



INSTALLATION / OPERATOR MANUAL

3065 SERIES High Lifter

PROUDLY MADE IN DUBLIN, VIRGINIA USA



APPALACHIAN MACHINE INC | 5304 Laboratory Street | Dublin, VA 24084

Phone: (540) 674-1914 | info@appalachianmachine.com | www.appalachianmachine.com



FOREWORD

This manual has been prepared so that the owner, maintenance personnel and operator may readily have available information and instruction pertaining to the installation, maintenance, repair and safe operation of the System.

The extra care in design, quality and manufacture of the System warrants the attention of all concerned. The additional personal attention and cost to provide regular inspection and maintenance will be reimbursed many times over in long-term trouble-free operation.

Maintenance personnel are urged to study this manual, so that a complete understanding of the system's operating principles, trouble-shooting techniques and maintenance methods may be accomplished.

Since units vary, the installation instructions presented in this manual have been generalized. Some deviations from the instructions might be required to complete the unit installation.



CUSTOMER SERVICE POLICY

LIFTERS

INSTALLATION: Appalachian Machine Inc. can install the lift unit at your location. Please call for quote.

QUESTIONS: If you are installing the lift unit and have question, please call Customer Service.

PARTS: Appalachian Machine Inc. stocks parts at our plant in Dublin, VA. Parts are shipped one to two business days after order. Emergency part service ships by UPS Next Day if ordered before 2PM EST, Monday – Friday.

PRICES: Call Customer Service.

TERMS: Net 30 days.

ORDER REQUIREMENTS: Minimum \$35 per order.

WARRANTY: All warranties (parts & labor) and returns must have a Return Material Authorization number (RMA#). Call Customer Service for approval and RMA#.

Customer Service Center

Monday – Friday 7AM-3PM EST

(540) 674-1914

info@appalachianmachine.com



CAUTION

When Toter® rear load lift units are installed on the back of a rear-load packer truck, the lights and license plate may be covered. It is the **responsibility of the owner** to furnish additional lights or remount lights and license plate bracket to ensure safe operation of the packer truck on the street.



WARNING

BEFORE ANY INSTALLATION OF THE UNIT:

Voltage from the electrical disconnect to the motor starter has to be verified as the same stated on the voltage label on the motor starter control box.

FAILURE TO SUPPLY ANY VOLTAGE TO THE MOTOR STARTER THAT IS NOT THE SAME AS THE VOLTAGE STATED ON THE MOTOR STARTER WILL VOID ALL WARRANTIES.

VERIFY DIRECTION OF MOTOR. FAILURE TO DO SO MAY CAUSE PUMP SEAL FAILURE AND WILL VOID ALL WARRANTIES.

GREASING IS REQUIRED FOR PROPER MAINTENANCE OF CERTAIN PARTS.



SAFETY INSTRUCTIONS

3065 SERIES LIFTERS

1. No one should operate the lifter without first reading the manual and receiving hands-on training on the unit.
2. **DO NOT** operate packer and lifter at the same time.
3. **DO NOT** operate packer with lift unit in the horizontal or dump position at any time.
4. Keep hand clear of moving lift unit. Never reach into the truck hopper while either unit is in operation.
5. If two units are installed on a packer **NEVER** step between the units when either unit is in operation.
6. **DO NOT** stand, climb, sit or **RIDE** on the lifter.
7. Be sure other persons or objects stay clear of the object **BEFORE** and **DURING** the complete lift cycle. The operator must have a clear view of the lifter throughout the lift cycle, up and down.
8. Be sure the Hand Valve Handle is in the neutral position when the unit is not in use.
9. If the caution label on the faceplate of the dumper or on the operation label above the Hand Valve fades or gets torn off, please order new labels from the Customer Service Department at no charge.
10. **NEVER** stand under the lift unit when it is operating or in the up position.
11. **NEVER** clean under the lift unit when it is in the up position.
12. **NEVER** leave the unit up in the dumped position.
13. The power unit is designed with safety in mind and is operated by key lock and hydraulic hand valve. No modifications should be made to these controls.
14. Wear eye protection when operating.
15. Keep hands clear of operating lift unit. Follow US OSHA lockout and tagout procedures prior to maintaining or repairing the unit.
16. Ensure that the lids of any carts that are latched, locked, or chained shut are fully opened before dumping.
17. Inspect lift units daily for sharp edges on faceplate, worn or cut hoses, oil leaks and Hand Valve operation.
18. Dump only carts that are in good repair and that fit the lifter correctly. Damaged or non-standard carts may fall from the lifter at any point during the lifter cycle.
19. If you have any questions about the compatibility of any carts with your dumpers, please call the Customer Service Department.



OPERATION INSTRUCTIONS

3065 LIFT UNIT

1. Tilt and engage the container's saddle onto the saddle lifting bar to engage the lifter unit.
2. Open the lid of the cart.
WARNING: NEVER DUMP CARTS WITH LID ON!
3. Be sure no person or other obstruction is near the lift unit. Be sure nothing can contact the lift unit.
4. Pull UP on hydraulic hand valve and dump cart. DO NOT stop until unit completes UP cycle.
5. After cart contents have been dumped, push DOWN the hydraulic hand valve and lower cart all the way down.
6. **DO NOT** stop until unit completes DOWN cycle.
7. **DO NOT** operate packer and lifter at the same time.
8. **DO NOT** operate packer with lift unit in the horizontal or dump position at any time.

WARNING

1. DO NOT dump carts that exceed load rating stated on side of cart.
2. DO NOT dump any cart that has damaged or missing bars.
3. DO NOT operate packer and dump unit at the same time.
4. DO NOT operate packer while lift unit is in horizontal or dump position.



Maintenance and Service Schedule

3065 SERIES Lifters

DAILY

1. Ensure AC cord is fully plugged in and no damage to umbilical.

WEEKLY

1. Check lift unit dump speed.
2. Check oil level of power unit.
3. Check for oil leaks.
4. Grease all radial bearings.
5. Check for loose bolts and bearings.
6. Check bearing for wear.
7. Check lifting saddle for damage (see Toter troubleshooting guide).
8. Check faceplate for damage (remove any sharp edges).
9. Check actuator, hand valve, fittings, hoses and flow or diverter valves for leaks.
10. Check hoses for wear.

MONTHLY

1. Grease all fittings.
2. Check color of oil – if 'milky' color, REPLACE.

TWICE YEARLY

1. Change packer's hydraulic filter, if it does not have a filter, it is recommended that a filter be installed.
2. Check cylinder for lifting power.



WARNING

BEFORE ANY INSTALLATION ANY STATIONARY (ST) UNIT:

Voltage from the electrical disconnect to the motor starter has to be verified as the same stated on the voltage label on the motor starter control box.

FAILURE TO SUPPLY ANY VOLTAGE TO THE MOTOR STARTER THAT IS NOT THE SAME AS THE VOLTAGE STATED ON THE MOTOR STARTER WILL VOID ALL WARRANTIES.

GREASING IS REQUIRED FOR PROPER MAINTENANCE OF CERTAIN PARTS.



INSTALLATION INSTRUCTIONS

3065 SERIES Lifters – Rear Lift Unit

1. Park empty truck on level shop floor.
2. Inspect the hopper area where the lift units will be mounted.
 - a. It should be strong enough to withstand the torque from the dumping operation.
 - b. Tail lights or license plates that will be obscured by the lift units must be relocated.
 - c. Running boards or other brackets that will interfere with operation of the dump units must be removed
3. When two lift units are to be mounted, position them as follows:
 - a. Measure the width of the hopper opening; locate and mark the center of the hopper – see diagram #1.
 - b. Put a mark 8" to the right of the center mark. The left side of the right hand lift unit is to line up with this mark.
 - c. Put a mark 8" to the left of the center mark. The right side of the left hand lift unit is to line up with this mark.
 - d. Raise the lift unit (with floor jack) until the top of the saddle is 35" above ground level. This distance should be the same for both units. See drawing DD-1125.
 - e. Tack weld. Re-check top of saddle distance to the ground.
 - f. Place can on dumper unit and manually dump it. Be sure can will not hit any part of hopper when dumping.

NOTE: Some modifications to hopper cover may be necessary on some packers or lift may have to be moved to center of hopper if can hits packing cylinders.

 - g. Weld and brace lift unit.
 - h. Add hopper extension if required.
4. When one lift unit is to be mounted.
 - a. Same as above using only one unit on right or left side.
 - b. Position in the center of hopper.
 - c. Continue with 3d through 3h as above.
5. Install valves per valve instruction sheet.

CAUTION: IT IS RECOMMENDED THAT ALL WELDING BE DONE BY AN EXPERIENCED WELDER BECAUSE NEW WELDS WILL BE SUBJECT TO HEAVY LOADS.

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INSTALLATION INSTRUCTIONS

3065-CO-1DST Cage Assembly

1. Attach 2" angle to tops of I-beam posts with bolts provided.
2. Stand I-beam posts upright.
3. Separate them 132" and square footprint as close as possible.
4. Attach 2' section of fencing to 108" section of fencing with bolts provided.
5. Attach each end of that section of fencing to inside of I-beams with bolts provided.
6. Slide bottom of I-beam posts out enough to put slide gates into tracks on the inside of the I-beams (make sure I-beams are to the bottom).
7. Once gates are in the tracks, slide the bottoms of the I-beams back upright.
8. Attach counter weights to gate.
9. Bring counter weights up and over the rollers at the top of the I-beams and let them rest on opposite side of the I-beams from the gates.
10. Latch gates so they don't move.
11. Attach covers for I-beams with bolts provided.
12. Attach limit switches with bolts provided.
13. Attach keys for limit switches to the chains on the gates with bolts provided.
14. Limit switches should be pointed up so that the keys pull out from the top (this insures when you lift the gates the limit switches will trip them themselves).
15. Raise gates and insert lift units 50" from whichever end you will be putting the Gaylord boxes.
16. Make units touch when sitting side by side.
17. Make sure units are centered in the cage.
18. Attach all hydraulic lines according to tags on all fittings.
19. Place power unit wherever is convenient for you and ensure all hoses will reach and not be in the way of the moving dump units.
20. Mount power unit to ground using concrete anchors (3/8" preferred).
21. Make sure gates slide up and down properly without anything grabbing.



INSTALLATION INSTRUCTIONS

3063 TrimLift SERIES

5354-00-0614 Flow Valve

1. Weld Hand Valve to side of truck in vertical position safe distance away from lift unit.
2. Locate pressure line from pump to packer valve.
3. Disconnect or cut pressure line and install flow valve.
 - A. Port marked INLET connects to pressure line from pump.
 - B. Port marked BYPASS connects to packer valve.
 - C. Port marked REG. connects to pressure port hand valve IN.
 - D. Port on side of valve that connects to bypass port connects to OUT port of hand valve.
4. When two lift units are installed:
 - A. Weld second hand valve to truck.
 - B. After step #3, C is completed, connect hose to OUT port of hand valve to IN port of second hand valve.
 - C. Connect hose from OUT port to second hand valve to port on side of flow valve that connects to bypass port.
5. Connect hoses from A & B ports on hand valve to actuator or cylinder ports.
6. Start truck and engage PTO:
 - A. Check for leaks.
 - B. Check packer operation.
 - C. Operate lift unit with container mounted and check clearances.
7. If dump unit is equipped with a Break-A-Way kit:
 - A. Operate lift unit.
 - B. Stand behind lift unit and clasp bottom of faceplate with both hands.
 - C. Pull UP on faceplate.
 - D. If faceplate will not raise, reverse hoses to A & B ports on hand valve.

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8. Put safety labels on equipment:
 - A. Lift unit faceplates
 - B. Operation instructions above hand valves
9. Instruct operators on how to operate units.

CAUTION: TRUCKS THAT HAVE FUEL MISOR OR DRY VALVE PUMPS REQUIRE A BYPASS VALVE BETWEEN PRESSURE AND TANK LINES. FAILURE TO INSTALL BYPASS, OR TRUCKS WITH A FACTORY INSTALLED BYPASS THAT DO NOT HAVE A MINIMUM OF 2.5 GPM OF FLOW WITH LESS THAN 25 LBS BACK PRESSURE WILL CAUSE PUMP FAILURE WHEN TURNED OFF.



PARTS LIST

3065-HL-9H18-30 Arm High Lift Unit

	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	5000-00-5060	HKS Rotary Actuator
2	3065-HK-9020	Actuator Frame
3	5500-SE-0500	Washer ½"
4	5500-SE-0750	Washer ¾"
5	3065-HL-8056	Link Pivot Pin
6	5110-00-0030	Cotter Pin
7	5035-00-0760	Spherical Bearing
8	3065-HL-9218-9230	Main Links*
9	3065-HL-8058	Face Plate Pin
10	5035-00-0755	Spherical Bearing
11	5110-00-0016	Cotter Pin
12	3065-HL-8054	Hook Pivot Pin
13	3065-HL-8052	Hook
14	3065-HL-8055	Hook Cam Pin
15	3065-RH-9118-9130	Right Arm
36	3065-LH-9118-9130	Left Arm
16	5430-00-0600	Lock Nut
17	5500-SE-0750	Flat Washer
18	3065-HL-8059	Bearing Spacer
19	5252-00-0528	Flat Head Screw 5/8-11 x 1"
20	5250-00-0460	Bolt 3/8-16 x 2.25"
21	5440-00-0400	Lock Washer 3/8"
22	5250-00-0416	Bolt 3/8-16 x 1"
23	3057-00-3900	Saddle
24	5260-00-0400	Nut 3/8"
25	5031-00-0510	Oilite Bushing
26	3065-HL-8050	Hook Block
27	3065-HL-8043	Lift Plate Weldment
28	3065-HL-8049	Faceplate Block
29	5030-00-0816	Oilite Bearing
30	5570-00-0732	Shoulder Bolt

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31	5251-00-0522	SH Bolt ½-13 x 1.25"
32	5251-00-0500	Lockwasher ½"
33	5250-00-0416	SH Bolt 3/8-16 x 1"
34	3065-HL-9022	Mounting Plate
35	3065-HL-8057	Link Pivot
37	3065-HL-9021	Hook Operator Bar
38	5000-00-5064	HKS Actuator Seal Kit
	*The last two part numbers are the same as the last two part numbers of the lift unit.	



PARTS LIST
3065 SERIES Lift Unit
Hydraulic Valves and Accessories

Flow Regulator Valves

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
5354-00-0612	¾" Flow Regulator Valve
5354-00-0614	1" Flow Regulator Valve
5354-00-0620	3/8" Adjustable Flow Control Valve
5354-00-0618	3/8" Flow Regulator Valve
5351-00-0641	50/50 Flow Divider

Duke Hand Valves

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
5354-00-0900	Hand Valve Tandem Center
5354-00-0902	Hand Valve Closed Center
<i>See drawing DA1276 & DA1277 for Hand Valve parts.</i>	



TROUBLESHOOTING

3065 TrimLift SERIES – Toter Can Damage

Bent stop bar:	<ol style="list-style-type: none"> 1. Check dump unit saddle. See fig #1 & #2. 2. Dump unit speed (4 seconds up).
Split in saddle area	<ol style="list-style-type: none"> 1. Check dump unit-saddle. See fig #1 & #2. 2. Check dump unit speed. 3. Toter hit by packer blade. 4. Excessive weight in can (bricks, blocks or dirt).
Toter cut and scratches in saddle area	<ol style="list-style-type: none"> 1. Check saddle on dump unit for sharp edges.
Toter cut and scratched on front surface of knees below stop bar.	<ol style="list-style-type: none"> 1. Check for sharp edges on bottom of dump unit face plate.



TROUBLESHOOTING

3065 TrimLift SERIES with 5354-00-0614 Flow Valve

No lifting power in dump unit	3. CLEAN flow valve 4. REPLACE flow valve
Dump unit operates normally, but compactor will not:	5. CHECK hand valve (spool should be in neutral position) 6. If spool will not shift to neutral position, REPLACE hand valve spring. 7. REPLACE Flow Valve
Dump unit operates too fast:	2. CLEAN flow valve 3. REPLACE flow valve fixed plug orifice 4. REPLACE flow valve
Single dump unit has no power:	2. CHECK oil pressure 1,500 PSI minimum 3. CHECK cylinder seals
Lift unit will not return to normal position when down, or will not dump completely:	1. CHECK arm keys 2. CHECK actuator pinion gear and rack



PARTS LIST

5354-F3-3003 & F1-3001 POWER UNIT

ITEM	PART NUMBER	DESCRIPTION
1	5354-FE-3010	Reservoir O-Ring
2	5354-FE-3011	Pump
3	5354-FE-3012	Bolt
4	5354-FE-3013	Seal Kit
5	5354-F1-3002 5354-F3-3004	Motor Single Phase 2 HP Motor Three Phase 2 HP
6	5354-FE-3014	Bolt
7	5354-FE-3015	Motor Adaptor
8	5354-FE-3016	Coupling
9	5354-FE-3017	Reservoir
10	5354-FE-3018	Breather
11	5354-FE-3019	Plug
12	5354-FE-3020	Bolt
13	5354-FE-3021	Valve Plug
14	5354-FE-3022	Plug
15	5354-FE-3023	Relief Valve Kit
16	5354-FE-3024	Horizontal Pumping Kit
17	5354-FE-3025	Filter
18		Motor Starter

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PARTS LIST

Lift Unit Hydraulic Valves

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
5354-00-0614	1" Flow Regulator Valve (Diverter Valve)
5354-00-2500	Prince Hand Valve
5355-BK-0420	Break-a-way Kit
5354-00-0675	Break-a-way Kit Valve
5354-00-0676	

Special Applications Hydraulic Valves

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
5354-00-0612	¾" Flow Regulator Valve
5354-00-0620	3/8" Adjustable Control Valve
5354-00-0641	50/50 Flow Divider



PARTS LIST Hand Valve

<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	5354-00-0430	Gresen Hand Valve
2	5354-00-0405	Centering Spring
3	5354-00-0407	Spool Seal (2)
4	5354-00-0408	Handle
5	5354-00-0418	Handle Bracket



WARRANTY

Lift Unit

FRAMES AND STANDS: ARE WARRANTIED FOR ONE-YEAR FROM PURCHASE DATE FOR STRUCTURAL AND WELD DEFECTS.

LIFTING ASSEMBLIES: ARE WARRANTIED FOR ONE-YEAR FROM PURCHASE DATE FOR STRUCTURAL AND WELD DEFECTS.

ACTUATORS, CYLINDERS AND MOTORS: UNITS THAT HAVE THE MICRO-PRECISION ACTUATOR: THE ACTUATOR IS WARRANTIED FOR TWO YEARS IF FAILURE IS NOT DUE TO CONTAMINATION. ALL CYLINDERS ARE WARRANTIED FOR ONE YEAR IF FAILURE IS NOT DUE TO CONTAMINATION. ALL HYDRAULIC MOTORS ARE WARRANTIED FOR ONE YEAR IF FAILURE IS NOT DUE TO CONTAMINATION.

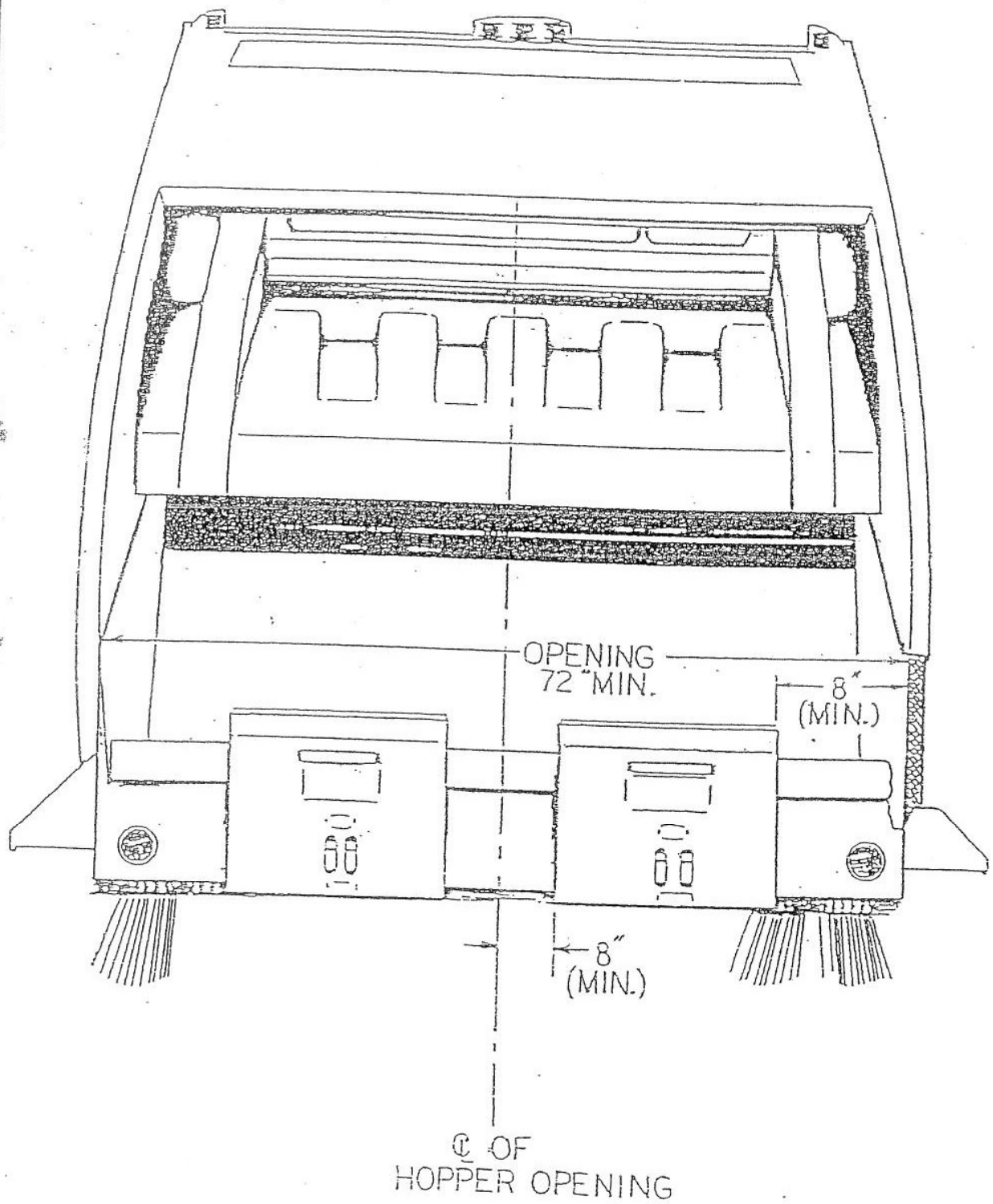
ELECTRICAL: ALL ELECTRICAL COMPONENTS WITH THE EXCEPTION OF BATTERIES ARE WARRANTIED FOR ONE-YEAR. FAILURES THAT OCCUR DUE TO IMPROPER WIRING TO THE UNIT OR VOLTAGE SUPPLIED TO UNIT THAT IS NOT THE SAME AS STATED ON THE LIFT UNIT CHECK LIST SUPPLIED BY CUSTOMER WILL NOT BE WARRANTIED. BATTERIES ARE WARRANTIED FOR 90 DAYS. BATTERIES THAT ARE NOT MAINTAINED PROPERLY WILL NOT BE COVERED.

HYDRAULIC PUMPS AND VALVES: HYDRAULIC PUMP IS WARRANTIED FOR ONE YEAR. HYDRAULIC VALVES ARE WARRANTIED FOR ONE-YEAR. IF FAILURE IS DUE TO LEAKING SEALS, SEALS WILL BE REPLACED AND NOT THE COMPLETE VALVE ASSEMBLY. ANY FAILURE DUE TO CONTAMINATION OR OPERATOR ABUSE IS NOT COVERED.

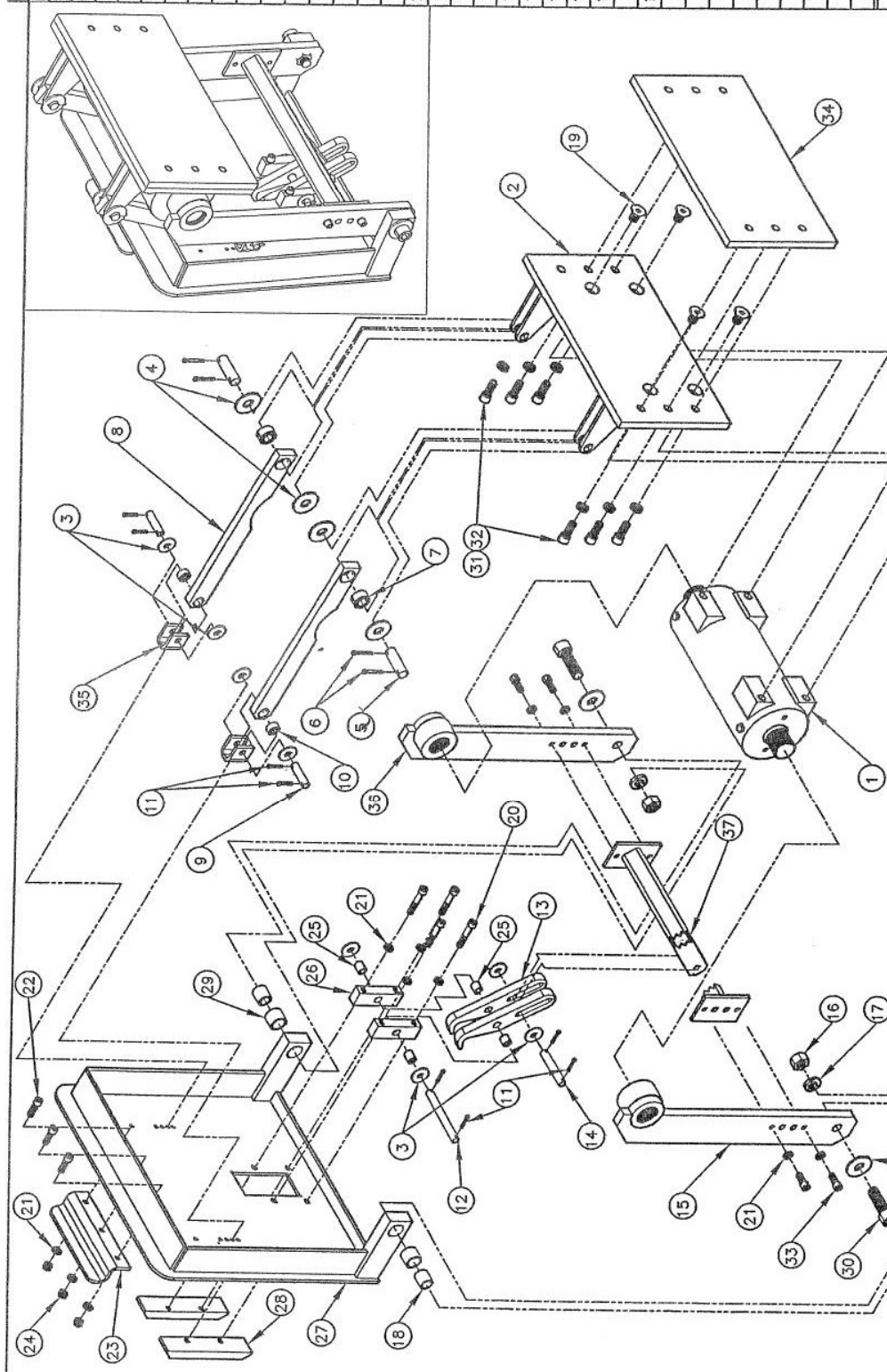
BUSHINGS AND BEARINGS: BRONZE BUSHING COVERED FOR 180 DAYS. BEARINGS THAT ARE GREASED ARE COVERED FOR ONE YEAR IF GREASED PER MAINTENANCE INSTRUCTIONS.

SPRINGS: SPRINGS ARE WARRANTIED FOR 180 DAYS.

LABOR: APPALACHIAN MACHINE WILL PAY LABOR CHARGES UP TO 30 DAYS AFTER THE INSTALLATION OF THE UNIT IF THE UNIT HAS BEEN INSTALLED BY APPALACHIAN MACHINE OR AN AUTHORIZED DISTRIBUTOR. CALL APPALACHIAN MACHINE'S CUSTOMER SERVICE FOR TERMS AND CONDITIONS.



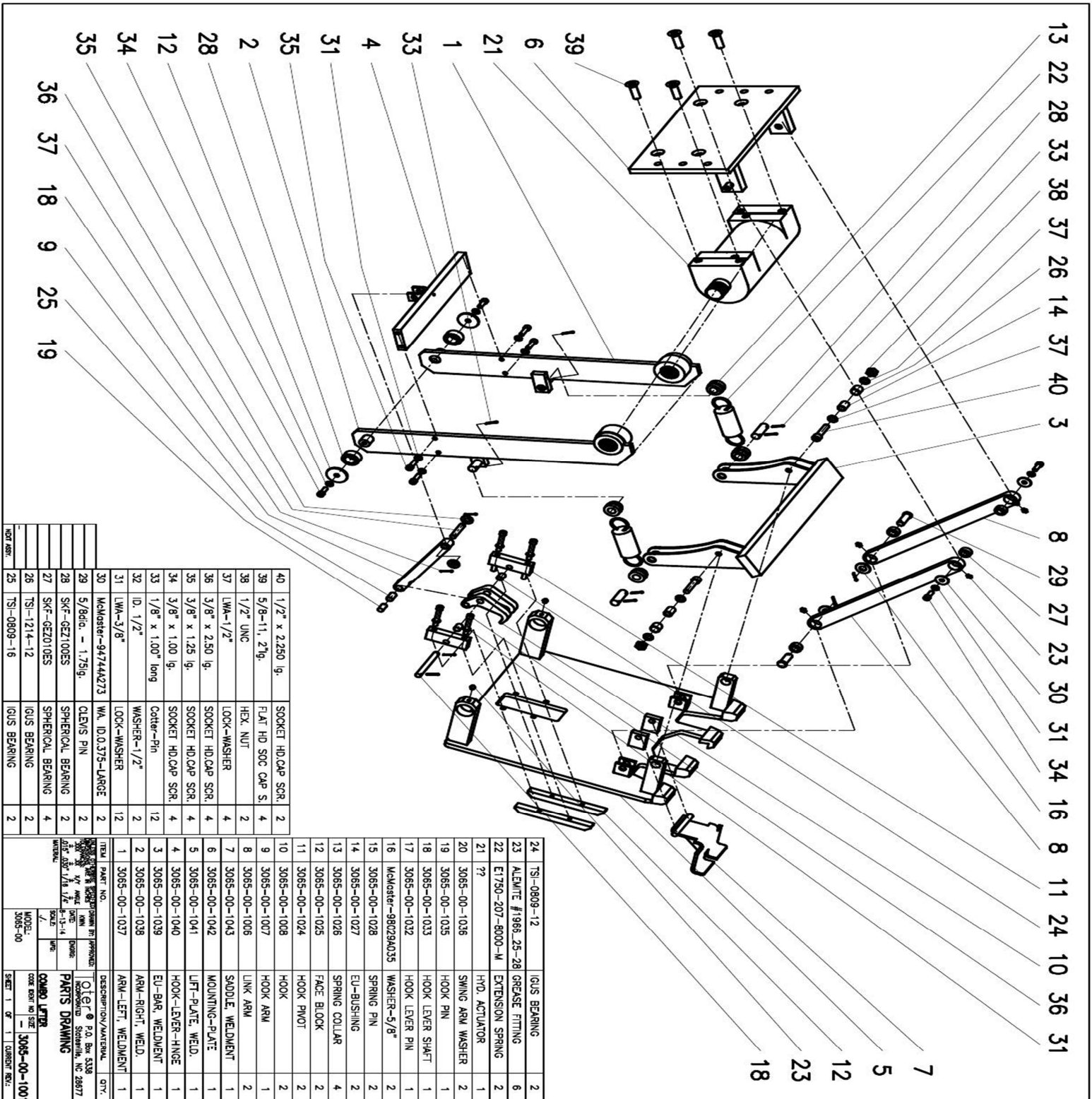
37	3065-HL-9021	HOOK OPERATOR BAR	1
36	3065-HL-9118 - 9130	LEFT ARM	1
35	3065-HL-9057	LINK PIVOT	2
34	3065-HL-9022	MOUNTING PLATE	1
33	3/8-16, 1" LONG	HEX.SD.HD.CAP SCR.	4
32	1/2"	LOCK WASHER	6
31	1/2-13, 1.375" LONG	HEX.SD.HD.CAP SCR.	2
30	3/4-10, 2.5" LONG	HEX.SD.HD.CAP SCR.	2
29	5030-00-0816	OLITE BEARING	2
28	3065-HL-8049	FACE BLOCK	2
27	3065-HL-8043	LIFT PLATE, WELD.	1
26	3065-HL-8050	HOOK BLOCK	2
25	5031-00-0510	OLITE BUSHING	4
24	3/8-16	NUT	3
23	3063-00-4414	SADDLE	1
22	3/8-16, 1.25" LONG	HEX.SD.HD.CAP SCR.	3
21	3/8"	LOCK WASHER	11
20	3/8-16, 2.25" LONG	HEX.SD.HD.CAP SCR.	4
19	5/8-11, 5/8" LONG	HEX.SD.FLAT.HD. SCR.	4
18	3065-HL-8059	BEARING SPACER	2
17	3/4"	LOCK WASHER	2
16	3/4-10	HEX. NUT	2
15	3065-HL-9118 - 9130	RIGHT ARM	1
14	3065-HL-8055	HOOK CAM PIN	1
13	3065-HL-8052	HOOK	2
12	3065-HL-8054	HOOK PIVOT PIN	1
11	1/8"DIA. x 1.00"LG.	COTTER PIN	8
10	5035-00-0755	SPHERICAL BEARING	2
9	3065-HL-8058	PLATE PIN	2
8	3065-HL-(9218-9230)	MAIN LINK (18-30")	2
7	5035-00-0780	SPHERICAL BEARING	2
6	5/32"DIA. x 1.50"LG.	COTTER PIN	4
5	3065-HL-8056	LINK PIVOT	2
4	3/4"	WIDE WASHER	6
3	1/2"	WIDE WASHER	8
2	3065-HL-9020	ACTUATOR FRAME	1
1	5000-00-5060	ROTARY ACTUATOR	1

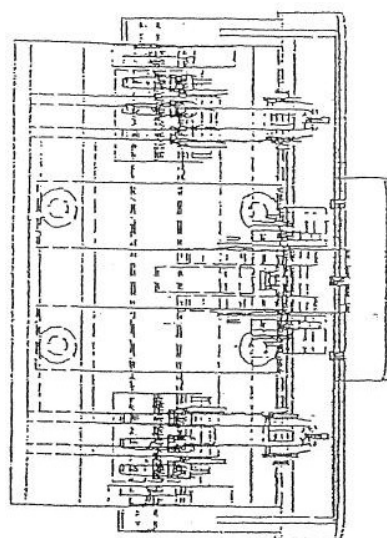
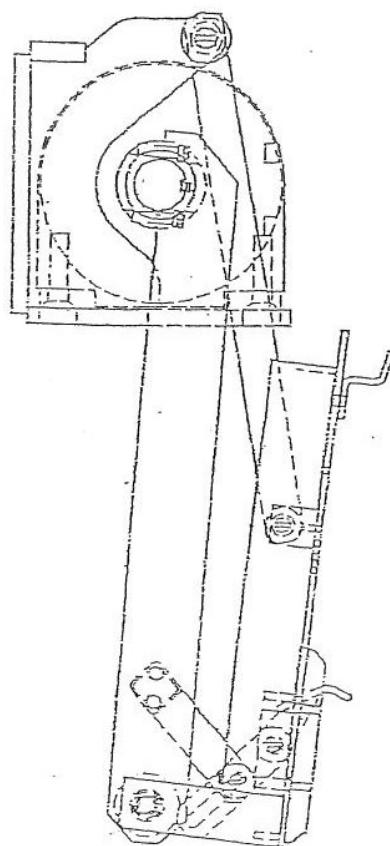
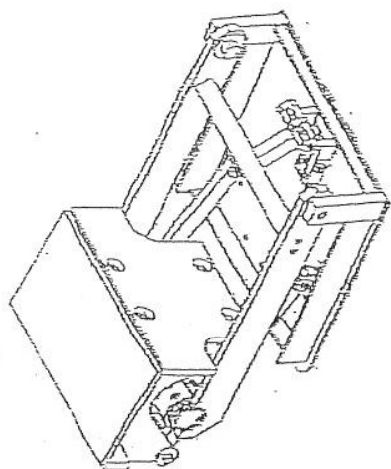
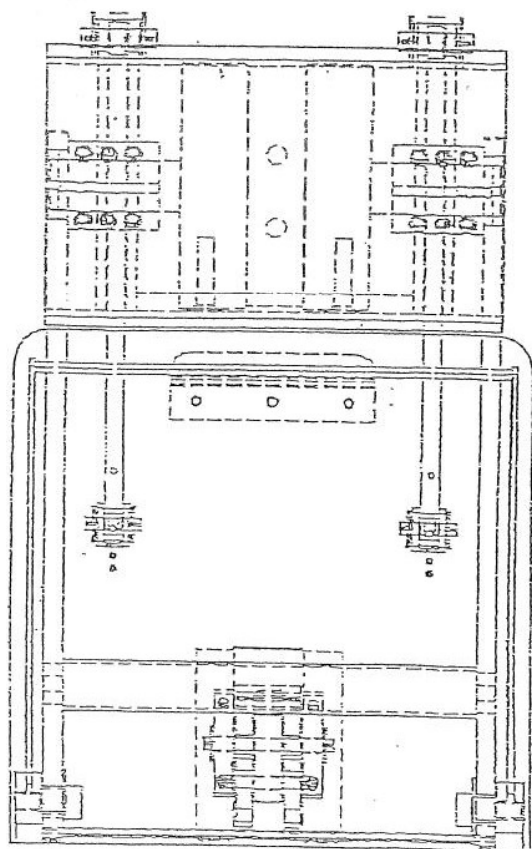


Drawn by: ESS Date: 2/6/98 Tolerances: Fract. +/- .030 .xxx +/- .005 .xx +/- .01		Description: HIGH LIFT DUMPER ASSEMBLY	
Quantity:		SIZE:	C
Material:		FSCM NO.:	3065-HL-9HXX
Approved by:	ELF	SCALE:	1 : 4
		SHEET:	1 of 1

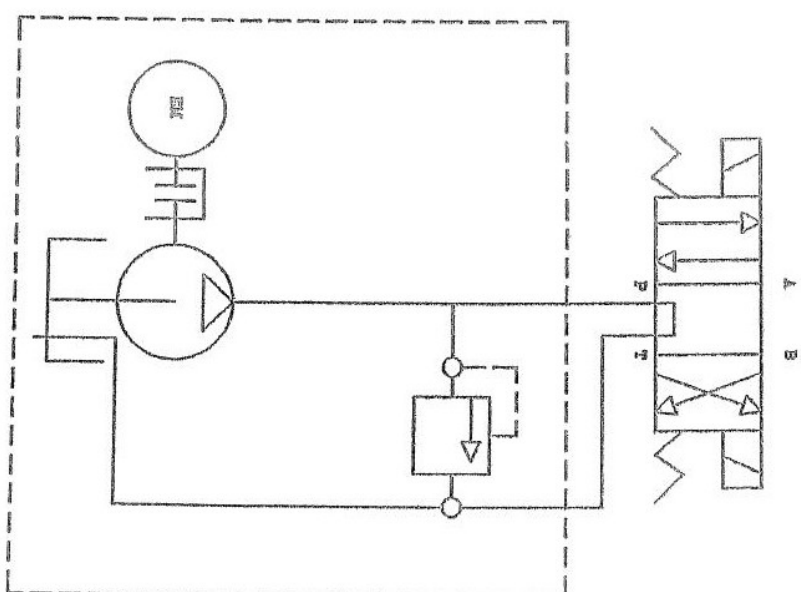
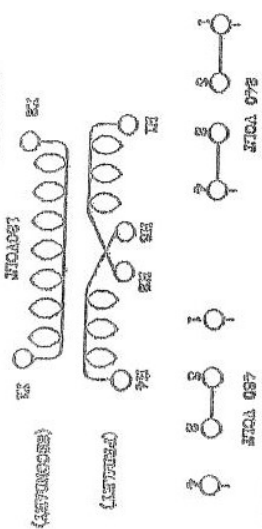
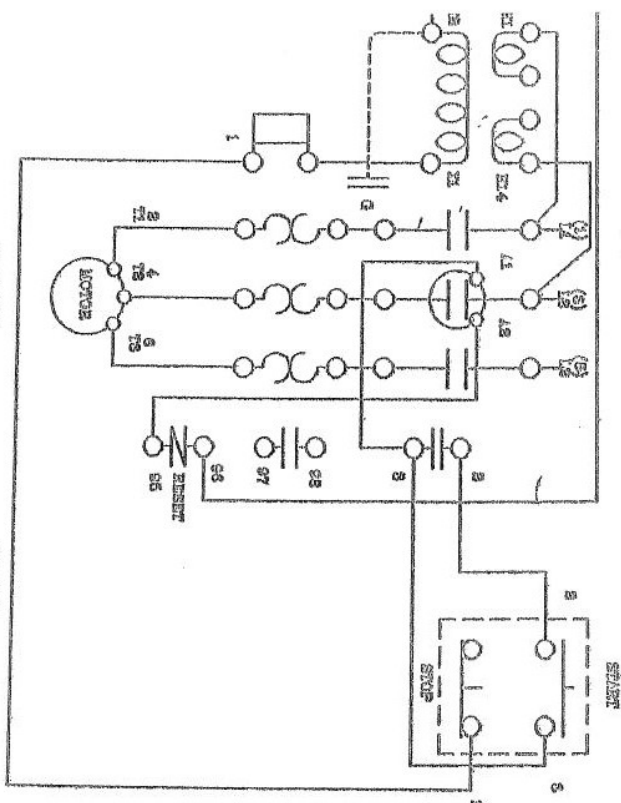
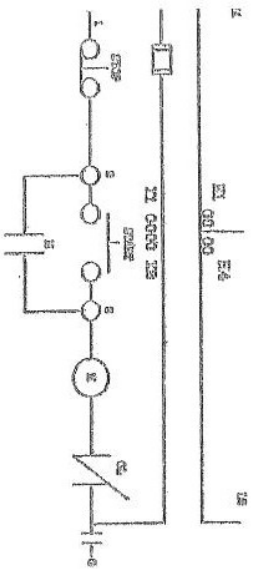
(NOTE)
 LIFT UNIT PARTS NUMBER
 MUST BE SUPPLIED TO ORDER
 ARMS AND MAIN LINKS

ITEM	PART NO.	DESCRIPTION/AMT/UNIT	QTY.
37	3065-HL-9021	HOOK OPERATOR BAR	1
36	3065-HL-9118 - 9130	LEFT ARM	1
35	3065-HL-9057	LINK PIVOT	2
34	3065-HL-9022	MOUNTING PLATE	1
33	3/8-16, 1" LONG	HEX.SD.HD.CAP SCR.	4
32	1/2"	LOCK WASHER	6
31	1/2-13, 1.375" LONG	HEX.SD.HD.CAP SCR.	2
30	3/4-10, 2.5" LONG	HEX.SD.HD.CAP SCR.	2
29	5030-00-0816	OLITE BEARING	2
28	3065-HL-8049	FACE BLOCK	2
27	3065-HL-8043	LIFT PLATE, WELD.	1
26	3065-HL-8050	HOOK BLOCK	2
25	5031-00-0510	OLITE BUSHING	4
24	3/8-16	NUT	3
23	3063-00-4414	SADDLE	1
22	3/8-16, 1.25" LONG	HEX.SD.HD.CAP SCR.	3
21	3/8"	LOCK WASHER	11
20	3/8-16, 2.25" LONG	HEX.SD.HD.CAP SCR.	4
19	5/8-11, 5/8" LONG	HEX.SD.FLAT.HD. SCR.	4
18	3065-HL-8059	BEARING SPACER	2
17	3/4"	LOCK WASHER	2
16	3/4-10	HEX. NUT	2
15	3065-HL-9118 - 9130	RIGHT ARM	1
14	3065-HL-8055	HOOK CAM PIN	1
13	3065-HL-8052	HOOK	2
12	3065-HL-8054	HOOK PIVOT PIN	1
11	1/8"DIA. x 1.00"LG.	COTTER PIN	8
10	5035-00-0755	SPHERICAL BEARING	2
9	3065-HL-8058	PLATE PIN	2
8	3065-HL-(9218-9230)	MAIN LINK (18-30")	2
7	5035-00-0780	SPHERICAL BEARING	2
6	5/32"DIA. x 1.50"LG.	COTTER PIN	4
5	3065-HL-8056	LINK PIVOT	2
4	3/4"	WIDE WASHER	6
3	1/2"	WIDE WASHER	8
2	3065-HL-9020	ACTUATOR FRAME	1
1	5000-00-5060	ROTARY ACTUATOR	1



[illegible]

ELECTRIC AND HYD. DIAGRAMS

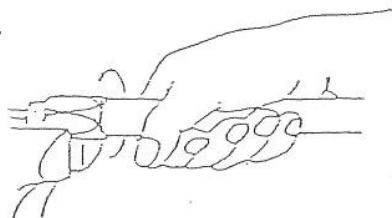


REVISION	DATE	BY	DESCRIPTION
1	10/1/50	J. H. S.	Initial wiring diagram
2	10/1/50	J. H. S.	Revised wiring diagram
3	10/1/50	J. H. S.	Revised wiring diagram
4	10/1/50	J. H. S.	Revised wiring diagram
5	10/1/50	J. H. S.	Revised wiring diagram
6	10/1/50	J. H. S.	Revised wiring diagram
7	10/1/50	J. H. S.	Revised wiring diagram
8	10/1/50	J. H. S.	Revised wiring diagram
9	10/1/50	J. H. S.	Revised wiring diagram
10	10/1/50	J. H. S.	Revised wiring diagram

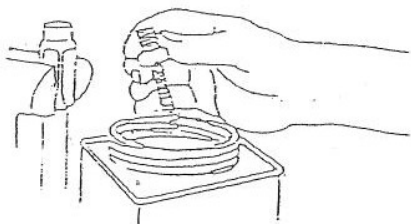
Assembling Reusable Type Hose Couplings

UNIROYAL

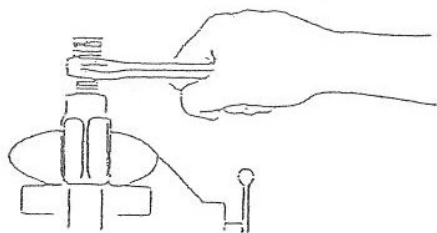
Non-Skived Hose without a Mandrel



Place socket in vise. Lightly oil and thread hose counter-clockwise into socket until hose bottoms. Back off $\frac{1}{2}$ turn.

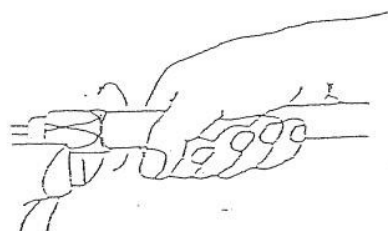


Oil nipple threads and inside of hose with light oil.

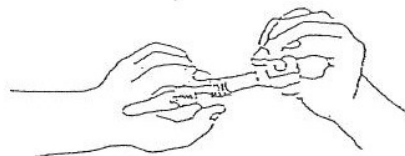


Thread nipple clockwise into socket until nipple hex shoulders against socket.

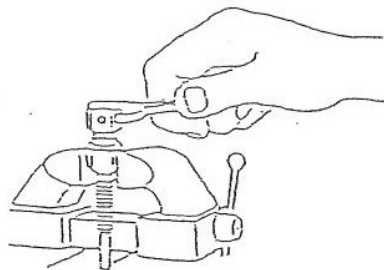
Non-Skived Hose with a Mandrel



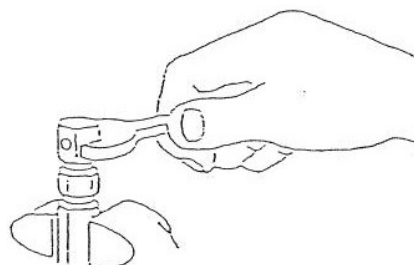
Place socket in vise. Lightly oil and thread hose counter-clockwise into socket until hose bottoms. Back off $\frac{1}{2}$ turn.



When assembling male pipe ends, slide nipple onto mandrel.



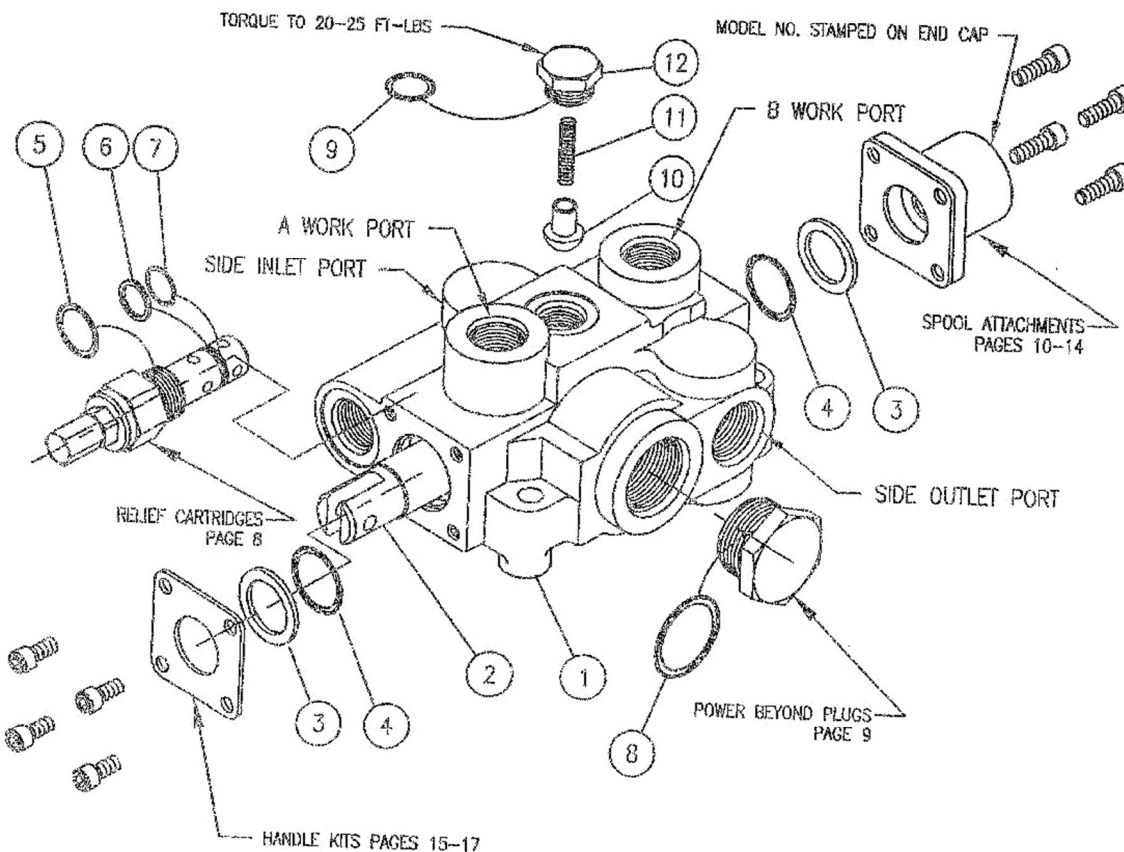
When assembling swivel ends, screw threaded mandrel all the way into interior threads of swivel, wrench tight.



Oil nipple threads and inside of hose with light oil. Push nipple into socket. Male Ends: thread nipple in until it bottoms against socket. Swivel Ends: apply wrench to hex of assembly mandrel. Thread nipple clockwise into socket until clearance between nut and socket is approximately $\frac{1}{16}$ " to allow nut to swivel. Remove mandrel.



RD5100



RD5100 1 SPOOL MONO-BLOCK VALVE

RD5100 1 SPOOL MONO-BLOCK VALVE

ITEM	QTY	PART NO.	DESCRIPTION
1	1		1 SPOOL VALVE BODY
2	1	SEE NOTE 1	SPOOL
3	2	670500010	SPOOL SEAL BACK-UP
4	2	240000213	213 O-RING
5	1	240000116	116 O-RING
6	1	240019015	015 BACK-UP
7	1	240000015	015 O-RING
8	1	240000916	916 O-RING
9	1	240000908	908 O-RING
10	1	670100001	LOAD CHECK POPPET
11	1	670300007	LOAD CHECK SPRING
12	1	671600001	LOAD CHECK PLUG

These are matched parts and are not sold separately.

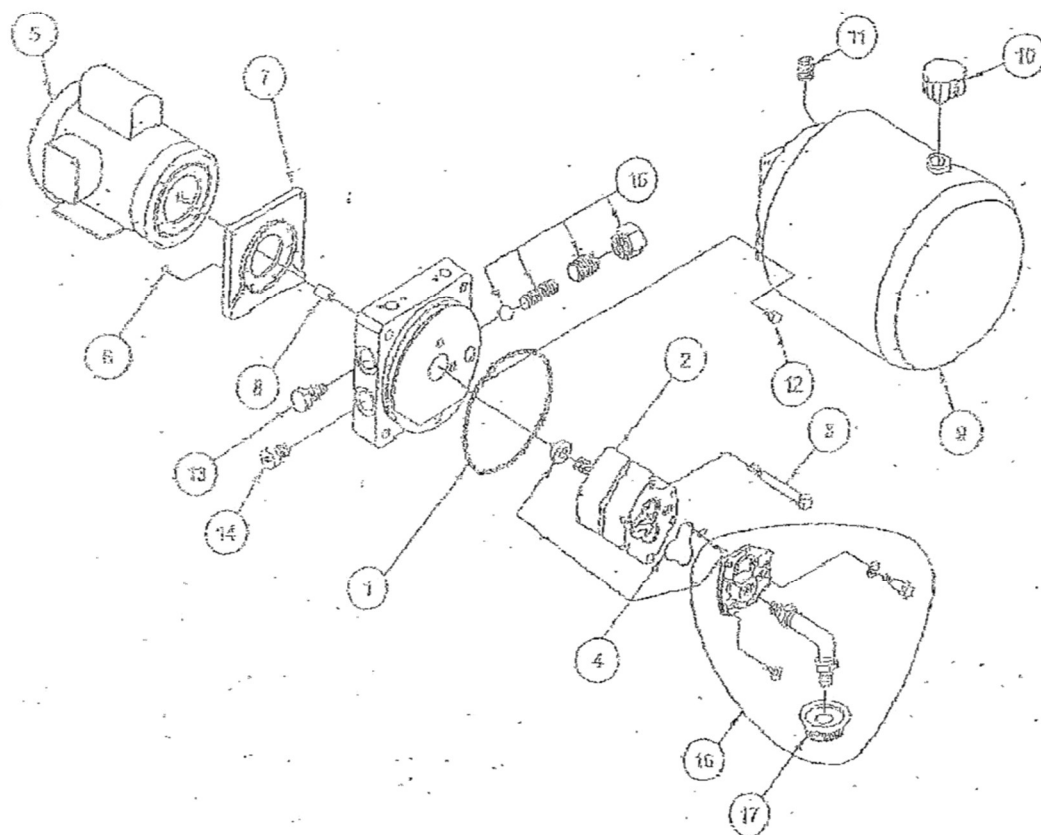
SEAL KIT 660551001 (PLUS OTHERS)

LOAD CHECK KIT, NO. 660150015

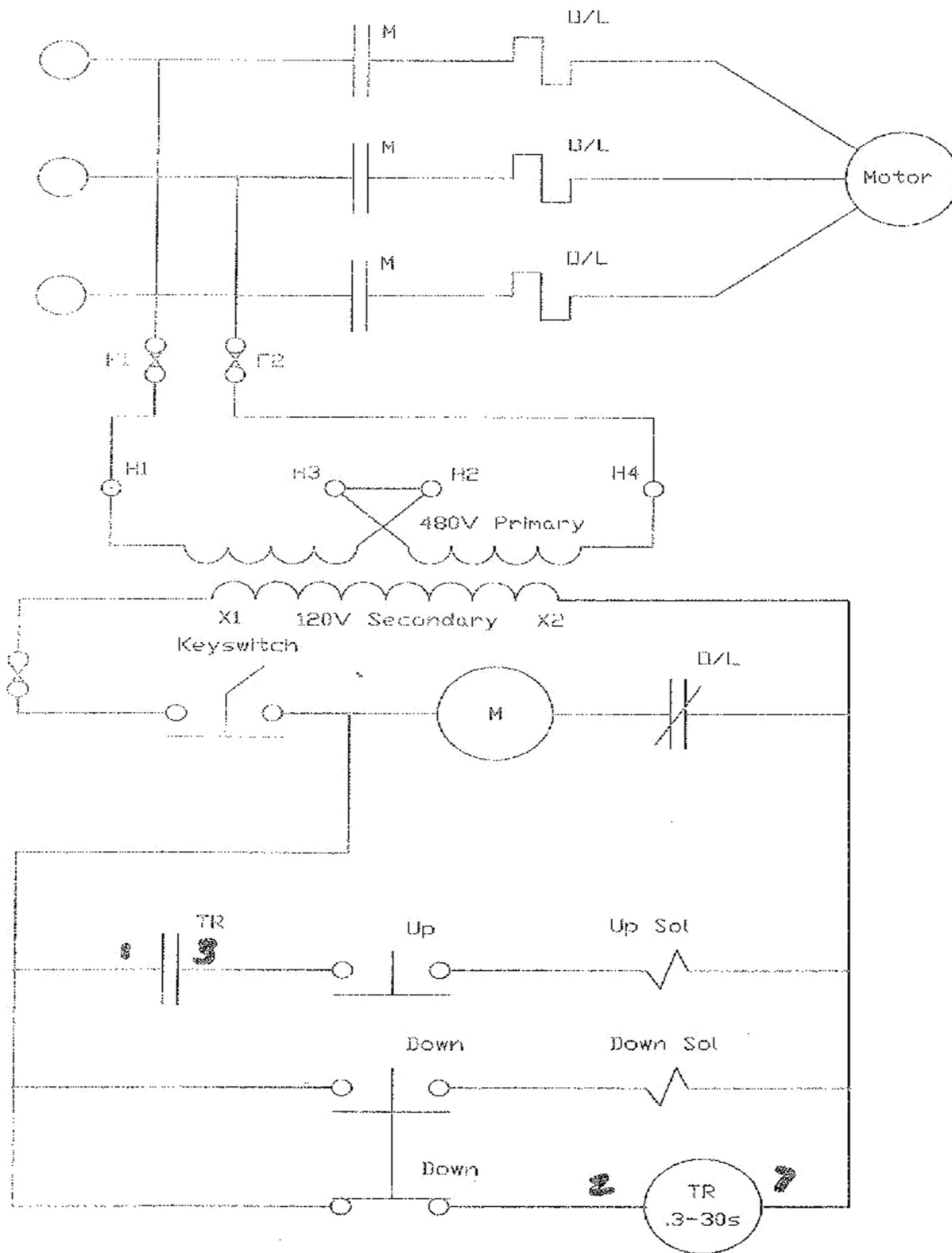
NOTES:

1. SEE SPOOL IDENTIFICATION CHART ON PAGE 7
2. VALVES WITH 3 WAY SPOOLS HAVE 'A' WORK PORT PLUGGED.

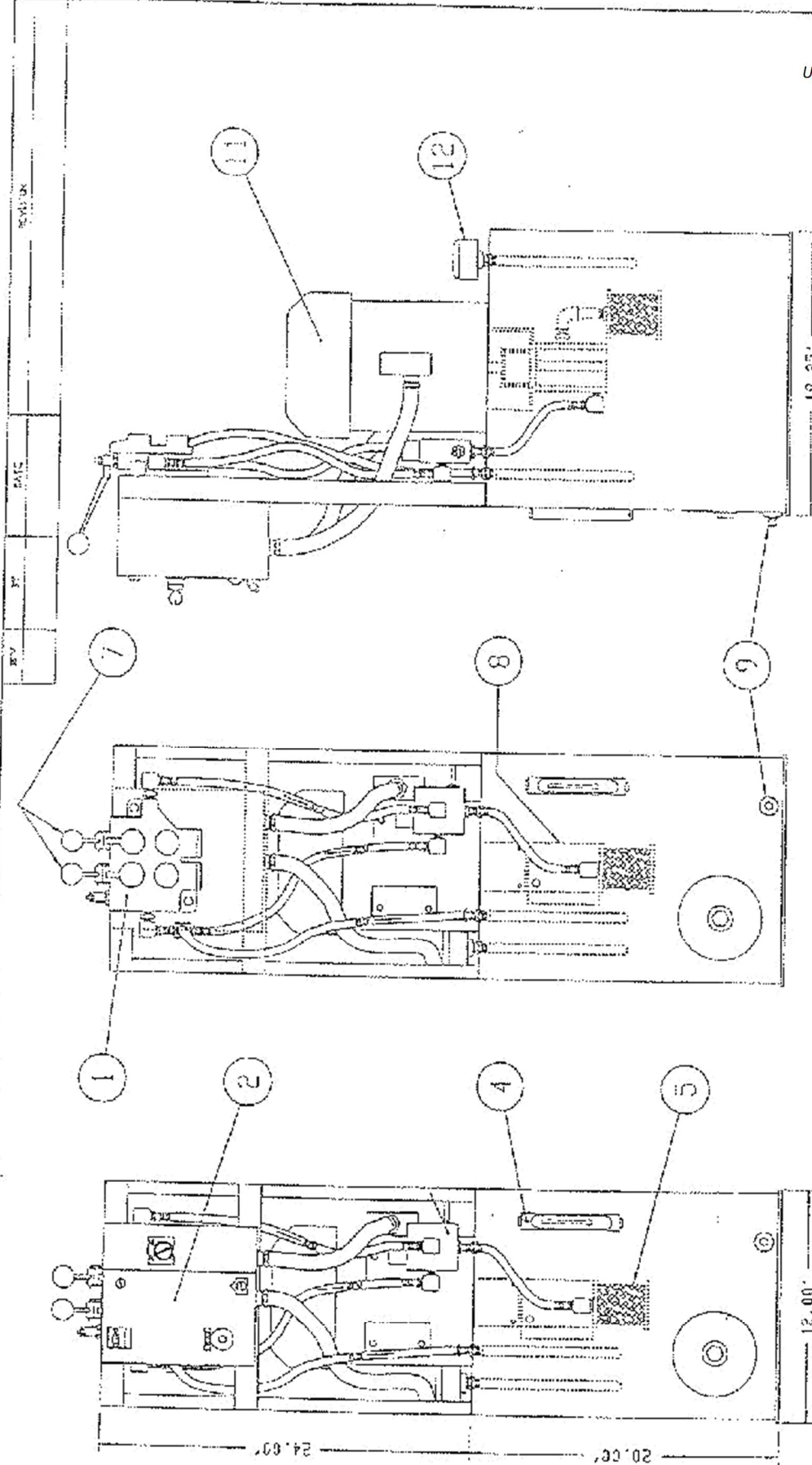
PARTS DRAWING 5354-F1-3001 POWER UNIT



1	Reservoir O-Ring	10	Breather
2	Pump	11	Plug
3	Bolt	12	Bolt
4	Seal Kit	13	Valve Plug 2-way
5	Single Phase AC Motor	14	Plug
6	Bolt	15	Dist. Relief Valve Kit
7	Motor Adaptor	16	Horizontal Plumbing Kit
8	Coupling	17	Filter
9	Reservoir		



Updated Fall 2015



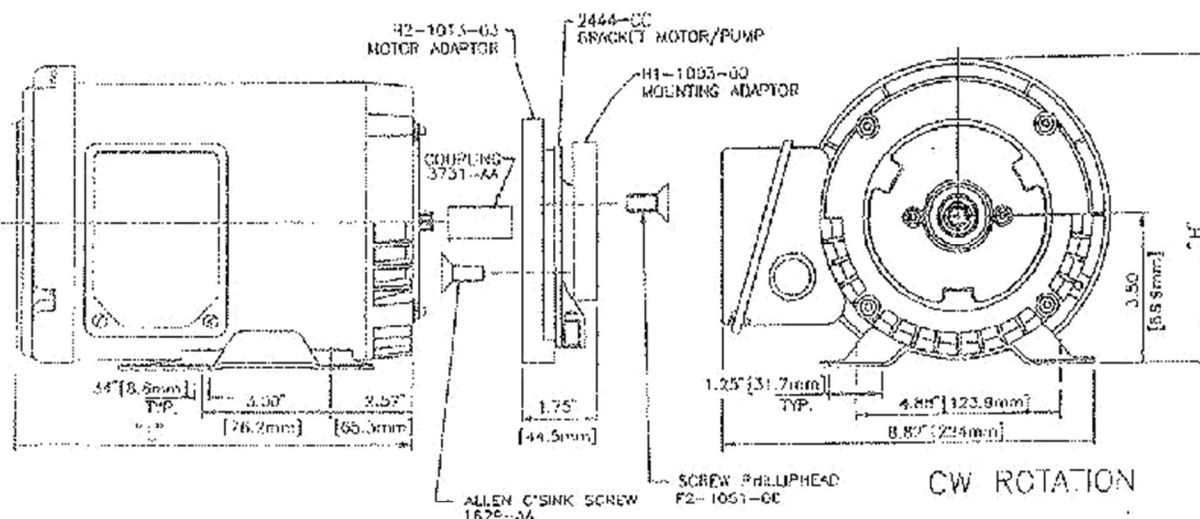
DO NOT SCALE	DATE	REV	BY
06/06/95	1	1	1
Toter [®] INCORPORATED STATESVILLE, N.C. LLOYD COLE 5 HORSE-POWER PINER UNIT DD1140 3075-00-6000			

APPALACHIAN MACHINE INC | 5304 Laboratory Street | Dublin, VA 24084

Phone: (540) 674-1914 | info@appalachianmachine.com | www.appalachianmachine.com

Fenner
 Fluid Power

DISTRIBUTOR MOTOR PUMP PROGRAM



MOTOR UNIT	MAXIMUM DIM.	
	"L"	"H"
MC18	11.19" [284.2mm]	7.18" [182.4mm]
MC19	12.50" [317.5mm]	7.18" [182.4mm]
MC20	13.53" [343.6mm]	7.44" [188.9mm]
MC22	11.19" [284.2mm]	7.18" [182.4mm]
MC24	11.19" [284.2mm]	7.18" [182.4mm]

ALL MOTORS ARE TOTALLY ENCLOSED,
FAN-COOLED (TEFC).

MOTORS ARE CONTINUOUS DUTY BUT CAN NOT
BE USED ABOVE THEIR RATED HORSEPOWER,
REGARDLESS OF DUTY CYCLE, AND MUST HAVE
FULL VOLTAGE TO ACHIEVE RATED HORSEPOWER.

FOR FLOWS OVER 3 GPM (11 LPM),
USE 1413-AA FILTER.

NOTE: FENNER USES A NETWORK OF QUALIFIED SUPPLIERS TO
ENSURE AVAILABILITY. THERE ARE MINOR DIMENSIONAL
AND COSMETIC DIFFERENCES BETWEEN VENDOR'S PRODUCTS.

PERFORMANCE AT 45 CST (200 SSU) AND 90% MECHANICAL EFFICIENCY.

PG-PUMP	PG10X0	PG10X1	PG10X2	PG10X3	PG10X4	PG10X5	PG10X6	PG10X7	PG10X8	PG10X9
MOTOR										
KMC18 2HP 3450 RPM, 3PH 230/460v 60Hz	7 GPM	91 GPM	1.3 GPM	1.7 GPM	2.2 GPM	2.7 GPM	3.5 GPM	4.4 GPM	NOT RECOMMENDED	
	3450 PSI	2850 PSI	2150 PSI	1700 PSI	1300 PSI	1000 PSI	750 PSI	500 PSI		
	2.7 LPM	3.5 LPM	5.1 LPM	6.6 LPM	8.4 LPM	10 LPM	14 LPM	17 LPM		
KMC19 3HP 3450 RPM, 3PH 230/450v 60Hz	240 BAR	200 BAR	150 BAR	115 BAR	90 BAR	70 BAR	50 BAR	35 BAR		
	.82 GPM	.85 GPM	1.2 GPM	1.6 GPM	2.1 GPM	2.6 GPM	3.4 GPM	4.3 GPM		
	3000 PSI	4300 PSI	3200 PSI	2550 PSI	2000 PSI	1600 PSI	1200 PSI	900 PSI		
KMC20 5HP 3450 RPM, 3PH 230/460v 60Hz	2.4 LPM	3.2 LPM	4.8 LPM	6.4 LPM	8.2 LPM	10 LPM	13 LPM	17 LPM		
	350 BAR	300 BAR	225 BAR	175 BAR	140 BAR	110 BAR	80 BAR	60 BAR		
	.62 GPM	.79 GPM	1.2 GPM	1.5 GPM	2.0 GPM	2.5 GPM	3.3 GPM	4.2 GPM		
KMC22 1/2HP 1725 RPM, 3PH 230/460v 60Hz	5000 PSI	5000 PSI	5000 PSI	4300 PSI	3400 PSI	2700 PSI	2050 PSI	1600 PSI		
	2.4 LPM	3.1 LPM	4.5 LPM	6.0 LPM	7.9 LPM	9.8 LPM	13 LPM	16 LPM		
	350 BAR	350 BAR	350 BAR	295 BAR	235 BAR	185 BAR	140 BAR	110 BAR		
KMC24 1HP 1725 RPM, 3PH 230/460v 60Hz	.35 GPM	.46 GPM	.65 GPM	.84 GPM	1.1 GPM	1.3 GPM	1.7 GPM	2.2 GPM	2.8 GPM	3.5 GPM
	1700 PSI	1200 PSI	1050 PSI	850 PSI	650 PSI	500 PSI	400 PSI	300 PSI	200 PSI	100 PSI
	1.4 LPM	1.8 LPM	2.5 LPM	3.3 LPM	4.2 LPM	5.2 LPM	6.7 LPM	8.5 LPM	11 LPM	14 LPM
KMC24 1HP 1725 RPM, 3PH 230/460v 60Hz	120 BAR	100 BAR	75 BAR	60 BAR	45 BAR	35 BAR	25 BAR	20 BAR	14 BAR	7 BAR
	.26 GPM	.38 GPM	.59 GPM	.8 GPM	1.0 GPM	1.3 GPM	1.7 GPM	2.2 GPM	2.7 GPM	3.5 GPM
	3450 PSI	2850 PSI	2150 PSI	1700 PSI	1350 PSI	1100 PSI	800 PSI	650 PSI	450 PSI	300 PSI
KMC24 1HP 1725 RPM, 3PH 230/460v 60Hz	1.0 LPM	1.5 LPM	2.3 LPM	3.1 LPM	4.0 LPM	5.0 LPM	6.5 LPM	8.3 LPM	11 LPM	14 LPM
	240 BAR	200 BAR	150 BAR	115 BAR	95 BAR	75 BAR	55 BAR	45 BAR	30 BAR	20 BAR

CHANGE

NEW DRAWING

FILE

THREE PHASE

SCALE

NONE

REV.

A

APPALACHIAN MACHINE INC | 5304 Laboratory Street | Dublin, VA 24084

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CHECK

DATE

PERFORMANCE CHART

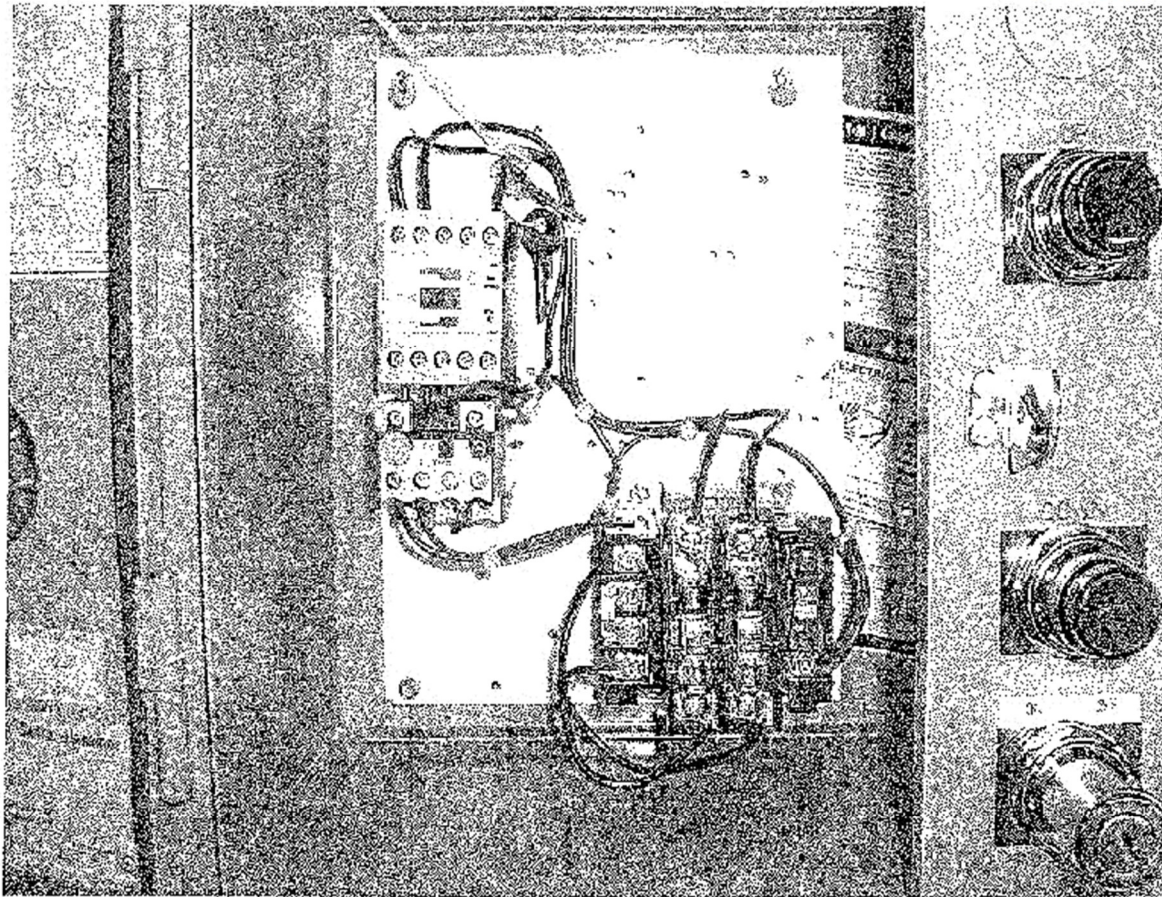
info@appalachianmachine.com

www.appalachianmachine.com

C/LC 104-AUG-95

2-7-15

PAGE 2 OF 2



PART NUMBER	DESCRIPTION
5354-MS-3230	208/240 VOLT STARTER
5354-MS-3480	480 VOLT STARTER
5354-MS3020	KEY SWITCH
5354-MS-3023	UP PUSH BUTTON
5354-MS-3024	DOWN PUSH BUTTON
5354-MS-3011	TRANSFORMER
5354-MS-3019	KEY
5354-MS-3021	CONTACT BLOCK OVERLOAD RELAY

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