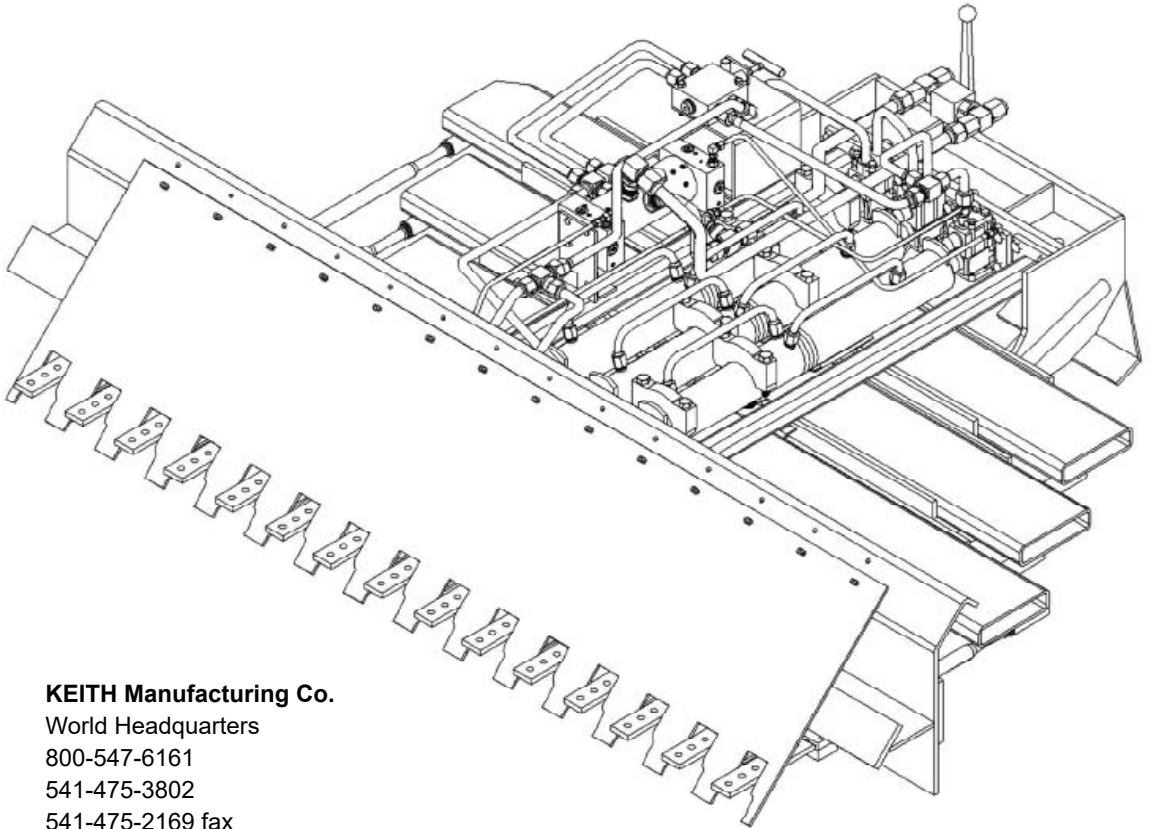


KEITH® **LEAKPROOF III**

UNLOADING SYSTEM



KEITH Manufacturing Co.

World Headquarters

800-547-6161

541-475-3802

541-475-2169 fax

OWNERS MANUAL **Original Instructions**

www.keithwalkingfloor.com

Updated 10/23/17

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Note:

The following parts guide is for KEITH® LEAKPROOF III Drive slat systems.
For all other systems please contact us for more information:

KEITH WALKING FLOOR Europe: +31 (0) 342-422007

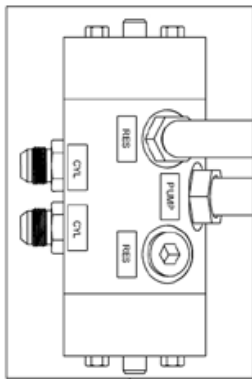
KEITH Manufacturing Co. USA: +1 (541) 475-3802

KEITH WALKING FLOOR International Mexico: +52 (33) 3616 5079

KEITH WALKING FLOOR International Canada: +1 (519) 756 9178

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NOTE: REFER TO PARTS SECTION FOR ADDITIONAL INFORMATION ON FITTINGS

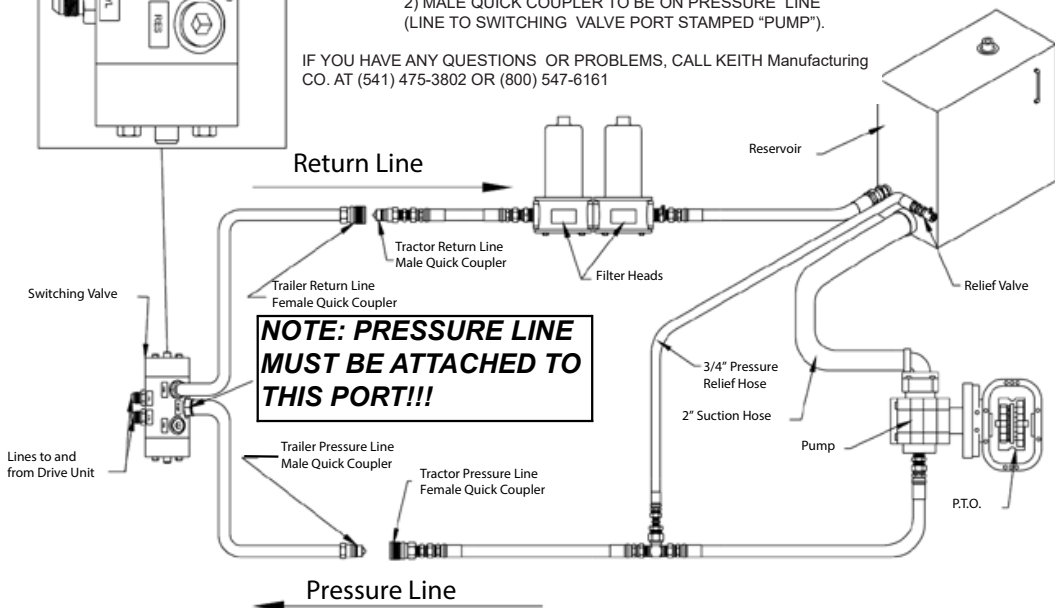


TO HAVE PROPER OPERATION OF YOUR KEITH WALKING FLOOR UNLOADER, THE FOLLOWING CHECK LIST AND DIAGRAM MUST BE FOLLOWED. THIS IS CRITICAL OR WARRANTY MAY BE VOIDED.

TRACTOR: 1) MALE QUICK COUPLER TO BE ON THE RETURN LINE (LINE THROUGH FILTER TO TANK).
2) FEMALE QUICK COUPLER TO BE ON PRESSURE LINE (LINE FROM PUMP).

TRAILER: 1) FEMALE QUICK COUPLER TO BE ON RETURN LINE (LINE FROM SWITCHING VALVE PORT STAMPED "RES")
2) MALE QUICK COUPLER TO BE ON PRESSURE LINE (LINE TO SWITCHING VALVE PORT STAMPED "PUMP").

IF YOU HAVE ANY QUESTIONS OR PROBLEMS, CALL KEITH Manufacturing CO. AT (541) 475-3802 OR (800) 547-6161



Start-Up Check List for the KEITH® LEAKPROOF III System

Before starting your new KEITH LEAKPROOF III unloader, a quick start-up check should be made.

1. Is your entire system plumbed to the plumbing diagram?
2. *Pump: Will it pump 30-35 GPM at pressure?
3. *Relief Valve: Is it set between 2800 to 3000 PSI?
4. Oil: Have you filled the reservoir?
5. P.T.O.: Is it engaged?
6. Quick Disconnects: Are they completely engaged?
7. Ball Valve: Is the ball valve on the drive unit closed?
8. Is the pressure line on the trailer attached to the pressure line on the tractor and the return line attached to the return line?

The pressure and return lines must attach to their proper ports on the switching valve.

***Note:** If the information about your pump and relief valve is not available, a pressure/flow check will help determine this information. Be sure that your entire wet kit system meets the requirements of the hydraulic wet kit specifications in this booklet.

OPERATION OF YOUR KEITH® LEAKPROOF III DRIVE

UNLOADING

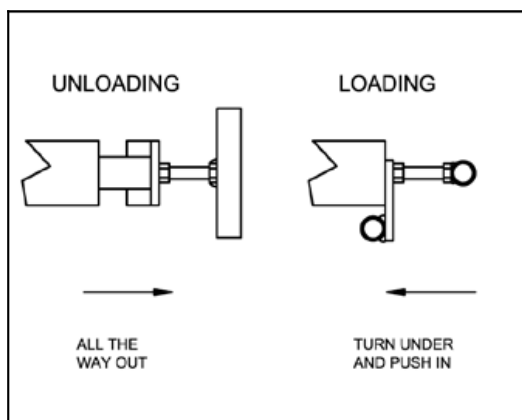
1. To unload with your KEITH LEAKPROOF III Drive, engage the P.T.O. then bring the tractor engine up to the predetermined unloading RPM.
2. Pull the control valve handle all the way out. (See Diagram A.)
3. Make sure that the ball valve, located between the pressure and return lines, is in the closed position. (See Diagram B.) This ball valve is used for the emergency shut-off. Your trailer floor should now be operating.
4. To stop the floor at any time during the loading or unloading process, switch the ball valve to the open position. (See Diagram B.)

LOADING

1. To manually load with your bidirectional KEITH LEAKPROOF III Drive, simply turn the control valve handle parallel to the ground and push it under the valve body. (See Diagram A.) Then follow instructions 1,3 and 4 listed above.

!!NOTE!!

Make sure the trailer door is open BEFORE starting the floor or the trailer door will be damaged.



**Diagram A: Control Valve
(Manual Version)**

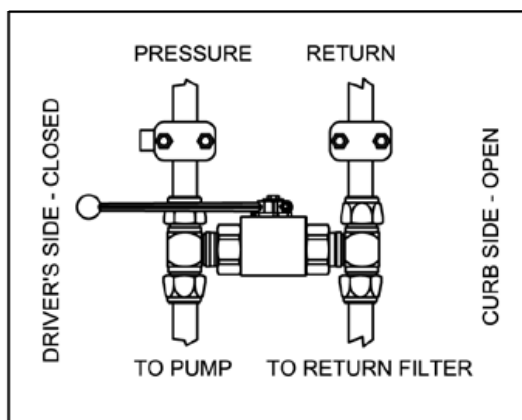
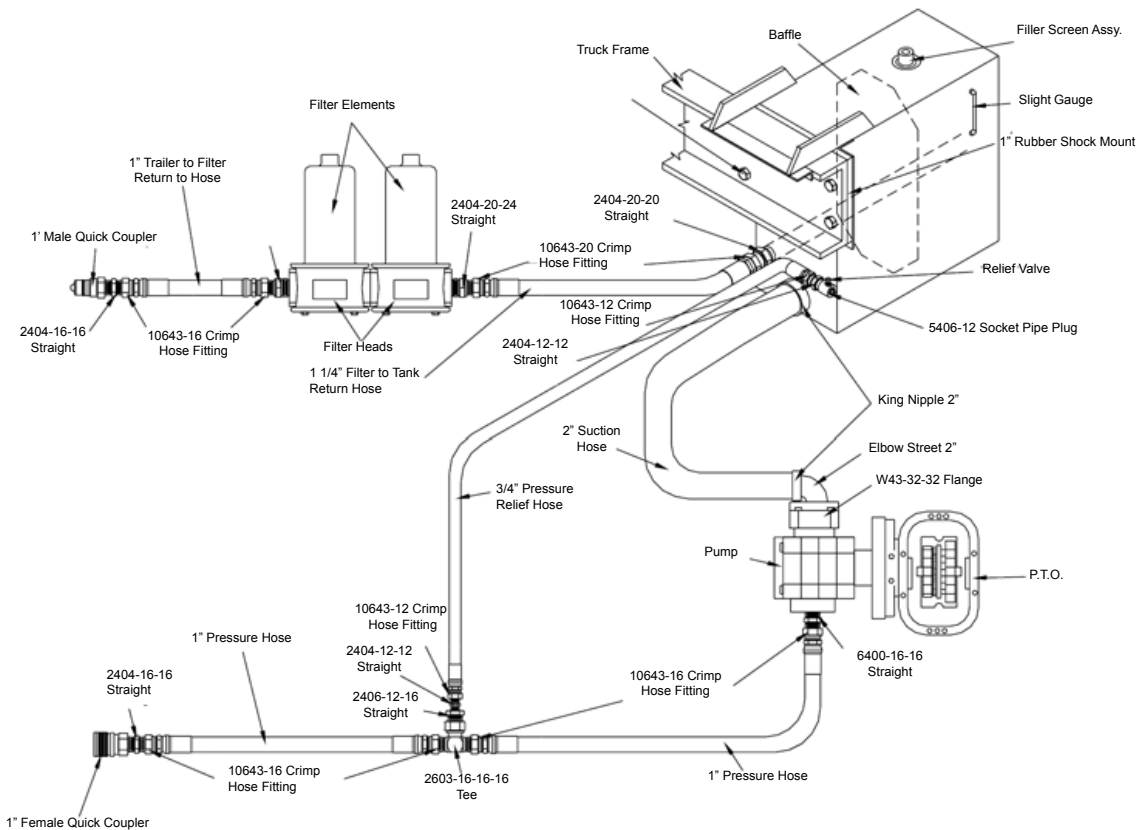


Diagram B: Ball Valve
(View in **Closed Position**. Push handle to the **curb side to open**.)
[View is from beneath the trailer.]



SPEED OF FLOOR IN RELATION TO ENGINE RPM

With a Fuller 13 or 15 speed transmission, a bottom mount 118% series 442/489 Chelsea power take off, and a Commercial p-51 pump with a 2 1/2" gear, the tractor unload RPM in relation to floor movement is as follows*.

TRUCK RPM	PUMP OUTPUT	FLOOR MOVEMENT
950 RPM	30 gallon	7.3 ft/minute
1270 RPM	40 gallon	9.8 ft/minute
1430 RPM	45 gallon	11.1 ft/minute
1750 RPM	55 gallon	13.3 ft/minute
1900 RPM	60 gallon	14.6 ft/minute

Above specifications are for KEITH® LEAKPROOF III Drive units with 80mm bore cylinders. These are approximate feet per minute only and should be used strictly as a guide.

Wet Kit Information

Transmission:	This wet kit is designed for a Fuller 13 or 15 speed transmission. All of the following information applies to this transmission. (P.T.O. specifications may vary with other transmissions. Please check with KEITH® Manufacturing Co. for specifications)
Oil:	Chevron AW46 hydraulic oil or equivalent.
P.T.O.:	Chelsea series 442/489 bottom mount (6 or 8 bolt) 118% Power Take Off (electric over speed is highly recommended), or Muncie P.C. 65 with electric over speed.
Pump:	Commercial P-51 A297BE (Spl.) 25-25 (2" four bolt suction) with Anchor W43-32-32 flange.
Filter:	Filter should be 10 micron on the return line. Filter should be a double element Zinga (or equivalent.) Filter head #DF-15-25. MF 2215-25-0-2-0 Filter element #LE-10 or LE-30. (The filter element should be changed after 6 hours initially, and then every 6 months thereafter. This may vary with the operating environment.)
Hydraulic Reservoir:	Should hold approximately 1 gallon of oil for every liter per minute you plan to pump, i.e. 40 GPM = 40 gallon reservoir. Reservoir should hold a minimum of 40 gallons of oil.
Suction Line:	Suction line from the tank to the steel tubing should be no more than 1 meter in length and a minimum of 2" inside diameter. Example: SAE-100R4. (This type of line has a spiral wire to keep the hose from collapsing under suction.)
Pressure Line:	Hose from truck to trailer should be 3/4" 16 SAE-100R2.
Return Line:	Hose from trailer to filter should be 3/4" 16 SAE-100R1. Hose from filter to tank should be 1-1/4" 20 SAE-100R1.
*Pressure Relief Valve:	Example: Cross #RD12D

***Note: It is critical that this relief valve is set at no less than 2800 PSI and no more than 3000 PSI.**

START-UP CHECK LIST

Before starting your new KEITH® LEAKPROOF III Drive, a quick start-up check should be made.

1. Is your entire system plumbed to the plumbing diagram?
2. *Pump: Will it pump 30-35 GPM at pressure?
3. *Relief Valve: Is it set at 2800-3000 PSI?
4. Oil: Have you filled the reservoir?
5. P.T.O.: Is it engaged?
6. Quick Disconnects: Are they completely engaged?
7. Ball Valve: Is the ball valve on the drive unit closed?
8. Is the pressure line on the trailer attached to the pressure line on the tractor and the return line attached to the return line?

The pressure and return lines must attach to their proper ports on the switching valve.

SWITCHING VALVE

Unloading

Problem: **Floor does not run at all.**

Check: All items on START-UP check list. (See Start-Up check list, above.)

Problem: **Cycle starts then floor stops.**

Specific trouble: Driver's side cylinder (#1) extends toward the front of the trailer, center cylinder (#2) extends toward the front of the trailer, passenger side cylinder extends toward the front of the trailer; then the system stops.

Solution: The (#6) check valve has malfunctioned. Replace the check valve.

Specific trouble: All three cylinders retract toward the rear of the trailer; then the system stops.

Solution: The (#1) check valve has malfunctioned. Replace the check valve.

Note: *If floor stops in the full rear position and the switching valve has switched, you may not have enough oil pressure. Less pressure is required to move the load than to pull the slats 1/3 at a time under the load.*

CHECK VALVE

Unloading

Problem: Does not cycle correctly.

1. **Specific trouble:** Cylinders (#1) and (#2) extend **together toward the front** of the trailer while unloading.

Solution: The check valve at the forward end of the cylinder (#1) has malfunctioned. Replace the check valve.

2. **Specific trouble:** Cylinders (#2) and (#3) extend together **toward the front** of the trailer while unloading.

Solution: The check valve at the forward end of the cylinder (#2) has malfunctioned. Replace the check valve.

3. **Specific trouble:** All cylinders extend together **toward the front** while unloading.

Solution: The control valve is bypassing or the check valves at the front of the (#1) & (#2) cylinders have malfunctioned. First replace the control valve. Then if the problem persists, replace the check valves.

Loading

Problem: Does not cycle correctly.

Specific trouble: Cylinders (#2) and (#3) extend together **toward the rear** of the trailer while loading.

Solution: The check valve at the rear end of the cylinder (#3) has malfunctioned. Replace the check valve.

Specific trouble: Cylinders (#1) and (#2) extend together **toward the rear** of the trailer while loading.

Solution: The check valve at the rear end of the cylinder (#2) has malfunctioned. Replace the check valve.

Specific trouble: All cylinders extend together **toward the rear** while loading.

Solution: The control valve is bypassing or the check valves at the rear end of the (#2) & (#3) cylinders have malfunctioned. First replace the control valve. Then if the problem persists, replace the check valves.

Note: When empty, some trailers will cycle in sequence forward 1-2-3, then back 3-2-1, (instead of all slats moving together.) This is **not** a malfunction; no repairs are needed. When a load is put on a trailer, the drag will cause the floor to sequence properly.

REPLACING A CHECK VALVE

Replacing a KEITH® LEAKPROOF III Drive check valve is a simple procedure. The tools required to do this are:

- (1) 1/2" socket
- (1) 6" or 12" extension
- (1) ratchet

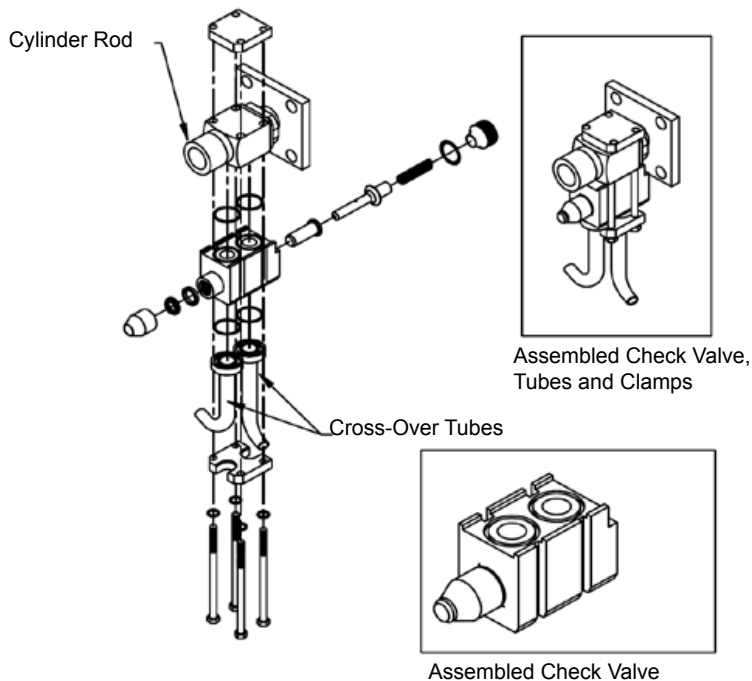
DISASSEMBLY

Before removing any bolts, run the cylinder away from the check valve in order to free it. Next remove the four 5/16" x 5-1/2" bolts and the tube clamp. Loosen the other end of the tubes and remove the check valve.

ASSEMBLY

First, make sure all of the surfaces are clean and the O-Rings are in their proper places. Put the new check valve in place making sure it seats flat on the rod end. Put the tube clamp back on the 5/16" x 5-1/2" bolts back in. Make sure the tubes fit snugly back into the tube clamp and tighten the 5/16" x 5-1/2" bolts down. Tighten the other ends of the cylinder cross-over tubes and run the floor to check for leaks.

***SEE CHECK VALVE ASSEMBLY PARTS LIST AND DIAGRAM TO IDENTIFY PARTS BY GIVEN NUMBERS.**



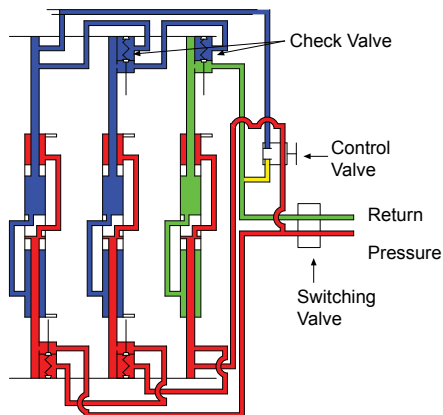
Oil Flow Diagram (Phase #1 through #4) Unloading LEAKPROOF III DRIVE

Pressure

Return

Blocked Return Oil

Standing Oil



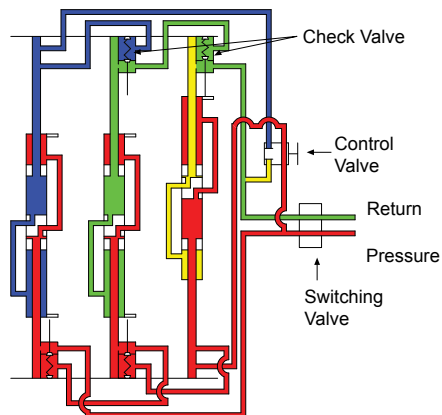
Phase 1

Pressure in the rear of all cylinders as shown in ■.

■ Open to return.

■ Blocked by check valves.

Note: Phase 1 requires more pressure than phase 4.

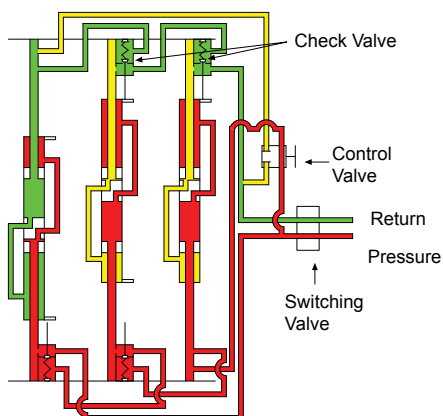


Phase 2

The #1 cylinder completes its full stroke, opening the check valve and allowing the oil in the #2 cylinder to escape as shown in ■. (■ Shows standing oil.) Pressure still in rear of all cylinders as shown in ■.

■ Blocked by check valve.

Note: Phase 2 requires more pressure than phase 1.

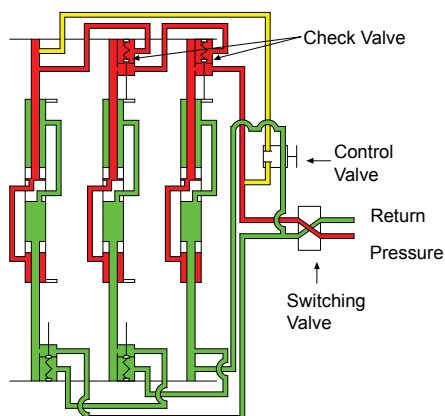


Phase 3

The #2 cylinder completes its full stroke, opening the check valve and allowing the oil in the #3 cylinder to escape to return as shown in ■. (■ Shows standing oil.) Pressure still in rear of all cylinders as shown in ■.

Note: Phase 3 requires more pressure than phase 2.

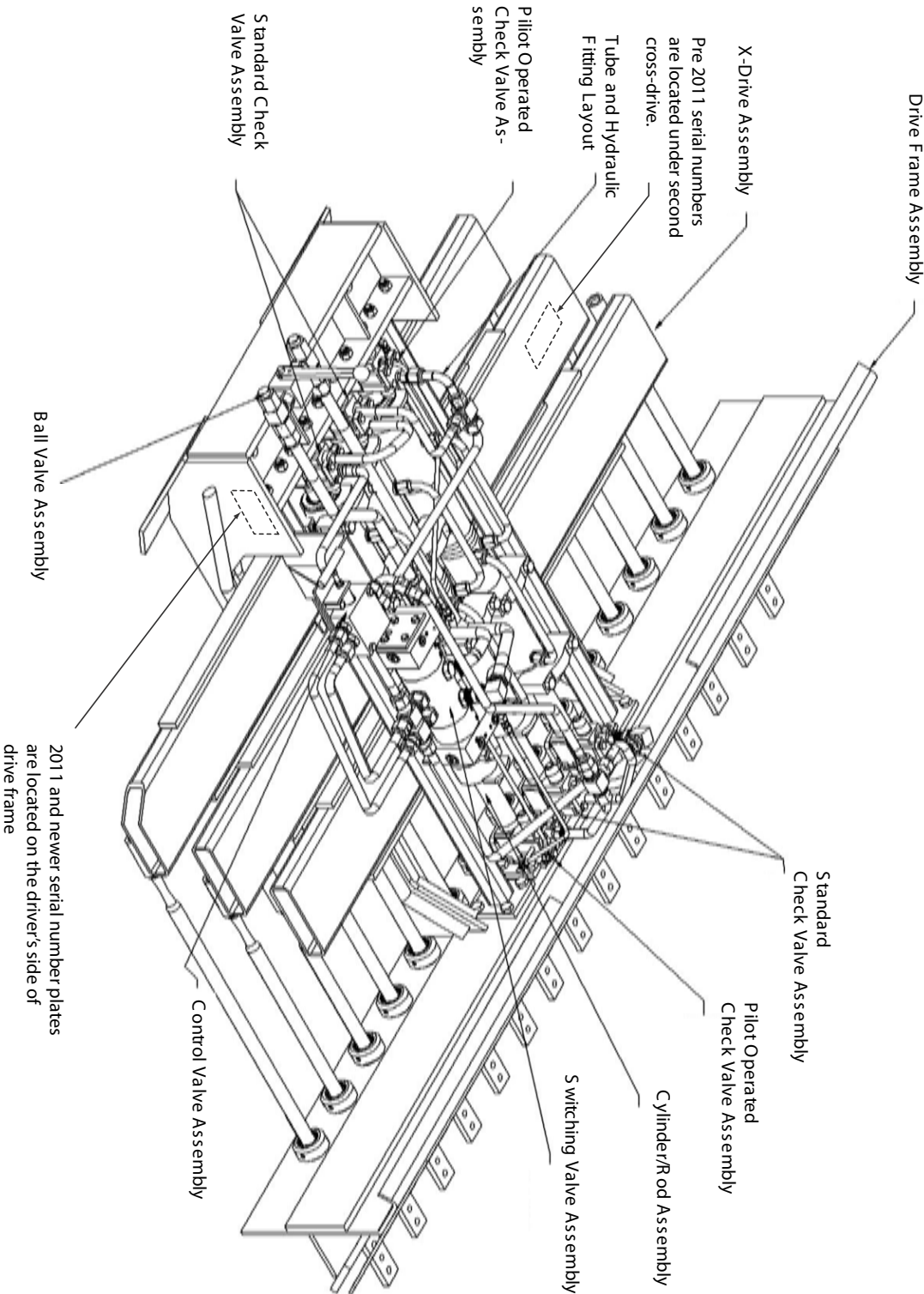
KEITH® RUNNING FLOOR II™ - OIL FLOW DIAGRAM, revised May, 2001

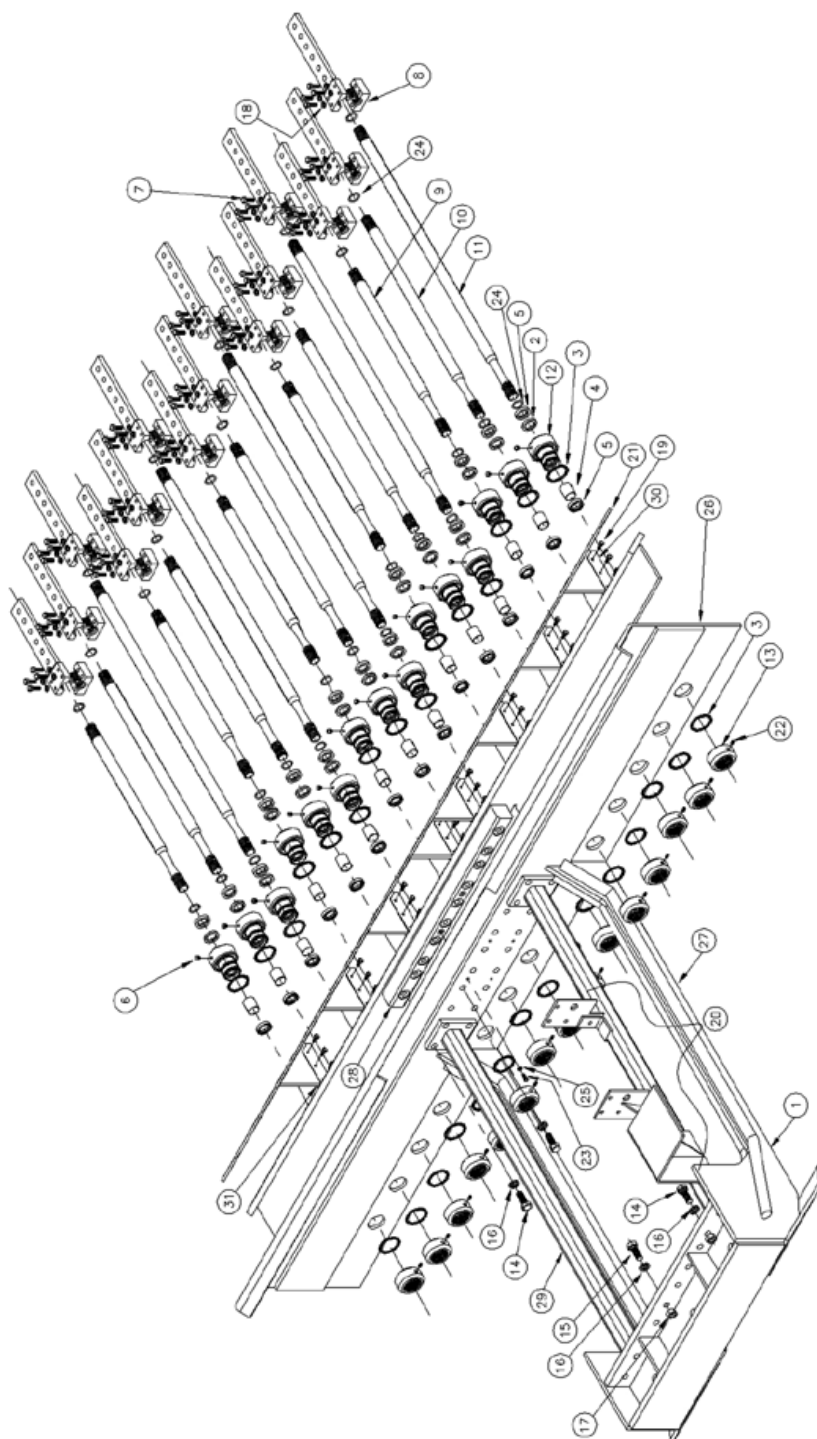


Phase 4

When the #3 cylinder completes its stroke, the pressure and return are switched by the switching valve, transferring the pressure to the front of all cylinders as shown in ■. All cylinders are open to return as shown in ■. All cylinders move to rear of trailer together, moving the load.

Note: Phase 4 requires less pressure than phases 1, 2, or 3.





ID #	QUANTITY	DESCRIPTION	PART #
_(⁽¹⁾)	1	Drive Frame Assembly Steel	05028101
-	-		-
1(⁽¹⁾)	1	Drive Frame Steel	04965201
	15	Waterdam Bushing Assembly	01322901
		Includes items 2-6, 12,13 & 22	
2	15	Seal Rod O-Ring 216 90 Duro Urethane	84382400
3	30	O-Ring 330	84386200
4	15	Wear Ring Rod 1 1/8" WO62-1250-1500	84402000
5	30	Wiper Rod 1 1/8" J1125	84425800
6(⁽¹⁾)	15	Fitting Grease	varies
7	60	Bolt Hex GR5 3/8"x1 3/4"	86439000
8	15	Clevis Bar Assembly	03094601
9	5	Rod Drive 24"	03383901
10	5	Rod Drive 29 1/4"	03386901
11	5	Rod Drive 39 3/4"	04792501
12	15	Bushing Drive Rod	03421201
13	15	Jam Nut Bushing Drive Rod	03421301
14	16	Bolt Socket Head GR8 5/8"x2-1/2"	86466000
15	24	Bolt Hex GR8 5/8"x1-3/4"	86464000
16	40	Washer Lock 5/8"	86559000
17	20	Hex Nut 5/8"	86632000
18	60	Washer Lock 3/8"	86555000
19	24	Rolock Self-Tapper 1/4" x 3/4"	86411500
20	1	Mount Bar Assembly Switching Valve	04935201
21(⁽¹⁾)	1	Shield Lower Assembly	04880201
22	15	Set Screw 3/8"x3/8" Socket	86435500
23	4	Bolt Hex GR5 1/4"x2"	86418500
24	30	O-Ring 314	84385800
25	4	Washer Lock 1/4"	86551500
26	1	Water Dam	04965301
27	2	Profile Plate	04965401
28	2	Bolt Bar	04792701
29	1	Drive Tube	04790801
30	4	UHMW Extension Bearing, Left	04059401
31	4	UHMW Extension Bearing, Right	04060301

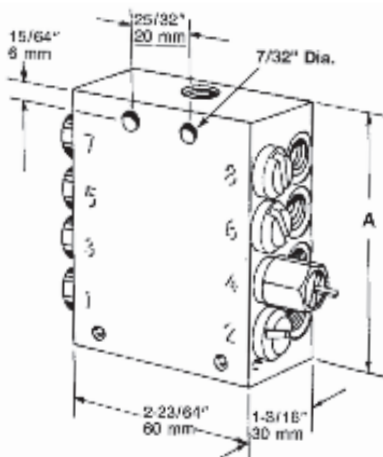
(1) Part numbers and descriptions vary based on drive configuration and application.

Quickclub® Lubrication Systems

Divider Valves



SSV Divider Valves



The SSV Divider Valve is the “heart” of a manual or automated Quickclub system. Featuring from six to 18 outlets, the SSV valve is available in carbon steel and 303 stainless steel for corrosive environments. Valves are available with cycle indicator pins to provide visual indication of system operation.

Specifications:

Construction Material	Max. Operating Pressure Min. Operating Pressure	Output/Cycle per Outlet cu. in. / cc	Lubricant Inlet	Operating Temperature	
				Min.	Max.
Carbon Steel	5076 psig / 350 bar 350 psig / 20 bar	.012 / .2	1/8" NPTF(F)	-22°F (-30°C)	212°F (100°C)
Stainless Steel			1/8" BSP(P)*		

Note: Lubricant outlet must use Lincoln Quickclub fittings. See Divider Valve Accessories section.
* 241650 stainless steel adapter available to convert inlet to 1/8" NPTF (F).

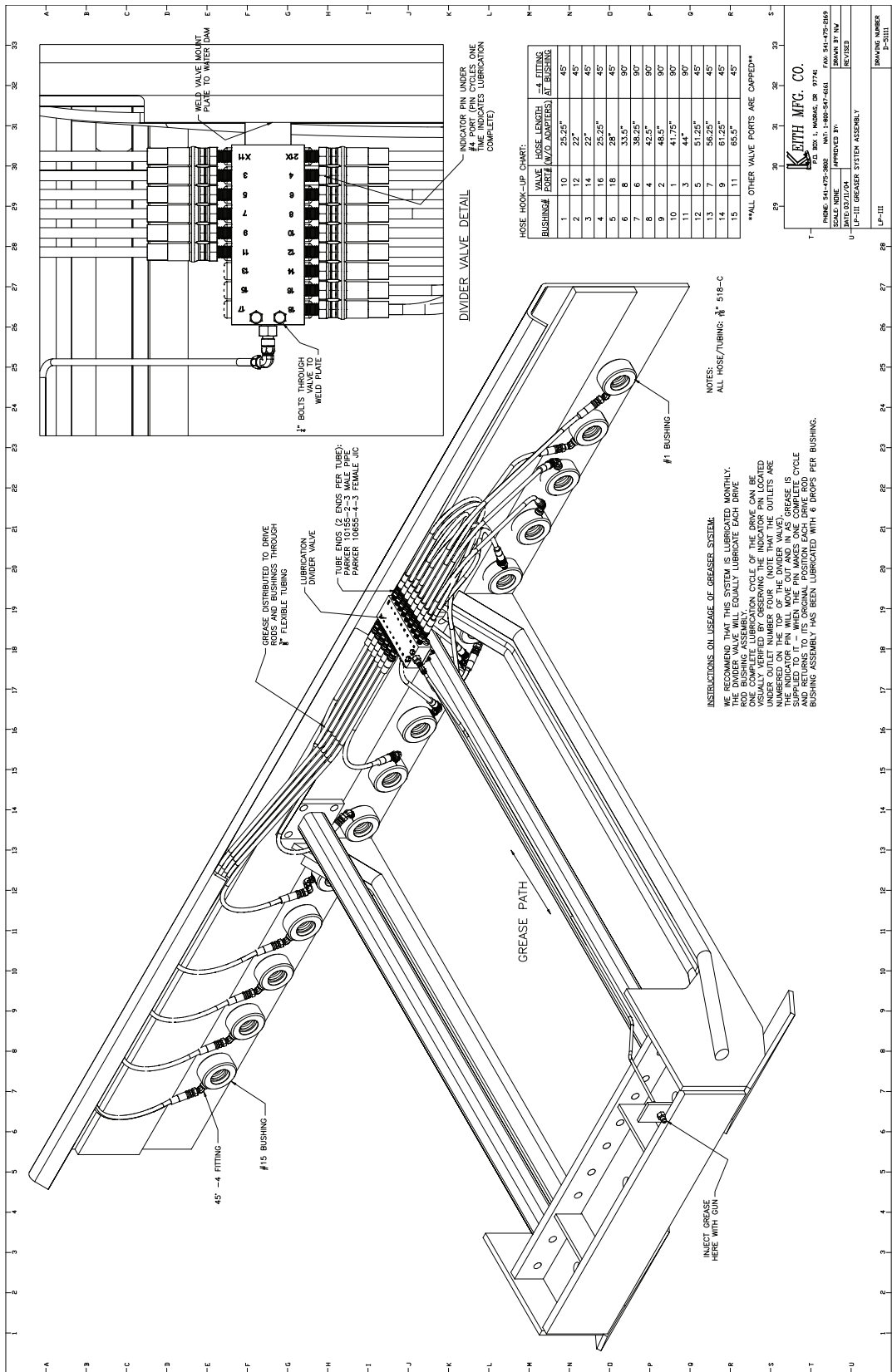
Model No.		Maximum Number of Outlets	Cycle Indicator Pin	Dimension A in. / mm
Carbon Steel	303 Stainless Steel			
619-27121-1		6	No	2.36 / 60
619-27122-1	619-27472-1		Yes	
619-26396-2		8	No	2.95 / 75
619-26646-2	619-27474-1		Yes	
619-26844-1		10	No	3.54 / 90
619-26845-2	619-27476-1		Yes	
619-26398-2		12	No	4.14 / 105
619-26648-2	619-27478-1		Yes	
619-29400-1		14	No	4.8 / 120
619-28899-1			Yes	
619-29401-1		16	No	5.4 / 135
619-28900-1			Yes	
619-28901-1		18	Yes	6.50 / 165

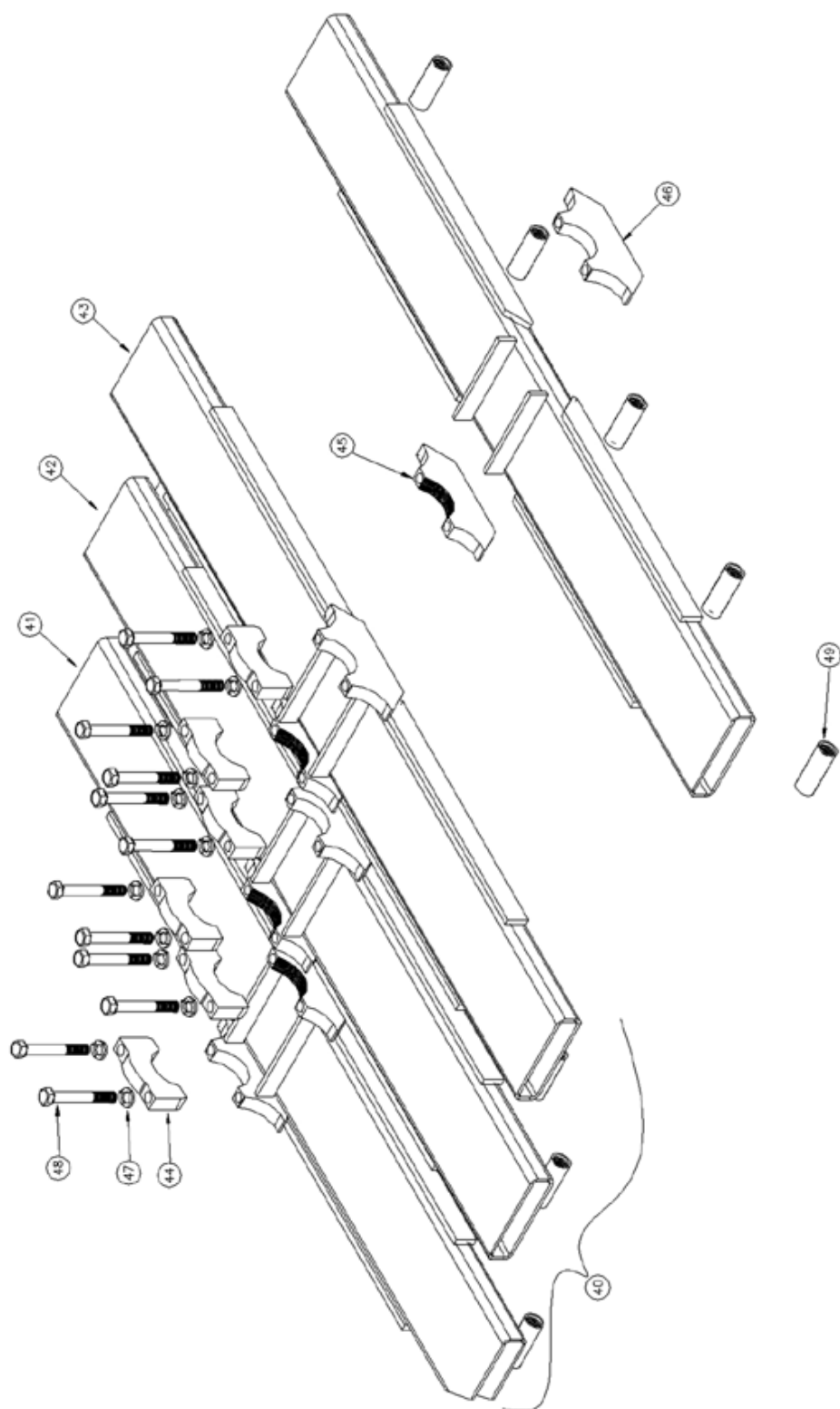
Note: You must use outlets 1 and 2 for each of the above referenced models to allow the system to operate properly.

SSV Divider Valve Accessories

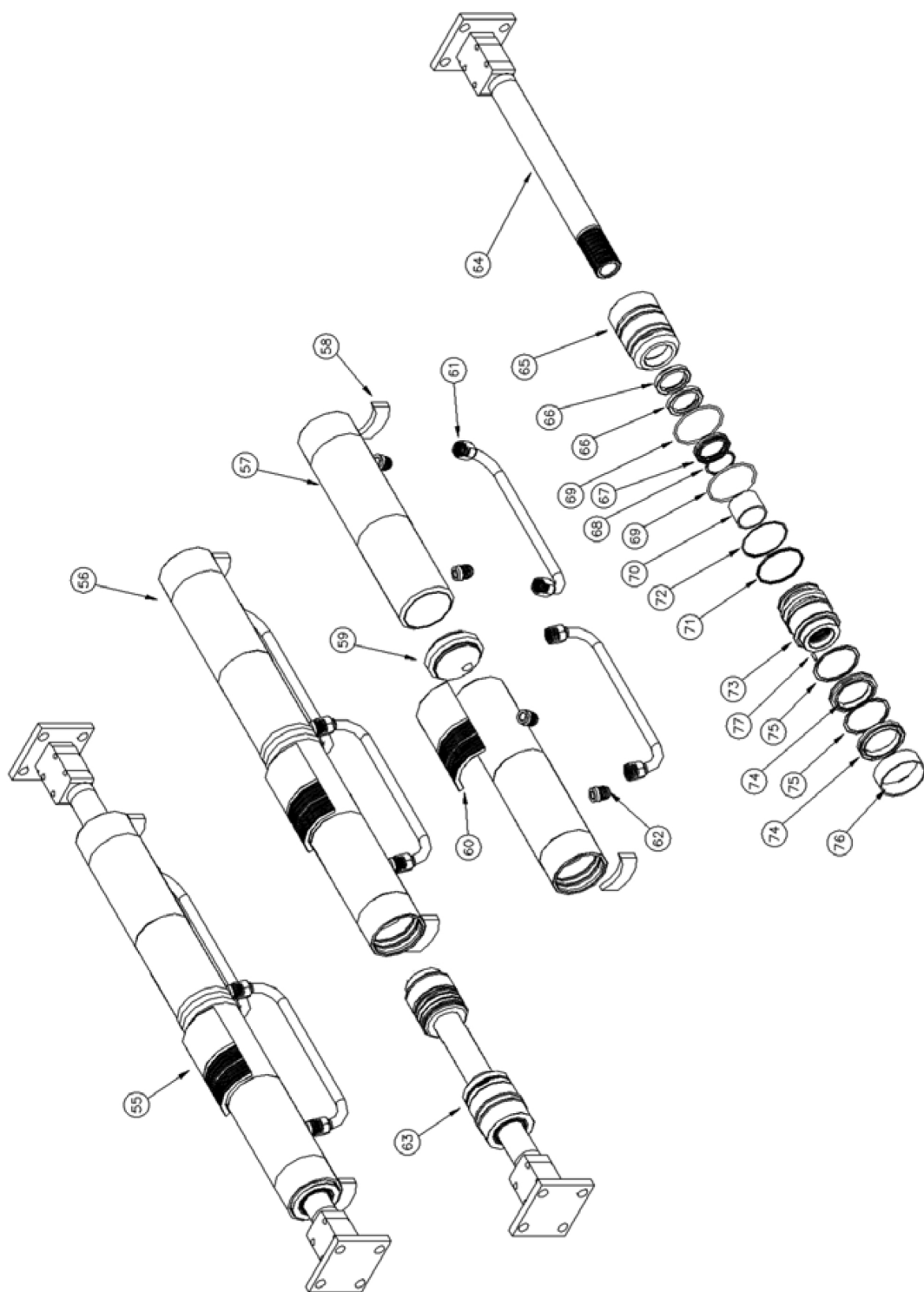
Model Number	Description
249010	Cycle switch for providing feedback monitoring for SSV systems - 11" cable / 26-gauge wire
249982	Cycle switch for providing feedback monitoring for SSV systems - 32" cable / 22-gauge wire
519-34271-2	Proximity switch with open-end plug

Note: Cycle switch can only be used with SSV Series Quickclub valves that have indicator pins. Remove slotted plug from indicator assembly on valve prior to installing switch.





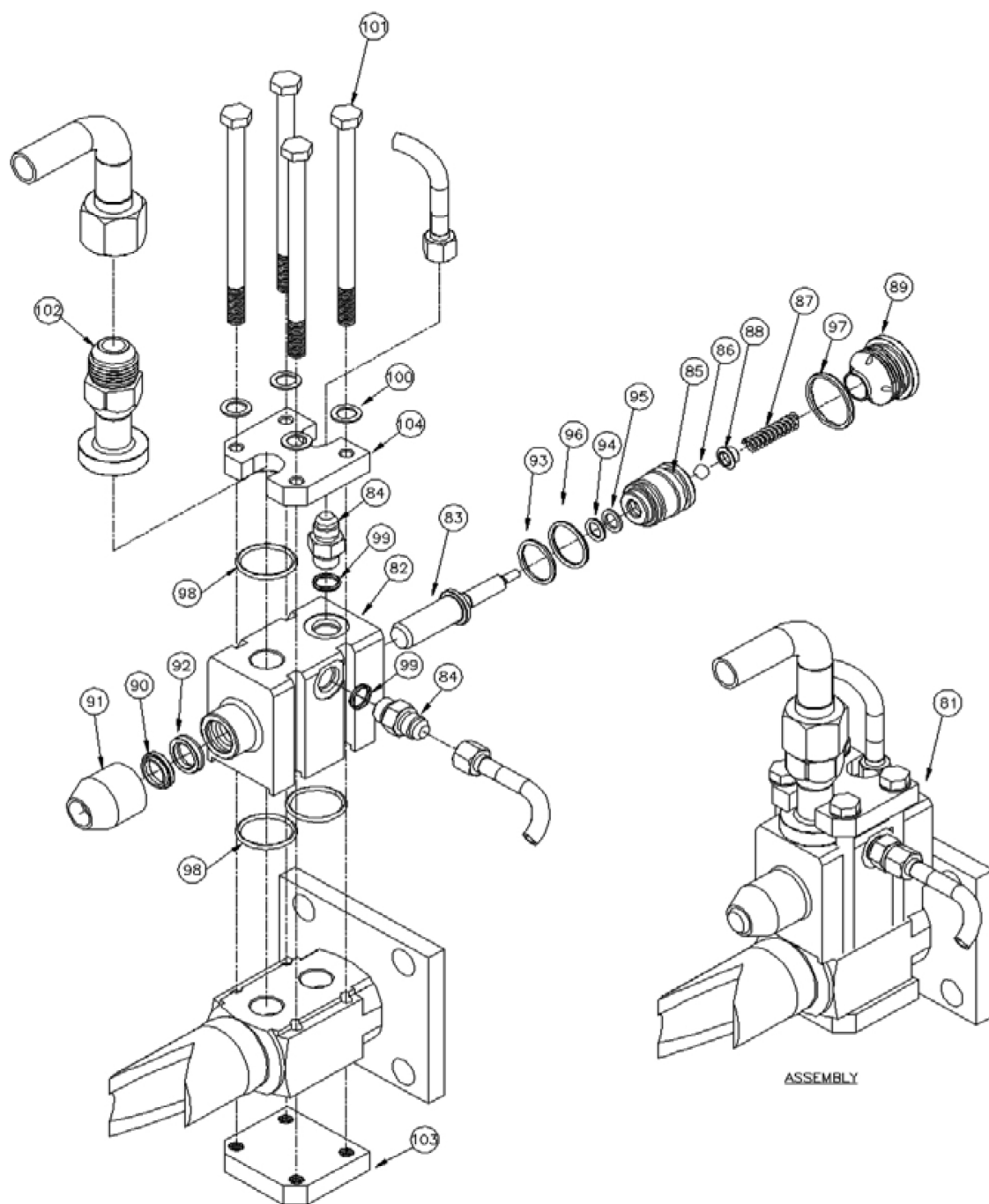
ID#	QUANTITY	DESCRIPTION	PART#
40	1	Cross-Drive 15 Slat 3 Cylinder Set 80mm	04755001
40	1	Cross-Drive 15 Slat 3 Cylinder Set 90mm	04755021
-	-	Includes Items 41-43	-
41	1	Cross-Drive 15 Slat 3 Cylinder #1 80mm	04755002
41	1	Cross-Drive 15 Slat 3 Cylinder #1 90mm	04755022
42	1	Cross-Drive 15 Slat 3 Cylinder #2 80mm	04755003
42	1	Cross-Drive 15 Slat 3 Cylinder #2 90mm	04755023
43	1	Cross-Drive 15 Slat 3 Cylinder #3 80mm	04755004
43	1	Cross-Drive 15 Slat 3 Cylinder #3 90mm	04755024
44	6	Clamp Lower Barrel 80mm	04756801
44	6	Clamp Lower Barrel 90mm	03144801
45	3	Clamp Grooved Barrel 80mm	04756301
45	3	Clamp Grooved Barrel 90mm	05250301
46	3	Clamp Smooth Barrel 80mm	04756201
46	3	Clamp Smooth Barrel 90mm	05250401
47	12	Washer Nordlock 3/4"	87078401
48a	12	Bolt Hex GR8 3/4"x5" (Smooth Barrel Clamp) 80mm	86474050
48a	12	Bolt Hex GR8 3/4"x4 1/2" (Smooth Barrel Clamp) 90mm	86474000
48b	6	Bolt Hex GR8 3/4"x5 1/2" (Threaded Barrel Clamp) 80mm	86474060
48b	6	Bolt Hex GR8 3/4"x5" (Threaded Barrel Clamp) 90mm	86474050
49	15	Drive Shoe	03156301



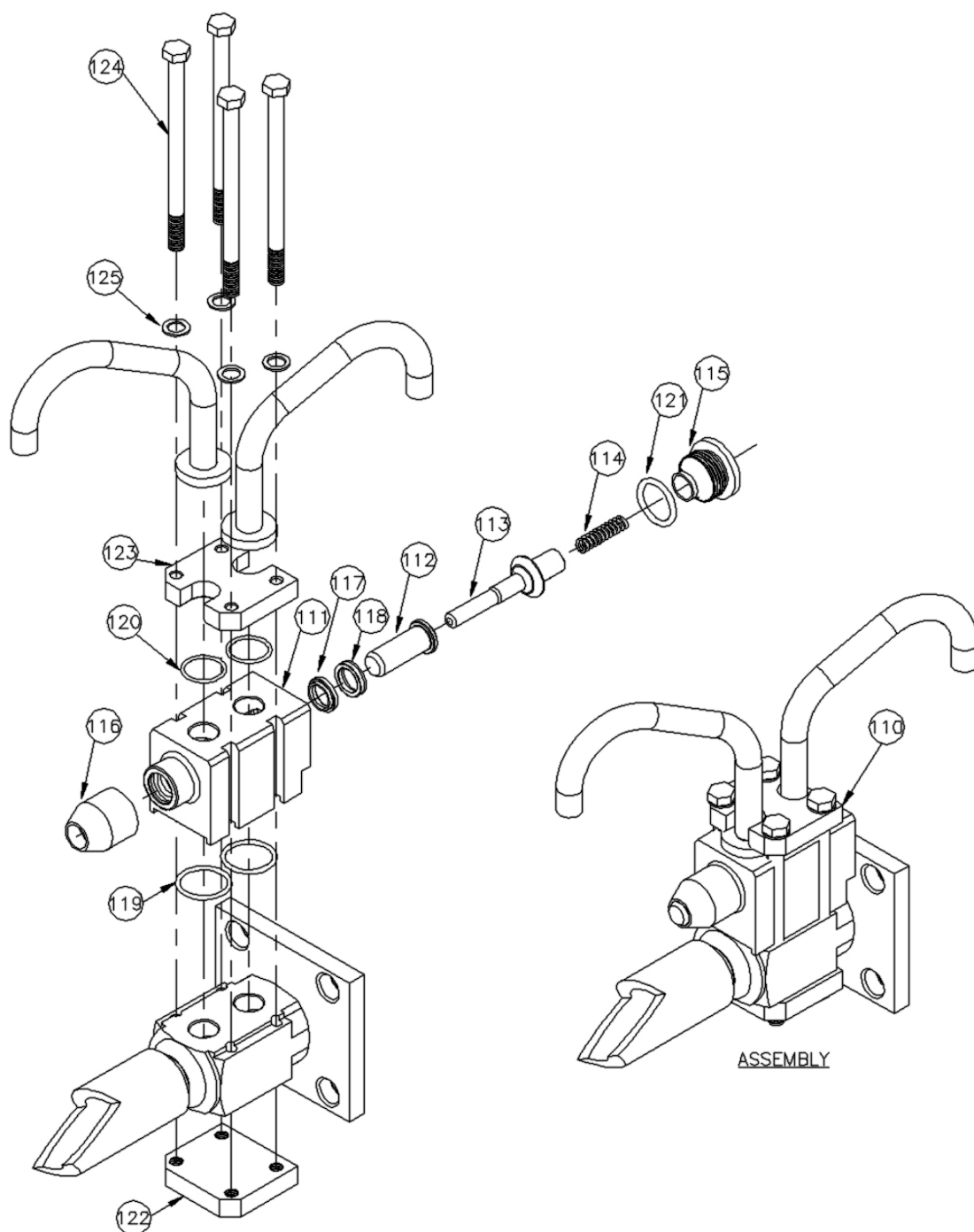
Cylinder Assembly (Parts List)

LEAKPROOF III DRIVE

ID#	QUANTITY	DESCRIPTION	PART#
55	3	Cylinder Assembly in 3 Cylinder Drive 80mm	04763801
55	3	Cylinder Assembly in 3 Cylinder Drive 90mm	04760501
-	-	Includes Items 56-77	-
56	1	Barrel Assembly 80mm Cylinder	04763601
56	1	Barrel Assembly 90mm Cylinder	04761101
-	-	Includes Items 57-62	-
57	2	Barrel Half 80mm	04763301
57	2	Barrel Half 90mm	04760701
58	2	Shift Plate Check Valve 80mm	03416801
58	2	Shift Plate Check Valve 90mm	03396001
59	1	Centerhead 80mm w/o Cushion	04763401
59	1	Centerhead 90mm w/o Cushion	03378401
60	1	Grooved Pad 80mm	04763501
60	1	Grooved Pad 90mm	04760801
61	2	Cylinder Cross-Over Tube 12" Centers	04362901
62	4	Tube Flange Fitting	03083701
63	1	Rod W/Piston & Head 80mm Assembly	04763701
63	1	Rod W/Piston & Head 90mm Assembly	04760601
-	-	Includes Items 64-77	-
64	1	Rod 45mm W/Block & Plate	04761001
-	1	Head 80mm Assembly Cylinder	04576701
-	1	Head 90mm Assembly Cylinder	04412601
-	-	Includes Items 65-72	-
65	1	Head 80mm Cylinder	04027001
65	1	Head 90mm Cylinder	04021701
66	2	Wiper Rod 45mm Canned	84426600
67	1	Seal Rod Cylinder 45mm	84354200
68	1	Seal Backup Rod Cylinder 45mm	w/seal
69	2	Lock Wire 80mm Head Cylinder	03812109
69	2	Lock Wire 90mm Head Cylinder	03812108
70	1	Wear Ring Rod Cylinder 45mm	84401200
71	1	O-Ring 233 (80mm)	84384400
71	1	O-Ring 236 (90mm)	84384600
72	1	O-Ring Backup 8-233 (80mm)	84392600
72	1	O-Ring Backup 8-236 (90mm)	84392800
-	1	Piston 80mm Assembly Cylinder	04576401
-	1	Piston 90mm Assembly Cylinder	04412501
-	-	Includes Items 73-77	-
73	1	Piston Steel 80mm Cylinder	04369801
73	1	Piston Steel 90mm Cylinder	04402901
74	2	Seal Piston Cylinder 80mm	84350800
74	2	Seal Piston Cylinder 90mm	84354800
75	2	Seal Piston Backup Piston Cylinder	w/seal
76	1	Wear Ring Piston Cylinder 80mm	84401050
76	1	Wear Ring Piston Cylinder 90mm	84401000
77	1	Pin Drive Lock 3/16" x 1/2"	86650400
-	1	Seal Kit 80mm Cylinder	04576501
-	1	Seal Kit 90mm Cylinder	04737601
-	-	Includes Items 66-72 & 74-76	-

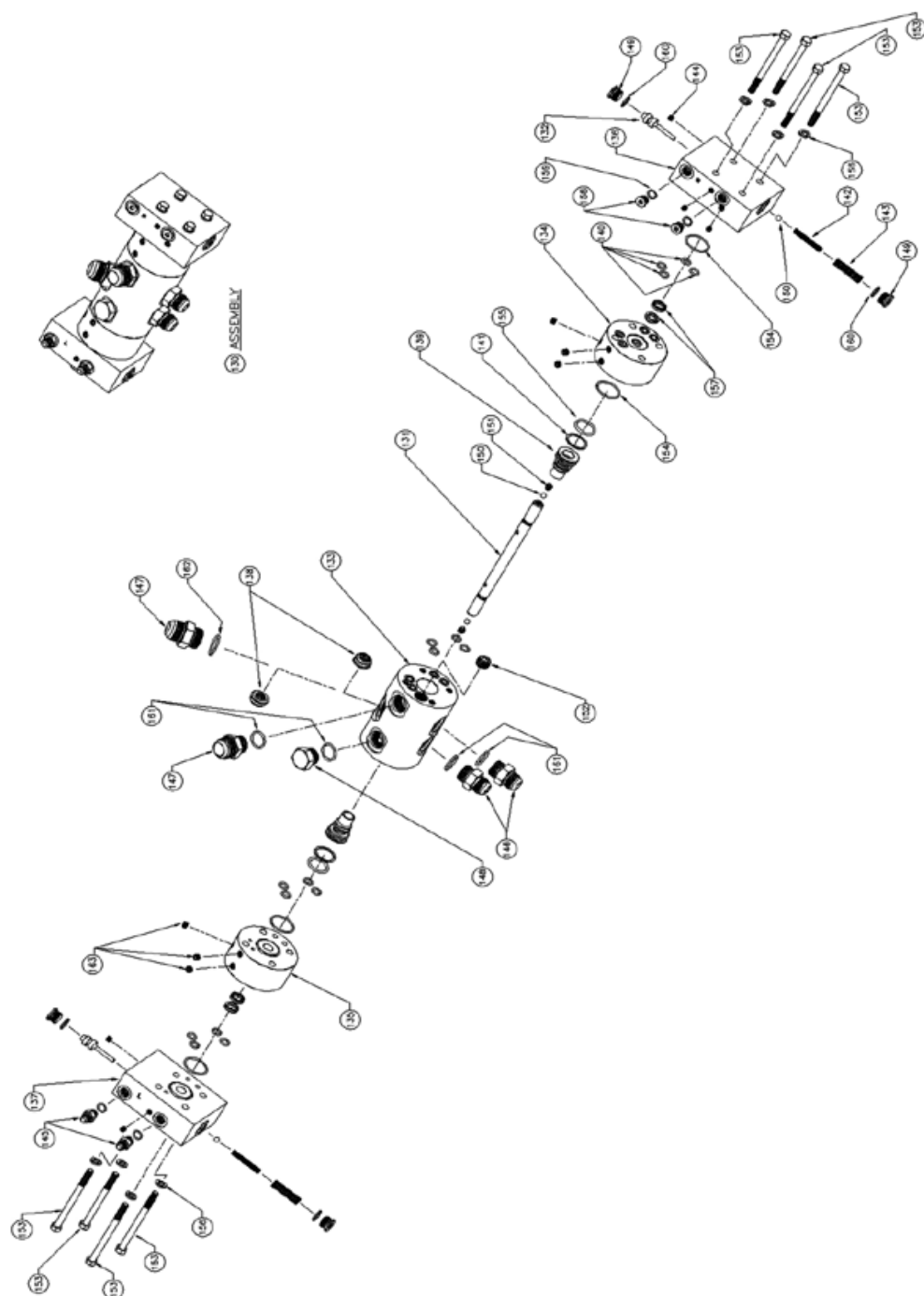


ID#	QUANTITY	DESCRIPTION	PART #
81	1	Pilot Operated Check Valve Assembly	03343101
-	-	Includes Items 82-99	-
82	1	Body Check Valve External	03981701
83	1	Plunger Check Valve External	04199601
84	2	6400-06-06 Straight	84684000
85	1	Pilot Check Valve Seat	04199501
86	1	Ball 5/16" Chrome Steel	84800500
87	1	Spring 1/2" O.D. x 1" Lg	
88	1	Spring Follower	04199701
89	1	End Cap Check Valve Threaded	04279301
-	1	Seal Kit Pilot Operated Check Valve	05516001
-	-	Includes Items 90-99	-
90	1	Seal Rod Cylinder 45mm	84354200
91	1	Dust Boot Check Valve External	84801100
92	1	Seal Rod 5/8"	84352200
93	1	O-Ring 118	84377300
94	1	O-Ring 110	84376000
95	1	O-Ring Backup 8-110	84388890
96	1	O-Ring 119	84377400
97	1	O-Ring 916	84387800
98	3	O-Ring 122	84377800
99	2	O-Ring 906	84386800
100	4	Washer Lock 5/16"	86553000
101	4	Bolt Hex GR5 5/16"x5 1/2"	86434500
102	1	Staub Connector	03054101
103	1	Clamp Top Check Valve External	02513001
104	4	Clamp Bottom Check Valve External	02513101
105	2	Clamp Bottom External Pilot Operated Check Valve	06941301



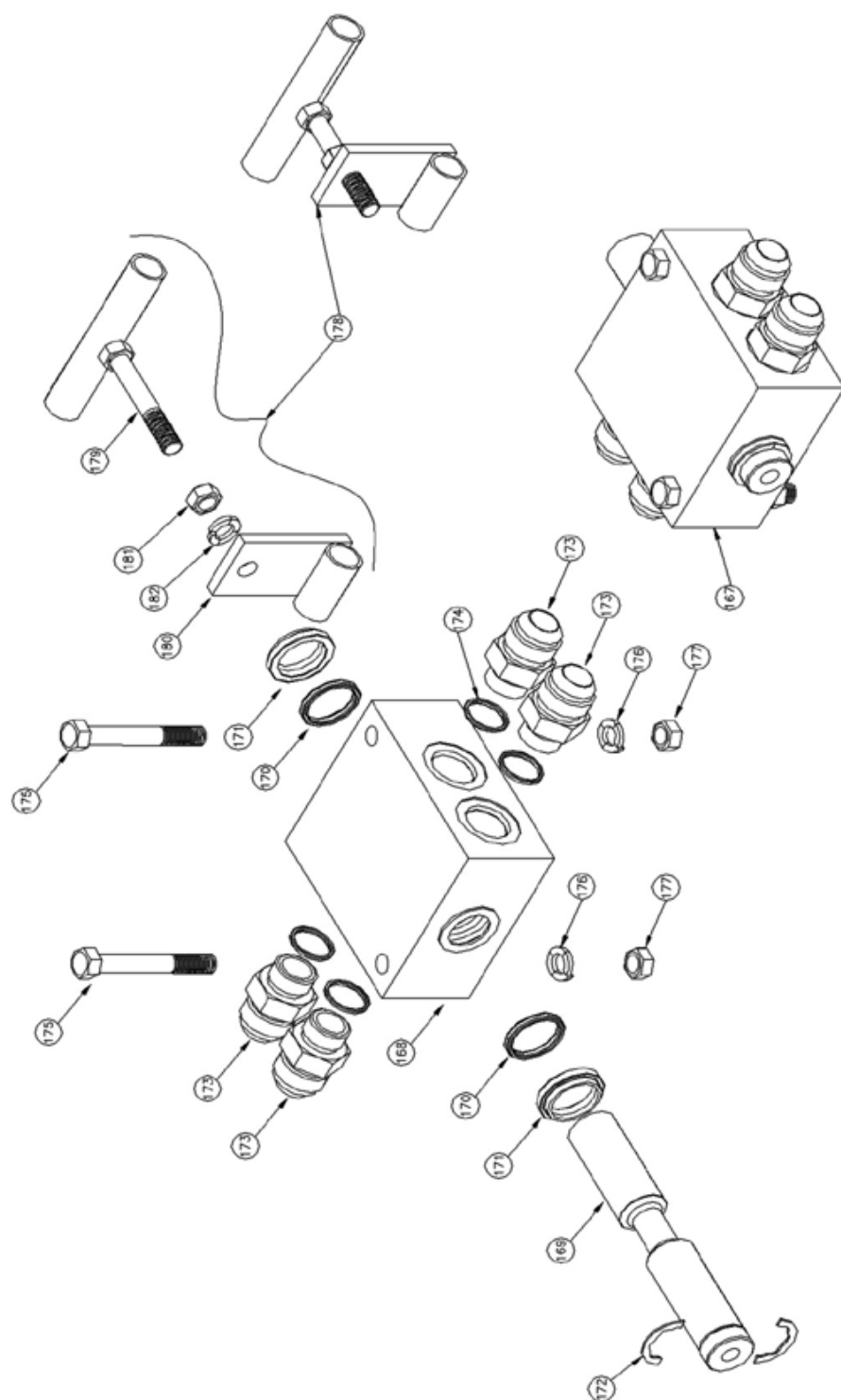
ID#	QUANTITY	DESCRIPTION	PART #
110	1	Check Valve External Assembly	03709401
-	-	Includes Items 111-120	-
111	1	Body Check Valve External	03654601
112	1	Plunger Check Valve External	01771101
113	1	Rod Check Valve External	01766901
114	1	Spring Check Valve External Large #B-18273	84453400
115	1	End Cap Check Valve External Threaded	03654501
-	1	Seal Kit Check Valve External	03878101
-	-	Includes items 116-121	-
116	1	Dust Boot Check Valve External	84801100
117	1	Plunger Wiper Check Valve External	84426800
118	1	Seal Rod 5/8"	84352200
119	2	O-Ring 122	84377800
120	2	O-Ring 214	84381600
121	1	O-Ring 916	84387800
-(1)	1	O-Ring 124	84378000
-(1)	1	Lock Wire Check Valve External	03889301
122	1	Clamp Top Check Valve External	02513001
123	1	Clamp Bottom Check Valve External	02513101
124	4	Bolt Hex GR5 5/16"x5 1/2"	86434500
125	4	Washer Lock 5/16"	86553000

(1) Not shown, for use with Check Valve part # 0128601 equipped with lock wire end cap.



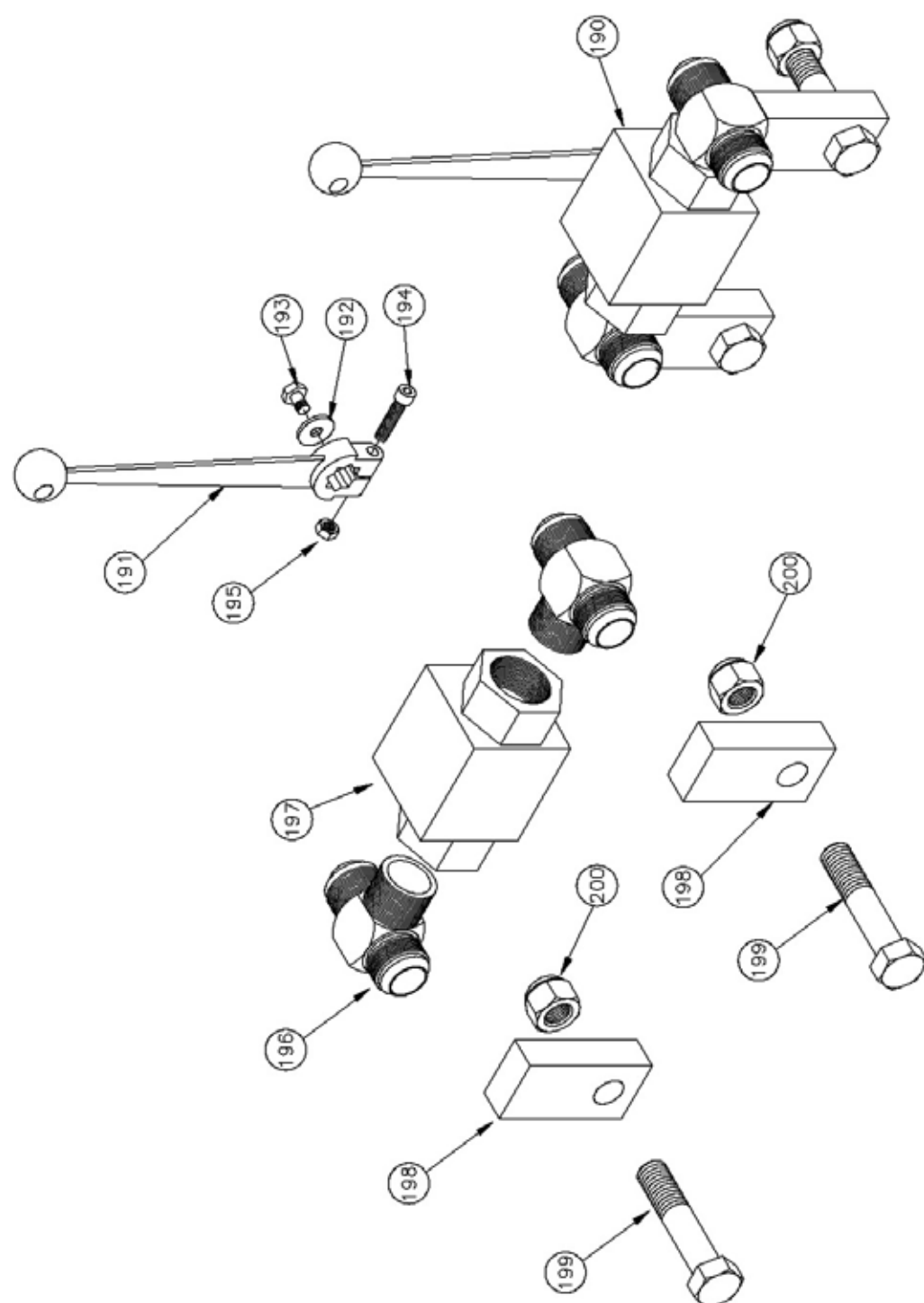
Pilot Operated Switching Valve Assembly (Parts List) LEAKPROOF III DRIVE

ID#	QUANTITY	DESCRIPTION	PART #
130	1	Switching Valve Assembly Pilot Operated	04126401
-	-	Includes Items 131-163	-
131	1	Rod Control Switching Valve	01335501
132	2	Plunger Pilot Operated Switching Valve	02528901
133	1	Body Pilot Operated Switching Valve	03126801
134	1	End Cap Right Pilot Operated Switching Valve	03126901
135	1	End Cap Left Pilot Operated Switching Valve	03127001
136	1	End Cap Right Outer Pilot Operated Switching Valve	03127101
137	1	End Cap Left Outer Pilot Operated Switching Valve	03127201
138	2	Ring Poppet Switching Valve	03718801
139	2	Poppet Switching Valve	03718901
140	16	O-Ring 111	84376200
141	2	O-Ring Backup 8-216	84391600
142	2	Spring Check Valve External Small #B-18272	84453200
143	2	Spring Check Valve External Large #B-18273	84453400
144	5	1/16" Pipe Plug Socket 7/8" Taper	84680770
145	2	6400-06-06 Straight	84684000
146	2	6400-12-12 Straight	84685000
147	2	6400-16-16 Straight	84685400
148	1	6409-16 M O-Ring Socket Plug	84687900
149	4	6409-08 M O-Ring Socket Plug	84687500
150	4	Ball 5/16" Chrome Steel	84800500
151	2	Set Screw 3/8"x3/8" Half Dog	86435500
152	1	1/2" Pipe Plug Socket 7/8" Taper	84680790
153	8	Bolt Hex GR5 3/8"x5"	86445500
154	4	O-Ring 126	84378200
155	2	O-Ring 216	84382200
156	8	Washer Lock 3/8"	86555000
157	4	Seal Rod 5/8"	84352200
158	2	6408-06 O-Ring Plug	84686600
159	4	O-Ring 906	84386800
160	4	O-Ring 908	84387000
161	4	O-Ring 912	84387400
162	1	O-Ring 916	84387800
163	6	1/8" Pipe Plug Socket 7/8" Taper	84680780
-	1	Seal Kit Pilot Operated Switching Valve	04227401
-	-	Includes Items 140, 141, 154, 155, 157 & 159-162	-

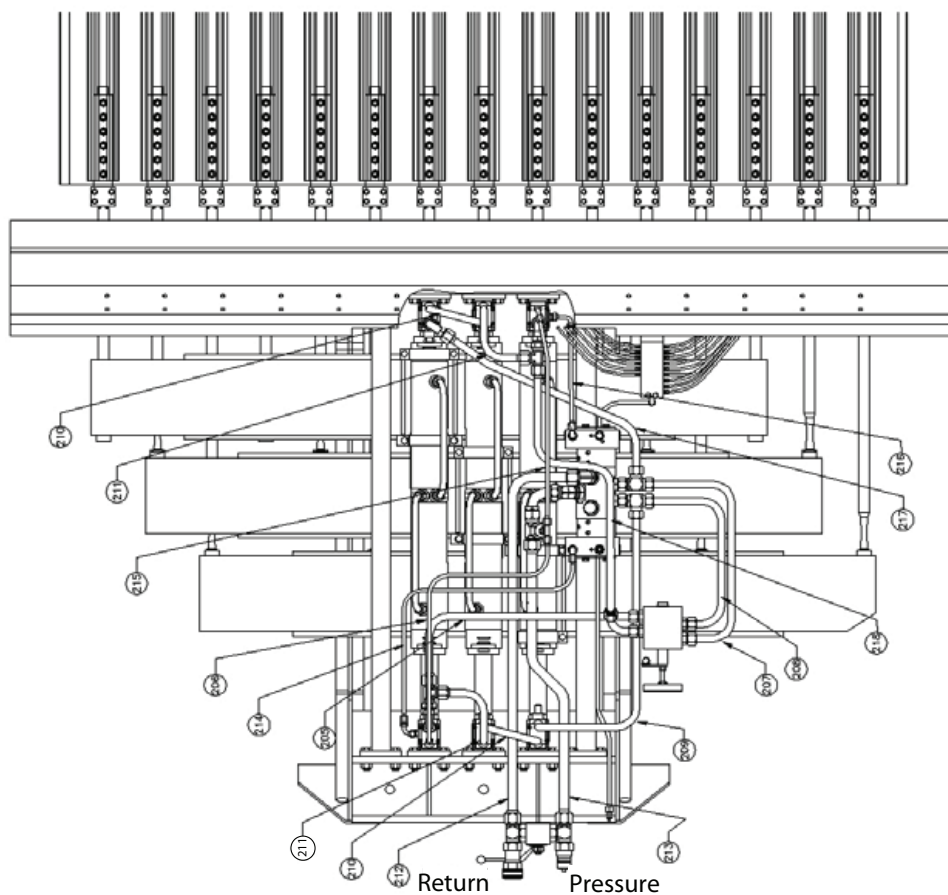
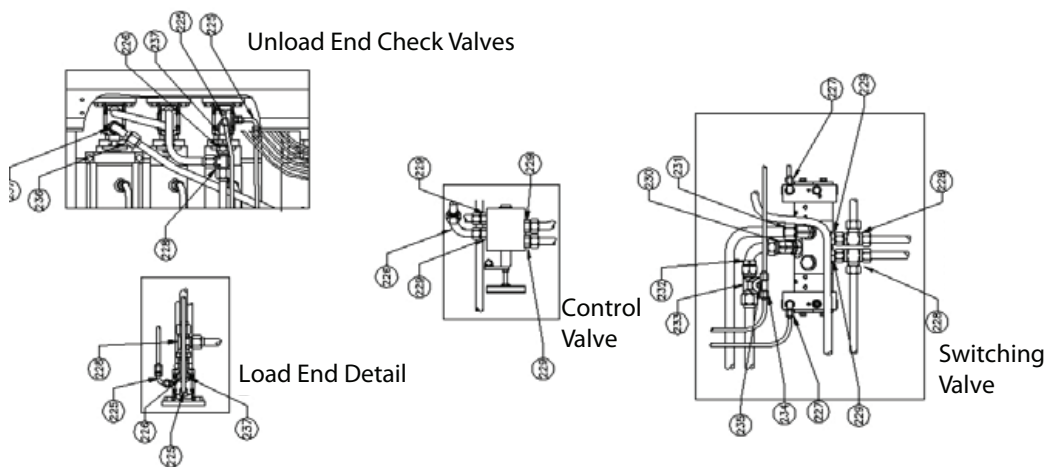


ID#	QUANTITY	DESCRIPTION	PART #
167	1	Control Valve Load/Unload Assembly	02552701
	-	Includes items 168-177	-
168	1	Body Control Valve	01049501
169	1	Spool Control Valve	03423201
-	1	Seal Kit Control Valve Load/Unload	03877901
-	-	Includes items 170-172	-
170	2	O-Ring 214 B-70	84381800
171	2	Wiper 1" Rod	84427000
172	1	Snap Ring 2-Piece For Spool	84801000
173	4	6400-12-10 Straight	84684900
174	4	O-Ring 910	84387200
175	2	Bolt Hex GR5 3/8"x3"	86442000
176	2	Washer Lock 3/8"	86555000
177	2	Nut Hex 3/8"	86628500
178	1	Handle Assembly Control Valve Load/Unload	02552601
-	-	Includes items 179-182	-
179(1)	1	"T" Handle	-
180(1)	1	"T" Handle Plate	-
181	1	Nut Hex 3/8"	86628500
182	1	Washer Lock 3/8"	86555000

(1) Not sold separately. Included only with Control Valve Handle Assembly.



ID#	QUANTITY	DESCRIPTION	PART #
190	1	Ball Valve 1" W/ Tees & Handle	84802600
-	-	Includes Items 191-197	-
191	1	Handle Ball Valve	84802900
192	1	Washer Flat 6mm	w/ball valve
193	1	Bolt Hex GR8 6mmx1mmx10mm	w/ball valve
194	1	Bolt Socket Head GR8 6mmx1mmx30mm	w/handle
195	1	Nut Hex 6mmx1mm	w/handle
196	2	2601-16-16-16 Tee	84677700
197	1	Ball Valve Assembly 1"	84802800
198	2	Plate Mount Ball Valve	0315640
199	2	Bolt Hex GR8 5/8"x2"	86464500
200	2	Bolt Hex GR8 3/4"x4 1/2"	86474000



Hydraulic Tubing and Fittings Diagram (Parts List) LEAKPROOF III DRIVE

ID#	QUANTITY	DESCRIPTION	PART #
-	-	Hydraulic Tubes	-
-	-	Includes Items 205-219	-
205	1	Tube #1 Control Valve #1 Load End Cycle Tee	05041801
206	1	Tube #2 #3 Load End Cylinder to Couple	05041901
207	1	Tube #3 Switching Valve to Control Valve (outside)	05042001
208	1	Tube #4 Switching Valve to Control Valve (inside)	05042101
209	1	Tube #5 #1 Load End Cylinder to Switching Valve	05042201
210	2	Tube #6 Cross-Over Tube	05042301
211	2	Tube #7 #2 Unload End Cylinder to Tee	05042401
212	1	Tube #8 Return Ball Valve Port to Switching Valve	05042501
213	1	Tube #9 Pressure Ball Valve Port to Switching Valve	05042601
214	1	Tube #10 #3 Load End Cylinder to Switching Valve	05042701
215	1	Tube #11 #1 Unload End Cylinder to Couple	05042801
216	1	Tube #12 #1 Unload End Cylinder to Switching Valve	05042901
217	1	Tube #13 #3 Unload End Cylinder to Switching Valve Tee	05043001
218	1	Tube #14 Control Valve to Unload End Tee	05043101
		For On/Off Filter Block Used in Europe	
206-E	1	Tube #2E #3 Load End Cylinder to Couple	5041902
212-E	1	Tube #8E Return Ball Valve Port to Switching Valve	5042502
213-E	1	Tube #9E Pressure Ball Valve Port to Switching Valve	5042602
215-E	1	Tube #11E #1 Unload End Cylinder to Couple	5041902
-	-	Hydraulic Fittings	-
-	-	Includes Items 225-237	-
225	3	6701-06-06 Bent Stem 90°	84682800
226	4	63UC-06-06 Long Bent Stem 90°	84683300
227	2	6807-06-06 Fitting 90°	84691100
228	4	6602-12-12-12 Tee	84690300
229	6	6400-12-12 Straight	84685000
230	1	63TA-16-16 Bent Stem 45°	84682700
231	1	6801-LL-16-16 Fitting 90°	84690960
232	1	63UA-16-16 Bent Stem 90°	84683200
233	1	2601-16-16-16 Tee	84677700
234	1	2603 06-06-06 Union Tee	84678030
235	1	2406-16-06 Straight	84676200
236	1	6801-LL-12-12 Fitting 90°	84690950
237	3	Staub Cylinder Hose Connector	03054101

**PLEASE FILL OUT AND RETURN THIS IMMEDIATELY TO
KEITH® MANUFACTURING COMPANY!**

The warranty registration card must be completed and on file at KEITH Manufacturing Co. in order for the warranty period to begin on the purchase date. If no purchase date is registered, the beginning of the warranty will be the date of manufacture if no other date can be determined.

Please make sure the serial number listed on the card coincides with the serial number plate on the drive unit. See your owners manual for information on the physical location of your serial number.

Please print or type

KEITH LEAKPROOF III WARRANTY REGISTRATION CARD

<u>Purchaser:</u>	
<u>Address:</u>	<u>Phone:</u>
<u>City:</u>	<u>State/Prov.:</u>
<u>Country:</u>	<u>Postal Code:</u>
<u>Original Purchase Date of System:</u>	
<u>Keith Model No.:</u>	<u>Keith Serial No.:</u>
<u>Trailer Model No.:</u>	<u>Trailer Serial No.:</u>
Installed In (check one): New Trailer [] Used Trailer []	
<u>Dealer Name & Location:</u>	
<u>Type of Material Unloaded:</u>	

I have fully read the KEITH Manufacturing Co. warranty information and I/we fully understand and agree to the terms of the warranty.

<u>Signature</u>	<u>Date</u>
------------------	-------------

Note: To validate the warranty, this registration card must be filled out completely and returned to KEITH Manufacturing Co. within ten (10) days of purchase and/or installation.

Please fax this warranty registration page to KEITH Manufacturing Co. at (541) 475-2169 or mail it to the following address:

**Warranty Registration
KEITH Manufacturing Co.
P.O. Box 1
Madras, OR 97741-0001**

KEITH WALKING FLOOR Warranty Claim

The warranty registration card must be completed and on file at KEITH Manufacturing Co. in order for the warranty period to begin on the purchase date. If no purchase date is registered, the beginning of the warranty will automatically revert to the manufacture date.

Dealer: _____		
Address: _____		
City: _____	State/Pr: _____	
Country: _____	Postal Code: _____	
Purchaser: _____		
Address: _____		
City: _____	State/Prov: _____	
Country: _____	Postal Code: _____	
Original Purchase Date: _____	Model No.: _____	Serial No.: _____
Defective Part: _____		
Claim Description: _____		

Instructions

Please complete all necessary data and return to KEITH Manufacturing Co. with defective part(s).
(Dealer to retain copy.)

Dealer's Signature: _____ Date: _____

Purchaser's Signature: _____ Date: _____

**If warranty claim is not completely filled out,
processing could be delayed and/or the claim denied.**

For Factory Use Only

Date Part(s) Received: _____
Defective Part(s): _____
Inspection Findings: _____

Disposition: _____	Checked By: _____	
Order Request No.: _____	Date: _____	Credit Request No.: _____
Date: _____	Approved By: _____	

Final judgement and disposition of all claims will be made by KEITH Manufacturing Co.

WARRANTY

KEITH® Manufacturing Co. hereby warrants, only to the first owner of a new **KEITH® WALKING FLOOR®** unloader from the factory or selling distributor that the product shall be free from defects in material and workmanship for a period of one year after delivery to the first registered owner. This warranty does not cover normal wear and tear and maintenance and is not to be construed as a service contract.

Owners Obligation:

To qualify for warranty coverage, a warranty card must be completed and on file at **KEITH Manufacturing Co.** and the equipment must be subject to normal use and service only.

Definition of Normal Use and Service:

Normal use and service means the loading and/or unloading of uniformly distributed, noncorrosive material, properly restrained and secured, on properly maintained public roads, with gross vehicle weights not in excess of factory rated capacity. For stationary installations, normal use and service means the conveying of uniformly distributed, non-corrosive materials, with weights not in excess of factory rated capacity.

Sole and Exclusive Remedy:

If the product covered hereby fails to conform to the above stated warranty, **KEITH Manufacturing Co.'s** sole liability under this warranty and the owner's sole and exclusive remedy is limited to repair or replacement of the defective part(s) at a facility authorized by **KEITH Manufacturing Co.** This is the owner's sole and exclusive remedy for all contract claims, and all tort claims including those based on the strict liability in tort and negligence. Any defective part(s) must be shipped freight prepaid to the facility authorized by **KEITH Manufacturing Co.**

Except As Expressly Set Forth Above, KEITH Manufacturing Co. Makes No Warranties:

Express, implied or statutory, specifically, no warranties of fitness for a particular purpose or warranties of merchantability are made. Further, **KEITH Manufacturing Co.** will not be liable for incidental damages or consequential damages such as, but not limited to, loss of use of the product, damage to the product, towing expenses, attorney's fees and the liability you may have in respect to any other reason.

Tort Disclaimer:

KEITH Manufacturing Co. shall not have any liability in tort with respect to the products, including any liability based on strict liability in tort and negligence.

If This Warranty Violates Law:

To the extent any provision of this warranty, contravenes the law of any jurisdiction, that provision shall be inapplicable in such jurisdiction and the remainder of the warranty shall not be affected there by.

800-547-6161

www.keithwalkingfloor.com

MAINTENANCE FOR YOUR NEW KEITH® LEAKPROOF III AND HYDRAULIC WET KIT

1. For proper operation of your new LEAKPROOF III equipped trailer and wet kit, make sure the pressure and return lines are hooked up in the correct sequence.
2. Change the hydraulic return filter element after the first (6) hours of operation and then every six (6) months. This may vary with the operating environment.
3. During the first two (2) weeks of operation, it will be necessary to check and tighten all floor bolts. Floor bolts should be checked regularly for proper torque, in accordance with a preventive maintenance program, as loose floor bolts will cause serious damage to floor slats.
4. After the first week of operation, you must check and tighten the lower cross-drive clamps that fasten the cross-drives to the cylinder. Also check the end cylinder rod plates that fasten the cylinders to the drive frame.
5. During the first several weeks of operation, examine the check valve and tube clamps to ensure that they are securely fastened.

Recommended Bolt Torque Values for KLP III Drive

Bolt Description

Torque

1/2"-13 UNC Hex Cap Bolt	Floor Bolts	75 FT-LBS (101 Nm)
3/8"-16 UNC Hex Cap Bolt	Clevis Clamp Bolt	30 FT-LBS (40 Nm)
3/4"-10 UNC Hex Cap Bolt	Barrel Clamp Bolts	135 FT-LBS (183 Nm)
5/8"-11 UNC Hex Cap Bolt	Rod end plates	135 FT-LBS (183 Nm)
5/16"-18 UNC Hex Cap Bolt	Check valve and tube clamp bolts	20 FT-LBS (27 Nm)

Problems and Trouble-Shooting

KEITH Manufacturing Co. 24-hour Fax Service	(541) 475-2169
KEITH Manufacturing Co. Customer Service and Support	(800) 547-6161 or (541) 475-3802
Monday – Friday, 7 am to 4 pm	
Pacific Standard Time	

Before you call, please review the following:

1. See start-up check list on page 5.
Re-checking items on this list can solve most problems.
2. We will be better able to help solve any problems if you have the information indicated below before you call.
 - a. Model Number
 - b. Serial Number (See location guide, page 9.)
 - c. Number of floor slats
 - d. Trailer make
 - e. Cylinder bore size
 - f. Drive unit model

Warranty Return Policy

1. Call KEITH® Manufacturing Co. at 800-547-6161 or 541-475-3802 for a “Returned Goods Authorization” (RGA) number before returning any item for repair or replacement. The following information is needed to ensure parts are returned as quickly as possible:

- a. Company name
- b. Contact name
- c. Part number
- d. Quantity
- e. Reason for return
- f. Customer’s account number
- g. Phone number
- h. Address

2. Prior approval and RGA number is needed when returning any unused product for credit. Make sure the RGA number is on the outside of the shipping carton and all paperwork is included. Return all material on a Freight Prepaid Basis.

!!CAUTION!! **To Prevent Possible Injury or Death**

1. **DO NOT** Operate the floor with the doors closed.
2. **DO NOT** Stand behind the trailer or in the discharge area.
3. **DO NOT** Make adjustments to the unloading mechanism with the floor operating.
4. **DO NOT** Operate the unloader when protective covers and screens are not in place.
5. **DO NOT** Go underneath the trailer.
6. **DO NOT** Leave the trailer unattended while the unloader is in operation.

ALWAYS:

1. Disconnect the trailer from the hydraulic power unit (P.T.O.) before service and maintenance.
2. Shut off the power supply before going underneath the trailer.
3. Stay away from any oil leaks when hydraulic pressure is high.
4. Shut off the hydraulic power take off unit (P.T.O.) before moving the trailer.

!!Keep your hands, body parts and loose clothing away from the floor slats and drive mechanism when the unloading system is in operation!!

