

## Chelsea PTO 236 Parts Manual

Pro Gear Chelsea 236 Series PTO parts manual to assist in identifying the parts for your Chelsea Power Take Off unit.

If you need any assistance identifying the correct Power Take Off unit for your truck and equipment, contact your Chelsea replacement part specialists at Pro Gear and Transmission.

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# **CHELSEA<sup>®</sup>**

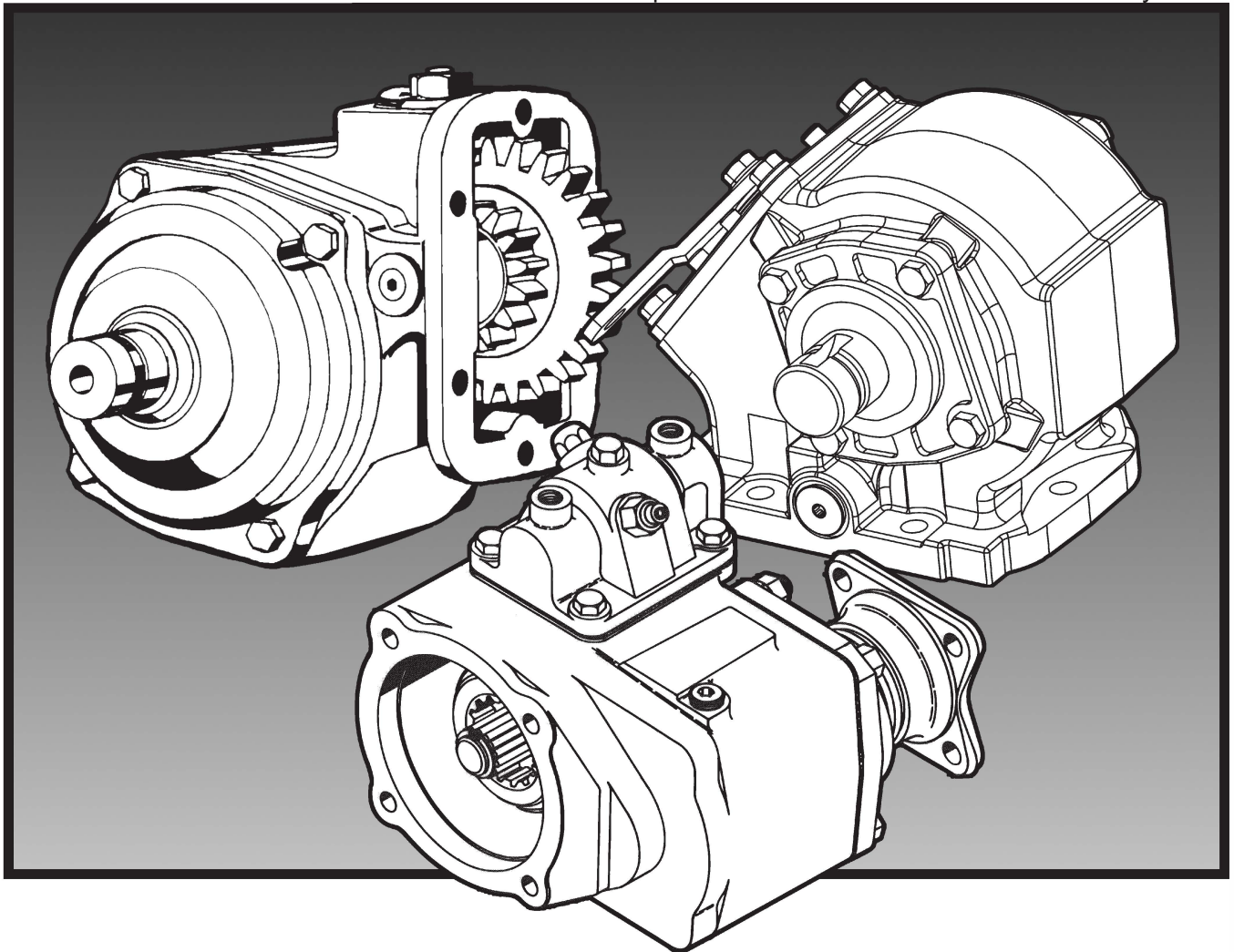
## **Parts List**

### **236 Series**

Bulletin HY25-2236-M1/US

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Effective: January 15, 2009  
Supersedes: HY25-2236-M1/US Dated July 2007



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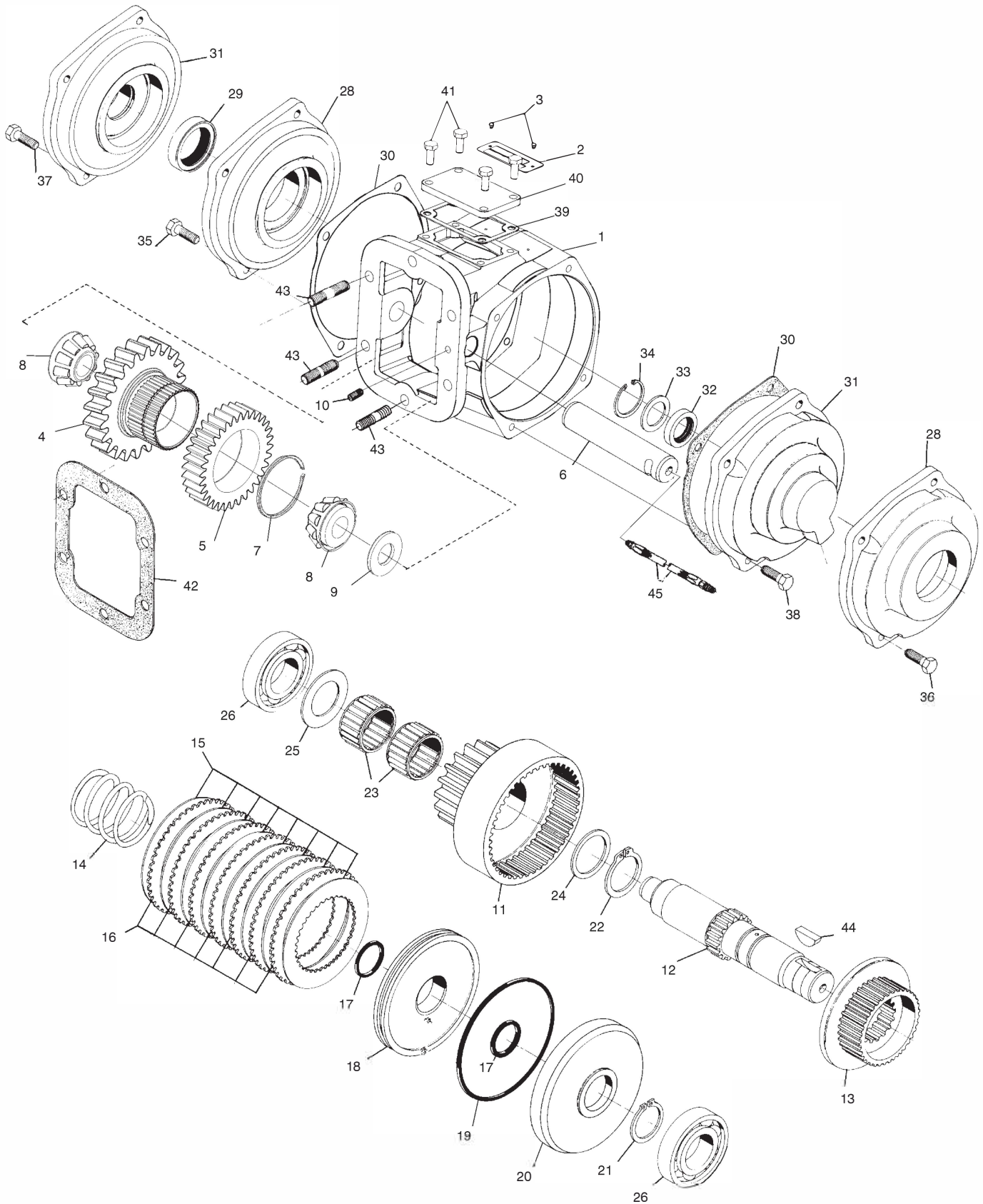
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Bill of Materials

Item	Part Number	Description	Quantity
1	1-P-588	Housing, Standard Mount ("X" & "G") .....	1 or
	1-P-593	Housing, Deep Mount ("Z") .....	1 or
	1-P-594X	Housing, Dowel Pin Mount ("D") .....	1
2	68-P-2	Name Plate.....	1
3	378422	Drive Screw .....	2
4	See Chart Pg. 5	Gear - Input .....	1
5	See Chart Pg. 5	Gear - Input Ratio .....	1
6	9-P-60	Idler Shaft (Standard No pressure Lube).....	1 or
	9-P-71	Idler Shaft (Pressure Lube) .....	1
7	379522	Lock Ring.....	1
8	550439	Bearing Cone .....	2
9	14-P-74-2	Input Gear Spacer (.115 - .117).....	A.R.
	14-P-74-3	Input Gear Spacer (.118 - .120).....	A.R.
	14-P-74-4	Input Gear Spacer (.121 - .123).....	A.R.
	14-P-74-5	Input Gear Spacer (.124 - .126).....	A.R.
10	378452-7	Set Screw (.250"-20 x .500") "X", "G" & "D" Mounting.....	1 or
	378452-4	Set Screw (.250"-20 x .312") "Z" Mounting .....	1
11	See Chart Pg. 5	Gear - Output.....	1
	See Chart Pg. 8	Driveshaft and Clutch Assembly (Includes items 12 thru 21) .....	1
	328926-1X	"XD" Output/Ass'y 4 & 6	
	328926-2X	"XD" Output/Ass'y 3 & 5	
	328926-3X	"XK", "XP" Output/Ass'y 4 & 6	
	328926-4X	"XK", "XP" Output/Ass'y 3 & 5	
	328926-5X	"XR", "RA", "RB" Output/Ass'y 3 & 5	
	328926-6X	"XX" Output/Ass'y 3 & 5	
	328926-7X	"XX" Output/Ass'y 4 & 6	
	328926-8X	"XY" Output/Ass'y 3 & 5	
	328926-9X	"AF" Output/Ass'y 3 & 5	
	328926-10X	"AF" Output/Ass'y 4 & 6	
	328926-11X	"RF" Output/Ass'y 3 & 5	
	328926-12X	"XE" Output/Ass'y 3 & 5	
	328926-13X	"BD" Output/Ass'y 3 & 5	
12	3-P-677	Output Shaft ("XD" Ass'y 4 & 6).....	1 or
	3-P-679	Output Shaft ("XD" Ass'y 3 & 5).....	1 or
	3-P-678	Output Shaft ("XK", "XP" Ass'y 4 & 6).....	1 or
	3-P-686	Output Shaft ("XK", "XP" Ass'y 3 & 5).....	1 or
	3-P-703	Output Shaft ("XR", "RA", "RB" Ass'y 3 & 5).....	1 or
	3-P-787	Output Shaft ("XX" Ass'y 3 & 5).....	1 or
	3-P-788	Output Shaft ("XX" Ass'y 4 & 6).....	1 or
	3-P-825	Output Shaft ("XY" Ass'y 3 & 5).....	1 or
	3-P-896	Output Shaft ("AF" Ass'y 3 & 5).....	1 or
	3-P-895	Output Shaft ("XD" Ass'y 4 & 6).....	1 or
	3-P-957	Output Shaft ("RF" Ass'y 3 & 5).....	1 or
	3-P-964	Output Shaft ("XE" Ass'y 3 & 5).....	1 or
	3-P-970	Output Shaft ("BD" Ass'y 3 & 5).....	1
13	2-P-458	Inner Clutch Gear .....	1
14	37-P-39	Clutch Spring.....	1
15	379485	Friction Disc.....	8
16	379595	Clutch Plate .....	7
17	28-P-244	O-Ring .....	2
	329179X	Piston Assembly .....	1
18	380057	Piston.....	1
19	28-P-178	O-Ring .....	1
20	379323	Clutch Back-up Cylinder .....	1
21	378576	Snap Ring.....	1
22	379746	Lock Ring External .....	1
23	560918	Roller Bearing.....	2
24	14-P-49	Spacer .....	1
25	31-P-57	Thrust Washer (Output Shaft), All Except "BD" .....	1 or
	31-P-113	Thrust Washer ("BD" Output Shaft) .....	1
26	550010	Ball Bearing .....	2

A.R. — As Required

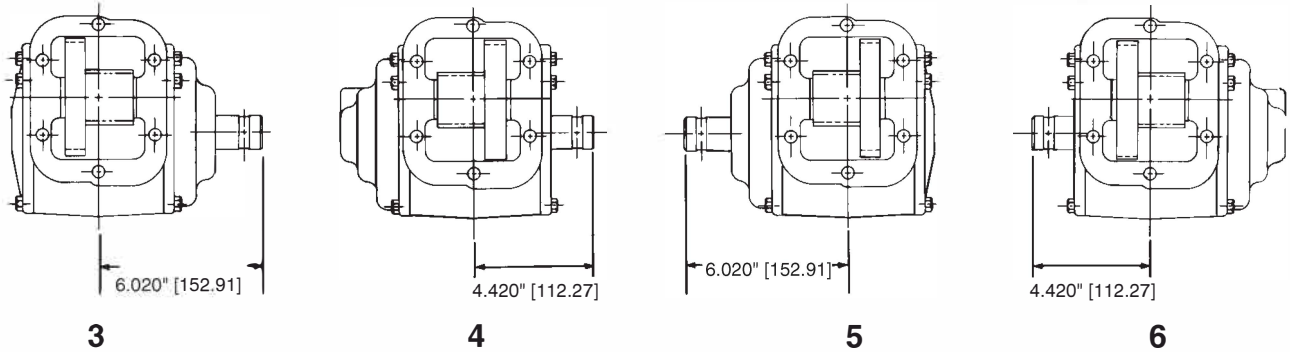
Bill of Materials

Item	Part Number	Description	Quantity
28	<b>21-P-451</b> <b>21-P-297</b>	Bearing Cover - Open End .....1 For 3 & 5 Assembly ("XX", "XD" & "BD" Outputs) For 4 & 6 Assembly ("XX" & "XD" Outputs)	
	All Others See Pg. 9		
29	<b>28-P-225</b>	Oil Seal, Output ("XD" & "BD" Output Only).....1 or	
	See Chart Pg. 8	Oil Seal, Output (All Others).....1	
30	<b>22-P-53</b>	Gasket - Bearing Cover .....2	
	<b>328806-1X</b> <b>328807-1X</b> <b>328807-3X</b>	Bearing Cover Assembly - Closed End .....1 For 3 & 5 Assembly (Includes items 31 thru 34) For 4 & 6 Assembly (Includes items 31 thru 34) For 3 & 5 Assembly "BD" (includes items 31 thru 34)	
31	<b>21-P-295</b> <b>21-P-449</b>	Bearing Cover - Closed End .....1 For 3 & 5 Assembly For 4 & 6 Assembly	
32	<b>28-P-179</b>	Oil Seal.....1	
33	<b>378811</b>	Back-up Plate .....1	
34	<b>378849</b>	Snap Ring.....1	
35	<b>378430-10</b>	Capscrew - Hex Head .3125" - 18 x 1.000" (Ass'y 4 & 6, Standard Shaft).....4 or	
36	<b>378430-12</b>	Capscrew - Hex Head .3125" - 18 x 1.250" (Ass'y 3 & 5, Standard Shaft).....4 or	
37	<b>378430-10</b>	Capscrew - Hex Head .312" - 18 x 1.000" (Closed Ass'y 3 & 5), Except "BD" .....4 or	
38	<b>378430-12</b>	Capscrew - Hex Head .312" - 18 x 1.250" (Closed Ass'y 4 & 6, "BD" 3 & 5), .....4	
39	<b>35-P-93</b>	Gasket, Cover Plate (No E.O.C.) .....1	
40	<b>34-P-133</b>	Cover Plate (No E.O.C.) .....1	
41	<b>378429-6</b>	Hex Capscrew .250"-20 x .625".....4	
42	<b>328950-6X</b> <b>35-P-9-1</b> <b>35-P-9-2</b>	Mounting Gasket and Installation Instructions Mounting Gasket (.010").....2 Mounting Gasket (.020").....2	
N.S.	<b>328946X</b>	Caution Label Kit .....1	
	<b>7170-1X</b>	<b>Loose Parts</b> Mounting Parts Kit (Standard) .....1 or	
43	<b>379423-14</b>	Stud, .375"-16 & .375"-24 x 1.750" .....6	
N.S.	<b>379744</b>	Flange Nut, .375"-24" .....6	
N.S.	<b>7170-72X</b>	Mounting Parts Kit (Metric).....1 or	
N.S.	<b>328170-95X</b>	Mounting Parts Kit (Deep Mount) .....1	
44	<b>500007-29</b>	Woodruff Key ("XD" & "BD" Outputs Only).....1	
45	<b>328075X</b>	Pressure Lube Hose.....1	
	<b>328748X</b> <b>328948-24X</b>	Pump Mounting Kit ("XR" Output Only) .....1 Sealant and Installation Instructions ("D" Mount Only) .....1	
	<b>329043-7X</b> <b>329043-8X</b> <b>329043-3X</b>	<b>Service Kits</b> Bearing, Seal, Gasket & Clutch Pack Replacement Kit.....1 Bearing, Seal, Gasket, Piston and Clutch Pack Kit .....1 Clutch Repair Kit.....1	
	<b>328594-17X</b> <b>328594-18X</b> <b>328594-19X</b> <b>328594-20X</b>	Bearing and Spacer Kit, "X" Lube ("X", "D", "G" & "K" Housing).....1 Bearing and Spacer Kit, "P" Lube ("X", "D", "G" & "K" Housing).....1 Bearing and Spacer Kit, "X" Lube ("Z", "L" Housings) .....1 Bearing and Spacer Kit, "P" Lube ("Z", "L" Housings) .....1	
	<b>329043-9X</b> <b>329043-11X</b> <b>329043-13X</b>	Retrofit Kit, "XD" to "BD" 3 & 5 Ass'y .....1 Overhaul Kit, "BD" 3 & 5 Ass'y (Brake Section Only).....1 Gasket & Seal Kit, "BD" Option.....1	

N.S. — Not Shown

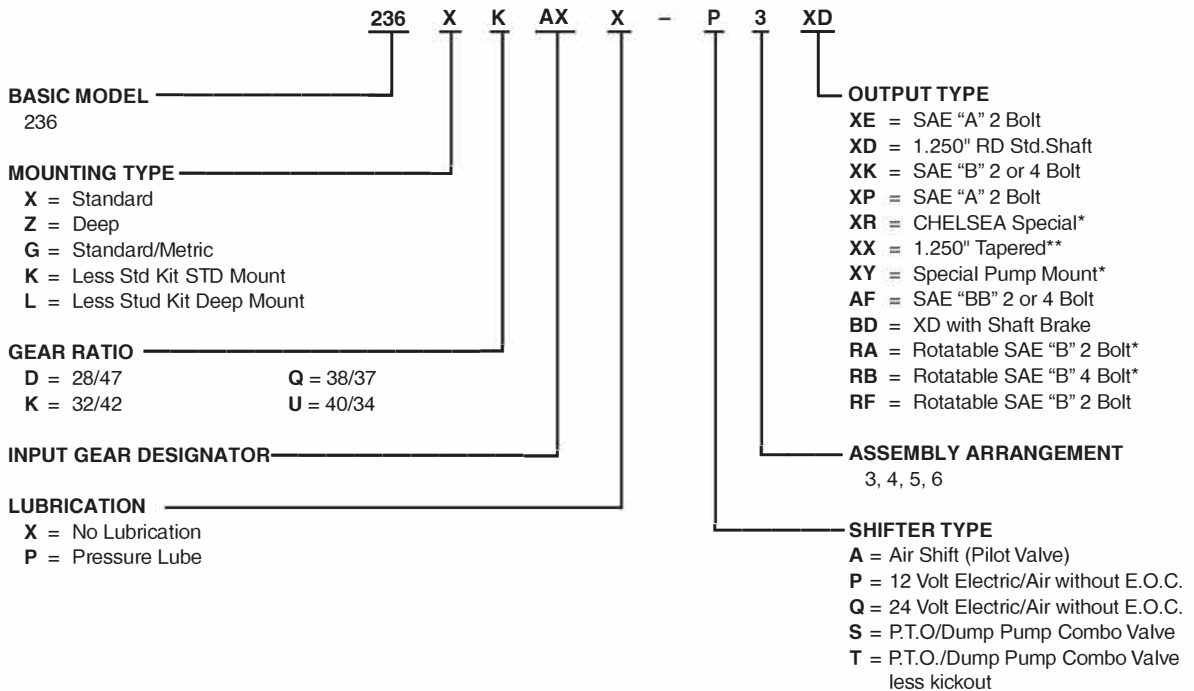
**Dimensions**

**Assembly Arrangements (“XD” Output Shown)**



**NOTE:** Centerline of P.T.O. to End of Shaft “BD” Output Option is 6.020” for All Arrangements.

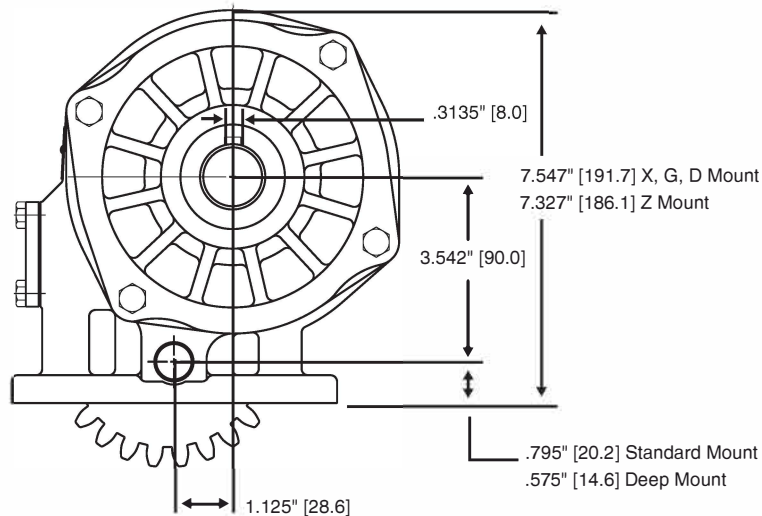
**Model Number Designation**



\* Only available in 3 & 5 assembly arrangements

\*\* Uses Spicer® 3-1-604 Companion Flange

**Case Dimensions**



## Gear Charts

## Gear Chart

Input Gears Item 4				Input Gears Item 4			
Model Number	Input Gear Part Number	Gear Type	No. Teeth	Model Number	Input Gear Part Number	Gear Type	No. Teeth
236**AB	5-P-1001	SPUR	19	236**HD	5-P-1189	Right Hand	25
236**AH	5-P-1004	SPUR	22	236**HF	5-P-1191	Right Hand	17
236**AP	5-P-1006	Left Hand	21	236**HG	5-P-1192	Right Hand	19
236**AR	5-P-1008	Left Hand	21	236**HH	5-P-1193	Right Hand	28
236**AX	5-P-1010	Left Hand	22	236**HL	5-P-1196	Right Hand	22
236**BG	5-P-1015	Left Hand	23	236**HM	5-P-1197	Right Hand	20
236**BM	5-P-1020	Left Hand	22	236**HR	5-P-1201	Right Hand	26
236**BP	5-P-1022	Right Hand	26	236**HS	5-P-1202	Right Hand	26
236**BQ	5-P-1023	Left Hand	25	236**HY	5-P-1237	Left Hand	26
236**BR	5-P-1024	Right Hand	26	236**JA	5-P-1243	Left Hand	27
236**BS	5-P-1025	Left Hand	26	236**JC	5-P-1247	Right Hand	27
236**CB	5-P-1029	Left Hand	25	236**JG	5-P-1256	Left Hand	28
236**DA	5-P-1037	SPUR	23	236**JH	5-P-1257	Left Hand	29
236**DB	5-P-1038	SPUR	39	236**JK	5-P-1261	Left Hand	24
236**DM	5-P-1045	Left Hand	17	236**JL	5-P-1262	Right Hand	24
236**DN	5-P-1046	Left Hand	19	236**JM	5-P-1263	Left Hand	22
236**DU	5-P-1050	Left Hand	28	236**JN	5-P-1264	Right Hand	22
236**ES	5-P-1059	Left Hand	22	236**JP	5-P-1268	Right Hand	33
236**EV	5-P-1060	SPUR	40	236**JS	5-P-1310	Left Hand	20
236**EW	5-P-1061	Left Hand	20	236**JU	5-P-1316	Left Hand	25
236**FN	5-P-1070	Left Hand	26	236**JW	5-P-1319	Left Hand	23
236**GQ	5-P-1150	Left Hand	26	236**JY	5-P-1312	Right Hand	20
236**GY	5-P-1184	Right Hand	21	236**KA	5-P-1318	Right Hand	25
236**HA	5-P-1186	Right Hand	22	236**KB	5-P-1321	Right Hand	23
236**HB	5-P-1187	Right Hand	23	236**KX	5-P-1411	Left Hand	26

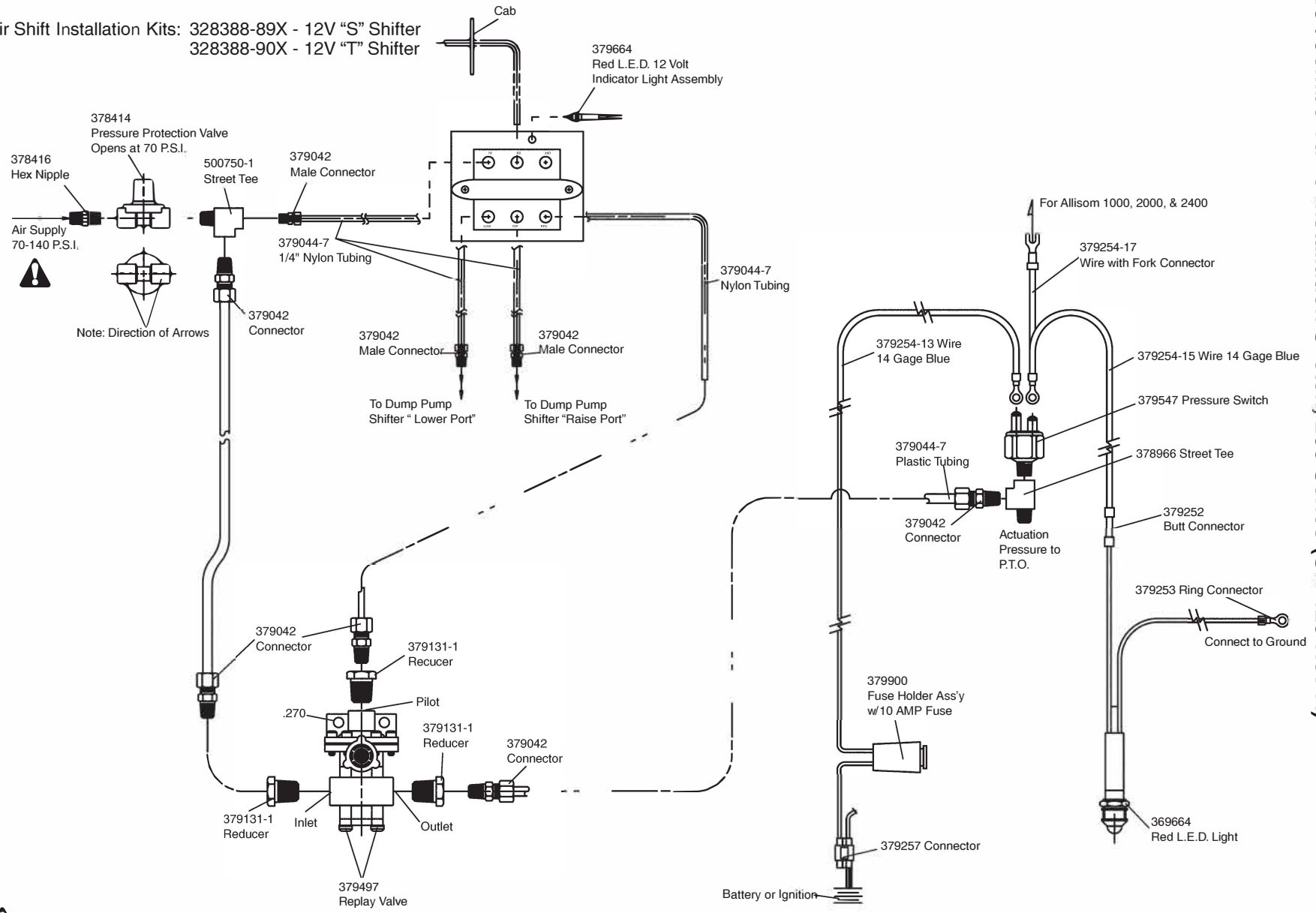
## Ratio Gear Chart

Input Ratio Gears Item 5			Output Ratio Gears Item 11		
Ratio	Part Number	No. Teeth	Ratio	Part Number	No. Teeth
236*D	5-P-1378	28	236*D	2-P-606	47
236*K	5-P-1379	32	236*K	2-P-638	42
236*Q	5-P-1380	38	236*Q	2-P-639	37
236*U	5-P-1381	40	236*U	2-P-810	34

**P.T.O./Combo Valve Installation Sketch, 236 Series (SK-429 Rev A)**

Kits (Order Separately)  
 329336-1X - J1-6 Feedback Kit

Air Shift Installation Kits: 328388-89X - 12V "S" Shifter  
 328388-90X - 12V "T" Shifter

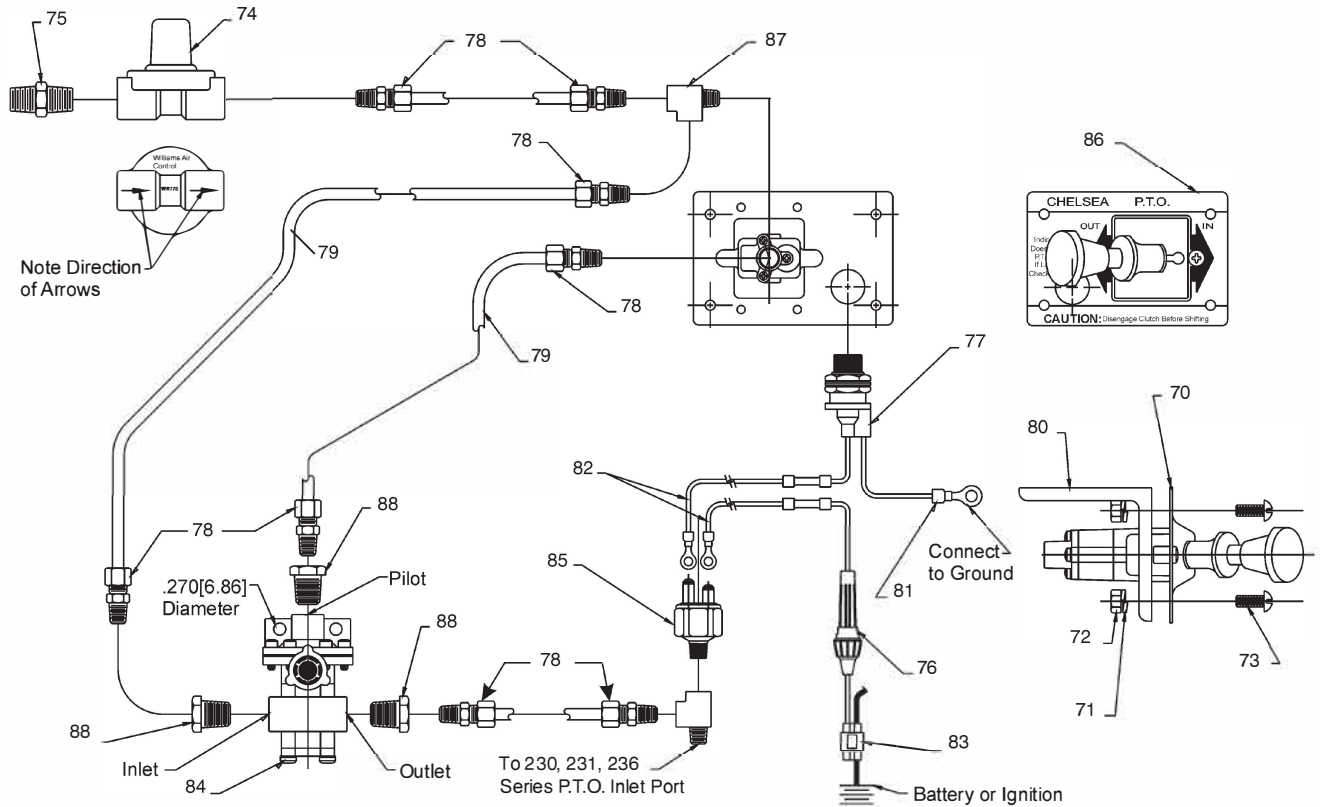


**Warning:** Connect directly to air supply. Do not use tubing between air supply and pressure protection valve.

**Caution:** When installing nylon tubing avoid sharp angles, exhaust and manifold systems.



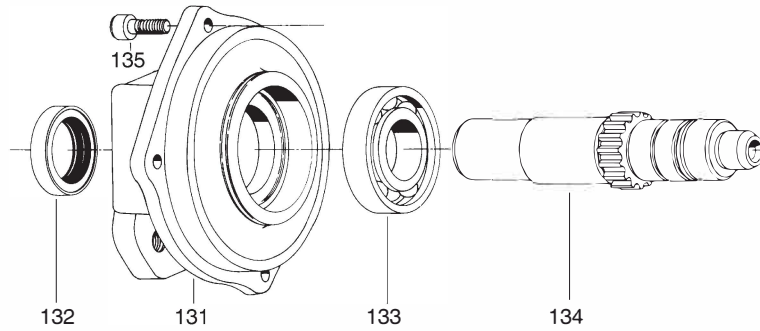
**Air Shift Installation With Pilot Valve (SK-246)**



Item	Part Number	Description	Quantity
	<b>328388-57X</b>	<b>Air Shift Installation Kit (With Pilot Valve)</b> .....	1
70	<b>328863X</b>	Air Valve 2 Position 2 Way .....	1
	<b>328931X</b>	Parts Bag, Mounting .....	1
71	<b>500357-7</b>	Lockwasher .....	4
72	<b>500376-6</b>	Hex Nut .....	4
73	<b>500448-9</b>	Slotted Screw .....	4
74	<b>378414</b>	Pressure Protection Valve .....	1
75	<b>378416</b>	Hex Nipple .....	1
76	<b>379900</b>	Fuse Holder (10 amp.) .....	1
77	<b>378978</b>	Indicator Light .....	1
78	<b>379042</b>	Male Connector .....	8
79	<b>379044-7</b>	Nylon Tubing (35 ft.) .....	1
80	<b>379130</b>	Support Bracket .....	2
81	<b>379253</b>	Ring Connector .....	1
82	<b>379254-15</b>	Ring Wire & Butt Connector .....	2
83	<b>379257</b>	Splice Connector .....	1
84	<b>379497</b>	Pilot Valve .....	1
85	<b>379547</b>	Pressure Switch .....	1
N.S.	<b>379640</b>	Connector .....	1
86	<b>68-P-27</b>	Name Plate .....	1
87	<b>500750-1</b>	Street Tee .....	2
88	<b>379131-1</b>	Reducer .....	3

**Flanges**

**Pump Shafts & Flanges**

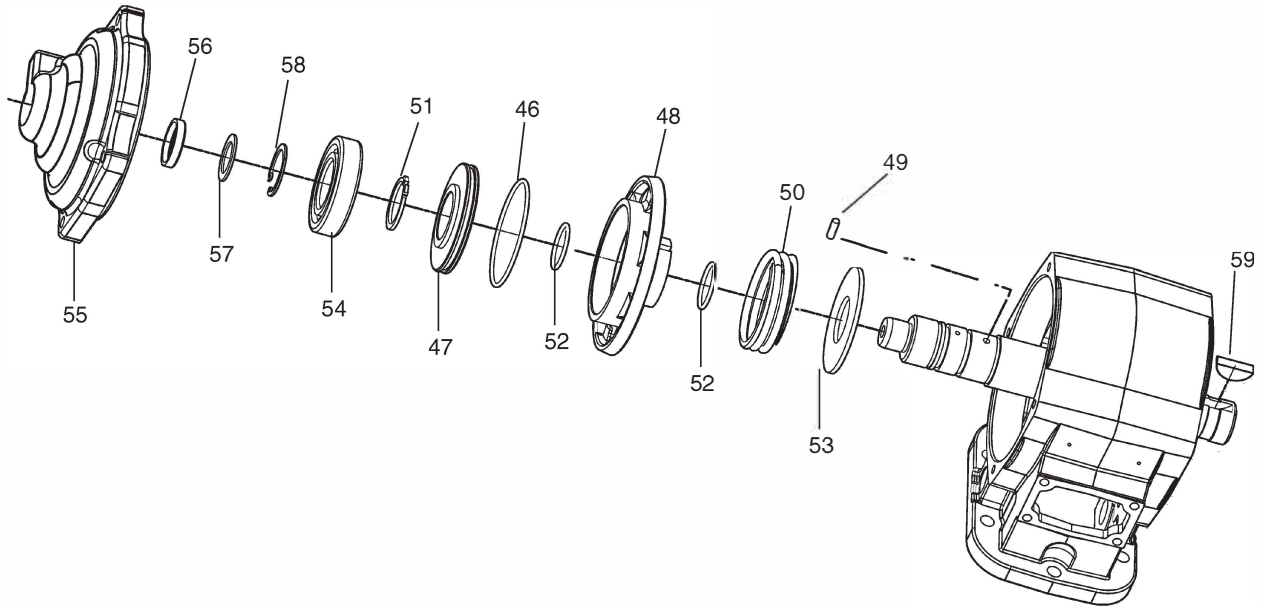


Pump Mounting Suffix (See Note)	Flange Item 131	Bearing Cap Gasket	Seal Item 132	Bearing Item 133	Driveshaft & Clutch		Output Shaft Spacer	Hex Socket Head Screw Item 135
					Assembly Number *	Output Shaft Item 134		
BD Assembly 3 & 5	21-P-451	22-P-53 (2)	28-P-225	550010	328926-13X	3-P-970		378430-12
XE Assembly 3 & 5	21-P-568	22-P-53 (2)	28-P-225	550010	328926-12X	3-P-964	4-P-183	378447-7
XK Assembly 3 & 5 Assembly 4 & 6	21-P-445	22-P-53 (2)	28-P-225	550010	328926-4X	3-P-686		378447-7
	21-P-303	22-P-53 (2)	28-P-225	550010	328926-3X	3-P-678		378447-6
XP Assembly 3 & 5 Assembly 4 & 6	21-P-443	22-P-53 (2)	28-P-225	550010	328926-4X	3-P-686		378447-7
	21-P-301	22-P-53 (2)	28-P-225	550010	328926-3X	3-P-678		378447-6
XR Assembly 3 & 5 (Only)	21-P-447	22-P-53 (2)	28-P-225	550010	328926-5X	3-P-703		378447-6
XX Assembly 3 & 5 Assembly 4 & 6	21-P-297	22-P-53 (2)	28-P-225	550010	328926-6X	3-P-787		378430-12
	21-P-297	22-P-53 (2)	28-P-225	550010	328926-7X	3-P-788		378430-10
XY Assembly 3 & 5	21-P-468	22-P-53 (2)	28-P-230	550010	328926-8X	3-P-825		378447-7
AF Assembly 3 & 5 Assembly 4 & 6	21-P-445	22-P-53 (2)	28-P-225	550010	328926-9X	3-P-896		378447-7
	21-P-303	22-P-53 (2)	28-P-225	550010	328926-10X	3-P-895		378447-6
RA Assembly 3 & 5•	21-P-570	22-P-53 (2)	28-P-225	550010	328926-5X	3-P-703		378447-6
RB Assembly 3 & 5•	21-P-572	22-P-53 (2)	28-P-225	550010	328926-5X	3-P-703		378447-6
RF Assembly 3 & 5•	21-P-628	22-P-53 (2)	28-P-225	550010	328926-11X	3-P-957		378447-7

The Rotatable Flanges attach to the 21-P-447 Flange

- 328748X Pump to Flange Mounting Kit Must Be Used with "R" Suffix  
Kit Contains: (4) 378430-11 Hex Head Capscrews (.3125" - 18 x 1.125")  
(4) 378919 Washers (Special)  
(4) 45-P-11 Bushing Guide

\* - Assembly Includes the Pump Shaft Shown Plus Items 13 thru 22 on page 2



Item	Part Number	Description	Quantity
	<b>329410X</b>	Brake Assembly (“BD” Output) .....	1
46	<b>28-P-252</b>	O-Ring .....	1
47	<b>66-P-49</b>	Piston.....	1
48	<b>379976</b>	Brake Disk .....	1
49	<b>379977</b>	Pin (.187" x .625").....	1
50	<b>37-P-24</b>	Spring, Manual Transmissions.....	1
51	<b>378576</b>	Retaining Ring.....	1
52	<b>28-P-244</b>	O-Ring .....	2
53	<b>31-P-113</b>	Thrust Washer (“BD” Output Shaft) .....	1
54	<b>550010</b>	Ball Bearing.....	1
	<b>328807-3X</b>	Bearing Cap Sub Assembly (Closed End 3 & 5, “BD”)	
55	<b>21-P-670</b>	Bearing Cap .....	1
56	<b>28-P-179</b>	Oil Seal.....	1
57	<b>378811</b>	Back-up Plate .....	1
58	<b>378849</b>	Retainer Ring.....	1
59	<b>500007-29</b>	Woodruff Key (“XD” & “BD” Outputs Only).....	1

**Pump Flange Conv. Kits Bills of Materials**

**236 Series**

Conversion Kit Number	Ass'y	Flange Type	Shaft Type	
329043-9X	XD to BD	3 & 5	Shaft Brake	1.25" Round w/key
329160-11X	XD to XK	3 & 5	S.A.E. "B" 2 or 4 Bolt Flange	S.A.E. "B" .875" 13 - Tooth
329160-12X	XD to XP	3 & 5	S.A.E. "A" 2 Bolt (4.188 BC) w/ S.A.E. "B" 4 Bolt (5.0" BC)	S.A.E. "B" .875" 13 - Tooth
329160-13X	XD to XR	3 & 5	For Parker P16 "S" Flange Pumps	S.A.E. "B" .875" 13 - Tooth
329160-14X	XD to XY	3 & 5	DIN 5462	DIN 5462
329160-15X	XD to XK	4 & 6	S.A.E. "B" 2 or 4 Bolt Flange	S.A.E. "B" .875" 13 - Tooth
329160-16X	XD to XP	4 & 6	S.A.E. "A" 2 Bolt (4.188 BC) w/ S.A.E. "B" 4 Bolt (5.0" BC)	S.A.E. "B" .875" 13 - Tooth
329160-33X	XD to RA	3 & 5	S.A.E. "B" 2 Bolt Rotatable Flange	S.A.E. "B" .875" 13 - Tooth
329160-34X	XD to RB	3 & 5	S.A.E. "B" 4 Bolt Rotatable Flange	S.A.E. "B" .875" 13 - Tooth
329160-35X	XR to RA	3 & 5	S.A.E. "B" 2 Bolt Rotatable Flange	S.A.E. "B" .875" 13 - Tooth
329160-36X	XR to RB	3 & 5	S.A.E. "B" 4 Bolt Rotatable Flange	S.A.E. "B" .875" 13 - Tooth
329160-43X	XD to XX	All	DIN 100	Round Tapered w/ key
329160-46X	XD to RF	3 & 5	S.A.E. "B" 2 Bolt Rotatable Flange	S.A.E. "BB" 1.0" 15 - Tooth
329160-50X	XD to AF	3 & 5	S.A.E. "B" 2 or 4 Bolt Flange	S.A.E. "BB" 1.0" 15 - Tooth
329160-51X	XD to AF	4 & 6	S.A.E. "B" 2 or 4 Bolt Flange	S.A.E. "BB" 1.0" 15 - Tooth
329160-55X	XD to XE	3 & 5	S.A.E. "A" Pilot 2 Bolt	S.A.E. .625" 9 - Tooth

**Bills of Material for Pump Flange Conversion Kits**

Part Number	Description	Quantity
<b>329043-9X</b>	<b>Conversion Kit (XD to BD)</b>	
378576	Snap Ring.....	2
379977	Pin .....	1
550010	Bearing, Roller.....	1
22-P-53	Bearing Cap Gasket.....	2
28-P-225	Oil Seal.....	1
28-P-244	O-Ring.....	4
31-P-113	Washer, Spacer.....	1
328807-3X	Bearing Cap Assembly.....	1
329410X	Brake Assembly.....	1
37-P-24	Spring .....	1
3-P-970	Pump Shaft.....	1
500007-29	Woodruff Key.....	1
379746	Snap Ring.....	1
35-P-9-1	Gasket .....	2
35-P-9-2	Gasket .....	2
<b>328160-11X</b>	<b>Conversion Kit (XD to XK)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-445	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket.....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	1
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-686	Pump Shaft.....	1
<b>328160-12X</b>	<b>Conversion Kit (XD to XP)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-443	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket.....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal .....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	1
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-686	Pump Shaft.....	1

**Pump Flange Conv. Kits Bills of Materials**

**236 Series**

Part Number	Description	Quantity
<b>328160-13X</b>	<b>Conversion Kit (XD to XR)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-447	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket.....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	1
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-703	Pump Shaft.....	1
<b>328160-14X</b>	<b>Conversion Kit (XD to XY)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
378898	Flat Head Socket Capscrew (.438" - 14 x 1.00") .....	1
379335	Coupling, Splined .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-468	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket.....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-230	Oil Seal.....	1
28-P-244	O-Ring .....	1
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-825	Pump Shaft.....	1
<b>328160-15X</b>	<b>Conversion Kit (XD to XK)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-303	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket.....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	1
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
3-P-678	Pump Shaft.....	1
<b>328160-16X</b>	<b>Conversion Kit (XD to XP)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-301	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket.....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	1
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
3-P-678	Pump Shaft.....	1

**Pump Flange Conv. Kits Bills of Materials**

Part Number	Description	Quantity
<b>328160-33X</b>	<b>Conversion Kit (XD to RA)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-447	Bearing Cap .....	1
21-P-628	Pump Flange .....	1
22-P-53	Bearing Cap Gasket .....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	1
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-703	Pump Shaft.....	1
<b>328160-34X</b>	<b>Conversion Kit (XD to RB)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-447	Bearing Cap .....	1
21-P-572	Pump Flange .....	1
22-P-53	Bearing Cap Gasket .....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	2
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-703	Pump Shaft.....	1
<b>328160-35X</b>	<b>Conversion Kit (XR to RA)</b>	
21-P-628	Pump Flange .....	1
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
<b>328160-36X</b>	<b>Conversion Kit (XR to RB)</b>	
21-P-572	Pump Flange .....	1
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
<b>328160-43X</b>	<b>Conversion Kit (XD to XX)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379111	Square Key.....	1
379746	Lock Ring.....	1
501181	Hex Nut.....	1
22-P-53	Bearing Cap Gasket .....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	2
378430-10	Hex Capscrew (.312" - 18 x 1.00") .....	4
378430-12	Hex Capscrew (.312" - 18 x 1.25") .....	4
3-P-787	Pump Shaft.....	1
3-1-604	Companion Flange (Sold Separately) .....	1

Part Number	Description	Quantity
<b>329160-46X</b>	<b>Conversion Kit (XD to RF)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-447	Bearing Cap .....	1
21-P-628	Pump Flange .....	1
22-P-53	Bearing Cap Gasket .....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	2
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-957	Pump Shaft.....	1
<b>329160-50X</b>	<b>Conversion Kit (XD to AF)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-445	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket .....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	2
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-896	Pump Shaft.....	1
<b>329160-51X</b>	<b>Conversion Kit (XD to AF)</b>	
378576	Snap Ring.....	1
378849	Retainer Ring .....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-303	Pump Flange .....	1
22-P-53	Bearing Cap Gasket .....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-224	Oil Seal.....	2
28-P-225	Oil Seal.....	1
378447-6	Socket Head Capscrew (.312" - 18 x 1.00") .....	4
3-P-895	Pump Shaft.....	1
<b>329160-55X</b>	<b>Conversion Kit (XD to XE)</b>	
378576	Snap Ring.....	1
379688	Grease Packet.....	1
379746	Lock Ring.....	1
21-P-568	Bearing Cap .....	1
22-P-53	Bearing Cap Gasket .....	2
28-P-178	O-Ring .....	1
28-P-179	Oil Seal.....	1
28-P-225	Oil Seal.....	1
28-P-244	O-Ring .....	2
378447-7	Socket Head Capscrew (.312" - 18 x 1.250") .....	4
3-P-964	Pump Shaft.....	1
4-P-183	Spacer .....	1



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**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 18 months from date of sale.

(B) Except 267, 269, 277, 278, 246, 247, 250, 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.**

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**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.

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**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.

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