PLAY IT SAFE!

INSTALLATION, OPERATION, SERVICE, AND PARTS MANUAL

FOR MARATHON DEWATERING EXTRUDER COMPACTORS (M-100, M-100PC)



Marathon Equipment Co. OMI Manual No. 0025-DE-0915

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1 - OPERATION

What To Do When You Need Assistance

Your compactor should give you reliable service for years to come. However, in the event you have problems, we will need the following information in order to serve you better:

COMPACTOR SERIAL NUMBER: _____

INSTALLATION DATE: _____

ELECTRICAL SCHEMATIC NUMBER: _____

When you need assistance you may contact your distributor:

Distributor

For safety concerns or other information you may contact us at: Marathon Equipment Company P.O. Box 1798 Vernon, Al 35592-1798

1-800-633-8974

Pre-Operation Instructions



THE EMPLOYER SHOULD ALLOW ONLY AUTHORIZED AND TRAINED PERSONNEL TO OPERATE THIS COMPACTOR. THEREFORE, THIS COMPACTOR IS EQUIPPED WITH A KEY OPERATED LOCKING SYSTEM. THE KEY(S) SHOULD BE IN THE POSSESSION OF ONLY AUTHORIZED PERSONNEL.



Never enter any part of the compactor unless the disconnect switch has been turned off and padlocked. 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. See Lock-Out & T ag-Out Instructions in the Maintenance section.

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 & T ag-Out Instructions** in the Maintenance section.

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.



M-100 & M-100PC Control Panel

Key Operated On/Off Power Switch - The key operated power switch provides controlled access to the operation of the machine. When the key switch is in the off position the machine will not operate. Only qualified operators should have a key.

Keyed Man/Off/Auto Operation Selector - The Keyed Man/Auto/Off Operation



Selector - The Reyed Man/Auto/On Operation Selector is optional for auto cycling features such as auto start timer or photocell. This switch is used to select the mode of operation. I n the automatic mode, the photocell or auto start timer controls the cycling of the machine. In manual mode, the machine responds only to the manual operation of the controls.

Keyed Start Pushbutton - When this button is depressed, it initiates a complete cycle of the machine. The ram will move forward until it reaches the forward proximity switch and then reverse until it reaches the rear proximity switch.

Emergency Stop Pushbutton - Pushing this button will immediately shut down the machine.

Forward/Reverse Control - Turning the Forward/Reverse switch to the forward position will start the motor and move the ram forward as long as the switch is held in the forward position. If the switch is released the ram movement will cease and the motor will stop. If the Forward/Reverse Control is turned to the reverse position the motor will start and the ram will move rearward as long the switch held in the reverse position. If the switch is released the ram movement will cease and the motor will stop.

Choker Up/Down Control - Turning the Choker Up/Down Control to the up position will start the motor and move the choker upward as long as the switch is held in the up position. If the switch is released the choker movement will cease and the motor will stop. If the switch is turned to the down position the motor will start and the choker will move downward as long as the switch is held in the down position. If the switch is released the switch is held in the down position. If the switch is released to the down position the motor will start and the choker will move downward as long as the switch is held in the down position. If the switch is released the choker movement will cease and the motor will stop.

Precrusher Up/Down Control - (NOT SHOWN) Turning the Precrusher Up/Down Control to the up position will start the motor and move the precrusher blade upward as long as the switch is held in the up position. If the switch is released the precrusher blade movement will cease and the motor will stop. If the switch is turned to the down position the motor will start and the precrusher baled will move downward as long as the switch is held in the down position. If the switch is released the precrusher blade movement will cease and the motor will stop. Decals



2 - MAINTENANCE

Lock-Out & Tag-Out Instructions

LOCK-OUT & TAG-OUT



Never enter any part of the compactor unless the power is off and the compactor is locked-out and tagged out in accordance with OSHA requirements.

Remove the key from the switch. Move the main disconnect lever to the off position, padlock it, and place, with the padlock, an appropriate warning tag such as:

Warning - do not energize without the permission of _____

Before entering any part of the machine, be sure that all sources of energy have been disabled and all potential hazards have been minimized. If the ram is pressing against a load, move the ram rearward before shutting the machine down. Make sure that all hydraulic pressure in the system has been relieved by manually depressing the solenoid valve pin located in the center of the coil end of the valve. See **Lock-Out & Tag-Out Instructions** above.



The panel box contains high voltage components. Authorized service personnel should be allowed inside only after the machine has been locked out and tagged out. See Lock-Out & Tag-Out Instructions above.

Periodic Maintenance

Monthly

- 1) Check external hoses for chafing, rubbing, or other deterioration and damage.
- 2) Check for any obvious unsafe conditions.
- 3) Check oil level in hydraulic reservoir.

Three Months

- 1) Check functional operation of controls and options (stop button, timers, lights, etc.)
- 2) Check hydraulic cylinder, internal hoses, and connections for leakage; check hoses for chafing and wear.
- 3) Lubricate ram rear guidance system by applying general purpose grease at wear points.

Motor bearings should be lubricated once a year.

Filter Maintenance

- 1) The hydraulic suction filter should be cleaned at regular yearly intervals.
- 2) The suction filter may be removed from the unit by removing the four bolts that retain the suction flange to the reservoir. The union between the pump and suction strainer can now be loosened and the suction strainer can be removed from the reservoir.
- 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 check fittings for tightness. 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.

Recommended Fluids For The Hydraulic System

- 1) Union Unax-215, Unax-AW-215
- 2) Gulf Harmony 47, Harmony 48-AW
- 3) Standard EP Hydraulic 15
- 4) Exxon Teresstic 47, Nuto 48
- 5) Texaco Rando 215

- 6) Shell -Turbo 29, Tellus 29
- 7) Phillips Mangus 215
- 8) Quaker State Dextron II (ATF)
- 9) Citgo Pacemaker 46
- 10) Amoco (Rycon)

Procedures

M-100 Pressure Setting Procedure: Refer to schematic E-3631 and E-0241

Pressure Switch #1, Circuit #2	1500 PSI	(Shut Down)
Pressure Switch #1, Circuit #2	600 PSI	(Choker Down)
Pressure Switch #3	1200 PSI	(Choker Up)
Relief Valve (Packer)	1800 PSI	

The above pressure switches are located in "A" port of the DO-8 subplate (Packer). The relief valve is a cartridge type relief located in the DO-8 subplate.

Pressure Switch #2, Circuit #1	1000 PSI	(Choker Valve Center)
Pressure Switch #2, Circuit #2	500 PSI	(Choker Valve Center)
Sequence Valve	1350 PSI	(Choker Up Fast)
Choker Relief A Port	1800 PSI	
Choker Relief P Port	1800 PSI	

Pressure switch #2 is located in "A" port of the choker manifold block. The Choker A & B port relief and the sequence value is also located on the choker manifold block.

Setting Procedure

- Remove the caps from the adjusting screws on pressure switch #1, #2 and #3. Turn the adjusting screws CCW several turns.
- 2) Loosen the locknut on the packer relief and back off (CCW) several turns.
- 3) Use manual up switch and run choker all the way up.
- 4) Loosen the mounting nuts on the forward proximity switch (the one close to the charge box) and lower the switch from the mounting bracket.
- 5) Start unit up and allow the ram to bottom out in forward position.
- 6) Turn packer relief CW until the pressure gauge on the check valve reads 600 PSI.
- 7) Turn the adjusting screw on pressure switch #1 circuit #2 CW until the choker starts going down. Input I4 should be energized on the PLC. (Allow choker to bottom out.)
- 8) Turn the packer relief CW until the pressure gauge reads 1200 PSI.
- 9) Turn the adjusting screw on pressure switch #3 CW until choker starts going up. Input I13 should be energized on the PLC.
- 10) Turn the packer relief CCW until the pressure is below 1200 PSI. Turn the sequence valve CW all the way in.
- 11) Use the manual down switch and run the choker all the way down.

Procedures (Continued)

12) Turn the packer relief CW until the pressure gauge reads 1350 PSI.

NOTE: Choker should start going up at 1200 PSI.

- 13) Before choker gets all the way up, turn sequence valve (located on the choker manifold block) CCW until the speed at which the choker is going up increases.
- 14) Turn the packer relief CW until the pressure gauge reads 1500 PSI.
- 15) Turn adjusting screw on pressure switch #1 circuit #1 CW until the unit shuts down.
- 16) Loosen the top on pressure switch #1 and restart unit.
- 17) Set the packer relief at 1800 PSI and turn unit off by pressing the ESTOP. Turn the power disconnect off and follow lock out tag out procedures in accordance with OSHA requirements before continuing with step 18.

NOTE: See Lockout/Tagout Procedures in Section 2 of this manual.

- 18) Remount proximity switch, replace pressure switch top and caps (pressure switch 1 and 3) and tighten locknut on the packer relief and sequence valve.
- 19) Use the manual up switch and run choker all the way up.
- 20) Adjust the choker P port relief to 1800 PSI. Turn the power disconnect off and lock out and tag out in accordance with OSHA requirements.

NOTE: See Lock-Out & Tag-Out Instructions in Section 2 of this manual.

- 21) Disconnect the red wire on pressure switch #2 circuit #1 from TB #I12.
- 22) Remove lock out/tag out and restore power to the machine.
- 23) Use the manual down switch and run the choker all the way down and hold.
- 24) Set choker A port relief at 500 PSI (use gauge on choker manifold).
- 25) Turn the adjusting screw on pressure switch #2 circuit #2 CW until input I11 is energized.
- 26) Turn disconnect off and lock out and tag out in accordance with OSHA requirements. Remove the jumper wire and reconnect the red wire to TB # I12.

NOTE: See Lock-Out & Tag-Out Instructions in Section 2 of this manual.

27) Remove the lock out/tag out and restore power to the machine. Hold the choker in the down position with the down switch and set chocker A port relief at 1000 PSI.

Procedures (Continued)

- 28) Turn adjusting screw on pressure switch #2 circuit #1 CW until input I12 is energized.
- 29) Adjust choker A port relief to 1800 PSI.
- 30) Replace all pressure switch caps and tighten all locknuts on relief valves.

Procedures (Continued)

M-100 Precrusher Pressure Setting Procedure:

Refer to schematic E-3631 and E-0465

NOTE: When setting ram pressure, precrusher gate should be in the up position.

- 1) Remove the caps from the adjusting screws on pressure switches #1, #2, #3 and #4. Turn the adjusting screws CCW several turns. Loosen the lock nuts on the main relief and choker relief and turn both reliefs CCW several turns. Start the unit using the manual forward switch and adjust the pressure on the main relief to 1000 PSI using the main relief cartridge located in the large dual manifold. Then adjust pressure switch #1 circuit #2 until input 10 is illuminated on the PLC.
- 2) Start machine using manual forward switch and adjust pressure to 1350 PSI using the main relief cartridge. Then adjust pressure switch #3 until input 13 is illuminated on the PLC.
- 3) Start machine using manual forward switch and adjust pressure to 1500 PSI using the main relief cartridge. Then adjust pressure switch #1 circuit #1 until input 9 is illuminated on the PLC.
- 4) Start unit using precrusher manual down switch and adjust the pressure to 1000 PSI using the main relief cartridge. Then adjust pressure switch #2 until input 11 is illuminated on the PLC. After step 4 adjust the main relief pressure to 1900 PSI.
- 5) Start the unit using the choker manual down switch and adjust the choker relief, located in the choker subplate, to 1500 PSI. Then adjust pressure switch 4 until input 16 is illuminated on the PLC. After step 5 adjust the choker relief to 1900 PSI. Replace all of the screw caps on the pressure switches and tighten the lock nuts on both relief valves. The pressure setting procedure is complete.

Hydraulic Schematic E-241 for M-100



Electrical Schematic E-3632 for M-100



Hydraulic Schematic E-465 for M-100 Precrusher



Electrical Schematic E-3631 for M-100 Precrusher



M-100 PPK





M-100 PPK Parts List

Item Number	Description	Quantity UM		Bubble Seq No
020039	ELL 1/2 NPTM X 1/2 NPTF 90	1	EA	1
031194	MOTOR 20HP 1750 575V TEFC 256T	1	EA	2
020041	ELL 3/4 NPTM X 3/4 NPTF SWV 90	2 EA		3
020048	NIPPLE 3/4 NPT	2	EA	4
020051	FITLER SUCTION 1 1/4 18 GPM 10	1	EA	5
020053	GAUGE PRESSURE	2	EA	6
020054	ELL 3/4 NPTM X 3/4 NPTF SWV 90	2	EA	7
020055	ELL 3/8 NPTM X 3/8 NPTF SWV 90	1	EA	8
020060	ADAPTER 3/4 NPTF X 1 NPTM	1	EA	9
020120	ELL 3/8 NPTM X 3/8 NPTF SWV 9	1	EA	10
020129	COUPLING 3/4 NPT SCH 80	2	EA	11
020184	VALVE CHECK 3/4 NPTM X 3/4 NPT	1	EA	12
020197	BREATHER 3/4 FILLER	1	EA	13
020214	VALVE RELIEF 20 GPM CART PILOT	1	EA	14
020215	GAUGE SIGHT LEVEL 5 INCH	1	EA	15
020219	CLEAN OUT COVER 6	1	EA	16
020254	PLUG 2 NPT SQ HD	1	EA	17
020260	FLANGE SUCTION 1 1/4 PIPE	1	EA	18
020261	ELL 1 1/4 NPTM X 1 1/4 NPTF 90	1	EA	19
020262	NIPPLE 1 1/4 NPT CLOSE	1	EA	20
020271	SUBPLATE 08 1 STN 3/4 NPTF POR	1	EA	21
020221	UNION 1 1/4 NPT	1	EA	22
020310	TEE 3/4 NPTF	1	EA	23
020326	HOSE END 3/4 WB X 3/4 NPTM	4	EA	24
020327	HOSE 3/4 2 WB 3100 PSI	4 FT		25
020328	HOSE END 1/2 WB X 1/2 SW NPTM	1	EA	26
020329	HOSE END 1/2 WB X 1/2 NPTM	1	EA	27
020330	HOSE 1/2 WB 3500PSI	2	FT	28
020364	PIPE 1 SCH 40 X 11	1	EA	29
342629	PIPE 1/2 SCH 40 X 9 RETURN	1	EA	30
020397	ADAPTER PUMP/MTR SAE A2 X 256T	1	EA	31
020398	HUB COUPLING 7/8-1/4 X 1 5/8-3	1	EA	32
020592	PUMP 3 18 GPM DUAL SECT A FLNG	1	EA	33
050198	WASHER 5/16 FLAT	3	EA	34
060011	DECAL MOTOR ROTATION 3/4 X 4	1	EA	35
091239	1 X 2 X 2 BAR	4	EA	36
093347	PIPE 1 1/4 SCH 40 X 11 1/2	1	EA	37
020680	VALVE 4-WAY 08 T 3-POS W/PILOT	1	EA	38
995016	SUBPLATE 03 1 STN W/VALVES F/M	1	EA	39
995126	BOLT 5/16-18 X 5 1/2 SHCS	3	EA	40

Item Number	mber Description		UM	Bubble Seq No
995612	PIPE 1 1/4 SCH 40 X 10	1	EA	41
020065	PLUG 1/4 NPT SOCKET HEAD	3	EA	42
050012	BOLT 3/8-16 X 1 1/4 HHCS PLT	2	EA	43
050015	NUT 3/8-16 HEX SELF LOCKING	2	EA	44
050061	BOLT 1/2- 13 X 1 1/4 HHCS GR 2	4	EA	45
050064	WASHER 1/2 LOCK	4	EA	46
050105	050105 NUT 5/16-18 HEX SELF-LOCKING		EA	47
050155	BOLT 3/8-16 X 3/4 HHCS	4	EA	48
050159	WASHER 3/8 LOCK	6	EA	49
050199	BOLT 1/2- 13 X 2 1/2 SHCS	4	EA	50
020036	NIPPLE 1/2 NPT	1	EA	51
020204	VALVE CHECK 1/2 NPTF	1	EA	52

M-100 PPK Parts List (Continued)

M-100PC PPK











M-100PC PPK Parts List

Item Number	Description	Quantity UM		Bubble Seq No	
020036	NIPPLE 1/2 NPT	1	EA	1	
020037	COUPLING 1/2 NPT SCH 80	1	EA	2	
020043	ADAPTER 1/2 NPTM X 3/4 NPTF	2	EA	3	
020048	NIPPLE 3/4 NPT	1	EA	4	
020051	FITLER SUCTION 1 1/4 18 GPM 10	1	EA	5	
020060	ADAPTER 3/4 NPTF X 1 NPTM	1	EA	6	
020123	PLUG 1 1/4 NPT	1	EA	7	
020125	ELL 3/4 NPTM X 3/4 NPTF 45	1	EA	8	
020184	VALVE CHECK 3/4 NPTM X 3/4 NPT	2	EA	9	
020197	BREATHER 3/4 FILLER	1	EA	10	
020214	VALVE RELIEF 20 GPM CART PILOT	1	EA	11	
020215	GAUGE SIGHT LEVEL 5 INCH	1	EA	12	
020219	CLEAN OUT COVER 6	2	EA	13	
020238	ELL 1 NPTM X 1 NPTF 90 STREET	1	EA	14	
020254	PLUG 2 NPT SQ HD	1	EA	15	
020260	FLANGE SUCTION 1 1/4 PIPE	1	EA	16	
020261	ELL 1 1/4 NPTM X 1 1/4 NPTF 90	2	EA	17	
020262	NIPPLE 1 1/4 NPT CLOSE	1 EA		18	
020264	SUBPLATE 05 1 STN 1/2 NPTF R O	1	EA	19	
020221	UNION 1 1/4 NPT	1	EA	20	
020301	VALVE 2 WAY 1/2 NPTE NO 120 VA	1	EA	21	
020310	TEE 3/4 NPTF	1	EA	22	
020325	HOSE END 3/4 WB X 3/4 NPTM SW	1 EA		23	
020326	HOSE END 3/4 WB X 3/4 NPTM	5 EA		24	
020358	COUPLING 1 NPT SCH 40	1	EA	25	
020364	PIPE 1 SCH 40 X 11	1	EA	26	
342629	PIPE 1/2 SCH 40 X 9 RETURN	2	EA	1	
020397	ADAPTER PUMP/MTR SAE A2 X 256T	1	EA	28	
020398	HUB COUPLING 7/8-1/4 X 1 5/8-3	1	EA	29	
020400	VALVE 4-WAY 08 M 3 POS IN P &D	1	EA	30	
020592	PUMP 3 18 GPM DUAL SECT A FLNG	1	EA	31	
020603	ADAPTER 1 NPTF X 1 1/4 NPTM	1	EA	32	
020645	VALVE RELIEF 50 GPM CART RPGC-	1	EA	33	
020817	VALVE 4-WAY 08 C 3-POS IN P &D	1	EA	34	
020852	VALVE 4-WAY 05 T 3 SOFT SHIFT	1	EA	35	
020964	SUBPLATE 08 2 STN P	1	EA	36	
022253	PLUG 1 NPT HEX HEAD	1	EA	37	
022255	ADAPTER 1 NPTM X 1 NPTF SWV	1	EA	38	
031071	MOTOR 20HP 208-230/460 256TC T	1	EA	40	

Item Number Description		Quantity	UM	Bubble Seq No
050148	BOLT 1/2- 13 X 1	4	EA	46
060011	DECAL MOTOR ROTATION 3/4 X 4	1	EA	49
093347	PIPE 1 1/4 SCH 40 X 11 1/2	1	EA	50
094882	3/4 X 2 X 2 BAR	4	EA	51
270854	1/4 X 1 X 6 1/4 BAR	2	EA	52
020327	HOSE 3/4 2 WB 3100 PSI	5.03	FT	53
020880	HOSE 1 WB 4000PSI		FT	54
023076	HOSE END 1 WB X 1 NPTM		EA	39
050052	2 WASHER 1/2 FLAT ZNC		EA	41
050061	BOLT 1/2- 13 X 1 1/4 HHCS GR 2	6	EA	42
052008	08 BOLT 1/2-13 X 1 1/2 HHCS GRD		EA	43
050064	064 WASHER 1/2 LOCK		EA	44
050105	105 NUT 5/16-18 HEX SELF-LOCKING		EA	45
050225	SCREW 5/16-18 X 3/4 ST TYPE 23		EA	48
050154	BOLT 5/16-18 X 2 1/4 SHCS	2	EA	47

M-100PC PPK Parts List (Continued)

Recommended Spare Parts for Panel Box

M-100PC PPK & M-100PC

Item Number	Description	Quantity	UM
030486	MOTOR STARTER EXT RESET	1	EA
034798	MOTOR STARTER IEC 65A 3P	1	EA
034920	MOTOR STARTER IEC OVERLOAD 17-25 AMPS	3	EA
030416	HEATER, ENCLOSURE 200 WATT	1	EA
030473	ENCLOSURE 24 X 24 X 10 NEMA 4/12/13	1	EA
020474	TRANSFORMER 300VA 208/230/460 PRI 120VAC		
030474	SEC	1	EA
030476	FUSE 3 AMP DUAL 1 1/4 BUSS	1	EA
030529	FUSE 3 AMP 600V FNQR	2	EA
034448	FUSE 2 AMP 5MM X 20MM	12	EA
033211	PLC AB MICROLOGIX 1200	1	EA
033716	PLC AB EEPROM F/MICRO LOGIX 1200	1	EA
031540	RELAY 4 POLE 120 VAC 25A N.O. CONTACT	1	EA

FUSE AND CIRCUIT BREAKER SIZE

FUSE AND CIRCUIT BREAKER SIZE					
MOTOR SIZE	VAC	FULL LOAD AMP PER NEC TABLE 430.250	DUAL ELEMENT FUSE MAX. SIZE	CIRCUIT BREAKER MAX SIZE	SERVICE DISCONNECT SIZE
	208	59.4	100 AMP	125 AMP	100AMP
20.110	230	54	90 AMP	125 AMP	100 AMP
20 HP	460	27	45 AMP	60 AMP	60 AMP
	575	22	35 AMP	50 AMP	60 AMP
	COND	UCTOR SIZE PER NE	C TABLE 310.15(B)(16) COPPER 75 DEG	GREE C
MOTOR SIZE	VAC	FULL LOAD AMP PER NEC TABLE 430.250	CONDUCTOR SIZE TO 100'	CONDUCTOR SIZE TO 200'	CONDUCTOR SIZE TO 300'
	208	59.4	#4 AWG	#3 AWG	#2 AWG
20 HP	230	54	#4 AWG	#3 AWG	#2 AWG
	460	27	#10 AWG	#8 AWG	#6 AWG
	575	22	#10 AWG	#8 AWG	#6 AWG

3 - INSTALLATION

Concrete Pad Requirements

Caution:

REVIEW THIS MANUAL BEFORE MAKING 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 Z245.1 (GREEN BOOKLET, INSIDE ENVELOPE.) [THIS EXTRACT IS APPLICABLE TO STATIONARY COMPACTORS ONLY.]

These operating instructions are not intended as a substitute for training and experience in proper use and safety procedures in operating this equipment.

Marathon 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 combined length of compactor and receiver container. It should be of minimum 3,000 PSI concrete steel reinforced 6" thick. For good housekeeping practices, it is recommended a drain beneath the area of the charge box be incorporated in the pad connecting to a sanitary sewer. It is preferred that the concrete pad be flush with the surrounding ground level. If it must be raised above surrounding ground level, pad at end opposite packer should be tapered to ground level.
- 2) To provide accessibility, concrete pad should be positioned to allow 2'0" between container and building wall if installed parallel with building. Allow a minimum of 45' of clear space from container-end of pad for container handling vehicle.

Anchoring

1) The compactor should be anchored to the concrete pad using four (4) 3/4" X 6" (minimum) anchor bolts. These bolts can be secured to the concrete pad using special concrete anchors or expansion type anchor bolts. To allow for construction variations, it is best if these holes are drilled in the concrete after pre-locating the compactor in its desired location. When the compactor has been placed in position, leveled (using metal shims), and the anchor bolts have set, tighten all nuts securely.



2) The container guide (optional) should be anchored in an identical manner, spacing between the guides is determined by the rail spacing of the container.

Electrical & Hydraulic Installation



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.

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 & Circuit Breaker Chart for Motors).

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

Remote Power Pack Installation

- 1) If a remote power pack is furnished (optional), 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.
- 2) Connect the hydraulic hoses to the power pack, exercising care to follow the port decals (A or B) on the packer and the power pack. In the event the decals have been obliterated call the Marathon Service Department at 1-800-633-8974 for installation instructions.

Pushbutton Control Station

If a remote push button station is furnished, it will be factory wired using Sealtite. If it is necessary to disconnect the push button station, in order to install it inside of a building, exercise care that the wiring is 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.

Electrical & Hydraulic Installation (Continued)

Electrical Connections

 Run power lines between service disconnect switch (customer furnished) and compactor's electrical panel box, in accordance with local electrical codes. 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 service disconnect switch to be certain it is the same as is shown on compactor or remote power pack. If voltage is correct, put service disconnect switch in "ON" position.

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.
- 2) **CAUTION:** MAKE SURE PERSONS AND MATERIAL ARE CLEAR OF CHARGE BOX AREA.
- 3) Depress the start button and check the pump shaft for proper rotation.

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.

4) Make sure that the operators are trained in the proper use of this equipment.

M - 100 Dimensional Drawing

