
	08845	1	Hardware Bag
9	11661	2	Sleeve
10	14595	2	<ul> <li>Special Bolt 3/4"</li> </ul>
11	20096	8	•• Bolt H 1/2-13 x 1-3/4" Gr. 5
12	20098	8	•• Bolt H 1/2-13 x 2-1/4" Gr. 5
13	20139	2	•• Bolt H 5/8-11 x 1-1/2" Gr. 5
14	20141	20	•• Bolt H 5/8-11 x 2" Gr. 5
15	20153	2	•• Bolt H 5/8-11 x 5-1/2" Gr. 5
16	20163	2	•• Bolt H 3/4-10 x 1-3/4" Gr. 5
17	20307	16	<ul> <li>Locknut ESNA 1/2-13</li> </ul>
18	20309	22	<ul> <li>Locknut ESNA 5/8-11</li> </ul>
19	20310	4	<ul> <li>Locknut ESNA 3/4-10</li> </ul>
20	20355	16	<ul> <li>Flatwasher 1/2"</li> </ul>
21	20357	6	<ul> <li>Flatwasher 5/8"</li> </ul>
22	20359	4	<ul> <li>Flatwasher 3/4"</li> </ul>
	08813	1	Hardware Bag
23	19354	2	•• Spacer - 0.50" x 1.50" x 4.00"
24	11968	2	•• Bumper Spacer - 0.50" x 2.00" x 5.00"
25	22283	2	Handle Nut 5/8-11
*	19370	1	Universal Clevis (Part of Plus CLF Carton)
* *	11770	1	Universal Clevis (Part of MDII CLF Carton)
	11" SAF	1	15" SAF MEYER
	PART NO.		T NO. QTY. DESCRIPTION
	16515	16	516 1 Sector A-Frame Carton
			DIAMOND
	81504		1 Common Attaching Kit
	81026		1 Push Frame
Douto in	dented are in		d in the center, here as eccembly under which

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

#### IMPORTANT

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

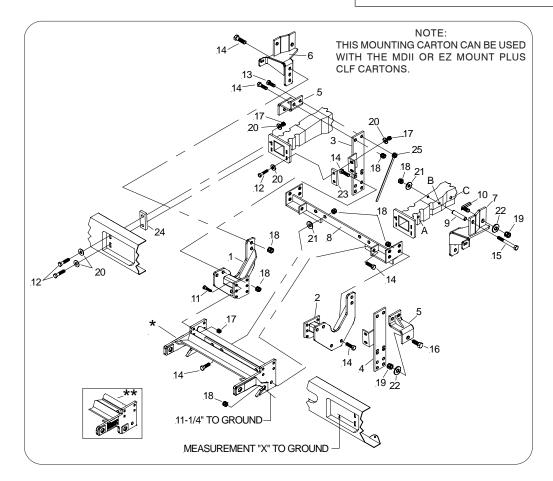
Locknuts are furnished **DO NOT** tighten bolts and nuts until installation is complete (unless otherwise specified), then be sure to tighten all attaching parts per specified torque chart.

#### **TORQUE CHART FOOT** Gr. Gr. Bolt Nut Size Gr. 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

### VEHICLE RECOMMENDATIONS

### **AWARNING**

- A ballast weight may be required to prevent front GAWR overloading. If required, ballast must be securely attached at least 24 inches behind the rear axle.
- Front end wheel alignment and headlight aim may require readjustment after installation of equipment, and is the responsibility of the equipment installer.
   Failure to adjust front wheel alignment may cause premature uneven tire wear. If required, reset to chassis manufacture's specifications found in the Ford Shop Manual.



### VEHICLE RECOMMENDATIONS

Rear ballast is determined by weighing a vehicle's front and rear axles and adding weight behind the rear axle until front axle weight is under or equal to the vehicle specific front GAWR while not exceeding the rear GAWR and GVWR.

Vehicle option packages may vary. If in doubt, it is always a good idea to weigh the vehicle to ensure all weight ratings are not exceeded with plow in the raised position.

### 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) Record this measurement. See measurement note between steps I and J.
- **B.** Remove bumper, 1/8" bumper mounting plates and blocker beam from vehicle frame. Retain bumper mounting plates, blocker beam 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 (5) over the top of the vehicle frame horns. Note: Before putting the L. H. and R.H. Hangars (3 & 4) into place position spacers (23) behind the flanges of the vehicle frame horns. Attach bracket weldments (5) to Hangars(3 & 4) loosely at top rear hole (nearest the radiatior of the vehicle) using 5/8-11 x 1-1/2" bolts (13), handle nuts (25) and loosely to the hole toward the front of the vehicle using 5/8-11 x 2"bolts (14) with locknuts (18).
- D. Attach LH & RH Hangars (3 & 4) at angle brackets to vehicle frame horn flanges using 1/2-13 x 2-1/4" bolts (11), flatwashers (20), spacers (23) and locknuts (17).
- E. Attach L.H. & R.H. Mount Assemblies (1 & 2) to the Hangers (3 & 4) using 5/8-11 x 2" bolts (14) and locknuts (18). At the same time attach the L.H. and R.H. Side Mount Weldments (6 & 7) to the rear of the mounting (around the tortion bar for 2005 and later models) using the 5/8-11 x 2" bolts(14) and locknuts (18). Snug the bolts as necessary to hold the Side Mount Weldments(6 & 7) up against the frame.
- F. While holding Side Mounts (6 & 7) 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 (9).

- 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 (6 & 7) to vehicle frame at hole "B" using 5/8-11 x 5-1/2" Bolt (15), Sleeve (9), Flatwasher (21), and Locknut (18) and at hole "C" using Special Bolt 3/4 (10), Flatwasher (22), and Locknut (19).

Note: Per illustration. Spacer (24) 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 less than 24" from the ground, attach L.H and R.H. Mount Assemblies (1 & 2) in higher holes. Also attach clevis frame (\*) to the upper four holes of the center flanges.

If measurement "X" is 24" to 25-1/2", attach L.H. and R.H. Mount Assemblies (1 & 2) in higher holes and attach the clevis in the lower four holes of the clevis.

If measurement "X" is greater than 25-1/2", attach L.H. and R.H. Mount Assemblies (1 & 2) in lower holes and attach the clevis in lower holes of the flanges.

- J. Attach the Universal Clevis (\*) between the LH and RH Mount Assemblies (1 & 2) using 1/2-13 x 1-3/4" bolts (11), and Locknuts (17).
- K. Attach Rear Brace Weldment (8) to the rear of the Universal Clevis (\*) using six 5/8-11 x 2" Bolts (14) and Locknuts (18). Note: Flatwashers (21) should be sandwiched 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 (5) to the frame using the brackets bolted in place to drill a 13/16 hole in both outer sides of the frame located at "A". Use the 3/4-10 x 1-3/4" bolts (16), locknuts (19), and flatwashers (22) to secure the brackets.
- N. Reinstall the bumper using 1/2-13 x 2-1/4" bolts(12), flatwashers (20), Spacers (24) and locknuts (17).
- **O.** Install remaining snowplow hardware per separate instructions.

Meyer Products or Diamond Equipment assumes no responsibility for installations not made in accordance with these instructions.