

2000 Parts Catalog

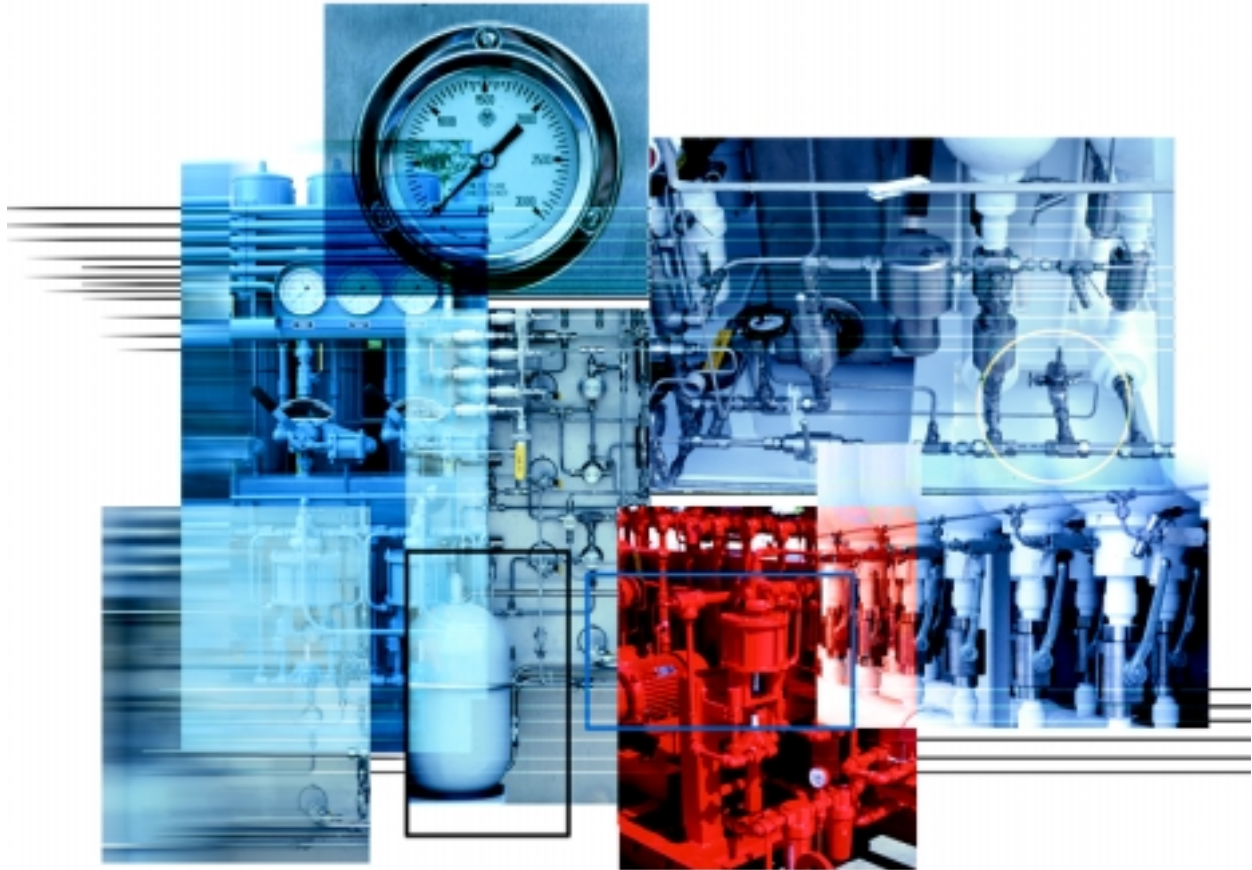


ABB Offshore Systems Inc.



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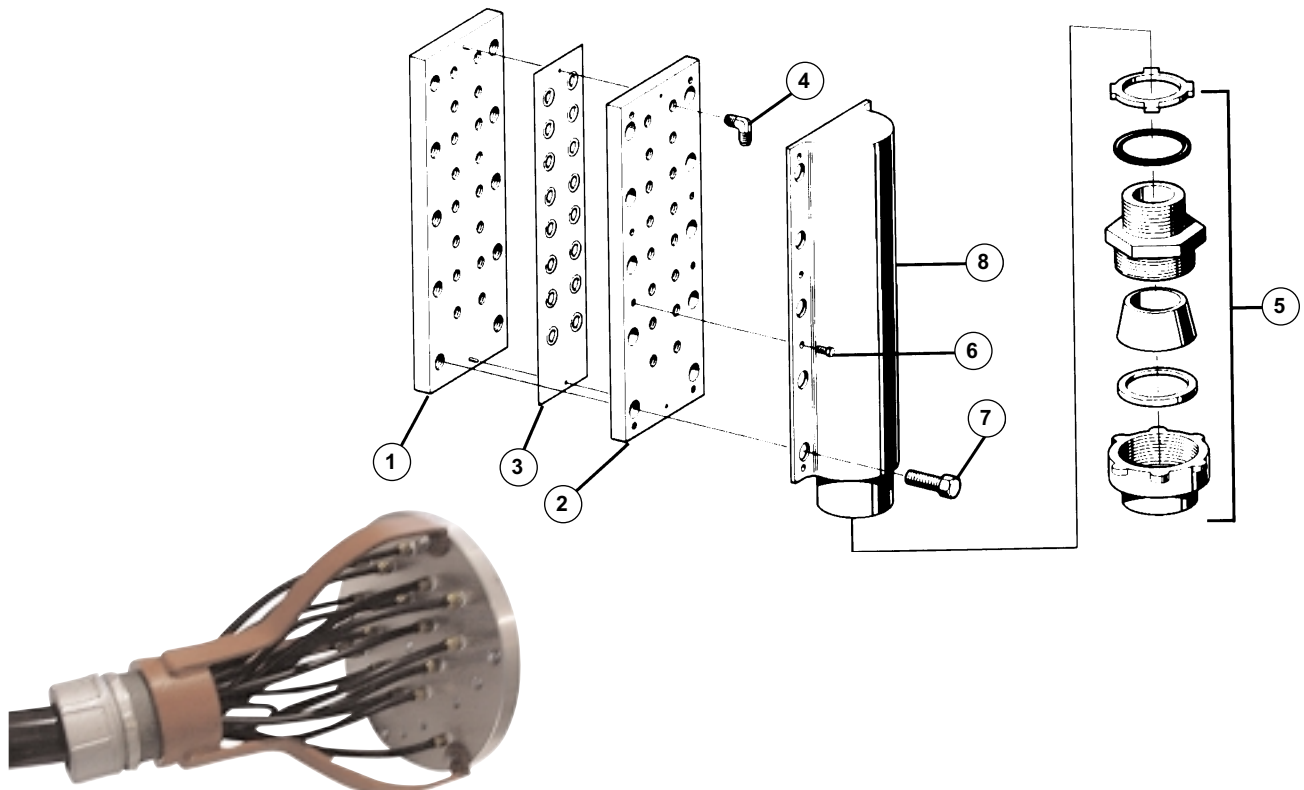
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AIR JUNCTION BOXES

RECTANGULAR AIR JUNCTION BOXES

Item	Description	JG-12	Qty	JG-16	Qty	JG-24	Qty
Assy.	Junction Box Assembly	0910-8400		0910-8600		0910-8700	
1	Fixed Plate	0910-1101	1	0910-1201	1	0910-1301	1
2	Gasket	0910-1303	1	0910-1303	1	0910-1303	1
3	Hose Plate	0910-0101	1	0910-0201	1	0910-0301	1
4	Hose Fitting	5200-2100	12	5200-2100	16	5200-2100	24
5	Hose Cover	0910-0102	1	0910-0202	1	0910-0302	1
6	Screw, Cover	8500-0008	4	8500-0008	6	8500-0008	8
7	Screw	8504-4016	6	8504-4016	10	8504-4016	14
8	Connector	8220-6200	1	8220-7400	1	8220-8300	1

Item	Description	RA-12	Qty	RA-24	Qty	RA-31	Qty
Assy	Round Junction Box	0910-8100		0910-8200		0910-8300	
1	Connector	8220-6200	1	8220-8300	1	809419	3
2	Hose Guard	0910-2102	1	0910-2302	1	809418	1
3	Screw	8540-1016	1	8540-1016	3	8540-1016	3
4	Screw	8504-2016	3	8504-2016	3	8504-2016	3
5	Hose Fitting	5200-3200	12	5200-3200	24	5200-3200	31
6	Hose Plate	0910-2101	1	0910-2301	1	0910-2501	1
7	O-Ring	8717-2113	24	8717-2113	48	8717-2113	62
8	Seal Sub	8810-0100	12	8810-0100	24	8810-0100	31
9	Fixed Plate	0910-2201	1	0910-2401	1	0910-2601	1
10	Dowel Pin	0910-2402	2	0910-2402	2	0910-2402	2



HYDRAULIC JUNCTION BOXES

ROUND HYDRAULIC JUNCTION BOXES

Item	Description	RJC-44	Qty	RJC-52	Qty
Assy	Round Hydraulic Junction Box	0912-2300		0912-2400	
1	Fixed Plate	0912-1301	1	0912-2401	1
2	O-Ring	8717-2218	1	8717-2218	1
3	Back-Up Ring	8841-2218	1	8841-2218	1
4	Seal Sub	0912-2301	1	0912-1503	1
5	Removable Plate	0912-0301	1	0912-2402	1
6	Ring-Snap	8598-1100	1	8598-1100	1
7	Screw	8504-5068	4	8504-5068	4
8	Nipple	8351-0210	86	8351-0210	102
9	Quick Disconnect, Male	809635	43	809635	51
10	Quick Disconnect, Female	809636	43	809636	51
11	Tubing Connector (Not Shown)	8110-2610	43	8110-2610	51
12	Hose Fitting Adapter (Not Shown)	8175-5207	43	8175-5207	51
13	Guide Pin	0912-2701	1	0912-2701	1

HYDRAULIC JACKING JUNCTION BOX

Item	Description	Part No.	Qty
Assy	60 Line Jacking Junction Box	0912-2600	
Assy	Hydraulic Cylinder Assy. (Includes Items 16-31)	2010-0600	
1	Hose Plate	0912-0600	1
2	Fixed Plate	0912-1600	1
3	Snap Ring	8598-1100	1
4	Seal Sub 1"	8810-0400	1
5	O-Ring	8717-2218	1
6	Back-up Ring	8841-2218	1
7	Coupling	8010-0210	59
8	Pipe Nipple	8351-0210	118
9	Check Valve	1601-8501	59
10	Check Valve	1601-8502	59
11	Female Connector	8110-2110	59
12	Wiper-Scraper	2010-0605	1
13	Pipe Nipple	8353-0140	1
14	Female Connector	8110-2110	2
15	Pipe Nipple	8353-0180	1
16	O-Ring	8719-2242	2
17	Seal	0159-0060	2
18	O-Ring	8719-2324	1
19	Retaining Ring	0159-0050	1
20	Seal	8830-0100	2
21	Nut	8589-0003	2
22	Piston Rod	2010-0602	1
23	Nut	8589-8010	2
24	Nut	8582-1600	12
25	Stud	8565-0866	4
26	End Cap	2010-0604	2
27	Body, Hyd, Cylinder	2010-0601	1
28	Piston	0150-1100	1
29	Piston, Retainer Ring	0150-1064	2
30	Stop Sleeve	2010-0603	1
31	St. Ell	8031-2350	2

CHARGING & GAUGING ASSEMBLIES

- 0902-0100 Charging and Gauging Assembly for Standard 3000 psi Accumulators (shown)
 0902-0900 Charging and Gauging Assembly for Recessed Top Loading Accumulators
 0902-0150 Charging and Gauging Assembly for 5000 psi Accumulators

Item	Part No.	Description	Qty
1	0902-0112	Gauging Head Assembly, 3000 psi	1
2	0902-0101	Air Chuck	1
3*	0902-0102	Adapter	1
4**	4002-4100	0-3000 psi Gauge	1
5	0902-0104	Tank Valve	1
6	0902-0109	Bleeder Valve	1
7	0902-0105	Swivel Connector	1
7A	Ref.	Hose End Fitting (Only Required For Old Hose Assemblies, P/N 0902-0111)	1
8	0902-0106	Hose Assembly, 11', With End Fittings	1
9	8010-0200	Coupler	1
10***	0902-0108	Nut, Right Hand	1
11	0902-0110	Gland	1

Additional Accumulator Tools

12	0902-0200	Valve Core Tool	1
13	0902-0300	Bladder Pull Rod Assembly (5 Sections)	1
14	0902-0400	Spanner Wrench	1

* Use Adapter, P/N 0902-0113 for Recessed Top Loading Accumulators.

** Use P/N 4002-4120 for 5000 psi Bottle.

*** Left Hand Nut, P/N 0902-0114

Note: Item 1 Consists of Items 2, 3, 4, 5, & 6.

Note: Consult Nitrogen Precharging Instructions Before Using Assembly.



ACCUMULATORS

3000 PSI BLADDER TYPE, 1-1/4" NPT PORT (3" O.D.), OIL SERVICE 1 QUART TO 15 GALLONS



Item	Description	1 Quart	1 Gallon	2-1/2 Gallon	5 Gallon	10 Gallon	11 Gallon	15 Gallon	Qty
Assy	Accumulator, 3000 psi 1-1/4" Port Bottom Loading, Bladder Type ^Δ	1000-4305	1000-4301	1000-4201	1000-4202	1000-4203	1000-9400	810775	
Kit	Port Assembly (Includes Plug and Poppet Assembly)	1000-4357	1000-4317	1000-3195	1000-3195	1000-3195	1000-3195	1000-3195	
Kit	Plug and Poppet Assembly	1000-4358	1000-4318	1000-3196	1000-3196	1000-3196	1000-3196	1000-3196	
1	Cap Plug	1000-4356	1000-4316	8099-0001	8099-0001	8099-0001	8099-0001	8099-0001	1
2	Valve Guard	1000-4355	1000-4315	1000-3101	1000-3101	1000-3101	1000-3101	1000-3101	1
3	Valve Cap	1000-0105	1000-0105	1000-0105	1000-0105	1000-0105	1000-0105	1000-0105	1
4	Valve Core	1000-0106	1000-0106	1000-0106	1000-0106	1000-0106	1000-0106	1000-0106	1
5	Valve Nut	1000-4354	1000-4314	1000-3102	1000-3102	1000-3102	1000-3102	1000-3102	1
6	Nameplate	1000-4370	1000-4330	1000-9470	1000-9471	1000-9472	1000-9421	1000-9474	1
7	Shell	1000-4350	1000-4310	1000-9450	1000-9451	1000-9452	1000-9401	1000-9454	1
8	Bladder Assembly	1000-4351	1000-4311	817700	817800	817600	817100	817900	1
9 *	Ring, Anti -Extrusion	1000-4364	1000-4324	1000-4105	1000-4105	1000-4105	1000-4105	1000-4105	1
10 **	Poppet	1000-4361	1000-4321	1000-4103	1000-4103	1000-4103	1000-4103	1000-4103	1
11 **	Spring, Poppet	1000-4366	1000-4326	1000-4104	1000-4104	1000-4104	1000-4104	1000-4104	1
12 **	Plug Body	1000-4359	1000-4319	1000-3111	1000-3111	1000-3111	1000-3111	1000-3111	1
13 **	Piston Poppet	1000-4362	1000-4322	1000-4108	1000-4108	1000-4108	1000-4108	1000-4108	1
14 **	Stop Nut Poppet	1000-4365	1000-4325	1000-4111	1000-4111	1000-4111	1000-4111	1000-4111	1
15 *	Washer Back-up Ring	1000-4369	1000-4329	1000-4106	1000-4106	1000-4106	1000-4106	1000-4106	1
16 *	O-Ring	10004367	1000-4327	8717-2338	8717-2338	8717-2338	8717-2338	8717-2338	1
17 *	Back-up Ring	1000-4368	1000-4328	8842-8338	8842-8338	8842-8338	8842-8338	8842-8338	1
18 *	Spacer	1000-4363	1000-4323	1000-4107	1000-4107	1000-4107	1000-4107	1000-4107	1
19 *	Lock Nut Plug	1000-4360	1000-3112	1000-4110	1000-4110	1000-4110	1000-4110	1000-4110	1
	Dimensions: Length	11-3/8"	16-5/8"	21"	33-1/4"	54"	59-1/2"	77-1/2"	
	Diameter	4-1/2"	8-7/8"	8-7/8"	8-7/8"	8-7/8"	8-7/8"	8-7/8"	
	Weight	7	24	65	120	220	240	305	

* Included in Port Assembly

** Included in Plug and Poppet Assembly

^Δ 1 Quart Accumulator has 1" NPT Port Assembly

NOTE: Accumulators are also Available for Water Service

SPECIAL NOTE: The 2-1/2 Gallon and larger Accumulators have a 1-1/4" NPT Port Connection. The O.D. (outside dia.) of the neck of the Plug Body (item no. 12) is 3".

CAUTION: Please advise when ordering the Port Assy. Plug and Poppet Assy., or item no. 12 Plug Body, if your existing bottles have a 2-3/8" neck O.D and not the 3" O.D.

REASON: P/N's for the 2-3/8" O.D size will be different than the ones shown above. They are not inter-changeable.

ABB

ACCUMULATORS

3000 PSI BLADDER TYPE, 2" NPT PORT (3" O.D.), OIL SERVICE 2-1/2" TO 15 GALLON



Item	Description	2-1/2 Gallon	5 Gallon	10 Gallon	11 Gallon	15 Gallon	Qty
Assy	Accumulator, 3000 psi 2" Port Bottom Loading, Bladder Type	1000-4100	1000-5100	1000-7100	1000-9100	1000-4205	
Kit	Port Assembly (Includes Plug and Poppet Assembly)	1000-4195	1000-4195	1000-4195	1000-4195	1000-4195	
Kit	Plug and Poppet Assembly	1000-4196	1000-4196	1000-4196	1000-4196	1000-4196	
1	Cap Plug	8099-0001	8099-0001	8099-0001	8099-0001	8099-0001	1
2	Valve Guard	1000-3101	1000-3101	1000-3101	1000-3101	1000-3101	1
3	Valve Cap	1000-0105	1000-0105	1000-0105	1000-0105	1000-0105	1
4	Valve Core	1000-0106	1000-0106	1000-0106	1000-0106	1000-0106	1
5	Valve Nut	1000-3102	1000-3102	1000-3102	1000-3102	1000-3102	1
6	Nameplate	1000-9470	1000-9471	1000-9472	1000-9421	1000-9474	1
7	Shell	1000-9450	1000-9451	1000-9452	1000-9401	1000-9454	1
8	Bladder Assembly	817700	817800	817600	817100	817900	1
9 *	Ring, Anti -Extrusion	1000-4105	1000-4105	1000-4105	1000-4105	1000-4105	1
10 **	Poppet	1000-4103	1000-4103	1000-4103	1000-4103	1000-4103	1
11 **	Spring, Poppet	1000-4104	1000-4104	1000-4104	1000-4104	1000-4104	1
12 **	Plug Body	1000-4109	1000-4109	1000-4109	1000-4109	1000-4109	1
13 **	Piston Poppet	1000-4108	1000-4108	1000-4108	1000-4108	1000-4108	1
14 **	Stop Nut Poppet	1000-4111	1000-4111	1000-4111	1000-4111	1000-4111	1
15 *	Washer Back-up Ring	1000-4106	1000-4106	1000-4106	1000-4106	1000-4106	1
16 *	O-Ring	8717-2338	8717-2338	8717-2338	8717-2338	8717-2338	1
17 *	Back-up Ring	8842-8338	8842-8338	8842-8338	8842-8338	8842-8338	1
18 *	Spacer	1000-4107	1000-4107	1000-4107	1000-4107	1000-4107	1
19 *	Lock Nut Plug	1000-4110	1000-4110	1000-4110	1000-4110	1000-4110	1
	Dimensions: Length	21"	33-1/4"	54"	59-1/2"	77-1/2"	
	Diameter	8-7/8"	8-7/8"	8-7/8"	8-7/8"	8-7/8"	
	Weight	65	120	220	240	305	

* Included in Port Assembly

** Included in Plug and Poppet Assembly

NOTE: Accumulators are also Available for Water Service

ACCUMULATORS

PART NO. 1005-7300 - ACCUMULATOR, 11 GAL. 3000 PSI, TOP LOADING

Item	Part No.	Description	Qty
Assy	1005-7300	Accumulator, 11 Gal, 3000 psi, 1-1/4" Port, Bladder Type, Top Loading	
Kit	1000-3195	Port Assembly 1-1/4" (includes Plug & Poppet Assembly)	
Kit	1000-3196	Plug & Poppet Assembly	
1	8099-0001	Safety Cap	1
2	1000-3101	Protective Cap	1
3	1000-0105	Valve Cap	1
4	1000-3102	Hex Jam Nut	1
5	N/A	Nameplate	N/A
6	N/A	Shell	N/A
7	817100	Bag and Gas Valve Assembly	1
8	1000-4103	Poppet	1
9	1000-4104	Spring	1
10	1000-4105	Anti-Extrusion Ring	2
11	1000-4106	Metal Back-Up	2
12	8717-2338	O-Ring	2
13	8842-8338	O-Ring Back-Up	2
14	1000-4107	Spacer	2
15	1000-4110	Locknut	2
16	1000-4109	Plug Body	1
17	8017-0200	Bleeder Plug	1
18	1005-7115	Piston	1
19	1000-4111	Stop Nut	1

Plug and Poppet Assembly consists of Items 8, 9, 16, 18 and Port Assembly consists of one (1) each of Items 10, 11, 12, 13, 14, 15, PLUS Items 8, 9, 16, 18 and 19.

Dimensions:

Dim. "A" – 59-1/2"

Dim. "B" – 53-1/2"

Diameter – 9-1/16"

Weight – 240 pounds



ACCUMULATORS

PART NO. 816681 - ACCUMULATOR BOTTLE, TOP-LOADING 15 GALLON 3000 PSI 1-1/4" PORT, OIL SERVICE

Item	Part No.	Description	Qty
Assy	816681	Accumulator ,15-Gallon 3,000 psi 1-1/4" Port, Bladder Type, Top Loading	
Assy	1000-3195	Port Assembly, 1-1/4" (includes Plug & Poppet Assembly)	
Kit	1000-3196	Plug and Poppet Assembly	
1	8099-0001	Safety Cap	1
2	1000-3101	Protective Cap	1
3	1000-0105	Valve Cap	1
4	1000-3102	Hex Jam Cap	1
5	N/A	Nameplate	N/A
6	N/A	Shell	N/A
7	817900	Bag and Gas Valve Assembly	1
8	1000-4103	Poppet	1
9	1000-4104	Spring	1
10	1000-4105	Anti-Extrusion Ring	2
11	1000-4106	Metal Back-up	2
12	8717-2338	O-Ring	2
13	8842-8338	O-Ring Back-up	2
14	1000-4107	Spacer	2
15	1000-4110	Locknut	2
16	1000-4109	Plug Body	1
17	8017-0200	Bleeder Plug	1
18	1005-7115	Piston	1
19	1000-4111	Stop Nut	1

Plug and Poppet Assembly - consists of items 8, 9, 16, 18

Port Assembly - consists of one (1) each of items 10, 11, 12, 13, 14, 15

Plus items 8, 9, 16, 18 and 19

Part No. 3015-0300

Dimensions:

Height – 77-1/2"

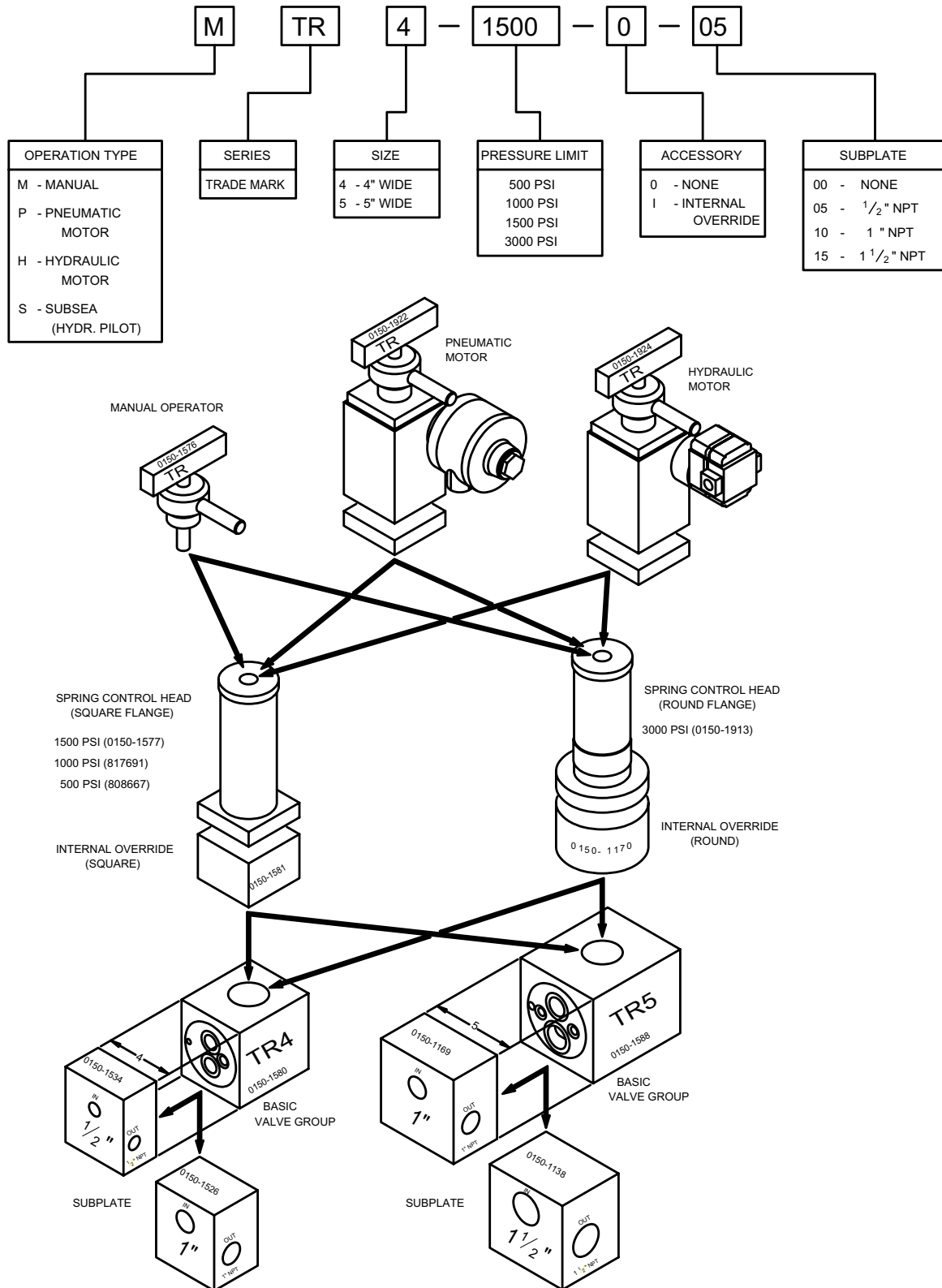
Width – 71-1/2"

Depth – 9-1/16"

Weight – 305 pounds

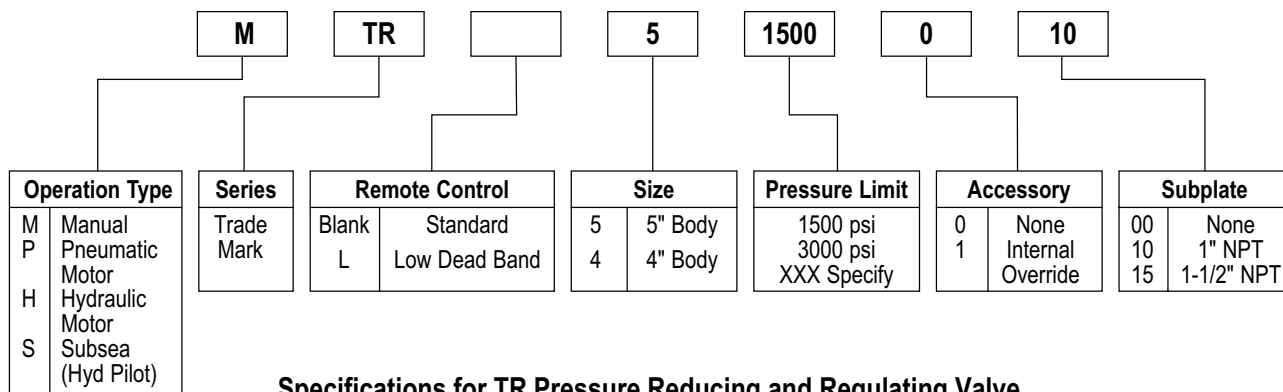


TR™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE



STANDARD VERSION

MODEL NUMBER IDENTIFICATION SYSTEM

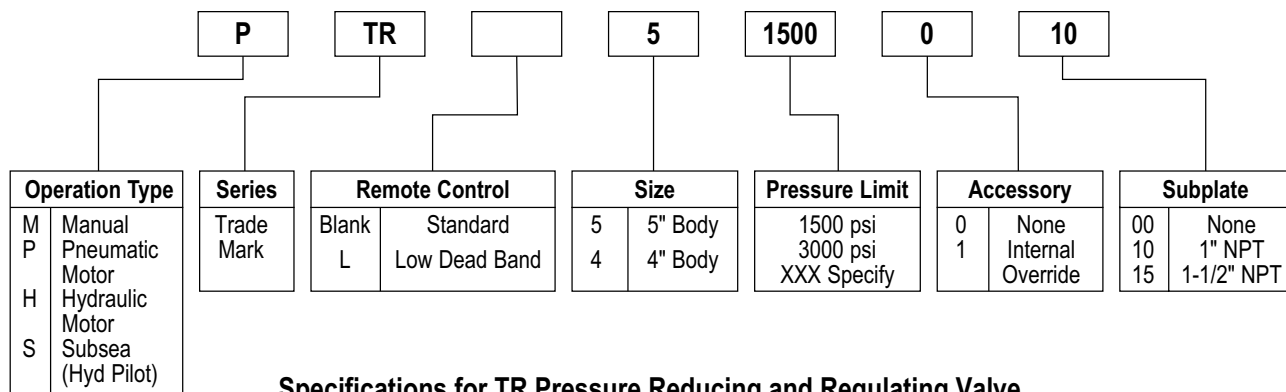


MANUAL								
MODEL NO.	Final Ass'y Catalog P/N	Ass'y Less Subplate P/N	REGULATOR ASSEMBLY LESS SUBPLATE				SEAL KIT P/N	REPAIR KIT P/N
			OPERATOR TYPE	REGULATOR CONFIGURATION				
			Manual	Basic Group	Spring Control Head	Internal Override		
MTR-4-1500-0-05	1110-7700	0150-1590	0150-1576	0150-1580	0150-1577	---	1110-9497	1110-9499
MTR-4-1500-I-05	1110-7600	0150-2126	0150-1576	0150-1580	0150-1577	0150-1581	1110-9497	1110-9499
MTR-4-3000-0-05	1110-8500	0150-1916	0150-1576	0150-1580	0150-1913	---	1110-9497	1110-9499
MTR-4-3000-I-05	1110-8400	0150-2127	0150-1576	0150-1580	0150-1913	0150-1170	1110-9497	1110-9499
MTR-4-1500-0-10	1110-7900	0150-1590	0150-1576	0150-1580	0150-1577	---	1110-9497	1110-9499
MTR-4-1500-I-10	1110-7800	0150-2126	0150-1576	0150-1580	0150-1577	0150-1581	1110-9497	1110-9499
MTR-4-3000-0-10	1110-8700	0150-1916	0150-1576	0150-1580	0150-1913	---	1110-9497	1110-9499
MTR-4-3000-I-10	1110-8600	0150-2127	0150-1576	0150-1580	0150-1913	0150-1170	1110-9497	1110-9499
MTR-5-1500-0-10	1110-8000	0150-1145	0150-1576	0150-1598	0150-1577	---	1110-6897	1110-6899
MTR-5-1500-I-10	1110-8100	0150-1163	0150-1576	0150-1598	0150-1577	0150-1581	1110-6897	1110-6899
MTR-5-3000-0-10	1110-8800	0150-1591	0150-1576	0150-1598	0150-1913	---	1110-6897	1110-6899
MTR-5-3000-I-10	1110-8900	0150-2128	0150-1576	0150-1598	0150-1913	0150-1170	1110-6897	1110-6899
MTR-5-1500-0-15	1110-8200	0150-1145	0150-1576	0150-1598	0150-1577	---	1110-6897	1110-6899
MTR-5-1500-I-15	1110-8300	0150-1163	0150-1576	0150-1598	0150-1577	0150-1581	1110-6897	1110-6899
MTR-5-3000-0-15	1110-9000	0150-1591	0150-1576	0150-1598	0150-1913	---	1110-6897	1110-6899
MTR-5-3000-I-15	1110-9100	0150-2128	0150-1576	0150-1598	0150-1913	0150-1170	1110-6897	1110-6899

*Repair Kit will also contain one (1) Seal Kit

STANDARD VERSION

MODEL NUMBER IDENTIFICATION SYSTEM

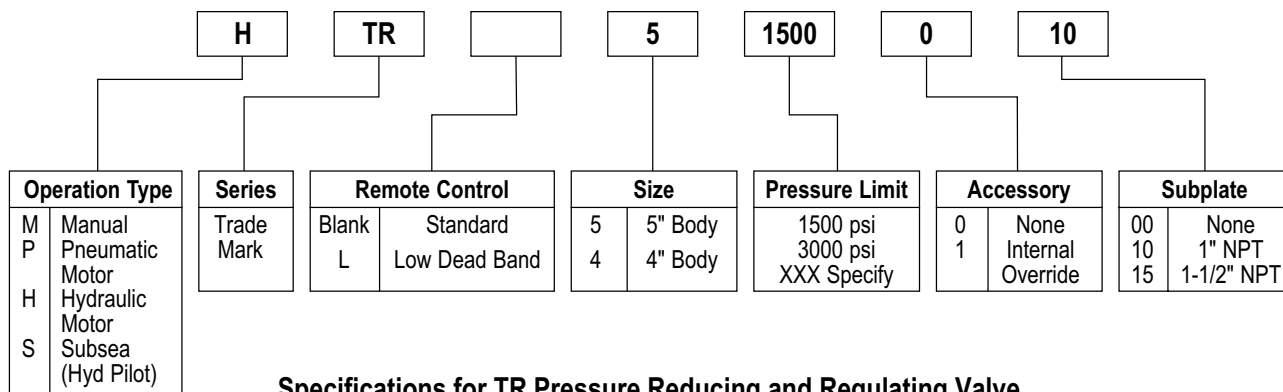


PNEUMATIC								
MODEL NO.	Final Ass'y Catalog P/N	Ass'y Less Subplate P/N	REGULATOR ASSEMBLY LESS SUBPLATE				SEAL KIT P/N	REPAIR KIT P/N
			OPERATOR TYPE	REGULATOR CONFIGURATION				
			Air Motor	Basic Group	Spring Control Head	Internal Override		
PTR-4-1500-0-05	1111-8300	0150-2129	0150-1922	0150-1580	0150-1577	---	1110-9497	1110-9499
PTR-4-1500-I-05	1111-8200	0150-2130	0150-1922	0150-1580	0150-1577	0150-1581	1110-9497	1110-9499
PTR-4-3000-0-05	1111-9100	0150-2131	0150-1922	0150-1580	0150-1913	---	1110-9497	1110-9499
PTR-4-3000-I-05	1111-9000	0150-2132	0150-1922	0150-1580	0150-1913	0150-1170	1110-9497	1110-9499
PTR-4-1500-0-10	1111-8500	0150-2129	0150-1922	0150-1580	0150-1577	---	1110-9497	1110-9499
PTR-4-1500-I-10	1111-8400	0150-2130	0150-1922	0150-1580	0150-1577	0150-1581	1110-9497	1110-9499
PTR-4-3000-0-10	1111-9300	0150-2131	0150-1922	0150-1580	0150-1913	---	1110-9497	1110-9499
PTR-4-3000-I-10	1111-9200	0150-2132	0150-1922	0150-1580	0150-1913	0150-1170	1110-9497	1110-9499
PTR-5-1500-0-10	1111-8600	0150-1164	0150-1922	0150-1588	0150-1577	---	1110-6897	1110-6899
PTR-5-1500-I-10	1111-8700	0150-2133	0150-1922	0150-1588	0150-1577	0150-1581	1110-6897	1110-6899
PTR-5-3000-0-10	1111-9400	0150-2134	0150-1922	0150-1588	0150-1913	---	1110-6897	1110-6899
PTR-5-3000-I-10	1111-9500	0150-2135	0150-1922	0150-1588	0150-1913	0150-1170	1110-6897	1110-6899
PTR-5-1500-0-15	1111-8800	0150-1164	0150-1922	0150-1588	0150-1577	---	1110-6897	1110-6899
PTR-5-1500-I-15	1111-8900	0150-2133	0150-1922	0150-1588	0150-1577	0150-1581	1110-6897	1110-6899
PTR-5-3000-0-15	1111-9600	0105-2134	0150-1922	0150-1588	0150-1913	---	1110-6897	1110-6899
PTR-5-3000-I-15	1111-9700	0150-2135	0150-1922	0150-1588	0150-1913	0150-1170	1110-6897	1110-6899

*Repair Kit will also contain one (1) Seal Kit

STANDARD VERSION

MODEL NUMBER IDENTIFICATION SYSTEM



HYDRAULIC								
MODEL NO.	Final Ass'y Catalog P/N	Ass'y Less Subplate P/N	REGULATOR ASSEMBLY LESS SUBPLATE				SEAL KIT P/N	REPAIR KIT P/N
			OPERATOR TYPE	REGULATOR CONFIGURATION				
			Hydr. motor	Basic Group	Spring Control Head	Internal Override		
HTR-4-1500-0-05	1112-8200	0150-2136	0150-1924	0150-1580	0150-1577	---	1110-9497	1110-9499
HTR-4-1500-I-05	1112-8100	0150-2137	0150-1924	0150-1580	0150-1577	0150-1581	1110-9497	1110-9499
HTR-4-3000-0-05	1112-9000	0150-2138	0150-1924	0150-1580	0150-1913	---	1110-9497	1110-9499
HTR-4-3000-I-05	1112-8900	0150-2139	0150-1924	0150-1580	0150-1913	0150-1170	1110-9497	1110-9499
HTR-4-1500-0-10	1112-8400	0150-2136	0150-1924	0150-1580	0150-1577	---	1110-9497	1110-9499
HTR-4-1500-I-10	1112-8300	0150-2137	0150-1924	0150-1580	0150-1577	0150-1581	1110-9497	1110-9499
HTR-4-3000-0-10	1112-9200	0150-3138	0150-1924	0150-1580	0150-1913	---	1110-9497	1110-9499
HTR-4-3000-I-10	1112-9100	0150-2139	0150-1924	0150-1580	0150-1913	0150-1170	1110-9497	1110-9499
HTR-5-1500-0-10	1112-8500	0150-2140	0150-1924	0150-1588	0150-1577	---	1110-6897	1110-6899
HTR-5-1500-I-10	1112-8600	0150-2141	0150-1924	0150-1588	0150-1577	0150-1581	1110-6897	1110-6899
HTR-5-3000-0-10	1112-9300	0150-2142	0150-1924	0150-1588	0150-1913	---	1110-6897	1110-6899
HTR-5-3000-I-10	1112-9400	0150-2143	0150-1924	0150-1588	0150-1913	0150-1170	1110-6897	1110-6899
HTR-5-1500-0-15	1112-8700	0150-2140	0150-1924	0150-1588	0150-1577	---	1110-6897	1110-6899
HTR-5-1500-I-15	1112-8800	0150-2141	0150-1924	0150-1588	0150-1577	0150-1581	1110-6897	1110-6899
HTR-5-3000-0-15	1112-9500	0150-2142	0150-1924	0150-1588	0150-1913	---	1110-6897	1110-6899
HTR-5-3000-I-15	1112-9600	0150-2143	0150-1924	0150-1588	0150-1913	0150-1170	1110-6897	1110-6899

*Repair Kit will also contain one (1) Seal Kit

TR™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE

PART NO. 0150-1580, BASIC VALVE PARTS, SUB-ASSEMBLY, “TR4” REGULATOR

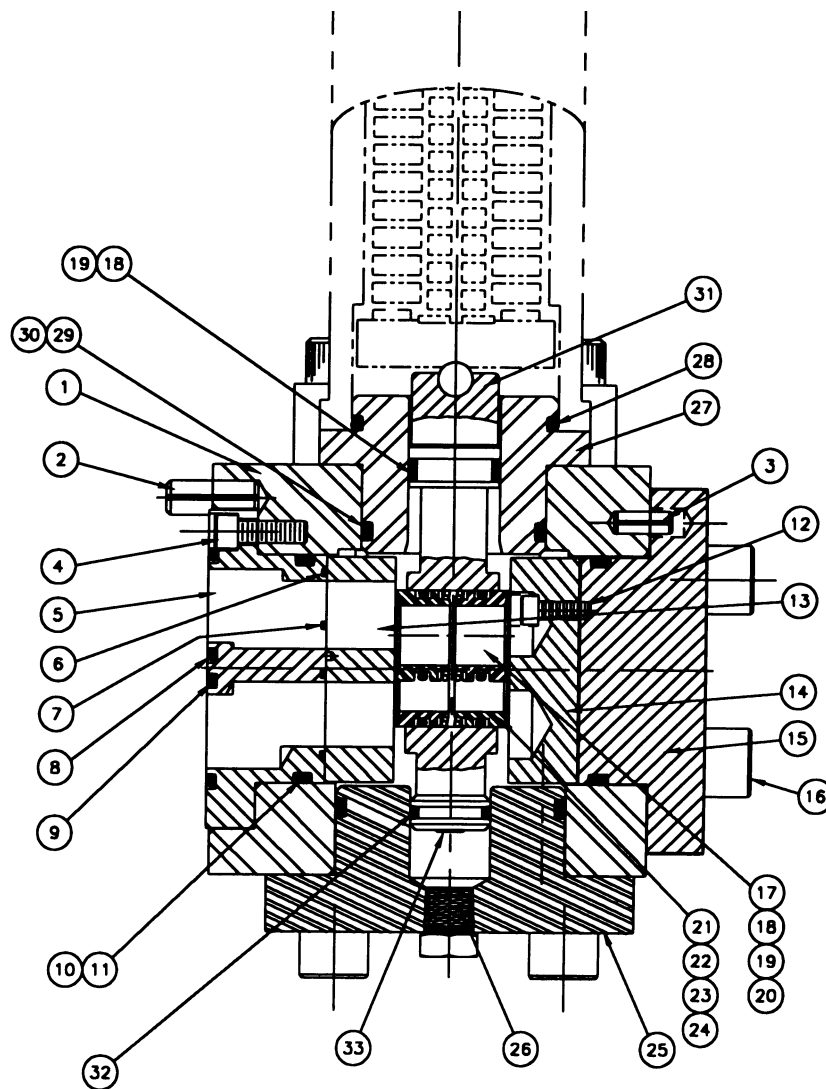
Item	Part No.	Description	Qty
1	0150-1530	Body	1
2	8599-0216	Pin	1
3	8599-0012	Pin	1
4	8506-0012	Socket Head Cap Screw	1
5	0150-1529	Port Plate	1
6 *	8717-2019	O-Ring	1
7 *	8717-2014	O-Ring	1
8 *	8717-2214	O-Ring	2
9 *	8717-2113	O-Ring	1
10 *	8717-2228	O-Ring	3
11 *	8841-2228	Back-Up Ring	3
12 *	805391	Socket Head Cap Screw	4
13 **	0150-1527	Flow Plate	1
14 **	0150-1528	Flow Plate	1
15	0150-1533	Flange	1
16	8504-4024	Socket Head Cap Screw	8
17 **	0150-1142	Hydraseat (Inlet)	2
18 *	8717-2117	O-Ring	3
19 *	8841-2117	Back-Up Ring	4
20 **	808566	Seat Spring (Inlet)	1
21 **	0150-1549	Hydraseat (Vent)	2
22 *	8717-2111	O-Ring	2
23 *	8841-2111	Back-Up Ring	2
24 **	0150-1592	Seat Spring (Vent)	1
25	0150-1532	Bottom Flange	1
26	805392	Pipe Plug	1
27	0150-1150	Piston Guide	1
28 *	8717-2226	O-Ring	1
29 *	8717-2224	O-Ring	1
30 *	8841-2224	Back-Up Ring	1
31	0150-1535	Piston & Seal Container	1
32 *	8717-2115	O-Ring	1
33 **	0150-1172	Orifice Plug	1

* Included in Standard Universal TR4 Seal Kit # 1110-9497

** Included in Standard Universal TR4 Repair Kit # 1110-9499
(Repair Kit also includes one Standard Universal Seal Kit).

TR™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE

PART NO. 0150-1580, BASIC VALVE PARTS, SUB-ASSEMBLY, "TR4" REGULATOR



TR™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE

PART NO. 0150-1588, BASIC VALVE PARTS, SUB-ASSEMBLY, “TR5” REGULATOR

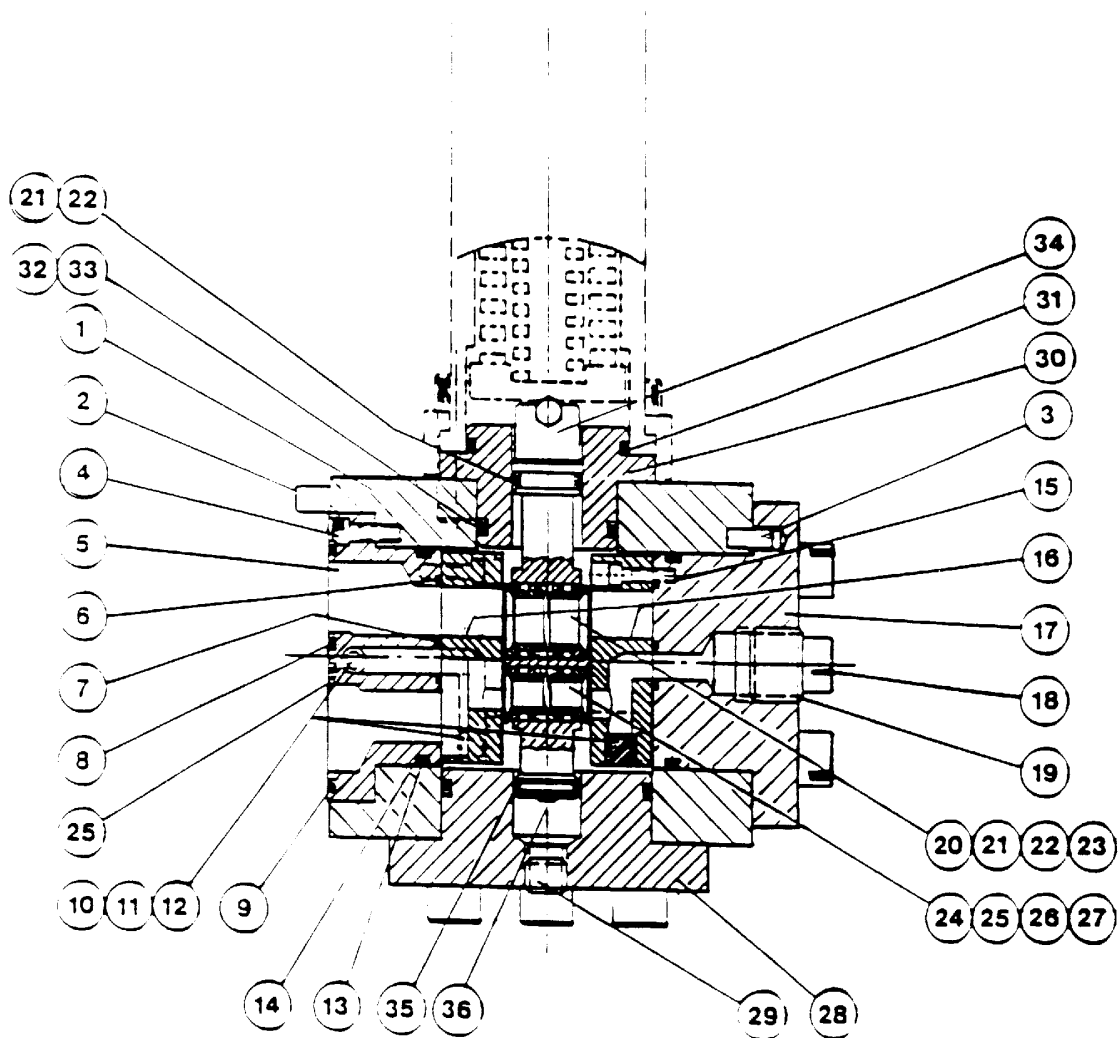
Item	Part No.	Description	Qty
1	0150-1141	Body	1
2	8599-0216	Pin	1
3	8599-0012	Pin	1
4	8506-0012	Socket Head Cap Screw	1
5	0150-1140	Port Plate	1
6 *	8717-2019	O-Ring	4
7 *	8717-2014	O-Ring	2
8 *	8717-2218	O-Ring	1
9 *	8717-2222	O-Ring	1
10 **	0150-1143	Seal Plug	3
11 *	8717-2010	O-Ring	3
12 *	8841-2010	Back-Up Ring	6
13 *	8717-2232	O-Ring	3
14 *	8841-2232	Back-Up Ring	3
15 *	805391	Socket Head Cap Screw	4
16 **	0150-1139	Flow Plate	2
17	0150-1149	Flange	1
18	8504-4024	Socket Head Cap Screw	12
19	805394	Pipe Plug	1
20 **	0150-1142	Hydraseat (Inlet)	4
21 *	8717-2117	O-Ring	5
22 *	8841-2117	Back-Up Ring	6
23 **	0150-1161	Seat Spring (Inlet)	2
24 **	0150-1144	Hydraseat (Vent)	2
25 *	8717-2113	O-Ring	4
26 *	8841-2113	Back-Up Ring	2
27 **	0150-1162	Seat Spring (Vent)	1
28	0150-1148	Bottom Flange	1
29	805392	Pipe Plug	1
30	0150-1150	Piston Guide	1
31 *	8717-2226	O-Ring	1
32 *	8717-2224	O-Ring	1
33 *	8841-2224	Back-Up Ring	1
34	0150-1538	Piston and Seal Container	1
35 *	8717-2115	O-Ring	1
36 **	0150-1172	Orifice Plug	1

* Included in Standard Universal TR5 Seal Kit # 1110-6897

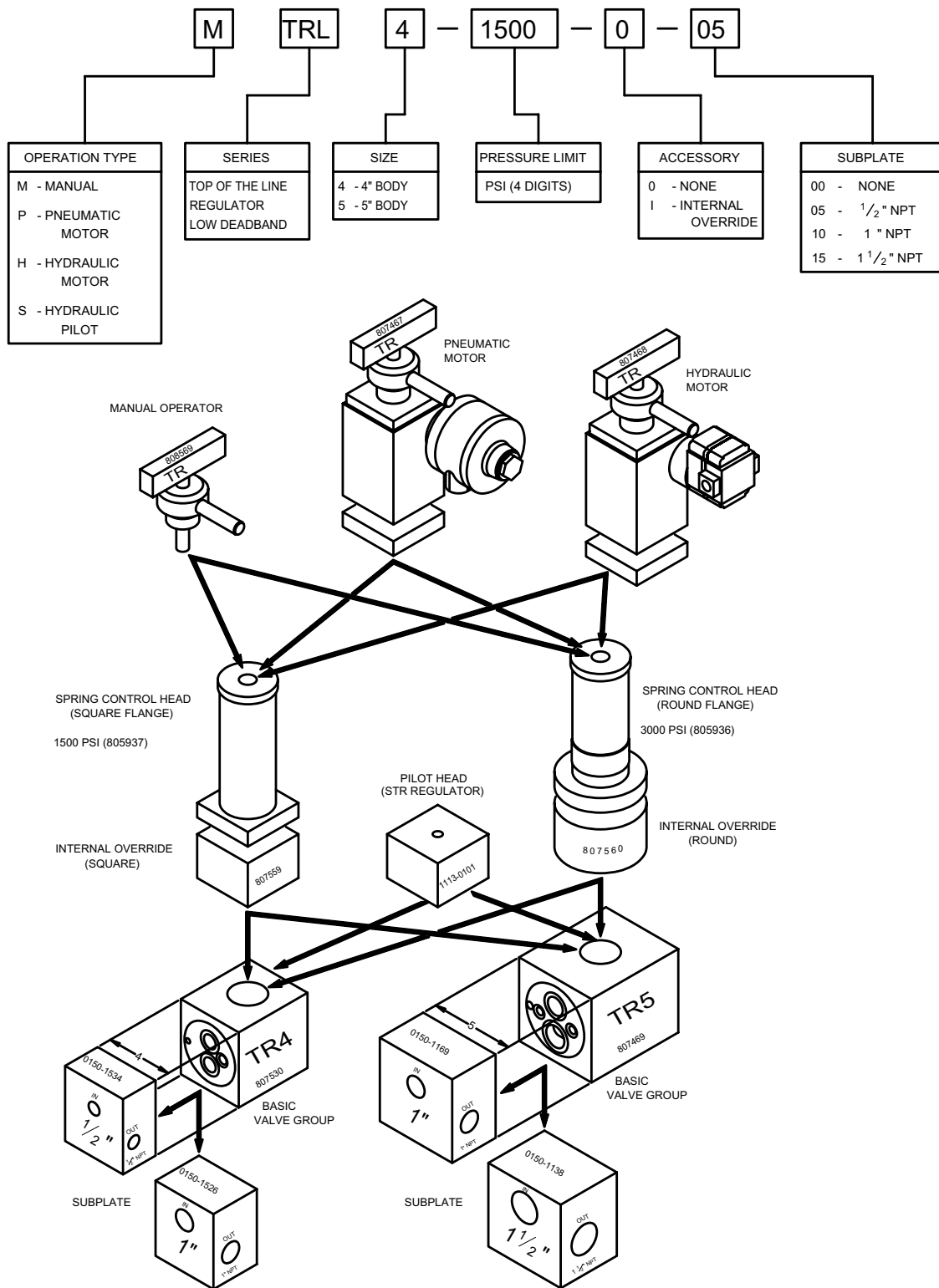
** Included in Standard Universal TR5 Repair Kit # 1110-6899
(Repair Kit includes Seal Kit)

TR™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE

PART NO. 0150-1588, BASIC VALVE PARTS, SUB-ASSEMBLY, "TR5" REGULATOR

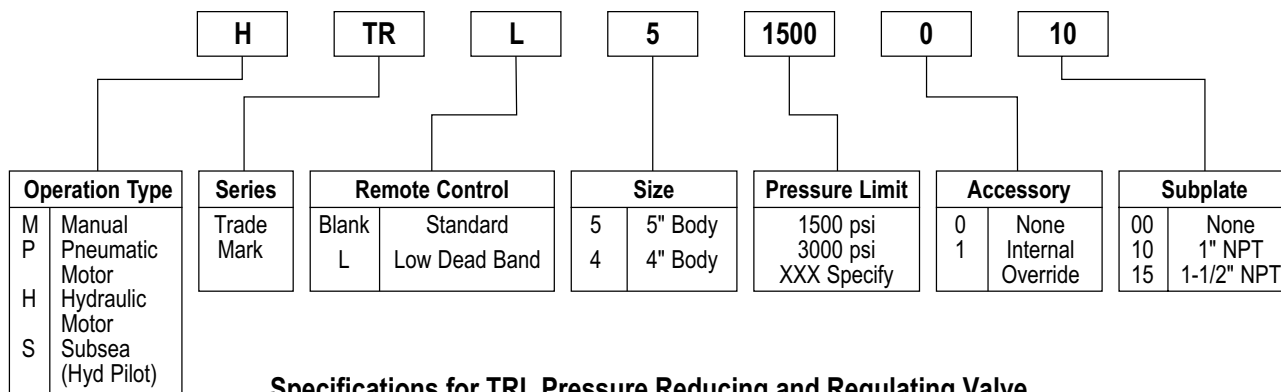


TRL™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE



LOW DEAD BAND VERSION

MODEL NUMBER IDENTIFICATION SYSTEM

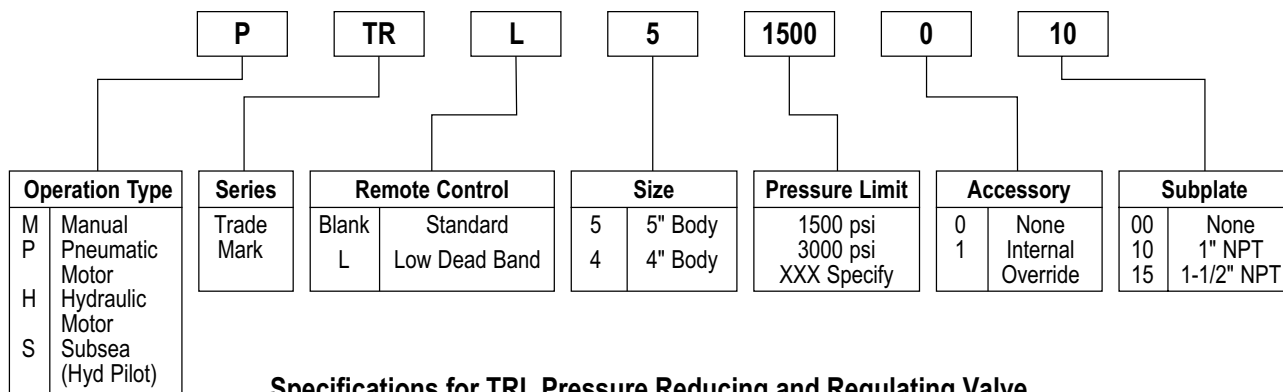


MANUAL								
MODEL NO.	Final Ass'y Catalog P/N	Ass'y Less Subplate P/N	REGULATOR ASSEMBLY LESS SUBPLATE				SEAL KIT P/N	REPAIR KIT P/N
			OPERATOR TYPE	REGULATOR CONFIGURATION				
			Manual	Basic Group	Spring Control Head	Internal Override		
MTRL-4-1500-0-05	807501	807521	808569	807530	805937	---	807589	807591
MTRL-4-1500-I-05	807502	807522	808569	807530	805937	807559	807589	807591
MTRL-4-3000-0-05	807503	807523	808569	807530	805936	---	807589	807591
MTRL-4-3000-I-05	807504	807524	808569	807530	805936	807560	807589	807591
MTRL-4-1500-0-10	807505	807521	808569	807530	805937	---	807589	807591
MTRL-4-1500-I-10	807506	807522	808569	807530	805937	807559	807589	807591
MTRL-4-3000-0-10	807507	807523	808569	807530	805936	---	807589	807591
MTRL-4-3000-I-10	807508	807524	808569	807530	805936	807560	807589	807591
MTRL-5-1500-0-10	807509	807525	808569	807469	805937	---	807590	807592
MTRL-5-1500-I-10	807510	807526	808569	807469	805937	807559	807590	807592
MTRL-5-3000-0-10	807511	807527	808569	807469	805936	---	807590	807592
MTRL-5-3000-I-10	807512	807528	808569	807469	805936	807560	807590	807592
MTRL-5-1500-0-15	807513	807525	808569	807469	805937	---	807590	807592
MTRL-5-1500-I-15	807514	807526	808569	807469	805937	807559	807590	807592
MTRL-5-3000-0-15	807515	807527	808569	807469	805936	---	807590	807592
MTRL-5-3000-I-15	807516	807528	808569	807469	805936	807560	807590	807592

*Repair Kit will also contain one (1) Seal Kit

LOW DEAD BAND VERSION

MODEL NUMBER IDENTIFICATION SYSTEM

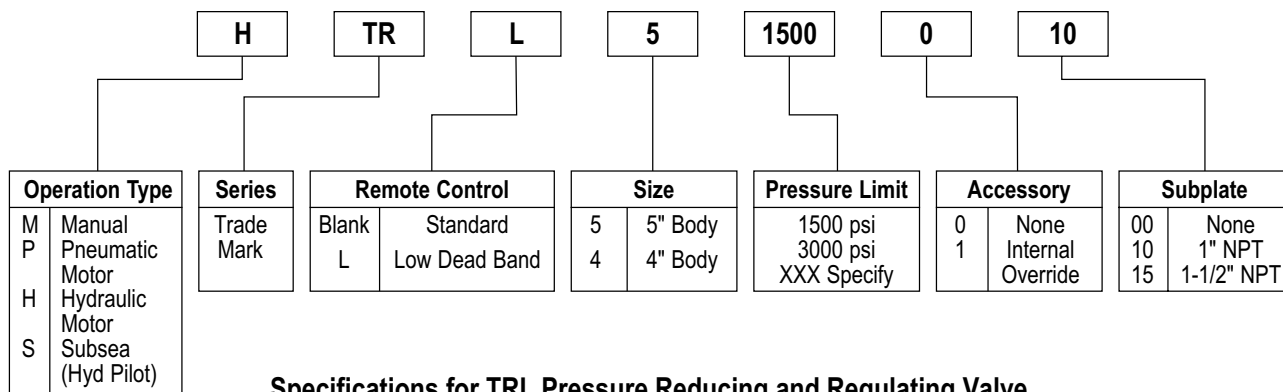


PNEUMATIC								
MODEL NO.	Final Ass'y Catalog P/N	Ass'y Less Subplate P/N	REGULATOR ASSEMBLY LESS SUBPLATE				SEAL KIT P/N	REPAIR KIT P/N
			OPERATOR TYPE	REGULATOR CONFIGURATION				
				Air Motor	Basic Group	Spring Control Head		
PTRL-4-1500-0-05	807531	807551	807467	807530	805937	---	807589	807591
PTRL-4-1500-I-05	807532	807552	807467	807530	805937	807559	807589	807591
PTRL-4-3000-0-05	807533	807553	807467	807530	805936	---	807589	807591
PTRL-4-3000-I-05	807534	807554	807467	807530	805936	807560	807589	807591
PTRL-4-1500-0-10	807535	807551	807467	807530	805937	---	807589	807591
PTRL-4-1500-I-10	807536	807552	807467	807530	805937	807559	807589	807591
PTRL-4-3000-0-10	807537	807553	807467	807530	805936	---	807589	807591
PTRL-4-3000-I-10	807538	807554	807467	807530	805936	807560	807589	807591
PTRL-5-1500-0-10	807539	807555	807467	807469	805937	---	807590	807592
PTRL-5-1500-I-10	807540	807556	807467	807469	805937	807559	807590	807592
PTRL-5-3000-0-10	807541	807557	807467	807469	805936	---	807590	807592
PTRL-5-3000-I-10	807542	807558	807467	807469	805936	807560	807590	807592
PTRL-5-1500-0-15	807543	807555	807467	807469	805937	---	807590	807592
PTRL-5-1500-I-15	807544	807556	807467	807469	805937	807559	807590	807592
PTRL-5-3000-0-15	807545	807557	807467	807469	805936	---	807590	807592
PTRL-5-3000-I-15	807546	807558	807467	807469	805936	807560	807590	807592

*Repair Kit will also contain one (1) Seal Kit

LOW DEAD BAND VERSION

MODEL NUMBER IDENTIFICATION SYSTEM



HYDRAULIC								
MODEL NO.	Final Ass'y Catalog P/N	Ass'y Less Subplate P/N	REGULATOR ASSEMBLY LESS SUBPLATE				SEAL KIT P/N	REPAIR KIT P/N
			OPERATOR TYPE	REGULATOR CONFIGURATION				
			Hydr. Motor	Basic Group	Spring Control Head	Internal Override		
HTRL-4-1500-0-05	807561	807581	807468	807530	805937	---	807589	807591
HTRL-4-1500-I-05	807562	807582	807468	807530	805937	807559	807589	807591
HTRL-4-3000-0-05	807563	807583	807468	807530	805936	---	807589	807591
HTRL-4-3000-I-05	807564	807584	807468	807530	805936	807560	807589	807591
HTRL-4-1500-0-10	807565	807581	807468	807530	805937	---	807589	807591
HTRL-4-1500-I-10	807566	807582	807468	807530	805937	807559	807589	807591
HTRL-4-3000-0-10	807567	807583	807468	807530	805936	---	807589	807591
HTRL-4-3000-I-10	807568	807584	807468	807530	805936	807560	807589	807591
HTRL-5-1500-0-10	807569	807585	807468	807469	805937	---	807590	807592
HTRL-5-1500-I-10	807570	807586	807468	807469	805937	807559	807590	807592
HTRL-5-3000-0-10	807571	807567	807468	807469	805936	---	807590	807592
HTRL-5-3000-I-10	807572	807588	807468	807469	805936	807560	807590	807592
HTRL-5-1500-0-15	807573	807585	807468	807469	805937	---	807590	807592
HTRL-5-1500-I-15	807574	807586	807468	807469	805937	807559	807590	807592
HTRL-5-3000-0-15	807575	807587	807468	807469	805936	---	807590	807592
HTRL-5-3000-I-15	807576	807588	807468	807469	805936	807560	807590	807592

*Repair Kit will also contain one (1) Seal Kit

TRL™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE

PART NO. 807530, BASIC VALVE PARTS, SUB-ASSEMBLY FOR “TRL4” REGULATOR

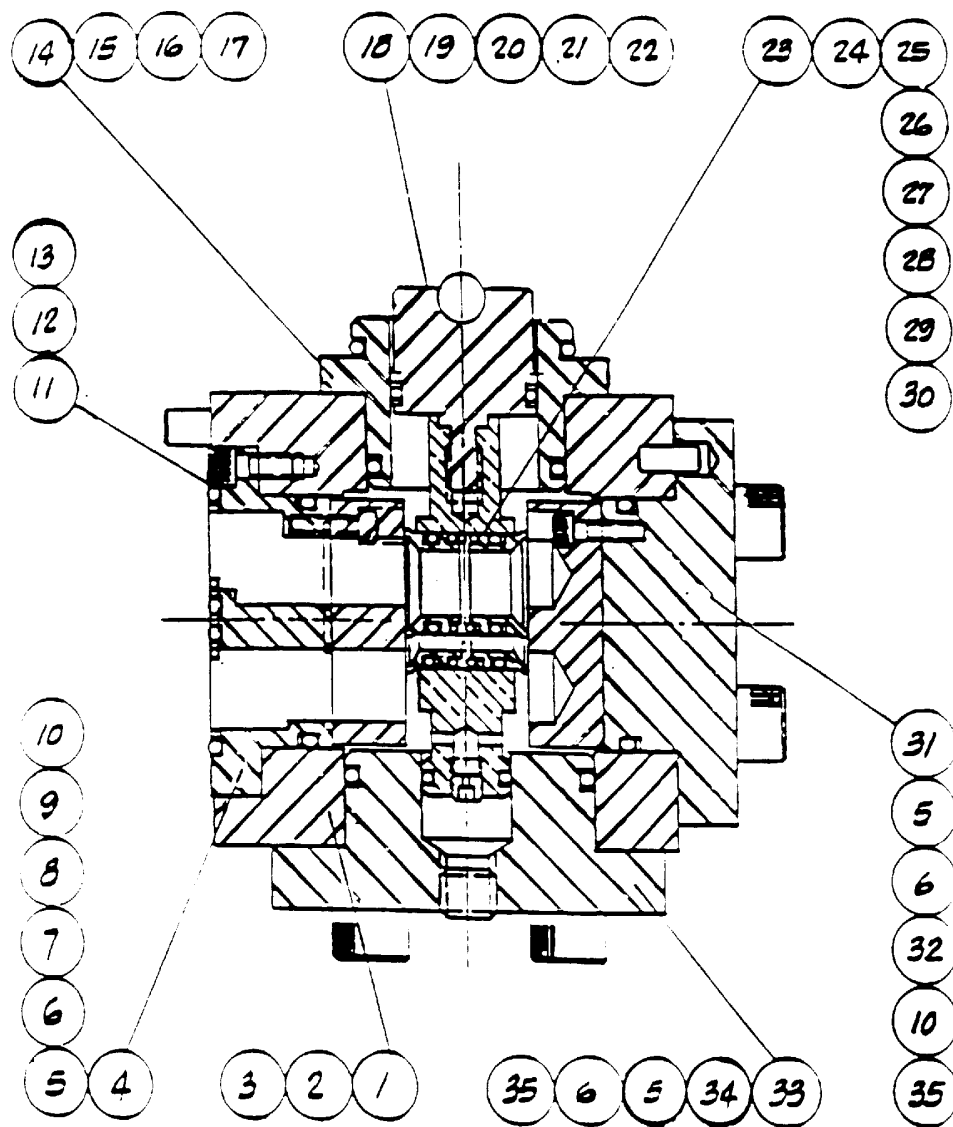
Item	Part No.	Description	Qty
1	0150-1530	Body	1
2	8599-0216	Dowel Pin	1
3	8599-0012	Dowel Pin	1
4	0150-1529	Port Plate	1
5 **	8717-2223	O-Ring	3
6 **	8841-2223	Back-Up Ring	3
7 **	8717-2019	O-Ring	1
8 **	8717-2014	O-Ring	1
9 *	810103	Flow Plate	1
10 **	805391	Soc. Head Screw	4
11	8506-0012	Soc. Head Screw	1
12 **	8717-2214	O-Ring	2
13 **	8717-2113	O-Ring	1
14	807457	Piston Guide	1
15 **	8717-2224	O-Ring	1
16 **	8841-2224	Back-Up Ring	1
17 **	8717-2226	O-Ring	1
18	810106	Piston & Seal Container	1
19 **	8717-2125	O-Ring	1
20 **	8841-2125	Back-Up Ring	2
21 **	8717-2115	O-Ring	1
22 *	0150-1172	Orifice Plug	1
23 *	805939	Hydraseat (Inlet)	2
24 **	8717-2117	O-Ring	2
25 **	8841-2117	Back-Up Ring	2
26 *	808566	Seat Spring (Inlet)	1
27 *	810105	Hydraseat (Vent)	2
28 **	8717-2111	O-Ring	2
29 **	8841-2111	Back-Up Ring	2
30 *	0150-1592	Seat Spring (Vent)	1
31	0150-1533	Flange	1
32 *	810104	Flow Plate	1
33	0150-1532	Bottom Flange	1
34	805392	Pipe Plug	1
35	8504-4024	Soc. Head Screw	8

* Included in Repair Kit: P/N 807591 (Includes Seal Kit)

** Included in Seal Kit: P/N 807589

TRL™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE

PART NO. 807530, BASIC VALVE PARTS, SUB-ASSEMBLY FOR “TRL4” REGULATOR



TRL™ FAIL-SAFE PRESSURE REDUCING AND REGULATING VALVE

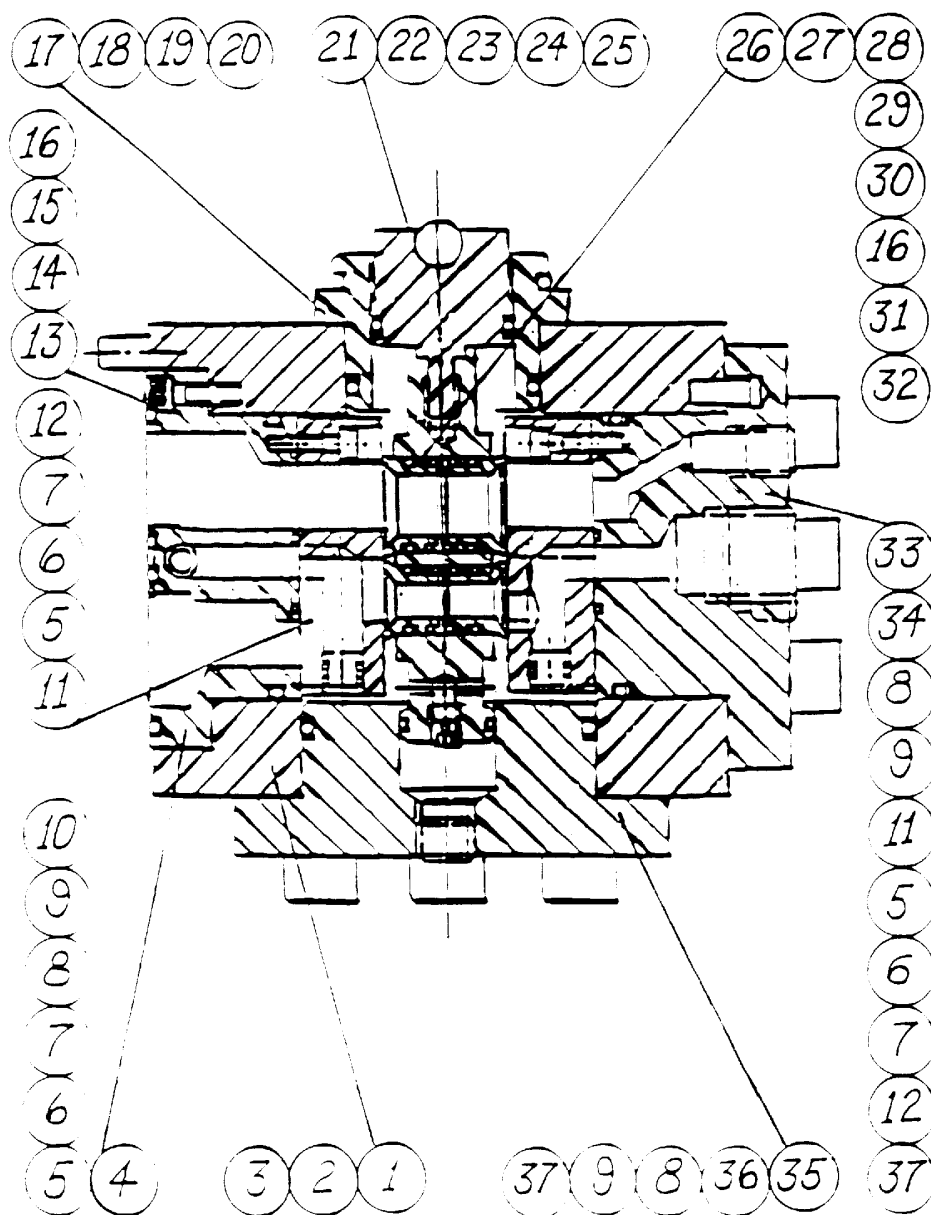
PART NO. 807469, BASIC VALVE PARTS, SUB-ASSEMBLY FOR “TRL5” REGULATOR

Item	Part No.	Description	Qty
1	0150-1141	Body	1
2	8599-0216	Pin	1
3	8599-0012	Pin	1
4	0150-1140	Port Plate	1
5 *	0150-1143	Seal Plug	3
6 **	8717-2010	O-Ring	3
7 **	8841-2010	Back-Up Ring	6
8 **	8717-2232	O-Ring	3
9 **	8841-2232	Back-Up Ring	3
10 **	8717-2019	O-Ring	6
11 *	805928	Flow Plate	2
12 **	805391	Socket Head Cap Screw	4
13	8506-0012	Socket Head Cap Screw	1
14	8717-2218	O-Ring	1
15 **	8717-2222	O-Ring	1
16 **	8717-2113	O-Ring	4
17	807457	Piston Guide	1
18 **	8717-2224	O-Ring	1
19 **	8841-2224	Back-Up Ring	1
20 **	8717-2226	O-Ring	1
21	807456	Piston and Seal Container	1
22 **	8717-2125	O-Ring	1
23 **	8841-2125	Back-Up Ring	2
24 **	8717-2115	O-Ring	1
25 *	0150-1172	Orifice Plug	1
26 *	805939	Hydraseat (Inlet)	4
27 **	8717-2117	O-Ring	4
28 **	8841-2117	Back-Up Ring	4
29 *	808566	Seat Spring (Inlet)	2
30 *	0150-1144	Hydraseat (Vent)	2
31 **	8841-2113	Back-Up Ring	2
32 *	0150-1162	Seat Spring (Vent)	1
33	0150-1149	Flange	1
34	805394	Pipe Plug	1
35	0150-1148	Bottom Flange	1
36	805392	Pipe Plug	1
37	8504-4024	Socket Head Cap Screw	12

* Included in Repair Kit: P/N 807592 (Includes Seal Kit)

** Included in Seal Kit: P/N 807590

PART NO. 807469, BASIC VALVE PARTS, SUB-ASSEMBLY FOR “TRL5” REGULATOR



HYDRAULIC PRESSURE REGULATOR MANUAL OPERATOR

PART NO. 1110-0100 - 1/8" FULL FLOW MANUAL REGULATOR



Item	Part No.	Description	Qty
Assy	1110-0100	Regulator Valve	
Kit	1110-0199	Repair Kit	
Kit	1110-0197	Seal Kit	
1	1110-0114	Handle	1
2	1110-0115	Set Screw	2
3	1110-0116	Adjusting Screw	1
4	1110-0117	Lock Handle	1
5	1110-0118	Sealing Plug	1
6	1110-0119	Ball	1
7	1110-0120	Guide Spring	1
8	1110-0121	Compression Spring	1
9	1110-0122	Compression Spring	1
10	1110-0123	Spring Plate	1
11	1110-0124	Adjustment Head	1
12	1110-0125	Adapter	1
13	1110-0106	Plunger Guide	1
14 *	8717-2016	O-Ring	1
15 **	8841-2020	Back-up Ring	2
16 **	8717-2020	O-Ring	1
17 *	1110-0111	Seal Container	1
18 *	1110-0109	Spring	2
19 *	1110-0126	Seal Cage, Outlet	1
20 **	8717-2013	O-Ring	2
21 **	8717-2112	O-Ring	4
22 *	1110-0107	Shear Seal Vent	2
23 *	1110-0127	Seal Cage, Inlet	1
24 *	1110-0110	Shear Seal Supply	2
25 **	8717-2010	O-Ring	6
26 **	8841-2010	Back-up Ring	2
27	8526-2024	Screw (old style req. 28)	22
28	1110-0101	Flange	2
29 **	8717-2014	O-Ring	1
30	1110-0112	Outlet Flange (not required on newer style)	1
31 **	8717-2214	O-Ring	1
32	1110-0105	Lower Flange	1
33	1110-0113	Screw	4
34 *	1110-0102	Flow Plate	2
35	1110-0103	Pin	2
36 **	8717-2024	O-Ring	2
37	1110-0104	Body	1

* Included in Repair Kit

** Included in Seal Kit

Part No. 1110-0100

Dimensions:

Height – 28-11/16"

Width – 9"

Depth – 9"

Weight: 28 pounds



HYDRAULIC PRESSURE REGULATOR MANUAL OPERATOR

PART NO. 1110-2100 - 3/4" FULL FLOW MANUAL REGULATOR



Item	Part No.	Description	Qty
Assy.	1110-2100	3/4" Full Flow, Manual, Pressure Reducing and Regulating Valve	
Kit	1110-2199	Repair Kit (Contains Seal Kit)	
Kit	1110-2197	Seal Kit	
1	1110-0114	Handle	1
2	1110-0115	Set Screw	2
3	1110-0116	Adjusting Screw	1
4	1110-0117	Lock, Handle	1
5	1110-0118	Sealing Plug	1
6	1110-0119	Ball	1
7	1110-0120	Guide, Spring	1
8	1110-2117	Spring, Compression	1
9	1110-2118	Spring, Compression	1
10	1110-0124	Spring, Plate	1
11	1110-2119	Adjustment Head	1
12	8526-2024	Screw	32
13	1110-2101	Guide, Plunger	1
14 *	8717-2228	O-Ring	2
15 **	8842-2016	Back-Up Ring	1
16 **	8717-2016	O-Ring	1
17	1110-2102	Plunger	1
18	1110-2113	Pin Retainer	1
19	1110-2106	Seal Container	1
20	1110-2112	Pin	1
21 *	1110-2122	Wave Spring	1
22 **	8841-2017	Back-Up Ring	2
23 **	8717-2017	O-Ring	2
24 *	1110-2121	Seal Ring	2
25 *	1110-2108	Spring	2
26 **	8841-2020	Back-Up Ring	4
27 **	8717-2020	O-Ring	4
28 *	1110-2104	Seal Ring	4
29 *	1110-2114	Screw (Qty. 5 in R.K.)	4
30	1110-2110	Flange, Blind	1
31 *	1110-2109	Flow Plate, Blind	1
32 **	8717-2220	O-Ring	1
33	1110-2111	Flange, 1" Pipe	1
34	1110-2116	Screw	6
35	1110-2115	Plug	2
36	1110-2120	Flange, Lower	1
37	1110-2107	Body	1
38 **	8717-2145	O-Ring	2
39 *	1110-2105	Flow Port	1
40	1110-2103	Flange	1
41 **	8717-2026	O-Ring (Not Shown)	1
42 **	8717-2018	O-Ring (Not Shown)	1

* Included in Repair Kit

** Included in Seal Kit

Part No. 1110-2100

Dimensions:

Height – 22"

Width – 6-7/8"

Depth – 5-1/4"

Weight: 48 pounds



HYDRAULIC PRESSURE REGULATOR MANUAL OPERATOR

PART NO. 1110-3100 - 1" FULL FLOW MANUAL REGULATOR



Item	Part No.	Description	Qty
Assy.	1110-3100	1" Full Flow, Manual, Pressure Reducing and Regulating Valve	
Kit	1110-3199	Repair Kit (Contains Seal Kit)	
Kit	1110-3197	Seal Kit	
1	8580-1600	Nut	2
2	1110-3115	Handle Cover	1
3	1110-3116	Handle	1
4	1110-0116	Screw Adjusting	1
5	1110-3114	Lock, Handle	1
6	1110-0118	Sealing, Plug	1
7	8526-2024	Screw	28
8	1110-0123	Adjustment Head	1
9	1110-0119	Ball	1
10	1110-0120	Spring Guide	1
11	1110-0121	Spring Compression	1
12	1110-3113	Spring	1
13	1110-0124	Spring Plate	1
14	8526-2020	Screw	1
15	1110-3102	Hanger Guide	1
16 **	8717-2224	O-Ring	1
17	1110-3120	Piston	1
18 **	8841-2117	Back-Up Ring	2
19 **	8717-2117	O-Ring	1
20 **	8717-2014	O-Ring	1
21 **	8717-2121	O-Ring	1
22 *	1110-3112	Valve Cage	1
23 *	1110-3110	Wave Spring	2
24 **	8717-2020	O-Ring	4
25 *	1110-3111	Seal Ring, Vent	2
26	1110-3107	Seal Container	1
27 *	1110-2108	Spring	1
28 **	8841-2020	Back-Up Ring	2
29 *	1110-2104	Seal Ring, Supply	2
30	1110-3109	Flange, Blind	1
31	1110-3104	Flange, 1" Pipe	3
32	1110-3106	Flange, 1-1/2" Pipe	1
33 **	8717-2226	O-Ring	1
34	1110-3101	Body	1
35	1110-3108	Flange, Lower	1
36 *	1110-3105	Flow Plate Supply	2
37 **	8717-2010	O-Ring	8
38 **	8717-2018	O-Ring	4
39	1110-0103	Pin	4
40 **	8717-2225	O-Ring	4
41 *	1110-3103	Flow Plate Vent	2
42 *	8506-9112	Screw (Qty 1 in R.K.)	8

* Included in Repair Kit

** Included in Seal Kit

Part No. 1110-3100

Dimensions:

Height – 21"

Width – 6-7/8"

Depth – 7"

Weight: 69 pounds

ABB

HYDRAULIC PRESSURE REGULATOR AIR OPERATOR

PART NO. 1111-0100 - 1/8" FULL FLOW



Item	Part No.	Description	Qty
Assy.	1111-0100	1/8" Full Flow, Air Pilot, Pressure Reducing and Regulating Valve	
Kit	1110-0199	Repair Kit (Contains Seal Kit)	
Kit	1110-0197	Seal Kit	
1	8500-2012	Screw	12
2	1111-0102	Diaphragm Cover, Top	1
3	1111-0105	Diaphragm	1
4	1111-0106	Plate, Diaphragm	1
5	1111-0107	Spring	1
6	1111-0104	Screw	6
7	1111-0109	Cover, Retainer	1
8	1111-0103	Diaphragm Cover, Bottom	1
9	8580-1200	Nut	12
10	1110-0106	Guide, Plunger	1
11 **	8717-2026	O-Ring	1
12 **	8841-2020	Back-Up Ring	2
13 **	8717-2020	O-Ring	1
14 *	1110-0111	Seal Container	1
15 *	1110-0109	Spring	2
16 *	1110-0126	Seal Cage, Outlet	1
17 **	8717-2013	O-Ring	2
18 **	8717-2012	O-Ring	4
19 *	1110-0107	Shear Seal, Vent	2
20 *	1110-0127	Seal Cage, Inlet	1
21 *	1110-0110	Shear Seal, Supply	2
22 **	8717-2010	O-Ring	6
23 **	8841-2010	Back-Up Ring	2
24	8526-2024	Screw (Old Style Requires 24)	18
25	1110-0101	Flange	2
26	8717-2014	O-Ring (Not Required on New Style)	1
27	1110-0112	Flange, outlet (Not Required on New Style)	1
28	1110-0108	Screw	4
29 *	1110-0102	Flow Port	2
30	1110-0103	Pin	2
31 *	1110-0102	Flow Plate	2
32	1110-0104	Body	1

* Included in Repair Kit

** Included in Seal Kit

Part No. 1111-0100

Dimensions:

Height – 8-11/16"

Width – 9"

Depth – 9"

Weight: 28 pounds



HYDRAULIC PRESSURE REGULATOR AIR OPERATOR

PART NO. 1111-2100 - 3/4" FULL FLOW



Item	Part No.	Description	Qty
Assy.	1111-2100	3/4" Full Flow, Air Pilot, Pressure Reducing and Regulating Valve	
Kit	1110-2199	Repair Kit (Contains Seal Kit)	
Kit	1110-2197	Seal Kit	
1	1111-2111	Screw	16
2	1111-2105	Diaphragm Cover, Top	1
3	1111-2101	Diaphragm	1
4	1111-2107	Plate, Diaphragm	1
5	1111-2110	Screw	1
6	1111-2108	Spacer	1
7	1111-2106	Diaphragm Cover, Bottom	1
8	8580-1200	Nut	16
9	1111-2109	Adapter	1
10 *	1110-2114	Screw (Qty. 5 in R.K.)	5
11	8526-2024	Screw	32
12 **	8717-2230	O-Ring	1
13 **	8717-2228	O-Ring	2
14	1111-2102	Guide, Plunger	1
15 **	8841-2222	Back-Up Ring	2
16 **	8717-2222	O-Ring	1
17	1111-2103	Plunger	1
18	1111-2104	Seal Container	1
19	1111-2112	Pin	1
20 *	1110-2122	Wave Spring	1
21 **	8841-2017	Back-Up Ring	2
22 **	8717-2017	O-Ring	2
23 *	1110-2121	Seal Ring	2
24 *	1110-2108	Spring	2
25 **	8841-2020	Back-Up Ring	4
26 *	8717-2020	O-Ring	4
27 *	1110-2104	Seal Ring	4
28	1110-2110	Flange, Blind	1
29 *	1110-2109	Flow Port, Blank	1
30 **	8717-2220	O-Ring	1
31	1110-2111	Flange, 1" Pipe	1
32	1110-2116	Screw	6
33	1110-2115	Plug	2
34	1110-2120	Flange, Lower	1
35	1110-2107	Body	1
36 **	8717-2145	O-Ring	2
37 *	1110-2105	Flow Plate	1
38	1110-2103	Flange	1
39 **	8717-2026	O-Ring (Not Shown)	1
40 **	8717-2018	O-Ring (Not Shown)	1

* Included in Repair Kit

** Included in Seal Kit

Part No. 1111-2100

Dimensions:

Height – 14-7/32"

Width – 13-1/8"

Depth – 13-1/8"

Weight: 67 pounds



HYDRAULIC PRESSURE REGULATOR AIR OPERATOR

PART NO. 1111-3100 - 1"FULL FLOW



Item	Part No.	Description	Qty
Assy.	1111-3100	1" Full Flow, Air Pilot, Pressure Reducing and Regulating Valve	
Kit	1110-3199	Repair Kit (Contains Seal Kit)	
Kit	1110-3197	Seal Kit	
1	8540-1016	Screw	16
2	1111-2105	Diaphragm Cover, Top	1
3	1111-2101	Diaphragm	1
4	8504-0012	Screw	1
5	1111-2107	Plate, Diaphragm	1
6	8504-2012	Screw	4
7	1111-2106	Diaphragm Cover, Bottom	1
8	8508-1200	Nut	16
9	8526-2056	Screw	1
10	1111-3105	Spacer	1
11	8526-2016	Screw	4
12	1111-3101	Adapter	1
13	1111-3108	Piston	1
14 **	8841-2218	Back-Up Ring	2
15 **	8717-2218	O-Ring	1
16	1111-3110	Cylinder	1
17 **	8717-2226	O-Ring	2
18 **	8717-2224	O-Ring	2
19 **	8717-2014	O-Ring	1
20 **	8717-2121	O-Ring	1
21 *	1110-3112	Valve Cage	1
22 *	1110-3110	Wave Spring	2
23 **	8717-2020	O-Ring	4
24 *	1110-3111	Seal Ring, Vent	2
25	1111-3109	Seal Container	1
26 *	1110-2108	Spring	1
27 **	8841-2020	Back-Up Ring	2
28 *	1110-2104	Seal Ring, Supply	2
29	1110-3109	Flange, Blind	1
30	1110-3104	Flange, 1" Pipe	3
31	8526-2024	Screw	24
32	1110-3106	Flange, 1-1/2" Pipe	1
33	1110-3101	Body	1
34	1110-3108	Flange, Lower	1
35 *	1110-3105	Flow Plate, Supply	2
36 **	8717-2010	O-Ring	8
37 **	8717-2018	O-Ring	4
38	1110-0103	Pin	4
39 **	8717-2225	O-Ring	4
40 *	1110-3103	Flow Plate, Vent	2
41 *	8506-9112	Screw (Qty 1 in R.K.)	8

* Included in Repair Kit

** Included in Seal Kit

Part No. 1111-3100

Dimensions:

Height – 15-7/16"

Width – 13-1/8"

Depth – 13-1/8"

Weight: 90 pounds



HYDRAULIC PRESSURE REGULATOR AIR OPERATOR

PART NO. 1111-4100 - 1-1/2" FULL FLOW

Item	Part No.	Description	Qty
Assy.	1111-4100	1-1/2" Full Flow, Air Pilot, Pressure Reducing and Regulating Valve	
Kit	1110-4199	Repair Kit (Contains Seal Kit)	
Kit	1110-4197	Seal Kit	
1	1111-3104	Screw	18
2	1112-4101	Diaphragm Cover, Top	1
3	1111-4103	Diaphragm	1
4	1110-2114	Screw	9
5	1111-4104	Plate, Diaphragm	1
6	8526-2056	Screw	1
7	1111-4113	Spacer	1
8	1111-4102	Diaphragm Cover, Bottom	1
9	8580-1200	Nut	18
10 **	8717-2230	O-Ring	1
11	1111-4106	Guide Plunger	1
12 **	8841-2223	Back-Up Ring	2
13 **	8717-2223	O-Ring	1
14	1111-4105	Plunger	1
15 **	8717-2013	O-Ring	1
16	1111-4112	Seal Container	1
17 *	1110-3112	Cage, Valve	1
18 **	8717-2121	O-Ring	1
19 *	1110-3110	Wave Spring	2
20 **	8717-2020	O-Ring	6
21 *	1110-3111	Seal Ring, Vent	2
22 *	1110-2108	Spring	2
23 **	8841-2020	Back-Up Ring	4
24 *	1110-2104	Seal Ring Supply	4
25 *	1111-4110	Flow Port, Vent	2
26 **	8717-2145	O-Ring	4
27	8526-2024	Screw	48
28	1111-4109	Flange	4
29 **	8717-2026	O-Ring	4
30 *	1111-4111	Flow Port, Supply	2
31 **	8717-2226	O-Ring	1
32	1111-4108	Flange, 1-1/2" Pipe	1
33 **	8717-2228	O-Ring	1
34	1110-2120	Flange, Lower	1
35	1111-4107	Body	1
36	1111-3102	Screw (Not Shown)	8

* Included in Repair Kit

** Included in Seal Kit

Part No. 1111-4100

Dimensions:

Height – 17-1/8"

Width – 16-7/8"

Depth – 16-7/8"

Weight: 106 pounds



HYDRAULIC PRESSURE REGULATOR HYDRAULIC OPERATOR

PART NO. 1112-2100 - 3/4" FULL FLOW

Item	Part No.	Description	Qty
Assy.	1112-2100	3/4" Full Flow, Hydraulic Pilot, Pressure Reducing and Regulating Valve	
Kit	1110-2199	Repair Kit (Contains Seal Kit)	
Kit	1110-2197	Seal Kit	
1	8526-2024	Screw	32
2	1112-2102	Hydraulic Head	1
3 **	8717-2230	O-Ring	1
4 **	8717-2228	O-Ring	2
5	1111-2102	Guide, Plunger	1
6 **	8841-2222	Back-Up Ring	2
7 **	8717-2222	O-Ring	1
8	1111-2103	Plunger	1
9	1111-2104	Seal Container	1
10	1111-2112	Pin	1
11 *	1110-2122	Wave Spring	1
12 **	8841-2017	Back-Up Ring	2
13 **	8717-2017	O-Ring	2
14 *	1110-2121	Seal Ring	2
15 *	1110-2108	Spring	2
16 **	8841-2020	Back-Up Ring	4
17 **	8717-2020	O-Ring	4
18 *	1110-2104	Seal Ring	4
19 *	1110-2114	Screw (Qty. 5 in R.K.)	4
20	1110-2110	Flange, Blank	1
21 *	1110-2109	Flow Port, Blank	1
22 **	8717-2220	O-Ring	1
23	1110-2111	Flange, 1" Pipe	1
24	1110-0115	Screw	6
25	1110-2115	Plug	2
26	1110-2120	Flange, Lower	1
27	1110-2107	Body	1
28 **	8717-2026	O-Ring	2
29	1110-2105	Flow Port	1
30	1110-2103	Flange	1
31 **	8717-2026	O-Ring (Not Shown)	1
32 **	8717-2018	O-Ring (Not Shown)	1

* Included in Repair Kit

** Included in Seal Kit

Part No. 1112-2100

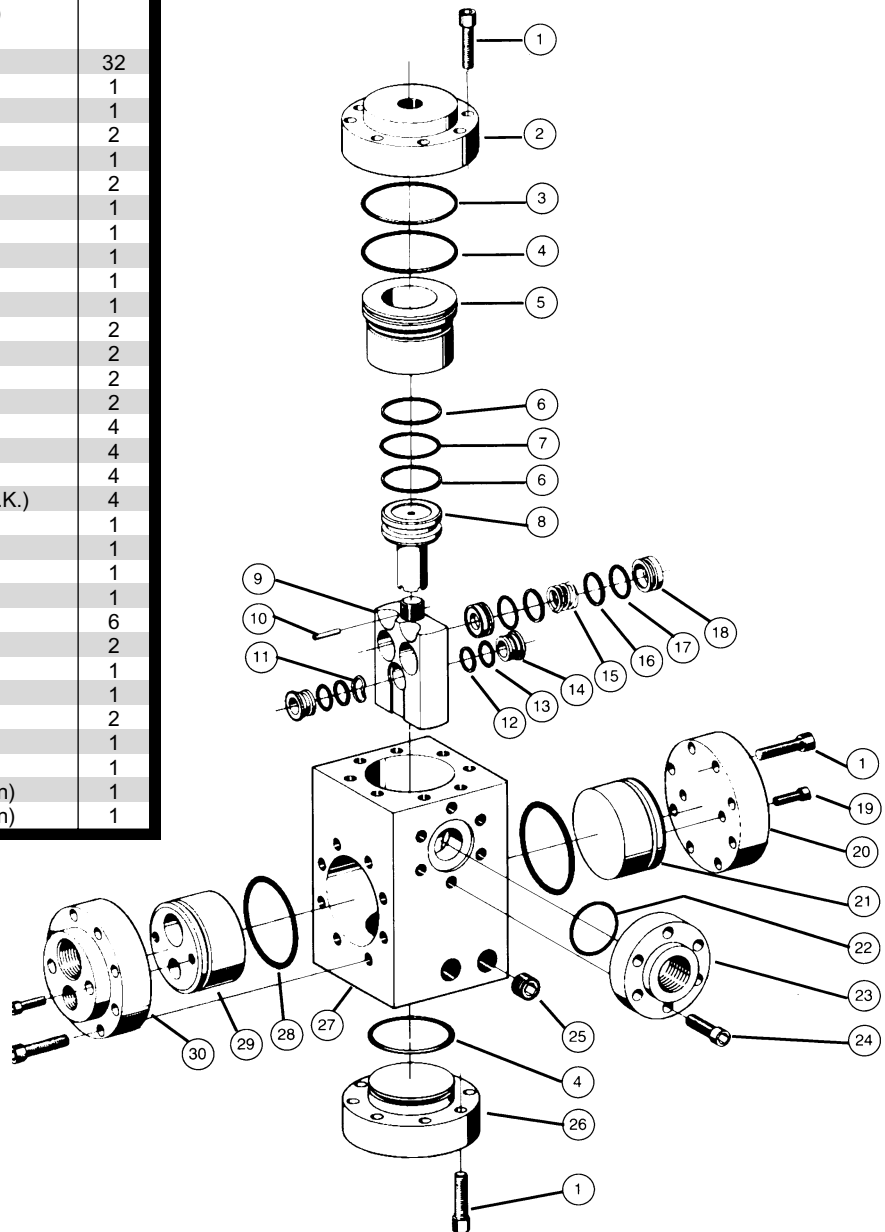
Dimensions:

Height – 9"

Width – 6-7/8"

Depth – 5-1/4"

Weight: 41 pounds



HYDRAULIC PRESSURE REGULATOR HYDRAULIC OPERATOR

PART NO. 1112-3100 - 1" FULL FLOW

Item	Part No.	Description	Qty
Assy.	1112-3100	1" Full Flow, Hydraulic Pilot, Pressure Reducing and Regulating Valve	
Kit	1110-3199	Repair Kit (Contains Seal Kit)	
Kit	1110-3197	Seal Kit	
1	8526-2032	Screw	4
2	1112-3101	Hydraulic Head	1
3	1111-3110	Cylinder	1
4 **	8717-2226	O-Ring	2
5 **	8717-2224	O-Ring	2
6	8526-2020	Screw	1
7	1112-3103	Piston	1
8 **	8841-2218	Back-Up Ring	2
9 **	8717-2218	O-Ring	1
10 **	8717-2014	O-Ring	1
11	1111-3109	Seal Container	1
12 **	8717-2121	O-Ring	1
13 *	1110-3112	Valve Cage	1
14 *	1110-3110	Wave Spring	2
15 **	8717-2020	O-Ring	4
16 *	1110-3111	Seal Ring, Vent	2
17 *	1110-2108	Spring	1
18 **	8841-2020	Back-Up Ring	2
19 *	1110-2104	Seal Ring, Supply	2
20	1110-3109	Flange, Blind	1
21	1110-3104	Flange, 1" Pipe	3
22	8526-2024	Screw	24
23	1110-3106	Flange, 1-1/2" Pipe	1
24	1110-3101	Body	1
25	1110-3108	Flange, Lower	1
26 *	1110-3105	Flow Plate, Supply	2
27 **	8717-2010	O-Ring	8
28 **	8717-2018	O-Ring	4
29	1110-0103	Pin	4
30 **	8717-2225	O-Ring	4
31 *	1110-3103	Flow Plate, Vent	2
32 *	8506-9112	Screw (Qty 1 in R.K.)	8

* Included in Repair Kit

** Included in Seal Kit

Part No. 1112-3100

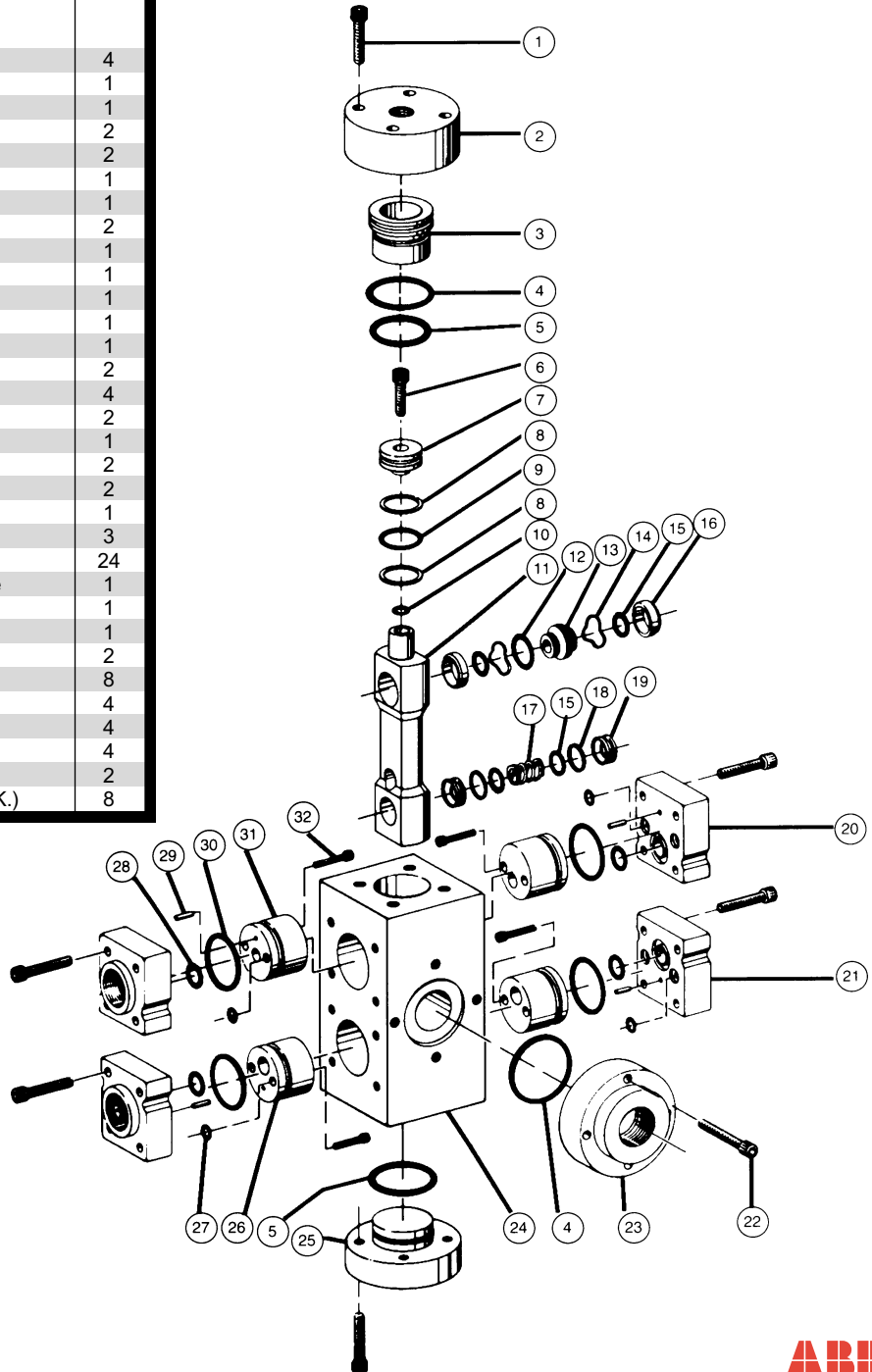
Dimensions:

Height – 9-1/2"

Width – 7-1/2"

Depth – 5-1/2"

Weight: 61 pounds



ABB

HYDRAULIC PRESSURE REGULATOR HYDRAULIC OPERATOR

PART NO. 1112-4100 - 1-1/2" FULL FLOW

Item	Part No.	Description	Qty
Assy.	1112-4100	1-1/2" Full Flow, Hydraulic Pilot, Pressure Reducing and Regulating Valve	
Kit	1112-4199	Repair Kit (Contains Seal Kit)	
Kit	1112-4197	Seal Kit	
1	1112-4102	Screw	8
2	1112-4101	Hydraulic Head	1
3 **	8717-2229	O-Ring	1
4 **	8717-2230	O-Ring	1
5	1111-4106	Guide, Plunger	1
6	1110-2116	Screw	1
7 **	8841-2223	Back-Up Ring	2
8 **	8717-2223	O-Ring	1
9	1111-4105	Plunger	1
10 **	8717-2013	O-Ring	1
11	1111-4112	Seal Container	1
12 *	1110-3112	Cage, Valve	1
13 **	8717-2121	O-Ring	1
14 *	1110-3110	Wave Spring	2
15 **	8717-2020	O-Ring	6
16 *	1110-3111	Seal Ring, Vent	2
17 *	1110-2108	Spring	2
18 **	8841-2020	Back-Up Ring	4
19 *	1110-2104	Seal Ring, Supply	4
20 *	1111-4110	Flow Port, Vent	2
21 **	8717-2145	O-Ring	4
22	8526-2024	Screw	48
23	1111-4109	Flange	4
24 **	8717-2026	O-Ring	4
25 *	1111-4111	Flow Port, Supply	2
26 **	8717-2226	O-Ring	1
27	1111-4108	Flange, 1-1/2" Pipe	1
28 **	8717-2228	O-Ring	1
29	1110-2120	Flange, Lower	1
30	1111-2110	Screw	8
31	1111-4107	Body	1

* Included in Repair Kit

** Included in Seal Kit

Part No. 1112-4100

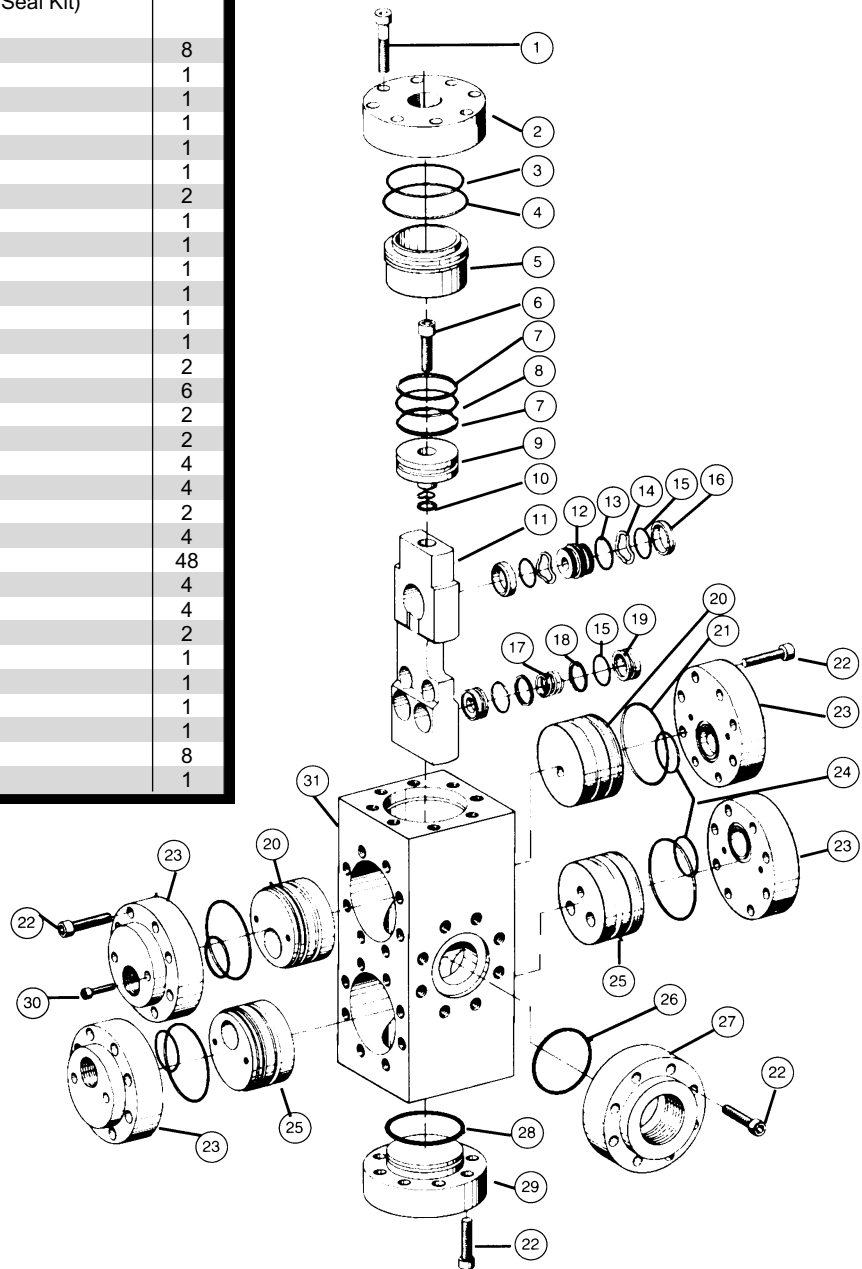
Dimensions:

Height – 12-9/16"

Width – 6-7/8"

Depth – 5-1/4"

Weight: 85 pounds



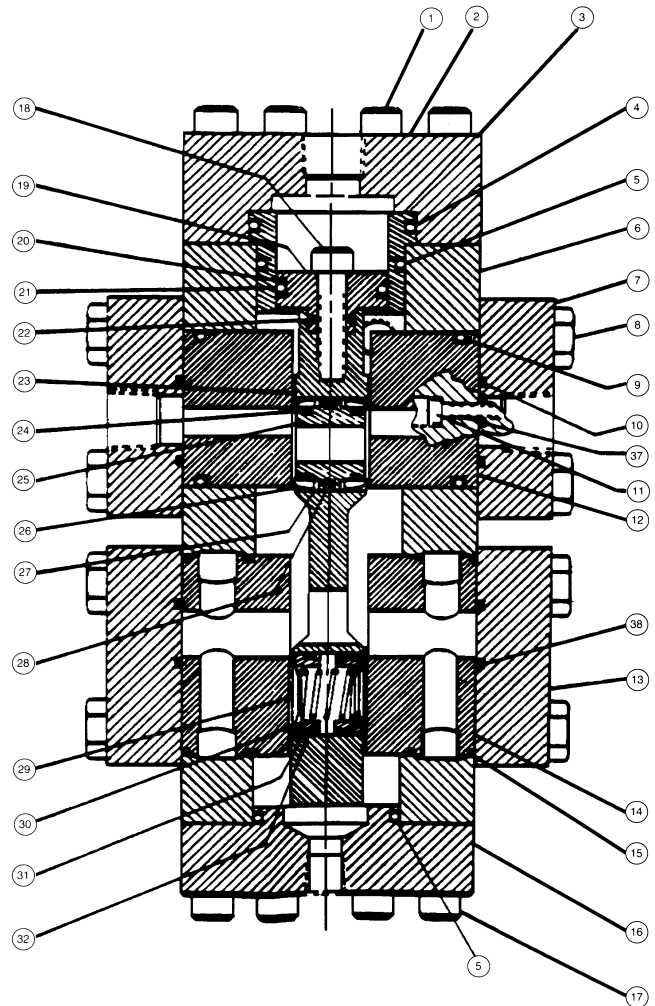
HYDRAULIC PRESSURE REGULATOR HYDRAULIC OPERATOR SUBPLATE MOUNTED VALVE

PART NO. 1112-3200

Item	Part No.	Description	Qty
Assy.	1112-3200	Hydraulic Pressure Regulator, Subplate Mounted	
Kit	1112-3299	Repair Kit (Contains Seal Kit)	
Kit	1112-3297	Seal Kit	
1	8506-3029	Socket Head Cap Screw	8
2	1112-3203	Hydraulic Head	1
3	1111-3110	Cylinder	1
4 **	1110-4230	O-Ring	1
5 **	1112-3204	O-Ring	2
6	1112-3205	Body	1
7	1112-3206	Flange	2
8	1630-0510	Hex Bolt	16
9 **	1110-0510	O-Ring	2
10 **	1112-3207	O-Ring	2
11 *	8506-9112	Socket Head Cap Screw	8
12 *	1110-3103	Vent Flow Port	2
13	1112-3208	Blind Flange	2
14 *	1112-3209	Hydro-Seal Plate	2
15 **	1112-3210	O-Ring	4
16	1112-3211	Lower Flange	1
17	8506-3022	Socket Head Cap Screw	8
18	8506-3003	Socket Head Cap Screw	1
19	1112-3103	Piston	1
20 **	1111-3111	Back-Up Ring	2
21 **	1112-3213	O-Ring	1
22 **	1110-4222	O-Ring	1
23	1112-3214	Seal Container	1
24 **	1112-3215	O-Ring	2
25 *	1110-3112	Cage	1
26 *	1110-3111	Dump Seal	2
27 *	1110-3110	Spring Washer	2
28 **	1112-3216	O-Ring	1
29 *	1112-3201	Hydro-Seal	2
30 *	1110-2108	Spring	1
31 **	1112-3217	Back-Up Ring	2
32 **	1112-3218	O-Ring	2
33 **	1112-3219	O-Ring – Not Shown	1
34 **	1112-3220	O-Ring – Not Shown	2
35	1112-3321	Hex Bolt – Not Shown	4
36	1112-3222	Mounting Plate – Not Shown	1
37	1112-3223	O-Ring	8
38	1112-3224	O-Ring	2

* Included in Repair Kit

** Included in Seal Kit



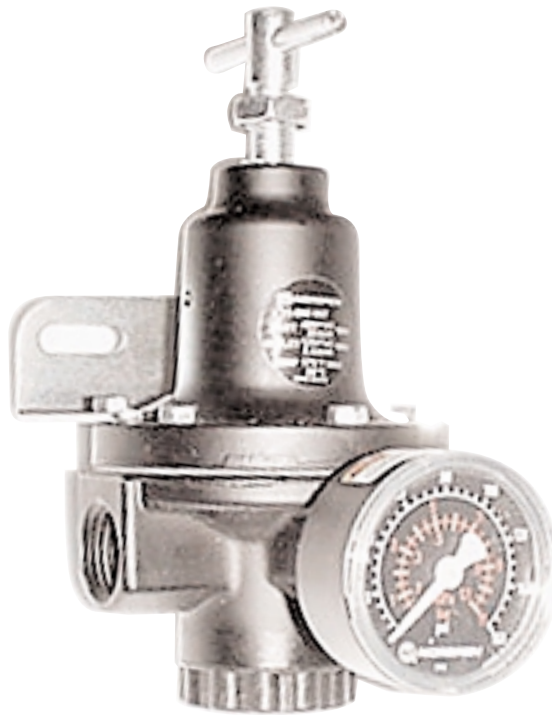
AIR REGULATOR

Description	Part No.	Repair Kit
1/4" Air Regulator, Panel Mount, 0-125 psi	1153-1100	1153-1199
1/4" Air Regulator, Panel Mount, 0-125 psi with Gauge and Bracket	1153-1200	1153-1199
1/4" Air Regulator, Panel Mount, 0-125 psi with Gauge	1153-1500	1153-1199
1/4" Air Regulator, Panel Mount, 0-250 psi with Gauge	1153-1700	1153-1199



AIR REGULATOR

Description	Part No.	Repair Kit
3/8" Air Regulator, with Gauge, 0-125 psi	1173-2100	1173-3199
1/2" Air Regulator, with Gauge, 0-125 psi	1173-3100	1173-3199
1" Air Regulator, with Gauge, 0-125 psi	1153-1500	1153-1199



AIR REGULATOR

Description	Part No.	Repair Kit
1/4" Air Regulator, with Gauge, 0-30 psi	1160-1100	1160-1199



AIR FILTER

Part No.	Description	Element (50 Micron) Part No.	Bowl Part No.	Seal Kit Part No.
2620-0100	Filter, Air, 1/4", Metal Bowl, Manual Drain	2620-0101	2620-0102	2620-0197
2620-3300	Filter, Air, 1/2", Metal Bowl with Sight Glass, Auto Drain	805536	805535	805540
2620-3600	Filter, Air, 1", Metal Bowl with Sight Glass, Auto Drain	805539	805538	805537



AIR LUBRICATOR

Description	Part No.	Repair Kit
1/4" Air Lubricator, Metal Bowl w/Sight Gauge	810257	811643
1/2" Air Lubricator, Metal Bowl w/Sight Gauge	2704-0500	2704-0599
1" Air Lubricator, Metal Bowl w/Sight Gauge	810261	811642



AIR CONTROL VALVES

1/4" THREE-WAY, 150 PSI AIR CONTROL VALVE



Item	Part No.	Description	Qty
Assy.	1222-0100	1/4" Three-Way Air Valve	
Kit	1222-0199	Major Repair Kit (Incl.)	
Kit	814798	Cartridge Repair Kit	
1	1222-0101	Knob	1
2	1222-0125	Handle	1
3	1222-0121	Hub Handle	1
4	1222-0122	Nameplate	1
5	8575-0300	Washer	1
6	8517-5000	Screw	1
7	1222-0126	Shaft Handle	1
8	1222-0105	Washer	2
9	1222-0127	Spacer	2
10	1222-0108	Cam Housing	1
11	1222-0106	Retaining Ring	1
12	1222-0104	Arbor, Spring	2
13	1222-0107	Handle Return Spring	1
14	1222-0120	Cam	1
15	8517-5500	Screw	2
16	8575-1000	Washer	2
17	1222-0117	Flange, Valve Retaining	1
18 **	8717-2115	O-Ring	1
19 *	1222-0116	Guide, Plunger	1
20 **	8717-2010	O-Ring	1
21 *	1222-0114	Plunger	1
22 **	1222-0112	Spring, Valve	1
23 **	1222-0111	Seat, Valve	1
24 **	8717-2115	O-Ring	1
25 **	1222-0102	Supply Valve Assembly	1
26	1222-0109	Body	1
27	8517-4000	Screw (Not Shown)	2

* Included in Major Repair Kit

** Included in Cartridge Repair Kit

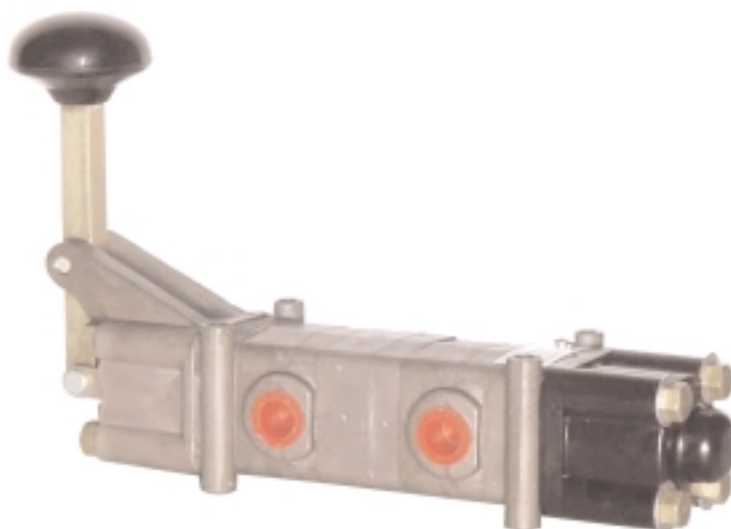
AIR CONTROL VALVES

1/4" FOUR-WAY, 150 PSI AIR CONTROL VALVE

Item	Part No.	Description	Qty
Assy. Kit	1240-0100	1/4" Four-Way Air Valve	
	1240-0199	Repair Kit	
1	1240-0122	Nut, Mounting Adapter	8
2	1240-0107	Tie Rod	4
3	1240-0104	Cage, Spring	1
4	N/A	Roll Pin	
5	1240-0113	Sleeve, Retainer	2
6	N/A	Stop	2
7 *	N/A	Stem	1
8	N/A	Retainer, Spring	2
9 *	1240-0101	Spring	2
10	N/A	Cover ("B" End)	1
11 *	N/A	Packing Ring	4
12 *	1240-0102	Retainer	6
13	N/A	Body Segment	3
14	N/A	Cover ("C" End)	1
15	1011-0106	Pin, Cotter	2
16	N/A	Link	2
17	N/A	Pin	1
18	1240-0108	Pin	1
19	N/A	Adapter, Mounting	1
20	1240-0110	Roll Pin	1
21	1240-0119	Lever	1
22	1240-0121	Knob	1

* Included in Major Repair Kit

Note: N/A = Not Available. Must Replace Valve.



AIR CONTROL VALVES

**PART NO. 1242-0100 - 1/4" FOUR-WAY, THREE POSITION, SPRING CENTERED
250 PSI, PANEL-MOUNT
(NO REPAIR KIT AVAILABLE, MUST REPLACE VALVE)**



AIR CONTROL VALVES

**PART NO. 807054, VALVE, AIR, 1/2" 4-WAY, 3 POSITION, 150 PSI, SPRING CENTERED
LEVER OPERATOR AND DOUBLE PILOT OPERATOR
REPAIR KIT PART NO. 1250-0199**



CROWN BLOCK SAVER COMPONENTS

PART NO. 1250-0100 - THREE-WAY RESET AIR VALVE FOR CBS-ST

Item	Part No.	Description	Qty
Assy.	1250-0100	1/2" 3-Way Air Valve	
Kit	1250-0199	Repair Kit	
1	8510-3050	Screw	4
4	1250-0107	Ball	6
5*	8717-2212	O-Ring (Qty 2 in R.K.)	3
8	1250-0199	Washer	1
9*	8717-2215	O-Ring	2
13*	8717-2214	O-Ring	1
14*	8719-2113	O-Ring	3
17	1250-0101	Tumbler Cap	1
18	1250-0103	Screw	3
19	1250-0108	Screw	2
20	1250-0102	Tumbler	1
21	1250-0104	Pin	1
22	1250-0106	Clamp	1
23	1250-0105	Handle	1
24	1250-0107	Ball (Handle)	1

* Included in Repair Kit

Note: Items 2, 3, 6, 7, 10, 11, 12, 15 & 16 are Not Sold Separate - Must Replace Valve.



CROWN BLOCK SAVER COMPONENTS

PART NO. 1290-0100 - AIR RELAY VALVE FOR CBS'S

Item	Part No.	Description	Qty
Assy.	1290-0100	1/2" Air Relay Valve	
Kit	1290-0199	Repair Kit	
1	1290-0113	Screw	3
2	1290-0114	Lock Washer	3
3	1290-0112	Cover	1
4	1290-0108	Stop Nut	2
5	1290-0107	Washer	2
6	1290-0102	Upper Piston	1
7 *	8717-2222	O-Ring	1
8 *	1290-0103	Seal	1
9	1209-0104	Stem	1
10 *	1290-0111	Gasket	1
11	8525-2000	Set Screw	1
12 **	N/A	Body	1
13	1290-0105	Lower Piston	1
14 *	1290-0106	Seal	1
15	1290-0109	Spring	1
16 *	8717-2243	O-Ring	1
17	1290-0110	Piston Cap	1

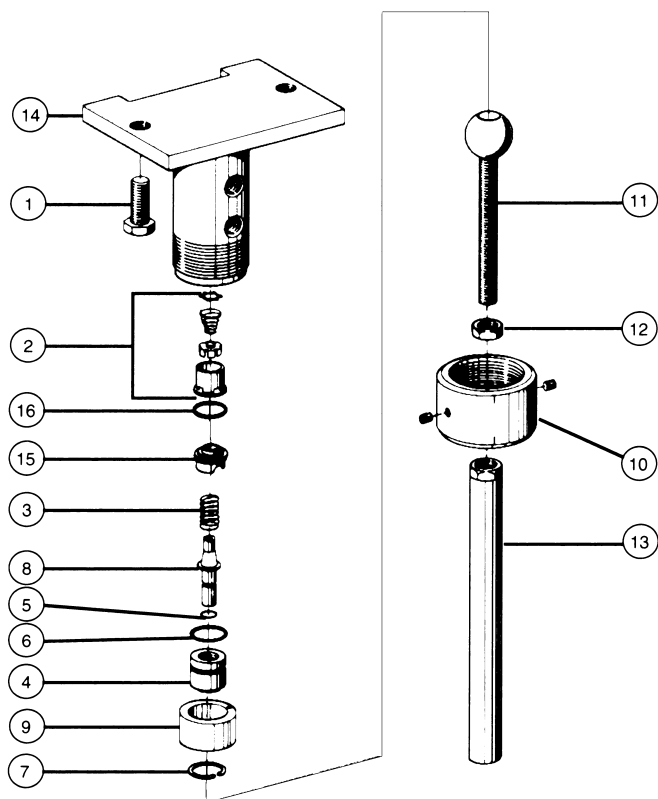
* Included in Repair Kit

** Not Sold Separately



CROWN BLOCK SAVER COMPONENTS

PART NO. 805042 - “SHORT” TOGGLE VALVE ASSEMBLY



Item	Part No.	Description	Qty
Assy. Kit	805042	Toggle Valve	
	805084	Repair Kit	
1	1760-1101	Body	1
2 *	814798	Cartridge Repair Kit	1
3 *	1760-1103	Spring	1
4 *	1760-1104	Stem Guide	1
5 *	8717-2011	O-Ring	1
6 *	8717-2116	O-Ring	1
7 *	1760-1105	Snap Ring	1
8 *	1760-1311	Stem	1
9	1760-1312	Ball Guide	1
10	1760-1313	Cap	1
11	1760-1109	Ball & Arm Assembly	1
12	8589-4020	Hex Nut	1
13	1760-1111	Arm	1
14	1760-1112	Base Plate	1
15 *	814801	Spacer	1
16 *	8737-2115	O-Ring	1
17	8522-3004	Screw	2

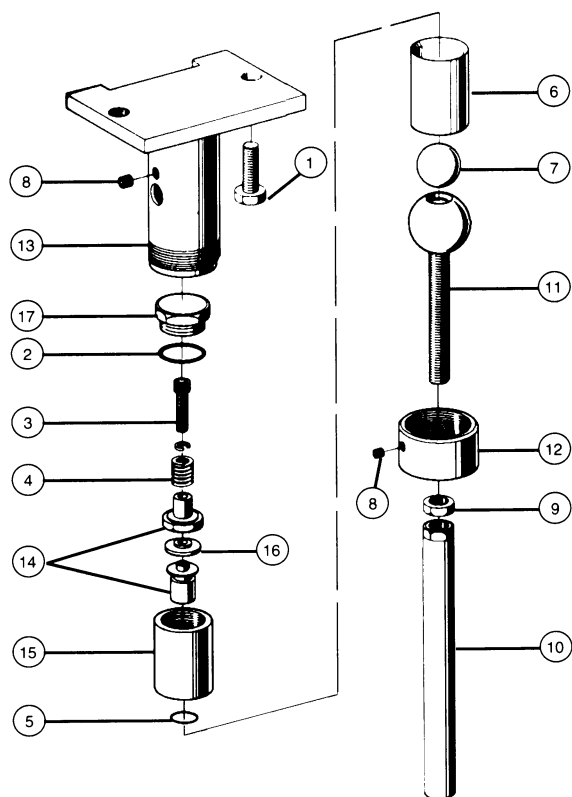
* Included in Repair Kit

NOTE: This is the Standard/Most Common Toggle Valve Used.



CROWN BLOCK SAVER COMPONENTS

LONG TOGGLE VALVE F/CBS-LT



Item	Part No.	Description	Qty
Assy. Kit	1760-1200	Long Toggle Valve	
	1760-1299	Repair Kit	
1	8500-4016	Screw	2
2 *	8717-2220	O-Ring	1
3	-	Screw (Part of Item 14)	-
4 *	1760-1206	Spring	1
5 *	8717-2214	O-Ring	1
6 *	1760-1205	Sleeve	1
7 *	1760-1207	Ball	1
8	8522-3004	Screw	1
9	1320-5111	Lock nut	1
10	1760-1202	Sleeve	1
11	1760-1203	Ball and Stem	1
12	1760-1211	Cap	1
13	1760-1213	Housing	1
14 *	1760-1212	Stem Assembly	1
15 **	-	Body	-
16 *	1760-1210	Seal	1
17	1760-1204	Nut	1

* Included in Repair Kit
 ** Not Sold Separately.
 Must Replace Complete Valve.

**NOTE: This Toggle Valve is Optional/
 Customer Request.**

CROWN BLOCK SAVER COMPONENTS

PART NO. 1760-1400 - RETRACTABLE TOGGLE VALVE FOR CBS-RT2



Item	Part No.	Description	Qty
Assy. Kit	1760-1400	Retractable Toggle Valve	
	1760-1499	Repair Kit	
1	1760-1404	Base Plate	1
2	8542-3000	Bolt, Hex Hd	2
3*	8522-3004	Screw	3
4*	1760-1309	Dust Cover	1
5	1760-1403	Piston	1
6*	8717-2326	O-Ring	1
7	1760-1401	Piston HSG	1
8*	812962	O-Ring	1
9	1760-1306	Spring	1
10	1760-1405	Spring Retainer Plate	1
11*	1760-1411	Retainer Ring	1
12*	8717-2116	O-Ring	1
13	1760-1402	Valve Body	1
14*	814798	Cartridge Repair Kit	1
15*	1760-1103	Spring	1
16*	1760-1104	Stem Guide	1
17*	8717-2011	O-Ring	1
18*	1760-1311	Stem	1
19*	1760-1105	Ring	1
20	1760-1312	Ball Guide	1
21	1760-1313	Cap	1
22	1760-1109	Ball and Arm	1
23	8589-4020	Nut, Lk, hex	1
24	1760-1111	Arm	1
25*	814801	Spacer	1
26*	8737-2115	O-Ring	6
27	8506-0007	Screw	1
28	1760-1410	Piston Carrier Plate	1
29	1760-1408	Guide Rod Piston Rtn	1
30	1760-1409	Collar	1
31	1760-1406	Toggle Vlv Carrier Plate	1
32	1760-1407	Spacer	1

* Included in Repair Kit

CROWN BLOCK SAVER COMPONENTS

PART NO. 812416 - AIR CYLINDER ASSEMBLY FOR CBS'S

Item	Part No.	Description	Qty
Assy.	812416	Air Cylinder, 4" Bore, 12" Stroke	
Kit	805083	Repair Kit	
1	2000-3113	Nut	2
2	2000-3114	Bracket Mounting	1
3	8500-5022	Bolt	2
4	8580-1200	Nut	12
5	8575-1200	Lockwasher	12
6	2000-3102	Cap, Rear	1
7*	2000-3103	Gasket	2
8*	805048	O-Ring	1
9	2000-3109	Rod	6
10	2000-3105	Piston Assembly	1
11	2000-3104	Cylinder	1
12	2000-3106	Cap, Front	1
13*	805049	O-Ring	2
14**	2000-3110	Bushing	1
15	2000-3107	Oiler	1
16	2000-3111	Clevis	1
17	2000-3116	Lock Nut (Not Shown)	1
18	2000-3115	Jam Nut (Not Shown)	1

* Included in Repair Kit

** Not Available. It is Molded into Item No. 12



HYDRAULIC CONTROL VALVES

3000 PSI HYDRAULIC, FOUR-WAY, THREE POSITION SHEAR-SEAL, SELECTOR TYPE CONTROL VALVES



Size	Part No.
1/4"	1330-0100
1/2"	1330-2100
1"	1330-4100
1-1/2"	1330-5100

Item	Description	1/4"	Qty	1/2"	Qty	1"	Qty	1 1-2"	Qty
Kit	Repair Kit, Major	1330-0199		1330-2199		1330-4199		1330-5199	
Kit	Repair Kit, Minor (Also in Major Repair Kit)	1330-0198		1330-2198		1330-4198		1330-5198	
Kit	Seal Kit (Included in Repair Kit)	1320-0197		1320-2197		1320-4197		1320-5197	
1	Lockwasher	1320-0124	4	8575-1200	4	1320-4122	4	1320-5110	4
2	Nut	1320-0125	4	1320-2116	4	1320-4123	4	1320-5111	4
3	Body	1320-0123	1	1320-2110	1	1320-4121	1	1320-5109	1
4	Dowel Pin	1320-0122	2	1320-2109	2	1320-4120	2	1320-4120	2
5**	Washer	1320-0121	3	1320-2108	3	1320-4119	3	1320-5108	3
6**	Back-Up Ring	8841-2011	3	8841-2112	6	8841-2116	6	8841-2219	6
7**	O-Ring	8717-2011	3	8717-2112	3	8717-2116	3	8717-2219	3
8**	Shear Seal Seat	1320-0120	3	1320-2107	3	1320-4118	3	1320-5107	3
9*	Rotor	1330-0102	1	1330-2102	1	1330-4101	1	1330-5101	1
10	Shaft	1320-0118	1	1320-2106	1	1320-4116	1	1320-5105	1
11**	O-Ring	8717-2112	1	8717-2210	1	8717-2212	1	8717-2212	1
12**	O-Ring	N/A		N/A		8717-2115	1	8717-2115	1
13*	Thrust Washer	1320-0114	1	1320-2117	2	1320-4113	2	1320-5103	2
14*	Ball Bearing	1320-0115	17	1320-0108	20	1320-4114	26	1320-5104	22
15**	O-Ring	8719-2224	1	8719-2231	1	8719-2243	1	8719-2258	1
16	Retainer, Ball	1320-0116	1	N/A		1320-4125	1	1320-5125	1
17	Housing	1320-0113	1	1320-2111	1	1320-4112	1	1320-5102	1
18	Stop Pin	1320-0110	1	1320-2114	1	1320-4110	1	1320-4110	1
19	Spring, Detent	1320-0109	1	1390-0107	1	1320-4109	1	1320-4109	1
20	Ball, Detent	1320-0108	1	1320-0108	1	1320-4108	1	1320-4108	1
21	Screw	1320-0112	4	1320-2105	4	1320-4111	4	1320-5101	4
22	Disc, Detent	1320-0107	1	1320-2112	1	1320-4107	1	1320-4107	1
23	Retaining Ring	1320-0117	1	1320-2118	1	1320-4115	1	1320-4115	1
24	Handle Spacer	1320-0106	1	1320-2101	1	1320-4106	1	1320-4106	1
25	Washer, Shaft	1320-0102	1	1320-2104	1	1320-4102	1	1320-4102	1
26	Nut, Shaft	1320-0101	1	1320-2102	1	1320-4101	1	1320-4101	1
27	Handle (Not Shown)	1320-0103	1	1330-2101	1	1320-4103	1	1320-4103	1
28	Grip (Not Shown)	1320-0105	1	1320-2103	1	1320-4105	1	1320-4105	1

* Included in Repair Kit, Major

** Included in Seal Kit

SPECIAL NOTE: Minor Repair Kit Consists of the Seal Kit and Rotor Only.

HYDRAULIC CONTROL VALVES

3000 PSI HYDRAULIC, FOUR-WAY, THREE POSITION SHEAR-SEAL, MANIPULATOR TYPE CONTROL VALVES



Size	Part No.
1/4"	1320-0100
1/2"	1320-2100
1"	1320-4100
1-1/2"	1320-5100

Item	Description	1/4"	Qty	1/2"	Qty	1"	Qty	1-1-2"	Qty
Kit	Repair Kit, Major	1320-0199		1320-2199		1320-4199		1320-5199	
Kit	Repair Kit, Minor (Also in Major Repair Kit)	1320-0198		1320-2198		1320-4198		1330-5198	
Kit	Seal Kit (Included in Repair Kit)	1320-0197		1320-2197		1320-4197		1320-5197	
1	Lockwasher	1320-0124	4	8575-1200	4	1320-4122	4	1320-5110	4
2	Nut	1320-0125	4	1320-2116	4	1320-4123	4	1320-5111	4
3	Body	1320-0123	1	1320-2110	1	1320-4121	1	1320-5109	1
4	Dowel Pin	1320-0122	2	1320-2109	2	1320-4120	2	1320-4120	2
5**	Washer	1320-0121	3	1320-2108	3	1320-4119	3	1320-5108	3
6**	Back-Up Ring	8841-2011	3	8841-2112	6	8841-2116	6	8841-2219	6
7**	O-Ring	8717-2011	3	8717-2112	3	8717-2116	3	8717-2219	3
8**	Shear Seal Seat	1320-0120	3	1320-2107	3	1320-4118	3	1320-5107	3
9*	Rotor	1320-0119	1	1320-2121	1	1320-4117	1	1320-5106	1
10	Shaft	1320-0118	1	1320-2106	1	1320-4116	1	1320-5105	1
11**	O-Ring	8717-2112	1	8717-2210	1	8717-2212	1	8717-2212	1
12**	O-Ring	N/A		N/A		8717-2115	1	8717-2115	1
13*	Thrust Washer	1320-0114	1	1320-2117	2	1320-4113	2	1320-5103	2
14*	Ball Bearing	1320-0115	17	1320-0108	20	1320-4114	26	1320-5104	22
15**	O-Ring	8719-2224	1	8719-2231	1	8719-2243	1	8719-2258	1
16	Retainer, Ball	1320-0116	1	N/A		1320-4125	1	1320-5125	1
17	Housing	1320-0113	1	1320-2111	1	1320-4112	1	1320-5102	1
18	Stop Pin	1320-0110	1	1320-2114	1	1320-4110	1	1320-4110	1
19	Spring, Detent	1320-0109	1	1390-0107	1	1320-4109	1	1320-4109	1
20	Ball, Detent	1320-0108	1	1320-0108	1	1320-4108	1	1320-4108	1
21	Screw	1320-0112	4	1320-2105	4	1320-4111	4	1320-5101	4
22	Disc, Detent	1320-0107	1	1320-2112	1	1320-4107	1	1320-4107	1
23	Retaining Ring	1320-0117	1	1320-2118	1	1320-4115	1	1320-4115	1
24	Handle Spacer	1320-0106	1	1320-2101	1	1320-4106	1	1320-4106	1
25	Washer, Shaft	1320-0102	1	1320-2104	1	1320-4102	1	1320-4102	1
26	Nut, Shaft	1320-0101	1	1320-2102	1	1320-4101	1	1320-4101	1
27	Handle (Not Shown)	1320-0103	1	1330-2101	1	1320-4103	1	1320-4103	1
28	Grip (Not Shown)	1320-0105	1	1320-2103	1	1320-4105	1	1320-4105	1

* Included in Repair Kit, Major

** Included in Seal Kit

SPECIAL NOTE: Minor Repair Kit Consists of the Seal Kit and Rotor Only.

HYDRAULIC CONTROL VALVES

3000 PSI HYDRAULIC, FOUR-WAY, THREE POSITION SHEAR-SEAL, BYPASS TYPE CONTROL VALVES

Size	Part No.
1/2"	1390-1200
1"	1390-1100



Item	Description	1/2"	Qty	1"	Qty
Kit	Repair Kit, Major	1390-1299		1390-1199	
Kit	Repair Kit, Minor (Also in Major Repair Kit)	1390-1298		1390-1198	
Kit	Seal Kit (Included in Repair Kit)	1320-2197		1320-4197	
1	Lockwasher	8575-1200	4	1320-4122	4
2	Nut	1320-2116	4	1320-4123	4
3	Body	1320-2110	1	1320-4121	1
4	Dowel Pin	1320-2109	2	1320-4120	2
5**	Washer	1320-2108	3	1320-4119	3
6**	Back-Up Ring	8841-2112	6	8841-2116	6
7**	O-Ring	8717-2112	3	8717-2116	3
8**	Shear Seal Seat	1320-2107	3	1320-4118	3
9*	Rotor	1390-1201	11	1390-1101	11
10	Shaft	1320-2106	1	1320-4116	1
11**	O-Ring	8717-2210	1	8717-2212	1
12**	O-Ring	N/A		8717-2115	1
13*	Thrust Washer	1320-2117	2	1320-4113	2
14*	Ball Bearing	1320-0108	20	1320-4114	26
15**	O-Ring	8719-2231	1	8719-2243	1
16	Retainer, Ball	N/A		1320-4125	1
17	Housing	1320-2111	1	1320-4112	1
18	Stop Pin	1320-2114	1	1320-4110	1
19	Spring, Detent	1390-0107	1	1320-4109	1
20	Ball, Detent	1320-0108	1	1320-4108	1
21	Screw	1320-2105	4	1320-4111	4
22	Disc, Detent	1320-2112	1	1320-4107	1
23	Retaining Ring	1320-2118	1	1320-4115	1
24	Handle Spacer	1320-2101	1	1320-4106	1
25	Washer, Shaft	1320-2104	1	1320-4102	1
26	Nut, Shaft	1320-2102	1	1320-4101	1
27	Handle (Not Shown)	1330-2101	1	1320-4103	1
28	Grip (Not Shown)	1320-2103	1	1320-4105	1

* Included in Repair Kit, Major

** Included in Seal Kit

SPECIAL NOTE: Minor Repair Kit Consists of the Seal Kit and Rotor Only.

HYDRAULIC CONTROL VALVES

5000 PSI HYDRAULIC, FOUR-WAY, THREE POSITION SHEAR-SEAL, SELECTOR TYPE CONTROL VALVES

Size	Part No.
1"	810491



Item	Description	1"	Qty
Kit	Repair Kit (Includes Seals)	810908	
1	Lockwasher	1320-4122	4
2	Nut	1320-4123	4
3	Body	1320-4121	1
4	Dowel Pin	1320-4120	1
5*	Washer	1320-4119	3
6*	Back-Up Ring	8841-2116	6
7*	O-Ring	8717-2116	3
8*	Shear Seal Seat	817498	3
9*	Rotor	1330-4101	1
10	Shaft	1320-4116	1
11*	O-Ring	8717-2212	1
12*	O-Ring	8717-2115	1
13*	Thrust Washer	1320-4113	2
14*	Ball Bearing	1320-4114	26
15*	O-Ring	8719-2243	1
16	Retainer, Ball	1320-4125	1
17	Housing	1320-4112	1
18	Stop Pin	1320-4110	1
19	Spring, Detent	1320-4109	1
20	Ball, Detent	1320-4108	1
21	Screw	1320-4111	4
22	Disc, Detent	1320-4107	1
23	Retaining Ring	1320-4115	1
24	Handle Spacer	1320-4106	1
25	Washer, Shaft	1320-4102	1
26	Nut, Shaft	1320-4101	1
27	Handle (Not Shown)	1320-4103	1
28	Grip (Not Shown)	1320-4105	1

* Included in Repair Kit

HYDRAULIC CONTROL VALVES

5000 PSI HYDRAULIC, FOUR-WAY, THREE POSITION SHEAR-SEAL, BYPASS TYPE CONTROL VALVES

Size 1"	Part No. 811726
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Item	Description	1"	Qty
Kit	Repair Kit (Includes Seals)	817497	
1	Lockwasher	1320-4122	4
2	Nut	1320-4123	4
3	Body	1320-4121	1
4	Dowel Pin	1320-4120	1
5*	Washer	1320-4119	3
6*	Back-Up Ring	8841-2116	6
7*	O-Ring	8717-2116	3
8*	Shear Seal Seat	817498	3
9*	Rotor	1390-1101	1
10	Shaft	1320-4116	1
11*	O-Ring	8717-2212	1
12*	O-Ring	8717-2115	1
13*	Thrust Washer	1320-4113	2
14*	Ball Bearing	1320-4114	26
15*	O-Ring	8719-2243	1
16	Retainer, Ball	1320-4125	1
17	Housing	1320-4112	1
18	Stop Pin	1320-4110	1
19	Spring, Detent	1320-4109	1
20	Ball, Detent	1320-4108	1
21	Screw	1320-4111	4
22	Disc, Detent	1320-4107	1
23	Retaining Ring	1320-4115	1
24	Handle Spacer	1320-4106	1
25	Washer, Shaft	1320-4102	1
26	Nut, Shaft	1320-4101	1
27	Handle (Not Shown)	1320-4103	1
28	Grip (Not Shown)	1320-4105	1

* Included in Repair Kit

SOLENOID VALVES

SOLENOID VALVE WITH COIL

Part No.	Description
1401-0300	24 VDC
1401-0200	120 VDC
1400-0200	120 VAC 50/60 Hz

REPLACEMENT COILS

Part No.	Description
1401-0301	24 VDC
1401-0201	120 VDC
1400-0201	120 VAC

NOTE: Valves 2 position, 3-way normally closed, piped exhaust.
Valves will accept any of the above coils.

ELECTRO-PNEUMATIC SOLENOID VALVES

Description	Part No.
120 VAC	1400-0200
120 VDC	1401-0200
24 VDC	1401-0300
Manifold, 10 Station	1420-0201
Manifold, 6 Station	1420-0204

HYDRAULIC SOLENOID VALVES, 4-WAY

Description	Part No.
115 VAC, Spool Type	1410-1000
28 VDC, Spool Type	1410-1300
120 VAC, Shear Seal Type	1410-1400
110 VDC, Shear Seal Type	1410-2100
Manifold, 9 Station	1410-1002
Manifold, 4 Station	1410-1201

VALVES

GLOBE VALVES

Description	Part No.
Globe Valve, 1/2" FPT	1500-0100
Globe Valve, 3/4" FPT	1500-0200
Globe Valve, 3/8" FPT	1500-0300
Globe Valve, 1" FPT	1500-1100
Globe Valve, 2" FPT	1500-1200
Globe Valve, 1-1/4" FPT	1500-2100
Globe Valve, 1-1/2" FPT	1500-3100

10,000 PSI NEEDLE VALVES

Description	Part No.
Needle Valve, 3/8" FPT	1522-1100
Needle Valve, 1/2" FPT	1522-2100
Needle Valve, 1/4" FPT	1522-3100
Needle Valve, 1" FPT	1522-4100
Needle Valve, 1/4" FPT	1522-5100
Needle Valve, 1/2" FPT	1522-7100
Needle Valve, 1/8" FPT	1522-8100

BALL VALVES HI-PRESSURE

Description	Part No.
1/2" CS 7,300 psi	818306
1/2" SS 6,000 psi	818110
3/4" SS 6,000 psi	818111
1" CS 6,000 psi	818308
1" SS 6,000 psi	818098
1-1/4" CS 6,000 psi	830345
1-1/2" CS 6,000 psi	818631
1-1/2" SS 6,000 psi	824984

6,000 PSI NEEDLE VALVE

Description	Part No.
Needle Valve 6000 psi, 1/2" FPT, S.S.	1522-6100

5,000 PSI NEEDLE VALVES

Description	Part No.
Needle Valve, 1/4" Tube, S.S.	1522-1200
Needle Valve, 1/4" Tube, Brass	1522-1300
Needle Valve, 1/4" Tube, S.S.	1522-1400
Needle Valve, 3/8" Tube, S.S.	1522-1500

200 PSI BALL/COMBO VALVES

Description	Part No.
Ball Valve, 3/8" FPT	1510-0100
Ball Valve, 1/2" FPT	1510-1100
Ball Valve, 3/4" FPT	1510-2100
Ball Valve, 1" FPT	1510-3100
Ball Valve, 1-1/2" FPT	1510-4100
Ball Valve, 2" FPT	1510-5100
Ball Valve, 1/4" FPT	1510-6100
Gate Valve, 2-1/2" FPT	1510-7100

20,000 / 30,000 PSI NEEDLE VALVES

Description	Part No.
Needle Valve, 9/16" HP Tubing, 20,000 psi	1523-5001
Needle Valve, 9/16" HP Tubing, 30,000 psi	1524-5001

VALVES

CHECK VALVE, 5,000 PSI

Item	Part No.	Description
1	1601-0100	Valve Check Poppet, Inline 1/8" NPT Port
2	1601-0150	Valve Check Poppet, Inline 1/4" NPT Port
3	1601-0300	Valve Check Poppet, Inline 3/8" NPT Port
4	1601-1100	Valve Check Poppet, Inline 1/2" NPT Port
5	1601-2100	Valve Check Poppet, Inline 3/4" NPT Port
6	1601-3100	Valve Check Poppet, Inline 1" NPT Port
7	1601-4100	Valve Check Poppet, Inline 1-1/4" NPT Port
8	1601-5100	Valve Check Poppet, Inline 1-1/2" NPT Port
9	1601-6100	Valve Check Poppet, Inline 2" NPT Port

CHECK VALVES, 5,000 PSI

Description	Part No.
Check Valve, Poppet, 1/4" NPT Port, 5000 psi	1601-0160
Check Valve, Poppet, 1" NPT Port, 5000 psi	1601-3110

CHECK VALVE, 10,000 PSI

Item	Part No.	Description
1	1602-1100	Valve Check Poppet, Inline 1/2" NPT Port
2	1602-2100	Valve Check Poppet, Inline 3/4" NPT Port
3	1602-3100	Valve Check Poppet, Inline 1" NPT Port
4	1602-8100	Valve Check Poppet, Inline 3/8" NPT Port
5	1602-9100	Valve Check Poppet, Inline 1/4" NPT Port

PILOT OPERATED CHECK VALVES

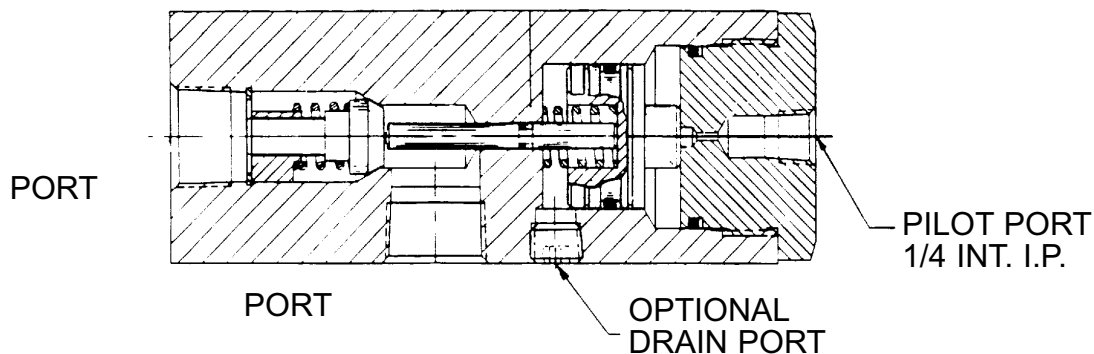
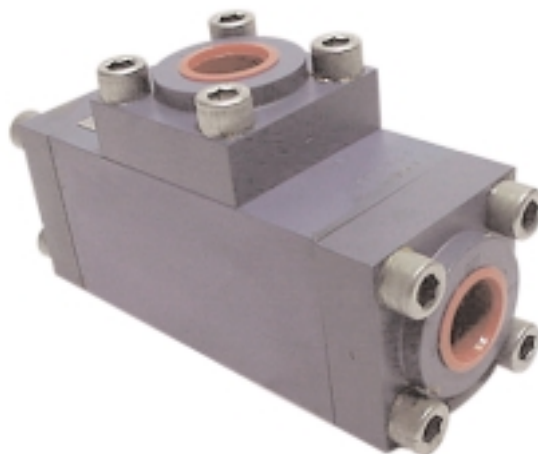
Item	Part No.	Description
1	1630-0100	1" Pilot Operated Check Valve 3000 psi
2	1630-0199	Repair Kit

Item	Part No.	Description
1	1630-0200	1/4" Pilot Operated Check Valve 3,000 psi
2	1630-0250	1/2" Pilot Operated Check Valve 3,000 psi
3	1630-0400	1" Pilot Operated Check Valve 3,000 psi
4	810327	1" Pilot Operated Check Valve 6,000 psi

Item	Part No.	Description
1	1630-0300	3/4" Pilot Operated Check Valve 5,000 psi
2	809386	Repair Kit
3	809387	Seal Kit

Item	Part No.	Description
1	1630-0500	1-1/2" Pilot Operated Check Valve 5000 psi
2	1630-0599	Repair Kit
3	1630-0597	Seal Kit

Item	Part No.	Description
1	805979	1/2" Pilot Operated Check Valves 10,000 psi



VALVES

RELIEF VALVES

Part No.	Replaces
1700-8100 Relief Valve, 2750 psi	1700-1100
1700-8200 Relief Valve, 1750 psi	1700-5100
1700-8400 Relief Valve, 2500 psi	1700-2100
1700-8500 Relief Valve, 3300 psi	1700-2200
1700-8600 Relief Valve, 4000 psi	1700-3100
1700-8700 Relief Valve, 5500 psi	1700-4100
1700-8800 Relief Valve, 6500 psi	1700-0100
1700-8900 Relief Valve, 1200 psi	



Item	Part No.	Description	Qty
Assy.	1700-8900	1,200 psi Relief Valve	
Assy.	1700-8200	1,750 psi Relief Valve	
Assy.	1700-8400	2,500 psi Relief Valve	
Assy.	1700-8500	3,300 psi Relief Valve	
Assy.	1700-8700	5,500 psi Relief Valve	
Kit	1700-8999	Repair Kit for	
		1,200 Relief Valve	
Kit	1700-8299	Repair Kit for	
		1,750 Relief Valve	
Kit	1700-8499	Repair Kit for	
		2,500 Relief Valve	
Kit	1700-8599	Repair Kit for	
		3,300 Relief Valve	
Kit	1700-8799	Repair Kit for	
		5,500 Relief Valve	
1	1700-8901	Thread Cap	1
2	1700-8903	Locknut	1
3	1700-8902	Adjusting Screw	1
4	1700-8905	Spring Rest	1
5 *		Spring	1
	1700-8906	For 1200 psi Relief Valve (red)	
	1700-8206	For 1750 psi Relief Valve (blue)	
	1700-8406	For 2500 psi Relief Valve (green)	
	1700-8506	For 3300 psi Relief Valve (white)	
	1700-8705	For 5500 psi Relief Valve (orange)	
6	1700-8904	Body	1
7 *	1700-8907	Guide	1
8 *	**	Poppet	1
9 *	8717-2122	O-Ring	1
10	**	Seal Cap Assembly	1

* Included Repair Kit

** Not Sold Separately

RELIEF VALVE, SAFETY HEADS AND RUPTURE DISC

Description	Part No.
20,000 psi Safety Head	1700-9200
60,000 psi Safety Head	1700-9202



Part No.	Pressure Rating
1700-9208	15,000 psi
1700-9210	12,500 psi
1700-9211	17,500 psi
1700-9212	22,500 psi
1700-9213	32,500 psi
1700-9214	16,500 psi
1700-9215	20,000 psi

SUBSEA CONTROL VALVE - SPM

PART NO. 1720-0100 - 3/4" SPM VALVE

Item	Part No.	Description	Qty
Assy	1720-0100	3/4" Sub-Plate Mtd. Control Valve	
Assy	1720-0200	3/4" Sub-Plate Mtd. Control Valve with Long Spacer	
Assy	1720-0220	3/4" Individual Pocket Only	
Kit	1720-0199	Repair Kit	
	1720-0299	Repair Kit for Valve with Long Spacer	
Kit*	1720-0197	Seal Kit	
	1720-0297	Seal Kit for Valve with Long Spacer	
1	1720-0101	Housing Plug	1
2*	8717-2214	O-Ring	2
3	1720-0102	Spring	1
4	1720-0103	Spring Housing	1
5	1720-0104	Spring Plate Assembly for Standard 3/4" Valve	1
	1720-0202	For 3/4" Valve with Long Spacer	
6	1720-0105	Spring Pin	2
7*	8717-2016	O-Ring	1
8**	1720-0106	Top Seal for Standard 3/4" Valve	1
	1720-0203	For 3/4" Valve with Long Spacer	
9	1720-0107	Spacer	1
10	1720-0108	Upper Cage	1
11	1720-0109	Lower Cage	1
12**	1720-0110	Bottom Seal	1
13**	8717-2233	O-Ring	4
14	1720-0111	Piston	1
15**	8719-2218	O-Ring	1
16*	8717-2210	O-Ring	1
17*	1720-0112	Retaining Ring	2
18**	8719-2214	O-Ring	2
19*	1720-0113	Spindle Ring	1
Kit	1720-0189	Tool Kit	
Tool	1720-0190	Pull Tool for Bottom Seal	
Tool	1720-0191	Snap Ring Tool	
Tool	1720-0192	Pull Tool for Valve	

*Included in Repair Kit

** Included in Seal Kit



PART NO. 1720-8800 - 3/4" SPM VALVE DUMMY ASSEMBLY

Item	Part No.	Description	Qty
1	8717-2223	O-Ring	1
2	1720-8801	3/4" Dummy SPM Valve	1
3	1721-8802	3/4" SPM Valve Cap	1

PART NO. 1720-8900 - 3/4" SPM VALVE DUMMY FOR "CAPTURED VENT"

Item	Part No.	Description	Qty
1	1720-8802	Cap, 3/4" SPM, Long Style	1
2	1720-8901	Plug, 3/4" SPM, Captured Vent	1
3	8717-2223	O-Ring	4

PART NO. 1723-0300 - 3/4" SPM VALVE DUMMY ASSEMBLY WITH STRAIGHT THRU PORT

Item	Part No.	Description	Qty
1	8717-2223	O-Ring	2
2	1723-0302	Plug, 3/4" SPM Dummy with Straight thru Port	1
3	1723-0301	Cap, 3/4" SPM Dummy with Straight thru Port	1
4	8717-2218	O-Ring	1

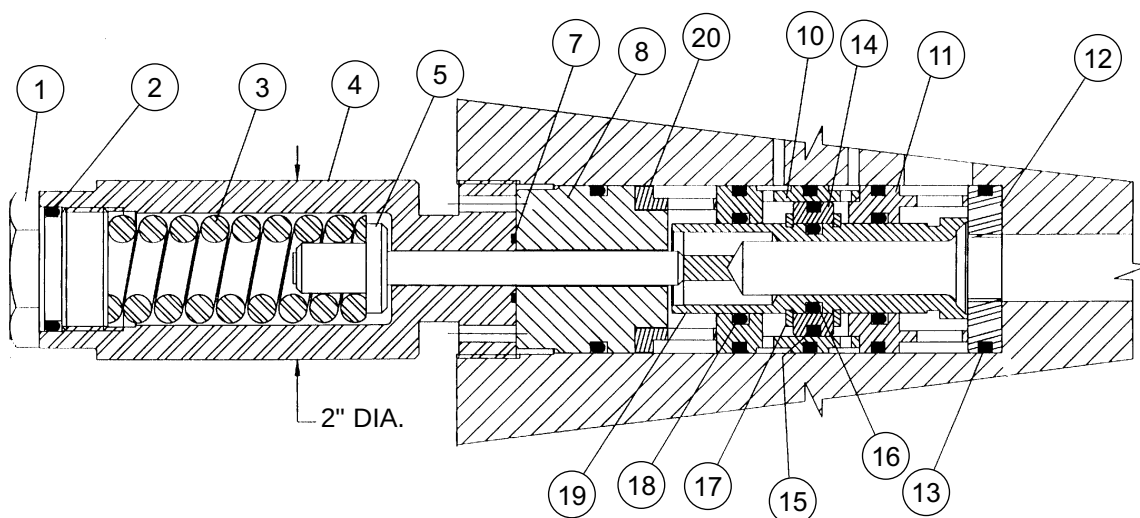
SUBSEA CONTROL VALVE - SPM

PART NO. 1720-0300 - 3/4" SPM VALVE WITH CAPTURED VENT

Item	Part No.	Description	Qty
Kit	1720-0399	Repair Kit	
Kit *	1720-0397	Seal Kit	
1	1720-0101	Housing Plug	1
2**	8717-2216	O-Ring	1
3	1720-0102	Spring	1
4	1720-0103	Spring Housing	1
5	**	Not Used	
6	1720-0202	Spring Plate Assembly	1
7	**	Not Used	
8**	8717-2016	O-Ring	1
9**	811879	Top Seal	1
10	807631	Vent Cage	1
11	1720-0108	Upper Cage	1
12	1720-0109	Lower Cage	1
13**	1720-0110	Bottom Seal	1
14**	8717-2223	O-Ring	5
15	1720-0111	Piston	1
16**	8717-2218	O-Ring	1
17*	1720-0112	Retaining Ring	2
18**	8719-2210	O-Ring	1
19**	8719-2214	O-Ring	2
20*	1720-0113	Spindle Valve	1

*Included in Repair Kit

**Included in Seal Kit



SUBSEA CONTROL VALVE - SPM

PART NO. 1721-0100 - 1" SUBPLATE MOUNTED

Item	Part No.	Description	Qty
Assy	1721-0100	Subplate Mounted Control Valve	
Kit	1721-0499	Repair Kit (Control Seal Kit)	
Kit	1721-0197	Seal Kit	
1	1721-0101	Housing	1
2	1721-0116	Large Spring and Arbor Assembly	1
3	1721-0103	Small Spring (Not Part Of Assembly)	1
4**	1721-0105	Cover	1
5	8717-2014	O-Ring	1
6**	1721-0106	Cylinder	1
7	8719-2223	O-Ring	1
8**	1721-0108	Piston	1
9**	1721-0107	Seal	1
10	8719-2129	O-Ring	1
11**	1721-0109	Cage	6
12*	8719-2229	O-Ring	1
13*	1721-0110	Seal Sleeve	1
14*	1721-0112	Cotter Pin	1
15**	1721-0111	Nut	2
16*	8719-2012	O-Ring	2
17*	8841-2012	Back-up Ring	1
18*	1721-0114	Retaining Ring	1
19*	1721-0113	Piston Ring	1
Kit	1721-0189	Complete Tool Kit	
Tool	1721-0190	Spanner Wrench	
Tool	1721-0191	Pull Tool for Bottom Seal	
Tool	805268	Tool for Nut	
Tool	1721-0193	Cotter Pin Tool	
Tool	1721-0194	Valve Pull Tool	
Tool	1721-0195	Retainer Ring Tool	

* Included in Repair Kit

** Included in Seal Kit



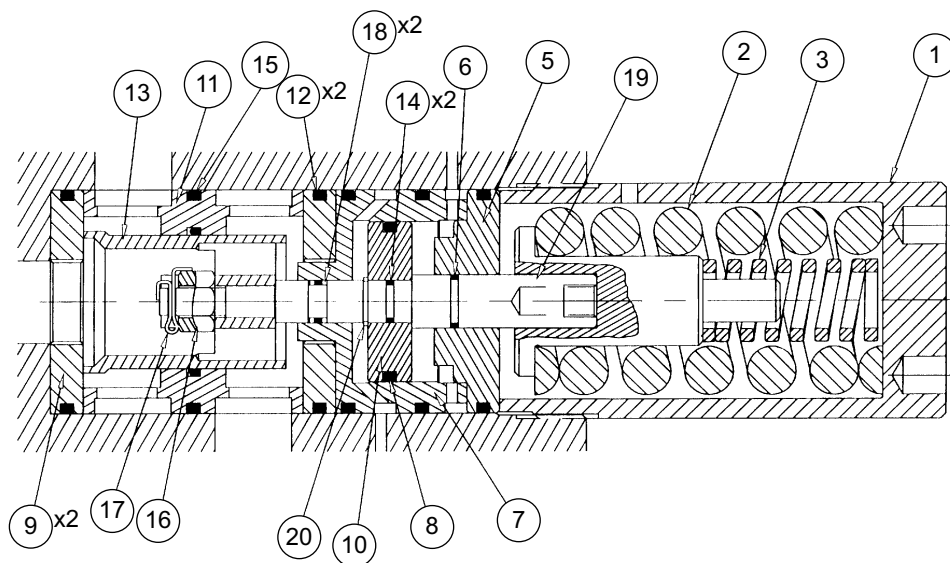
SUBSEA CONTROL VALVE - SPM

PART NO. 1721-0900 - 1" SPM VALVE

Item	Part No.	Description	Qty
Kit	1721-0999	Repair Kit	
Kit*	1721-0997	Seal Kit	
1	1721-0901	Cap Spring 1" SPM Valve S.S.	1
2	1721-0902	Spring	1
3	1721-0103	Spring	1
4	1721-0903	Arbor	1
5	1721-0105	Cover	1
6 **	8717-2014	O-Ring B-N, 70 .489 ID x .070 W	1
7	1721-0106	Cylinder	1
8 **	8717-2223	O-Ring B-N, 70 1.609 ID x .139 W	1
9 **	1721-0107	Seal	2
10	1721-0108	Piston 1-7/8"	1
11	1721-0109	Cage	1
12 **	8717-2228	O-Ring B-N, 70 2.234 ID x .139 W	6
13 *	1721-0110	Seal Sleeve	1
14 **	8717-2012	O-Ring Buna- N, 70 Duro	2
15 **	8717-2129	O-Ring Buna- N, 70 Duro	1
16 *	1721-0111	Nut	1
17 *	815010	Cotter Pin	1
18 **	8841-2012	Back-up Ring, Spiral Teflon	2
19 *	1721-0113	Piston Rod	1
20 *	1721-0114	Retaining Ring	1

* Included in Repair Kit

** Included in Seal Kit



SUBSEA CONTROL VALVE - SPM

PART NO. 1721-1100 - 1" SPM VALVE DOUBLING ACTING

Item	Part No.	Description	Qty
Kit	1721-1199	Repair Kit (Includes Seal Kit)	
Kit*	1721-1197	Seal Kit	
1	1721-1301	Cap	1
2**	8717-2112	O-Ring	1
3	1721-1109	Cage	1
4*	1721-1108	Spool	1
5*	1721-1107	Piston Rod	1
6	1721-1106	Piston Housing	1
7**	8717-2228	O-Ring	6
8	1721-1104	Piston Rod Housing	1
9**	1721-0107	Seal	1
10	1721-1103	Piston	1
11*	1721-1101	Spool Retainer	1
12*	8525-7007	Screw	1
13*	1721-1102	Piston Retainer	1
14*	1721-1111	Retainer Ring	1
15**	8751-0012	T-Ring	1
16**	8750-0022	T-Ring	1
17**	8751-0009	T-Ring	1
18**	8751-0024	T-Ring	1

* Included in Repair Kit

** Included in Seal Kit

PART NO. 1721-9699 - 1" SPM VALVE DUMMY ASSEMBLY

Item	Part No.	Description	Qty
1	1721-9900	1" SPM Dummy	1
2	1721-9901	1" SPM Valve Cap	1
3	8717-2228	O-Ring	1



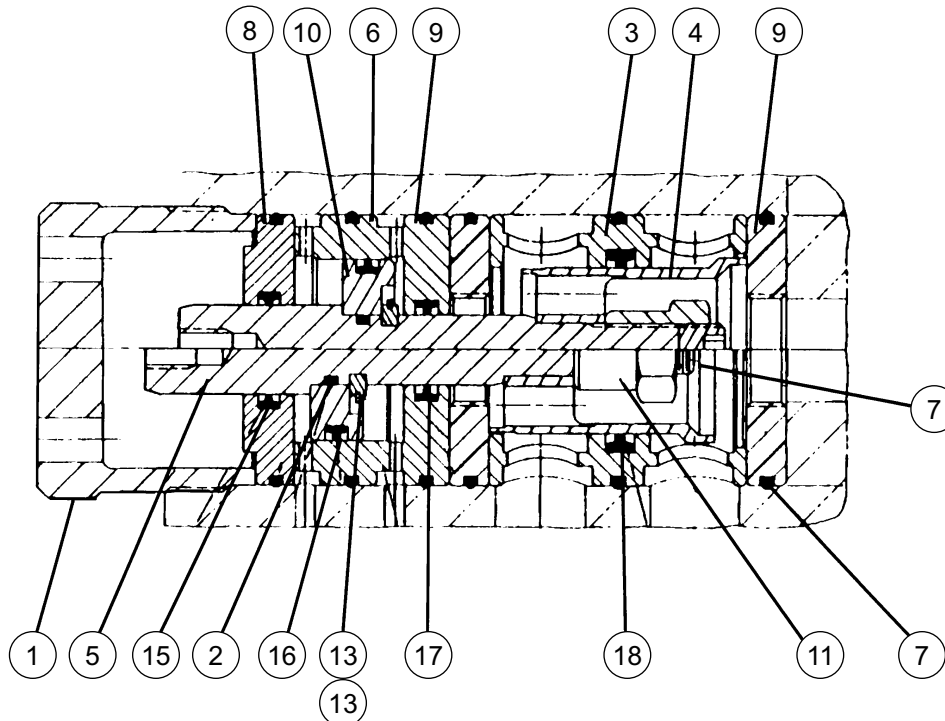
SUBSEA CONTROL VALVE - SPM

PART NO. 1721-1600 - 1" SPM VALVE DOUBLE PILOT WITH S.S. SPRING

Item	Part No.	Description	Qty
Kit	1721-1699	Repair Kit	
Kit *	1721-1697	Seal Kit	
1	828427	SPM Valve Retainer	1
2	828426	Compression Spring S.S	1
3*	805307	Piston Rod	1
4**	8719-2228	O-Ring	6
5	1721-0402	Cylinder	1
6**	8719-2218	O-Ring	1
7**	8841-2218	Back-Up Ring	2
8**	8719-2012	O-Ring	1
9**	8841-2012	Back -up Ring	2
10**	8719-2129	O-Ring	1
11*	1721-0111	Nut S.S.	1
12	1721-0109	Cage	1
13*	805304	Seal Sleeve	1
14*	1721-0112	Cotter Pin	1
15**	1721-0107	Seal	2
16		Nameplate	1

* Included in Repair Kit

**Included in Seal Kit



SUBSEA CONTROL VALVE - SPM

PART NO. 1723-0100 - 1 1/2" SPM VALVE

Item	Part No.	Description	Qty
Kit	1723-0199	Repair Kit	
Kit*	1723-0197	Seal Kit	
1	1723-0101	Spring Housing	1
2	7010-0700	Spring 2-7/8" OD	1
3	7010-0600	Spring 1-7/8" OD	1
4	1723-0110	Spring Retainer Plate	1
5	1723-0112	Set Screw	3
6	1723-0104	Piston Rod Housing	1
7 **	8751-0012	T-Seal	2
8 **	8751-0018	T-Seal	1
9 **	8717-2236	O-Ring	6
10	1723-0102	Piston Housing	1
11 *	1723-0103	Piston Rod	1
12 **	8717-2115	O-Ring	1
13	1723-0109	Piston	1
14 **	8750-2115	T-Seals	1
15 *	1723-0111	Piston Retaining Ring	1
16 *	1723-0120	Retainer Ring	1
17 **	1723-0107	Lower Seal	2
18	1723-0105	Cage	1
19 *	8584-0800	Hex Nut, 9/16" x 18 UNF, SS, Self Locking	1
20	7000-0001	Cotter Pin (not needed with new nut)	1
21 **	8751-0029	T-Seals	1
22 *	1723-0106	Spool	1
23	1723-0196	Tool Kit	1

* Included in Repair Kit

**Included in Seal Kit

Note: Seal Kit is included in Repair Kit

PART NO. 806862 - 1-1/2" SPM VALVE DUMMY FOR "CAPTURED VENT"

Item	Part No.	Description	Qty
1	1721-0122	Cap 1-1/2" Dummy Plug, Balanced Stem	1
2	806834	Dummy for 1-1/2" SPM with Captured Vent	1
3	8717-2236	O-Ring	3

PART NO. 1721-0130 - 1-1/2" SPM VALVE DUMMY ASSEMBLY

Item	Part No.	Description	Qty
1	1721-0122	Cap Dummy Plug	1
2	1721-0124	Dummy Plug	1
3	8717-2236	O-Ring	1

PART NO. 806861 - 1-1/2" VALVE DUMMY WITH STRAIGHT THRU TO FUNCTION

Item	Part No.	Description	Qty
1	806821	Cap 1-1/2" Straight thru Dummy Plug	1
2	806819	Dummy with Straight thru	1
3	8717-2236	O-Ring	2
4	8717-2228	O-Ring	1

PART NO. 806860 - 1-1/2" SPM VALVE DUMMY WITH STRAIGHT THRU SUPPLY

Item	Part No.	Description	Qty
1	806821	Cap 1-1/2" Straight thru Dummy Plug	1
2	806820	Dummy with Straight thru to Supply	1
3	8717-2236	O-Ring	2
4	8717-2228	O-Ring	1



SUBSEA CONTROL VALVE - SPM

PART NO. 1723-0200 - 1-1/2" SPM VALVE BI-DIRECTIONAL 5000 PSI

Item	Part No.	Description	Qty
Kit	1723-0299	Repair Kit	
Kit *	1723-0297	Seal Kit	
1	1723-0101	Spring Housing	1
2	7010-0700	Spring 2-7/8" OD	1
3	7010-0600	Spring 1-7/8" OD	1
4	1723-0110	Spring Retainer Plate	1
5	1723-0112	Set Screw	3
6	1723-0206	Piston Rod Housing	1
7 **	8751-0115	T-Seal	2
8 **	8751-0117	T-Seal	1
9 **	8717-2236	O-Ring	6
10	1723-0102	Piston Housing	1
11 *	1723-0207	Piston Rod	1
12 **	8717-2115	O-Ring	1
13	1723-0109	Piston	1
14 **	1723-0119	T-Seals	1
15 *	1723-0111	Piston Retaining Ring	1
16 *	1723-0120	Retainer Ring	1
17 **	1723-0107	Lower Seal	2
18	1723-0202	Cage	1
19 *	8584-0800	Hex Nut, 9/16" x 18 UNF, SS	1
		Self Locking	
20	7000-0001	Cotter Pin (not needed with new nut)	1
21 **	1723-0123	T-Seals	1
22 *	1723-0201	Spool	1

* Included in Repair Kit

** Included in Seal Kit

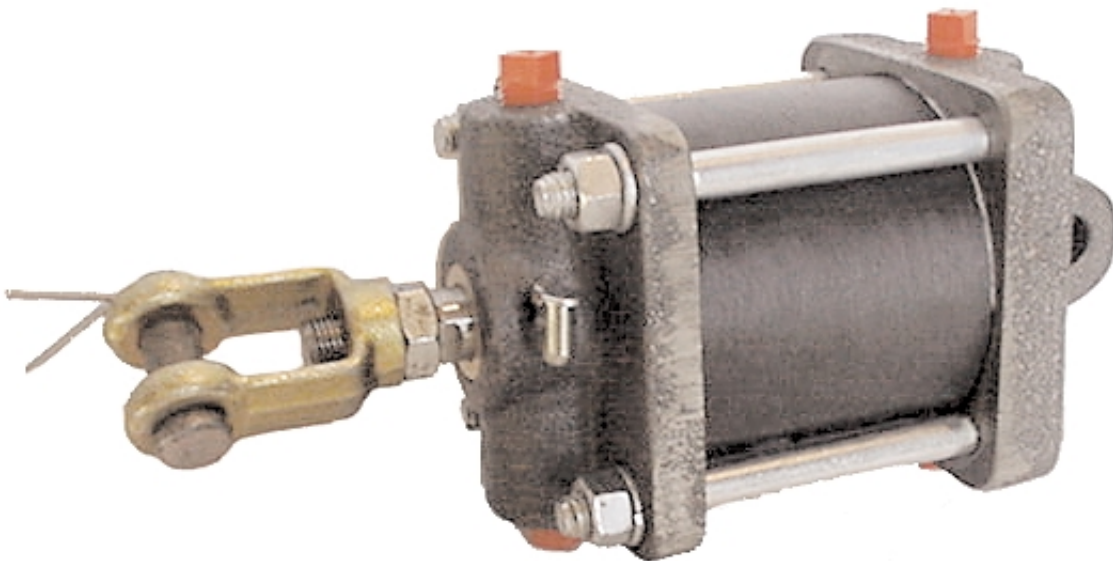
AIR CYLINDERS

2 POSITION AIR CYLINDER - 200 PSI WORKING PRESSURE

Description	2" Bore	3" Bore	4" Bore
Air Cylinder with Clevis Assembly	2000-0100	2000-1100	2000-2100
Clevis	2000-0110	2000-1110	2000-2110
Repair Kit	2000-0199	2000-1199	805083

3 POSITION AIR CYLINDER - 200 PSI WORKING PRESSURE

Item	Description	2" Bore	Qty	3" Bore	Qty
Assy.	Air Cylinder with Clevis	2001-0500		808972	
Kit	Repair Kit	2001-0599		2001-1199	
Assy.	Clevis Assy.	2000-1110		2000-2110	

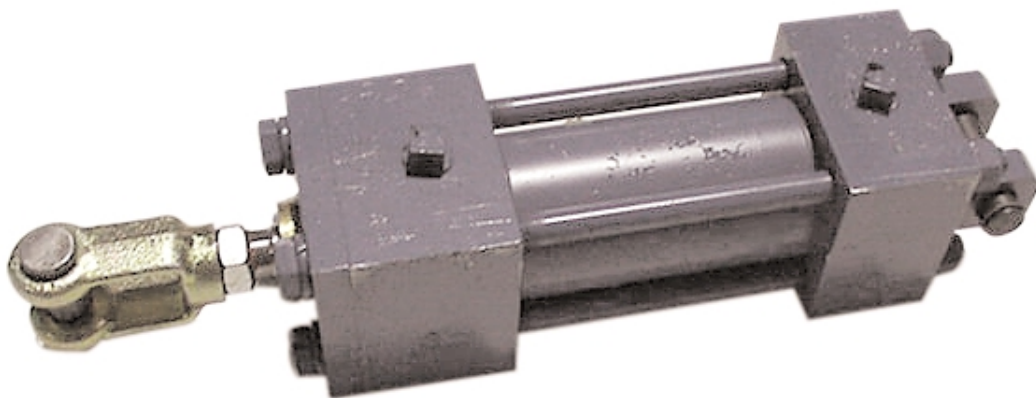


HYDRAULIC CYLINDERS

PART NO. 2010 - 0500 - 3000 PSI HYDRAULIC CYLINDERS

Item	Part No.	Description	Qty
Assy	2010-0500	Hyd Cylinder, 1-1/2" Bore, 2-1/8" Stroke with Clevis Assy.	
Kit	2010-0597	Seal Kit	
1	2010-0516	Pivot Pin	1
2	2010-0502	Cotter Pin	2
3	8589-1010	Nut. Tie Rod	4
4	2010-0503	End Cap	1
5	2010-0504	Tie Rod	4
6**	8841-2128	Back-up O-Ring	2
7**	8717-2128	O-Ring	2
8	8589-1020	Nut Piston	1
9	2010-0505	Piston	1
10**	2010-0506	Seal Piston	2
11**	2010-0507	O-Ring, Teflon	1
12**	8717-2110	O-Ring	1
13	2010-0508	Rod	1
14	2010-0509	Cylinder	1
15	2010-0510	Front Cap	1
16	2010-0511	Front Bearing	1
17	2010-0512	Shaft Seal Packing Cup	1
18	2010-0513	Shaft Seal Rod Packing	1
19	2010-0514	Rod Wiper	1
20	2010-0515	Bearing Retaining Plate	1
21	8575-1200	Lock Washer	4
22	8528-1016	Screw	4
23	2000-1110	Clevis Assy.(Not Shown)	1

**Included in Seal Kit



FILTERS/SNUBBERS

HIGH PRESSURE DISCHARGE FILTERS

Description	Filter	Element
1/2" NPT, 10 Micron	2633-1100	2634-1210
1" NPT, 40 Micron	2633-2600	2634-2200
2" NPT, 40 Micron	2633-3100	2634-4200

Description	Filter	Element
1/2" NPT, 10 Micron	821025	821026
1" NPT, 25 Micron	817468	817469
1-1/2" NPT, 25 Micron	819051	819368

LOW PRESSURE SUCTION FILTERS

Description	Part No.
Filter with 3" SAE Flange	2633-5100
Element Only	2634-5100
Diffuser Screen	2633-5101
End Plate with Ind.	2633-5302
O-Ring for Flange	8717-2237
Cover Assembly	2633-5302
Housing Seal	2634-5001
Stem O-Ring	809959
O-Ring Retainer	809958
Colorator Cover	2633-5201

SNUBBERS

Part No.	Description
1730-0100	1/4" MPT X 1/4" FPT Oil 303 SS
1730-1100	1/2" MPT x 1/2" FPT Oil 303 SS
1731-0100	1/4" MPT x 1/4" FPT Water 303 Stainless Steel Grade E
815310	1/4" Male Tube x 1/4" MPT 316 SS Grade D
815391	1/4" Tube x 1/2" FPT 316 SS Grade D
815726	1/4" Tube x 1/4" Tube Union Swagelok Grade E 316 SS
815801	1/4" Tube x 1/4" MPT Grade E (water, light oil) 316 SS
817013	1/4" Tube x 1/4" MPT Grade E 316 SS
1740-0100	1/4" MPT x 1/4" MPT Oriface

GAUGES

PANEL MOUNT GAUGES NON-LIQUID FILLED 6" FACE

Description	Part No.
0-3000 psi/0-210 Kg/cm ²	4032-3100
0-6000 psi/0-420 Kg/cm ²	4033-3100
0-10,000 psi/0-700 Kg/cm ²	4034-3100



PANEL MOUNT GAUGES LIQUID FILLED 6" FACE

Description	Part No.
0-3000 psi Glycerin Filled	4082-4500
0-6000 psi Glycerin Filled	4082-4600
0-10,000 psi Glycerin Filled	4082-4700



AIR RECEIVER GAUGES NON-LIQUID FILLED 4-1/2" FACE

Description	Part No.
0-300 psi/0-21 Kg/cm ² Direct Reading	4020-1100
* 0-3000 psi/0-210 Kg/cm ² Receiver Gauge	4060-2100
* 0-6000 psi/0-420 Kg/cm ² Receiver Gauge	4060-2100
* 0-10,000 psi/0-700 Kg/cm ² Receiver Gauge	4060-3100

*Receiver Gauges receive 3-15 psi signal from Pressure Transmitter



LIQUID FILLED RECEIVER GAUGES - 4" FACE

Description	Part No.
0-300 psi Glycerin Filled	4082-4400
0-3000 psi Glycerin Filled	807900
0-6000 psi Glycerin Filled	807901
0-10,000 psi Glycerin Filled	807902



HIGH PRESSURE GAUGES - 6" FACE

Description	Part No.
0-20,000 psi	810673
0-30,000 psi	810878
0-50,000 psi	4031-1100



METERS AND COUNTERS

ELECTRIC METERS 2-1/2" FACE

Description	Part No.
Meter Calibration Board	6332-0100
Meter 2-1/2" 0-300 psi	4102-0500
Meter 2-1/2" 0-1000 psi	4100-0300
Meter 2-1/2" 0-3000 psi	4100-0100
Meter 2-1/2" 0-6000 psi	4101-0100
Meter 2-1/2" 0-10,000 psi	4102-0100

ELECTRIC METERS 3-1/2" FACE

Description	Part No.
Meter Calibration Board	810338
Meter 3-1/2" 0-300 psi	810977
Meter 3-1/2" 0-3000 psi	810978
Meter 3-1/2" 0-6000 psi	810979
Meter 3-1/2" 0-10,000 psi	814045

ELECTRIC METERS 4-1/2" FACE

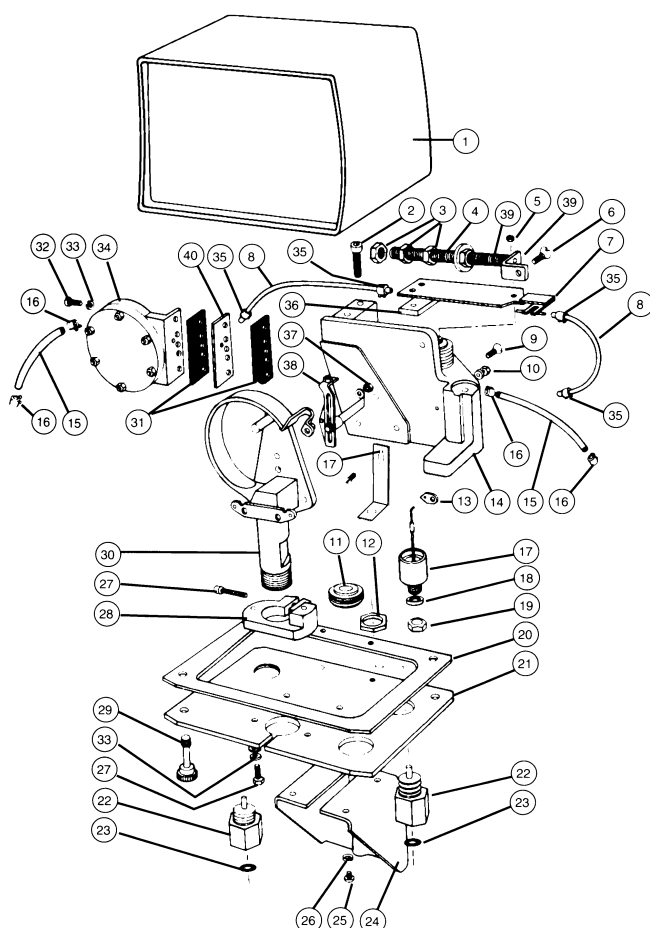
Description	Part No.
0-300 psi	808545
0-1000 psi	808546
0-3000 psi	808547
0-6000 psi	808548

FLOWMETER COUNTER

Description	Part No.
Counter 115 VDC with Pushbutton Reset	4210-0100
Counter 120 VAC with Reset	4210-0600

PRESSURE TRANSMITTERS

HYDRAULIC TO AIR PRESSURE TRANSMITTERS - 3,000, 6,000 AND 10,000 PSI



Part No. 2100-0100

Dimensions:

Height - 7"

Width - 6-7/8"

Depth - 5"

Weight : 8 Pounds

Item	Part No.	Description	Qty
Assy.	2100-0100	0-3000 psi Transmitter	
Assy.	2100-1100	0-6000 psi Transmitter	
Assy.	2100-2100	0-10,000 psi Transmitter	
Kit	2100-0199	Repair Kit	
Kit	2100-0142	Tubing Kit	
Kit	2100-0196	Conversion Kit from Old Style PT360 to New Styles	
1 ***	2100-0101	Cover	1
2 ***	2100-0106	Screw	2
3 ***	2100-0105	Nut, Locking	3
4 ***	2100-0104	Nut, Scan	1
5 ***	2100-0103	Nut, Bellow Mounting	1
6 ***	2100-0102	Screw	1
7 *	N/A	Flexure	1
8 **	N/A	Tubing	2
9 ***	2100-0102	Screw	3
10 ***	2100-0109	Nut	1
11 *	N/A	Safety Disc	1
12 ***	2100-0121	Nut	2
13 ***	2100-0116	Link, Dash Dot	1
14 ***	2100-0110	Body Assembly	1
15 **	N/A	Tubing	2
16 **	N/A	Clamps	4
17 ***	2100-0117	Dash Dot & Bracket with Screw (includes 18 & 19)	1
18	N/A	Lock Washer	1
19	N/A	Nut	1
20 *	N/A	Gasket	1
21 ***	2100-0124	Base Plate	2
22 ***	2100-0126	Adapter	2
23 *	N/A	Filter	1
24 ***	2100-0125	Bracket, Transmitter Mt.	4
25 ***	2100-0128	Screw	4
26 ***	2100-0129	Washer	2
27 ***	2100-0130	Screw	1
28 ***	2100-0123	Clamp	2
29 ***	2100-0131	Screw Cover	1
30		Bourdon Assembly	
	2100-0132	For 0-3000 psi	
	2100-1101	For 0-6000 psi	
	2100-2101	For 0-10,000 psi	
31 *	N/A	Gasket, Relay	2
32 *	N/A	Screw	2
33 *	N/A	Washer	2
34 *	N/A	Relay	1
35 **	N/A	Clamp	4
36 ***	2100-0111	Clamping Plate	1
37 ***	2100-0114	Nut	1
38 ***	2100-0115	Zero Adjust Assembly	1
39 ***	N/A	Bracket & Stud	1
40 *	N/A	Manifold (Relay)	1
41	1160-1100	3-15 psi Regulator Required	1

* Included and Sold only in Repair Kit

** Included and Sold only in Tubing Kit

*** Are not Stock Items - May or May Not be Available as Separate Items. If available as a Separate Item, Delivery is 10 Weeks ARO Minimum. Contact Our Houston, Texas Sales Office.

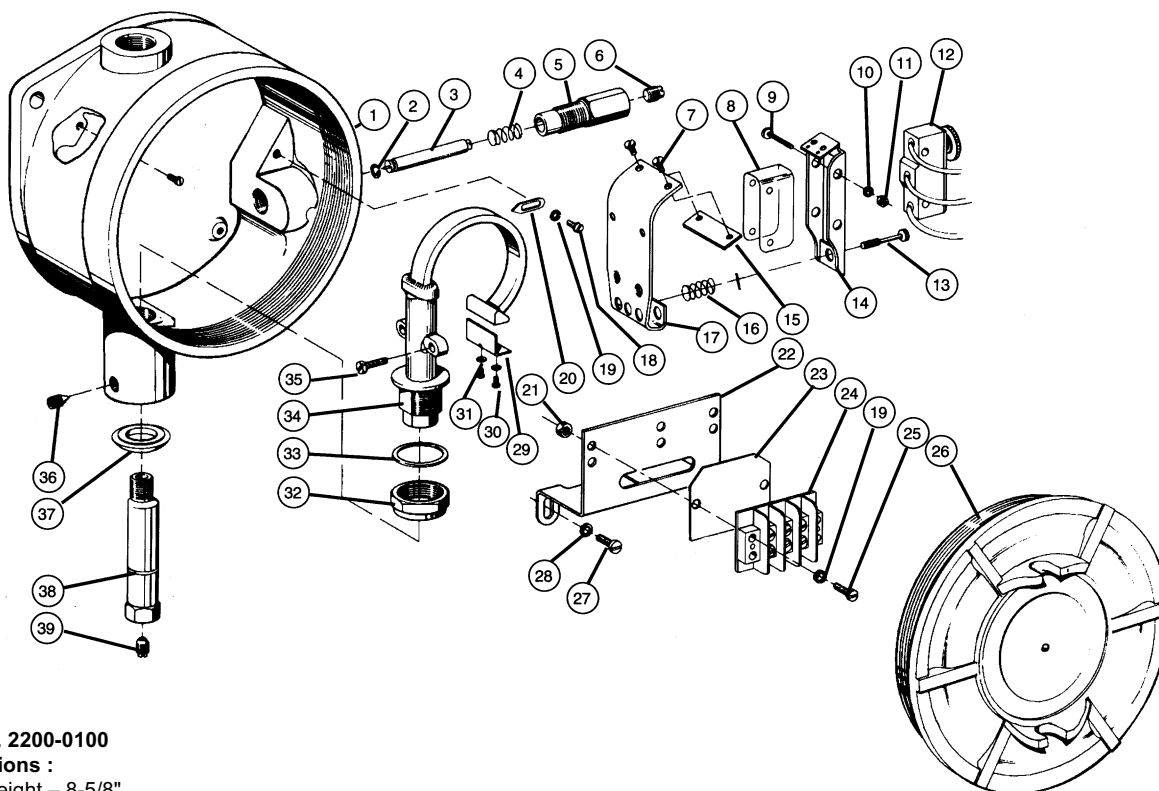
ABB

PRESSURE SWITCHES

PART NO. 2200-0100 - HYDRO-ELECTRIC PRESSURE SWITCH PART NO. 2200-0199 - REPAIR KIT

Item	Part No.	Description	Qty
Assy.	2200-0100	Hydro-Electric Pressure Switch	
Kit	2200-0199	Repair Kit	
1	2200-0123	Housing, Explosion Proof	1
2	2200-1027	Retainer Extension	1
3	2200-0126	Screw Extension	1
4	2200-0141	Spring	1
5	2200-0125	Adjustment Fitting	1
6	2200-0124	Access Screw	1
7*	8527-2004	Screw	2
8*	2200-0106	Insulator, Limit Switch	1
9*	8519-1014	Screw	2
10*	8575-0100	Lockwasher	2
11*	8580-0100	Nut	2
12*	2200-0107	Limit Switch Assy.	1
13	2200-0116	Adjusting Screw	1
14*	2200-0110	Bracket, Limit Switch	1
15*	2200-0104	Bracket, Clamp	1
16*	2200-0115	Overload Spring	1
17*	2200-0102	Bracket Assembly	1
18	8527-2006	Screw	1

Item	Part No.	Description	Qty
19	8575-0200	Lockwasher	3
20	2200-0128	Stop Plate	1
21	8580-0200	Nut	2
22	220000133	Mounting Bracket	1
23	2200-0140	Insulator	1
24	2200-0119	Terminal Block	1
25	8527-2010	Screw	2
26	2200-0134	Cover, Explosion Proof	1
27	8527-3006	Screw	2
28	8575-0300	Lockwasher	2
29*	2200-0113	Bracket, Contact	1
30*	8527-1004	Screw	2
31	8575-0500	Lockwasher	2
32	2200-0142	Retaining Nut	1
33	2200-0132	Gasket	1
34*	2200-0101	Bourdon Tube Kit	1
35*	8527-4010	Screw	2
36	8520-5008	Set Screw	2
37	2200-0121	Seal	1
38	2200-0120	Pressure Fittings	1
39*	2200-0112	Surge Dampener	1



Part No. 2200-0100

Dimensions :

Height – 8-5/8"

Width – 6-1/2"

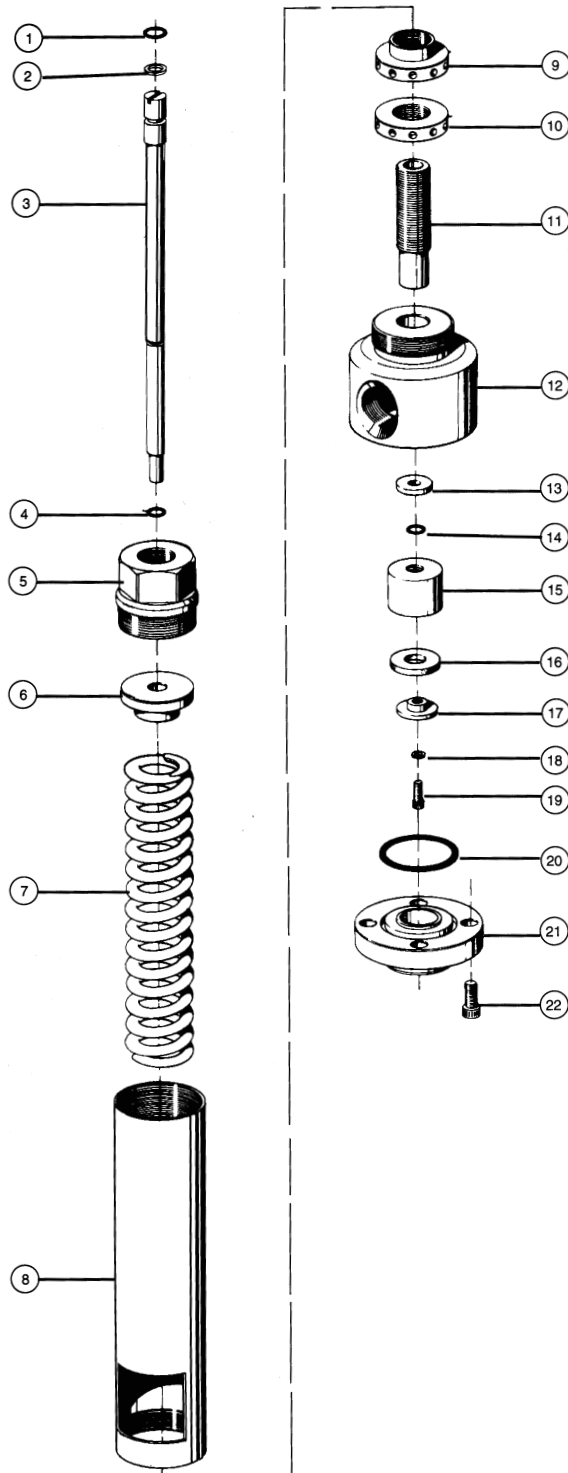
Depth – 4-3/8"

Weight : 6 Pounds

ABB

PRESSURE SWITCHES

PART NO. 2250-0100 - HYDRO-PNEUMATIC PRESSURE SWITCH



Item	Part No.	Description	Qty
Assy.	2250-0100	Hydro-Pneumatic Pressure Switch 3000 psi	
Assy.	2250-0200	Hydro-Pneumatic Pressure Switch 5000 psi	
Assy.	2250-0300	Hydro-Pneumatic Pressure Switch 1500 psi	
Kit	2250-0199	Repair Kit	
1*	8717-2111	O-Ring	1
2*	8841-2111	Back-Up Ring	1
3	2250-0113	Rod	1
4*	8717-2012	O-Ring	1
5	2250-0115	Fluid Inlet Body	1
6	2250-0114	Spring Retainer	1
7		Spring	
	2250-0112	For 3000 psi	
	2250-0201	For 5000 psi	
	2250-0301	For 1500 psi	
8	2250-0111	Sleeve	1
9	2250-0110	Adjustment Nut	1
10	2250-0109	Stop	1
11	2250-0116	Male Threaded Insert	1
12	2250-0108	Inlet Body	1
13	2250-0107	Spacer	1
14*	8718-2012	O-Ring	1
15	2250-0106	Sleeve	1
16*	2250-0101	Seal	1
17	2250-0103	Retainer	1
18	8575-1200	Lock Washer	1
19	2250-0102	Cap Screw	1
20*	8717-2225	O-Ring	1
21	2250-0105	Outlet Body	1
22	8504-2012	Cap Screw	1

* Included in Repair Kit

Part No. 2250-0100
Dimensions :
 Height – 15-1/2"
 Width – 3-1/4"
 Depth – 3-1/4"
Weight : 17 Pounds

TRANSDUCER ASSEMBLY

**TRANSDUCER PR ASSEMBLY WITH O-RING
P/N 815473**

Part No.	Description
815253	XMTR, PR, 0-300
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER PR ASSEMBLY WITH O-RING
P/N 815474**

Part No.	Description
815254	XMTR, PR, 0-3000
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER ASSEMBLY WITH O-RING
P/N 815475**

Part No.	Description
815255	XMTR, PR, 0-6000
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER ASSEMBLY 0-1000 PSI
P/N 816349**

Part No.	Description
816348	XMTR, PR, 0-1000
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER ASSEMBLY WITH O-RING
P/N 817612**

Part No.	Description
817408	XMTR, PR, 0-10,000
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER ASSEMBLY WITH O-RING
P/N 817970**

Part No.	Description
817969	XMTR, PR, 0-5000
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER ASSEMBLY WITH O-RING
P/N 819577**

Part No.	Description
819576	XMTR, PR, 0-1500
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER ASSEMBLY WITH O-RING
P/N 819891**

Part No.	Description
819890	XMTR, PR, 0-2000
815310	Snubber, 1/4"
815311	O-Ring, Buna

**TRANSDUCER ASSEMBLY WITH O-RING
P/N 821065**

Part No.	Description
821064	XMTR, PR, 0-500
815310	Snubber, 1/4"
815311	O-Ring, Buna

STRAINERS

Y-TYPE STRAINER

Part No.	Description
2600-0100	Strainer,Y-Type,1/2" FPT
2600-1100	Strainer,Y-Type, 3/4" FPT
2600-2100	Strainer,Y-Type, 1" FPT
2600-3100	Strainer,Y-Type, 1-1/2 " FPT
2600-4100	Strainer,Y-Type, 2" FPT
2600-5100	Strainer,Y-Type, 2-1/2" FPT
2600-6100	Strainer,Y-Type, 1-1/2" FPT, 3000 psi
2600-6101	Bonnet Sub-Assy. w/Element

Part No.	Description
2600-0101	Screen Only, Y-Type, 1/2" FPT
2600-1101	Screen Only, Y-Type, 3/4" FPT
2600-2101	Screen Only, Y-Type, 1" FPT
2600-3101	Screen Only, Y-Type, 1-1/2" FPT
2600-4101	Screen Only, Y-Type, 2" FPT
2600-5101	Screen Only, Y-Type, 2-1/2" FPT



T-TYPE STRAINER

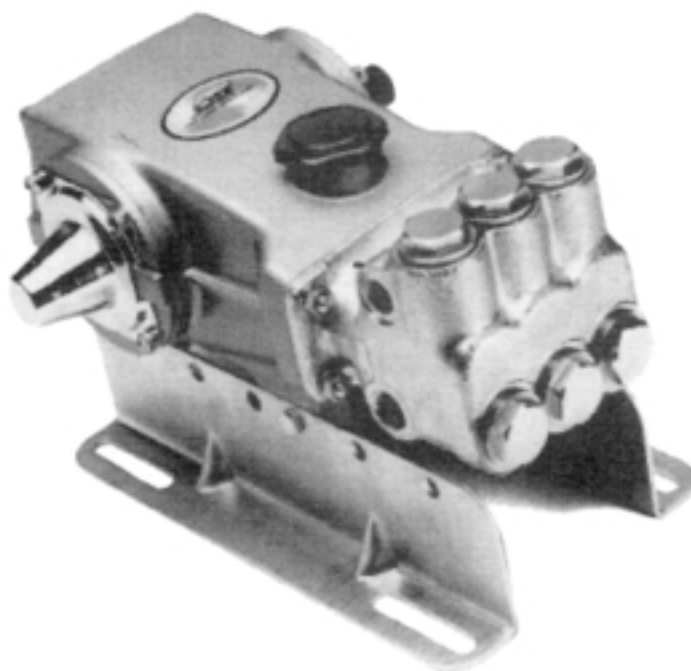
Part No.	Description
2610-0100	Strainer T-Type, 6000 psi
2610-0101	Element
8717-2218	O-Ring



PUMPS

PART NO. 3003-5000 - TRIPLEX, 3000 PSI MAX. PRESSURE, 16MM PLUNGER

Part No.	Description
3003-5099	Complete Repair Kit (includes 2 each Valve Kits & 1 Each Seal Kit)
807181	Valve Kit (2 Each Per Pump Required)
807182	Seal Kit (Includes V-Packing Kit)
807183	V-Packing Kit



PUMPS

OLD T-SERIES TRIPLEX PUMPS 5 TO 20 HORSEPOWER

Item	Description	TRIPLEX			
		3/4" Plunger	7/8" Plunger	1" Plunger	Qty
Assy. Kit	Reciprocating Pump	3001-3100	3001-4100	3001-5100**	
	Repair Kit	3001-3199	3001-4199	3001-5199	
1	Pipe Plug	8007-1800	8007-1800	8007-1800	1
2	Fluid Cylinder	3001-3105	3001-3105	3001-3105	1
3*	Valve Seat (not shown)	3000-2123	3000-2123	3000-2123	6
4*	Valve	3000-2122	3000-2122	3000-2122	6
5*	Spring Valve	3000-2124	3000-2124	3000-2124	6
6*	Gasket Discharge Valve	3000-2128	3000-2128	3000-2128	3
7	Stop Discharge Valve	3000-2127	3000-2127	3000-2127	3
8	Cover Discharge Valve	3001-3106	3001-3106	3001-3106	1
9	Nut	8581-1600	8581-1600	8581-1600	18
10	Stud	3001-3112	3001-3112	3001-3112	8
11	Stop, Suction Valve	3000-2126	3000-2126	3000-2126	3
12*	Gasket Stuffing Box	3000-2129	3000-2129	3000-2129	3
13	Stuffing Box	3000-3101	3000-3101	3000-3101	3
14	Throat Bushing	3000-3104	3001-4102	3001-5102	3
15*	Packing (Not Shown)	3000-3106	3001-4104	3001-5104	3
16	Gland Follower	3000-3103	3001-4101	3001-5101	3
17	Stuffing Box Gland	3000-3102	3000-3102	3000-3102	3
18	Plunger	3000-3105	3000-3105	3000-3105	3
19	Coupling Nut Plunger	3000-2110	3000-2110	3000-2110	3
20	Retaining Ring Plunger	3000-2109	3000-2109	3000-2109	3
21	Deflector Crosshead Stud	3000-2108	3000-2108	3000-2108	3
22	Screw	3001-3114	3001-3114	3001-3114	6
23	Seal Cap Crosshead Style	3000-2113	3000-2113	3000-2113	3
24	Gasket Crosshead Seal Cap	3000-2116	3000-2116	3000-2116	3
25*	Seal Crosshead Stud	3000-2118	3000-2118	3000-2118	6
26	Flange Stuffing Box	3000-2125	3000-2125	3000-2125	1
27	Stud	3001-3113	3001-3113	3001-3113	10
28	Thumb Screw	3000-2150	3000-2150	3000-2150	2
29	Cover Plunger	3000-3107	3000-3107	3000-3107	1
30	Screw	8540-1011	8540-1011	8540-1011	8
31	Crankshaft Frame Cap Outboard	3000-2111	3000-2111	3000-2111	1
32	Gasket Crankshaft Frame Cap	3000-2137	3000-2137	3000-2137	2
33	Bearing Race	3000-2140	3000-2140	3000-2140	2
34	Bearing Crankshaft	3000-2104	3000-2104	3000-2104	2
35	Plug	8017-0300	8017-0300	8017-0300	1
36	Breather Crankcase	3000-2119	3000-2119	3000-2119	1
37	Plug	8017-0500	8017-0500	8017-0500	1
38	Crosshead	3000-2105	3000-2105	3000-2105	3
39	Spring Pin	3000-2106	3000-2106	3000-2106	3
40	Crosshead Pin	3000-2107	3000-2107	3000-2107	3
41	Crosshead Rod Assembly	3000-2102	3000-2102	3000-2102	3
42	Screw	8540-1009	8540-1009	8540-1009	10
43	Plug	8017-0200	8017-0200	8017-0200	1
44	Cover Crankcase	3001-3103	3001-3103	3001-3103	1
45	Gasket Crankcase Cover	3001-3104	3001-3104	3001-3104	1
46	Crankshaft	3001-3102	3001-3102	3001-3102	1
47	Seal Crankshaft	3000-2117	3000-2117	3000-2117	1
48	Crankshaft Frame Cap Inboard	3000-2112	3000-2112	3000-2112	1
49	Power Frame	3000-2102	3000-2102	3000-2102	1
50	Pin	3000-3111	3000-3111	3000-3111	2
51	Cylinder Tie Stud	3001-3117	3001-3117	3001-3117	2
	WEIGHT	345 Pounds	345 Pounds	345 Pounds	

* Included in Repair Kit

** NOTE: Pump No Longer Available on Units - For Direct Replacement & Parts

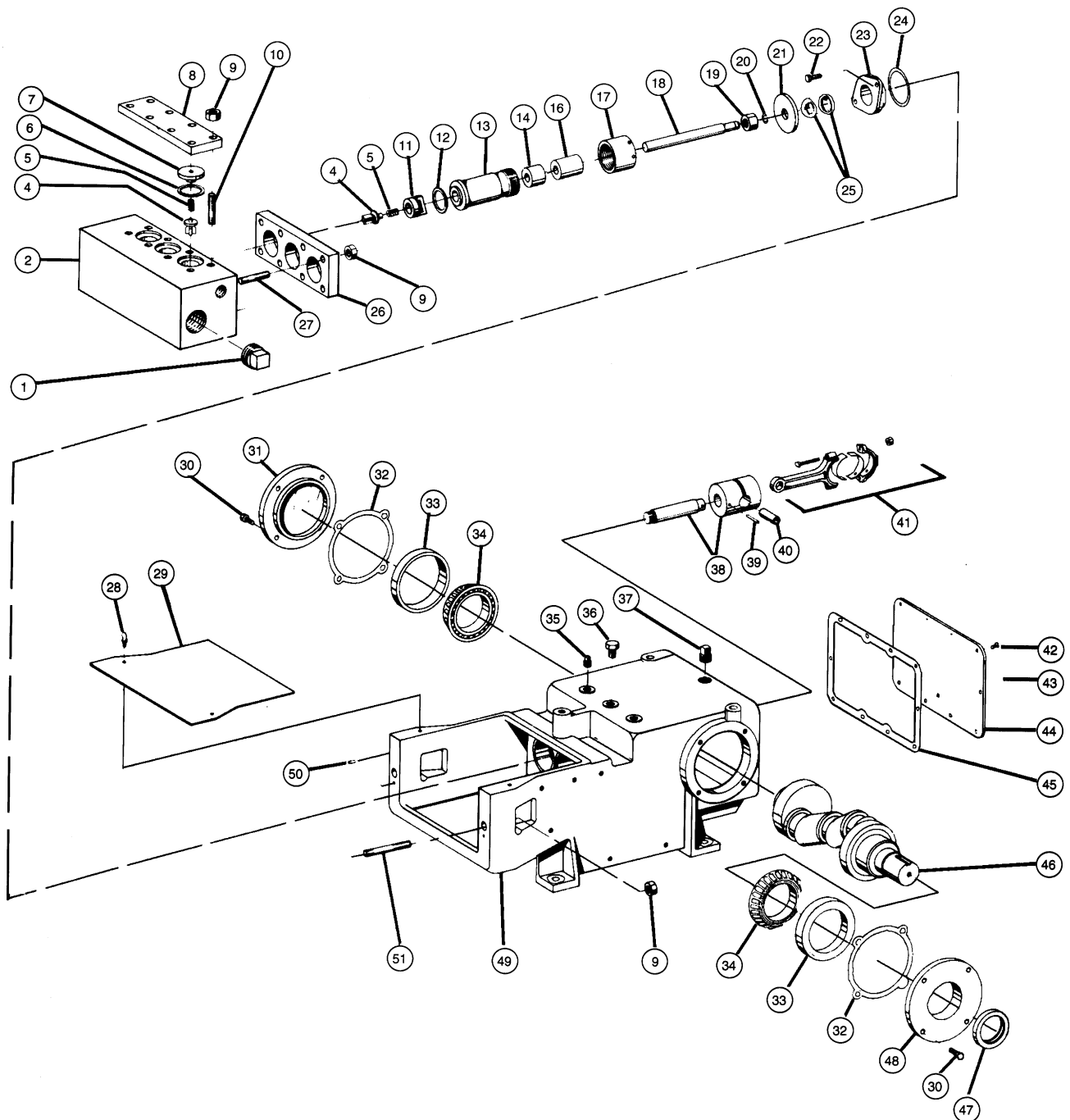
Dimensions:

Height – 12-3/4"
Width – 15-15/16"
Depth – 30-1/16"



PUMPS

OLD T-SERIES TRIPLEX PUMPS 5 TO 20 HORSEPOWER



PUMPS

NEW SERIES TRIPLEX PUMPS 20 TO 25 HORSEPOWER

Item	Description	20 HP	25 HP	Qty
		7/8" Plunger	1" Plunger	
Assy.	Reciprocating Pump	3004-0050	3004-0100	
Kit	Repair Kit	3004-0059	3004-0199	
1	Pipe Plug, 1-1/2"	8007-1800	8007-1800	1
2	Fluid Cylinder	3001-3105	3001-3105	1
3*	Valve Seat (Not Shown)	3000-2123	3000-2123	6
4*	Valve, Suction/Discharge	3000-2122	3000-2122	6
5*	Spring, Valve	3000-2124	3000-2124	6
6*	O-Ring	8717-2223	8717-2223	3
7	Stop, Discharge Valve	3004-2127	3004-2127	3
8	Cover, Discharge Valve	3001-3106	3001-3106	1
9	Nut, 5/8-18 Reg Hex	8581-1600	8581-1600	18
10	Screw, Cap, 5/8"-18 x 1-3/4"lg	3001-3112	3001-3112	8
11	Stop, Suction Valve	3001-2126	3001-2126	3
12*	Gasket, Stuffing Box O-Ring	8717-2223	8717-2223	3
13	Stuffing Box	817883	817883	3
14	Throat Bushing	3001-4102	3001-5102	3
15*	Packing (not shown)	817885	817886	3
16	Gland Follower	3001-4101	3001-5101	3
17	Stuffing Box Gland	3000-3102	3000-3102	3
18*	Plunger	3000-4103	3001-5103	3
19	Coupling Nut, Plunger	3000-2110	3000-2110	3
20*	Retaining Ring, Plunger	3000-2109	3000-2109	3
21	Deflector, Crosshead Stud	3000-2108	3000-2108	3
22	Screw, Cap, Hex, 3/8"-16 x 3/4"lg	8500-2012	8500-2012	6
23	Seal Cap, Crosshead Style	817881	817881	3
24	Gasket, Crosshead Seal Cap	3000-2116	3000-2116	3
25*	Seal, Crosshead Stud	3000-2118	3000-2118	6
26	Flange, Stuffing Box	3001-3107	3001-3107	1
27	Screw, Cap, 5/8"-18 x 2-1/4"lg	3000-3113	3000-3113	10
28	Thumb Screw	3000-2150	3000-2150	2
29	Cover, Plunger	3001-3110	3001-3110	1
30	Bolt, Hex Head, 3/8"-16 x 1"lg	8540-1011	8540-1011	8
31	Crankshaft Frame Cap, Outboard	3000-2111	3000-2111	1
32	Gasket, Crankshaft Frame Cap	3000-2137	3000-2137	2
33	Bearing Race	3000-2140	3000-2140	2
34	Bearing, Crankcase	3000-2104	3000-2104	2
35	Plug, 1/2"	8017-0400	8017-0400	1
36	Breather, Crankcase	817877	817877	1
37	Plug, 3/4"	8017-0500	8017-0500	1
38	Crosshead	817879	817879	3
39	Spring Pin	3000-2106	3000-2106	3
40	Crosshead Pin	817880	817880	3
41	Connecting Rod Assembly	817878	817878	3
42	Bolt, Hex Head, 3/8"-16 x 1/2"lg	8540-1009	8540-1009	10
43	Plug, 3/8"	8017-0300	8017-0300	1
44	Cover, Crankcase	817882	817882	1
45	Gasket, Crankcase Cover	3001-3104	3001-3104	1
46	Crankshaft	3001-3102	3001-3102	1
47	Seal, Crankshaft	3000-2117	3000-2117	1
48	Crankshaft Frame Cap-Inboard	3000-2112	3000-2112	1
49	Power Frame	817876	817876	1
50	Pin	3001-3111	3001-3111	2
51	Cylinder Tie Stud	3001-3117	3001-3117	2

* Included in Repair Kit

Dimensions:

Height – 13-1/8"

Width – 17-1/16"

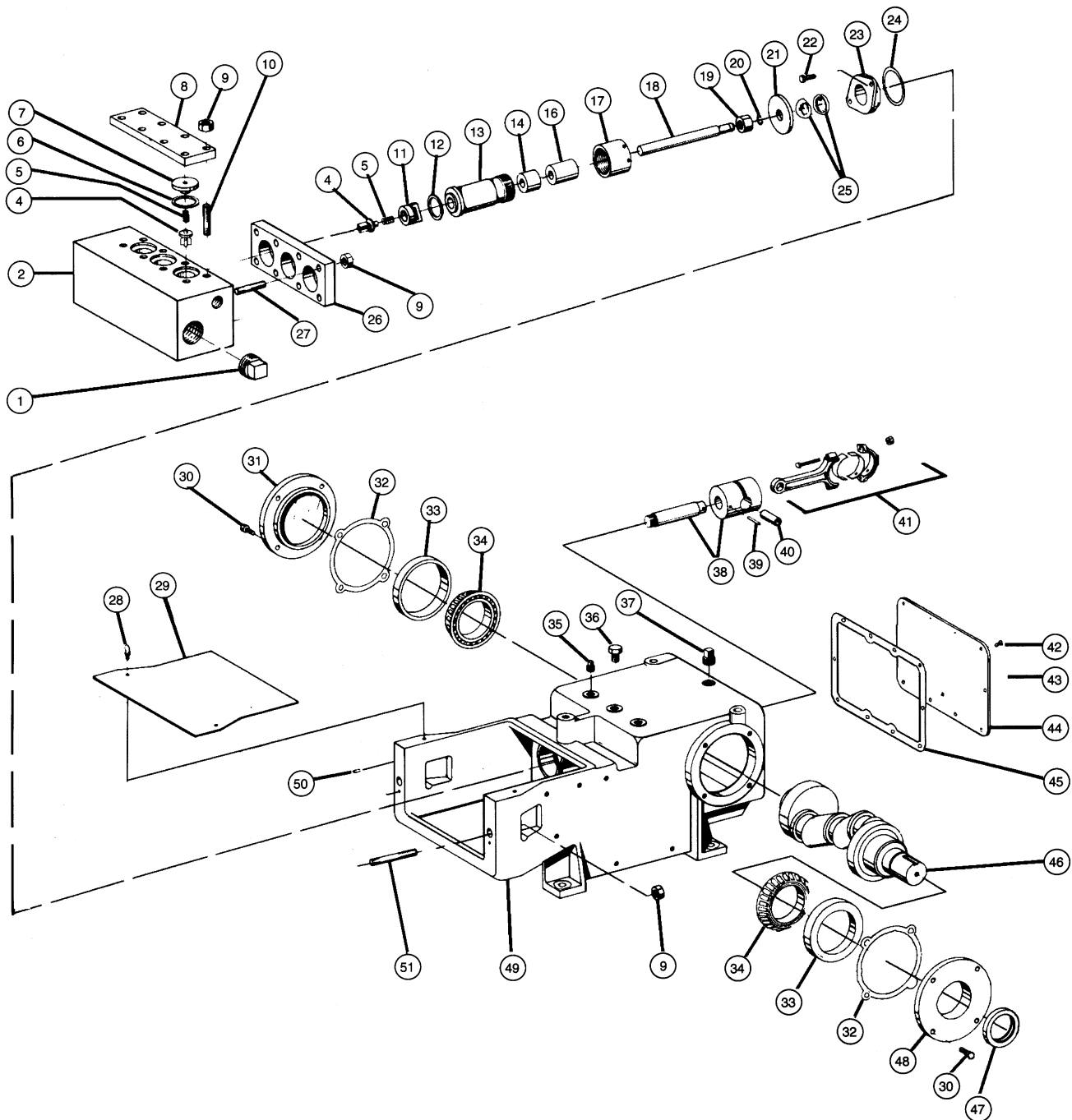
Depth – 33-3/4"

Weight: 600 and 635 pounds



PUMPS

NEW SERIES TRIPLEX PUMPS 20 TO 25 HORSEPOWER



PUMPS

OLD SERIES TRIPLEX PUMPS 30 AND 60 HORSEPOWER

Item	Description	1-1/4" Plunger	1-3/8" Plunger	Qty.
Assy. Kit	Triplex Pump	3002-2100**	3003-1100	
	Repair Kit	3002-2199	3003-1199	
1	Nut	See Note 2	816283	24
2	Cylinder Head	3002-2126	3002-2126	3
3	Stud	See Note 2	3003-2127	24
4	Cylinder Head Extension	N/A	3003-1127	3
5*	Valve Cover Gasket	3002-2125	3003-1125	6
6*	Valve Spring	3002-2122	3003-1122	6
7*	Valve	3002-2120	3003-1120	6
8*	Valve Seat (Not Shown)	3002-2121	3003-1121	6
9	Fluid Cylinder	3002-2118	3003-1117	6
10	Discharge Valve Stop	N/A	3003-1119	1
11	Discharge Valve Cover	3002-2119	3003-1118	3
12*	Stuffing Box Gasket	3002-2124	3003-1124	3
13	Stuffing Box Throat Bushing	3002-2130	3003-1131	3
14	Stuffing Box	3002-2127	3003-1128	3
15	Stuffing Box Flange	3002-2123	3003-1123	1
16*	Packing	3002-2132	3003-1133	3
17	Gland Follower	3002-2129	3303-1130	3
18*	Plunger	3002-2131	3003-1132	3
19	Stuffing Box Gland	3002-2128	3003-1129	3
20	Crosshead Stub Deflector	3002-2108	3002-2108	3
21*	Crosshead Stub Seal	3002-2118	3003-1110	6
22	Crosshead Stub Seal Cap	3002-2113	3003-1113	3
23	Crosshead Stub Seal gasket	3002-2116	3003-2116	3
24	Screw	3001-3114	3001-3114	6
25*	Nut	See Note 1	916283	8
26*	Nut	See Note 1	816284	4
27	Stud	See Note 2	817910	8
28	Stud	See Note 2	817911	4
29	Screw	8540-1011	8540-1011	12
30	Crankshaft Frame Cap-Outboard	3002-2111	3003-1111	1
31	Shim-Outboard	See Note 3	817913	6
32	Bearing	3002-2104	3003-1104	2
33	Race, Bearing	3001-2140	3003-1140	2
34	Crankcase Breather	3006-2119	3000-2119	1
35	Power Frame	3002-2101	3003-1101	1
36	Plug	8017-0500	8017-0500	3
37	Crosshead Assembly	3002-2196	3003-1105	3
38	Connecting Rod Assembly	3002-2102	3003-1102	3
39	Crankcase Gasket	3002-2115	3003-1115	1
40	Crankcase Cover	3002-2114	3003-1114	1
41	Screw	8540-1009	8540-1009	12
42	Crankshaft	3002-2103	3003-1103	1
43	Shim-Inboard	See Note 3	817912	3
44	Crankcase Oil Seal	3002-2117	3003-1116	1
45	Crankshaft Frame Cap-Inboard	3002-2112	3003-1112	1
46	Sight Glass	3002-2141	3003-1135	1
47	Crosshead Pin	3002-0106	3003-1106	3

* Included in Repair Kit

** Pump No Longer Available on New Units. For Direct Replacement & Parts Only

Note 1. Available Only In Repair Kit

Note 2. Available Only With Assembly

Dimensions :

Height – 14-3/8"

Width – 25-1/2"

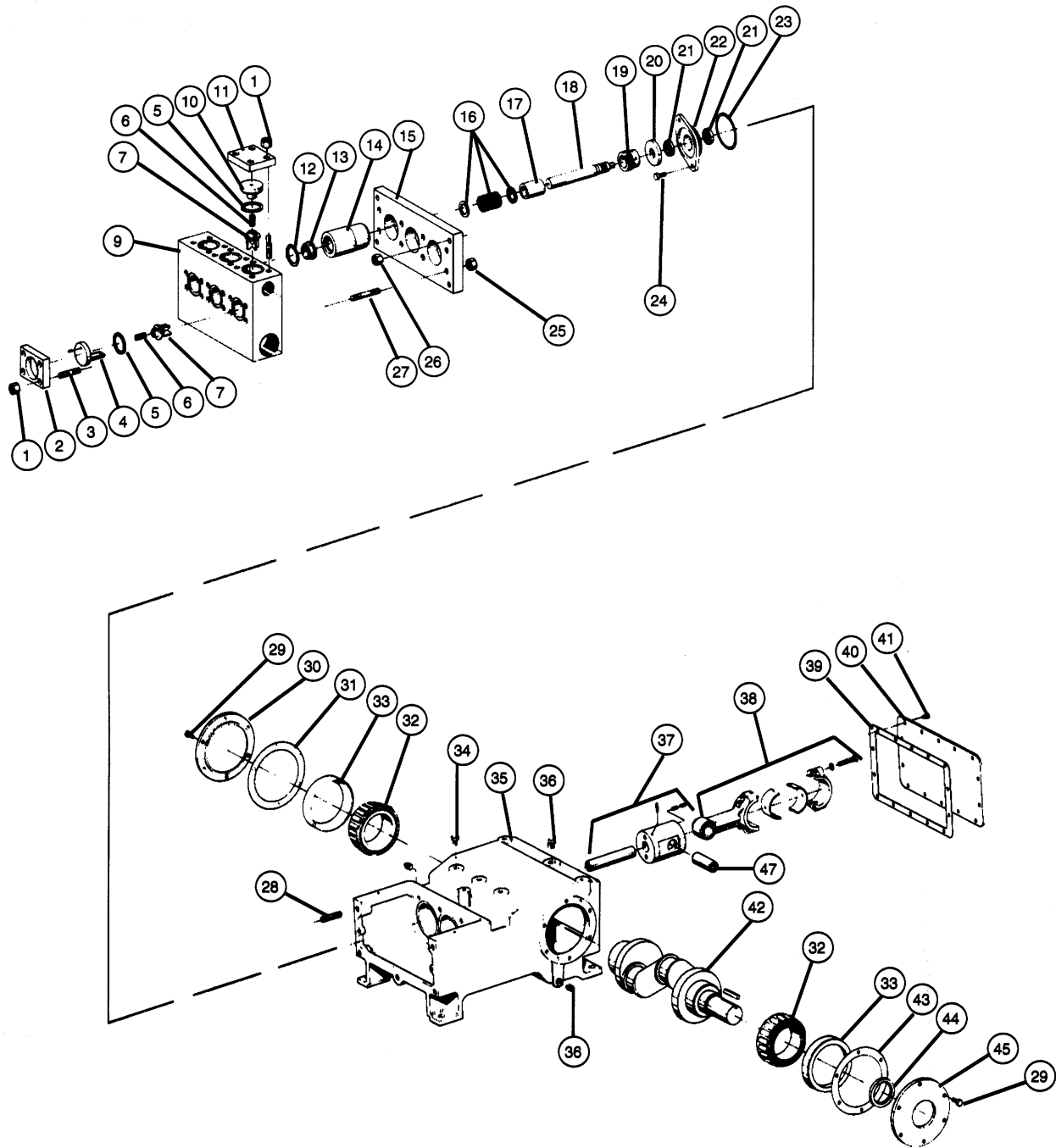
Depth – 39-11/16"

Weight : 1020 Pounds



PUMPS

OLD SERIES TRIPLEX PUMPS 30 AND 60 HORSEPOWER



PUMPS

NEW T-SERIES TRIPLEX PUMPS 30, 40 AND 50 HORSEPOWER

Item	Description	30 HP	40 HP	50 HP	Qty
		1" Plunger	1-1/8"- Plunger	1-1/4"-Plunger	
Assy	Triplex Pump	3002-0100	3003-1200	3003-1300	
Kit	Repair Kit	3002-0199	3003-1299	3003-1399	
1	Nut	816285	816283	816283	24
2	Cylinder Head	3002-2126	3002-2126	3002-2126	3
3	Stud	817904	817908	817909	24
4	Cylinder Head Extension	817818	817840	3003-1127	3
5*	Valve Cover Gasket	817817	817839	817849	6
6*	Valve Spring	3002-2122	3003-1122	3003-1122	6
7*	Valve	3002-2120	817834	3003-1120	6
8*	Valve Seat (Not Shown)	3002-2121	817833	3003-1121	6
9	Fluid Cylinder	3002-2118	817827	3003-1117	1
10	Discharge Valve Stop	817814	817837	3003-1119	3
11	Discharge Valve Cover	817799	817838	3003-1118	3
12*	Stuffing Box Gasket	3002-2124	817843	3003-1124	3
13	Stuffing Box Throat Bushing	3002-2130	817844	817852	3
14	Stuffing Box	3002-2127	817842	3003-1128	3
15	Stuffing Box Flange	3002-2123	817841	300-1123	1
16*	Packing	819821	817848	817855	3
17	Gland Follower	817819	817845	817853	3
18*	Plunger	817820	817847	817854	3
19	Stuffing Box Gland	3002-2128	817846	3003-1129	3
20	Crosshead Stub Deflector	3002-2108	3003-1108	3003-1108	3
21*	Crosshead Stub Seal	3002-2118	817825	817825	6
22	Crosshead Stub Seal Cap	3002-2113	3003-1113	3003-1113	3
23	Crosshead Stub Seal Gasket	3002-2116	817826	817826	3
24	Screw	3001-3114	3001-3114	3001-3114	6
25*	Nut	816284	816283	816283	8
26*	Nut	816286	816284	816284	4
27	Stud	3001-3113	817910	817910	8
28	Stud	817905	817911	817911	4
29	Screw	8540-1011	817824	817824	12
30	Crankshaft Frame Cap-Outboard	3002-2111	3003-1111	3003-1111	1
31*	Shim-Outboard	817906	817913	817913	6
32	Bearing	3002-2104	3003-1104	3003-1104	2
33	Race, Bearing	3001-2140	3003-1140	3003-1140	2
34	Crankcase Breather	3006-2119	817822	817822	1
35	Power Frame	3002-2101	3003-1101	3003-1101	1
36	Plug	8017-0500	3003-0500	3003-0500	3
37	Crosshead Assembly	3002-2196	3003-1105	3003-1105	3
38	Connecting Rod Assembly	3002-2102	817823	817823	3
39	Crankcase Gasket	3002-2115	3003-1115	3003-1115	1
40	Crankcase Cover	3002-2114	3003-0114	3003-0114	1
41	Screw	8540-1009	8540-1009	8540-1009	12
42	Crankshaft	3002-2103	3003-1103	3003-1103	1
43*	Shim-Inboard	817907	817912	817912	3
44	Crankcase Oil Seal	3002-2117	3003-1116	3003-1116	1
45	Crankshaft Frame Cap-Inboard	3002-2112	3003-1112	3003-1112	1
46	Sight Glass	3002-2141	3003-1135	3003-1135	1
47	Crosshead Pin	3002-0106	TBD	TBD	3

* Included in Repair Kit

Dimensions :

Height – 14-11/16"

Width – 25-1/2"

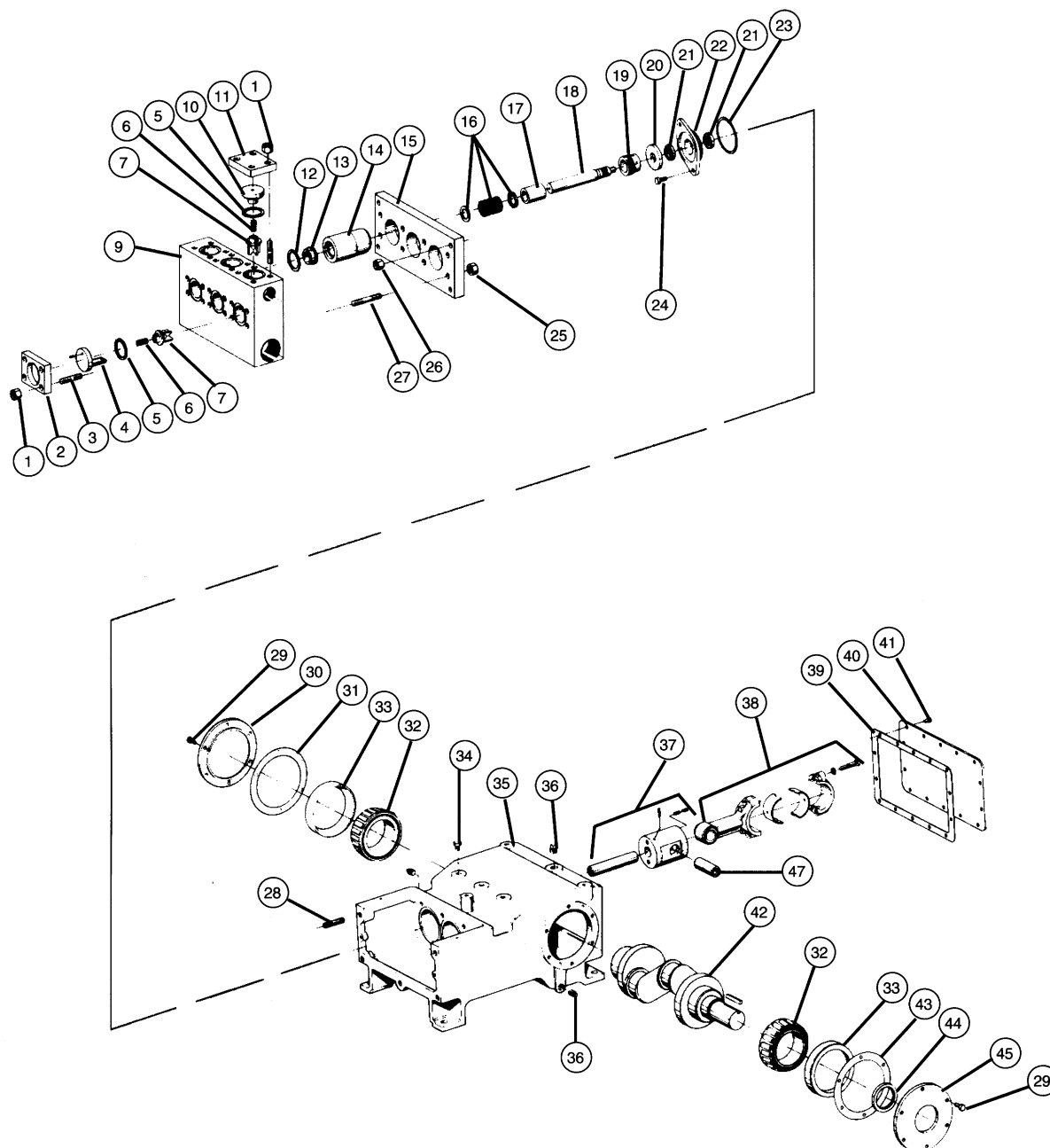
Depth – 38-1/4"

Weight : 1020 Pounds



PUMPS

NEW T-SERIES TRIPLEX PUMPS 30, 40 AND 50 HORSEPOWER



PUMPS

PART NO. 3012-1100 - OPERATED PUMP, 60:1 RATIO 7-3/8" DIA AIR MOTOR

Item	Part No.	Description	Qty
Assy.	3012-1100	Air Operated Hydraulic Pump	
Assy.	3022-0100	Air Motor, 7-3/8" Diameter Assembly	
Assy.	3032-0100	Fluid End Assembly	
Kit	3012-1199	Complete Repair Kit (Contains Air Motor And Fluid End Repair Kit)	
Kit	3022-0199	Air Motor Repair Kit	
Kit	3032-0199	Fluid End Repair Kit	
1	3022-0111	Air Line	1
2	3022-0104	Adapter	2
3	3022-0119	Nut	2
4	3022-0117	Trip Spring Retainer	2
5*	8717-2115	O-Ring	2
6*	3022-0120	Trip Spring	2
7*	3022-0116	Ball	2
8	3022-0101	Cylinder Head	1
9	3022-0118	Bolt	2
10	3022-0125	Bolt	6
11	3022-0122	Adapter Exhaust Plate	2
12	3022-0121	Exhaust Plate	2
13	3022-0112	Nut	10
14*	3022-0102	Valve Sleeve	1
15*	8717-2133	O-Ring	5
16*	3022-0114	Stop Nut	1
17*	3022-0115	Upper Valve Keeper	1
18*	3022-0103	Air Valve	1
19*	8757-2128	O-Ring	2
20*	3022-0123	Lower Valve Keeper	1
21*	8717-2011	O-Ring	1
22	3022-0105	Bushing	1
23*	3022-0124	Retainer Spring	1
24*	3022-0106	Gasket	2
25*	3022-0110	Cylinder	1

Item	Part No.	Description	Qty
26*	3022-0126	Valve Rod Assembly	1
27	3022-0107	Piston Nut	1
28	3022-0108	Piston Nut Washer	1
29	3022-0109	Piston	1
30*	3022-0127	Valve Trip Collar	1
31*	8717-2440	O-Ring	1
32	3022-0113	Piston Rod	1
33*	8717-2216	O-Ring	1
34	3022-0128	Motor Base	1
35	3032-0118	Connecting Rod	1
36	3032-0120	Coupling Nut	1
37	3032-0119	Jam Nut	1
38	3032-0103	Plunger Rod	1
39**	3032-0107	Spring Retainer	1
40**	3032-0104	Upper Packing Spring	1
41**	3032-0117	Leather Packing Set	1
42**	3032-0108	Piston Ball	1
43	3032-0109	Piston Seat	1
44	3032-0106	Pump Block	1
45**	3032-0115	Leather Packing Set	1
46**	3032-0116	Lower Packing Spring	1
47**	3032-0121	Gasket	1
48	3032-0114	Pump	1
49**	8717-2030	O-Ring	1
50**	3032-0110	Pump Tube Gasket	2
51	3032-0113	Ball Stop	1
52**	3022-0116	Foot Valve Ball	1
53	3032-0111	Foot Valve	1
54	3032-0101	Stanchion Washer	6
55	3032-0102	Stanchion	2
56	3032-0105	Stanchion Nut	2

* Included in Air Motor Repair Kit

** Included in Fluid End Repair Kit

Dimensions:

Height – 34"

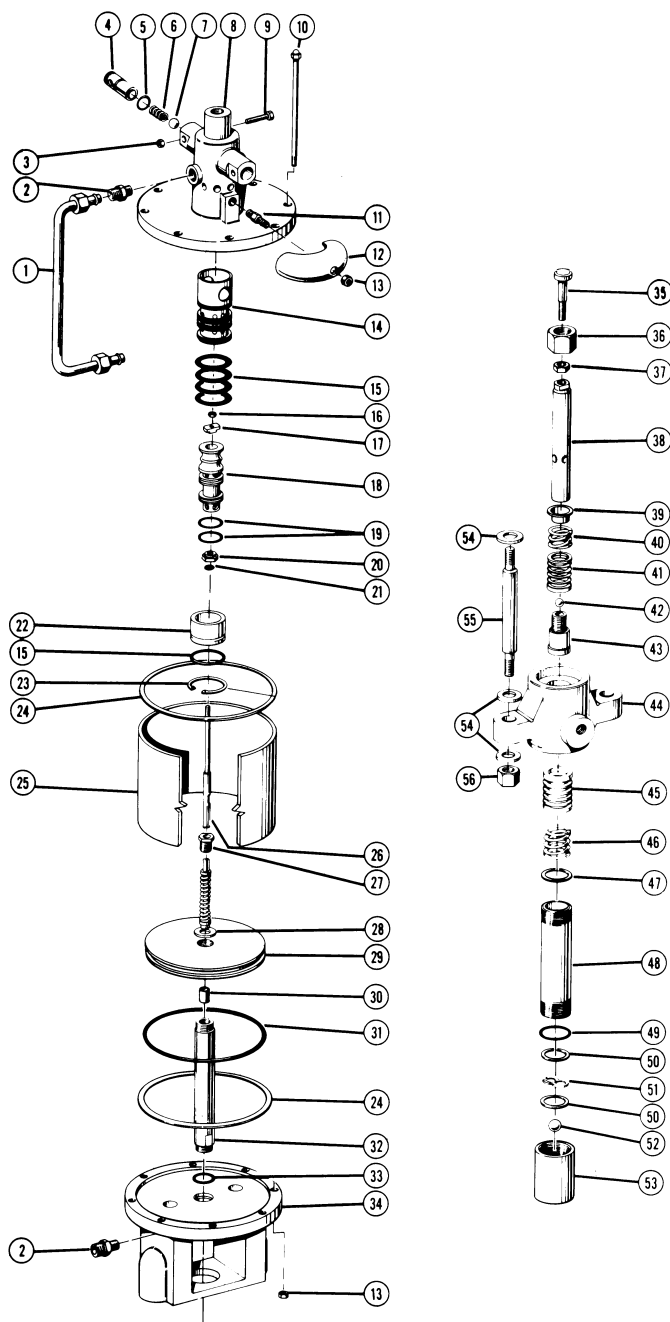
Width – 12-1/4"

Depth – 8"

Weight – 42 pounds

PUMPS

PART NO. 3012-1100 - OPERATED PUMP, 60:1 RATIO 7-3/8" DIA AIR MOTOR



PUMPS

PART NO. 3012-1900 - AIR OPERATED PUMP 60:1 RATIO, 6-3/8" DIA. AIR MOTOR

Item	Part No.	Description
Assy.	3012-1900	Air Operated Hydraulic Pump
Kit	3012-1999	Complete Repair Kit Consists of the following :
Kit	820911	Air Motor Seal Kit
Kit	820913	Hydraulic Section Seal Kit
Kit	815086	Air Cycling Valve Seal Kit

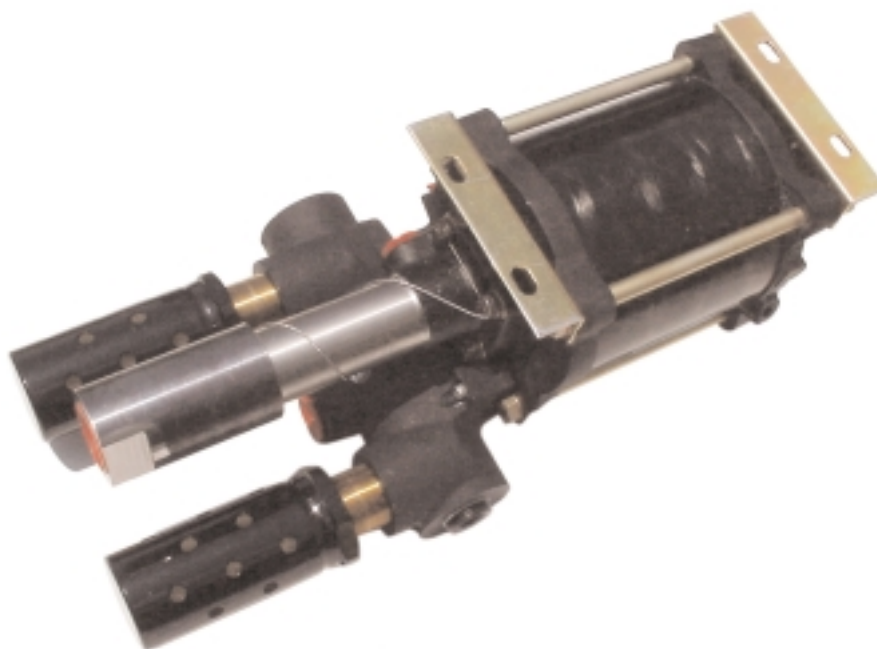
Dimensions:

Height – 14"

Width – 9-1/2"

Depth – 8-1/2"

Weight –35 pounds



PUMPS

PART NO. 3012-2100 - AIR OPERATED PUMP 60:1 RATIO, 8-1/2" DIA. AIR MOTOR

Item	Part No.	Description	Qty
Assy.	3012-2100	Air Operated Hydraulic Pump	
Assy.	3023-0100	Air Motor, 8-1/2" Diameter Assy.	
Assy.	3033-0100	Fluid End Assembly	
Kit	3012-2199	Complete Repair Kit (Contains Air Motor And Fluid End Repair Kit)	
Kit	3023-0199	Air Motor Repair Kit	
Kit	3033-0199	Fluid End Repair Kit	
1	3022-0111	Air Line	2
2	3022-0104	Adapter	4
3	3022-0119	Nut	2
4	3022-0117	Trip Spring Retainer	2
5*	8717-2115	O-Ring	2
6*	3022-0120	Trip Spring	2
7*	3023-0108	Ball	2
8	3023-0102	Cylinder Head	1
9	3022-0118	Bolt	2
10	3022-0125	Bolt	8
11	3022-0122	Adapter Exhaust Plate	2
12	3022-0121	Exhaust Plate	2
13	3022-0112	Nut	10
14*	3022-0102	Valve Sleeve	1
15*	8717-2133	O-Ring	5
16	3022-0114	Stop Nut	1
17	3022-0115	Upper Valve Keeper	1
18*	3022-0103	Air Valve	1
19*	8757-2128	O-Ring	2
20*	3023-0109	Lower Valve Keeper	1
21*	8717-2011	O-Ring	1
22	3022-0105	Bushing	1
23*	3023-0103	Gasket	2
24*	3022-0124	Retainer Ring	1
25*	3023-0106	Cylinder	1

Item	Part No.	Description	Qty
26*	3023-0112	Valve Rod Assembly	1
27	3022-0107	Piston Nut	1
28	3023-0104	Piston Nut Washer	1
29	3023-0105	Piston	1
30	3022-0127	Valve Trip Collar	1
31*	8717-2445	O-Ring	1
32	3022-0113	Piston Rod	1
33*	8717-2216	O-Ring	1
34	3023-0113	Motor Base	1
35	N/A	Connecting Rod	1
36	3032-0120	Coupling Nut	1
37	8585-1600	Jam Nut	1
38	3033-0101	Plunger Rod	1
39**	3033-0104	Washer, Piston	1
40**	3033-0109	Lower Packing Spring	1
41**	3033-0108	Packing Set	2
42**	3032-0108	Ball	1
43	3033-0105	Piston Body Assembly	1
44	3033-0103	Lower Pump Block	1
45**	3033-0102	Upper Packing Spring	1
46**	3033-0110	Washer	1
47**	8717-2137	O-Ring	2
48	3033-0111	Pump Tube	1
49**	3033-0113	Ball Stop	1
50**	3033-0106	Ball	1
51	3033-0107	Foot Valve Assembly	1
52	3032-0101	Stanchion Washer	6
53	3032-0102	Stanchion	2
54	3032-0105	Stanchion Nut	2

* Included in Air Motor Repair Kit

Dimensions:

Height – 35-1/4"

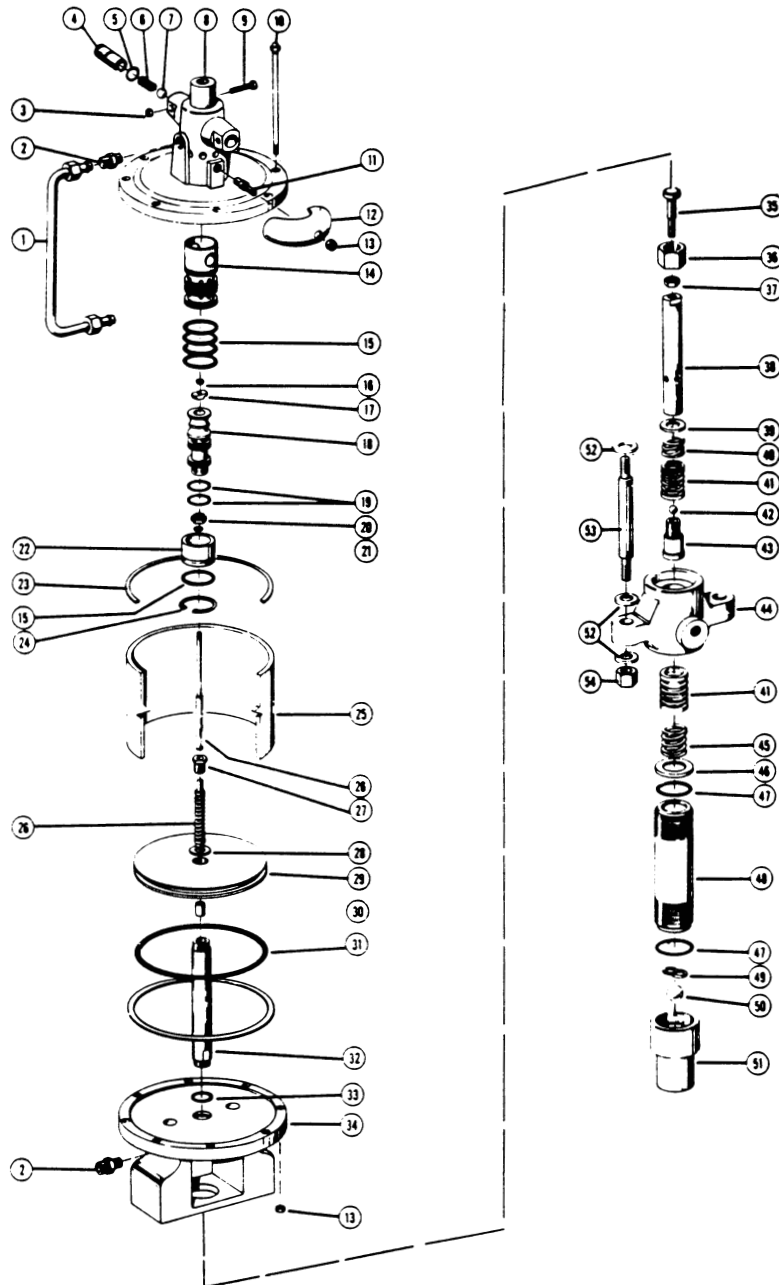
Width – 18"

Depth – 10"

Weight – 65 pounds

PUMPS

PART NO. 3012-2100 - AIR OPERATED PUMP 60:1 RATIO, 8-1/2" DIA. AIR MOTOR



PUMPS

PART NO. 3012-0100 - AIR OPERATED PUMP 60:1 RATIO, 8" DIA. AIR MOTOR

Item	Part No.	Description	Qty
Assy.	3012-0100	Air Operated Hydraulic Pump	
Assy.	X	Air Motor, 8" Diameter	
Assy.	X	Fluid End	
Kit	3012-0199	Complete Repair Kit (Contains Air Motor And Fluid End)	
Kit	3021-0299	Air Motor Repair Kit	
Kit	3031-0199	Fluid End Repair Kit	
1	8575-1400	Lockwasher	2
2	8500-4026	Screw	2
3	8007-1300	Plug	1
4	3021-0149	Screw	1
5	X	Cover	1
6*	3021-0147	Bumper	1
7	8589-1010	Stop Nut	1
8*	3021-0152	Carrier Assembly	1
9*	X	Shuttle	1
10*	3021-0133	Toggle	2
11*	8717-2024	O-Ring	2
12*	3021-0143	Spring	2
13*	3021-0144	Washer	2
14*	3021-0136	Valve	1
15	8527-2008	Screw	6
16	8575-0200	Lockwasher	8
17	X	Spring	2
18	X	Clamp	4
19	8570-0200	Washer	4
20	8527-2010	Screw	4
21*	3021-0154	Valve	1
22	3021-0134	Bumper	1
23	8121-0100	Elbow	2
24	3021-0142	Crossover Tube	1
25	8490-2020	Screw	4
26	8575-1200	Lockwasher	12
27	X	Tube	1
28*	8717-2017	O-Ring	2
29	8504-2019	Screw	8
30	X	Valve Body	2
31	8036-0200	Plug	2
32*	8717-2018	O-Ring	4
33	X	Body	2
34*	3021-0130	Bushing	2
35*	3020-0108	Plunger	2
36	3021-0131	Spring	2
37	3021-0117	Washer	2
38	X	Spring	2
39	X	Screw	2
40*	8717-2013	O-Ring	4
41	X	Tube	1
42	X	Cylinder Head Assembly	1

Item	Part No.	Description	Qty
43	3021-0135	Bearing	1
44*	8877-4114	Quad Ring	1
45	3021-0148	Washer	1
46*	3021-0111	Retaining Ring	1
47*	3021-0127	Trip Rod Assembly	1
48	X	Hub	1
49*	8717-2028	O-Ring	1
50	3020-0115	Stop Nut	1
51*	8717-2019	O-Ring	1
52*	3021-0125	Piston	1
52-A*		Piston O-Ring (Not Shown)	1
53	X	Nut	1
54	3021-0126	Piston Rod	1
55*	8717-2264	O-Ring	2
56*	3021-0141	Cylinder	1
57*	8877-4213	Quad Ring	1
58	X	Tie Rod	8
59	X	Base Assembly	1
60**	3031-0107	Clip	2
61	3031-0106	Coupling	1
62	X	Cap	1
63**	X	Bearing	1
64**	3031-0103	Female Support Ring	1
65**	3031-0105	Packing Ring	4
66**	3031-0104	Male Support Ring	1
67**	3031-0110	Washer	1
68	3031-0111	Piston Rod	1
69**	3031-0112	Washer	1
70**	3031-0113	Spring Washer	1
71**	3031-0114	Male Support Ring	1
72**	3031-0115	Packing Ring	4
73**	3031-0116	Female Support Ring	1
74	X	Nut	3
75	3031-0125	Stud	3
76	3031-0122	Spring	1
77**	3031-0101	Ball	1
78**	3031-0119	Valve Seat	1
79	3031-0118	Cylinder Assembly	1
80	8575-1600	Lockwasher	3
81	8581-1700	Nut	3
82**	8740-2138	O-Ring	1
83	3031-0123	Washer	1
84	3031-0133	Spring Kit	1
85**	3031-0102	Ball	1
86**	3031-0120	Valve Seat	1
87	3031-0117	Pin	2
88	3031-0130	Adapter Assembly (Not Shown)	

* Included in Air Motor Repair Kit

** Included in Fluid End Repair Kit

X = Item No Longer Available Separately

Dimensions:

Height – 38-3/4"

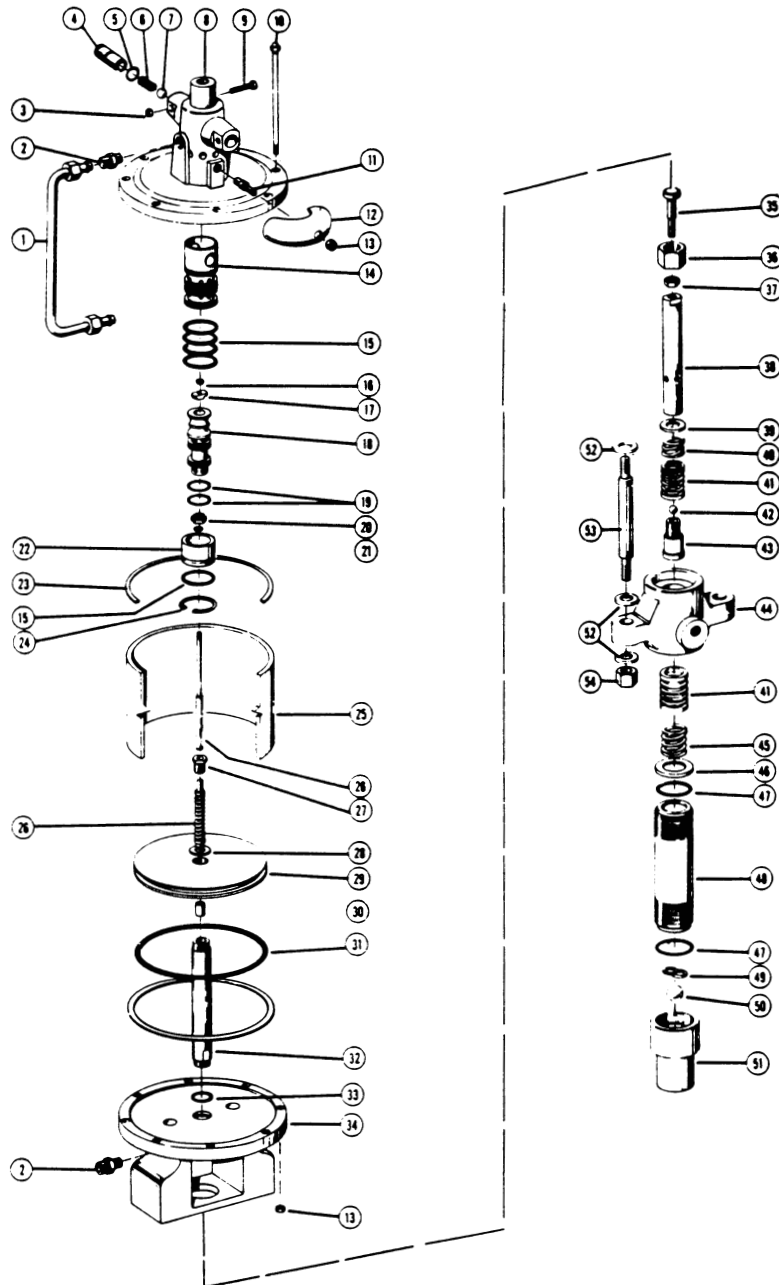
Diameter– 10-1/2"

Weight – 100 pounds



PUMPS

PART NO. 3012-0100 - AIR OPERATED PUMP 60:1 RATIO, 8" DIA. AIR MOTOR



PUMPS

PART NO. 3011-0100 AIR OPERATED PUMP NOMINAL 50:1 RATIO, 6" DIA. AIR MOTOR

Item	Description	Part No.	Qty
Assy	Air Operated Hydraulic Pump	3011-0100	
Assy	Air Motor 6" Diameter	3020-0100	
Assy	Fluid End	3030-0100	
Kit	Complete Repair Kit (Contains Air Motor & Fluid End Repair Kit)	3011-0199	
Kit	Air Motor Repair Kit	3020-0199	
Kit	Fluid End Repair Kit	3030-0199	
1	Plug	8007-1300	1
2	Plug and Insert Assembly	3020-0139	1
3*	O-Ring	8717-2129	1
4*	Nut	3020-0131	1
5	Set Screw	3020-0128	2
6	Valve Body	3020-0132	1
7	Plug	3020-0105	1
8*	Gasket	3020-0123	2
9*	Toggle	3020-0111	2
10*	Plunger	3020-0108	2
11*	Spring	3020-0126	2
12	Cylinder	3020-0122	2
13	Washer	3021-0117	2
14	Spring	3020-0127	2
15	Cap	3020-0124	2
16	Nut	3020-0104	5
17*	Gasket	3020-0114	1
18*	Stop, Valve	3020-0115	2
19*	Slide Valve and Seat Assembly	3020-0116	1
20*	Guide, Valve	3020-0130	2
21	Lock Washer	8575-1150	4
22*	Screw	3020-0117	4
23*	Shuttle	3020-0118	1
24*	O-Ring	8717-2146	1
25	Adapter	3020-0112	1
26	Lock Washer	8575-1200	4
27	Screw	3020-0106	4
28*	Packing Block	3020-0138	1
29*	Washer	3020-0119	1
30*	Retainer Ring	3020-0103	1
31*	Trip Rod	3020-0133	1
32	Retainer Piston	3020-0120	1
33*	O-Ring	8717-2016	1
34	Nut	3020-0121	1
35	Washer, Piston	3020-0136	2
36*	Packing, Piston	3020-0135	1
37	Nut, Piston	3020-0110	1
38	Rod, Piston	3020-0129	1

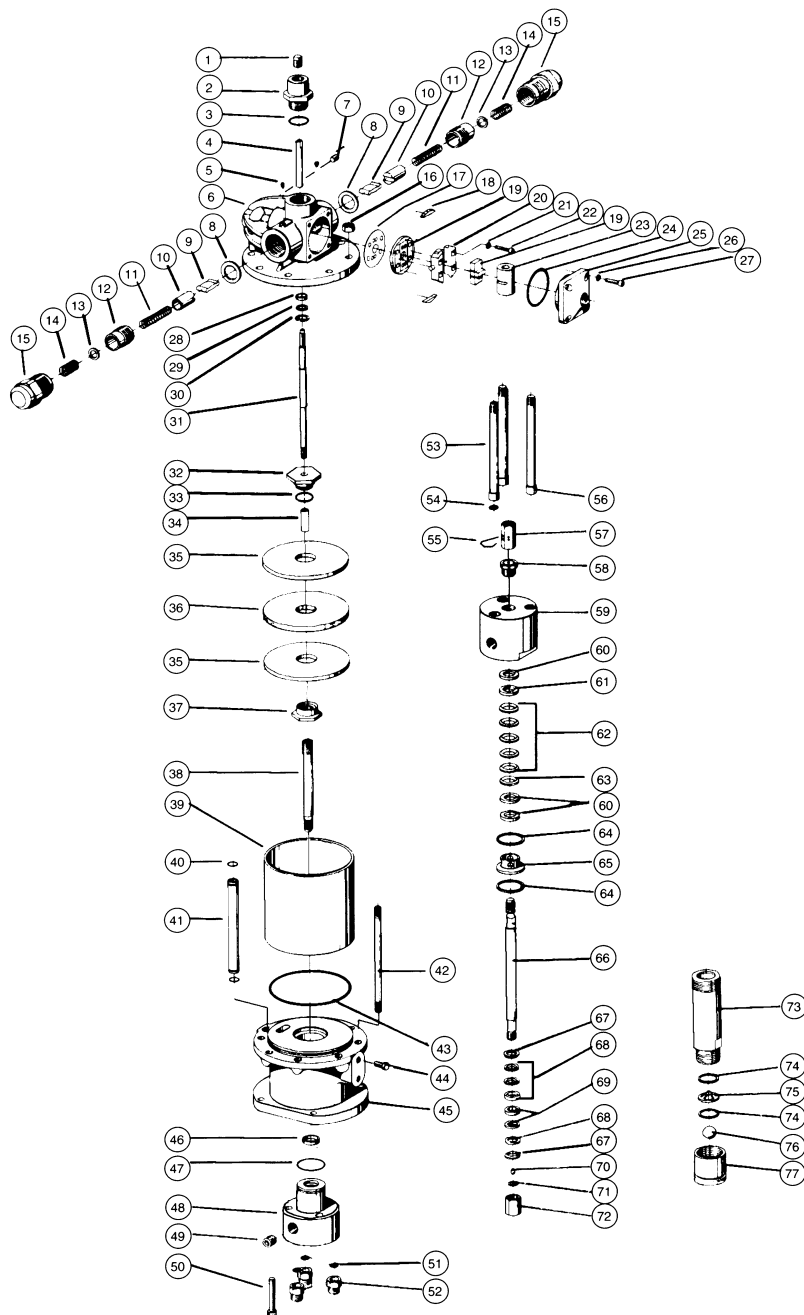
Item	Description	Part No.	Qty
39*	Cylinder	3020-0134	1
40*	O-Ring	8717-2114	2
41	Tube	3020-0107	1
42	Tie Rod	3020-0109	5
43*	O-Ring	8717-2256	2
44	Screw	3020-0102	2
45	Cylinder Head and Assembly	3020-0137	1
46*	Packing	3030-0103	1
47*	O-Ring	8717-2133	1
48	Adapter	3030-0108	1
49	Plug	8037-1400	1
50	Screw	3021-0102	3
51**	Gasket	3030-0101	3
52	Bushing	3030-0107	3
53	Rod/Tube	3030-0126	2
54**	O-Ring	8740-2014	1
55**	Clip	3030-0118	2
56	Rod/Tube	3030-0126	1
57	Coupling Nut	3030-0105	1
58	Screw	3030-0111	1
59	Pump Body	3030-0110	1
60**	Washer	3030-0113	3
61**	Back-Up Ring Female	3030-0119	1
62**	Packing	3030-0120	5
63**	Male Support Ring	3030-0104	1
64**	Gasket	3030-0109	2
65	Spacer	3030-0112	1
66	Rod and Pin Assembly	3030-0128	1
67**	Ring, Bearing	3030-0123	2
68**	Packing	3030-0122	4
69**	Ring, Female Adapter	3030-0121	2
70**	Ball	3030-0124	1
71**	O-Ring	8740-2015	1
72**	Valve Body	3030-0115	1
73	Cylinder	3030-0116	1
74**	Gasket	3030-0117	2
75**	Ball Stop	3030-0114	1
76**	Ball	3030-0106	1
77**	Foot Valve Body	3030-0125	1
78	Nut, Adapter (Not Shown)	3030-0129	1
79**	O-Ring, Adapter (Not Shown)	8727-2330	1
80	Body, Adapter (Not Shown)	3030-0130	1
81	Adapter Assembly (Not Shown)	3030-0131	1

* Included in Air Motor Repair Kit

** Included in Fluid End Repair Kit

PUMPS

PART NO. 3011-0100
AIR OPERATED PUMP
NOMINAL 50:1 RATIO, 6" DIA. AIR MOTOR



PUMPS

T AND M SERIES - AIR OPERATED TEST PUMPS

Item	Part No.	Description	Qty
Assy	3015-0300	20,000 psi Test Pump	
Assy	3035-0200	Fluid End Only	
Kit	3035-0299	Repair Kit, Fluid End Only (20,000 and 30,000 psi)	
Kit	3022-0199	Repair Kit, Air Motor	
1	3022-0100	Air Motor Assembly for 20,000 psi Test Pump	1
2*	3035-0202	Rod	1
3	3032-0120	Coupling Nut	1
4*	3035-0203	Packing Gland Nut	1
5	3035-0201	Body	1
6*	3035-1110	Packing	1
7*	3035-1112	Rod Sleeve	1
8*	8717-2216	O-Ring	1
9*	3035-0208	Plug	1
10	3032-0101	Stanchion Washer	6
11	3032-0102	Stanchion	2
12	3035-0105	Stanchion Nut	2
13*	3035-1109	Spacer	1

* Included in Repair Kit.

Part No. 3015-0300

Dimensions:

Height – 31-1/4"

Width – 12-1/4"

Depth – 8"

Weight – 75 pounds



PUMPS

T AND M SERIES - AIR OPERATED TEST PUMPS

Item	Part No.	Description	Qty
Assy	3015-1200	30,000 psi Test Pump	
Assy	3035-0200	Fluid End Only	
Kit	3035-0299	Repair Kit, Fluid End Only (20,000 and 30,000 psi)	
Kit	3023-0199	Repair Kit, Air Motor	
1	3023-0100	Air Motor Assembly for 30,000 psi Test Pump	1
2*	3035-0202	Rod	1
3	3032-0120	Coupling Nut	1
4*	3035-0203	Packing Gland Nut	1
5	3035-0201	Body	1
6*	3035-1110	Packing	1
7*	3035-1112	Rod Sleeve	1
8*	8717-2216	O-Ring	1
9*	3035-0208	Plug	1
10	3032-0101	Stanchion Washer	6
11	3032-0102	Stanchion	2
12	3032-0105	Stanchion Nut	2
13*	3035-1109	Spacer	1

* Included in Repair Kit

Part No. 3015-1200

Dimensions:

Height – 31-1/4"

Width – 18"

Depth – 10"

Weight – 80 pounds



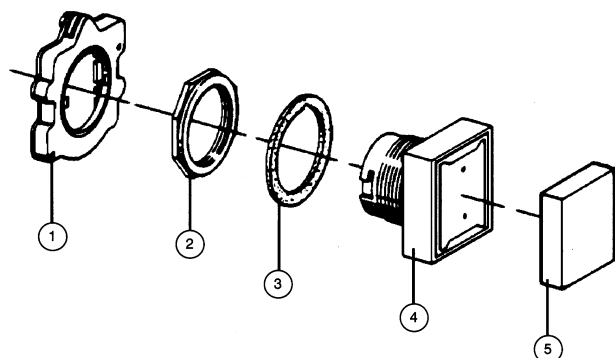
CHART RECORDERS

Description	Part No.
Recorder, 0-15,000 psi, 12" 8-Day Clock, 24 Hour / 96 Min. Rotation	4230-3000
Recorder, 0-30,000 psi, 12", 8-Day Clock, 24 Hour / 96 Min. Rotation	4230-0400
Chart, Dual, 15K/30K	4230-0181



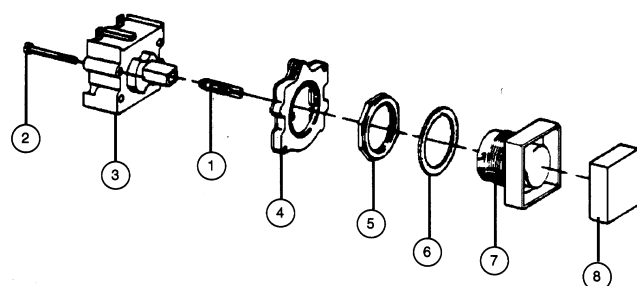
PUSHBUTTONS - WEATHERPROOF

PART NO. 6231-0100



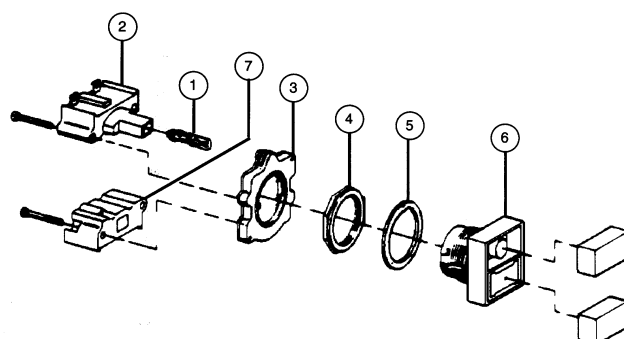
Part No.	Description	Qty
*	Lock Ring	1
*	Retaining Ring	1
*	Gasket	1
*	Housing	1
6210-1100	Button, Black	1

WEATHERPROOF PUSHBUTTON WITHOUT LENS



Part No.	Description	Qty
6200-5010	28 Volt	
6200-5001	120 Volt	
6240-2010	Bulb, 28V Slide	1
6240-2000	Bulb, 120V Slide	
*	Screw	1
*	Element	1
*	Lock Ring	1
*	Retaining Ring	1
*	Gasket	1
*	Housing	1
	Lens, w/o Engraving	1
6210-1100	Button, Black	
6210-4100	Red	
6210-4200	Green	
6210-4300	Amber	
6210-4400	Blue	

WEATHERPROOF PUSHBUTTON / LIGHT WITHOUT CONTACT BLOCK PART NO. 6231-0200, 6231-1200



Part No.	Description	Qty
6231-1200	28 Volt	
6231-0200	120 Volt	
6240-2010	Bulb, 28V Slide	1
6240-2000	Bulb, 120V Slide	
*	Element	1
*	Lock Ring	1
*	Retaining Ring	1
*	Gasket	1
*	Housing	1
	Lens	1
6210-2100	Black, Blank	
6210-2200	Black, Engraved "Close"	
6210-2300	Black, Engraved "Open"	
6210-3100	Red, Blank	
6210-3101	Green, Blank	
6210-3102	Amber, Blank	
6210-3103	Blue, Blank	

Items Identified * are not sold separately

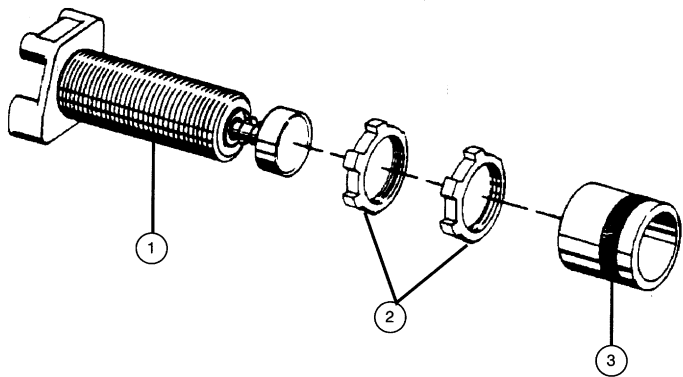


PUSHBUTTONS - XP

PART NO.: 6201-0100, PUSHBUTTON, EXPLOSION-PROOF, LONG ASSEMBLY
6201-0150, PUSHBUTTON, EXPLOSION-PROOF, SHORT ASSEMBLY
818203, CLOSE-UP PLUG FOR OPERATOR BLANKING, 3/4" NPSM

Item	Part No.	Description	Qty
Assy		Explosion-proof Pushbutton	
1	*	Button Element	1
2	*	Retaining Ring	2
3	*	Collar	1

* Sold Only as Part of Assembly



INDICATING LIGHTS - XP

LONG SERIES EXPLOSION-PROOF INDICATING LIGHT ASSEMBLIES

28 VOLT ASSEMBLIES		
Part No.	Lens	Base
816577	Red	Candelabra
816576	Green	Candelabra
816575	Blue	Candelabra
816574	Amber	Candelabra
816856	Red	Slide
816855	Green	Slide
816854	Blue	Slide
816853	Amber	Slide
PARTS		
Part No.	Description	
6240-1200	Bulb, 28V Candelabra	
6240-2010	Bulb, 28V Slide	
6210-0400	Lens, Red	
6210-0500	Lens, Green	
6210-0600	Lens, Blue	
6210-0700	Lens, Amber	

120 VOLT ASSEMBLIES		
Part No.	Lens	Base
6202-1100	Red	Candelabra
6202-2100	Green	Candelabra
6202-3100	Blue	Candelabra
6202-4100	Amber	Candelabra
6202-1200	Red	Slide
6202-1300	Green	Slide
817431	Blue	Slide
817430	Amber	Slide
PARTS		
Part No.	Description	
6240-1000	Bulb, 120 V Candelabra	
6240-2000	Bulb, 120 V Slide	
6210-0400	Lens, Red	
6210-0500	Lens, Green	
6210-0600	Lens, Blue	
6210-0700	Lens, Amber	



PUSHBUTTON/LIGHTS - INDICATORS

DIVISION II EXPLOSION-PROOF PUSHBUTTON LIGHT ASSEMBLIES

120 VAC ASSEMBLIES

Part No.	Lens
6200-4140	Red
6200-4150	Green
6200-4160	Amber
6200-4170	Blue
6200-4180	Clear

DIVISION II EXPLOSION-PROOF INDICATOR LIGHT ASSEMBLIES

120 VAC TRANSFORMER

Part No.	Lens
810483	Red
6200-4100	Amber
6200-4110	Green

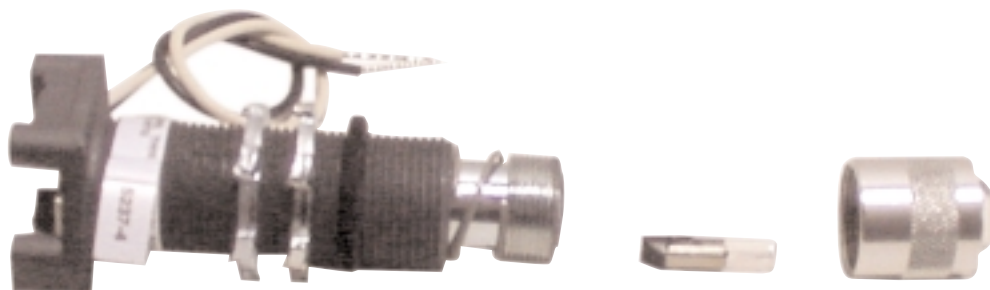
PUSHBUTTON/LIGHTS - INDICATORS

LONG SERIES EXPLOSION-PROOF INDICATING PUSHBUTTON/LIGHT ASSEMBLIES

28 VOLT ASSEMBLIES		
Part No.	Lens	Base
816581	Red	Slide
816580	Green	Slide
816579	Blue	Slide
816578	Amber	Slide
PARTS		
Part No.	Description	
6240-2010	Bulb, 28V Slide	
6200-1101	Lens, Red	
6200-1201	Lens, Green	
6200-1301	Lens, Blue	
6200-1701	Lens, Amber	

120 VOLT ASSEMBLIES		
Part No.	Lens	Base
6200-1100	Red	Slide
6200-1200	Green	Slide
6200-1700	Blue	Slide
6200-1300	Amber	Slide
6200-1800	Clear	Slide
PARTS		
Part No.	Description	
6240-2000	Bulb, 120 V Slide	
6200-1101	Lens, Red	
6200-1201	Lens, Green	
6200-1301	Lens, Blue	
6200-1701	Lens, Amber	

Not Included: 6230-0500 Contact Block 1 N.O. 1. N.C.
 6230-0200 Contact Block 2 N.O.
 6230-0100 Contact Block 1 N.O.

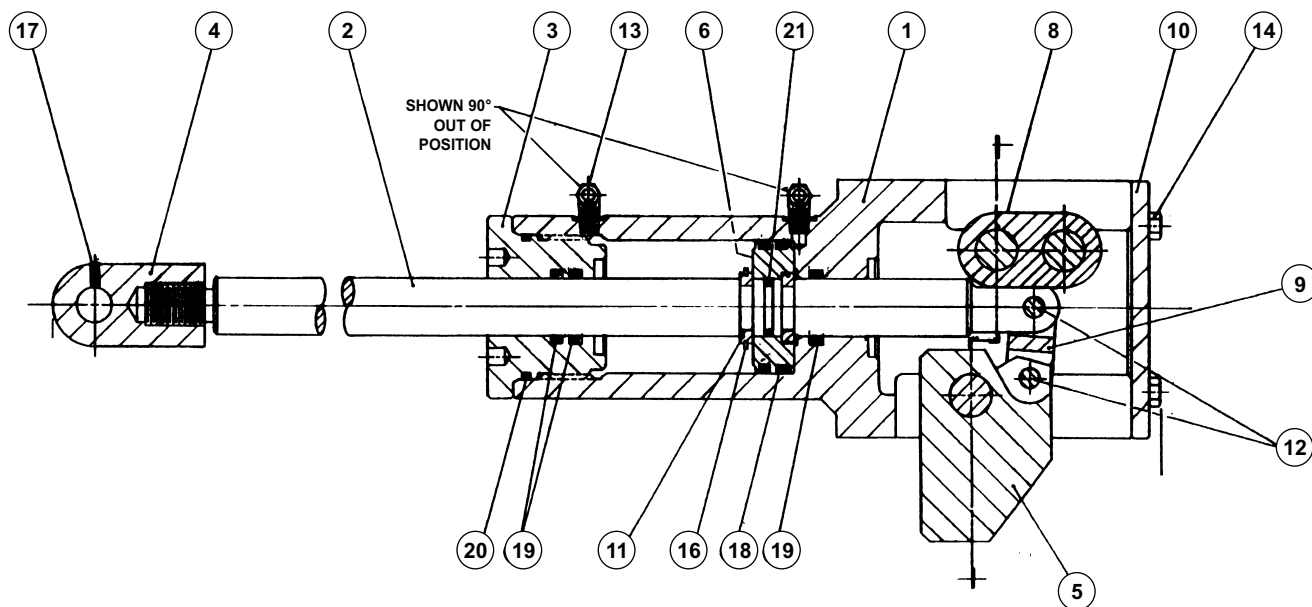


SUBSEA POD PARTS

RETRIEVABLE HYDRAULIC CONTROL POD LATCH FOR "TYPE 80" PODS

Item	Part No.	Description	Qty
Assy.*	0150-1206	Pod Latch for "Type 80" Pod	
Kit	0150-1297	Seal Kit	
1	0150-1032	Latch Housing	1
2	0150-1024	Latch Rod	1
3	0150-1101	Latch Housing Cap	1
4	0150-1106	Latch Rod Clevis	1
5	0150-1063	Latch Dog	1
6	0150-1100	Latch Piston	1
7	0150-1058	Latch Pivot Pin	3
8	0150-1830	Support Block	1
9	0150-1062	Pod Latch Linkage	1
10	0150-1066	Latch Bottom Plate	1
11	0150-1064	Piston Retaining Ring	2
12	0150-1065	Pod Latch Linkage Pin	2
13	8111-0660	Tube Fitting	2
14	8502-4010	Screw, Hex Head	4
15	8502-6025	Screw, Hex Head	6
16	0159-0050	Retaining Ring	1
17	8522-5007	Set Screw	4
18 **	8860-0200	Seal, Polypak	2
19 **	8860-0300	Seal, Polypak	3
20 **	8717-2345	O-Ring	1
21 **	8717-2324	O-Ring	1

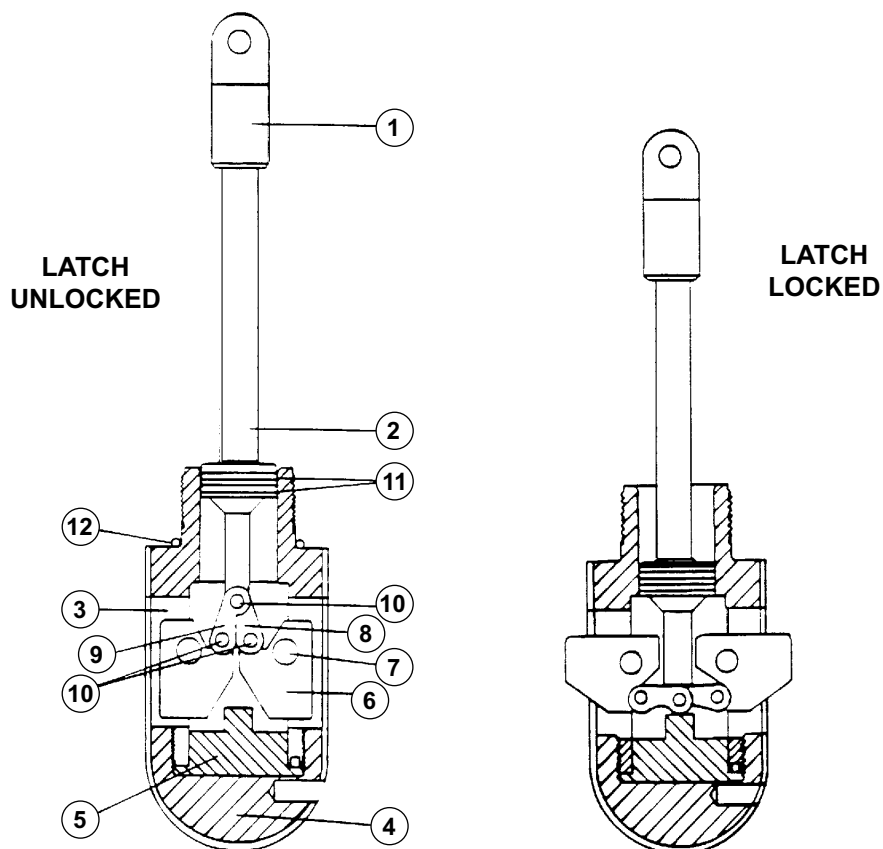
* Two Latch Rod Assemblies are required per Pod.
 ** Included in Seal Kit



SUBSEA POD PARTS

Item	Part No.	Description	Qty
Assy	0155-0100	Pod Latch for 32 and 42 Line Pods	
Kit		Seal Kit	
1	0155-0115	Lifting Eye	
2	0155-0101	Rod	1
3	0155-0114	Body	1
4	0155-0113	Nose	1
5	0155-0111	Stop	1
6	0155-0108	Dog	2
7	0155-0109	Pin	2
8	0155-0106	Link, Male	1
9	0155-0107	Link, Female	1
10	0155-0105	Pin	3
11**	8717-2342	O-Ring	2
12**	8717-2326	O-Ring	1
13**	8841-2342	Back-Up Ring (Not Shown)	2
14**	8842-2326	Back-Up Ring (Not Shown)	1
15	0155-0102	Piston (Not Shown)	1
16	0155-0103	Lock Ring (Not Shown)	1
17	0155-0104	Retainer Ring (Not Shown)	1
18	0155-0110	Set Screw, Pin (Not Shown)	2
19	0155-0112	Alignment Pin (Not Shown)	2
20	0155-0117	Shim, Set (Not Shown)	1
21**	8717-2433	O-Ring (Not Shown)	1
22**	8717-2437	O-Ring (Not Shown)	1
23**	8842-8342	Back-Up Ring (Not Shown)	2

** Included in Seal Kit



SUBSEA POD SEALS

OLD STYLE	
Size	Part No.
1-1/4"	0150-1306
2-1/4"	8830-0400
3"	8830-0300



NEW STYLE	
Size	Part No.
1-1/4"	806123
1-3/4"	809328
2-1/4"	806124
2-3/4"	806125



RETAINERS	
Size	Part No.
1-1/4"	(molded in seal)
2-1/4"	0150-1278
3"	8830-0301

PLUGS / O-RINGS		
Size	Plugs Part No.	O-Rings Part No.
1-1/4"	8830-0502	8717-2214
2-1/4"	8830-0202	8717-2328
3"	8830-0302	8717-2334



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