PLAY IT SAFE!

OPERATION, MAINTENANCE,
AND INSTALLATION,
MANUAL

FOR

M-1050XW

HORIZONTAL COMPACTOR

MARATHON®

VERNON, AL
1-800-633-8974

Marathon Equipment Co. OMI Manual No. 0044-M-1050XW-0420

CONTENTS

Copyright July 2000, Marathon Equipment Company

1 OPERATION

INTRODUCTION 1-1

THANK YOU FOR PURCHASING A MARATHON RAMJET HORIZONTAL COMPACTOR.

This product is designed to give you reliable service and superior performance for years to come. To guarantee top performance and the safest operation of the compactor, each person involved in the operation, maintenance, and installation of the compactor should read and thoroughly understand the instructions in this manual and follow all warnings.

Employers involved in operation, maintenance, and installation of compactor should read and understand the most current versions of all applicable standards:

ANSI Standard No. Z245.2, “Safety Requirements for Stationary Compactors ”

A copy of this standard may be obtained from:

ANSI
25 West 43rd Street
New York, NY 10036

OSHA 29 CFR, Part 1910.147,
“The control of hazardous energy (lockout/tagout)”

Any service or repairs that go beyond the scope of this manual should be performed by factory authorized personnel only.

IF YOU SHOULD NEED FURTHER ASSISTANCE, PLEASE CONTACT YOUR DISTRIBUTOR. YOU WILL NEED TO PROVIDE THE COMPACTOR SERIAL NUMBER, INSTALLATION DATE, AND ELECTRICAL SCHEMATIC NUMBER.

IF YOU HAVE ANY SAFETY CONCERNS WITH THE EQUIPMENT, OR NEED FURTHER INFORMATION, PLEASE CONTACT US AT:

Marathon Equipment Company
P.O. Box 1798
Vernon, Al 35592-1798
Attn: Field Service Department
1-800-633-8974

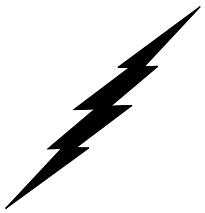
1 OPERATION

STAY CLEAR OF ALL INTERNAL PARTS OF THE COMPACTOR DURING OPERATION. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH!

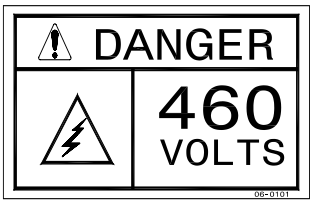
NEVER ENTER <u>ANY PART</u> OF THE COMPACTOR UNLESS THE DISCONNECT SWITCH HAS BEEN LOCKED-OUT AND TAGGED-OUT. See Lock-Out & Tag-Out instructions in the Maintenance section. Before starting the compactor, be sure no one is inside. Be certain that everyone is clear of all points of operation and pinch point areas before starting.

THE EMPLOYER SHOULD ALLOW ONLY AUTHORIZED AND TRAINED PERSONNEL TO OPERATE THIS COMPACTOR. This compactor is equipped with a key operated locking system. The key(s) should be in the possession of only authorized personnel.

DO NOT REMOVE ACCESS COVERS EXCEPT FOR SERVICING. Only authorized service personnel should be allowed inside. All access doors on the compactor body should always be secured in place when the unit is operating. **See Lock-Out & Tag-Out instructions in the Maintenance section.**

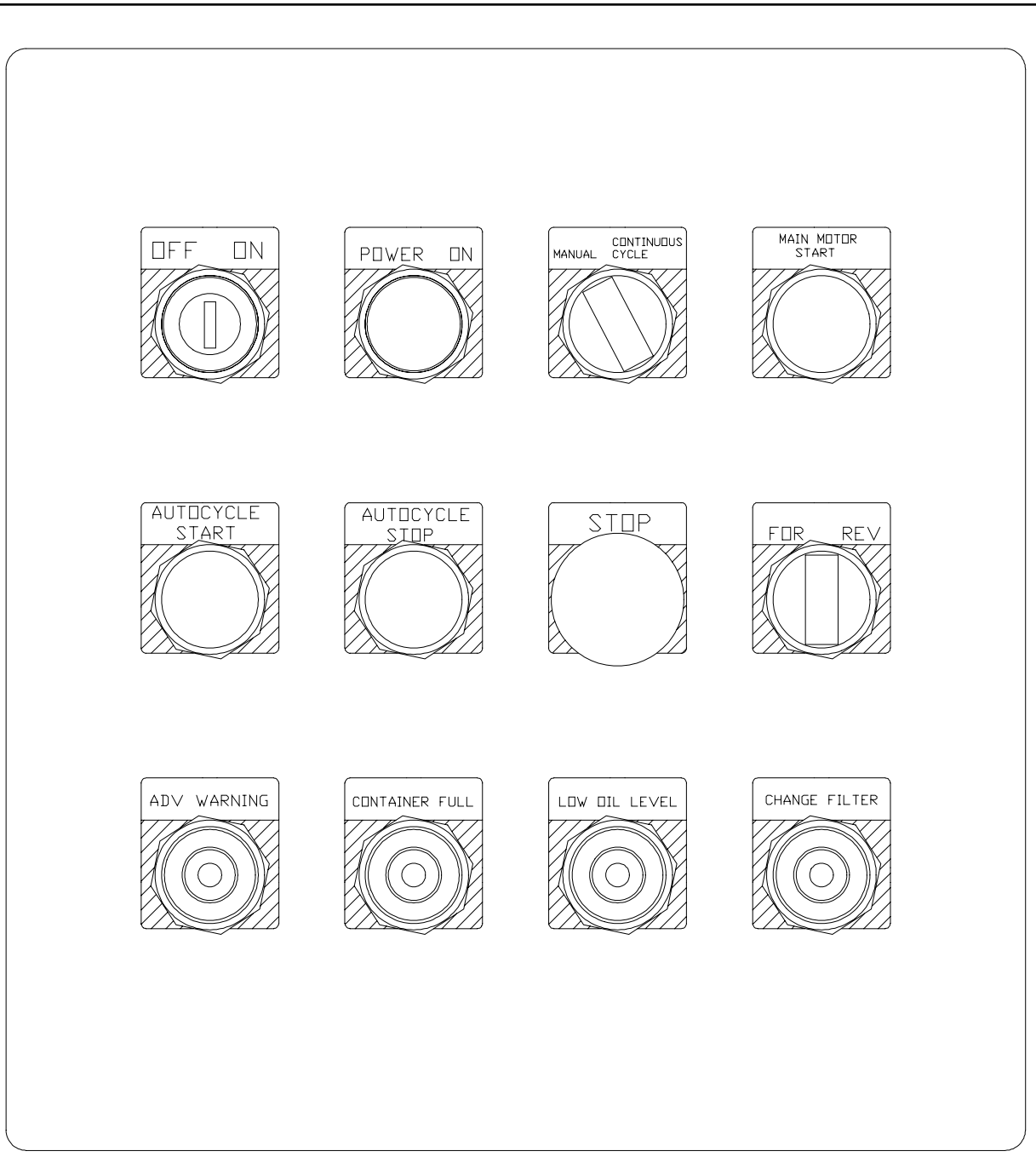


ONLY AUTHORIZED PERSONNEL SHOULD BE ALLOWED INSIDE THE PANEL BOX. The panel box contains high voltage components. **See Lock-Out & Tag-Out Instructions in the Maintenance section.**



FEDERAL REGULATION PROHIBITS OPERATION BY PERSONS UNDER 18 YEARS OF AGE.

CONTROLS 1-3



(Typical layout of controls.)

1 OPERATION

CONTROL DESCRIPTION 1-4

KEYED ON/OFF SWITCH - The key must be inserted into the key switch and turned to the ON position to allow voltage to the control panel.

POWER ON PUSH BUTTON - Pressing this button, after the key switch has been turned on, supplies voltage to the inputs and outputs for the programmable controller. This button will illuminate, and should stay illuminated.

MANUAL/CONTINUOUS CYCLE SELECTOR SWITCH - Sets the mode of operation. Turn the switch to MANUAL to operate the machine manually. Turn the switch to CONTINUOUS CYCLE to allow the machine to cycle continuously.

MAIN MOTOR START - This button must be pressed and held for 20 seconds to allow the main motor to start.
Note: The key switch must be in the ON position, and the POWER ON push button must be illuminated.

AUTOCYCLE START - With the MANUAL/CONTINUOUS CYCLE selector switch in CONTINUOUS CYCLE position, pressing this button sets the machine in the continuous cycle mode. The machine will cycle and continue to cycle until the container is full, or the AUTOCYCLE STOP switch is pushed.

AUTOCYCLE STOP - Pressing this button stops the machine from continuously cycling. The ram will stop, even in the middle of a cycle.

EMERGENCY STOP BUTTON - Stops the machine in the event of an emergency. This button can be used anytime the machine needs to stop. Pressing this button turns all input and output voltage OFF.

FORWARD/REVERSE - This switch is used in the manual mode. Turn the switch to the FORWARD position and the ram runs in the forward direction. Turn the switch to the REVERSE position, and the ram runs to the rearward position This switch is a spring return switch and must be held to continue its operation.

ADVANCE WARNING LIGHT - Illuminates when the container is nearly full.

CONTAINER FULL LIGHT - Illuminates when the container is full.

LOW OIL LEVEL LIGHT - Illuminates when the oil level is too low to continue operation.

CHANGE FILTER LIGHT - Illuminates when the return line filter is clogged and needs to be changed.

OPERATING INSTRUCTIONS - CONTINUOUS CYCLE 1-5

⚠ WARNING

Use ONLY Marathon reinforced receiver containers with Marathon M-Series Compactors. Use of a non-OEM receiver container with a Marathon M-Series Compactor could result in container damage, property damage, and/or personal injury – up to and including death.

Warning: Never enter any part of the compactor until it has been Locked Out and Tagged Out.

1. Place the material to be discarded into the charge chamber of the compactor.

2. Insert the key into the Key switch. Turn it clockwise to turn the power for the controls ON.

3. Press the POWER ON pushbutton. The POWER ON light should illuminate.

4. Press the MAIN MOTOR START pushbutton. This pushbutton will have to be pressed and held for 20 seconds. The start up alarm will sound for the first 5 seconds, and the red beacon will flash for the full 20 seconds, then the motor will start.
   NOTE: If the MAIN MOTOR START pushbutton is released before the motor starts, Step 4 will have to be repeated.

IN CASE OF EMERGENCY:
Push the large red button to STOP

5. Turn the MANUAL/CONTINUOUS CYCLE selector switch to the CONTINUOUS CYCLE position.

6. Press the AUTOCYCLE START pushbutton.

7. Continue Step 1.

NOTE: Compactor will continue to cycle until the refuse container is full.

OPERATING INSTRUCTIONS - MANUAL 1-6

⚠ WARNING

Use ONLY Marathon reinforced receiver containers with Marathon M-Series Compactors. Use of a non-OEM receiver container with a Marathon M-Series Compactor could result in container damage, property damage, and/or personal injury – up to and including death.

Warning: Never enter any part of the compactor until it has been Locked Out and Tagged Out.

1. Place the material to be discarded into the charge chamber of the compactor.

2. Insert the key into the Key switch. Turn it clockwise to turn the power for the controls ON.

3. Press the POWER ON pushbutton. The POWER ON LIGHT should illuminate.

4. Press the MAIN MOTOR START pushbutton. This pushbutton will have to be pressed and held for 20 seconds. The start up alarm will sound for the first 5 seconds, and the red beacon will flash for the full 20 seconds, then the motor will start.
   NOTE: If the MAIN MOTOR START pushbutton is released before the motor starts, Step 4 will have to be repeated.

IN CASE OF EMERGENCY:
Push the large red button to STOP

5. Turn the MANUAL/CONTINUOUS CYCLE selector switch to the MANUAL position.

6. Turn the FORWARD/REVERSE selector switch to the FORWARD position until the ram has moved to the full forward position. Release the FORWARD switch.

7. Turn the FORWARD/REVERSE selector switch to the REVERSE position until the ram has moved to the fully retracted position. Release the REVERSE switch.

8. Repeat Step 1, Step 6, and Step 7 until the refuse container is full.

DECALS 1-7

WARNING DECAL REQUIREMENTS

When your compactor leaves the factory and is installed, several SAFETY DECALS are installed. These decals are for everyone's protection. **THESE DECALS MUST BE MAINTAINED**. Additional decals may be purchased through your distributor.

Decal Number 06-0002 - MARATHON EQUIPMENT COMPANY

Decal Number 06-0038 - CAUTION: DO NOT REMOVE ACCESS COVER EXCEPT FOR SERVICING. TURN CONTROL PANEL KEY SWITCH TO OFF POSITION AND REMOVE KEY.

Decal Number 06-0039 - DANGER: DO NOT ENTER.

Decal Number 06-0040 - CAUTION: KEEP OUT.

Decal Number 06-0043 - DANGER: 208 VOLTS or

Decal Number 06-0044 - DANGER: 230 VOLTS or

Decal Number 06-0045 - DANGER: 460 VOLTS

Decal Number 06-0101 - DANGER: 460 VOLTS or

Decal Number 06-0102 - DANGER: 230 VOLTS or

Decal Number 06-0103 - DANGER: 208 VOLTS

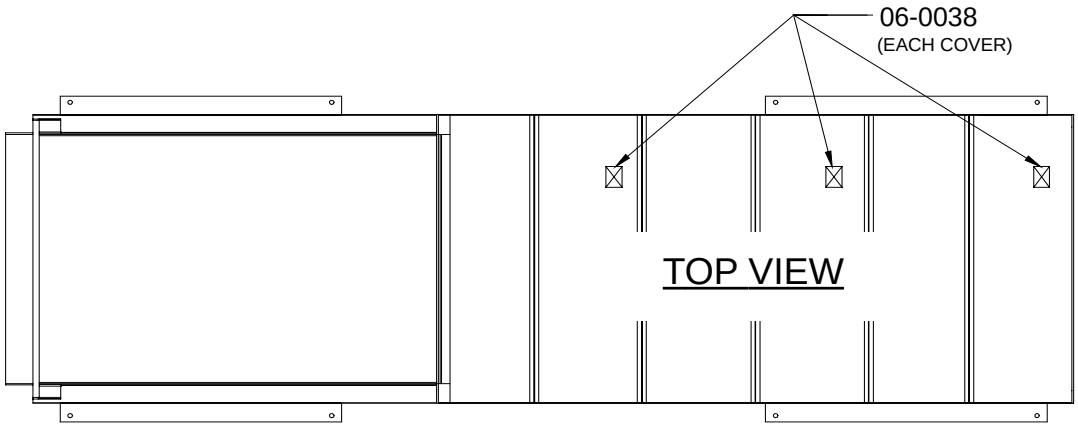
Decal Number 06-0121 - NOTICE: FEDERAL REGULATIONS PROHIBIT OPERATION OF THIS EQUIPMENT BY PERSONS UNDER 18 YEARS OF AGE.

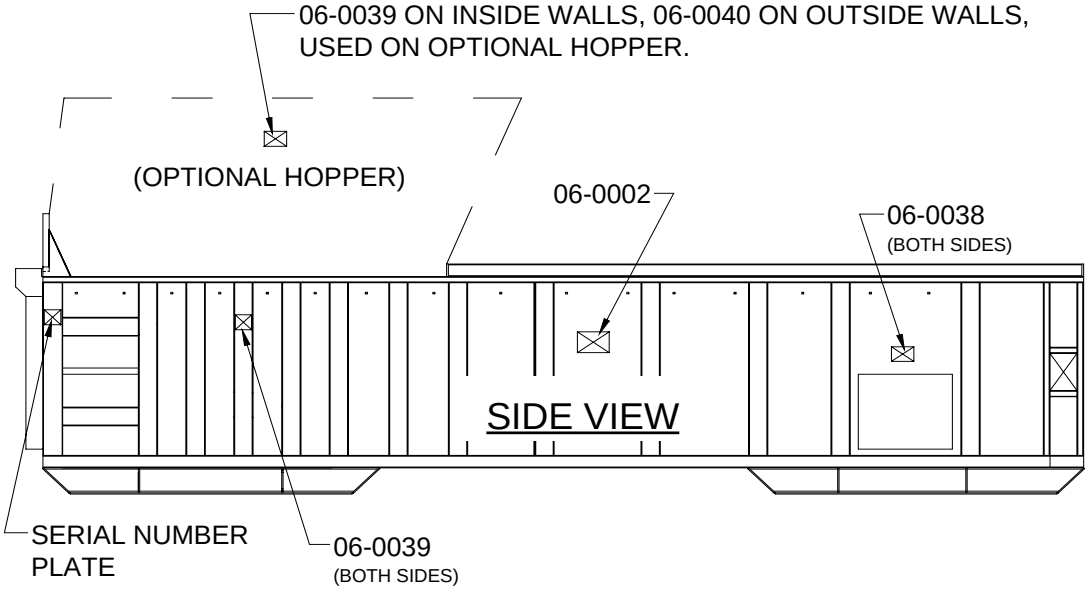
Decal Number 06-0129 - NOTICE: PERIODIC MAINTENANCE IS REQUIRED AND IS YOUR RESPONSIBILITY.

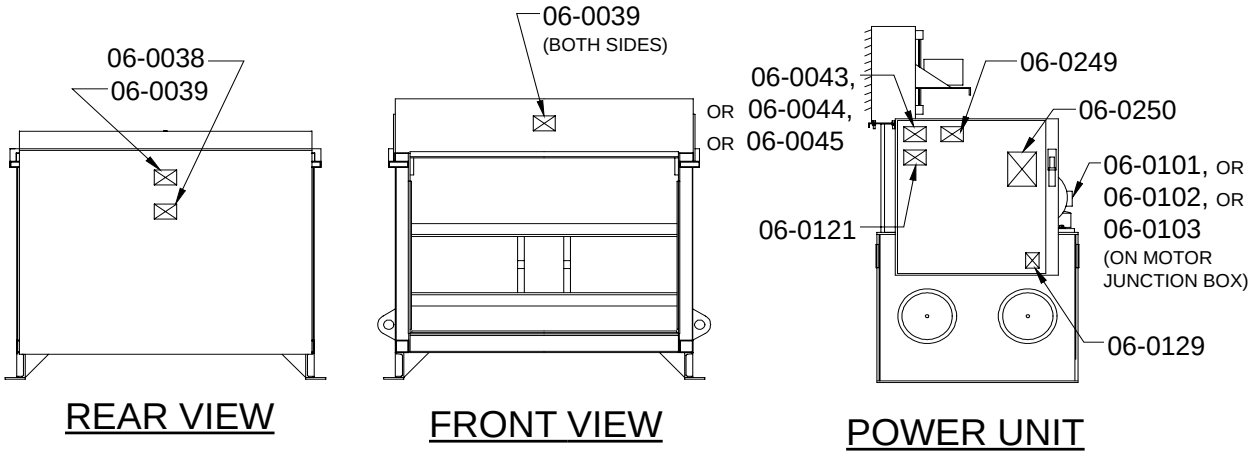
Decal Number 06-0249 - DANGER: LOCK OUT AND TAG OUT POWER BEFORE...

Decal Number 06-0250 - LOCK OUT POINT DANGER...

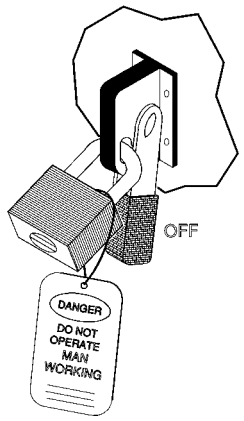
DECAL PLACEMENT 1-8







LOCK-OUT & TAG-OUT INSTRUCTIONS 2-1



Before entering any part of the compactor, be sure that all sources of energy have been shut off, all potential hazards have been eliminated, and the compactor is locked-out and tagged-out in accordance with OSHA and ANSI requirements.

If the ram is pressing against a load, move the ram rearward before shutting the compactor down. The specific lock-out and tag-out instructions may vary from company to company (i.e. multiple locks may be required, or other machinery may need to be locked-out and tagged-out). The following instructions are provided as minimum guidelines.

INSTRUCTIONS

1. Move the main disconnect lever to the OFF position.

2. Padlock the disconnect lever with a keyed padlock and take the key with you.

3. Along with the padlock, place an appropriate, highly visible, warning tag on the disconnect lever. The tag should provide a warning such as: "Danger: Do not operate equipment. Person working on equipment. Warning: Do not energize without the permission of _____."

4. After locking and tagging the compactor, try to start and operate the compactor (as outlined in the Operating Instructions) to make sure the lock-out and tag-out is effective. If the lock-out and tag-out is effective, remove the key from the key switch and take with you.

ELECTRICAL: The panel box contains high voltage components. Only authorized service personnel should be allowed inside the box. Authorized service personnel should be allowed inside the box only after the compactor has been locked-out and tagged-out.

HYDRAULIC: Stored hydraulic energy must be removed from the compactor hydraulic circuit for complete lock-out and tag-out. Make sure that all personnel are clear of the compaction area. To remove pressure from the system, make sure that the ram is not pressing against a load. Manually depress the solenoid valve pin located in the center of each solenoid on the directional control valve on the power unit and hold the pin for a couple of seconds.

2 MAINTENANCE

PERIODIC MAINTENANCE 2-2

WARNING: NEVER ENTER ANY PART OF THE COMPACTOR UNTIL THE UNIT HAS BEEN LOCKED OUT AND TAGGED OUT.

DAILY

1. Check oil level in reservoir. Level should be 3/4 of the sight gauge with the ram retracted fully.
2. Check for oil leaks.
3. Check oil filter indicator on the power unit reservoir. Change filter if necessary.
4. Check for any unsafe conditions in the compactor area.

WEEKLY

1. Clean air breather on reservoir.
2. Visually inspect oil filter indicator.
3. Verify proper operation of the photocell (if applicable).

MONTHLY

1. Check for any unsafe condition such as exposed electrical lines or operator obstructions in the operating area.
2. Check external hoses for chafing, rubbing, or other deterioration and damage.
3. Lubricate the ram hold down bars using an all purpose grease.
4. Check unit for cracked welds, bowing, and structural deterioration.
5. Remove cleanout cover(s) from the side(s) of the compactor body. Clean out the debris from behind the ram. Replace cover(s) when cleanout is complete.

THREE MONTHS

1. Check hydraulic cylinder, internal hoses, and connections for leakage: check hoses for chafing and wear.
2. Check all decals to be sure they all are readable and in good condition.

SIX MONTHS

1. Change return oil filter.
2. Send oil sample out for evaluation. Change if required. See recommended oils on the next page.
3. Check the compactor structure for cracked welds or other damage.
4. Check motor starter contacts on the motor starter in the panel box.

PERIODIC MAINTENANCE 2-3

ANNUALLY

1. Change the hydraulic oil or filter it twice through a 3 micron filter. If the oil is filtered, a sample should be analyzed and additives mixed with the oil if required.
2. Lubricate the electric motor bearings per the manufacturers suggestions.
3. Check the cylinder pins for wear. Rotate the cylinder rod 180 degrees.

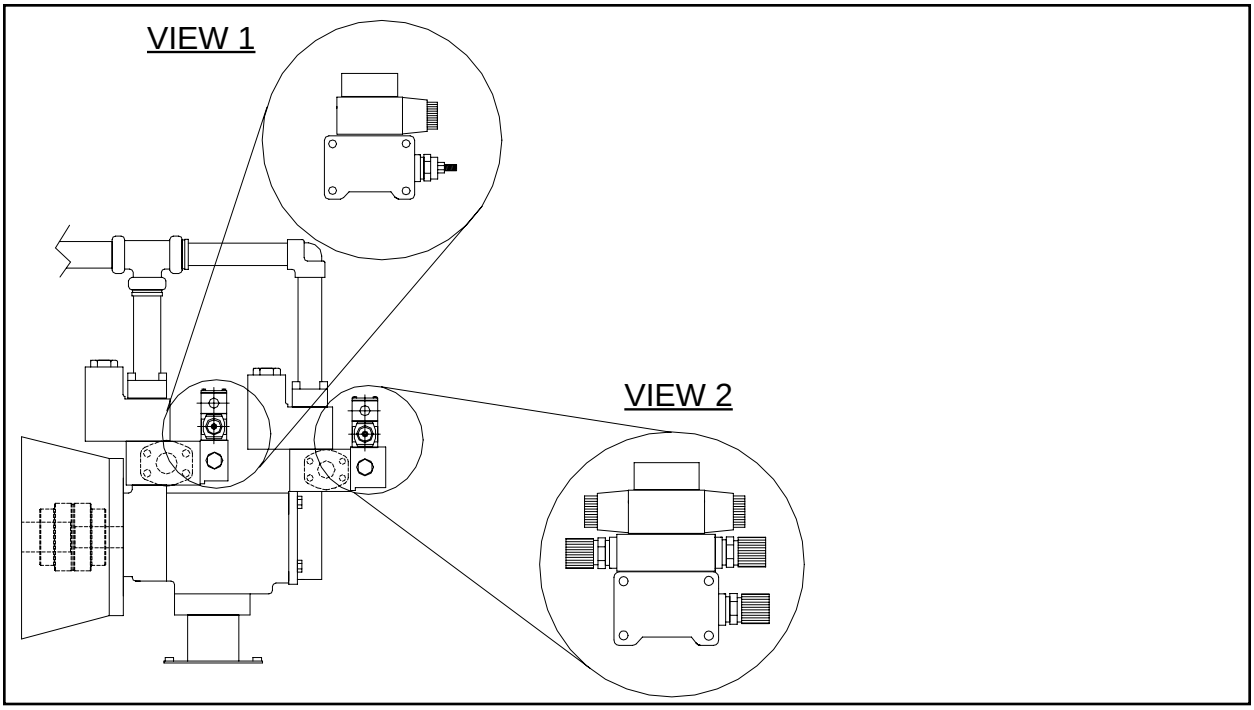
FILTER MAINTENANCE

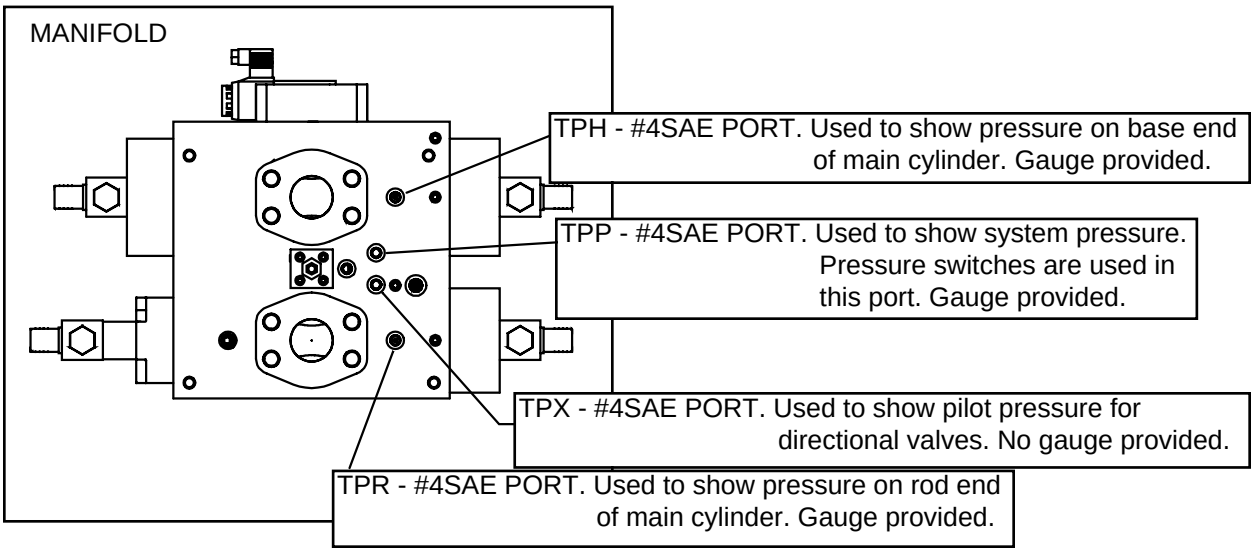
1. The hydraulic filter(s) should be cleaned at regular yearly intervals.
2. The filter may be removed from the unit by disconnecting the union on the suction side of the pump, removing the four bolts retaining the suction flange, and lifting the filter from the reservoir. Units with multi-sectioned pumps may be removed by removing the four bolts from the pump flange and the four bolts on the suction flange.
3. Care should be exercised in cleaning the filter to insure that the element is not torn. Clean the element with a soft brush and standard industrial solvent.
4. Replace the filter after cleaning and tighten the connections securely. Pump noise and a "crackle" sound is most often caused by air entering the pump suction line. Tightening the suction fittings will usually eliminate the problem.
5. For units with external return line filters, these filters should be replaced when performing filter maintenance.

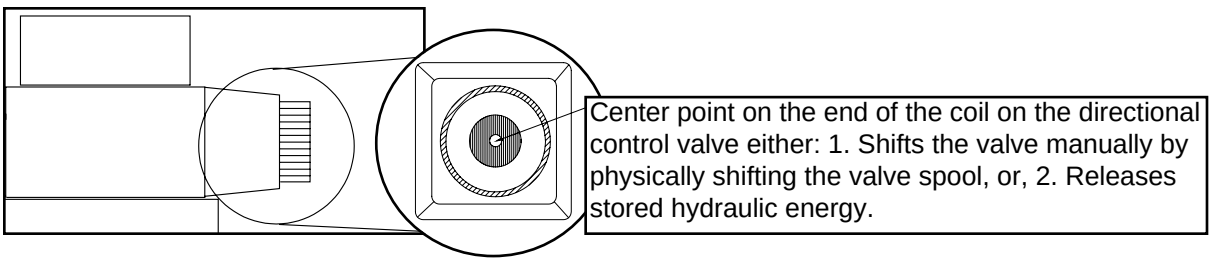
RECOMMENDED OILS

1. Union - Unax-46, Unax-AW46
2. Gulf - Harmony 47, Harmony 48-AW
3. Exxon - Teresstic 46, Nuto 46
4. Texaco - Rando 46
5. Chevron - AW 46
6. Shell -Turbo 46, Tellus 46
7. Quaker State - Dextron ll (ATF)
8. Citgo - Pacemaker 46, Tellus - AW46
9. Amoco - (Rycon)

PRESSURE SETTINGS - 50HP/125GPM 2-4







PRESSURE SETTINGS - 50HP/125GPM (continued) 2-5

The following adjustments will need to be made with the power unit running.
See M-1050 START-UP SEQUENCE and PRE OPERATING INSTRUCTIONS.

STEP 1

ADJUSTING SYSTEM PRESSURE RELIEFS and PRESSURE SWITCHES

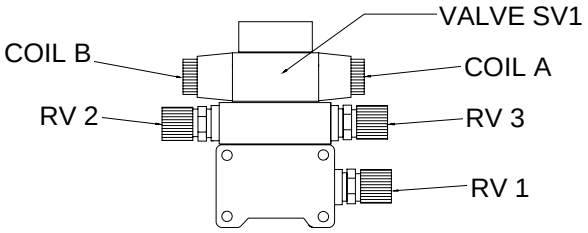
ADJUSTMENT FOR RV2

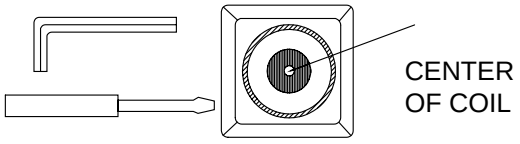
Using View 2 as reference, loosen the (3) three locking screws on the sides of the adjustment knobs of RV1, RV2 and RV3 with a 5/64" allen wrench. Remove the small caps from the pressure switches using a small phillips head screwdriver. Using a small blade screwdriver, or allen wrench, press the actuator in the center of Coil A to adjust RV2. The RV2 adjustment knob can be turned clockwise to increase the pressure, or counter clockwise to decrease the pressure. Adjust RV2 to
750 psi. While holding RV2 at 750 psi, adjust the regen pressure switch until the input light on the programmable controller comes on (refer to your electrical schematic for the correct input). Pressure on RV2 should then be adjusted to 2200 psi. While holding this pressure, adjust the advance warning pressure switch until the input light comes on (refer to your electrical schematic for the correct input). Now adjust RV2 to 2500 psi and adjust the container full pressure switch until the input light comes on (refer to your electrical schematic for the correct input). When this input light comes on, the machine will run for 5 seconds and shut down. Release the actuator of the coil, and restart the machine. Press the actuator of Coil A again to test setting.

These pressures can be read at the pressure gauge in port TPP of the manifold.

Note: Pressure on RV1 may have to be increased before RV2 can be set.

VIEW 2





ADJUSTMENT FOR RV1 AND RV3

Restart the machine. Remove the top of the container full pressure switch to prevent the machine from shutting down. Using VIEW 2 as reference, turn RV1 adjustment knob clockwise to the fully closed position. Using a small blade screwdriver, or allen wrench, press the actuator in the center of Coil B. Adjust RV3 by turning the adjustment knob clockwise to increase the pressure, or counter clockwise to decrease the pressure. RV3 should be set at, and not to exceed 3000 psi. This pressure can be read at the pressure gauge in port TPP of the manifold. Release the actuator of the coil, and press again to test setting. While holding 3000 psi, adjust RV1 counter clockwise until the pressure starts to drop. Turn RV1 clockwise to increase the pressure back up to 3000 psi.

After these settings have been made, tighten the (3) three locking screws on the sides of the adjustment knobs of RV1, RV2, and RV3. Replace pressure switch top and covers.

PRESSURE SETTINGS - 50HP/125GPM (continued) 2-6

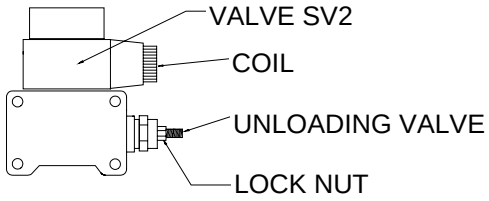
PRESSURE SETTINGS AND ADJUSTMENT - 50 hp (CONTINUED)

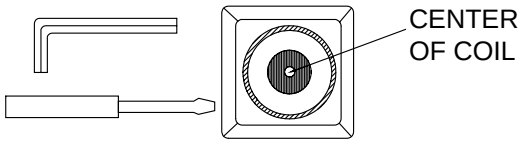
STEP 2

ADJUSTING UNLOADING PRESSURE FOR HI-FLOW PUMP.

Using VIEW 1 as reference, Using a small blade screwdriver or allen wrench, press the actuator in the center of the coil, shifting the valve spool. Turn the adjustment knob clockwise to increase the pressure, or counter clockwise to decrease the pressure. This pressure should be set at 750psi. Using the gauge in the TPP port of the manifold, adjust the pressure up or down as needed. After this adjustment is made tighten lock nut on adjustment screw.

VIEW 1

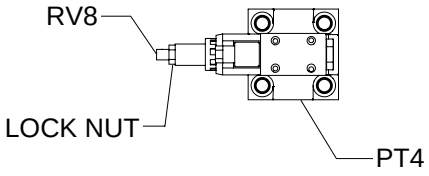




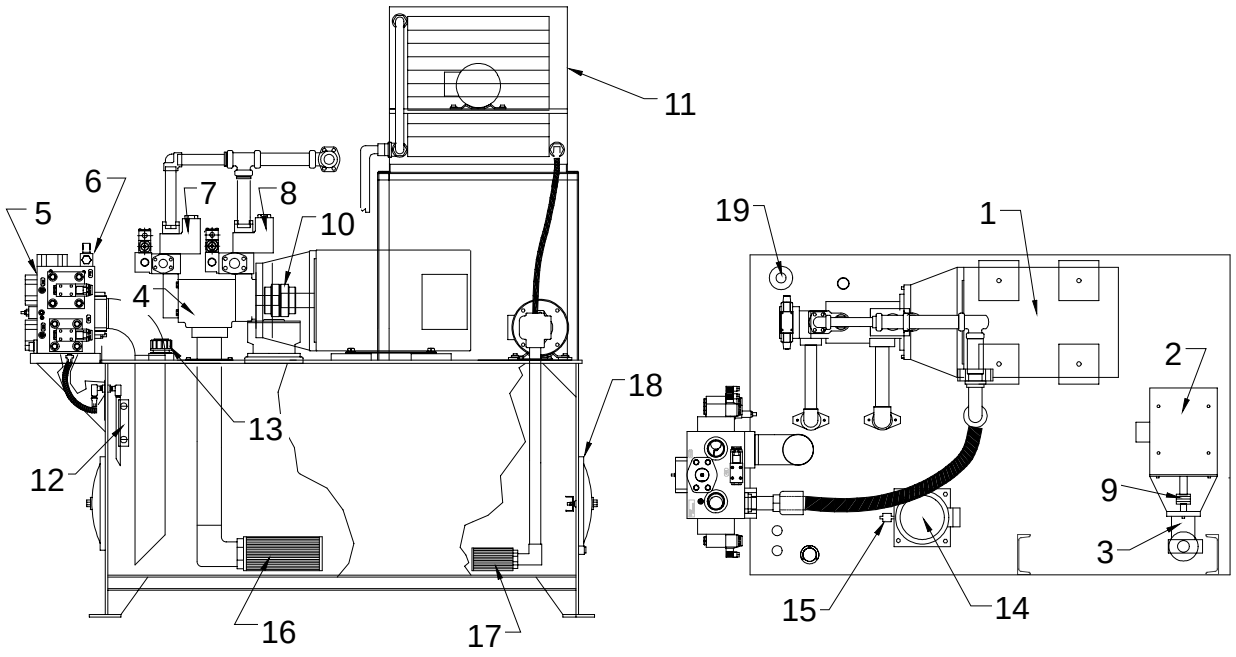
STEP 3

ROD PORT RELIEF

This setting needs to be done with the main ram in the fully retracted position.
Loosen the lock nut on RV8 on the manifold. Remove the rear limit switch. Turn the MANUAL/CONTINUOUS CYCLE SWITCH to the MANUAL position. Turn and hold the FOR/REV switch to the REV position to retract the ram. Using the pressure gauge in port TPR on the main manifold, adjust RV8 on the PT4. This setting should be, and not exceed 2000 psi. When the pressure is set, release the FOR/REV switch. Tighten the lock nut on RV8 and replace the limit switch.

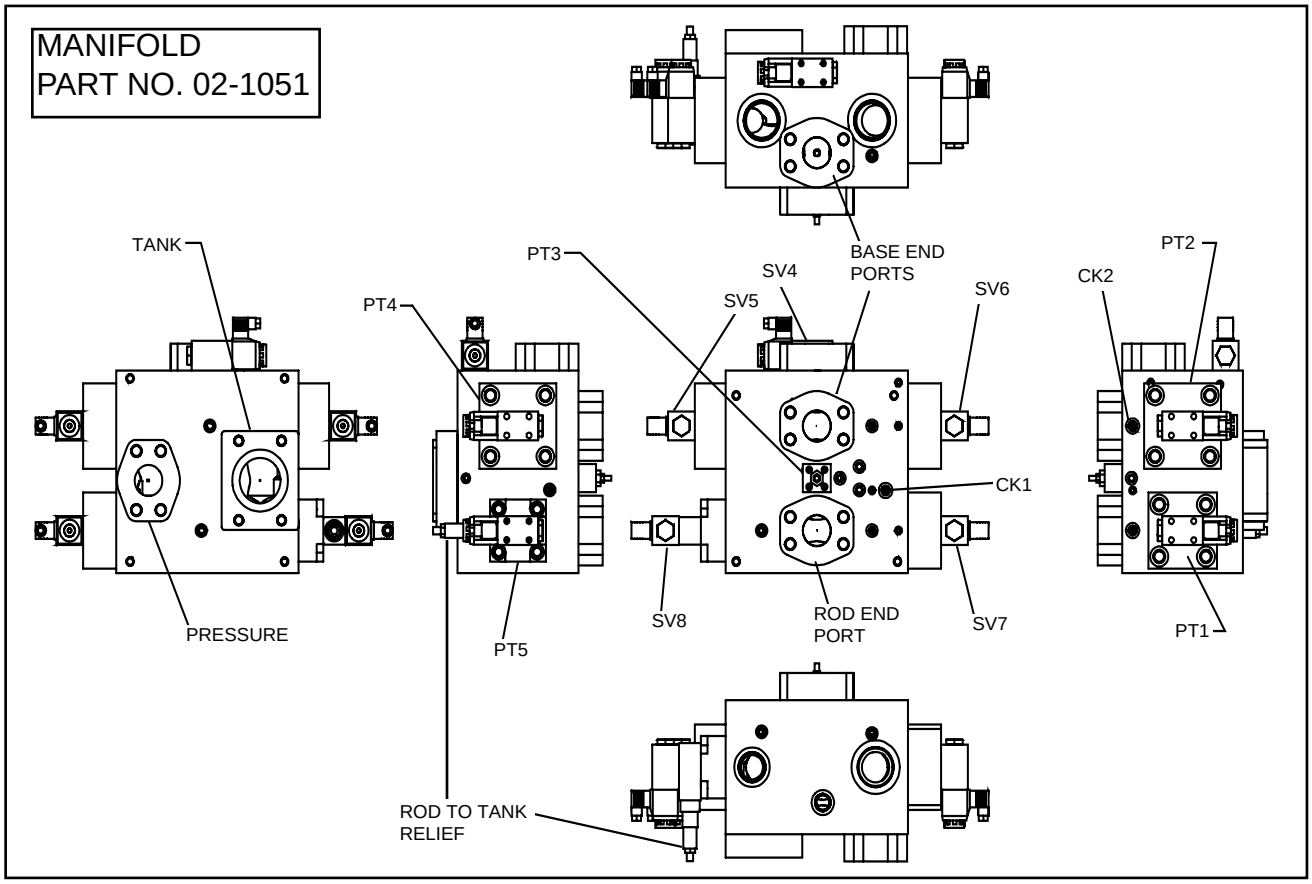


POWER UNIT - 50HP/125GPM 2-7



REF#	PART #	DESCRIPTION	REF #	PART #	DESCRIPTION
1.	03-0675	MOTOR, 50 HP	11.	02-0804	OIL COOLER
2.	03-1265	MOTOR, 3 HP	12.	02-0215	SIGHT GAUGE
3.	02-0259	PUMP, 18GPM GEAR	13.	02-0647	OIL FILL CAP
4.	99-7879	PUMP, 125GPM VANE	14.	99-7698	RETURN LINE FILTER ELEMENT
5.	02-1051	MANIFOLD	15.	02-0772	RETURN LINE PRESSURE SWITCH
6.	02-0297	VALVE	16.	02-1053	SUCTION FILTER
7.	02-0816	CHECK VALVE	17.	02-0051	SUCTION FILTER
8.	02-0814	UNLOADING VALVE	18.	02-0823	CLEAN OUT COVER
9.	02-0276	HUB COUPLING	19.	02-0885	BREATHER FILTER
10.	02-0811	HUB COUPLING			

MANIFOLD 2-8



PT1- Rod end pressure poppet. Controls fluid flow to the rod end of the cylinder.

PT2- Base end pressure poppet. Controls fluid flow to the base (head) end of cylinder.

PT3- Decompression poppet. Controls how fast the high pressure is released from the base end ports before the cylinder can be retracted.

PT4- Base end to tank poppet. Controls fluid flow from the base (head) end of the cylinder back to the tank.

PT5- Rod end to tank poppet. Controls fluid flow from the rod end of the cylinder back to the tank.

SV4- 4-way valve. Opens and closes the decompression poppet (PT3).

SV5- 4-way valve. Opens and closes the base end to tank poppet (PT4).

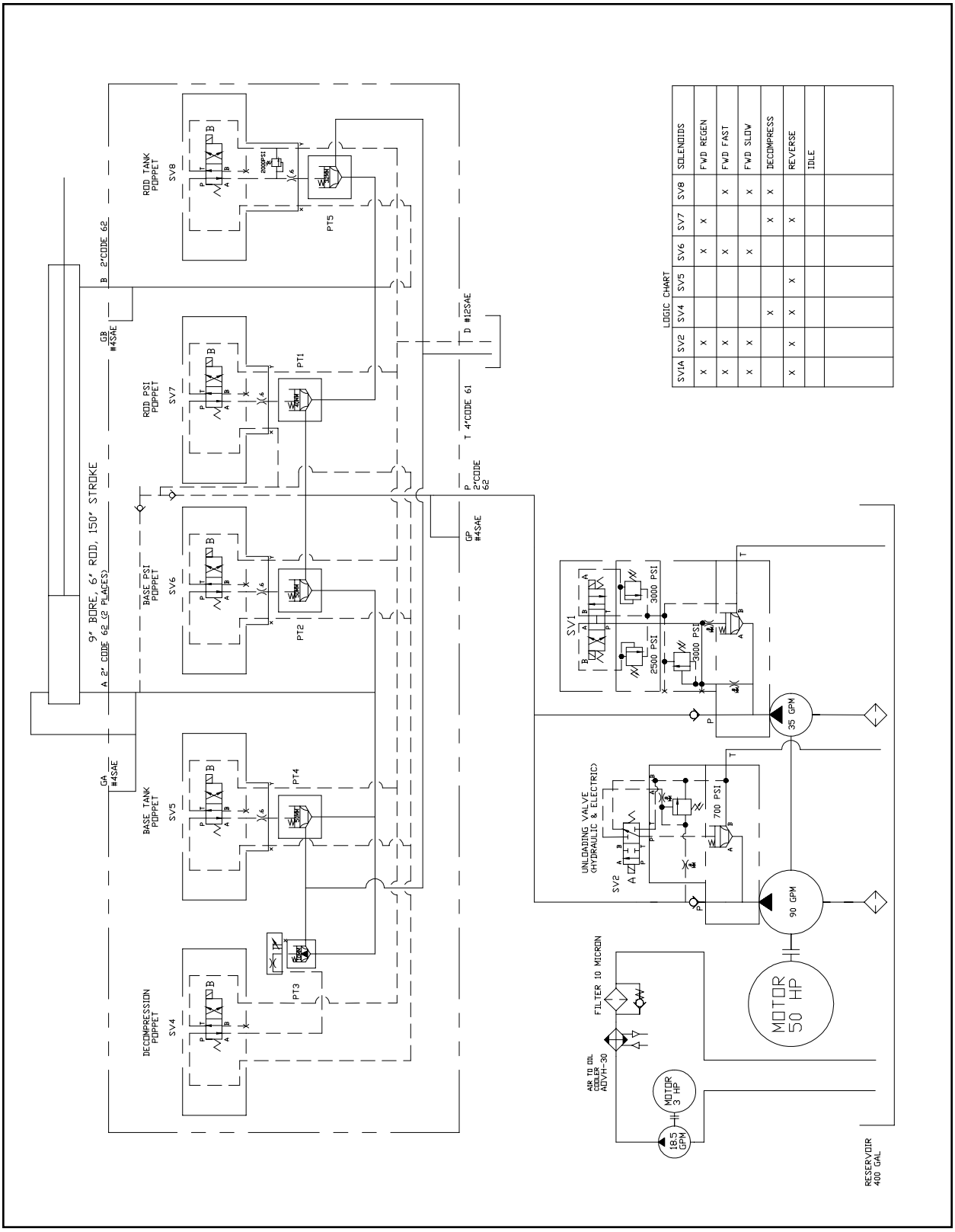
SV6- 4-way valve. Opens and closes the base end pressure poppet (PT2).

SV7- 4-way valve. Opens and closes the rod end pressure poppet (PT1).

SV8- 4-way valve. Opens and closes the rod end to tank poppet (PT5).

CK1 & CK2- Check valves. Check the flow of pilot pressure in the manifold.

HYDRAULIC SCHEMATIC - 50HP/125GPM 2-9

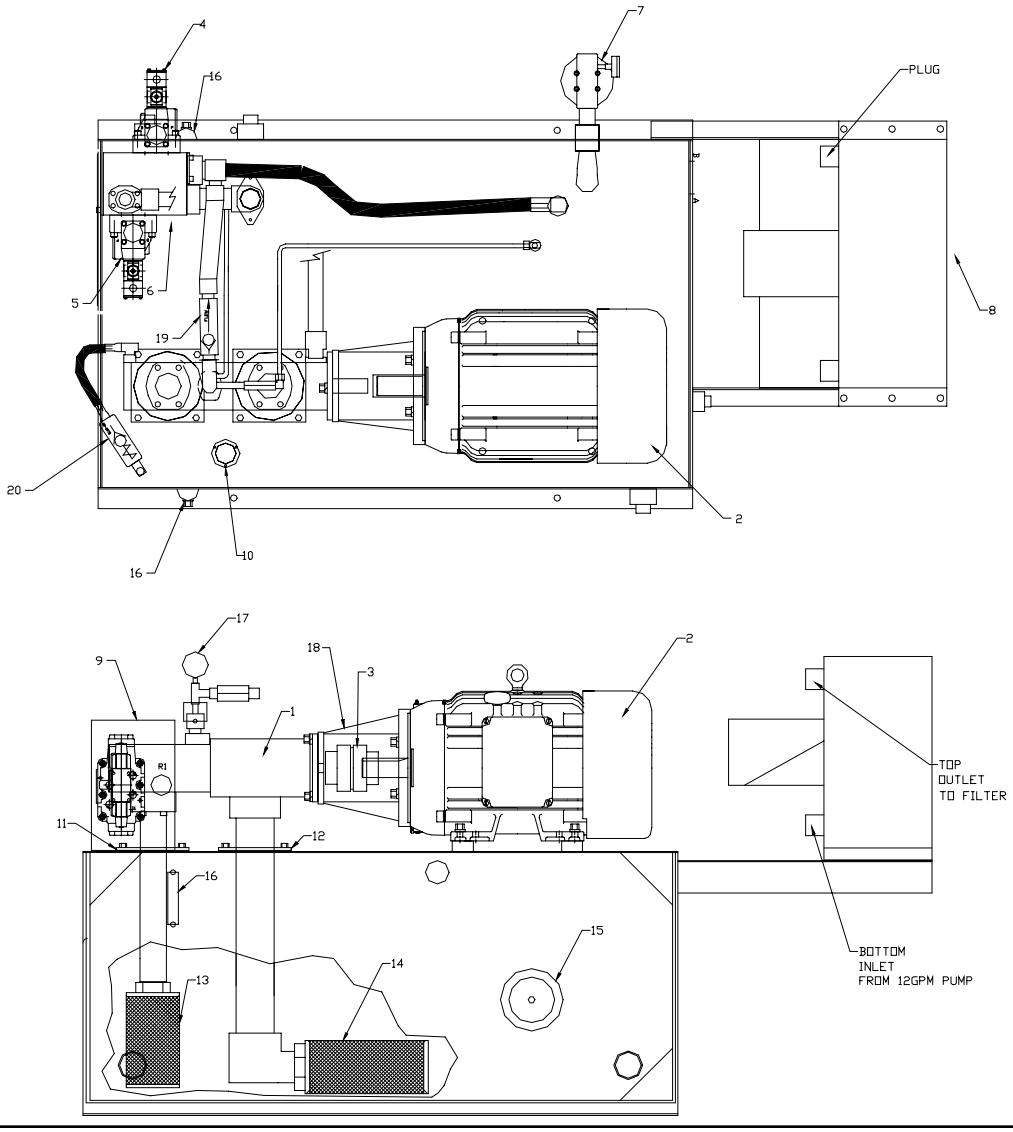


PRESSURE SETTINGS - 30HP/75GPM 2-10

The following adjustments will need to be made with the power unit running.
See M-1050 START-UP SEQUENCE and PRE OPERATING INSTRUCTIONS.

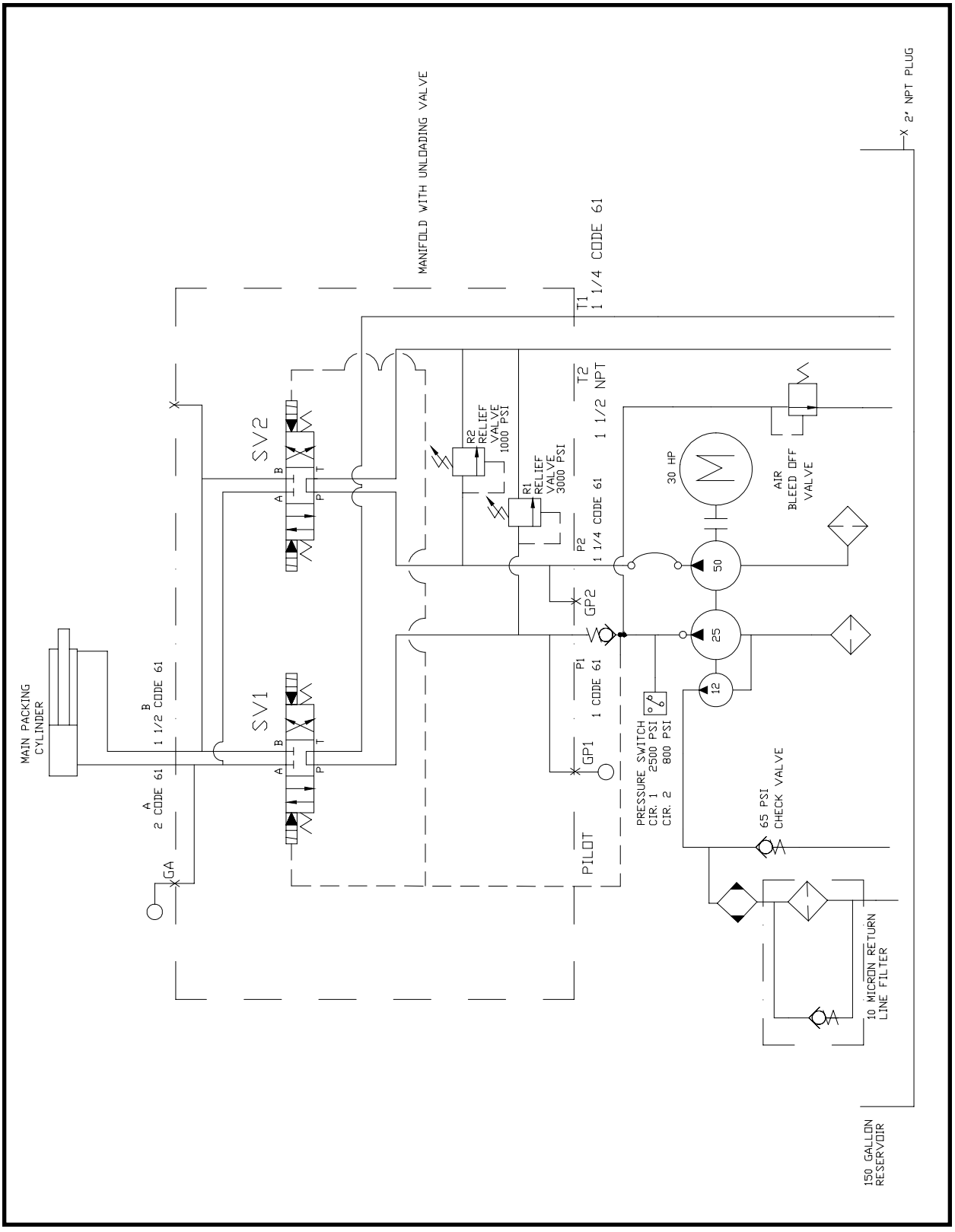
1. Loosen the lock nuts on R1 and R2.
2. Remove the caps from the top of the Pressure Switches.
3. Remove the front limit switch.
4. Turn the MANUAL/CONTINUOUS CYCLE selector switch to the MANUAL position.
5. Turn the FOR/OFF/REV switch to the FORWARD position and hold.
6. Adjust R1 to 800 psi. While continuing to hold 800 psi adjust the Pressure Switch Circuit 2 clockwise until the input light on the programmable controller comes on (refer to your electrical schematic for the correct input).
7. Adjust R1 to 1000 psi. While continuing to hold 1000 psi adjust R2 until the high flow pump drops out. When the high flow pump drops out there will be a distinctive difference in the sound the pump makes. You may want to adjust R2 in and out several times to get this setting as close as possible. When R2 is has been set, tighten R2 lock nut.
8. Adjust R1 to 2500 psi. While continuing to hold 2500 psi adjust the Pressure Switch Circuit 1 clockwise until the input light on the programmable controller comes on (refer to your electrical schematic for the correct input). After the input light comes on the machine will run for 5 seconds and shut down.
9. Loosen the top of on the Pressure switch to prevent the machine from shutting down. Restart the machine.
10. Adjust R1 to 3000 psi. Tighten R1 lock nut.
11. Replace the top and caps on the pressure switch.
12. Replace the front limit switch.

POWER UNIT - 30HP/75GPM 2-11



REF#	PART #	DESCRIPTION	REF #	PART #	DESCRIPTION
1.	02-3019	Pump, 75gpm	11.	02-0620	Suction Flange, 2 1/2"
2.	03-1179	Motor, 30hp	12.	02-0621	Suction Flange, 3"
3.	02-0664	Hub Coupling	13.	02-0623	Suction Filter, 2 1/2"
4.	02-3021	Valve	14.	02-0668	Suction Filter, 3"
5.	02-0667	Valve	15.	02-0219	Clean Out Cover
6.	02-0645	Relief Valve	16.	02-0215	Sight Gauge
7.	02-3015	Return Line Filter	17.	02-0700	Pressure Gauge
8.	02-0863	Oil Cooler	18.	02-0662	Pump/Motor Adapter
9.	02-3022	Manifold	19.	02-1031	Check Valve
10.	02-0647	Breather	20.	02-0970	Check Valve

HYDRAULIC SCHEMATIC - 30HP/75GPM 2-12



CHARTS - 30HP/75GPM POWER UNIT 2-13

FUSES AND CIRCUIT BREAKERS

THREE PHASE

MOTOR SIZE	VAC			
	208	230	460	575
30 HP FLA (MAIN MOTOR)	88	80	40	32
1 HP FLA (FAN MOTOR)	4.6	4.2	2.1	1.7
FUSE DUAL ELEMENT MAX. SIZE	150	125	70	50
INVERSE TIME BREAKER	200	200	100	80
SERVICE DISCONNECT AMP.	200	200	100	60
WIRE SIZE				
100’	#2	#2	#6	#8
200’	1/O	#1	#6	#8
300’	3/O	2/O	#4	#6

Wire size based on 75 deg. C. temperature rating of insulation.
30 deg. C.(86 deg. F.) ambient temperature.

NOTE: The fuse, circuit breaker, and disconnect sizes may change if a conveyor is used. Please contact **MARATHON EQUIPMENT COMPANY** Technical Service Department, at 1-800-633-8974, for correct sizes.

CHARTS - 50HP/125GPM POWER UNIT 2-14

FUSES AND CIRCUIT BREAKERS

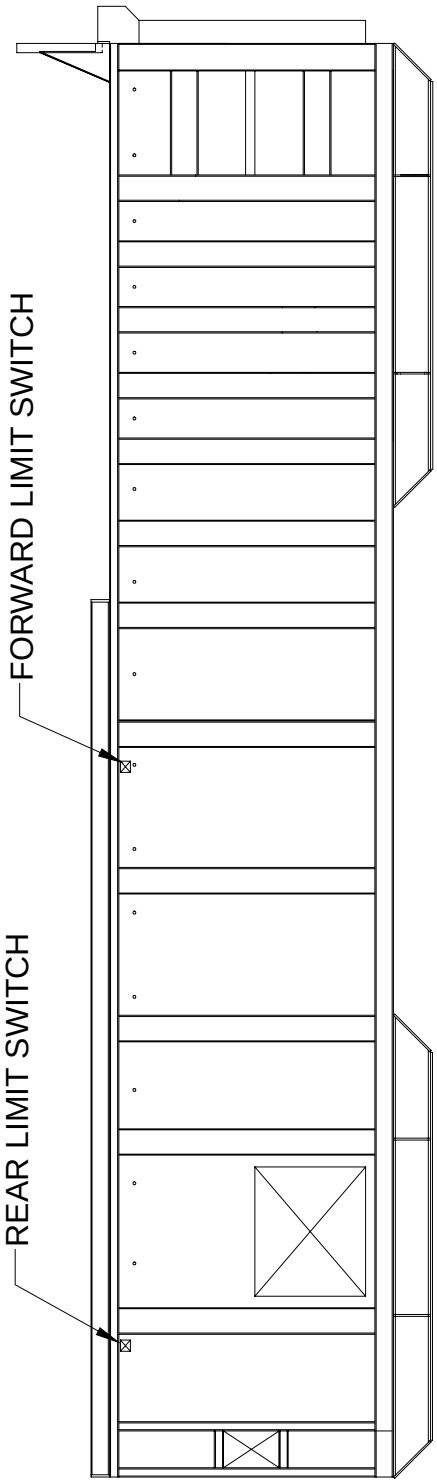
THREE PHASE

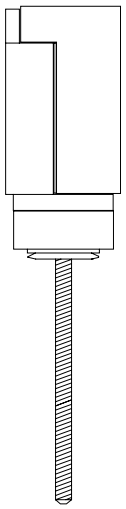
MOTOR SIZE	VAC			
	208	230	460	575
50 HP FLA (MAIN MOTOR)	143	130	65	52
3 HP FLA (COOLER MOTOR)	10.6	9.6	4.8	3.9
1 HP FLA (FAN MOTOR)	4.6	4.2	2.1	1.7
FUSE DUAL ELEMENT MAX. SIZE	250	225	100	90
INVERSE TIME BREAKER	350	350	175	125
SERVICE DISCONNECT AMP.	400	400	100	100
WIRE SIZE				
100’	3/0	3/0	#3	#4
200’	3/0	3/0	#3	#4
300’	4/0	4/0	#2	#4

Wire size based on 75 deg. C. temperature rating of insulation.
30 deg. C.(86 deg. F.) ambient temperature.

NOTE: The fuse, circuit breaker, and disconnect sizes may change if a conveyor is used. Please contact **MARATHON EQUIPMENT COMPANY** Technical Service Department, at 1-800-633-8974, for correct sizes.

LIMIT SWITCHES 2-15





LIMIT SWITCH
WHISKER TYPE
03-0903

NOTE: Adjustment on limit switches is to stop the ram 3/4" from the end of the cylinder stroke, Forward and Rearward.

3 INSTALLATION

CONCRETE PAD REQUIREMENTS 3-1

CAUTION:

REVIEW THIS MANUAL BEFORE STARTING THE INSTALLATION. STUDY THE JOBSITE AND INSTALLATION REQUIREMENTS CAREFULLY TO BE CERTAIN ALL NECESSARY SAFEGUARDS AND OR SAFETY DEVICES ARE PROVIDED TO PROTECT ALL PERSONNEL AND EQUIPMENT DURING THE INSTALLATION AND AS A COMPLETED SYSTEM. SPECIAL ATTENTION IS DIRECTED TO THE EXTRACT FROM AMERICAN NATIONAL STANDARDS INSTITUTE Z245.2 . A copy may be obtained from Marathon Equipment Company.

Marathon Equipment Co. does not assume responsibility for the installation procedures of this equipment. Conformance to applicable local, state, and federal laws concerning installation rests with the customer.

CONCRETE PAD

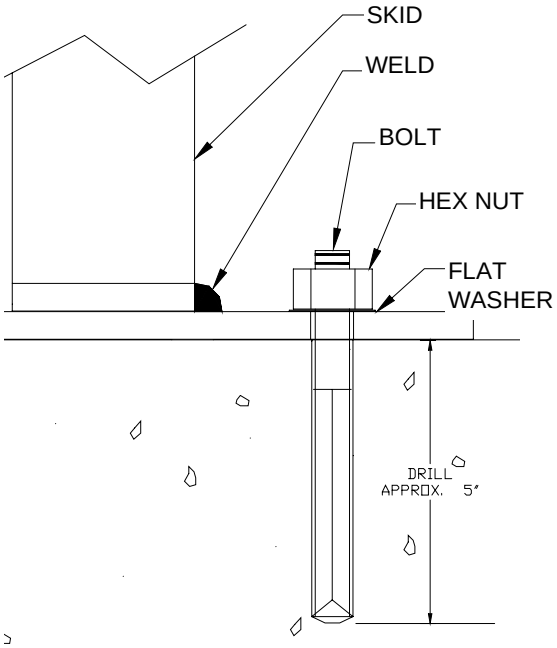
1. Preferred dimensions of the concrete pad are 10'0" wide and a length of 5'0" greater than the length of the compactor and container. It should be of minimum 3,000 PSI concrete steel reinforced, 6" thick. It is preferred that the concrete pad be flush with the surrounding ground level. NOTE: Containers with four ground rollers must be installed on a level pad.

2. To provide accessibility, concrete pad should be positioned to allow 2'0" between machine and building wall if installed parallel with building. Allow a minimum of 45' of clear space from end of pad for container handling vehicle.

   Note: The clearances given are minimums. Your installation may require greater clearances depending on the site and the hauling equipment that will be used.

ANCHORING

The skid plates should be anchored to concrete pad using eight (8) min. 1” x 6” long anchor bolts to secure the skid plates to the concrete. It is best if these holes are drilled in the concrete after prelocating the compactor in its desired location. Holes in the skid plates are 1-5/16” Dia. to permit the use of a 1-1/8” Dia. concrete bit. The holes in the concrete should be approximately 5” deep. When the compactor has been permanently located, **shim to compensate for unevenness in pad**. Set anchor bolts, tighten all nuts securely, and weld the skids to the skid plates.Container guides (optional) should be anchored in the same manner, spacing between guides determined by rail spacing of the container.



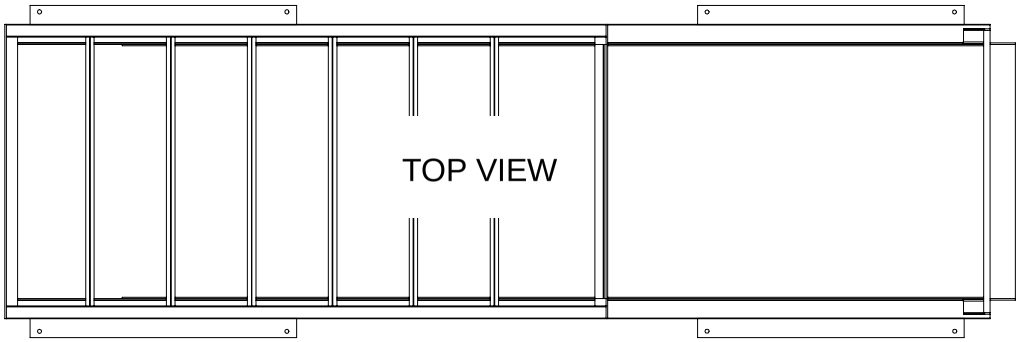
Anchoring of Skid Plates (shipped loose).

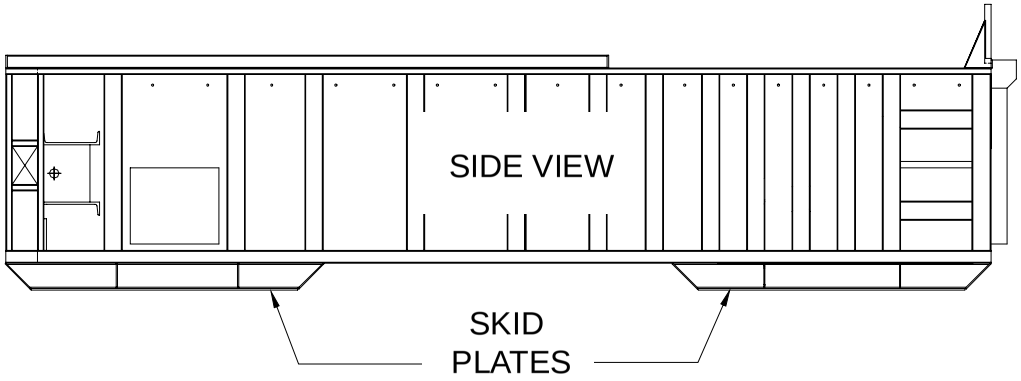
1. Position compactor to the desired location.

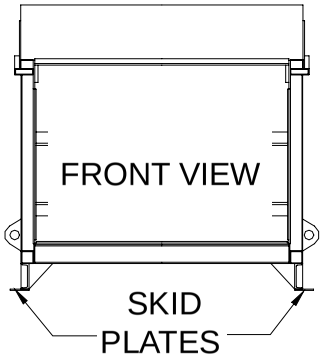
2. Align skid plates under the skids. Center from end to end, and flush with the inside of the skid.

3. Anchor the skid plates using (2) two 1” anchor bolts per plate (customer furnished, red head type recommended). Eight (8) total.

4. Weld compactor skids to the skid plates.



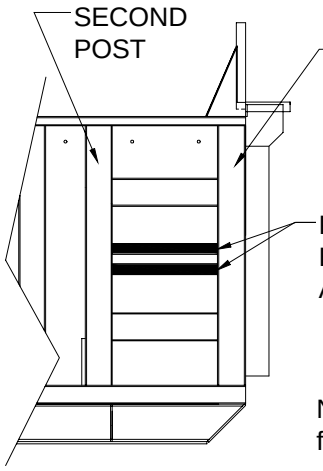




STEEL INSTALLATION PROCEDURES 3-3

RATCHETS/CLAWS FOR CONTAINER CONNECTION

The ratchets, claws, and ratchet pinning plates are shipped loose. This is done to insure proper location of the pinning plates in the field. The pinning plates should be located vertically between the first and second side post on the compactor. They should be flux-cored welded, triple pass, 3/8” fillet all around.



DOCK INSTALLATION

If the appropriate accessories are ordered from Marathon Equipment Co., the compactor will be furnished with either a four-sided hopper or a three-sided hopper with a hinged gate. THESE ACCESSORIES SHOULD NOT BE ALTERED AS THEY ARE MANUFACTURED IN ACCORDANCE WITH THOSE STANDARDS WHICH PREVAIL AT THE TIME OF MANUFACTURE.

If the compactor cannot be directly abutted to the dock or if there is any difference in height between the dock and the compactor, an appropriately sturdy transition section should be provided by the customer and securely affixed to the dock. Along with the transition section, a container guidance/stop mechanism should be installed to assure that the container does not damage the compactor during placement. Optional container guides with stops are available from Marathon and are recommended for proper placement of the container.

CHUTE-FED INSTALLATION

Compactors installed in this arrangement are normally fed "through-the-wall". The lower edge of the access hole in the wall should be a MINIMUM of 42" (and, if possible, not more than 58") from the inside floor level. A security door (in accordance with local code) should be installed in the wall opening. In the absence of a local code, this door should be constructed of 3/16" thick steel or of steel hollow core design and be lockable from the inside of the building .

STEEL INSTALLATION PROCEDURES 3-4

CONTAINER GUIDES

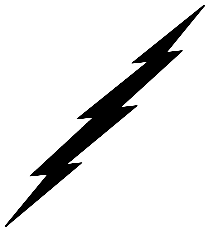
If container guides (optional) are used with the compactor and container, each guide should be anchored to the concrete pad using two (2) 3/4" X 6" (minimum) anchor bolts. These bolts should be concrete anchors or expansion type anchor bolts. To allow for construction variations, it is best if these holes are drilled in the concrete after prelocating the container guides in their desired location. When the guides have been placed in position, and the anchor bolts have set, tighten all nuts securely.

DECALS

Be certain that the appropriate decals are in their proper locations at all times on the machine. For decal locations, see “DECALS” and “DECAL PLACEMENT” in the Operation section of this manual.

ELECTRICAL & HYDRAULIC INSTALLATION 3-5

The panel box contains high voltage components. Only authorized service personnel should be allowed inside. See Lock-Out & Tag-Out instructions in the maintenance section.



For units without a lockable fused disconnect in the panel box, a lockable fused disconnect switch (customer furnished) must be installed and be within sight of the compactor's electrical panel box location, not to exceed 50'0" from the compactor. This fused disconnect switch should be sized in accordance with the compactor (see Fuse and Circuit Breaker Chart).

CAUTION: All equipment should be grounded per National Electric Code.

REMOTE POWER PACK INSTALLATION

1. If the power unit is remote, it should be installed and anchored as required by the customer. If push buttons are mounted in the face of the panel box, be certain these controls are located as to be in a convenient, but not hazardous, location to the customer. If the control station is mounted on sealtite, it must be mounted within (3) feet of the charging chamber access.
   CAUTION: Controls must be located so that the Mushroom (Emergency) Stop Button is readily accessible to the operator and within three (3) feet of the charging chamber access. **If installation requires the control station to be located in a more remote area, a second Emergency Stop Button should be added and installed in the manner described above.**

2. Connect the hydraulic hoses between the compactor body and the power unit. The rear port on the cylinder is “A” port. The front port on the cylinder is “B” port. Refer to the POWER UNIT diagrams in the Maintenance section of this manual for proper hose connection to the valve subplate or manifold.

3. The electrical components are connected to the power unit with Sealtite. To install, refer to the electrical schematic shipped with the machine. All electrical wires are color coded and referenced to the numbers on the electrical schematic. Make sure all wires are connected properly. Check local codes to assure that Sealtite is acceptable.

ELECTRICAL & HYDRAULIC INSTALLATION 3-6

PUSHBUTTON CONTROL STATION

If a remote push button station is furnished, it will be factory wired using Sealtite. If it is necessary to disconnect it from the wires (to install the pushbutton station inside a building), exercise care that these wires are reconnected as originally furnished. (Check local codes to be certain that Sealtite is acceptable.)

CAUTION: Controls must be located so that the Mushroom (Emergency) Stop Button is readily accessible to the operator and within three (3) feet of the charging chamber access. If installation requires this push button control station to be located in a more remote area, a second Emergency Stop Button should be added and installed in the manner described above.

ELECTRICAL CONNECTIONS

1. Run power lines between fused disconnect switch (customer furnished) and compactor's electrical panel box, in accordance with local electrical codes, using knock-outs in bottom of panel box. See Fuse & Circuit Breaker Chart for Motors and Wire Size Chart, in the Maintenance Section, to determine the proper service disconnect amperage rating and the proper wire size.
   NOTE: High legs should be installed to L3 on motor starter.

2. Check voltage at fused disconnect switch to be certain it is the same as is shown on compactor or remote power pack.

START-UP INSTRUCTIONS

1. With the ram fully retracted, check to be sure the oil reservoir is full to the 3/4 level on the sight gauge (Refer to the maintenance chart for hydraulic oil recommendations). The hydraulic system pressure has been factory set and the entire unit has been operated prior to shipment. CAUTION: MAKE SURE PERSONS AND MATERIAL ARE CLEAR OF CHARGE BOX AREA.

2. Put fused disconnect switch in "ON" position when ready to start machine. Start the machine and check the pump shaft for proper rotation. Look at the hub coupling rotation through the slot in the pump-to-motor adapter. Looking from the motor end, rotation should be clockwise.

   CAUTION: If the pump rotates backward, stop immediately. The pump will be damaged if it is operated in reverse even for short periods. Reversing any two incoming power lines will change the motor/pump rotation.

3. **Make sure that the operators are trained in the proper use of this equipment.**