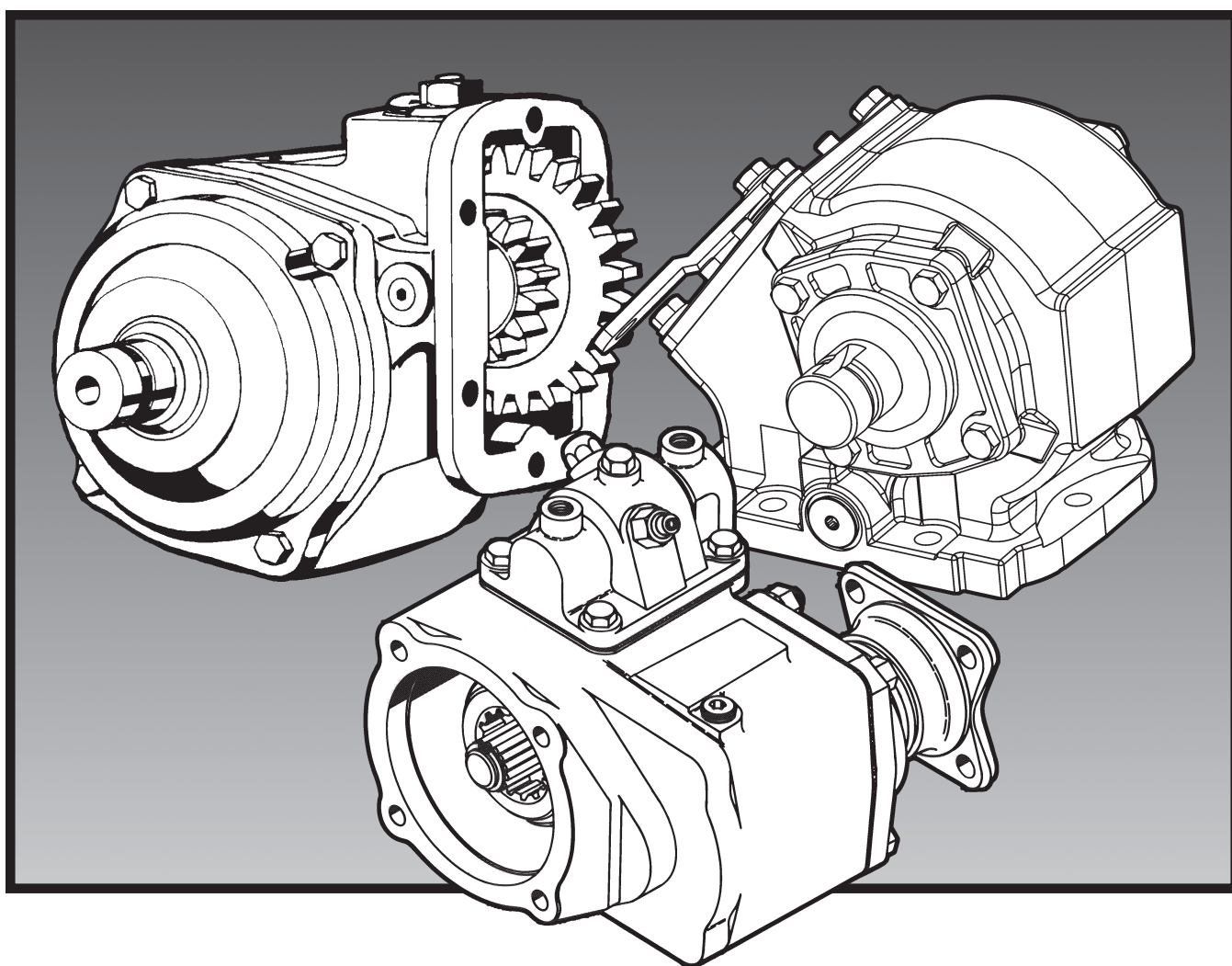


CHELSEA[®]

Bulletin HY25-2880-M1/US

Parts List 880 Series

Effective: August 15, 2006
Supersedes: HY25-2880-M1/US Dated Feb. 15, 2005



 **WARNING**

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This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

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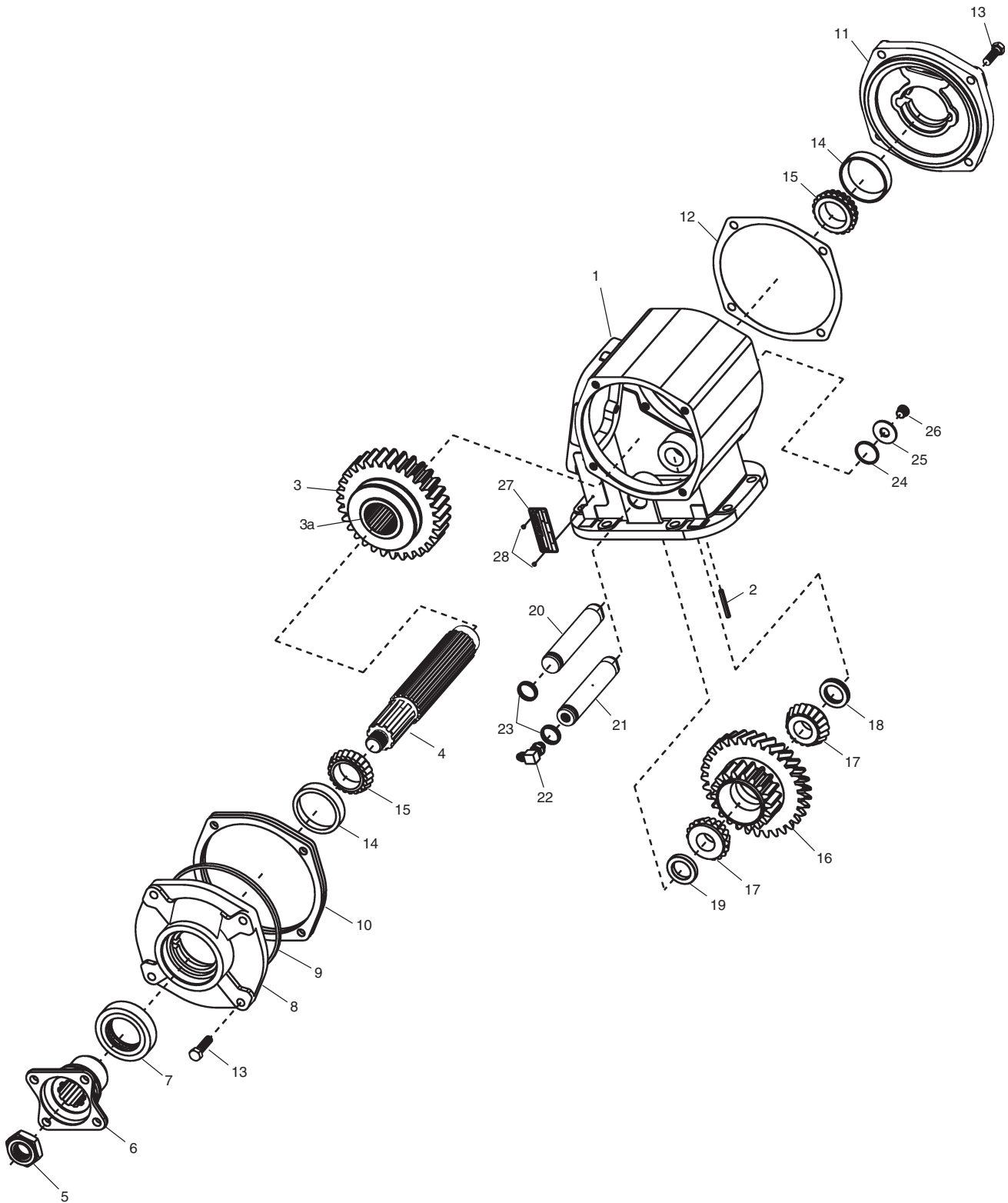
Offer of Sale

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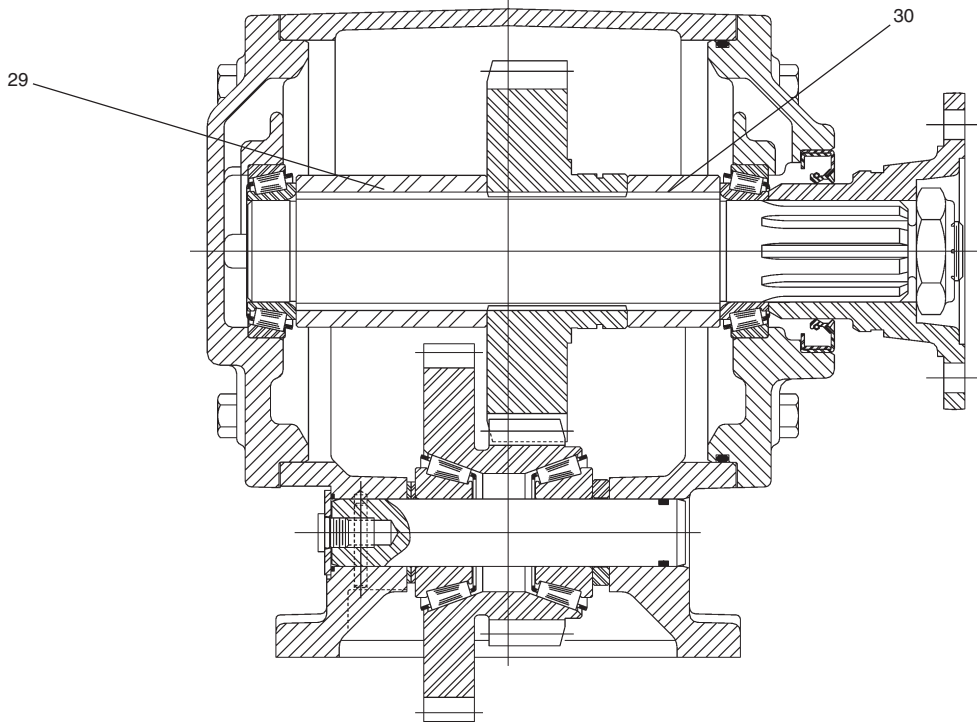
Item	Part Number	Description	Quantity
1	1-P-507X	Housing, Standard Mount with roll pin ("X", "G", "K" Options)	1
	1-P-509X	Housing, Deep Mount with roll pin ("Z" & "L" Options)	1
	1-P-530X	Housing, Special for Fuller CEEMAT™ with roll pin ("F" Option)	1
2	500597-16	Slotted Roll Pin	1
3	See Chart Pg. 7	Gear, Output	1
3a	61-P-1	Shift Collar	1
N.S.	379592	Lockring	1
4	3-P-872	Shaft, Standard Output ("XV" Output)	1
	3-P-899	Shaft, Special for Fuller CEEMAT™ ("XV" Output, "F" Mounting)	1
	See Page 13	Other Output Shafts	
5	378382	Hex Nut, ("XV" Output)	1
6	3-1-3431	Companion Flange, ("XV" Output)	1
7	28-P-211	Oil Seal, "XV" Output	1
8	21-P-517	Bearing Cap, ("XV" Output)	1
	21-P-596	Bearing Cap "XV" Output ("P" Lube)	
	See Page 13	Other Bearing Caps, Output	
9	28-P-196	O-Ring (-258), 2 for "SS", "SK", "YY", & "VV" Outputs	1
10	55-P-20-1	Shim, Bearing Cover (.003 Green)	A.R.
	55-P-20-2	Shim, Bearing Cover (.010 Brown)	A.R.
	55-P-20-3	Shim, Bearing Cover (.020 Yellow)	A.R.
11	21-P-546	Bearing Cap, Closed ("AZ", "AF", "XV", "XK", "XS", "XY" & "AB")	1 or
	21-P-590	Bearing Cap, Closed for Fuller CEEMAT™ ("XV", "XK", "XS")	1 or
	21-P-597	Bearing Cap, Closed "P" Lube ("AZ", "AF", "XV", "XK", "XS", "AB", "XW")	1 or
	See Page 13	Other Bearing Caps, Rear	
12	22-P-98	Gasket, Bearing Cap	1
13	379286-11	Hex Capscrew, (.375"-16 X 1.125")	8
14	560982	Bearing Cup, Tapered	2
15	560986	Bearing Cone ("XV" Output)	2
16	See Chart Pg. 7	Gear, Input	1
17	560978	Bearing Cone, Ratios ("B", "D", "G" & "J")	2 or
	560987	Bearing Cone, Ratios ("M", "P", "Q", "R" & "T")	2
18	14-P-66	Spacer, Bearing Adjustment	A.R.
19	14-P-68	Spacer, Input Bearing	1
20	9-P-79	Idler Shaft, Standard	1
21	9-P-80	Idler Shaft, Pressure Lube	1
22	379556	O-Ring Tee Run, Pressure Lube	1
23	28-P-198	O-Ring (-117)	1
24	28-P-42	O-Ring (-023)	1
25	379505	Retainer, O-Ring	1
26	379484	Hex Socket, Straight Thread Connector	1
27	68-P-2	Name Plate	1
28	378422	Screw, Drive	2

A.R.—As Required

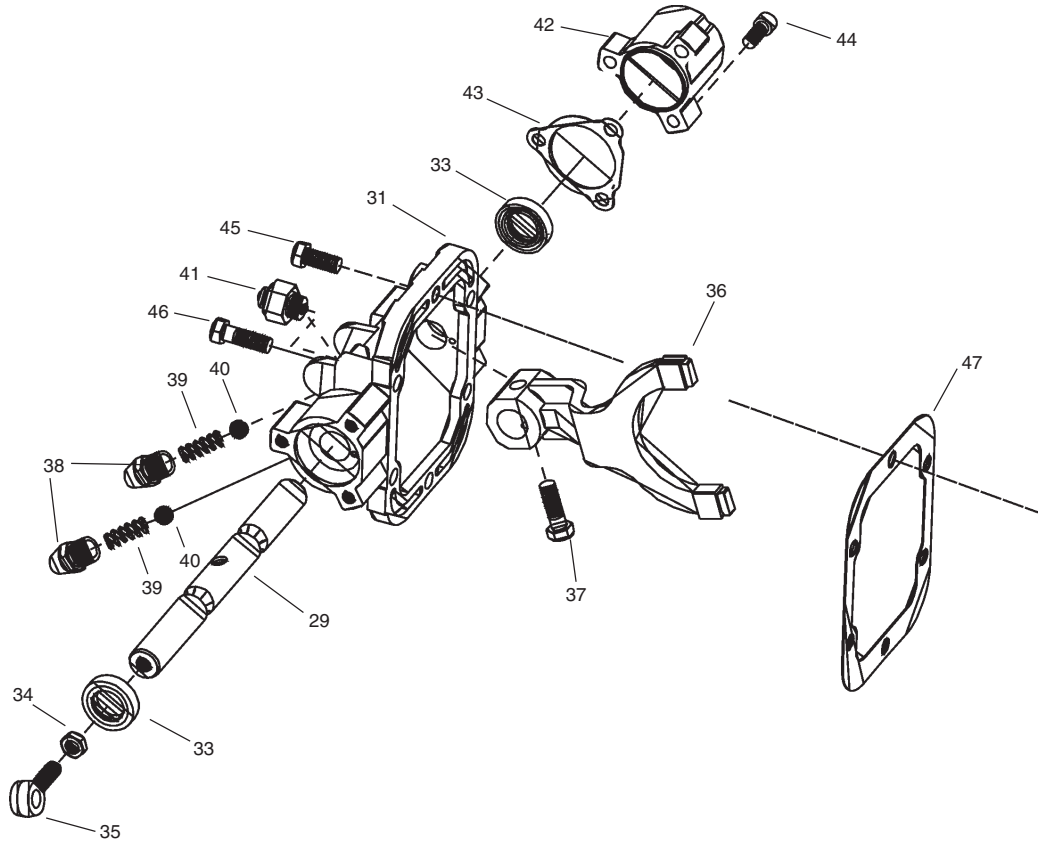
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Bill of Materials

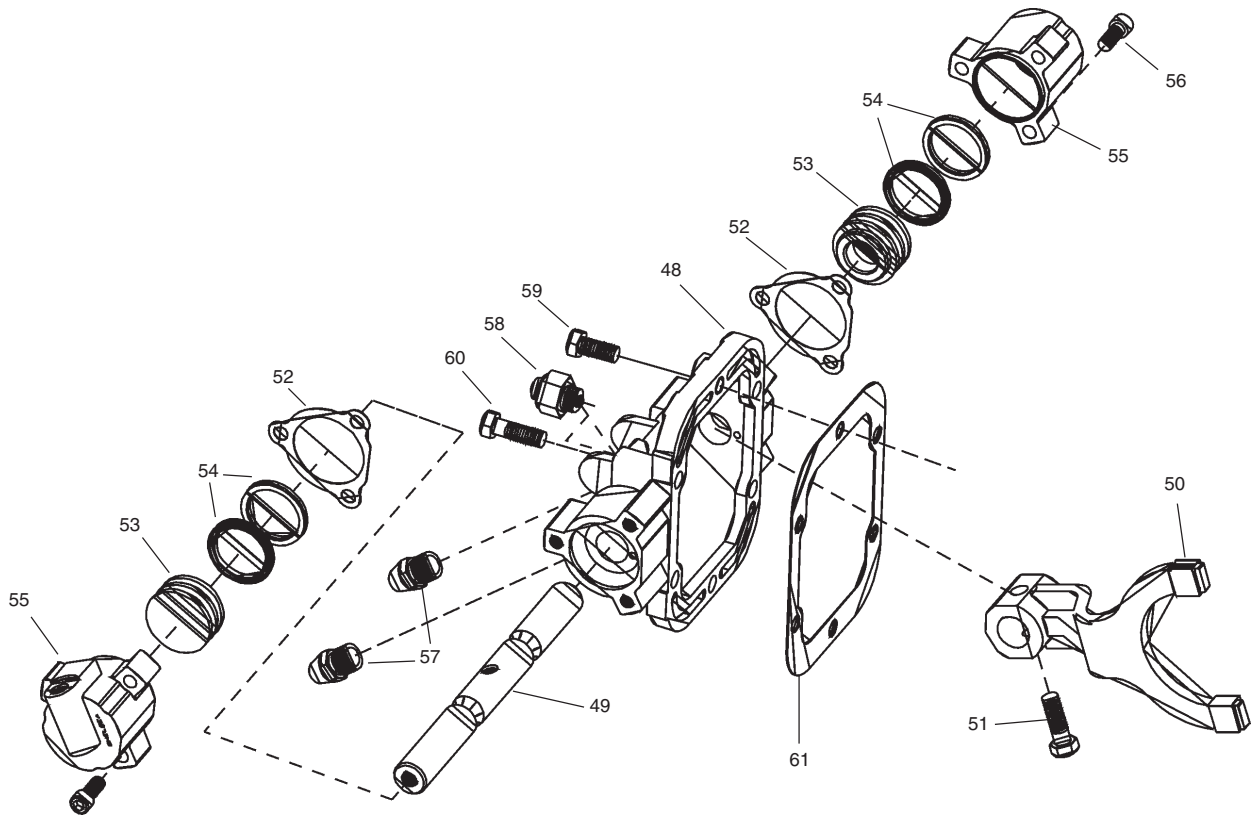
Item	Part Number	Description	Quantity
		LOOSE PARTS	
	328170-192X	Stud Kit, Standard Mount	1 or
	328170-195X	Stud Kit, Deep Mount	1 or
	328170-201X	Stud Kit, Metric	1
	328948-8X	Gasket & Installation Instructions	
	35-P-15-1	Gasket, .010"	2
	35-P-15-2	Gasket, .020"	2
	328715-1X	Indicator Light Kit (Lever Control "Y" Shift Only)	1
	328388-61X	Air Shift Installation Kit ("A" Shift Only)	1
	379640	Booted Connector ("V" Shift Only)	1
	378414	Pressure Protection Valve ("V" Shift Only)	1
		LOOSE PARTS ("P" Lube Only)	
	329129-1X	Hose Assembly ("L" Outputs)	
	329129X	Hose Assembly (All Other Outputs)	
	329130-1X	Hose Assembly (Idler Tee to Bearing Cap)	1
	329130-3X	Hose Assembly (Front Bearing Cap to Rear Bearing Cap)	1
	329224X	Pressure Lube Fittings Bag	1
		SERVICE KITS	
	328356-51X	Gasket & Seal Kit, Standard Output	
	328356-52X	Gasket & Seal Kit, Pump Output	
	328356-53X	Gasket & Seal Kit, Lever Shift	
	328356-54X	Gasket & Seal Kit, Air Shift	
	329183X	Overhaul Kit, 880 Series	
	328594-3X	Bearing & Spacer Kit, Pressure Lube for "B", "D", "G" & "J" Ratios	
	328594-5X	Bearing & Spacer Kit, Pressure Lube for "M", "P", "Q", "R" & "T" Ratios	
	328216-4X	Constant Mesh Kit (Standard)	
	328216-3X	Shifter Kit, Air Shift	
	328216-2X	Shifter Kit, Lever Shift	
	328216-1X	Constant Mesh Kit, Fuller CEEMAT™	



Item	Part Number	Description	Quantity
	329216-4X	Constant Mesh Kit, Standard	
	329216-1X	Constant Mesh Kit, Fuller CEEMAT™ (Includes Bearing Cover Shims (item 10) and items listed below)	
N.S.	34-P-16	Shift Cover	1
N.S.	35-P-59	Gasket	1
N.S.	378431-6	Capscrew, Hex Head, (.375"-16 x .625")	6
29	4-P-163	Spacer, Output Shaft 2.825" width, Constant mesh only	1
	4-P-171	Spacer, Special for Fuller CEEMAT™ 1.765" width ("F" Mounting, Constant Mesh)	1
30	4-P-164	Spacer, Output Shaft 1.392" width, Constant mesh only	1



Item	Part Number	Description	Quantity
	329125X	LEVER CONTROL ASSEMBLY (Includes items 31 thru 44)	
31	34-P-117	Shifter Cover	1
32	11-P-151	Shifter Shaft	1
33	28-P-218	Oil Seal	2
34	500381-3	Hex Lock Nut, (.375"-24)	1
35	36-P-1	Eye Bolt	1
36	32-P-172	Shifter Fork	1
37	379286-12	Capscrew, Hex Head, (.375"-16 x 1.250")	1
38	378554	Poppet Cap	2
39	37-P-41	Spring, Shifter	2
40	378002	Ball, Shifter	2
41	379639	Indicator Switch	1
42	65-P-22	Dust Cover	1
43	22-P-96	Gasket, Dust Cover	1
44	378447-7	Capscrew, Socket Head, (.312"-18 x 1.250")	3
45	379431-11	Capscrew, Hex Head, (.375"-16 x 1.125")	2
46	378431-18	Capscrew, Hex Head, (.375"-16 x 2.000")	4
47	35-P-59	Gasket	1
	329216-2X	Shifter Kit, Lever (Includes items 31-47 & 328751-1X Installation Kit)	



Item	Part Number	Description	Quantity
	329126X	AIR SHIFT COVER ASSEMBLY (Includes items 48 thru 58)	1
48	34-P-117	Cover, Shifter	1
49	11-P-151	Shaft, Shifter	1
50	32-P-172	Fork, Shifter	1
51	379286-12	Capscrew, Hex Head, (.375"-16 x 1.250")	1
52	22-P-96	Gasket, Cylinder	2
53	66-P-21	Piston	2
54	28-P-257	Block Vee Ring	4
55	65-P-25	Cap, Cylinder	2
56	378447-7	Capscrew, Socket Head, (.375"-18 x 1.250")	6
57	378554	Poppet Cap	2
58	379639	Indicator Switch	1
59	379431-11	Capscrew, Hex Head, (.375"-16 x 1.125")	2
60	378431-18	Capscrew, Hex Head, (.375"-16 x 2.000")	4
61	35-P-59	Gasket	1
	329216-3X	Shifter Kit, Air (Includes items 48-61 & 328388-38X Installation Kit)	

Input Gear Chart

P.T.O. Model No.	LARGE CLUSTER			SMALL CLUSTER	OUTPUT	No. Teeth
	Part No.	No. Teeth	Helix Angle	No. Teeth	Gear Part No.	
880*BAB	5-P-1099	27	Spur	18	2-P-730X	32
880*BAH	5-P-1100	32	Spur	18	2-P-730X	32
880*BAK	5-P-1106	32	Spur	18	2-P-730X	32
880*BAR	5-P-1111	29	Left Hand	18	2-P-730X	32
880*BBG (OBS)	5-P-1116	33	Left Hand	18	2-P-730X	32
880*BDA	5-P-1120	35	Spur	21	2-P-730X	32
880*BJV	5-P-1301	41	Left Hand	18	2-P-730X	32
880*DAH	5-P-1101	32	Spur	20	2-P-731X	30
880*DAK	5-P-1107	32	Spur	20	2-P-731X	30
880*DJV	5-P-1302	41	Left Hand	20	2-P-731X	30
880*GAH	5-P-1135	32	Spur	21	2-P-732X	29
880*GAK	5-P-1108	32	Spur	21	2-P-732X	29
880*GDA	5-P-1174	35	Spur	21	2-P-732X	29
880*GJV	5-P1303	41	Left Hand	21	2-P-732X	29
880*JAH	5-P-1102	32	Spur	23	2-P-733X	27
880*JAK	5-P-1109	32	Spur	23	2-P-733X	27
880*JAR	5-P-1112	29	Left Hand	23	2-P-733X	27
880*JVV	5-P-1304	41	Left Hand	23	2-P-733X	27
880*MAH	5-P-1103	32	Spur	25	2-P-734X	25
880*MAK	5-P-1110	32	Spur	25	2-P-734X	25
880*MBG	5-P-1175	33	Left Hand	25	2-P-734X	25
880*MDA	5-P-1121	35	Spur	25	2-P-734X	25
880*MDB	5-P-1124	55	Spur	25	2-P-734X	25
880*MDD	5-P-1133	33	Spur	25	2-P-734X	25
880*MDU	5-P-1130	39	Left Hand	25	2-P-734X	25
880*MEV	5-P-1132	56	Spur	25	2-P-734X	25
880*MJV	5-P-1305	41	Left Hand	25	2-P-734X	25
880*PAR	5-P-1113	29	Left Hand	26	2-P-735X	24
880*PJV	5-P-1308	41	Left Hand	26	2-P-735X	24
880*QAH	5-P-1385	32	Spur	27	2-P-818X	23
880*RAH	5-P-1104	32	Spur	29	2-P-736X	21
880*RAR	5-P-1114	29	Left Hand	29	2-P-736X	21
880*RBG	5-P-1117	33	Left Hand	29	2-P-736X	21
880*RDA	5-P-1122	35	Spur	29	2-P-736X	21
880*RDB (OBS)	5-P-1125	55	Spur	29	2-P-736X	21
880*RDU	5-P-1176	39	Left Hand	29	2-P-736X	21
880*RJV	5-P-1306	41	Left Hand	29	2-P-736X	21
880*TAH	5-P-1105	32	Spur	32	2-P-737X	18
880*TAR	5-P-1115	29	Left Hand	32	2-P-737X	18
880*TBG	5-P-1177	33	Left Hand	32	2-P-737X	18
880*TDA	5-P-1123	35	Spur	32	2-P-737X	18
880*TDU	5-P-1131	39	Left Hand	32	2-P-737X	18
880*TJV	5-P-1307	41	Left Hand	32	2-P-737X	18
880ZRGZ	5-P-1210	44	Spur	29	2-P-736X	21

Direct Mount Pump Option Description

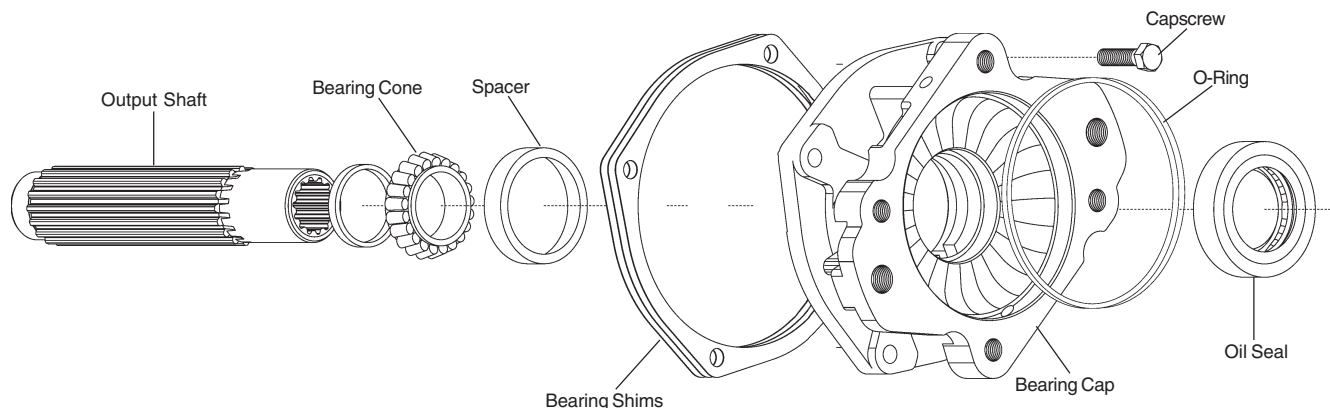
For Bottom or Side Mounted Transmissions (Fuller, Mack or Spicer)

Output Option Conversion Kits (Splash Lube)

Flange Suffix	Flange Type	Shaft Type	Conversion Kit (From "XV")
AB	DIN 120 Companion Flange	1.75" - 16 Spline	328591-59X (Splash Lube) 328591-60X (Pressure Lube)
AC	DIN 100 Companion Flange	1.75" - 16 Spline	328591-119X (Splash Lube) 328591-120X (Pressure Lube)
AF	S.A.E. "B" 2 & 4 Bolt	1.00" - 15 Spline	328591-104X (Splash Lube) 328591-105X (Pressure Lube)
AZ	S.A.E. "B" 2 & 4 Bolt	1.25" - 14 Spline	328591-127X (Splash Lube) 328591-128X (Pressure Lube)
XK	S.A.E. "B" 2 & 4 Bolt	.875" - 13 Spline	328591-32X (Splash Lube) 328591-58X (Pressure Lube)
XS	S.A.E. "C" 2 & 4 Bolt	1.25" - 14 Spline	328591-31X (Splash Lube) 328591-49X (Pressure Lube)
XY	Mieler Pump Mount	B8x32x36 DIN 5462 Spline	328591-34X (Splash Lube)
SK	S.A.E. "C" 2 & 4 Bolt S.A.E. "B" 2 & 4 Bolt	1.25" - 14 Spline .875" - 13 Spline	328591-67X (Pressure Lube)
SS	S.A.E. "C" 2 & 4 Bolt S.A.E. "C" 2 & 4 Bolt	1.25" - 14 Spline 1.25" - 14 Spline	328591-50X (Splash Lube) 328591-51X (Pressure Lube)
WV	1410 Companion Flange 1410 Companion Flange	1.50" - 10 Spline 1.50" - 10 Spline	328591-68X (Splash Lube) 328591-69X (Pressure Lube)
YY	DIN 80 Both Ends	B8x32x36 DIN 5462 Spline	328591-61X (Splash Lube)
GS	Greasable Output Shaft S.A.E. "C" 2 or 4 Bolt	1.25" - 14 Spline	328591-135X (XV to GS) 328591-133X (XS to GS)
LF	S.A.E. "B" 2 or 4 Bolt	.875" - 13 Spline	329111-3X
LG	Similar to XV Output	3-1-3431 Companion Flange	329111-1X
LH	S.A.E. "C" 2 or 4 Bolt	1.25" - 14 Spline	329111-2X

Output Options

Conversion Kits, Non Pressure Lube Bill of Materials



P.T.O. Output	Conversion Kit	Bearing Cap	Output Shaft	Oil Seal	Bearing Cone/Cup	Spacer	O-Ring
AB	328591-59X	21-P-517	3-P-872	28-P-211	560986/560982	-	-
AC	328591-119X	21-P-517	3-P-872	28-P-211	560986/560982	-	-
AF	328591-104X	21-P-239	3-P-940	28-P-219	560976/560977	4-P-162	28-P-259
AZ	328591-127X	21-P-539	3-P-873	28-P-219	560976/560977	4-P-162	28-P-259
GS (XV to GS)	328591-135X	21-P-515 (O) 21-P-653X (R)	3-P-949X -	28-P-219 28-P-226	560976/560977 560986/560982	4-P-162 -	28-P-196 -
GS (XS to GS)	328591-133X	21-P-653X (R)	3-P-949X	28-P-226 28-P-219 (O)	560986/560982 -	- -	- 28-P-196 (O)
XK	328591-32X	21-P-539	3-P-874	28-P-219	560976/560977	4-P-162	28-P-196
XK	-	21-P-539	3-P-901	28-P-219	560976/560977	4-P-162	28-P-196
XS	328591-31X	21-P-515	3-P-873	28-P-219	560976/560977	4-P-162	28-P-196
XS	-	21-P-515	3-P-900	28-P-219	560976/560977	4-P-162	28-P-196
Double Pump Options							
SK	-	21-P-515 (O) 21-P-539 (R)	3-P-902 -	28-P-219 28-P-214	560976/560977 560976/560977	4-P-162 4-P-162	28-P-245 28-P-259
SS	328591-50X	21-P-515 (O) 21-P-515 (R)	3-P-875 -	28-P-219 28-P-214	560976/560977 560976/560977	4-P-162 4-P-162	28-P-245 28-P-245
WV	328591-68X	21-P-517 (O) 21-P-517 (R)	3-P-916 -	28-P-211 28-P-211	560986/560982 560986/560982	- -	- -
YY	328591-61X	21-P-541 (O) 21-P-652 (R)	3-P-880 -	28-P-267 28-P-275	560985/560984 561011/561012	- -	- -

* Special pump shaft, housing (1-P-530) and closed end bearing cap (21-P-590), required for 880F when used with Fuller CEEMAT™ transmission. This option is only available in the "5" assembly arrangement. No Conversion Kit is currently available. Parts must be ordered separately.

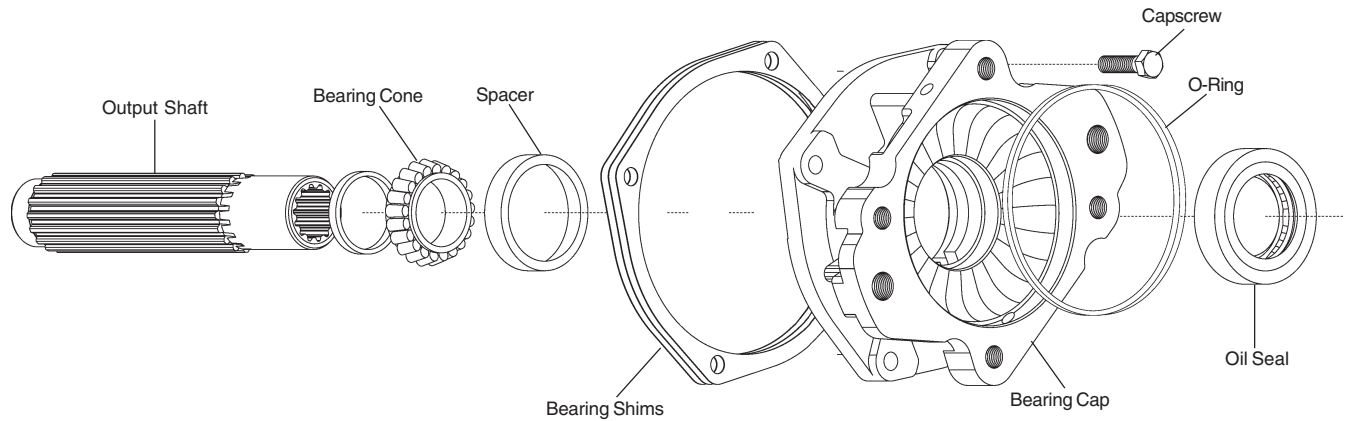
(1) Requires 2 O-Rings

FOOTNOTES: O = Output Bearing Cap R = Rear Bearing Cap

NOTE: The Conversion Kits include all the items shown plus two each of the Bearing Shims 55-P-20-1, 55-P-20-2, 55-P-20-3, 560977 Bearing Cup, and four Hex Head Capscrews 379286-11.

NOTE: These options and conversion kits are normally used on the bottom or side openings of Fuller, Mack & Spicer Transmissions.

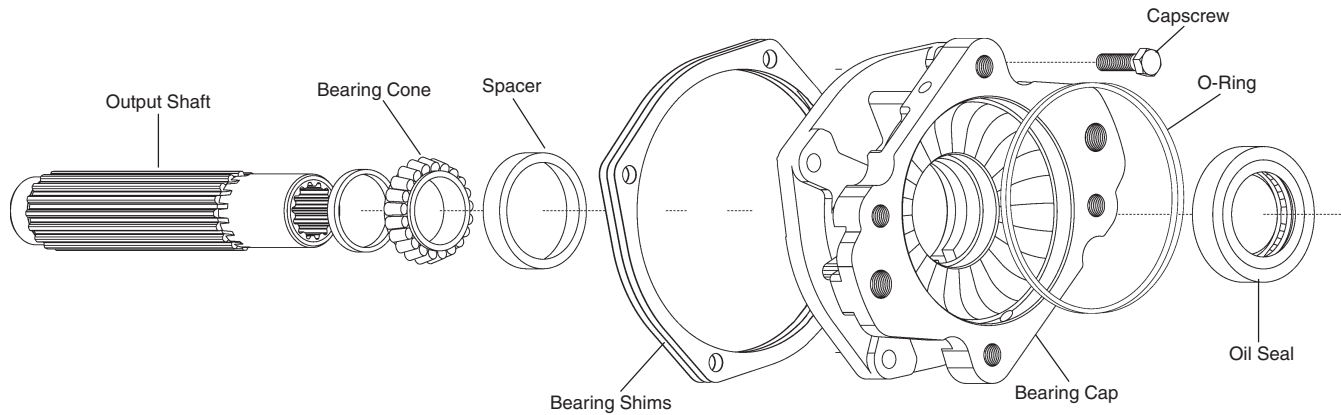
Conversion Kits, Pressure Lube Bill of Materials



P.T.O. Output	Conversion Kit	Bearing Cap	Output Shaft	Oil Seal	Bearing Cone/Cup	Spacer	O-Ring
AB	328591-60X (Pressure Lube)	21-P-596	3-P-872	28-P-211	560986/560982	-	-
AC	328591-120X (Pressure Lube)	21-P-596	3-P-872	28-P-211	560986/560982	-	-
AF	328591-105X (Pressure Lube)	21-P-592	3-P-940	28-P-219	560976/560977	4-P-162	28-P-259
AZ	328591-128X (Pressure Lube)	21-P-592	3-P-873	28-P-219	560976/560977	4-P-162	28-P-259
XK	328591-58X (Pressure Lube)	21-P-592	3-P-874	28-P-219	560976/560977	4-P-162	28-P-196
XS	328591-49X (Pressure Lube)	21-P-544	3-P-873	28-P-219	560976/560977	4-P-162	28-P-196
Double Pump Options							
SK	328591-67X (Pressure Lube)	21-P-593 (O)	3-P-902	28-P-219	560976/560977	4-P-162	28-P-245
		21-P-592 (R)	-	28-P-214	560976/560977	4-P-162	28-P-259
SS	328591-51X (Pressure Lube)	21-P-544 (O)	3-P-875	28-P-219	560976/560977	4-P-162	28-P-245
		21-P-544 (R)	-	28-P-214	560976/560977	4-P-162	28-P-245
VV	328591-69X (Pressure Lube)	21-P-596 (O)	3-P-916	28-P-211	560986/560982	-	-
		21-P-596 (R)	-	28-P-211	560986/560982	-	-

FOOTNOTES: O = Output Bearing Cap R = Rear Bearing Cap

Self Lube Bill of Materials

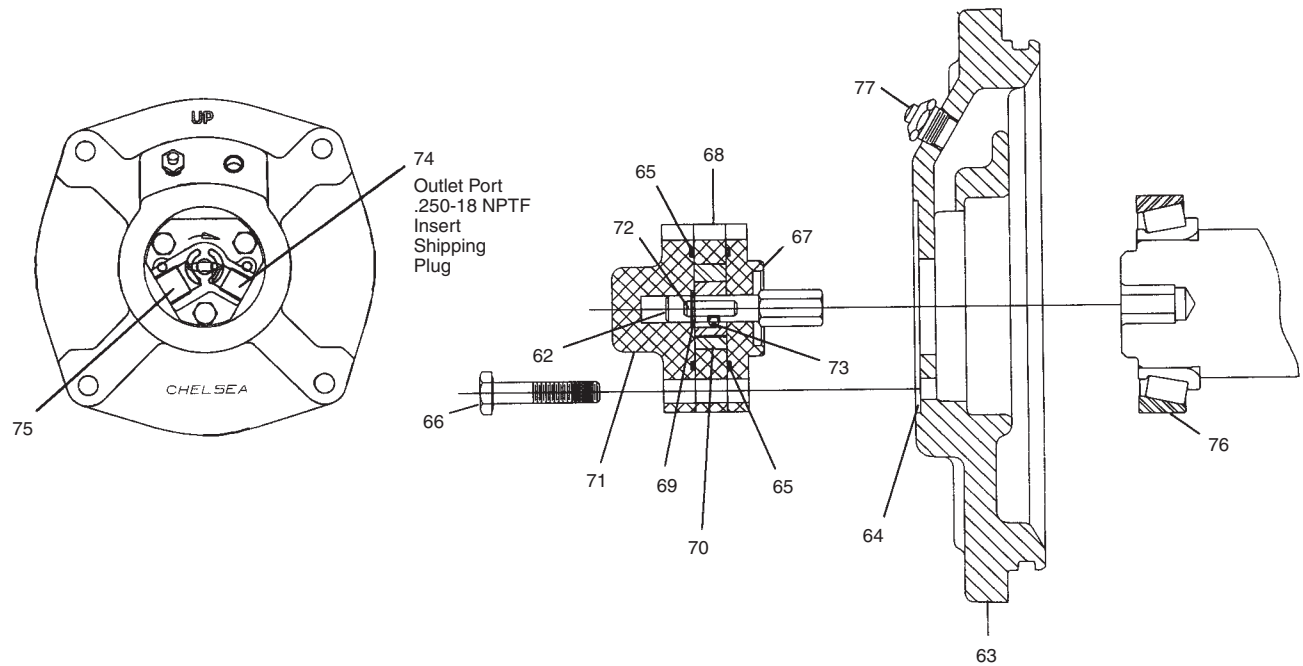


PTO Output	Bearing Cap Open	Bearing Cap Closed (1)	Output Shaft	Oil Seal	Bearing Cone	Bearing Cup	Spacer	Idler Shaft
		Self-Lube Model Numbers	880 ***P- **LF					
			880 ***P- **LG					
			880 ***P- **LH					
LF	21-P-592	329127X	3-P-878	28-P-219	560976	560977	4-P-162	9-P-80
LG	21-P-596	329127X	3-P-879	28-P-211	560986	560982	—	9-P-80
LH	21-P-544	329127X	3-P-877	28-P-219	560976	560977	4-P-162	9-P-80

NOTE: Top Mount 912 Split Shaft applications are not flooded with oil as bottom or side mounted applications. When mounting an 880 Series on top of a 912 Split Shaft, one of the three self lube output types must be used.

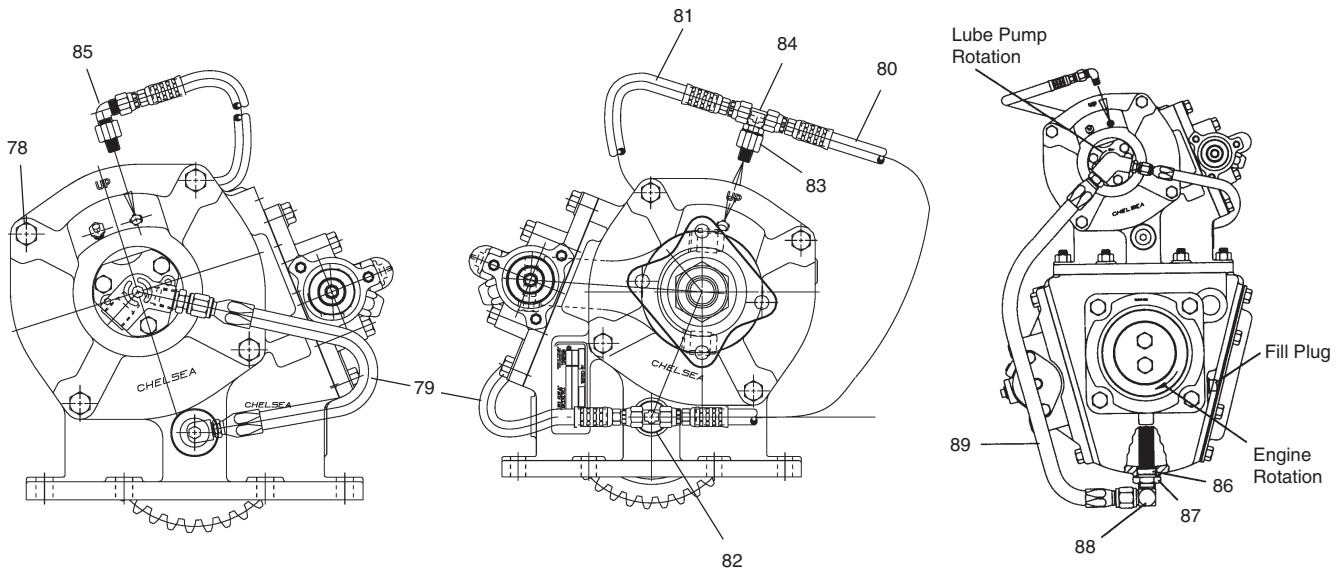
(1) The Closed End Bearing Cap is where the self lube pump is attached. For additional details, see page 9.

Lube Pump Bill of Materials



Item	Part Number	Description	Quantity
	329127X	LUBE PUMP & BEARING CAP ASSEMBLY	1
		(Includes items 62 thru 77)	
62	3-P-881	Pump Driveshaft	1
63	21-P-547	Bearing Cap	1
64	22-P-73	Gasket	1
65	28-P-249	O-Ring	2
66	378429-12	Capscrew, Hex Head, (.250"-20 x 1.250")	3
67	379546	Pump Adapter Plate	1
68	379173	Pump Plate	1
69	379175	Retaining Ring	1
70	379176	Gerotors	1
71	379525	Pump Cap, Dual Ported	1
72	500037-7	Dowel Pin (.188" x .625")	2
73	500566-3	Drive Ball (.125")	1
74	500897-8	Shipping Plug (Plastic)	1
75	500897-11	Shipping Plug (Plastic)	1
76	560982	Tapered Bearing Cup	1
77	500167-1	Breather	1

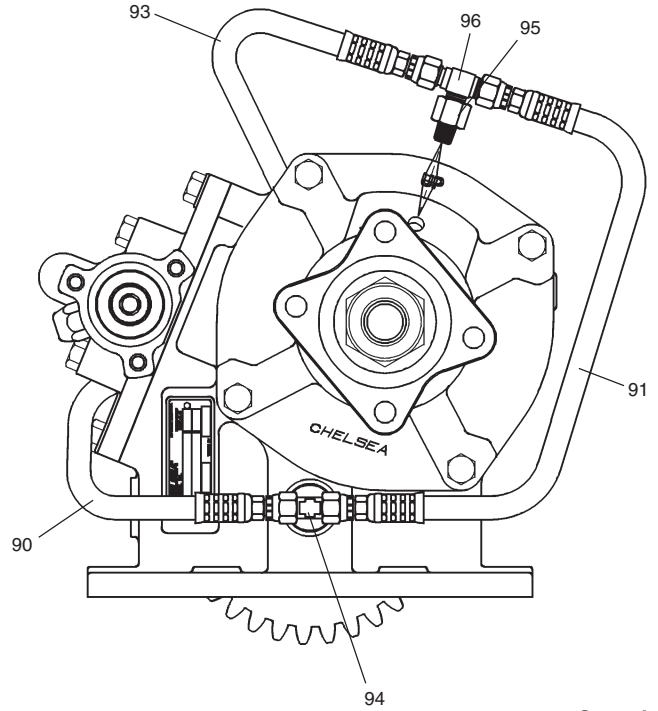
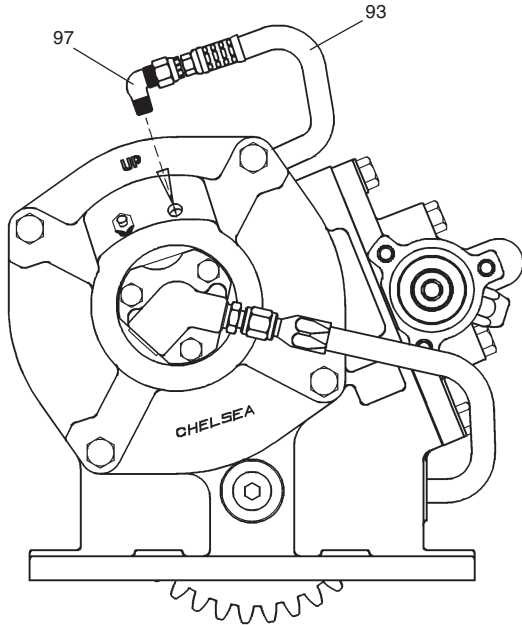
For Chelsea 912 Split Shaft Top Mount Applications



Item	Part Number	Description	Quantity
		880****P- **LF	
		Self-Lube 880****P- **LG	
		Model Numbers 880****P- **LH	
	329110-1X	Installation Kit, for mounting an 880 on a 912 Split Shaft	1
78	379286-11	Capscrew, Hex Head, (.375"-16 x 1.125")	4
79	329129-1X	Hose Assembly, End to End Length 36.000"	1
80	329130-1X	Hose Assembly, End to End Length 16.000"	1
81	329130-3X	Hose Assembly, End to End Length 20.000"	1
82	379556	Tee, O-Ring	1
83	379594	Pipe Adapter	1
84	379627	Tee, O-Ring	1
85	379625	Elbow	1
86	378117	Gasket, Copper	1
87	379526	Screened Strain Plug	1
88	379273	Elbow, 90°	1
89	379181	Hose Assembly, End to End Length 25.625"	1

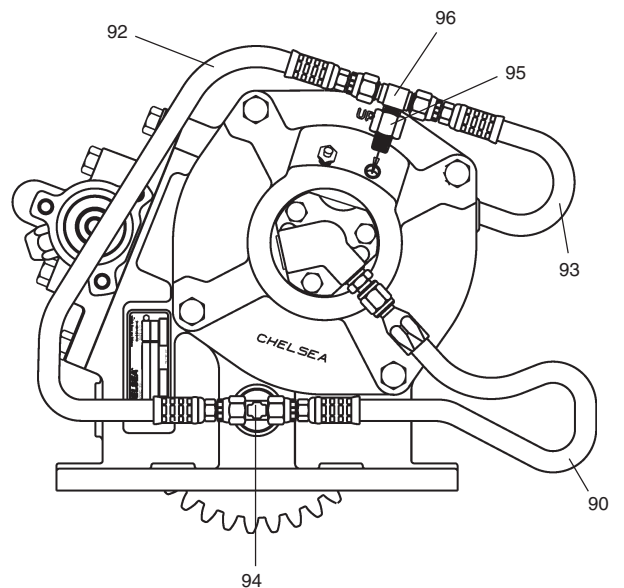
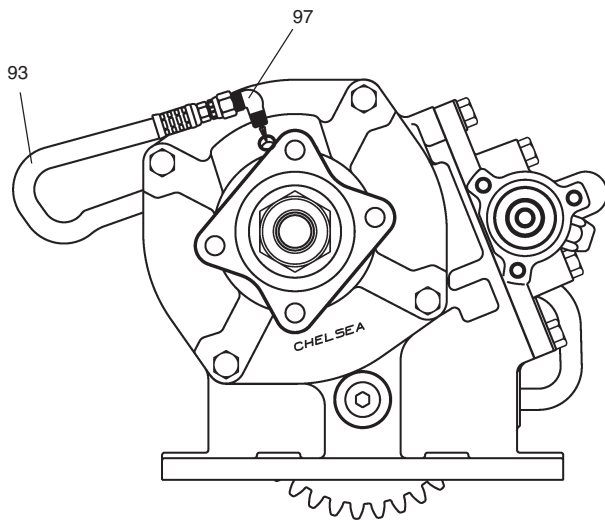
NOTE: When ordering the Self Lube option a "P" designator must be placed in the lubrication field of the part number.
 Ex: 880XBAHP-A3LH. 800 Series on top mount 912 Split Shaft applications can only have a single output due to self lube requirements.

“LG” Output Assy. 3 & 4

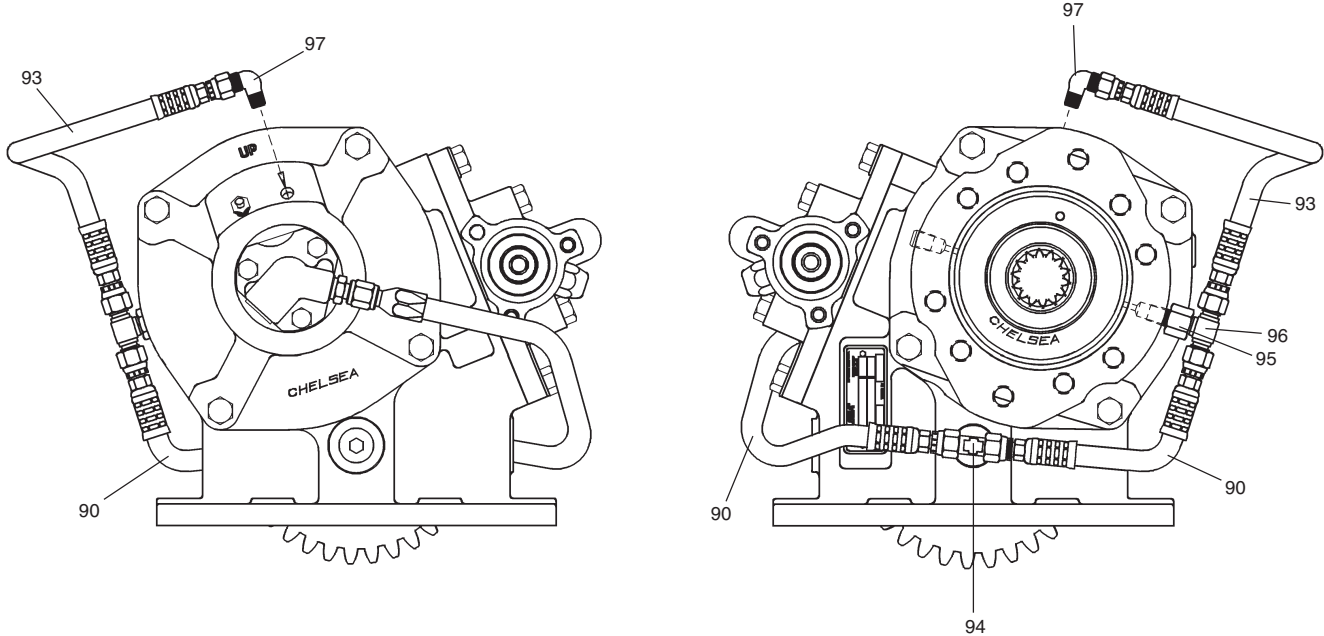


Item	Part Number	Description	Quantity
90	329129X	Hose Assembly, End to End Length 16.000"	1
91	329129-1X	Hose Assembly, End to End Length 36.000"	1
92	329130-1X	Hose Assembly, End to End Length 16.250"	1
93	329130-3X	Hose Assembly, End to End Length 20.250"	1
94	379556	Tee, O-Ring	1
95	379594	Pipe Adapter	2
96	379627	Tee	1
97	379625	Elbow	1
98	379897	Transmission Tee Fitting	1

“LG” Output Assy. 5 & 6

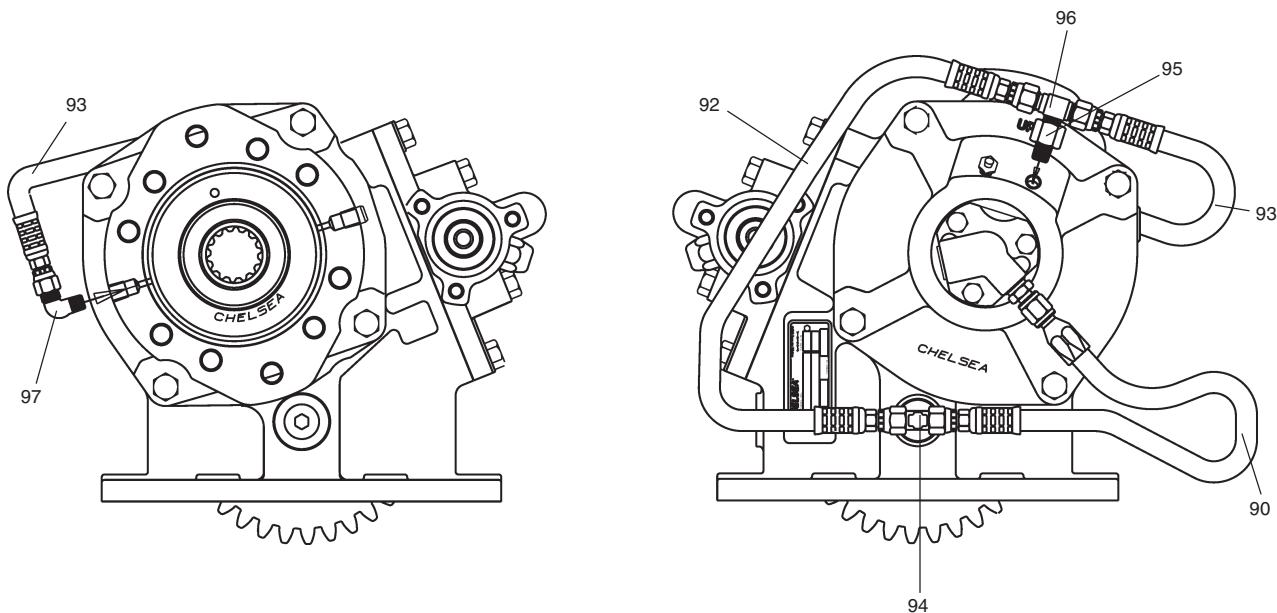


“LF” Output Assy. 3 & 4

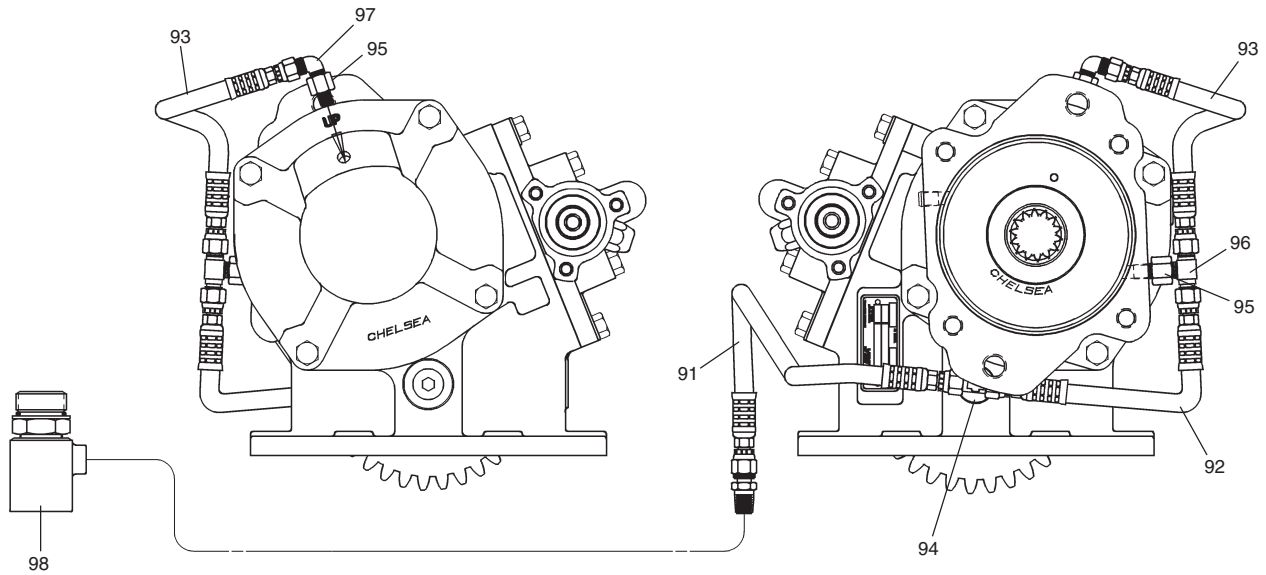


Item	Part Number	Description	Quantity
90	329129X	Hose Assembly, End to End Length 16.000"	1
91	329129-1X	Hose Assembly, End to End Length 36.000"	1
92	329130-1X	Hose Assembly, End to End Length 16.250"	1
93	329130-3X	Hose Assembly, End to End Length 20.250"	1
94	379556	Tee, O-Ring	1
95	379594	Pipe Adapter	2
96	379627	Tee	1
97	379625	Elbow	1
98	379897	Transmission Tee Fitting	1

“LF” Output Assy. 5 & 6

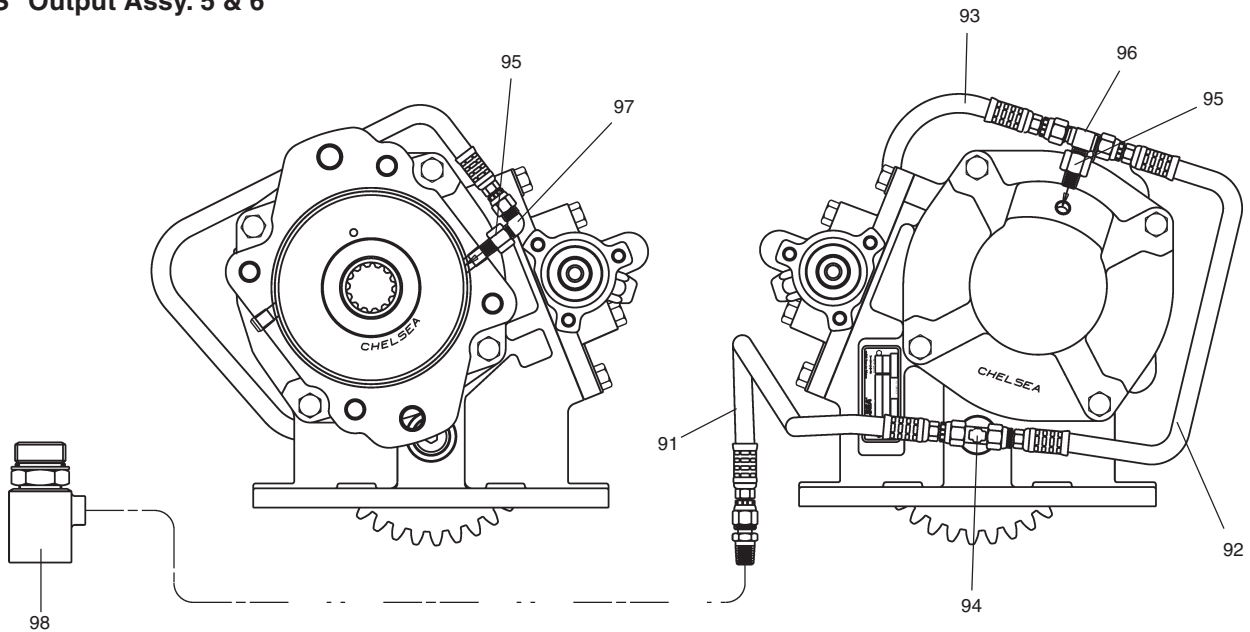


“XS” Output Assy. 3 & 4

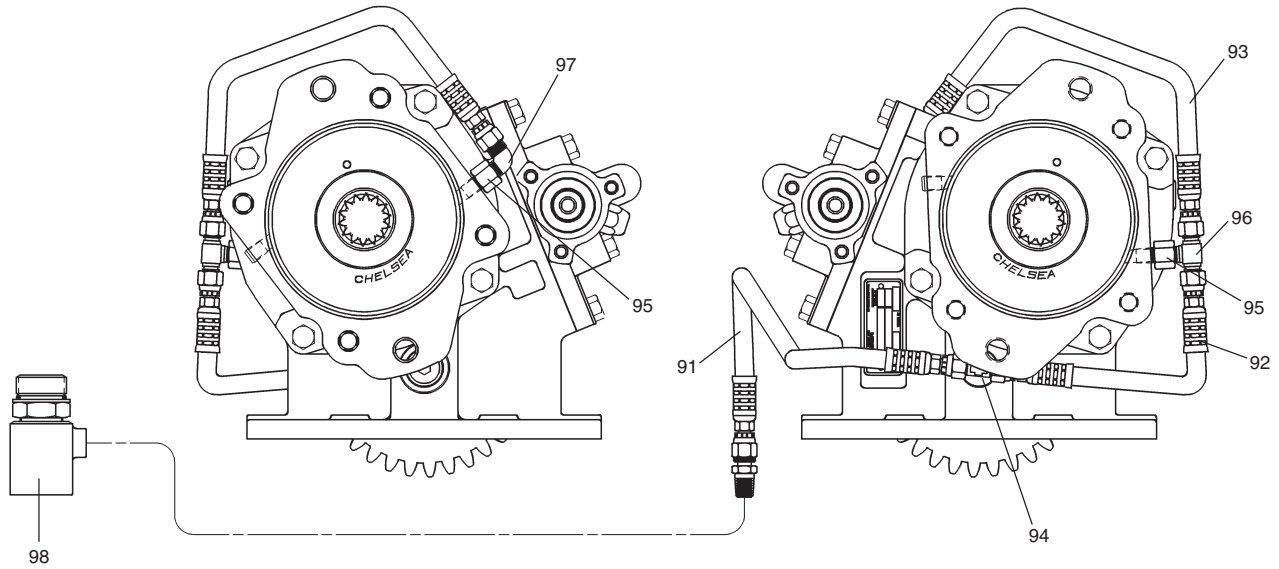


Item	Part Number	Description	Quantity
90	329129X	Hose Assembly, End to End Length 16.000"	1
91	329129-1X	Hose Assembly, End to End Length 36.000"	1
92	329130-1X	Hose Assembly, End to End Length 16.250"	1
93	329130-3X	Hose Assembly, End to End Length 20.250"	1
94	379556	Tee, O-Ring	1
95	379594	Pipe Adapter	2
96	379627	Tee	1
97	379625	Elbow	1
98	379897	Transmission Tee Fitting	1

“XS” Output Assy. 5 & 6

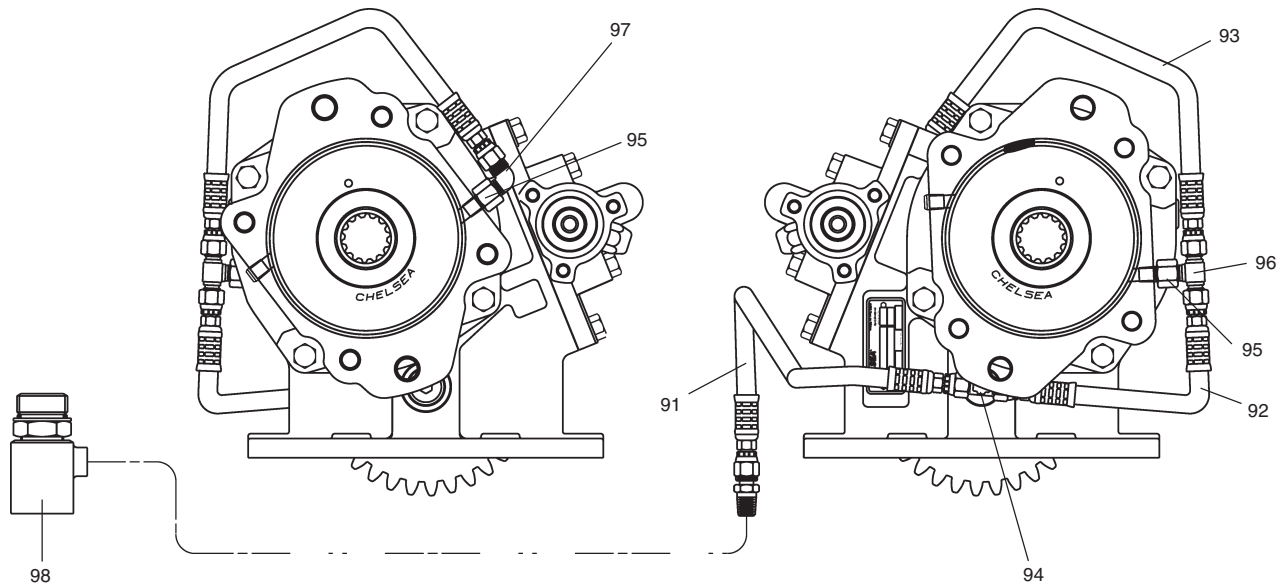


“SS” Output Assy. 3 & 4

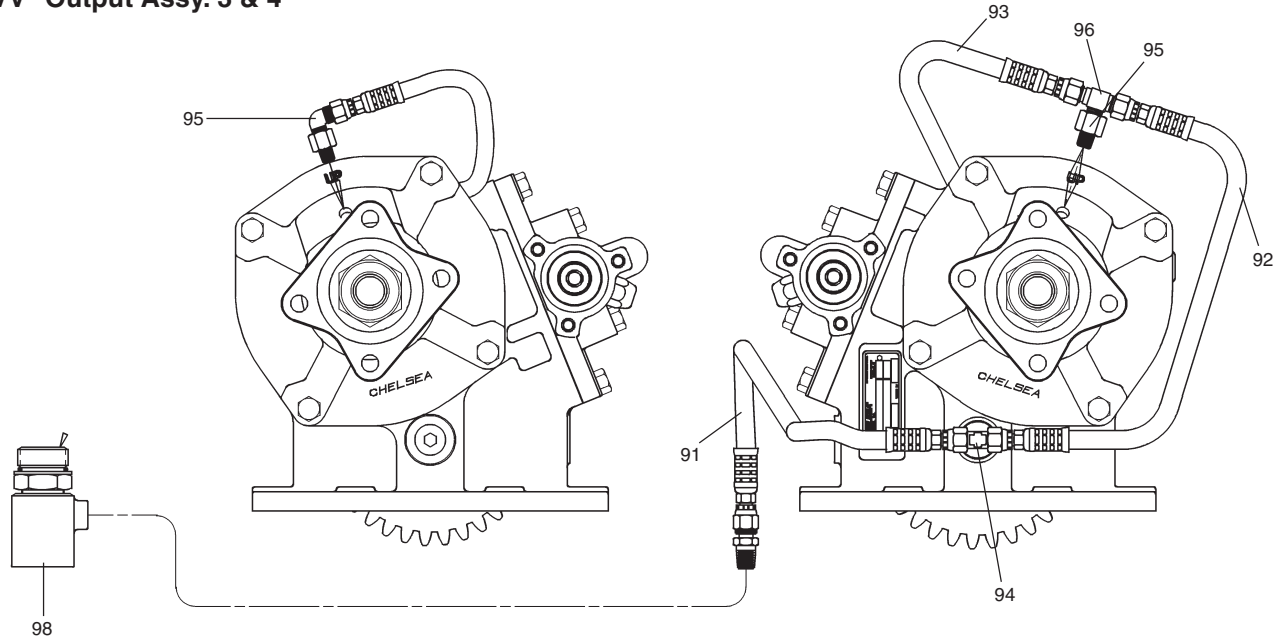


Item	Part Number	Description	Quantity
90	329129X	Hose Assembly, End to End Length 16.000"	1
91	329129-1X	Hose Assembly, End to End Length 36.000"	1
92	329130-1X	Hose Assembly, End to End Length 16.250"	1
93	329130-3X	Hose Assembly, End to End Length 20.250"	1
94	379556	Tee, O-Ring	1
95	379594	Pipe Adapter	2
96	379627	Tee	1
97	379625	Elbow	1
98	379897	Transmission Tee Fitting	1

“SS” Output Assy. 5 & 6

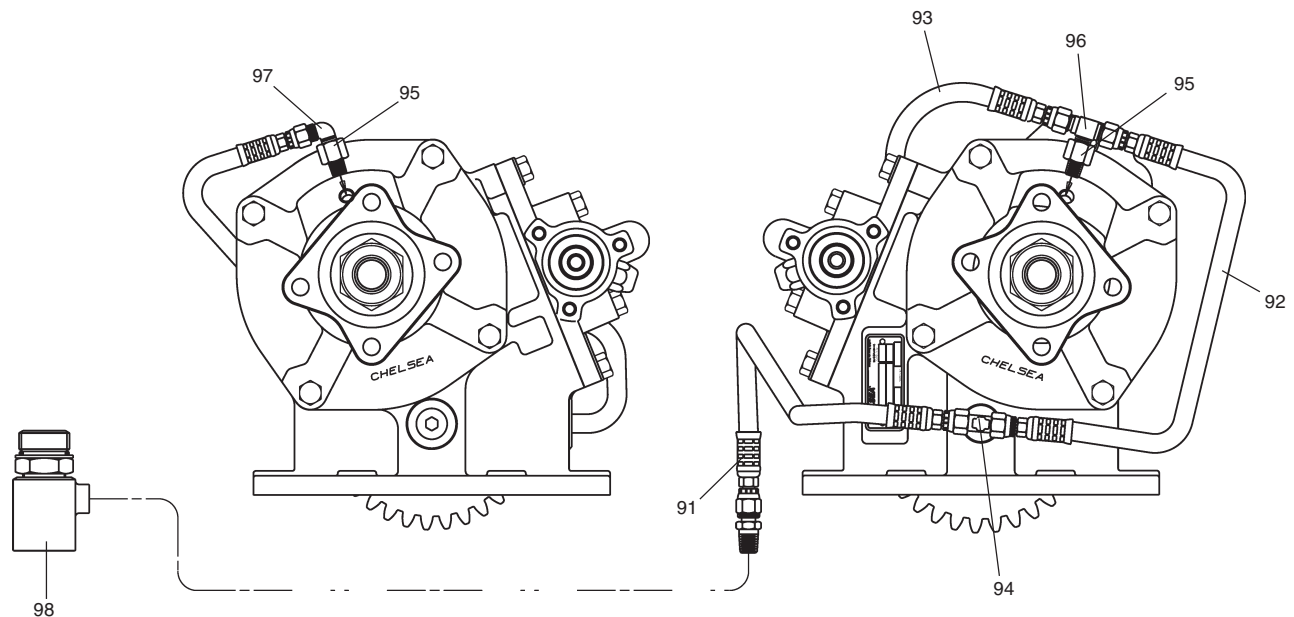


“VV” Output Assy. 3 & 4

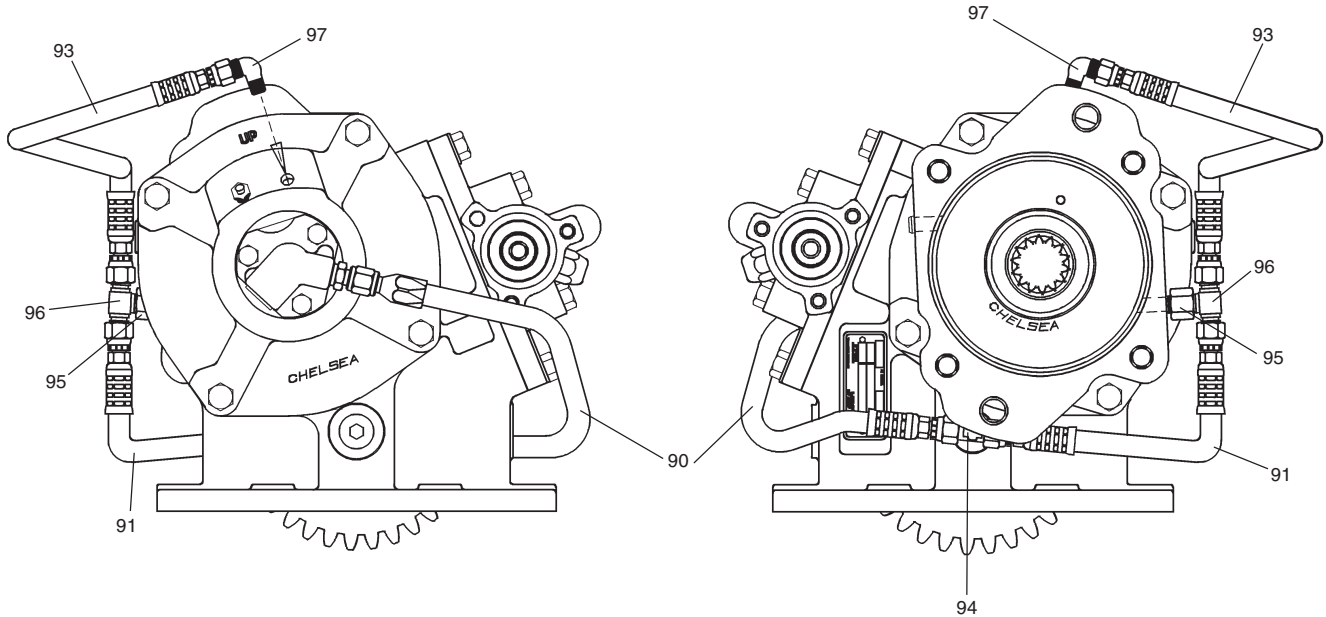


Item	Part Number	Description	Quantity
90	329129X	Hose Assembly, End to End Length 16.000"	1
91	329129-1X	Hose Assembly, End to End Length 36.000"	1
92	329130-1X	Hose Assembly, End to End Length 16.250"	1
93	329130-3X	Hose Assembly, End to End Length 20.250"	1
94	379556	Tee, O-Ring	1
95	379594	Pipe Adapter	2
96	379627	Tee	1
97	379625	Elbow	1
98	379897	Transmission Tee Fitting	1

“VV” Output Assy. 5 & 6

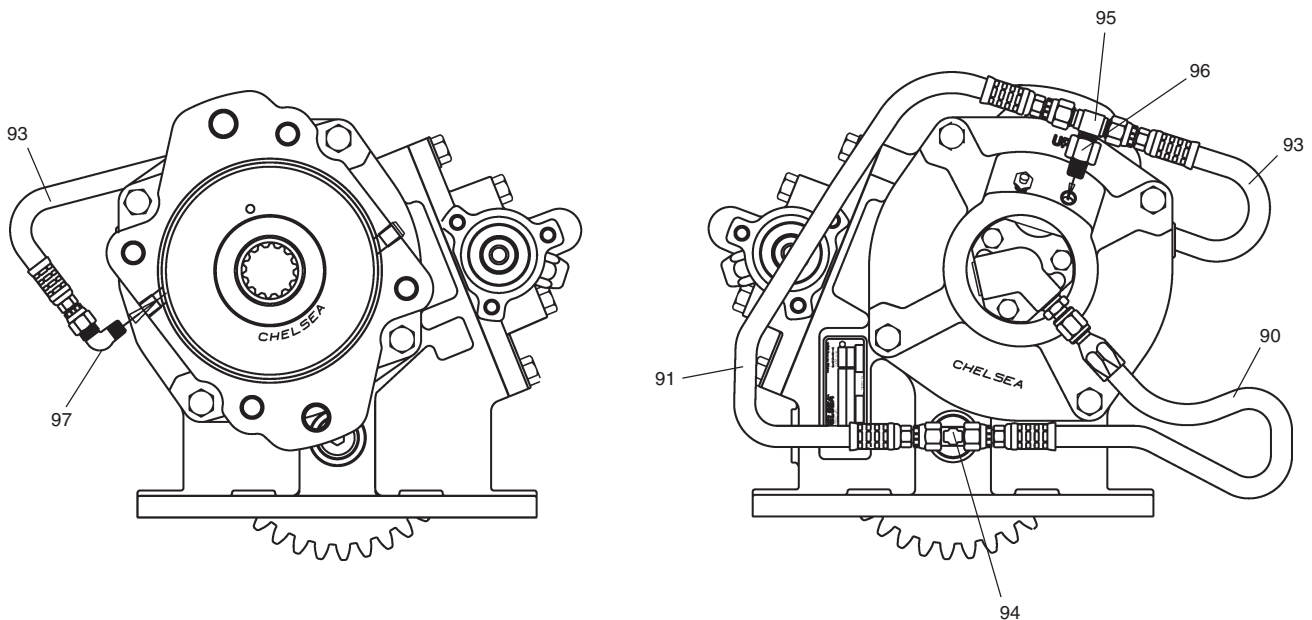


“LH” Output Assy. 3 & 4

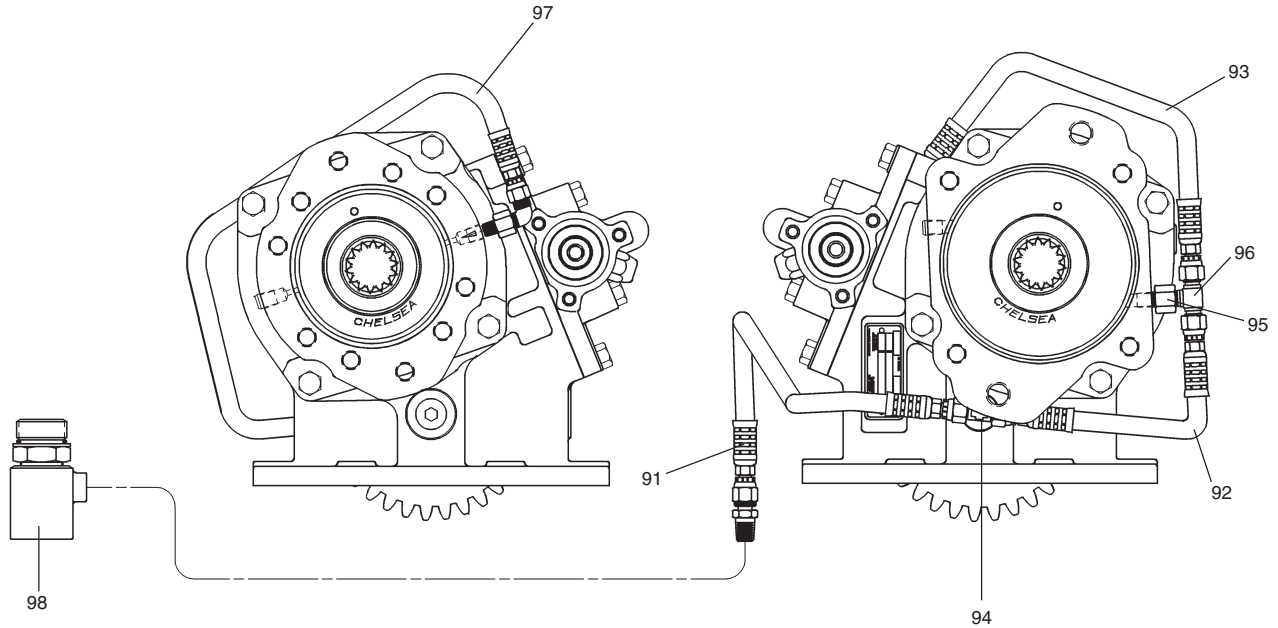


Item	Part Number	Description	Quantity
90	329129X	Hose Assembly, End to End Length 16.000"	1
91	329129-1X	Hose Assembly, End to End Length 36.000"	1
92	329130-1X	Hose Assembly, End to End Length 16.250"	1
93	329130-3X	Hose Assembly, End to End Length 20.250"	1
94	379556	Tee, O-Ring	1
95	379594	Pipe Adapter	2
96	379627	Tee	1
97	379625	Elbow	1
98	379897	Transmission Tee Fitting	1

“LH” Output Assy. 5 & 6

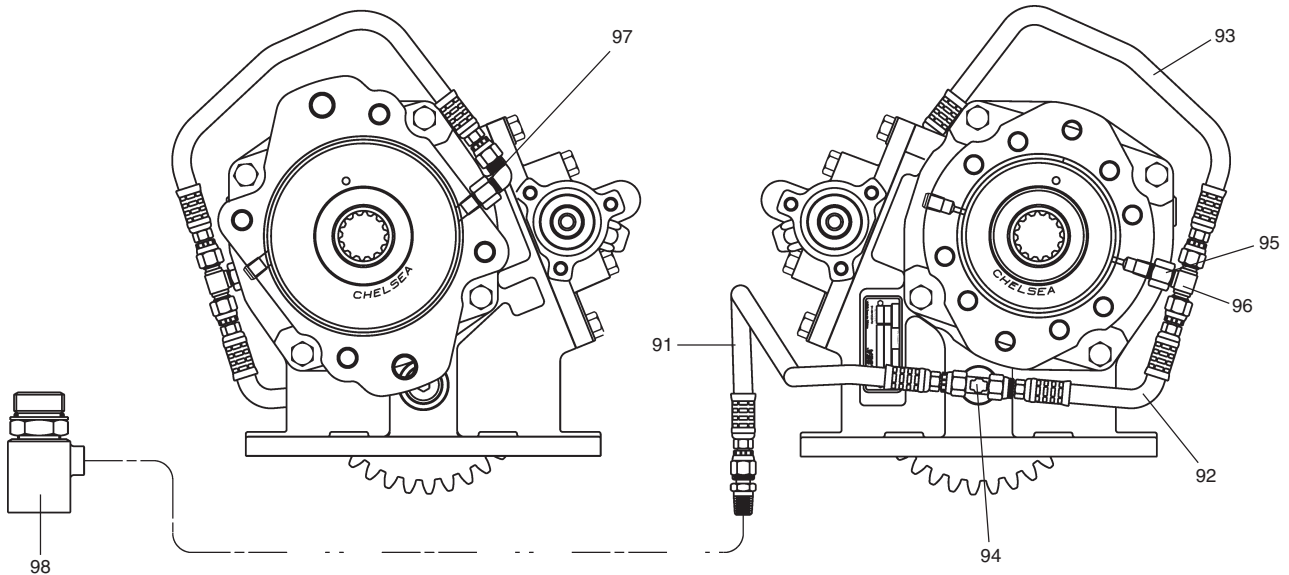


“SK” Output Assy. 3 & 4

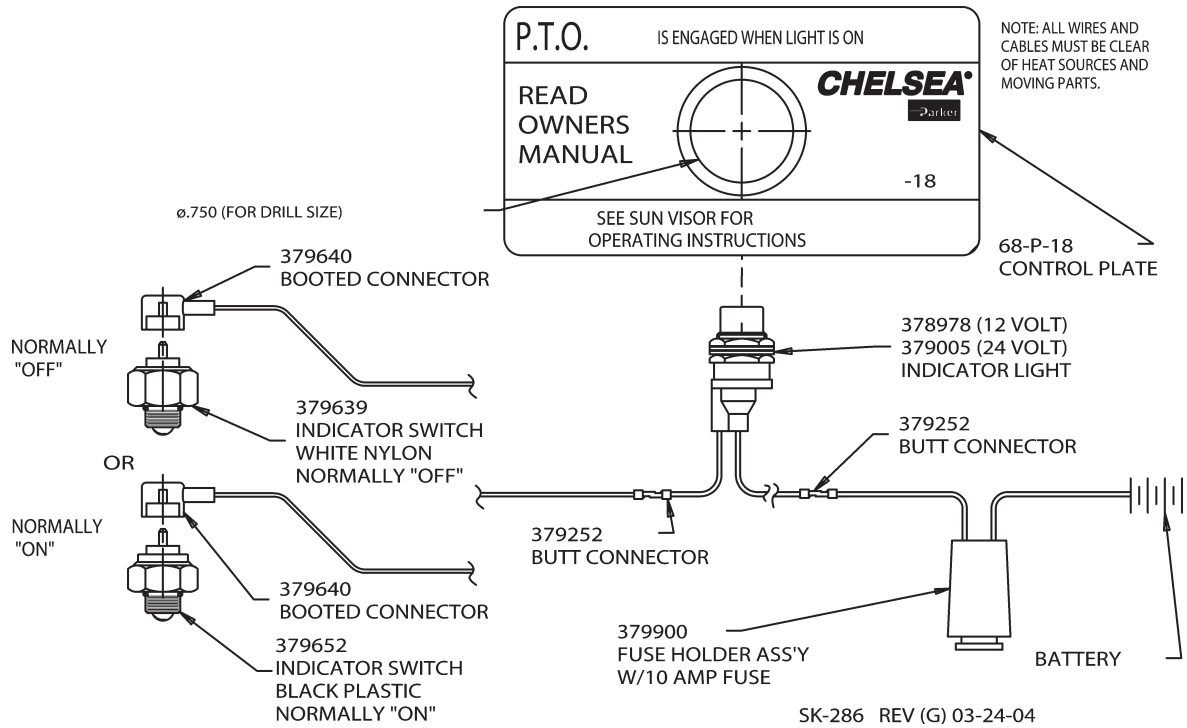


Item	Part Number	Description	Quantity
90	329129X	Hose Assembly, End to End Length 16.000"	1
91	329129-1X	Hose Assembly, End to End Length 36.000"	1
92	329130-1X	Hose Assembly, End to End Length 16.250"	1
93	329130-3X	Hose Assembly, End to End Length 20.250"	1
94	379556	Tee, O-Ring	1
95	379594	Pipe Adapter	2
96	379627	Tee	1
97	379625	Elbow	1
98	379897	Transmission Tee Fitting	1

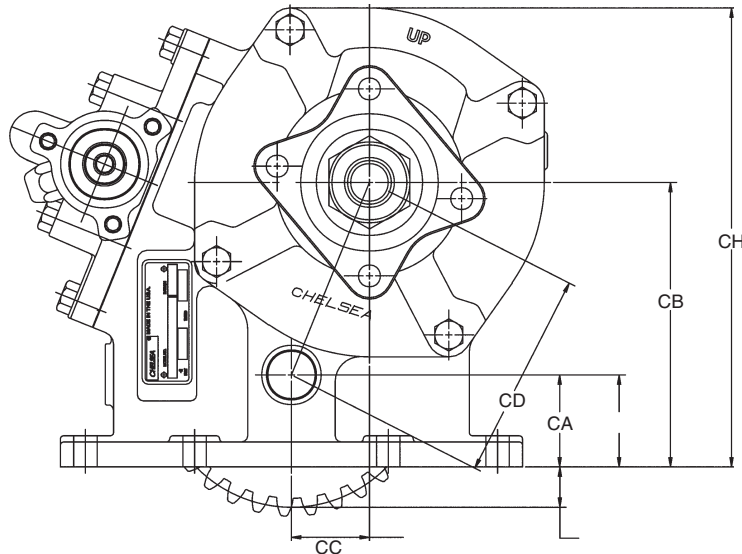
“SK” Output Assy. 5 & 6



Indicator Light Installation & Dash Drilling Template (SK-286 Rev G)

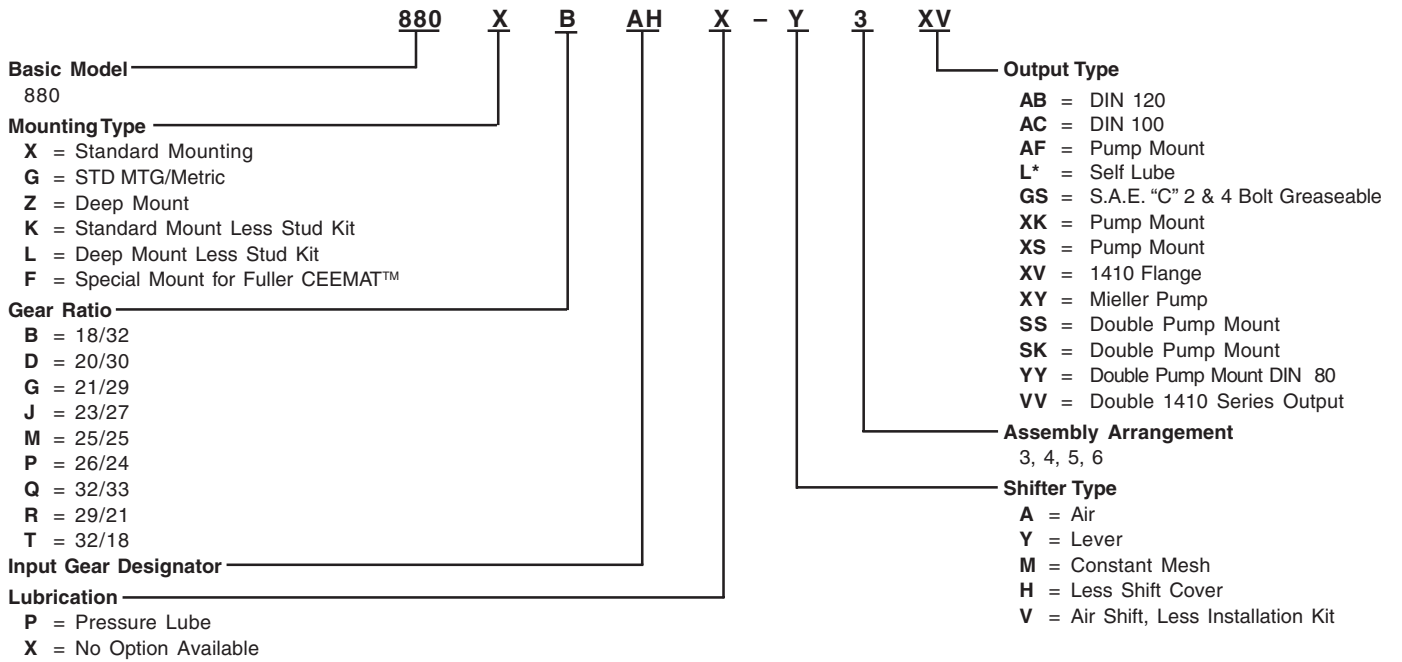


P.T.O. Housing Dimensions

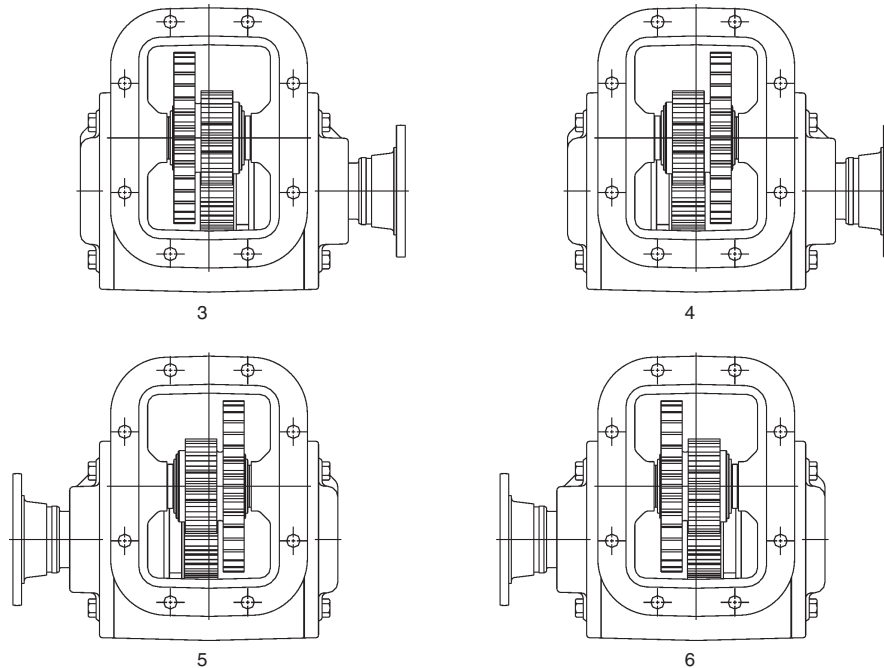


P.T.O. SERIES	HOUSING NUMBER	CA	CB	CC	CD	CH
880X	1-P-507X	1.845"	5.708"	1.561"	4.166"	9.208"
880Z	1-P-509X	0.917"	4.780"	1.561"	4.166"	8.100"
880F	1-P-530X	1.845"	5.708"	1.561"	4.166"	9.208"

Model Number Designation



Assembly Arrangements



Offer of Sale

The items described in this document and other documents or descriptions provided by Parker Hannifin Corporation, its subsidiaries and its authorized distributors are hereby offered for sale at prices to be established by Parker Hannifin Corporation, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer ("Buyer") shall be governed by all of the following Terms and Conditions. Buyer's order for any such items, when communicated to Parker Hannifin Corporation, its subsidiary or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of:

(A) All Power Take-Off units one (1) year from date of installation.

(B) Except 267, 277, 278, 242, 244, 246, 250, 251 and 859 series two (2) years from date of installation. **THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED. NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER'S DESIGNS OR SPECIFICATIONS.**

5. Limitation Of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall

have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. Patents, U.S. Trademarks, copyrights, trade dress and trade secrets (hereinafter 'Intellectual Property Rights'). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter 'Events of Force Majeure'). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

1/06-P



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