Form No. 1-819 R6 March, 2009

## PARTS & INSTALLATION INSTRUCTIONS E-58H, E-68, E-78 & E-88 ELECTRO-LIFT® UNITS

PARTS LIST

ITEM	E-58H, E-78 & E-68, E-86	QTY	DESCRIPTION
1	15869	1	Pump & Motor Assy. (12 voit)
2	15727	1	Motor - 12 Volt (2 Terminal)
3	15889	1	Pump Assy.
4	15874	1	••Kit - Pump Relief Valve
5	15870	1	Relief Valve Assy.
6	15878	1	• • Plug w/O-Ring
7	08788	1	Hardware Bag - 15889
8	15973	3	• • Pump Stud
9	20697	3	** Locknut 5/16 - 24
10*	15875	1	Seal Kit Relief Valve
11	15877	1	Pump Shaft Seal
12	15204	1	Cylinder Tank
13*	15131	1	O-Ring 3-1/2 I.D.
14*	15163	1	O-Ring 1-15/16 LD.
15*	15198	1	· . · · ·
16	15738	1	O-Ring 1-1/8 I.D.
17*	1		Cover & Seal Assy.
18*	05119	1	• Wiper
	15131	1	O-Ring 3-1/2 I.D.
19	15737 08473	1	• Sleeve
-00		1	Pressure Relief Valve Kit
20	21805	1	Reducer Bushing 1/4 x 1/8
21	21806	1	Pressure Relief Valve
22	15205	1	Cylinder
23	15209	1	Washer (Grooves Down)
24	15761	1	Ram Assembly
25	15206	1	• Ram
26	15158	1	• Piston
27	15219	1	Piston Follower
28	15760	1	Spacer
29*	15162	1	Packing Cup
30*	15125	1	O-Ring 7/16 I.D.
31	20316	1	• Locknut 1/2-13
32	15980	1	Base & Strainer Assy.
33	15326	1	Strainer
34	15641	.1	• Filter Kit - 9/16"
35	15619	1	•• Fliter
36	21999	1	• • Plug w/O-Ring - 9/16"
37	15203	3	Stud
38	15621	1	Baffle
39	21980	2	Retainer Ring
40	15574	1	Pump Check Valve Kit
41*	15124	1	O-Ring 3/8 I.D.
42	15354	1	• Seat
43	15603	1	• Ball, 9/32
44	15604	1	• Spring
45*	15122	3	O-Ring 1/4 I.D.
46	21999		Drain Plug w/O-Ring - 9/16"
47*	15127		O-Ring 5/8 I.D.
	I		-
48*	21929	3	Washer, Nyltite 5/16

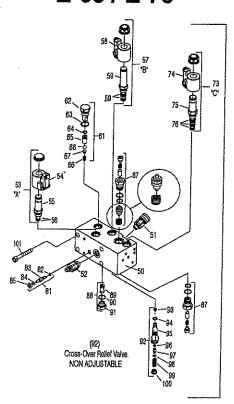
Meyer Products LLC 18513 Euclid Ave. • Cleveland, Ohio 44112-1084 Phone 486-1313 (Area Code 216) email • warranty@meyerproducts.com

Meyer Products LLC 6 Angell Lane • Damariscotta, ME 04543-9720 Phone 563-2227(Area Code 207) email • warranty@meyerproducts.com

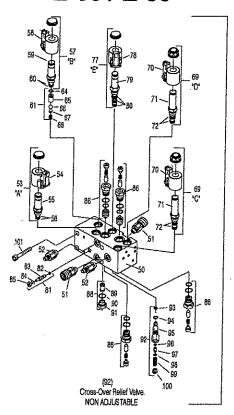
rs	SLIST				
ſ	ITEM	E-58H & E-	78 E-68 &E-8	an	DESCRIPTION
ı	50	15967	15941	1	Valve Assy. w/Coup. (12V)
Ì	51		22445	2	Coupler, Female Half (OPTIONAL)
	51	22445		1	Coupler, Female Half (OPTIONAL)
į	52		22442	2	Coupler, Male Half (OPTIONAL)
ĺ	52	22442		1	Coupler, Male Half (OPTIONAL)
-	53	15925	15925	1	"A" Solenoid Assembly
1	54	15916	15916	1	•• Coli (12V)
Ì	55	15917	15917	1	• • "A" Cartridge Volve
-	56	15928	15928	] ;	••• Seal Kit, "A" Valve
ļ	57	15926	15925	1	"B" Solenoid Assembly
ı	58	15916	15916	1	
		ŧ		1 .	•• Coil (12V)
	59 60	15918	15917	1	•• *B" Cartridge Valve
1		15929	15928	1 1	••• Seal Kit, "B" Valve
	61	15959	15959	ļ	Kit- "B" Check Valve     BUT Check Valve
Į	62		Not Used	]	•• "B" Check Valve Nut
1	63		Not Used	i	•• O-ring
	64			1	•• O-ring
1	65			1	"B" Valve Check Body
	66	******		1	"B" Valve Check Ball
İ	67			1	• • Ball holder
	68			1	• • Spring
	69		15926	2	"C" & "D" Solenoid Assembly
	70	*******	15916	1	•• Coil (12V)
	71	*********	15918	1	•• "C" & "D" Cartridge Valve
1	72		15929	1	••• Seal Kit "C" & "D" Cartridge
ł	73	15987		1	"C" Solenoid Assembly
-	74	15916		1	•• Coil (12V)
l	75	15958		1	• • "C" Cartridge Valve
	76	15930		1	• • • Seal Kit "C" Cartridge
	77	*******	15927	1	"E" Solenoid Assembly
	78		15916	1	•• Coil (12V)
ĺ	79		15919	1	• • "E" Cartridge Valve
1	80		15930	1	••• Seal Kit "E" Cartridge
	81	15950	15950	1	Kit Needle Valve (Lower Ad).)
	82	*******	********	1	• O-ring
	83	******		1	Needle Valve
1	84	****		1	Needle Valve Retaining Ring
1	85	*****		1	• Nut M6 x 1/2" nut
	86		15965	2	Kit Dual PO Check Valve
1	87	15965		1	Kit Dual PO Check Valve
Ì	~	,0000		2	Check Valve Assembly
	- 1	********		1	•
				1	• P.O. Pilot Spool
	88	15951	Not Used 15951	- 1	•• Spring
1	89			1	Kit P.A. Block Filter
į .		15936	15936	1	• Tank Filter
ŀ	90	15938	15938	1	• O-ring
	91	15937	15937	1	• M16 x 1 Filter Cap
ł	92	15974	15974	1	Kit-Crossover Valve
ı	93			1	•• O-ring
ļ	94		*******	1	•• O-ring
1	95			1	•• Body
ŀ	96			1	•• O-ring w/Glyd. Ring
•	97			1	• Poppet
ł	98			1	• • Washer
	99			1	• • Spring
1	00			1	•• Plug
	*	15975	15975	1	Seal Kit-Crossover Valve
		İ	-	Γ	(includes items 97,98,100)
1	01	21826	21826	4	Soc. Head 5/16-18 x 1-1/2"
		1			
_					

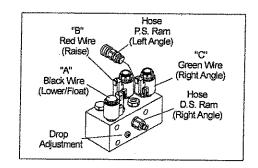
## **EXPLODED VIEW**

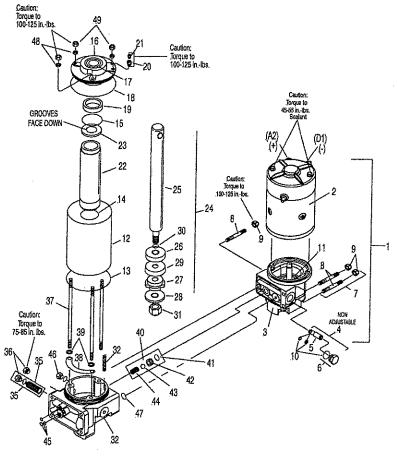
E-58 / E-78

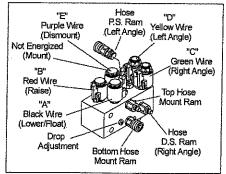


E-68 / E-88









Parts indented are included in assembly under which they are indented.

- \* Parts included in Master Seal Kit Part No.
- 15969 (E-58H & E-78),
- 15978 (E-68 & E-88)

Basic Seal Kit Part No. 15254

Pump Relief Valve @ 2000 ± 50 P.S.I. full flow. Non Adjustable
Crossover Relief Valve @ 3800 ± 400 P.S.I. @ 2-1/2 G.P.M. Non Adjustable

#### **GENERAL INFORMATION**

Before the Meyer Electro-Lift® unit is disassembled for repairs, make certain that all the maintenance procedures have been checked; refer to Owner's Manual. When the unit is to be overhauled, Master Seal Kit Part No. 15969 (E-58H & E-78) or 15978 (E-68 & E-88) is required. This Kit contains all necessary Seals for rebuilding.

These instructions are intended as a guideline for overhaul of an E-58H, E-68, E-78 & E-88 Electro-Lift® unit.

When ordering parts, furnish Type of Unit, Part No., Name and Description.

More detailed information covering principles of Operation, Troubleshooting, Disassembly and Repair are found in Electro-Lift® Service Manual 1-822. This is available for a nominal fee from your Meyer Distributor.

#### **DISASSEMBLY AND INSPECTION OF UNIT**

#### NOTE: DO NOT REUSE OLD O-RINGS.

Drain fluid from the unit by removing Pressure Relief Valve (21) and Drain Plug (46). Clamp Sump Base (32) firmly into vise.

- To disassemble COVER ASSEMBLY, TANK, RAM & CYLINDER PARTS, remove three Locknuts (49).
- To disassemble MOTOR from PUMP, loosen Motor mounting bolts, but DO NOT REMOVE bolts from motor housing.

**Note:** Motor end plate to be held in place. Temporarily install two 1/4-20 nuts on the motor mounting bolts to keep motor intact. Remove nuts when reinstalling Motor to pump.

- To disassemble Pump from Base, remove three Locknuts (9).
- To disassemble VALVE BLOCK from BASE, remove Soc. Hd. Screws (101).

#### SUBASSEMBLIES - INSPECTION

#### 1. COVER ASSEMBLY, TANK, RAM & CYLINDER PARTS:

- a) Check Cover (16), and Base (32) castings for cracks and damage.
- b) Replace Wiper Seal (17) pressed in Cover (16).
- c) Inspect Sleeve (19), Piston (26), the Piston Follower (27), Spacer (28) for excessive wear. Replace Packing Cup (29). Inspect Cylinder (22) for scoring and pitting in bore.
- d) Inspect Ram (25) for nicks and rust.

#### 2. MOTOR - Two Terminal (2)

Note: Complete Motor Assemblies are only available from Meyer Products. The only service parts available are a Brush Kit 15854.

#### 3. PUMP (3)

DO NOT at any time disassemble this Pump. This will void the warranty.

a) A damaged pump drive Shaft Seal (11) may be removed by careful extraction with a pointed tool. Dip new Seal in oil and with lip down, press into Pump Housing flush to 1/32 inch below face of boss.

#### 4. BASE (32)

 Remove (36) and clean the Filter Screen (35) using kerosene and blow out with air. Replace O-rings (35) from Seal Kit No.15978.

#### 5. VALVE BLOCK (48)

- a) Clean "A" & "B" Catridge and inspect for damage, Replace O-rings from Seal Kit No. 15928 or 15929 (E-58H "B") contained in Master Seal Kit No. 15969 or 15978.
- b) Remove and clean "C" & "D" (E-68 & E-88 only) Solenoid and inspect for damage. Replace O-rings and nylon back-up rings from Seal Kit No. 15930 (E-58H & E-78) 15929 (E-68 & E-88) contained in Seal Kit No. 15969 or 15978. Be certain O-rings and spacers are oriented properly.
- Test all Coils for electrical continuity. Nominal Coil resistance is 8.3 ohms.
- d) Remove Pilot Check Valves and Piston Assemblies and inspect the Piston for scratches. Replace O-rings from Master Seal Kit No. 15969 or 15978.
- Remove all parts of Item (92) and inspect for damage.
   Replace O-rings from Cross-Over Seal Kit No. 15975.
- f) With parts removed from Valve Block, clean and blow out with air to remove any foreign particles in Block.

#### 6. UNIT REASSEMBLY

 Before reassembling, make certain all components and sub-assemblies are clean and free from all dirt and other foreign material.

lubricate all orings with M-1 oil during assembly.

Coat all bolt threads with a anti-sieze lubricant prior to reassembly.

- Motor mounting bolts must be sealed with Permatex or an all weather type sealant.
- USE NEW SEALS AND M-1 FLUID WHEN REASSEMBLING THE UNIT.
- d) Proper fluid level is 1-1/2" below filler hole. It must be checked with Lift Ram fully retracted.

#### IMPORTANT: HYDRAULIC UNIT IS TO BE STORED IN THE OFF SEASON WITH THE LIFT RAM IN THE "UP" POSITION.

#### NOTES:

- 1. \* Parts included in Master Seal Kit Part No. 15969 (E-58H & E-78), 15978 (E-68 & E-88)
- 2. Basic Seal Kit Part No. 15254
- Pump Relief Valve @ 2000 ± 50 P.S.f. full flow. Non Adjustable
- 4. Crossover Relief Valve @ 3800 ± 400 P.S.I. @ 2-1/2 G.P.M. flow. Non Adjustable

Meyer Products LLC 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.



#### **GENERAL INFORMATION:**

**CAUTION:** Always disconnect battery prior to installation.

Check contents against the parts list to determine all are correct and included. When ordering parts, furnish Part No., Name and Description, Type of Hydraulic Unit and Moldboard Size.

SAFETY PRECAUTIONS should be used when **Electro-Lift®** is in OPERATION and plow is in a RAISED position. LOWER plow to ground when vehicle is PARKED.

OVERHAUL and SERVICE INFORMATION is covered on separate instructions.

For **Electro-Lift®** Unit maintenance, refer to "Owner's Manual."

#### **NOTES:**

- 1. Connect ground cable to negative side of battery for a solid connection to ground.
- 2. Caution: Route all cables away from moving engine parts, Manifolds, and sharp sheet metal.
- 3. For weather protection, tape all electrical connections at front of vehicle.
- The vehicle must be equipped with a "Heavy Duty Battery" (70 Amp. Hr. Min.) 550 C.C.A. and "Alternator" (60 amp. Min.) to obtain maximum performance.
- Follow these instructions explicitly. Warranty does not apply to a Meyer product which has been negligently or improperly assembled or installed.

#### INSTALLATION INSTRUCTIONS

- A. Remove shipping plug from filler hole and install Relief Valve Kit (11). Tighten to 100-125 in. lbs.
- B. Install the Female socket (6) of the Harness Plug assembly. Attach power cables to the Hydraulic Lift Unit (1). Attach the red (+) cable to the motor stud marked (A2). Attach the black (-) cable to the motor stud marked (D1). Connect the red, black and green wires from female socket (6) and connect to solenoids on the Power Angling Block. See Figure 2.

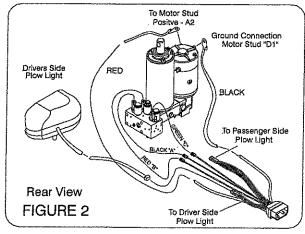


Figure 2

P.S. Ram

(Left Angle)

"C"

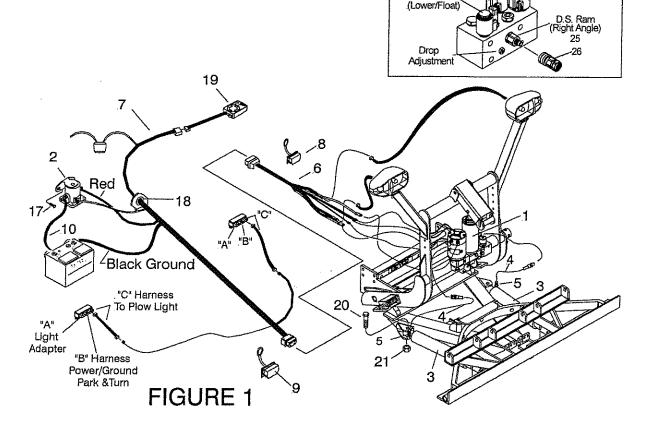
Green Wire (Right Angle)

иρу

(Raise)

Red Wire

Black Wire



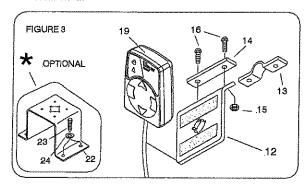
#### INSTALLATION INSTRUCTIONS CONT.

C. Install E-58H Lift Assembly (1) to Lift Frame (using bolts supplied in the mounting carton), with the Electric Motor toward the right hand side (Passenger side); attach the lift ram to the Lift Arm. When installing on E-Z Mount Classic, reference SB 208.

#### **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 not in use.

- D. Install Male Plug (7)through the vehicle grill.
- E. Choose a convenient location for the control switch. If the desired location is the dashboard, install Bracket (12) by drilling 2 holes in the dashboard and secure using Round Head Machine Screws (16) and Locknuts (15). Install Backup Plate (14) behind dash for added stiffness. See Figure 3. Also apply Danger Decal to dashboard.



### Figure 3

- F. To mount control to shift lever, use Bracket (12), Clamp Plate (13), Round Head Machine Screws (16) and locknuts (15). See Figure 3.
- G. The light switch, bracket and sheet metal screws (found in the light carton) can also be located wherever desired.
- H. Use Bushing (18) where Harness (7) is routed through firewall and radiator support panel. Requires 7/8" diameter hole. Be certain to route all wiring around hot or moving engine parts, and any sharp sheet metal. Protection must be provided to guard against wire damage at these points. All excess or loose wire must be neatly secured using wire ties. Fused lead from Wiring Harness (7) must be attached to terminal in fuse panel that is activated only when the ignition key is "on."
- I. Install Starter Solenoid (2) to metal surface in engine compartment using Screws (17). (Solenoid must be grounded to operate). Attach Red Power Cable (7) to a large terminal on Starter Solenoid (2). Attach Black Ground Cable (7) to negative (-) terminal of battery. Attach 36" Power Cable (10) to positive (+) terminal of battery and remaining large terminal on Starter Solenoid (2). Attach small white wire from harness (7) to small terminal on Starter Solenoid (2).

**Note:** All electrical connections should have both ends coated with a dielectric grease prior to final installation. This will ensure a good connection and help in preventing corrosion.

#### **POWER ANGLING CYLINDERS:**

Attach Meyer Power Angling Cylinders (3) to Sector and A-Frame using bolts (20) and locknuts (21).

Note:  $5/8-11 \times 4-1/2$ " Bolts (20) must be used to connect the angle cylinder to the LP & DP Pivot Bar.

Make certain Ram (3) on Driver's side connects to the Drivers side port on the P.A. Block (SEE FIGURE 1).

Optional Couplers Note: When installing plow system to a E-Z Mount Classic or Custom Mountings optional coupler kit 08206 must be purchased seperately. These couplers will install between the P.A. Block and the hoses, When the Moldboard Assembly is removed from the vehicle, to prevent contamination to the Couplers and Hydraulic system, the L.H. and R.H. Power Angling Hoses must be reattached by plugging the couplers together.

Power Angling Cylinders furnished with the Electro-Lift® have been factory filled with the proper amount of fluid. If for any reason it is necessary to add fluid to Reservoir or to bleed the Power Angling Cylinders, proceed as follows:

- A. Remove Relief Valve (11) from Reservoir to add fluid during charging and bleeding.
- B. Temporarily loosen both hose connections at the R.H., L.H. Power Angling Cylinders. Base end of Cylinder must be higher than Rod end to enable trapped air to escape.
- Angle the Plow in both directions until fluid leaks out at both points in a steady flow.
- D. Retighten the hose connections.

#### NOTE:

Proper fluid level is 1-1/2" below filler hole. It must be checked with the lift arm fully retracted (down).

## For snow plow light installation see separate instructions.

Reference Form 1-757 see Paragraph 7

Route Cables "C" (Yellow) from module to Male Plug (7). Connect both "C" Harness female ends to the male corresponding ends of the Male Plug (7). As per Figure 1.

Connect both male ends from the snow plow light to the female ends on the Female Socket (6). As per Figure 2.

Check snow plow light blinkers to make sure the wires have not been reversed.

Meyer Products LLC assumes no responsibility for installations not made in accordance with these instructions.



## **Service Bulletin**

SB 208 - September 2005

1 of 1

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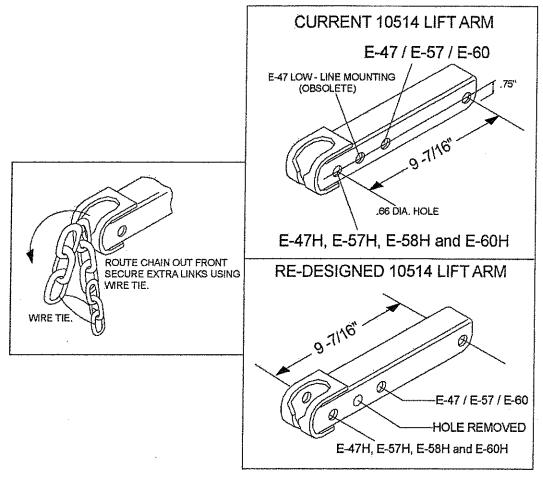
### SUBJECT: 10514 LIFT ARM

In our continued efforts to improve distributor profit margins and reduce inventory through consolidation of part numbers and improved product quality, we have made a change to our 10514 Lift Arm used on all of our EZ Custom, EZ Mount Classic Systems.

As a result, this product enhancement will standardize our Lift arm allowing all Electro-Lift\* hydraulic units whether 6" or 8" stroke units to be used on all of our EZ Mount Custom, EZ Mount Classic Systems. This will be a running change and will NOT obsolete any inventory at the factory or in the field.

The change is already in place at the factory. Updated 10514 Lift Arm will be seen in cartons packed after September 26, 2005.

To modify an existing 10514 Lift Arm to be used on a EZ Mount Custom or EZ Mount Classic to accept an "H" (8" stroke) hydraulic unit another hole must be drilled in the end of the lift arm. Per illustration



We are very pleased to announce this change and will continue to look for ways to reduce costs while improving product quality for our distributors in the future!

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	President/Owner	Sales Manager	Service Manager	Parts Manager
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# **Service Bulletin**

SB 219 - October 2006

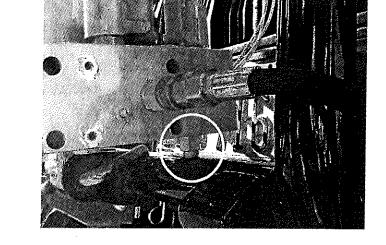
1 of 1

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#### SUBJECT: 11275 and 11545 Classic Lift Frames

Meyer has discovered during a regularly scheduled quality control audit a potential interference issue between the Lift Frame cross tube and the Cross-Over nut located at the bottom of the power angling block used on the E-58H hydraulic unit.



Please check for interference when using a E-58H hydraulic unit during assembly and prior to the delivery of the snow plow to the customer. If interference is present contact our Customer Service Department for a replacement Lift Frame.

Meyer Products LLC assumes no responsibility for installations not made according to these instructions.

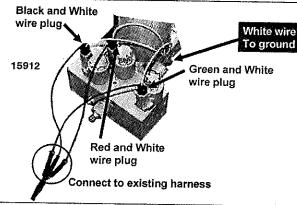
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## PARTS & INSTALLATION INSTRUCTIONS

## 15995 E-58H Unit Only Hydraulic Carton

#### **PARTS LIST**

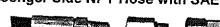
Part No.	QTY	Description
15995	1	E-58H Hydraulic Unit
15630	1	E-58H Cover
15631	1	Cover Strap
08128	1	Adapter Kit
15912	1	• • Connector Adapter
22652	2	•• SAE 6 x 1/4" NPT Adapter
22461	2	•• 1/4 x 38" Hose Assy SAE 6 x Face Seal
08206	1	•• Coupler Kit
22442	1	••• SAE 6 Male P.A. Block Coupler
22443	1	••• SAE 6 Female Coupler
22444	1	• • • SAE 6 Nipple Female Coupler
22445	1	• • • SAE 6 Female P.A. Block Coupler



Note: Do not use couplers (22443 and 22444) on units installed on E-Z Mount Plus, MDII or Drive Pro Plow Systems. Use 1/4 x 33" Hose Assy SAE 6 x Face Seal. (eliminates coupler use on both the ange cylinder hoses and P.A. Block )

Note: Only use couplers (22443 and 22444) on units installed on E-Z Mount Classic or E-Z Mount Custom Plow Systems where only the plow is removed from the vehicle.

Passenger Side NPT Hose with SAE Adapter







Passenger Side SAE Hose





Driver Side NPT Hose with SAE Adapter







22652

**Driver Side SAE Hose** 





Drill .66" diameter hole 9-7/16" from rear bolt on existing Lift Arm for **EZ Mount Classic and Custom** mountings only. (See S.B. 208)





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



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