

Meyer[®]



OPERATION and MAINTENANCE MANUAL

Insist on genuine Meyer Parts & Accessories

Introduction

Snow, despite the beauty it may impart to a bleak winter landscape, poses the dual threat of inconvenience and danger. The environmental conditions associated with snow, not to mention the health hazards and economic loss it may impose, seriously endanger thousands of lives annually. Business and industry suffer, and millions of snowbelt residents may be affected by a single snowstorm.

Meyer Products Inc. has published this manual to help you get the maximum performance from your Meyer Snow Plow and familiarize you with the features designed for efficiency and safety; be sure you recognize and understand them. Follow recommended operation and maintenance instructions, so when a storm hits, your Meyer Snow Plow will be ready and you will know how to plow like a pro. **DO NOT EQUIP ANY VEHICLE WITH A SNOW PLOW WITHOUT CONSULTING MANUFACTURERS' RECOMMENDATIONS.**

Vehicles with Meyer Snow Plows installed may be so equipped as to meet vehicle manufacturers' specifications and recommended options for snow plowing use. **Most vehicle manufacturers insist that vehicles which are to be used for snow plowing be equipped with certain**

options and accessories, and it is so stated in vehicle manufacturer specifications for snow plow application.

Warning: Deployment of an air bag while using a Meyer snow plow will not be covered under Meyer Products' warranty.

We also recommended that, for optimum performance, vehicles used for snow plowing be equipped with:

- Four Wheel Drive
- Minimum 60 Amp Alternator or Larger
- Minimum 70 Battery of Larger (550 C.C.A.)
- Mud and Snow Tires
- Increased Radiator Cooling
- Automatic Transmission
- Power Brakes
- Power Steering

Under the continuing Meyer Products Improvement Plan, Meyer Products Inc. reserves the right to change design details and construction without prior notice and without incurring any obligation.

IMPORTANT NOTICE: In conjunction with FMVSS (Federal Motor Vehicle Standard) and OEM (Original Equipment Manufacturer) guide lines, Meyer Products LLC has designed this plow package with the following guidelines:

CAUTION: Installation of a snowplow may affect your vehicle warranty. For more information consult your Vehicle Owners' Manual / Vehicle Dealer.

WARNING: 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 weight 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.

WARNING: Check your local/state/provincial laws regarding vehicle restrictions when the snowplow is not attached. These restrictions during specified times of the year may require the removal of the mounting, lift frame, lift arm, hydraulic mechanism or any other fixtures or protruding surfaces mounted to the front of the vehicle.



THE INDUSTRY'S BEST WARRANTY PROTECTION

2 YEARS STANDARD ON ALL COMPONENTS

3 YEARS ON ALL COMPONENTS*

5 YEARS ON ALL STRUCTURAL STEEL*

* Register at www.meyerproducts.com to activate years 3-5.

Be sure to REGISTER your Snow Plow System online at www.meyerproducts.com to ensure maximum warranty protection.

Hydraulic Lift Serial Number _____

Moldboard Serial Number _____

SAFETY FIRST

Meyer Products recommends that this manual be read cover to cover so that you are completely aware of all important safety recommendations. Record your E-68 Serial number and Moldboard Serial number. This number is printed on the decal under the hydraulic unit plastic cover.

www.meyerproducts.com
e-mail info@meyerproducts.com

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Get to know your Meyer® Snowplow

1. Aggressor™ Moldboard

Made from 12 or 14 gauge steel, 6 vertical ribs. Painted with the Meyer Sno-Flo® Powder Coat, that is a baked on finish that looks like glass, provides an extremely hard, low friction surface that outlasts ordinary paint by a large margin.

2. Cutting Edge

Replaceable, high carbon steel provides extra long operating life; should be 1/2" above ground in plowing position. (Can be higher when used on gravel driveways.)

3. Runners

Mushroom replaceable runners hold cutting edge at proper height.

4. Trip Springs

Allow moldboard to trip forward and ride over obstructions, this protects the snowplow, vehicle, and operator.

5. Pivot Bar

Positions moldboard straight across, angled right or left.

6. Pivot Pin

Pin that attaches the moldboard to the pivot assembly.

7. Power Angling Cylinders

Positions the moldboard hydraulically at all angles.

8. Mounting Cylinder

Allows Plow Assembly to be installed and removed in seconds.

9. Push Frame

Allows the Snow Plow Push Frame attaching point to transfer the power from the vehicle frame to the snow plow. Always keeps the plow level in any angled positions

10. Lift Frame

Allows for fast, complete removal of snow plow, snow plow lights and hydraulic unit in one complete module. Lift Frame will stay on the vehicle.

11. Lift Arm

Chain locks in position to lift snow plow.

12. Meyer Snow Plow Lights

Complies with the Federal Motor Vehicle Safety Standards.

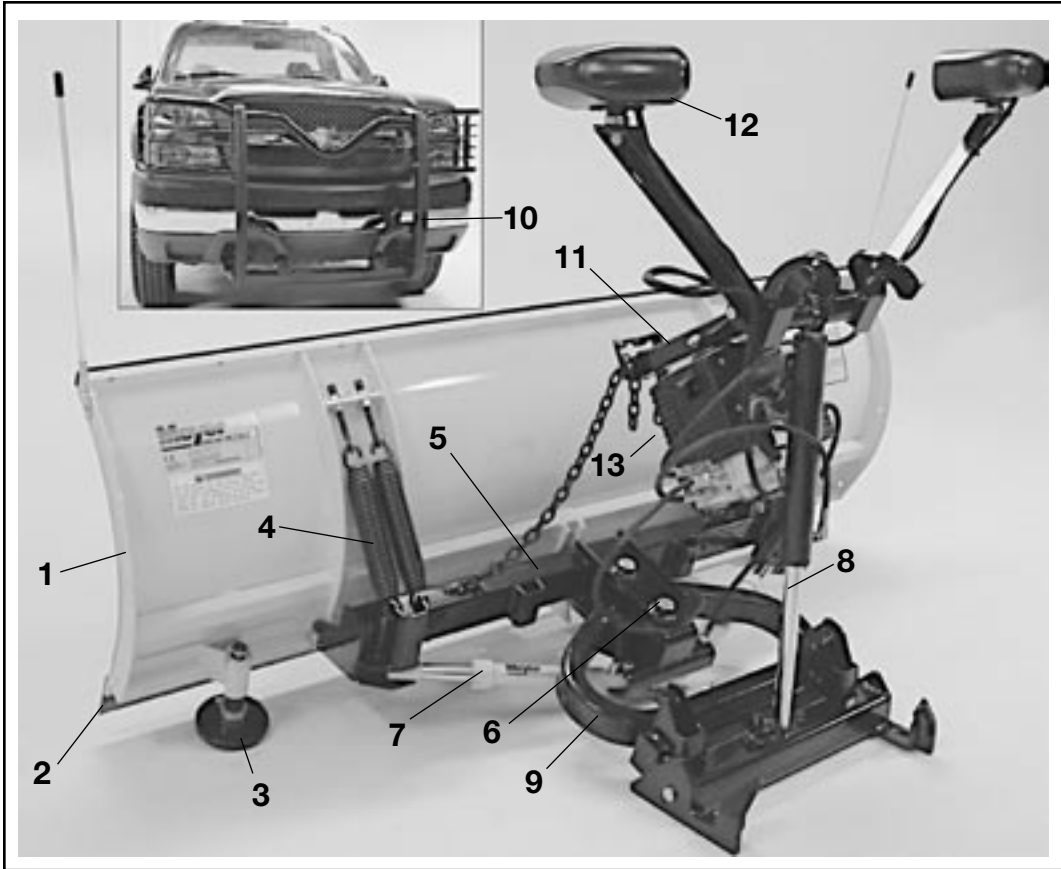
13. E-68 Electric Hydraulic Power Unit

Operates snow plow hydraulically—raises, lowers, angles, holds and floats moldboard in plowing position. Mounts and Dismounts plow assembly from vehicle.

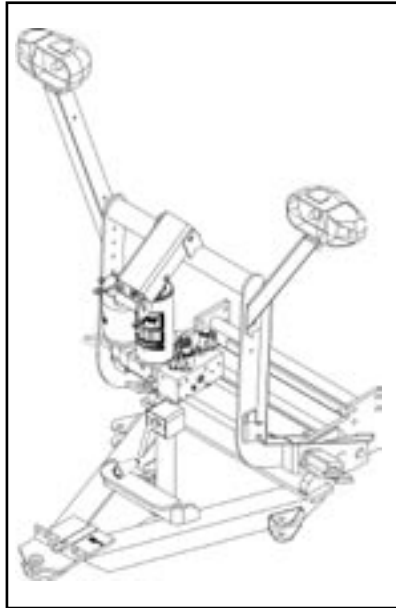


INSIST ON GENUINE MEYER PARTS & ACCESSORIES

- *Protect your warranty*
- *Made to Meyer specifications*
- *Fit right*
- *Wear longer*
- *Perform better*
- *Your best value*



Meyer®



SPECIFICATIONS	(AG/DAG-7.5)	(AG/DAG-8.0)	(AG/DAG-8.5)	(AG/DAG-9.0)
WEIGHT (TOTAL)	850 lbs.	925 lbs.	945 lbs.	965 lbs.
HEIGHT	32"	32"	32"	32'
LENGTH	90"	96"	102"	108"
MOLDBOARD GAUGE	#14	#12	#12	#12
VERTICAL RIBS	6	6	6	6
TRIP SPRINGS	4	4	4	4
CUTTING EDGES	3/8" X 6"	1/2" X 6"	1/2" X 6"	1/2" X 6"
PLOWING WIDTH AT FULL ANGLE	78"	83"	88"	93"
POWER ANGLING RAMS	1-1/2" x 10"			

SNOWPLOW HAND HELD CONTROLLER OPERATION

To turn the controller on, press the on button located in the upper right hand corner on controller.

The snowplow should only be in operation when the vehicle ignition switch and the hand held controller are in the “ON” position. Care should be taken to insure that the hand held controller is kept dry and free from moisture during normal operation.

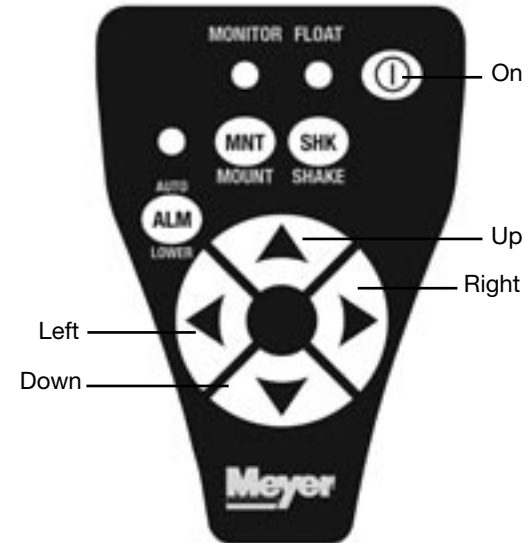
When the hand held controller is turned “On,” lights illuminate all buttons.

Lowering of the snowplow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow for 1 second will activate a float light to the left of the on/off button. This light indicates the snowplow is now in the Lower/Float position. In this position the snowplow will be able to follow the contour of the road and the snowplow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

Note: To regulate the lower speed, locate the Lower Adj. Screw on side of angling block. Loosen locking Nut Screw in to slow down or out for faster lower speed. See form 1-878 (E-68) for more details.

While angling left or right or raising the snowplow if the button is pressed for more than four seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

The auto lower (ALM) button when pressed will illuminate the light above it and allows the plow to lower automatically when the vehicle is shifted into reverse and raise automatically when shifted out of reverse. To turn off the auto lower mode simply press the auto lower button again and the ALM light will go out.



The Shake (SHK) button when pressed will shake the plow left and right for three seconds. This function is used to shake off any snow which may be stuck to the plow. This function is only available within the last ten seconds of an angle, raise or lower operation.

Using the “Mount” button

The Mount (MNT) button when pressed will turn on the Mount/Dismount Mode. In this mode the Mount/Dismount Switch on the hydraulic unit is activated and no other snow plow functions will be available. To confirm that the Mount/Dismount switch is in the Mount/Dismount Mode all controller buttons will illuminate and flash. The buttons on the controller will continue to flash until the Mount (MNT) button is pressed again turning the Mount/Dismount mode off.

Activation of the Mount/Dismount Switch for longer than 15 seconds at a time will shut down the Mount/Dismount operation. Release of the toggle switch momentarily will allow activation to continue. This is an enhanced feature used in the Hand Held Controller for all snowplow functions. This feature eliminates unnecessary amp draw from the vehicle charging system when operating the snow plow.

Monitor Light

The Hand Held Controller is intelligent and will assist in diagnosing electrical problems. The Hand Held Controller continually monitors the snow plow system during plow

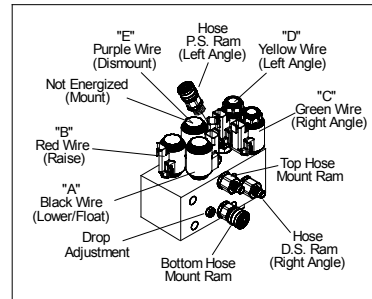
operation. When the Hand Held Controller recognizes a potential problem the Monitor Light will begin to flash. The Monitor Light is located in the upper left hand corner of the controller next to the Float indicator light.

Counting the number of flashes and using the diagnostic chart located on the back of the controller will help locate the component part that is causing the malfunction. See chart below.

See page 11-13 for more trouble shooting information.

The Hand Held Controller can be reset by the controller being turned off momentarily and then back on again.

Note: If Monitor light is still illuminated after attempts to reset the controller, please contact your nearest authorized Meyer Distributor for repairs.



- Motor Wire — Motor Solenoid
- Red — "B" Solenoid (Raise)
- Black — "A" Solenoid (Lower)
- Green — "C" Solenoid (Angle Right)
- Yellow — "D" Solenoid (Angle Left)
- Lt. Blue — Not Used
- Purple — "E" Solenoid (Dismount)

Removing and Attaching Xpress Plow

Removing Xpress™ Assembly :

1. Be sure Moldboard is on the ground.
2. Remove Xpress Lock Pin (Figure 1).
3. Turn on vehicle ignition switch, then Hand Held Controller.
4. Press Mount (MNT) button on Hand Held Controller. All controller buttons will illuminate and flash.
5. Activate system using the Mount/Dismount Switch in the direction that lowers the plow stand. Note: The Mount/Dismount Toggle Switch is located on the back side of the hydraulic unit (Figure 2). Continue lowering the plow stand until contact with ground is made and the hook assembly is raised up and off the Lift Frame. Note: While toggle switch is activated to keep assembly vertical, it will be necessary to use your other hand to lower the Lift Arm (completely) while at the same time the hook assembly is raising. See Figure 3.
6. It is also recommended that the Mount/Dismount cylinder be completely collapsed and the Xpress Lock Pin installed when system is removed from the vehicle to help prevent theft.
7. Disconnect Main Harness from Lift Frame. See Figure 4.

IMPORTANT: When Xpress™ system is removed from the vehicle, the Hand Held controller must remain "OFF" for proper operation of the OEM light system.

Mounting Xpress™ Assembly :

1. Drive your vehicle up to the Xpress™ System until Lift Frame makes slight contact with Hook Assembly.
2. Plug in Plow Side Harness into Vehicle Side Harness on Lift Frame making sure the harnesses lock together. See Figure 4
3. Turn on vehicle ignition switch, then Hand Held Controller.
4. Press Mount (MNT) button on Hand Held Controller. All controller buttons will illuminate and flash.
5. Activate system using the Mount/Dismount Switch in the direction that lowers the Hook Assembly onto the Lift Frame and raises the plow stand up to clamp and lock onto the bottom of the Lift Frame. Note: The Mount/Dismount Toggle Switch is located on the back side of the hydraulic unit (Figure 2).
6. Install Xpress Lock Pin at the Plow Stand and Mount/Dismount Cylinder. See Figure 1.

Note: Under extreme circumstances the vehicle can generally be off 4 inches to either side of center line of the Hook Assembly. The system can still attach itself properly to the lift frame, however, extra care should be taken to insure the system is aligned and properly clamped onto the Lift Frame with Xpress Lock Pin installed.

WARNING

Xpress Lock Pin Part NO. 07288 MUST be installed through the clevis stand u-clip and the mount ram tab when plow is attached to vehicle. This is a safety feature that insures the clevis stand stays attached to the Lift Frame at all times (See Mount Instructions and Figure 1).



Figure 1

Mount/Dismount switch

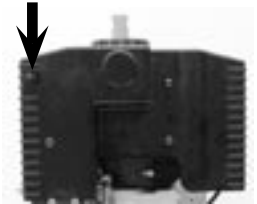


Figure 2



Figure 3



Figure 4

General Maintenance

Meyer Products LLC recommends this maintenance information for regular service. Sustained heavy operation may call for more frequent service. Snow plowing subjects a vehicle to exceptionally rugged use. As a result, it is very important to inspect and bring the snow plow and vehicle up to maximum operating conditions.

Inspection should be made of both the vehicle and snow plow prior to the plowing season and after each use.

Pre-season Maintenance

Scheduled vehicle maintenance should be performed as recommended by the manufacturer.

Don't forget that in addition to keeping equipment in order:

1. Keep windshield wipers, heaters and lights working.
2. Use emergency flasher lights for increased visibility and safety.
3. Equip vehicles with chains where necessary.
4. Provide operators with protective clothing and with rubber gloves for handling snow melting chemicals.

VEHICLE ELECTRICAL SYSTEM

For maximum efficiency, the vehicle supporting the snow plow must be properly serviced. The system should consist of at least a 70 amp./hr. battery and a 60 amp alternator. Be sure to check regularly:

1. Battery terminals to assure they're clean and free of corrosion.
2. Electrical connections, to assure they're tight and corrosion free.
3. Battery must be in top operating condition.
4. Alternator and regulator, to assure maximum electrical output.

SNOWPLOW

CAUTION: ALWAYS LOWER MOLDBOARD TO THE GROUND WHEN SNOW PLOW IS BEING SERVICED OR WHEN VEHICLE IS NOT IN USE.

Check the E-68 Diagnosis chart, pages 12-13, and Post Season Maintenance, page 9, for advice on maintaining the unit.

1. Check and maintain hydraulic fluid reservoir level to 1" from top cap. Oil level should be checked with lift ram and mounting cylinder on the Xpress in the down or retracted position.
2. Check entire hydraulic system for leaks. A significant drop in hydraulic fluid level is evidence of a leak which must be corrected to prevent serious damage.
3. Before and after each season, remove sector pivot pins, thoroughly grease pivot tubes and reinstall pins. Lubricate all pivot points with chassis lube.
4. **ADJUSTING TRIP SPRING TENSION FULL TRIP** - Tighten top locknut 4 turns beyond the point when spring coils begin to separate. Tighten bottom locknut to hold eye bolt in position as shown in figure 1. **DIAMOND EDGE**- Tighten adjustment nut to the point when spring coils begin to separate.



Figure 1

5. RUNNERS

- A. Inspect moldboard runners for wear and height adjustment.
- B. Always replace runners as soon as they start to wear through.
- C. Adjust the runners to maintain cutting edge height of 1/2" above ground in snow plowing position. (Can be set higher when used on gravel driveways).

6. CUTTING EDGE

Replace the cutting edge as soon as it appears worn approximately 4" on either corner. This will prevent permanent damage to the moldboard.

7. MOUNTING BOLTS

Retighten all mounting bolts after first snow plowing session and at regular intervals through the season.

8. DURA-SLICK™ POWDER COATING, both black and yellow, should be checked at the beginning and end of each season for any signs of rust. If any exists, use Meyer special Sno-Flo® powder coat touch-up available in spray cans.

NOTE: PROTECTION AGAINST RUST AND CORROSION

When the power unit is not used for extended periods, **protect the chromed lift rod by fully extending and coating it with chassis lubricant.** On power angling models, coat the exposed portions of the power angling cylinder rods with chassis lubricant to protect against corrosion.

Post Season Summer Maintenance

1. Draining & Replacing Meyer M-1 Hydraulic Fluid

To drain mount cylinder (E-68 Only), fully extend and disconnect both hose fittings and allow cylinder to leak back down to the ground, draining it fully. Drain the fluid by removing the drain plug located on the front side of unit next to the motor. To drain the

fluid from the power angling cylinders, disconnect the fittings and completely retract the cylinder rods and purge cylinders and hoses of all hydraulic fluid. The complete system should then be flushed out with Meyer M-2 Flushing Fluid before adding new Meyer Hydraulic Fluid.

2. Screen-Type Filters- Clean the filters with mineral spirits or equivalent and blow out with compressed air.

3. Meyer M-1 Hydraulic Fluid is specially formulated with an anti-ice additive for almost constant viscosity in subzero temperatures. Because it is free-flowing in extreme cold, the unit's performance and efficiency are not affected by winter weather. It is effective for a maximum of one year. Always carry an extra quart of **Meyer M-1 Hydraulic Fluid.** Use of any inferior fluids will void the Meyer warranty.

4. Refill power unit with **Meyer M-1 Hydraulic Fluid** by fully retracting lift piston and mounting cylinder and filling reservoir to 1/2" below the filler hole. **Note: Do not over fill unit,** over filling unit will cause oil to squirt out of the reservoir pressure relief valve. Power angling rams should be collapsed. Install Hydraulic unit and Moldboard assembly on vehicle. Remove reservoir pressure relief valve (Filler plug) from top cap. To bleed air from the system power angle moldboard side to side while maintaining a constant check on the reservoir fluid level.

Note: It may be necessary to bleed air from the Power angling cylinders by loosening the hydraulic fittings. Angle Moldboard side to side until you have a steady stream of oil coming out of fitting. Raise and lower the plow several times. With lift ram fully retracted (down) check fluid level and replace filler plug.

SNOW PLOW STORAGE

1. When snow plow is disconnected, **extend lift cylinder to end of stroke and coat chrome rod with light grease.** This fills the cylinder with hydraulic fluid and protects the interior and exterior from rust and corrosion.
2. Whenever Moldboard is disconnected, coat the exposed portions of the power angling cylinder chrome rods with light grease to protect them from corrosion.
3. Coat all pivot pins and other wear points with chassis lubricant. Be sure to grease all zerk fittings.
4. Unplug electrical connection at power unit. Coat connection with a dielectric compound to prevent corrosion and plug into their corresponding weather plug.
5. Reference past season summer maintenance on page 9 prior to final storage.





DIAGNOSTIC TROUBLE SHOOTING



These charts are intended to be used as an aid in diagnosing problems on the E-68 Meyer Hydraulic Power Units. They are not a substitute for factory training and experience. Be certain to read the General Information and Testing Tips sections before attempting any troubleshooting. Additional detailed information as well as all electrical schematics may be found in Service Manuals 1-822.

GENERAL INFORMATION

Before any troubleshooting is started, make certain the following conditions are met.

1. The moldboard is pointing straight ahead. This can often be done by coupling the hose from the left cylinder into the right cylinder and pushing the snowplow by hand.
2. The power angling cylinders must be installed correctly. The left cylinder has a hose with a female half of a coupler attached while the right cylinder only has the male half of a coupler attached. Reverse them if installed on wrong side.
3. Mount Cylinder top hose has female coupler; bottom is male.
4. The electrical installation must have been made according to instructions supplied by Meyer Products LLC.

TESTING TIPS

Many tests do not require removing the Power Unit from the vehicle. However, more thorough testing can be done by using the Meyer Test Stand which allows direct pressure and Amperage readings.

1. Use a screwdriver or other small tool to check for magnetism of solenoid coils ("A", "B", "C", "D" & "E"). Place the tool on the nut securing the coil and have an assistant operate the switch. You should feel strong magnetic attraction.
2. Use a test light or volt meter to determine whether there is power at harness or controller.
3. When determining Amp draw of motor, always obtain the highest value possible, i.e., at maximum raise or angle with motor running.
4. The pump shaft of a good pump can be turned smoothly using two fingers. If it can't be turned easily, the pump must be replaced.
6. Pump pressure can be measured at an angle hose (note pressure at full angle) or in the pressure filter port (an adapter is necessary for the filter port). (See Service Manual 1-822)
7. If hydraulic system is contaminated it is recommended that the hydraulic unit, power angling rams and hoses be drained and flushed clean with M2 fluid. See page 24. The system should then be refilled with Meyer M-1 oil. See pages 9, 24.

DIAGNOSTIC FLOW CHART FOR E-68 HYDRAULIC POWER UNITS

MODEL	CONDITION	POSSIBLE CAUSE	CORRECTION
E-68	Plow does not lift or lifts slowly - motor operates.	<ol style="list-style-type: none"> 1. Low hydraulic fluid level. 2. Discharged battery. 3. Leaking or open "B" cartridge. 4. No current to "B" coil. (Red wire) 5. Inoperative "B" coil. (Red wire) 6. Malfunctioning motor. 7. Malfunctioning pump. 	<ol style="list-style-type: none"> 1. Add fluid to proper level. 2. Recharge battery. 3. Clean or replace "B" cartridge. 4. Locate malfunction and repair. 5. Replace "B" coil. (Red wire) 6. Repair or replace motor. 7. Replace pump.
	Plow does not Angle Right but Motor operates.	<ol style="list-style-type: none"> 1. Improper coupler engagement. 2. Mechanical bind or interference. 3. Malfunctioning coupler. 4. No current to "C" (Green Wire) coil. 5. Inoperative "C" (Green Wire) coil. 6. Inoperative valve cartridge. 7. Leaking or open Pilot Check Valve 8. Leaking or open crossover relief valve. 	<ol style="list-style-type: none"> 1. Engage coupler properly. 2. Eliminate mechanical bind or interference. 3. Repair or replace coupler 4. Locate malfunction and repair. 5. Replace coil. 6. Clean or replace cartridge. 7. Clean or replace Pilot Check Valve 8. Clean or replace crossover relief valve.
	Plow Does Not Angle Left but Motor operates.	<ol style="list-style-type: none"> 1. Improper coupler engagement. 2. Mechanical bind or interference. 3. Malfunctioning coupler. 4. No current to "D" (Yellow Wire) coil. 5. Inoperative "D" (Yellow Wire) coil. 6. Inoperative valve cartridge. 7. Leaking or open Pilot Check Valve 8. Leaking or open crossover relief valve. 	<ol style="list-style-type: none"> 1. Engage coupler properly. 2. Eliminate mechanical bind or interference. 3. Repair or replace coupler, 4. Locate malfunction and repair. 5. Replace coil. 6. Clean or replace cartridge. 7. Clean or replace Pilot Check Valve 8. Clean or replace crossover relief valve.
	Plow will not hold in angled position. cylinder gland nut.	<ol style="list-style-type: none"> 1. Air in cylinders and hoses. 2. Leaking "C" and or "D" cartridge O - rings. 3. Defective "C" and or "D" valve cartridge 4. Leaking Pilot Check Valve 5. Leaking crossover relief valve. 6. Crossover relief valve not set properly. 	<ol style="list-style-type: none"> 1. Bleed cylinders and hoses. Tighten P.A. 2. Replace O - rings. 3. Replace cartridge. 4. Clean or replace Pilot Check Valve 5. Clean or replace crossover relief valve 6. Replace/adjust crossover relief valve.

DIAGNOSTIC FLOW CHART FOR E-68 HYDRAULIC POWER UNITS

MODEL	CONDITION	POSSIBLE CAUSE	CORRECTION
E-68	Motor does not operate.	<ol style="list-style-type: none"> 1. Discharged or defective battery. 2. Loose or corroded electrical connections. 3. Inoperative starter solenoid. 4. Malfunctioning control switch. 5. Malfunctioning motor. 	<ol style="list-style-type: none"> 1. Recharge or replace battery. 2. Clean and tighten electrical connections. 3. Replace starter solenoid. 4. Replace control switch. 5. Repair or replace motor
	Plow does not lower.	<ol style="list-style-type: none"> 1. No current to "A" coil. (Black wire) 2. "A" cartridge jammed in closed position. 3. Inoperative "A" coil. (Black wire) 4. Drop adjustment screw is turned all the way in. 	<ol style="list-style-type: none"> 1. Locate malfunction and repair. 2. Clean or replace "A" cartridge. 3. Replace "A" coil. (Black wire) 4. Back out 1/2 turn
	Plow creeps down.	<ol style="list-style-type: none"> 1. Leaking "A" cartridge. 2. Leaking "A" cartridge O-ring. 3. Leaking Ram Packing Cup. 4. Leaking O-ring at bottom of lift cylinder. 	<ol style="list-style-type: none"> 1. Clean or replace "A" cartridge. 2. Replace O-ring. 3. Replace Ram Packing Cup. 4. Replace O-ring,
	Xpress™ will not mount motor operates	<ol style="list-style-type: none"> 1. Improper coupler engagement. 2. Mechanical bind or interference. 3. Malfunctioning coupler. 4. Jammed "E" (Purple Wire) cartridge. 5. Leaking or open Pilot Check Valve 	<ol style="list-style-type: none"> 1 Engage coupler properly. 2. Eliminate mechanical bind or interference. 3. Repair or replace coupler 4. Clean or replace "E" cartridge. 5. Clean or replace Pilot Check Valve
	Xpress™ will not Dismount motor operates	<ol style="list-style-type: none"> 1. Improper coupler engagement. 2. Mechanical bind or interference. 3. Malfunctioning coupler. 4. No current to "E" (Purple Wire) coil. 5. Inoperative "E" (Purple Wire) coil. 6. Jammed "E" (Purple Wire) cartridge. 7. Leaking or open Pilot Check Valve 	<ol style="list-style-type: none"> 1. Engage coupler properly. 2. Eliminate mechanical bind or interference. 3. Repair or replace coupler 4. Locate malfunction and repair. 5. Replace coil. 6. Clean or replace "E" cartridge. 7. Clean or replace Pilot Check Valve

Efficient Snow Clearance Starts with Planning

PREPARING AREAS, USE OF GUIDE MARKERS

Every area to be plowed should be inspected before snowfall for potential hazards. Holes should be repaired, raised manhole covers leveled or noted and obstructions noted to prevent damage to the plow mounting or vehicle undercarriage.

Markers or stakes with reflectors should be in position to indicate boundaries of areas to be plowed, location of shut-off valves, catch basins and other hazards. Markers should be at least three feet above the ground; higher in areas of deeper snowfall.

The first step in organizing an efficient plan is to prepare a map or procure a blueprint of the area. Locate and mark all utilities, outlets, shutoffs, catch basins and possible emergency equipment that must be reached from outside. Figure the square footage of each area and the total area. Especially note areas from which snow will have to be carried, call “trapped” areas. Although hauling is expensive, it is necessary where piled snow would limit access. Indicate clearing priorities on your map. This may aid you in preparing a priority plan for your clearance operation.

KEEP SNOW UNDER CONTROL

Deep or heavy, wet snow, because of its increased weight, calls for more skillful and powerful plowing than light powder snow.

Always plow in low gear and keep plowing. Heavy snow may also require clearing a path or area for working room to move snow to another area. Remember that wet snow weighs about 12 pounds per cubic foot. As it piles up in front of a snow plow blade, the weight can quickly increase to several tons.

Where packed snow or ice must be plowed, it is sometimes necessary to lower the cutting blade to rest directly on the road surface. In that situation, plow in lowest gear for greatest power to the cutting edge. This method also prevents the plow from “climbing over” the icy surface.

If plowing very deep snow, 12 inches or more, you may have to plow with the blade partially raised to shear off successive layers of snow until a working area is clear. Then work small “bites” into the edge. The “bite” depth should be inversely proportional to the snow depth. A rule of thumb: 6-inch snow may be plowed with the entire blade width; 9-inch snow with 3/4 of the blade width; and 12-inch snow with only 1/2 of the width. Experience will show what work can be done without stalling or getting stuck.

Selecting Equipment

Where you plan to plow, and the conditions under which you will be plowing, determine to a great extent the type of vehicle you'll find most useful. In general, three types of vehicles are available as the power source of snow clearance. Each type has certain inherent advantages depending upon the particular situation.

Four-wheel drive HEAVY DUTY TRUCKS have proven most effective in heavy duty snow plowing situations using the E-Z Mount Xpress™. They have excellent traction and the Xpress™ handles with ease.

Two-wheel drive TRUCKS, particularly those of 1 to 3 tons, are best for straight line road clearance and in large open areas.

TRACTORS are effective for trapped areas in which visibility is limited, plus a rear grader blade can be used in conjunction with the Meyer Snowplow.

Meyer Snowplow's custom design for specific vehicles provides the advantage of easy, fast attaching and detaching. This feature permits utilization of vehicle versatility as weather conditions and job requirements demand.

20 m.p.h. is a maximum snow plowing speed under ideal conditions, assuming the driver is familiar with the roadway or area to be cleared. Under unfamiliar or hazardous conditions, or if there is poor visibility, we recommend reduced speed and extreme caution.

Careful analysis of the area you intend to clear of snow will direct you to the types of equipment you'll require. Check Table 1, Average Hourly Snow Clearing Capacities, for recommended equipment depending upon the area in which you'll be working.

Then, match the vehicles you already have with the snow removal equipment you need. If your vehicles do not have the capacity to clear all major access areas within two hours, you should increase clearing capacity with additional equipment or arrange for assistance through a contract plowing service.

AVERAGE HOURLY SNOW CLEARING CAPACITIES*
TABLE 1 (Based on Straight Blades)

	Snow Plow size	Open Area (sq. ft.)	Trapped Area (sq. ft.)	Straight Line (no. of miles of roadway Cleared in 2 passes)
Tractor	7 foot	33,000	25,000	2 1/2 miles
4 Wheel Drive Utility Vehicles	6 1/2 foot	53,000	21,500	5
Trucks				
1 1/2 - 1 Ton (2 WD)	7 - 7 -1/2 foot	38,000	19,000	4
(4 WD)	7-8 foot	88,000	42,500	6
1 1/2 - 2 Ton	8 1/2 - 9 foot	67,500	30,000	7 1/2 **
2 1/2 - 3 Ton	10 foot	67,500	~	10 **

* Based upon regional interviews with knowledgeable contractors
6" snowfall cleared by operators with average ability

** Based upon recommended maximum plowing speed of 20 mph.

~ Not recommended for use except in very large areas of this type the 1 1/2 ton figures if necessary

Plow with the Storm

Plow with the Storm

It is of utmost importance to remember one basic rule — Always plow with the storm. Start plowing when snow is 1 to 4 inches deep, depending upon traffic or other limitations. Heavy wet snow can be very hazardous when just 1 inch is on the ground. Accumulations of more than 4 inches can be very difficult to clear.



Angle Moldboard for Optimum Results.

You will not be able to plow snow of any significant depth straight ahead for more than a short distance. Set the moldboard at the best angle for rolling snow sideways in the desired direction. The snow plow path, in the angled position, should exceed the tire track by at least six inches on either side. Be sure to have enough slack in the lift chain while plowing so the cutting edge of the moldboard can follow the ground contour. Use the adjustable runner shoes to set the bottom edge of the plow just above the ground for best operation.

It's important to recognize the significance of even a few inches of snow. Besides being slippery, especially when wet, snow can be extraordinarily heavy, and make auto travel impossible. Snowfall of just 1 to 3 inches will produce hazardous traffic and roadway conditions even for experienced drivers.

Snow is heaviest when wet, and most difficult to handle. The National Weather Service reports that a 6-inch, average weight snowfall on a 200 x 200 foot parking lot weighs 62 tons. Heavy, wet snow for the same area might weigh as much as 248 tons. If the heavy snow had to be hauled away, you'd need 74 full loads on a 10-yard truck.

Obviously, the only way to assure clear traffic areas is to be prepared with the proper equipment and expertise to open arteries and areas to traffic. Remember to keep current with accurate snowfall information from local weather bureaus via radio and television.

Two Established Snow Clearance Plans

These two snow plowing techniques have been time- and operation-tested. Use them as guidelines for most snow plowing strategies. Plan I is for smaller areas of 50,000 sq.ft. or less. Plan II is for larger establishments having more than 50,000 sq.ft. to be cleared.

PLAN I (less than 50,000 sq. ft.)

Recommended equipment: A four wheel drive vehicle; a ST-7 or ST-7.5 snow plow; snow shovels; and ice control equipment.

Recommended procedure: **PLOW WITH THE STORM.**

Begin plowing at the suggested accumulation for your type of establishment (i.e., 1” for commercial and institutional areas; 2” for industrial establishments; 3” for municipal and residential areas.) Continue until snow has been cleared. Don’t forget - snowfall often surpasses weather forecasts. A well planned clearing schedule will help prevent the necessity for expensive emergency action.

A typical small-area strategy:

1. Keep in touch with local weather forecasts for preparatory measures.
2. Notify scheduled personnel.

3. Have vehicles and equipment inspected, fueled and ready.

4. Clear area by pushing snow first to sides of drives, around perimeters of parking areas and away from loading docks and platforms. It is often true that the smaller the establishment, the greater the proportion of “trapped” areas which will require snow to be hauled away. Always deposit snow as far back as possible for greatest use of dumping areas.

5. Use snow shovels to clear walks, gates and doorways.

6. Treat with snow-melting materials as needed.

PLAN II (over 50,000 sq.ft.)

Recommended equipment: The suggested number of vehicles, according to the Table “Average Hourly Snow Clearing Capacities”, on page 15, with ST-7 to HM-10 snow plows; front end loaders if needed; snow shovels and ice control equipment.

Recommended procedure: As always, **PLOW WITH THE STORM.** Begin plowing at the suggested accumulation for the area and continue as required. Actual snowfall frequently exceeds forecasted conditions. Well-planned snow clearance strategy reduces the chances for expensive emergency action. Snow Plowing Tips from the Pros

Snow Plowing Tips from the Pros

SNOW PLOWING OPEN AREAS

Open areas such as parking lots require a more serious approach to planning, where to begin, and where snow can be stacked at the edges. The following will help in making a plan, thus turning out a neat, professional job.

Always turn on warning flashers and/or use yellow warning beacon or strobe light when plowing. Then make a single pass down the center on the longest dimension. Angle plow the snow toward the long sides with continuous passes until the area is cleared and snow is all stacked around the outside edges.

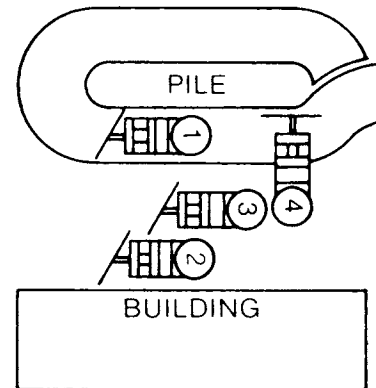
For larger areas, efficient plowing calls for clearing area immediately in front of buildings and working away from buildings toward the outer limits of the area. When snow is quite deep, it might be necessary to push the excess into piles out of main traffic lanes for later handling. Areas 100,000 sq.ft. or more — once the main artery is clear, it is usually most efficient to plow at right angles to the artery, piling up windrows by back and forth passes in alternate lanes. The windrows can later be pushed out of the way or left as is depending upon conditions.

To clean up remaining snow, you can put the blade in the straight position. Buck piles from either side to stack snow. The blade will automatically “ride” up the pile to make stacking easier.

On a dirt or slag surface, drop moldboard to ground in straight position, then raise one inch or adjust runners for desired clearance. Under extreme surface conditions it may be necessary to plow with moldboard in suspended position.

PARKING LOTS

1. Always turn on warning flashers and/or use yellow warning beacon or strobe light when plowing.
2. Make first pass to clear area into which you will later push more snow.
3. Clear front in straight position and clean up remaining snow. Buck piles from either side to stack snow. Blade will automatically “ride” up pile to aid in stacking.



STRAIGHT LINE SNOW PLOWING

This method is most efficient for drives, streets, roads and walkways. Moldboard type blade snow plows mounted on utility vehicles or service trucks are best for such an operation.

Set the snow plow moldboard at an angle so that the snow is rolled to the shoulder or curb.

Single lane walks, roads and aisles can often be cleared with one pass.

When the road is more than twice the moldboard's width, plow a center lane for the first full pass. Then, in follow-up passes, work the snow to the sides. The diagram illustrates plowing sequence for a typical 20-foot road.

Corner clearing is almost automatic when clearing intersecting streets. When snow is heavy, a little "stop over" snow may have to be removed from intersections by additional short passes.

We recommend a speed of 5 to 15 MPH for this kind of plowing. Of course, road surface, weather conditions and equipment will influence your speed.

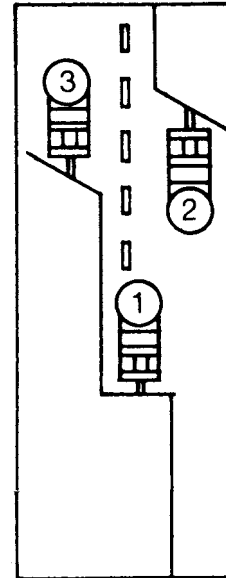
Plow with the storm.

BACK DRAGGING:

WARNING: ST and C Series Only. Use caution when back dragging. Runners can catch on objects causing damage to the equipment or the plowing surface. To reduce the risk of damage, remove or raise runners when back dragging.

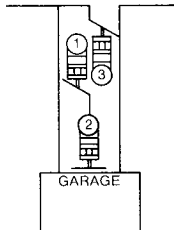
WIDE DRIVEWAY

1. Make one pass down center with blade in straight position.
2. Push snow to side with moldboard angled.
3. Do the same on either side.



DRIVEWAYS

1. Plow toward garage pushing snow to one side.
2. Set blade to straight position, lift it as high as possible and drive through snow to garage. Drop blade and back drag to street.
3. Back into driveway and angle blade again. Use as many passes as necessary to clear drive.



RAISE SNOWPLOW BLADE WHEN STACKING SNOW

CLEARING TRAPPED AREAS

Areas where there is little or no space for stacking cleared snow are considered “trapped.” An example is an area requiring full access from surrounding buildings. Snow plowing techniques are the same as for any other space of comparable size, but heavy accumulations must be piled for removal by truck.

CLEARING RESIDENTIAL AREAS

Driveways and aprons are most efficiently cleared by maneuverable four wheel drive vehicles. Recommended procedure is to enter the driveway rolling snow away from the residence. Stop about two-thirds of the way in, set the blade in bucking position, lift as high as possible, then drive through the snow to the garage. Drop the blade and back drag to the street. Turn around, back into the cleared path to the garage, reset the blade angle and continue rolling snow away from the house. Complete as many passes as necessary to clear the snow.

STACKING

When snow clearance conditions are perfect, snow can be merely pushed out of the way to unused areas. The first storm of the season, plow back from the drive area to allow space to pile future snowfall. It is usually necessary to pile snow up to considerable heights. In that case, **push the snow forward and upward by raising the snow plow as you move into the pile.** The vehicle’s momentum will carry the plow into the pile, avoiding equipment damage. The pile should slope outward, so later snows can be pushed upward. **WARNING: Stacking snow or pushing up into high snow piles with the plow in Lower/Float or Angled position can cause damage to the Snow Plow components or the vehicle that will not be covered under the Meyer Products Warranty Program.** Such damage may include, without limitation, twisting the A-Frame, the Moldboard hitting the Lift Arm, or the Plow Markers striking the vehicle.

Chemicals for Snow and Ice

Except in very light snow, ice melting materials should never be used in place of snow plowing. However, in combination with trained personnel and equipment, ice melting materials play an important part in controlling ice and snow. Whenever possible, apply ice melting materials before a snowfall. You'll use less, and it will be more effective in preventing snow and ice from adhering to the pavement surface and less damaging for the environment. You may have to increase the use of ice melting materials at night and as temperatures fall.

Experts agree a mixture of two parts mixed ice melting materials (1:3 calcium chloride to salt, by weight) mixed with one part abrasive (cinder, sand or slag) is more effective than rock salt alone in melting snow and ice below 30°F. One hundred fifty pounds of such mixture with abrasives will treat a 50,000 sq.ft. surface.

It is imperative to treat priority areas such as hills, heavy traffic areas, bridges and intersections first, especially where snow may compact and adhere to the road surface, causing icy road conditions. When slush begins to stiffen and refreeze, it will be necessary to plow again and reapply chemicals.

Meyer Spreaders



Hotshot™(38100) & Hotshot HD™ (38110)

The Meyer Hotshot spreaders promise to last season after season. These Spreaders are available in steel and stainless steel (HD). Both use a polypropylene hopper with a capacity to hold 1.3 c.f. / 70lbs. of salt, sand seed or any other free flowing material. Other features include; infinitely adjustable feed gate (up to 12 foot wide pattern), pneumatic tires and weather resistant fitted hopper covers which will keep the spreader material dry and contained in the hopper.



Mini Jr. (36006)

The Meyer Mini Jr (5.75cu.ft.) is an ideal solution for small and medium sized jobs: walkways, intersections, access ramps and parking lots. The no rust thermoplastic hopper and internal vertical spiral auger provide continuous and even flow of material. Adjustable controls allow spreading of #1 rock salt from 3 to 30 feet. Easy to attach and detach. The Mini Jr. mounts to a standard 2" trailer receiver hitch.



Blaster Spreader

350/350S 750/750S

The Blaster™ Spreader is a poly tailgate spreader, available in four models that spread salt or salt & sand. What makes this spreader unique is its 1/2 horsepower direct drive motor, it's the most powerful spreader motor available. The motor's "Fast Blast" feature can produce up to 70 amps of surge power to grind through chunks of salt or sand. The 750- and 350-pound hoppers are made of extended life polyethylene and are backed by Meyer's exclusive 3 + 5 year ROC Solid Warranty. Variable speed control allows for precise material spread pattern up to 40 feet.

Under Tailgate Spreader

An extremely rugged truck accessory, the Under-Tailgate Spreader is offered in two models: a single auger or for ultimate efficiency dual augers; each spreads cinders, sand, salt or pea gravel. Attaches easily under the tailgate of any standard dump truck, yet will not obstruct dumping over the spreader. The spinner is always in spreading position and can be operated with the truck moving backward or forward. Also available in stainless steel and direct drive.



Mate XL (38000)

The Meyer Mate XL spreader holds 9 cubic feet of salt, sand or calcium chloride and it can even spread seed to extend its use beyond the snow season. The Mate XL features a thermoplastic no-steel frame for long-lasting protection from corrosion. The Mate XL is powered from a 1/6th H.P. 12VDC motor with in-cab variable speed control which will spread material up to 30'. A vibrator is standard on the XL model. The Mate XL requires NO drilling and is quickly attached and detached from any full size pick-up truck. Adjustable controls allow spreading of bagged #1 rock salt from 3 to 30 feet.



MDV Spreader

9' Carbon Steel (63001)

9' Stainless Steel (63004)

10' Carbon Steel (63002)

10' Stainless Steel (63005)

The MDV spreader expands your choice between pickup size spreaders and the large V-box units. The MDV bridges the gap between the 15,000 GVW and the 20,000 GVW trucks. It can be powered by either your truck's central hydraulic system or its own power source.



Replaceable Tailgate Spreader

This replaceable tailgate spreader mounts easily on most one-ton dump bodies by simply replacing the existing tailgate. Designed to spread free-flowing chemicals, salt and/or sand throughout its entire width, the replaceable tailgate spreader can spread in widths from 4' to 40'. A host of optional equipment allows you to customize the spreader to fit most any job requirement.



Insert Hopper Spreaders 1.8 cu. yd. Carbon Steel (62991), 1.8 cu. yd. Stainless Steel (63006), 2.0 cu. yd. Carbon Steel (62992), 2.0 cu. yd. Stainless Steel (63007)

The Meyer 1.8 & 2.0 cubic yard capacity V-box spreader for pickup trucks mounts and stores as a single unit. This mechanically-operated spreader is powered by an electric start 10 H.P. gas engine, which drives a high torque orbital-type motor and a 20:1 ratio gearbox. Spinner and drag chain speeds work in unison with engine R.P.M. The spinner will evenly spread material from four (4) to thirty (30) feet. In-cab controls make operation easy.



PolyHawk

This one-piece polyethylene hopper fits most 3/4 ton pickup truck beds and provides all the robust performance qualities of conventional V-box spreaders, but with less weight, greater capacity, longer life and less maintenance. The PolyHawk holds 37% more material than competitive poly spreaders. Another key feature of the PolyHawk™ is the swing-up spinner assembly. The swing up spinner allows for simplified clean-up and easy seasonal storage. The Poly Hawk is equipped with a top screen and a 16" wide stainless steel conveyor that provides reliable material handling control and has a replaceable stainless steel conveyor floor. Overlapping baffles, 2 internal and 4 external, and a 13" poly spinner disc provide precise material spreading. A 10 HP 4-cycle engine is standard and an 11 HP 4-cycle is available as an option.



STCC

The Tailgate Cross Conveyor (TCC) provides for the most efficient method of distributing granular materials available today. This sturdy cross conveyor will perform dozens of jobs while saving on labor, time and materials. Every municipality, contractor, utility and construction company can benefit from the TCC cost efficient material handler. The cross conveyor transfers material left or right allowing for multiple uses. The TCC mounts directly to dump box with quick disconnect pins. Unit mounting allows for dumping over or parallel-to-ground positioning. Conveys most free flowing material.



Meyer Accessories

M-1 Hydraulic Fluid

Keep your Meyer Electro-Touch® snow plow control system operating at peak performance; change hydraulic fluid yearly. Meyer M-1 Hydraulic Fluid has additives that insure peak efficient operation of all Meyer electric hydraulic power units (15134).



Hydra-Flush®

Hydra-Flush™ advanced technology maintains your lift's maximum performance by removing contaminants and performance robbing deposits. Hydra-Flush™ protects and preserves the life of your pump, seals, o-rings, and hoses. It is ideal for off-season storage (15901).



Sno•flo® Powder Coat Touch-Up Paint

Super-smooth high gloss paint especially formulated for use on powder coat finishes. Available in 12 oz. aerosol cans. Black (07026) Yellow (07027) & 1 qt. brush-on (07181).



Snow Deflector

Available in specific sizes to fit all Meyer moldboards. Kits come with attaching parts. Deflects snow flume down and away from windshield area. See page 26.



Rubber Cutting Edge

The rubber cutting edge is reversible for extended wear life. Best results will be obtained with wet, unpacked snow. See page 25.

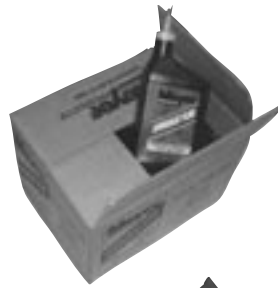
Lock Pin

Protect your Meyer Snow Plow components with this sturdy, durable stainless steel and brass lock pin. Available in two sizes for the Quik-Lift or Electro-Touch power units and the EZ-Mount Xpress™. Quik-lift - 2" long (07694C) Electro-lift - 3" long (07695C)



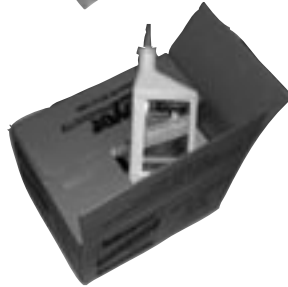
Meyer® M1 Hydraulic Fluid

Keep your Meyer electric hydraulic control system operating at peak performance. It features special additives to ensure efficient operation.



Meyer® M2 Hydra-Flush™

Hydra-Flush contains a blend of additives that ensure maximum performance for flushing and off-season storage for all electric mechanical hydraulic units.



Genuine Parts Kits

The Genuine Parts Kit includes the most commonly requested Meyer parts. Everything comes pre-packaged in a sturdy tool kit.



Meyer® Heavy-Duty Molded Snow Deflector

Deflects snow flume down and away from your windshield. Available in specific sizes to fit all Meyer moldboards. Kits come ready to install. Patented.



Industrial Sno-Flo® Paint

Specially formulated to improve snow-rolling action. Aerosol spray available in Gloss Yellow, Gloss Black and White Primer. Gloss Yellow also available in 1-quart can.



Touch pad Leg Strap

A perfect complement to the Touch Pad Controller, the leg strap keeps the Touch Pad close at hand. The adjustable buckle allows for a custom fit.



Rubber Cutting Edge (Full-trip)

Produces excellent results on wet or unpacked snow. It's reversible for extended wear.



EZ-Mount Xpress Light Guards

Offered as an option with the EZ-Mount Xpress Mounting system only, the light guards give the front end of your 3/4 ton Ford, Chevy or Dodge pickup truck a sleek, stylish look.



Meyer® Diamond Edge Reversible Cutting Edge (Button-trip)

The reversible cutting edge improves performance and durability. It also gives your plow an extra edge when cutting hard, packed snow and ice. Reversible to extend wear life.



Whelen Lights/Alarms

Stand out and get noticed with warning lights, strobes and backup alarms from Whelen. These products are available in select styles and can easily be added to new or existing vehicles to increase your safety when plowing in congested or busy areas.



Timbren Suspension Enhancement System

Timber Suspension Enhancement Systems help reduce sway, improve roll stability, cushion road shock and enhance the handling of your 4 x 4.



Nite Saber® II Lights

Meyer offers two snowplow light choices: Optional Nite Saber II lights are an upgrade to our standard Nite Saber I lights. Nite Saber II lights feature a four headlamp system, advanced complex reflectors, and high output harnessing. (see page 4 for further information). Nite Saber I lights are standard equipment on new Meyer mounts. They have a slim profile and a strong light output.



Meyer Products LLC
Patent #7,114,270
Other Patents Pending
For Patent Information,
See www.meyerproducts.com

FAST MOVING PARTS LIST

CUTTING EDGES - (STEEL)

8CE7.5 DAG-7.5
8CE8.0 DAG-8.0
8CE8.5 DAG-8.5
8CE9.0 DAG-9.0

CUTTING EDGE NUTS & BOLTS (STEEL)

08184 SET OF 9 AG-SERIES
8CEBB DAG-7.5/DAG-8.0

DAG MOLDBOARD ASSY.

811000003003 PIN 1-3/16 X 2-13/16"
20420 COTTER PIN 1/4 X 2"
09124 EYE BOLT W/LOCKNUT & CAP
07017 TRIP SPRING
84040 WEAR SHOE ASSY
20361 FLATWASHER 1"
811000224 5/16" LYNCH PIN

EZ MOUNT XPRESS® DIAMOND PAF

81036 DIAMOND XP PIVOT BAR
81037 DAG PLUS PUSH FRAME
8511002008036 CHAIN 5/16 X 36" PLATED
08852 PLOW MARKER KIT
20420 COTTER PIN 1/4 X 2"
22272 KING BOLT H 1-8 X 6-1/2 W/ GREASE FITTING
22273 PIVOT BOLT H 1-8 X 6-1/2
22274 SLOTTED HEX NUT 1-8
8518001026 U-BOLT
8501001007 HEX NUT 7/16-14

RUBBER EDGES W/HARDWARE

08189 AG-7.5
08190 AG-8.0
08191 AG-8.5
08192 AG-9.0

SNOWPLOW HARDWARE

09124 EYE BOLT & NUTS
07017 TRIP SPRING
08852 MARKER KIT AG / DAG
22375 PIVOT PIN W/GREASE FIT. 1 X 8-3/4" AG
22331 HEAX HEAD PIN 1 x 3-5/16" AG

RUNNERS & SPINDLES

22083 LINCHPIN
20363 WASHER AG
20361 WASHER DAG
20420 COTTER PIN 1/4" X 2"
12449 RUNNER SPACER AG
12394 MUSHROOM SHOE CASTING ASSY AG
84040 WEAR SHOE ASSY DAG

A-FRAMES

13735 XPRESS PUSH FRAME AG / DAG

PIVOT BARS / SECTORS

12360 PIVOT BAR AG
81036 PIVOT BAR DAG

POWER ANGLING CYLINDERS

05877 1-1/2" X 10" SAE-6 ANGLE RAM
05871 2-1/4" X 15" DA SAE-6 XPRESS MOUNTING RAM

ANGLING CYLINDER SEAL KITS

15964 SEAL KIT 1-1/2" X 10" SAE-6 ANGLE RAM
15962 SEAL KIT 2-1/4" X 15" DA SAE-6 XPRESS MOUNTING RAM

HOSE & HOSE FITTINGS

22461 HOSE ASSY. 1/4 X 38" M-6 FACE SEAL
 22420 HOSE ASSY. 1/4 X 33" M-6 FACE SEAL

COUPLER'S HOSE END (OPTIONAL)

22243 FEMALE COUPLER SAE-6
 22244 MALE COUPLER SAE-6

SNOW DEFLECTOR KITS (POLYETHYLENE)**FOR STEEL MOLDBOARDS**

12186 7.5 FT. LG. (AG-7.5)
 12040 8.0 FT. LG. (AG-8)
 12041 8.5 FT. LG. (AG-8.5)
 12042 9.0 FT. LG. (AG-9)

ELECTRIC/HYDRAULIC POWER

15254 E-68 BASIC SEAL KIT
 15978 E-68 MASTER SEAL KIT

MISC. POWER UNIT

15727 MOTOR (ISKRA) TWO TERMINAL E-68
 15854 BRUSH KIT - ISKRA
 15889 PUMP ASSEMBLY E-68
 15980 BASE & STRAINER. ASSY E-68

E-68 POWER UNIT PARTS

15925 A & B SOLENOID ASSY.
 15917 A & B VALVE CARTRIDGE
 15926 C & D SOLENOID ASSY.
 15918 C & D VALVE
 15927 E SOLENOID ASSY. E-68
 15919 E VALVE CARTRIDGE
 15916 A, B, C, D & E COIL

CONTROLLER

22693 CONTROLLER

HARNESS

22694 PLOW SIDE
 22691 TRIUCK SIDE

LIGHTS

07224 PLOW LIGHT - PASSENGER
 07225 PLOW LIGHT - DRIVER

**NOTE: ELECTRICAL REPLACEMENT PARTS LISTED ABOVE ARE FOR
 12 VOLT SYSTEMS ONLY.**

PAINT - TOUCH UP

07026 BLACK AEROSOL (1)
 08676 BLACK AEROSOL (12)
 07027 SNO-FLO AEROSOL (1) YE
 08677 SNO-FLO AEROSOL (12) YE
 07028 SNO-FLO BRUSH-ON .6 OZ. (1) YE
 08678 SNO-FLO BRUSH-ON .6 OZ.(12) YE
 07066 SNO-FLO - QT. (1) YE
 08686 SNO-FLO - QT. (12) YE

HYDRAULIC FLUID

15134 M-1 FLUID QUART
 15487 M-1 FLUID 12 QT. CASE

COUPLER'S HYDRAULIC SIDE (OPTIONAL)

22242 MALE COUPLER SAE-6
 22245 FEMALE COUPLER SAE-6

**VISIT WWW.MEYERPRODUCTS.COM
 FOR MORE INFORMATION**

MEYER@DIAMOND@ SNOW PLOWS
LIMITED WARRANTY EFFECTIVE AUGUST 1, 2006
(Continued from reverse side)

What Meyer Products Will Do:

Meyer Products will repair any product that proves to be defective in materials or workmanship. In the event repair is not possible or practical (as determined by Meyer Products in its sole discretion), Meyer Products will either replace the product with a new product of similar model and price, or refund the full purchase price, as determined by Meyer Products.

Customer Responsibilities:

Customer must keep the complete Snow Plow Package serviced/maintained as recommended by Meyer Products. A written record of service must be maintained, along with receipts for maintenance materials purchased. A copy of the maintenance record and pertinent receipts may be requested in the event of a claim.

How To Get Service:

In order to obtain service under this warranty, the original purchaser must:

- Use all reasonable means to protect the complete snow plow package from further damage;
- Return the claimed defective part to the Meyer@Diamond@ Distributor/Sub-Distributor from whom the product was purchased or to any authorized Meyer@Diamond@ Distributor/Sub-Distributor, transportation and freight charges prepaid. Only Meyer@Diamond@ Distributors/Sub-Distributors are authorized to perform the obligations under this warranty. For the address and telephone number of the Meyer@Diamond@ Distributor/Sub-Distributor nearest you, check the telephone directory, go to www.meyerproducts.com, write us at the address below, or call (216) 486-1313 for assistance;
- Provide maintenance record and receipts for required maintenance, if requested;
- Allow inspection of damaged parts and/or complete snow plow package if deemed necessary by Meyer Products.
- It is the responsibility of the original purchaser to establish the warranty period by verifying the original delivery date. A bill of sale/sales receipt, cancelled check or some other appropriate payment record may be kept for that purpose.

How State Law Applies:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

How to register your Meyer/Diamond Plow to receive the ROC Solid Warranty

Go to www.meyerproducts.com and click on the link to register your plow.
Fill out the information on the form as required.

The serial number location of the moldboard is shown in Figure 1.

The serial number location of the hydraulic unit is shown in Figure 2.
Fill out the remainder of the information to complete the registration.



Figure 1

Figure 2

MEYER PRODUCTS LLC
18513 Euclid Avenue • Cleveland, Ohio 44112-1084
www.meyerproducts.com • e-mail info@meyerproducts.com

MEYER®/DIAMOND® SNOW PLOWS LIMITED WARRANTY EFFECTIVE AUGUST 1, 2006

What is Covered:

Meyer Products, LLC, warrants to the original purchaser of Meyer® and Diamond® brand products that will be free from defects in materials or workmanship, with the exceptions stated below. No person is authorized to change this warranty or to create any additional warranty on Meyer®/Diamond® products.

How Long Coverage Lasts:

This warranty runs for a period of two years from the date of purchase on any purchase of a complete Snow Plow Package¹. If the Package is registered online at www.meyerproducts.com within sixty (60) days of purchase, your warranty for the Package will be extended for a period of one year and you will also receive a warranty for a period of five years from the date of purchase on Structural Steel². In addition to the warranties covering a complete Snow Plow Package and Structural Steel, you will receive a warranty for a period of one year from the date of purchase on individual parts, components, or accessories. All foregoing warranties apply only to an original purchaser of the product if the product is installed by an authorized Distributor/Sub-Distributor and terminate if the product is sold or otherwise transferred. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

What is Not Covered:

This warranty does not cover:

- Problems caused by failure to follow the product instructions, failure to maintain the product as described in the Operator's Manual, or failure to maintain proper levels of lubricants;
- Problems caused by contamination or restriction of lubricant systems, or damage resulting from rust, corrosion, freezing or overheating;
- Paint, or expendable snow plow parts such as pins, runners, cutting edges, chrome plating, springs and markers;
- Damage to any vehicle to which the products are mounted, or the suitability of any product for vehicles which are not fitted with the appropriate heavy-duty snow plow service preparation parts;
- Damage caused by usage that is not in accordance with product instructions (use of the snow plow for any purpose other than plowing snow is considered misuse and abuse);
- Any snow plow, or any part, component, or assembly thereof, which has been modified or altered;
- Problems caused by using accessories, parts, or components not supplied by Meyer Products;
- Cost of tax, freight, transportation or storage charges, environmental charges, solvents, sealants, lubricants or any other normal shop supplies.
- Problems caused by collision, fire, theft, vandalism, riot, explosion, lightning, earthquake, windstorm, hail, water, flood, or any other Acts of God;
- Liability for damage to property, or injury to, or death of any person arising out of the operation, maintenance or use of the covered product;
- Products with missing or altered serial numbers;

The original purchaser's sole and exclusive remedy against Meyer Products and its Distributors and Sub-Distributors, and Meyer Products' sole obligation for any and all claims, whether for breach of contract, warranty, tort (including negligence) or otherwise shall be limited to providing, through its authorized Distributor/Sub-Distributor network, all labor and/or parts necessary to correct such defects free of charge. Any cost incurred in returning the product to an authorized Meyer®/Diamond® Distributor/Sub-Distributor is the responsibility of the original purchaser. ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN TIME TO THE TERM OF THE LIMITED WARRANTY PERIOD. NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE LIMITED WARRANTY PERIOD HAS EXPIRED. Meyer Products disclaims liability beyond the remedies provided for in this limited warranty, and disclaims all liability for incidental, consequential, and special damages, including, without limitation, any liability for third-party claims against you for damages, for products not being available for use, or for lost profits. Meyer Products' liability will be no more than the amount you paid for the product that is the subject of a claim; this is the maximum amount for which we are responsible. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

¹A complete Snow Plow Package consists of the hydraulic motor, operating controller, lift-frame, moldboard and all related items.

²Structural elements consist of the mounting, lift-frame, A-frame, sector, and the moldboard.

(Continued on Reverse Side)