

Parts List 221 Series

Effective: September 7, 2012
Supersedes: HY25-2221-M1/US
Dated January 2, 2012





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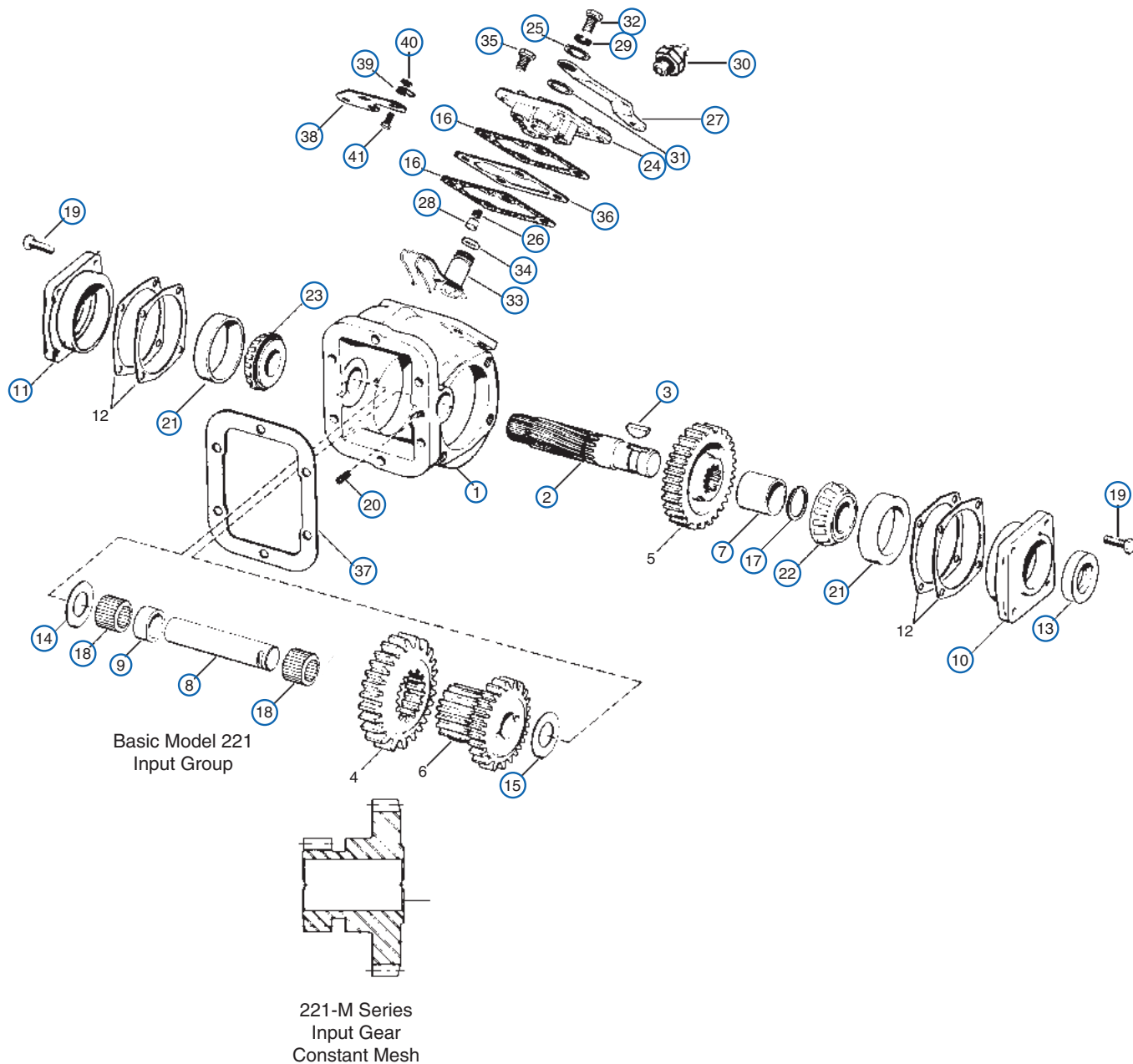
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Exploded View

Parts List 221 Series



Bill of Materials

Parts List
221 Series

Item	Part Number	Description	Qty.
1 ▶	1-P-467	Housing, Standard Mount ("X" Mounting)	1
	1-P-468	Housing, Extra Deep Mount ("Q" Mounting)	1
	▶ 1-P-469	Housing, Deep Mount ("Z" Mounting)	1
	▶ 1-P-470X	Housing, Low Profile ("R" Mounting)	1
2 ▶	3-P-202	Driveshaft, Standard Output (1.25" Round) ("XD" Output)	1
	See Chart Pg. 10	Shaft, Pump (All other Outputs)	1
3 ▶	500007-29	Woodruff Key (.3125" x 1.125") ("XD" Output Only)	1
4	See Chart Pg. 5	Gear, Input	1
5	See Chart Pg. 5	Gear, Output	1
6	See Chart Pg. 5	Gear, Ratio	1
7 ▶	4-P-45	Spacer, Driveshaft (1.410" Wide)	1
8 ▶	9-P-55	Shaft, Input Idler (4.812" Long) ("X" Lube Option)	1
N.S.	9-P-54	Shaft, Pressure Lube Input Idler (4.812" long) ("P" or "W" Lube Option)	1
N.S.	379231	Pipe Plug, Pressure Lube (.125" - 27 NPTF) ("P" or "W" Lube Only)	1
N.S.	328075X	Hose Assembly, Pressure Lube (24" Long) ("P" Lube Option)	1
9 ▶	14-P-50	Spacer, Caged Needle Bearing (.587")	1
10 ▶	328273X	Bearing Cap, Open End, Standard Output ("XD" Output)	1
11 ▶	328274X	Bearing Cap, Closed End, Standard Output (All other Outputs)	1
12	22-P-24-1	Gasket, Bearing Cover (.010")	A.R.
	22-P-24-2	Gasket, Bearing Cover (.020")	A.R.
	22-P-24-3	Gasket, Bearing Cover (.015")	A.R.
13 ▶	28-P-216	Oil Seal, Output Shaft ("XD" Output)	1
14 ▶	31-P-58	Thrust Washer 1.015" x 2.000" x .065"	1
15 ▶	31-P-47	Thrust Washer 1.016" x 1.5" x .064"	1
16 ▶	35-P-8	Gasket, Cover (.032") (use 2 for Wire Shift)	1
17 ▶	378391	Retaining Ring, Driveshaft ("R" Mounting Not Shown)	1
18 ▶	550886	Bearing, Caged Needle Roller	2
19 ▶	378447-6	Capscrew, Bearing Cap Hex Head (.3125" - 18 x 1") (Wire Shift)	8
20 ▶	378452-7	Setscrew, Standard Mount Housing (.250" - 20 x .500")	1
	378452-4	Setscrew, Deep Mount Housing (.250" - 20 x .312")	1
21 ▶	550221	Bearing Cup	2
22 ▶	550397	Bearing Cone, Output End	1
23 ▶	550532	Bearing Cone, Closed End	1
	▶ 328805-1X	Cable Shift Cover Assembly (Assemblies 3 & 6) (Wire Control)	1
	▶ 328805-2X	Cable Shift Cover Assembly (Assemblies 4 & 5) (Wire Control)	1
		(Includes Items 24 thru 34)	
24 ▶	34-P-74	Cover, Shifter	1
25 ▶	500365-22	Flat Washer	1
26 ▶	37-P-19	Poppet Spring, Shifter	1
27 ▶	51-P-22	Shift Lever	1

N.S. — Not Shown A.R. — As Required

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Bill of Materials**Parts List
221 Series**

Item	Part Number	Description	Qty.
28 ➤	63-P-16	Shift Poppet.....	1
29 ➤	500356-10	Lockwasher, Shift Lever	1
30 ➤	379639	Indicator Switch (Normally Off)	1
31 ➤	378004	Flat Washer.....	1
32 ➤	500409-6	Screw, Shift Lever Hex (.3125" - 24 x .625")	1
33 ➤	328803-1X	Post & Plate Assembly (Assemblies 3 & 6).....	1
➤	328803-2X	Post & Plate Assembly (Assemblies 4 & 5).....	1
34 ➤	28-P-191	O-Ring, Shifter Post	1
35 ➤	378430-10	Capscrew, Hex Head (.3125" - 18 x 1")	4
36 ➤	5-A-125	Spacer, Shifter Cover (Wire Shift Only)	1
N.S.	68-P-2	Name Plate	1
N.S.	378422	Drive Screw, Name Plate.....	1
LOOSE PARTS			
37 ➤	328948-6X	Gasket & Installation Instructions	1
N.S.	328346-10X	Cable Control Assembly (Includes 378441-10 10' Cable & 378502 Knob) ("W" Shifter)	1
➤	328380X	Mounting Parts Kit (Cable Control) ("W" Shifter) (Includes items 38 thru 41).....	1
38 ➤	50-P-17	Bracket, Cable Control	1
39 ➤	50-P-19	Bracket, Swivel.....	1
N.S.	378019	Pin, Pivot	1
40 ➤	378326	Nut, Hex (.25" - 20)	1
N.S.	500568-4	Setscrew (.25" - 20 x .50")	1
41 ➤	500396-8	Capscrew, Hex Head (.25" - 20 x .75").....	1
➤	329245X	Wire Control Bracket Kit ("C" Shifter)	1
➤	378414	Pressure Protection Valve ("V" Shift Only)	1
N.S.	328170-1X	Stud Kit, Standard Mount.....	1
N.S.	328170-26X	Stud Kit, Deep Mount.....	1
N.S.	328170-155X	Stud Kit, Low Profile	1
➤	328751-1X	Installation Kit, Cable or Lever Indicator Light ("C", "H", "W", "X", "Y")	1
➤	328388-47X	Installation Kit, 12-Volt Electric Over Air ("P" Shifter).....	1
➤	328388-48X	Installation Kit, 24-Volt Electric Over Air ("Q" Shifter)	1
➤	328356-13X	Gasket & Seal Kit.....	1
➤	328356-15X	Seal Kit, Cable Shift.....	1
➤	328356-18X	Seal Kit, Lever Shift	1
➤	328356-19X	Seal Kit, Air Shift.....	1

N.S. — Not Shown A.R. — As Required

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Bill of Materials

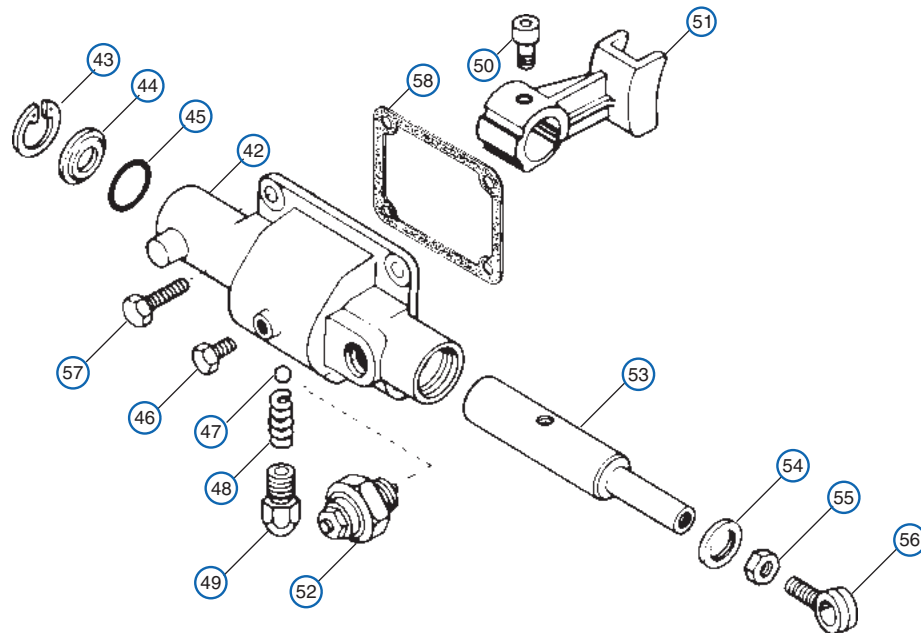
Item	Part Number	Description	Qty.
		SERVICE KITS	
▶	328390-88X	Air Shift Field Conversion Kit	
	328390-89X	Air Shift Field Conversion Kit	
▶	328390-109X	12-Volt Field Conversion Kit (Wire to Electric)	
	328390-110X	24-Volt Field Conversion Kit (Wire to Electric)	
	328390-111X	12-Volt Field Conversion Kit (Lever to Electric)	
	328390-112X	24-Volt Field Conversion Kit (Lever to Electric)	
▶	328356-13X	Gasket & Seal Field Replacement Kit	
	329068X	"X" to "R" Mounting Conversion Kit	

Parts List
221 Series

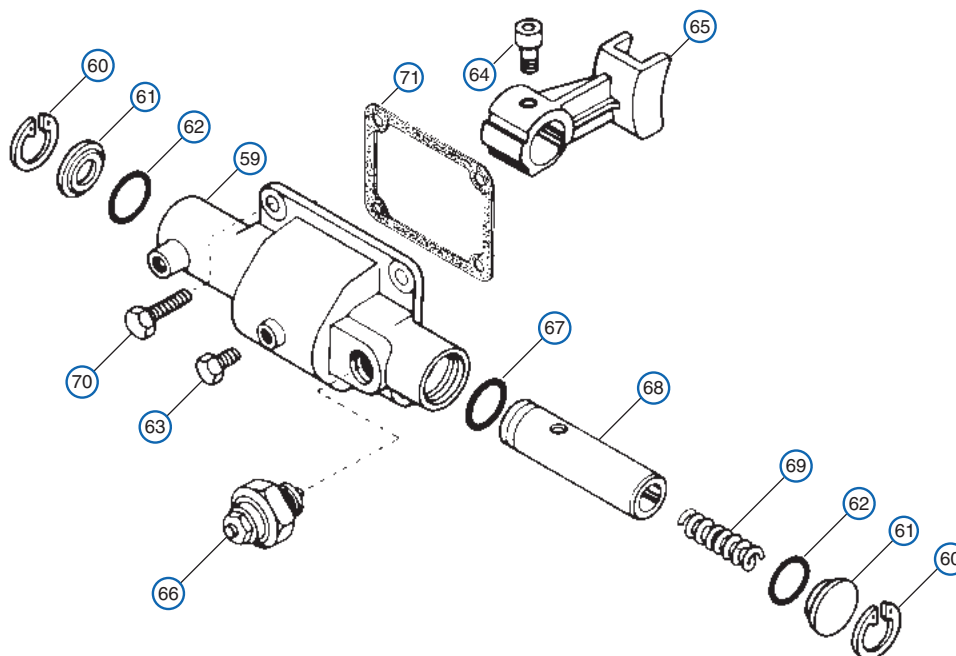
Gear Chart

Model Number	Part Number	Helix Angle	Input Gear No. Teeth	Part Number	Ratio Gear No. Teeth	Part Number	Output Gear No. Teeth
221*CAK	5-P-226	SPUR	25 ▶	5-P-903	14	2-P-283	29
221*CAK*-M	5-P-994	SPUR	25	5-P-994	14		
221*CAB	5-P-227	SPUR	21 ▶	5-P-903	14	2-P-283	29
221*CAH	5-P-319	SPUR	26 ▶	5-P-903	14	2-P-283	29
221*CAJ	5-P-569	SPUR	25 ▶	5-P-903	14	2-P-283	29
221*CDA	5-P-633	SPUR	27 ▶	5-P-903	14	2-P-283	29
221*CEV	5-P-978	SPUR	44 ▶	5-P-903	14	2-P-283	29
221*EAB	5-P-227	SPUR	21 ▶	5-P-905	15	2-P-179	28
221*EAD	5-P-504	Left Hand	20 ▶	5-P-907	15	2-P-479	27
221*EAH	5-P-202	SPUR	25 ▶	5-P-905	15	2-P-179	28
221*EAJ	5-P-569	SPUR	25 ▶	5-P-905	15	2-P-179	28
221*EAK*-M	5-P-910	SPUR	25 ▶	5-P-905	15	2-P-179	28
221*EAK	5-P-226	SPUR	25 ▶	5-P-905	15	2-P-179	28
221*EDA	5-P-633	SPUR	27 ▶	5-P-905	15	2-P-179	28
221*EDQ	5-P-811	Left Hand	22 ▶	5-P-907	15	2-P-479	27
221*FAH	5-P-202	SPUR	25	5-P-989	19	2-P-741	24
221*FDA	5-P-633	SPUR	27	5-P-989	19	2-P-741	24
221*LAB	5-P-227	SPUR	21 ▶	5-P-904	18	2-P-388	25
221*LDA	5-P-633	SPUR	27 ▶	5-P-904	18	2-P-388	25
221*LAH	5-P-202	SPUR	25 ▶	5-P-904	18	2-P-388	25
221*LAK	5-P-226	SPUR	25 ▶	5-P-904	18	2-P-388	25
221*PDA	5-P-633	SPUR	27	5-P-902	20	2-P-256	23
221*PAB	5-P-227	SPUR	21	5-P-902	20	2-P-256	23
221*PAH	5-P-202	SPUR	25	5-P-902	20	2-P-256	23
221*PAK	5-P-226	SPUR	25	5-P-902	20	2-P-256	23

NOTE: Check Current Price Sheet for Availability of input Options

Lever Control**Parts List
221 Series**

Item	Part Number	Description	Qty.
	328724X	Lever Control Assembly (Includes items 42 thru 56)	
42 ►	34-P-60	Cover, Lever Shift	1
43 ►	378316	Snap Ring	1
44 ►	378315	Plug	1
45 ►	28-P-42	O-Ring	1
46 ►	378285-1	Guide Screw	1
47 ►	378002	Poppet Ball	1
48 ►	37-P-41	Poppet Spring	1
49 ►	378554	Poppet Cap	1
50 ►	378447-4	Screw, Socket Head (.3125" - 18 x .750")	1
51 ►	32-P-129	Shift Fork	1
52 ►	379639	Indicator Switch (Normally Off)	1
53 ►	11-P-117	Shifter Shaft	1
54 ►	28-P-229	Oil Seal	1
55 ►	500381-3	Jam Nut	1
56 ►	36-P-1	Eye Bolt	1
57 ►	378430-8	Screw, Hex Head (.3125" - 18 x .750")	4
58 ►	35-P-8	Gasket, Shift Cover	1



Item	Part Number	Description	Qty.
►	328723X	Air Shift Cover Assembly (Includes items 59 thru 69)	
59 ►	34-P-115	Cover, Air Shift	1
60 ►	378316	Snap Ring.....	2
61 ►	378315	Plug	2
62 ►	28-P-42	O-Ring	2
63 ►	378285-1	Guide Screw.....	1
64 ►	378447-4	Screw, Socket Head (.3125" - 18 x .750")	1
65 ►	32-P-129	Shifter Fork.....	1
66 ►	379639	Indicator Switch (Normally Off)	1
67 ►	28-P-41	O-Ring.....	1
68 ►	11-P-75	Piston Shaft.....	1
69 ►	37-P-21	Spring.....	1
70 ►	378430-8	Screw, Hex Head (.3125" - 18 x .750")	4
71 ►	35-P-8	Gasket, Shift Cover.....	1
N.S.	328388-37X	Installation Kit, Air Shift.....	1

N.S. — Not Shown

Flange Suffix	Flange Type	Shaft Type	Conversion Kit	
AA	Special for England	.982" - 6T Spline	—	—
AF	S.A.E. "B" 2 or 4-Bolt	1.0" - 15T Spline	XD to AF	328591-30X
AK	S.A.E. "B" 2-Bolt	7/8" - 13T Spline (“B” Ratio Only)	XD to AK XD to AK	328591-28X 329436-7X
AW	S.A.E. "B" 2 or 4-Bolt	1/4" - 14T Spline	XD to AW AW to AW Wetspline	328591-30X 328591-140X
AZ	Non Standard	1-1/4" - 14T Spline	XD to AZ	328591-70X
FF	S.A.E. "B" 2 or 4-Bolt	7/8" Rd w/1/4" Key	XD to FF	328591-29X
GA	Rotatable S.A.E. "B" 2-Bolt	● 7/8" - 13T Spline	XD to GA XR to GA RA to GA	328591-72X 328591-73X 328591-106X
GB	Rotatable S.A.E. "B" 4-Bolt	● 7/8" - 13T Spline	XD to GB XR to GB RB to GB	328591-74X 328591-75X 328591-107X
GF	S.A.E. "BB" 2 or 4-Bolt	● 1.0" - 15T Spline	XD to GF AF to GF	328591-71X 328591-108X
GH	Rotatable S.A.E. "BB" 2-Bolt	● 1.0" - 15T Spline	XD to GH RF to GH	328591-116X 328591-114X
GJ	S.A.E. "B" 4-Bolt Rotatable	● 1.0" - 15T Spline	XD to GJ RE to GJ	328591-138X 328591-114X
GK	S.A.E. "B" 2 or 4-Bolt	● 7/8" - 13T Spline	XD to GK XK to GK	328591-89X 328591-86X
GP	S.A.E. "A" Pilot 2 or 4-Bolt	● 7/8" - 13T Spline	XD to GP XP to GP	328591-90X 328591-86X
■ GQ	S.A.E. "B" 2 or 4-Bolt	● 7/8" - 13T Spline	XD to GQ XQ to GQ	328591-91X 328591-86X
GR	CHELSEA SPECIAL 4-Bolt	● 7/8" - 13T Spline	XD to GR	328591-76X
GY	DIN 5462 Pump Mounting	● 7/8" - 13T Spline	XD to GY XY to GY	328591-92X 328591-89X
GZ	Non Standard 4-Bolt	● 1-1/4" - 14T Spline	XD to GZ AZ to GZ	328591-93X 328591-88X
» LB	S.A.E. "A" Pilot 2-Bolt	7/8" - 13T Spline	XP to LB	328591-45X
» LC	S.A.E. "B" 2 or 4-Bolt	7/8" - 13T Spline	XQ to LC	328591-46X
» LD	Similar to "XD"	1-1/4" Rd	XD to LD	
» LF	S.A.E. "B" 2 or 4-Bolt	7/8" - 13T Spline	XK to LF	328591-48X
PA	Parker P2-060 Pump Mounting	7/8" - 13T Spline	XD to PA	328591-143X
PF	Parker P2-060 Pump Mounting	1.0" - 15T Spline	XD to PF	328591-142X
RA	Rotatable S.A.E. "B" 2-Bolt	7/8" - 13T Spline	XD to RA XR to RA	328591-55X 328591-53X
RB	Rotatable S.A.E. "B" 4-Bolt	7/8" - 13T Spline	XD to RB XR to RB	328591-56X 328591-54X
RC	Rotatable S.A.E. "A" 2-Bolt	5/8" - 9T Spline	XD to RC	328591-112X
RD	Rotatable S.A.E. "A" 2-Bolt	7/8" - 13T Spline	XD to RD	328591-113X
RE	S.A.E. "B" 4-Bolt Rotatable	1.0" - 15T Spline	XD to RE	328591-134X
RF	Rotatable S.A.E. "B" 2-Bolt	1.0" - 15T Spline	XD to RF	328591-78X
RH	Rotatable S.A.E. "A" 2-Bolt	3/4" - 11T Spline	XD to RH	328591-151X
RJ	Rotatable S.A.E. "B" 2 or 4-Bolt	1.0" - 15T Spline	XD to RJ	329684X

NOTE: Check Current Price Sheet for Availability of Output Options

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XR to "XK" Conversion Flange 21-P-525

● Shaft with Grease Fitting

■ Similar to Ass'y "XK" Flange Rotated 90°

» Lube Pump Option

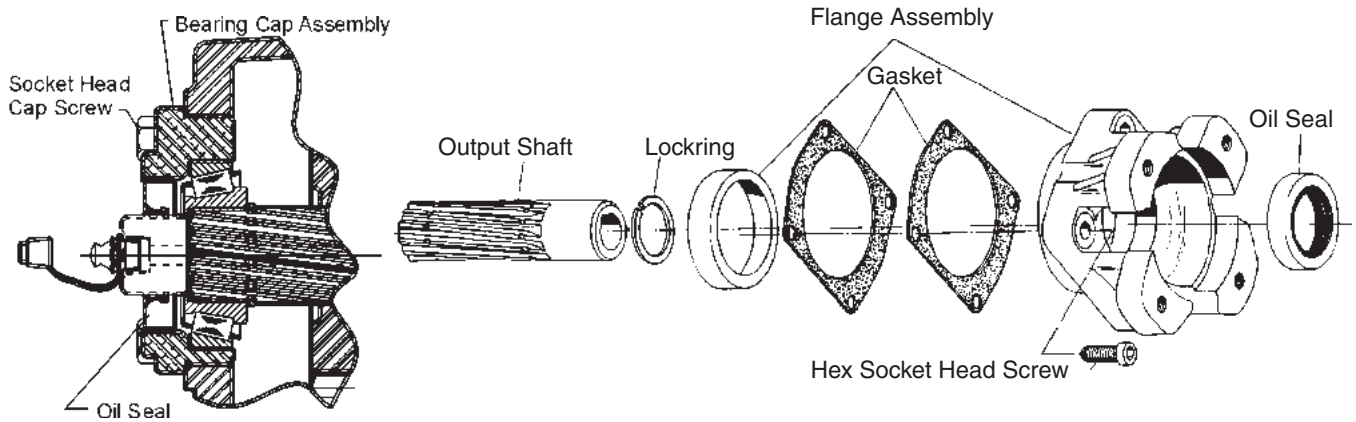
Flange Suffix	Flange Type	Shaft Type	Conversion Kit	
RY	Rotatable DIN 5462	DIN 5462	XD to RY	328591-131X
SQ	S.A.E. "B" 4-Bolt	7/8" - 13T Spline (“B” Ratio Only)	XD to XQ	328591-149X
			XD to SQ	328591-9X
XE	S.A.E. “A” 2 or 4-Bolt	5/8" - 9T Spline	XD to XE	328591-27X
XG	Non Standard S.A.E. “A” 2-Bolt	3/4" Rd w/3/16" Key	XD to XG	328591-10X
XJ	Non Standard 2-Bolt	3/4" Rd w/3/16" Key	XD to XJ	328591-11X
XK	S.A.E. “B” 2 or 4-Bolt	7/8" - 13T Spline	XD to XK	328591-16X
XL	Non Standard 2-Bolt	7/8" - 13T Spline	XD to XL	328591-18X
XM	Non Standard 6-Bolt	3/4" Rd w/3/16" Key	XD to XM	328591-20X
XN	Non Standard 6-Bolt	7/8" - 13T Spline	XD to XN	328591-21X
XO	S.A.E. “A” Pilot 2-Bolt	3/4" Rd w/3/16" Key	XD to XO	328591-26X
XP	S.A.E. “A” Pilot 2-Bolt	7/8" - 13T Spline	XD to XP	328591-23X
■ XQ	S.A.E. “B” 2 or 4-Bolt	7/8" - 13T Spline	XD to XQ	328591-17X
XR	CHELSEA SPECIAL 4-Bolt	7/8" - 13T Spline	XD to XR	328591-52X
XV	Rd Shaft	1-1/4" w/Set Screw	XD to XV	328591-130X
XX	S.A.E. Tapered Shaft	1-1/4" w/5/16" Key	XD to XX	328591-122X
XY	DIN 5462 Pump Mounting	DIN 5462	XD to XY	328591-121X

NOTE: Check Current Price Sheet for Availability of Output Options

XR to “XK” Conversion Flange 21-P-525

- Shaft with Grease Fitting
- Similar to Ass’y “XK” Flange Rotated 90°
- Lube Pump Option

Output Options Bill of Materials

Parts List
221 Series

Output Flange	Part Number	Description	Qty.
AA	3-P-862	Output Shaft.....	1
	➤ 28-P-216	Oil Seal	1
	239102X	Bearing Cap Ass'y (21-P-532)	1
	➤ 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
AF	3-P-854	Output Shaft.....	1
	➤ 28-P-219	Oil Seal	1
	➤ 329088X	Bearing Cap Ass'y (21-P-522)	1
	➤ 378447-10	Socket Head Capscrew (.312" - 18 x 2.0")	4
AK	3-P-282	Output Shaft.....	1
	➤ 3-P-979	Output Shaft ("B" Ratio Only).....	1
	➤ 28-P-216	Oil Seal	1
	➤ 328989X	Bearing Cap Ass'y (21-P-472)	1
	➤ 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
AW	3-P-844	Output Shaft (14-Tooth INT. Spline)	1
	➤ 379231	Plug Pipe .125" - 27 (For "AW" Output Only)	1
	➤ 35-P-92	Gasket (Ref. Pack Bench Item) ("AW" Only)	1
	➤ 329088X	Bearing Cap Ass'y (21-P-522)	1 or
	➤ 329350X	Bearing Cap Ass'y (221 Wet Spline)	
	➤ 378447-10	Socket Head Capscrew (.312" - 18 x 2.0")	4
AZ	3-P-844	Output Shaft.....	1
	➤ 28-P-275	Oil Seal	1
	➤ 329052X	Bearing Cap Ass'y (21-P-508)	1
	➤ 378447-11	Socket Head Capscrew (.312" - 18 x 2.5")	4
FF	3-P-851	Output Shaft.....	1
	➤ 28-P-219	Oil Seal	1
	➤ 329088X	Bearing Cap Ass'y (21-P-522)	1
	➤ 378447-10	Socket Head Capscrew (.312" - 18 x 2.0")	4

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Output Options Bill of Materials

Output Flange	Part Number	Description	Qty.
(1) G*	3-P-923X	"GA", "GB", "GR", Shaft Assemblies	1 or
	► 3-P-981X	"GE" Shaft Assembly	1 or
	► 3-P-921X	"GF" Shaft Assemblies	1 or
	► 3-P-933X	"GQ", "GK", "GP" Shaft Assemblies	1 or
	► 3-P-938X	"GY" Shaft Assemblies	1 or
	► 3-P-939X	"GZ" Shaft Assemblies	1 or
	► 3-P-941X	"GH", "GJ" Shaft Assemblies	1
	► 500168-2	Lube Fitting (Zerk)	1
	► 379819	Grease Fitting Cap	1
	► 379688	Coupling Lube Pack (5/8 fl.oz)	1
	► 28-P-268	Rear Bearing Cap Shaft Oil Seal	1
	► 328273X	Rear Bearing Cap Assembl	1
	► 378447-6	Rear Bearing Cap Hex Head Capscrew (.312" - 18" x 1.0")	4
L*	3-P-857	Output Shaft ("LD")	1
	3-P-858	Output Shaft ("LA", "LB", "LC", "LE", "LF")	1
	329091X	Lube Pump & Bearing Cap Ass'y	1
	► 329092X	Pressure Lube Hose Ass'y	1
	► 500841-1	Elbow 90° Street	1
	► 378447-6	Hex Capscrew (.312" - 18 x 1.0")	4
PA	3-P-283	Output Shaft	1
	► 28-P-216	Oil Seal	1
	► 329195X	Bearing Cap Ass'y (21-P-574)	1
	► 21-P-661	Pump Flange	1
	► 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4
	► 328170-207X	Capscrew Bag Kit	1
	► 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	3
PF	3-P-924	Output Shaft	1
	► 28-P-219	Oil Seal	1
	► 329264X	Bearing Cap Ass'y (21-P-629)	1
	► 21-P-661	Pump Flange	1
	► 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4
	► 28-P-271	O-Ring	1
RA	3-P-283	Output Shaft	1
	► 3-P-980	Output Shaft ("B" Ratio Only)	1
	► 28-P-216	Oil Seal	1
	► 329195X	Bearing Cap Ass'y (21-P-574)	1
	► 21-P-628	Pump Flange (Ship Loose w/Unit)	1
	► 378447-6	Socket Head Capscrew	4
	► 328170-207X	Capscrew Bag Kit	1
	378170-6	Socket Head Capscrew	3

Continued on Next Page

(1) NOTE: For Output Flange Information see the related flange Bills of Material:

GA=RA, GB=RB, GF=AF, GR=XR, GK=XK, GP=XP, GQ=XQ, GY=XY, GZ=AZ, GH=RF, GJ=RE & GE=XE

Output Options Bill of Materials

Parts List
221 Series

Output Flange	Part Number	Description	Qty.
RB	3-P-283	Output Shaft.....	1
	▶ 3-P-980	Output Shaft ("B" Ratio Only).....	1
	▶ 28-P-216	Oil Seal	1
	▶ 329195X	Bearing Cap Ass'y (21-P-574)	1
	▶ 21-P-572	Pump Flange (Ship Loose w/Unit)	1
	▶ 378447-6	Socket Head Capscrew	4
	▶ 328170-207X	Capscrew Bag Kit	1
	378170-6	Socket Head Capscrew	3
RC	3-P-800	Output Shaft.....	1
	▶ 28-P-216	Oil Seal	1
	▶ 329322X	Bearing Cap Ass'y (21-P-640)	1
	▶ 21-P-638	Pump Flange	1
	▶ 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4
	▶ 328170-210X	Capscrew Bag Kit	1
	▶ 378447-4	Socket Head Capscrew (.312" - 18 x .75")	6
RE	3-P-924	Output Shaft.....	1
	▶ 28-P-219	Oil Seal	1
	▶ 329264X	Bearing Cap Ass'y (21-P-629)	1
	▶ 21-P-654	Pump Flange	1
	▶ 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4
	▶ 28-P-271	O-Ring	1
RF	3-P-924	Output Shaft.....	1
	▶ 28-P-219	Oil Seal	1
	▶ 329264X	Bearing Cap Ass'y (21-P-629)	1
	▶ 21-P-626	Pump Flange	1
	▶ 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	7
	▶ 28-P-271	O-Ring	1
RH	3-P-1010	Output Shaft.....	1
	▶ 28-P-216	Oil Seal	1
	▶ 329322X	Bearing Cap Ass'y (21-P-640)	1
	▶ 21-P-638	Pump Flange	1
	▶ 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4
	▶ 378447-4	Socket Head Capscrew (.312" - 18 x .75")	6
	▶ 328170-210X	Capscrew Bag Kit	1
RJ	3-P-854	Output Shaft.....	1
	▶ 329656X	Bearing Cap Ass'y (21-P-732)	1
	▶ 21-P-734	Pump Flange	1
	▶ 379231	Plug Pipe Thread (.125" - 27)	1
	37940-6	Socket Head Capscrew (M10 - 1.5" x .984")	6
	▶ 22-P-126	Gasket	1
	▶ 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4

Continued on Next Page

Output Options Bill of Materials

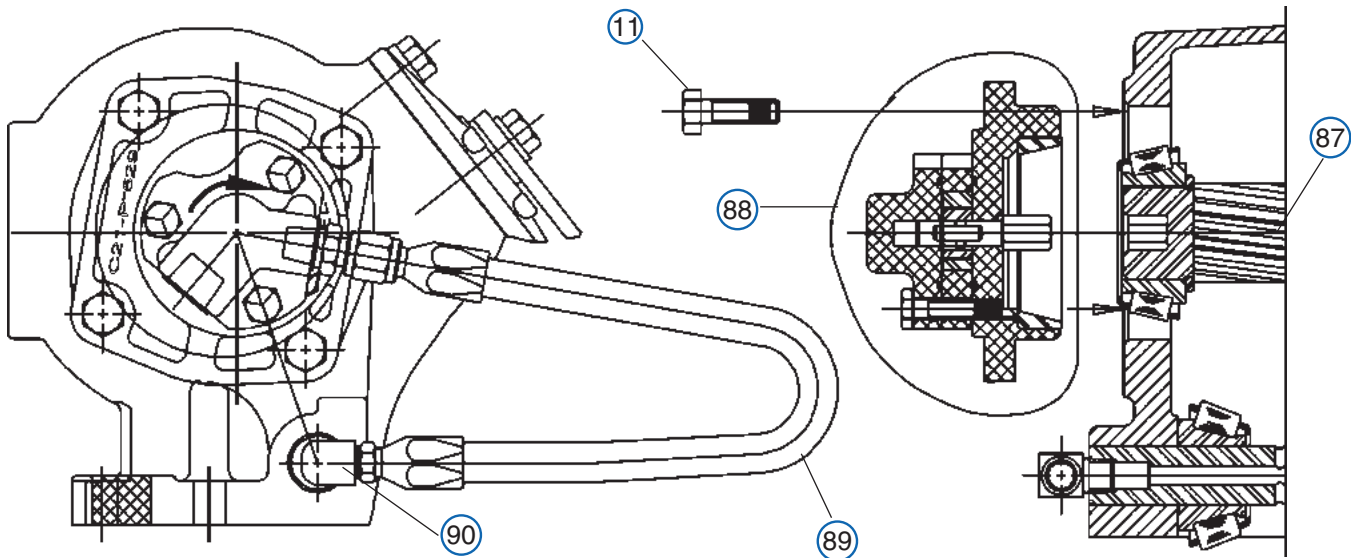
Output Flange	Part Number	Description	Qty.
RY	3-P-768	Output Shaft.....	1
	► 21-P-625	Pump Flange	1
	► 329356X	Bearing Cap Ass'y (21-P-532).....	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
	► 329355-1X	Standard Loose Parts Kit.....	1
	► 379740-6	Socket Head Capscrew (M10 1.5" x .984")	3
	► 22-P-100	Gasket	1
SQ	3-P-282	Output Shaft.....	1
	► 3-P-979	Output Shaft ("B" Ratio Only).....	1
	► 28-P-216	Oil Seal	1
	► 329449X	Bearing Cap Ass'y (21-P-692)	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XE	3-P-800	Output Shaft.....	1
	► 28-P-216	Oil Seal	1
	► 328328X	Bearing Cap Ass'y (21-P-161)	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XG	3-P-281	Output Shaft.....	1
	► 28-P-216	Oil Seal	1
	► 328580X	Bearing Cap Ass'y (21-P-259)	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XJ	3-P-284	Output Shaft.....	1
	► 28-P-216	Oil Seal	1
	► 328580X	Bearing Cap Ass'y (21-P-259)	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XK	3-P-282	Output Shaft.....	1
	► 3-P-979	Output Shaft ("B" Ratio Only).....	1
	► 28-P-216	Oil Seal	1
	► 328333X	Bearing Cap Ass'y (21-P-424) & (28-P-216)	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XL	3-P-283	Output Shaft.....	1
	► 3-P-980	Output Shaft ("B" Ratio Only).....	1
	► 28-P-216	Oil Seal	1
	► 328580X	Bearing Cap Ass'y (21-P-259)	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XM	3-P-284	Output Shaft.....	1
	► 28-P-216	Oil Seal	1
	328583X	Bearing Cap Ass'y (21-P-264)	1
	► 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4

Continued on Next Page

Output Options Bill of Materials

Parts List
221 Series

Output Flange	Part Number	Description	Qty.
XN	3-P-282	Output Shaft.....	1
	➤ 28-P-216	Oil Seal	1
	328584X	Bearing Cap Ass'y (21-P-266)	1
	➤ 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XO	3-P-284	Output Shaft.....	1
	➤ 28-P-216	Oil Seal	1
	➤ 328328X	Bearing Cap Ass'y (21-P-161)	1
	➤ 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XP	3-P-282	Output Shaft.....	1
	➤ 3-P-979	Output Shaft ("B" Ratio Only).....	1
	➤ 28-P-216	Oil Seal	1
	➤ 328328X	Bearing Cap Ass'y (21-P-161)	1
	➤ 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XQ	3-P-282	Output Shaft.....	1
	➤ 3-P-979	Output Shaft ("B" Ratio Only).....	1
	➤ 28-P-216	Oil Seal	1
	➤ 328589X	Bearing Cap Ass'y (21-P-269)	1
	➤ 378447-8	Socket Head Capscrew (.312" - 18 x 1.5")	4
XR	3-P-283	Output Shaft.....	1
	➤ 28-P-216	Oil Seal	1
	➤ 329194X	Bearing Cap Assembly (21-P-574)	1
	➤ 379673	Hex Shoulder Screw (.312" - 24).....	4
	➤ 379063	Flat Washer	4
XV	3-P-202	Output Shaft.....	1
	➤ 3-P-978	Output Shaft ("B" Ratio Only).....	1
	➤ 28-P-216	Oil Seal	1
	➤ 328273X	Bearing Cap Ass'y (21-P-418)	1
	➤ 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4
	➤ 500007-29	Woodruff Key	1
	➤ 379828	Companion Flange	1
	➤ 378454-7	Set Screw	1
XX	3-P-766	Output Shaft.....	1
	➤ 28-P-216	Oil Seal	1
	➤ 328273X	Bearing Cap Ass'y (21-P-418)	1
	➤ 378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4
	➤ 379111	Square Key	1
	501181	Hex Locknut (1.0" - 20)	1
XY	3-P-768	Output Shaft.....	1
	➤ 28-P-275	Oil Seal	1
	328234X	Bearing Cap Ass'y (21-P-614).....	1
	378447-6	Socket Head Capscrew (.312" - 18 x 1.0")	4



NOTE: Pump must rotate in direction of arrow
NOTE: Install Street Elbow into idler shaft before installing idler shaft

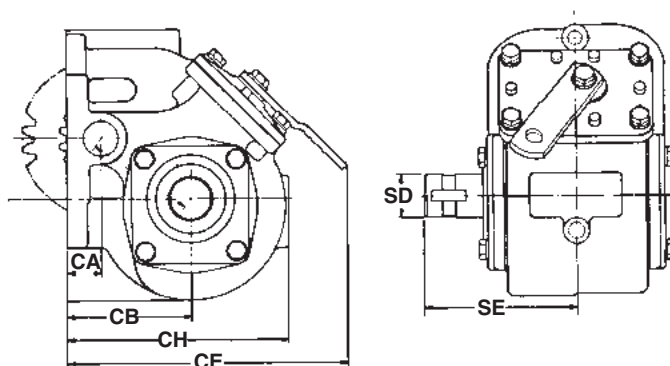
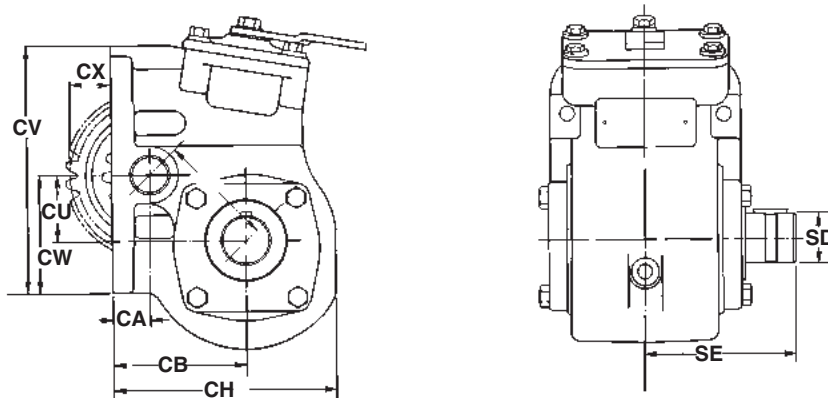
Pump assembly as shown is for “Q”, “W” and “X” ratios.
Rotate as needed for “C”, “E”, “L”, and “P” ratios.

Item	Part Number	Description	Qty.
11 ➤	378447-6	Capscrew, Hex Head (.312" - 18 x 1.000")	4
87 ➤	3-P-857	Shaft, Output (“LD” Output)	1
	3-P-858	Shaft, Output (“LA”, “LB”, “LC”, “LE”, “LF” Output)	1
88	329091X	Lube Pump & Bearing Cap Assembly	1
89 ➤	329092X	Pressure Lube Hose Assembly	1
90 ➤	500841-1	Street Elbow, 90°	1

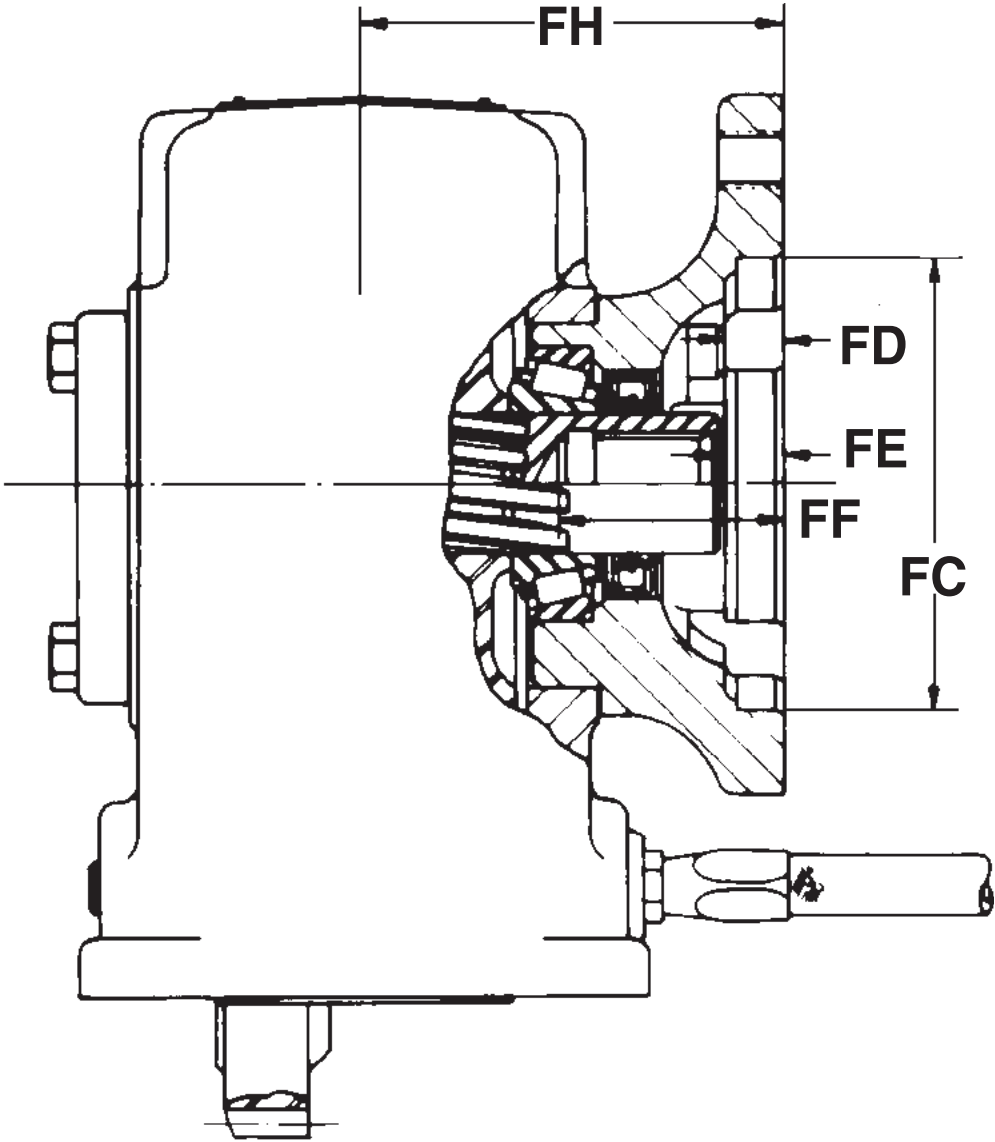
Case Dimensions**Parts List
221 Series**

Dimension Symbol	Description	Case Part Number and Dimensions			
		1-P-467 221X	1-P-469 221Z	1-P-470 221R	1-P-468 221Q
CA	Face of Case to Center Line of Input Hole	0.972"	0.752"	0.500"	0.667"
CB	Face of Case to Center Line of Output Shaft Hole	3.516"	3.296"	2.543"	3.211"
CE	Face of Case to End of Shift Lever	8.000"	7.781"	8.000"	7.695"
CH	Face of Case to extreme Horizontal Edge of Case	(d) 6.281"	6.062"	6.190"	5.982"
CU	Output Shaft BELOW Center Line of Input Gear	1.750"	1.750"	1.941"	2.544"
P.T.O. Output Shaft Dimensions					
SD	Outside Diameter of Standard Shaft — For U-Joint	1.25" Rd .3125" Key	1.25" Rd .3125" Key	1.25" Rd .3125" Key	1.25" Rd .3125" Key
SE	Center Line of P.T.O. to End of Output Shaft	4.123"	4.123"	4.123"	4.123"

(d) — Approximate dimension for estimating clearance in installations.

**221X, 221Z & 221Q****221R**

P.T.O. Case Pump Flange & Shaft Dimensions



Dimensions**Parts List
221 Series**

Pump Flange Suffix	Bolt Circle Dia.	Bolt Holes		FC	FD	FE	FF	FH	Output Shaft	
		Tapped Hole	No. Equally Spaced	Female Pilot Diameter	Pilot Depth	Face to end of Shaft	Face thru Hole	Face to Center of P.T.O.	Hole Diameter	Keyway Width
AA	2.834"	M10 - 1.5"	6	2.050"	N/A	N/A	N/A	3.447"	.982"/.816" - 6T Spline	—
AF	5.750"	.500" - 13T	2	4.003"	0.406"	0.516"	1.984"	4.322"	1" - 15T Spline	—
	5.000"	.500" - 13T	4	4.003"	0.406"	0.516"	1.984"	4.322"	—	—
AK	5.750"	.500" - 13T	2	4.003"	0.406"	0.562"	2.062"	3.688"	7/8" - 13T Spline	—
AW	5.750"	.500" - 13T	2	4.003"	0.406"	N/A	1.984"	4.322"	1-1/4" - 14T Spline	—
	5.000"	.500" - 13T	4	4.003"	0.406"	N/A	1.984"	4.322"	1-1/4" - 14T Spline	—
AZ	5.000"	.500" - 13T	4	4.003"	0.406"	0.695"	2.392"	4.985"	1-1/4" - 14T Spline	—
FF	5.750"	.500" - 13T	2	4.003"	0.406"	0.516"	1.984"	4.322"	7/8" Rd	1/4"
	5.000"	.500" - 13T	4	4.003"	0.406"	0.516"	1.984"	4.322"	—	—
PA●	5.750"	.563"	2	4.003"	0.406"	0.558"	2.058"	4.558"	7/8" - 13T Spline	—
PF●	5.750"	.563"	2	4.003"	.0406"	0.501"	1.969"	4.569"	1" - 15T Spline	—
RA● GA	5.750"	.500" - 13T	2■	4.003"	0.406"	0.558"	2.058"	4.588"	7/8" - 13T Spline	—
RB● GB	5.000"	.500" - 13T	4	4.003"	0.406"	0.558"	2.058"	4.588"	7/8" - 13T Spline	—
RC●	4.188"	.375" - 16T	2■	3.253"	0.270"	0.525"	1.462"	3.694"	5/8" - 9T Spline	—
RD●	4.188"	.375" - 16T	2■	3.253"	0.270"	0.525"	1.462"	3.694"	7/8" - 13T Spline	—
RE, GJ	3.530"	.500" - 13T	4	4.003"	0.406"	0.501"	1.969"	4.569"	1" - 15T Spline	—
RF●, GH	5.750"	.500" - 13T	2■	4.003"	0.406"	0.501"	1.969"	4.569"	1" - 15T Spline	—
RH●	4.188"	.375" - 16T	2■	3.252"	0.270"	0.525"	1.924"	3.694"	3/4" - 11T Spline	—
RJ	2.834"	.500" - 13T	2	4.003"	0.406"	0.516"	1.984"	4.322"	1" - 15T Spline	—
	2.834"	.500" - 13T	4	4.003"	0.406"	0.516"	1.984"	4.322"	1" - 15T Spline	—
RY	3.150"	M12 - 1.75"	4	3.152"	0.394"	0.360"	2.274"	4.790"	DIN5462	1/4"
SQ	5.000"	.500" - 13T	4	4.003"	0.406"	0.562"	2.062"	3.688"	7/8" - 13T Spline	—
XE	5.000"	.500" - 13T	4	3.253"	0.344"	0.562"	1.500"	3.688"	5/8" - 9T Spline	—
XG	4.188"	.375" - 16T	4	3.253"	0.562"	0.593"	2.218"	4.562"	3/4" Rd	3/16"
XJ	4.188"	.375" - 16T	4	3.253"	0.562"	1.406"	2.906"	4.562"	3/4" Rd	3/16"
XK, GK	5.750"	.531" - 13 T◆	2	4.003"	0.406"	0.562"	2.062"	3.688"	7/8" - 13T Spline	—
	5.000"	.531" - 13 T◆	4	4.003"	0.406"	0.562"	2.062"	3.688"	—	—
XL	4.188"	.375" - 16T	4	3.253"	0.562"	0.562"	2.062"	4.562"	7/8" - 13T Spline	—
XM	3.250"	.375" - 16T	6	2.628"	0.688"	0.312"	1.812"	3.447"	3/4" Rd	3/16"
XN	4.750"	—	6	3.253"	0.375"	0.750"	2.250"	3.884"	7/8" - 13T Spline	—
XO	5.000"	.500" - 13T	4	3.253"	0.344"	0.562"	2.062"	3.688"	3/4" Rd	3/16"
	4.188"	.375" - 16T	2	3.253"	0.344"	0.562"	2.062"	3.688"	—	—
XP, GP	5.000"	.500" - 13T	4	3.253"	0.344"	0.562"	2.062"	3.688"	7/8" - 13T Spline	—
	4.188"	.375" - 16T	2	3.253"	0.344"	0.562"	2.062"	3.688"	—	—
XQ, GQ	5.750"	.500" - 13T	2	4.003"	0.406"	0.562"	2.062"	3.688"	7/8" - 13T Spline	—
	5.000"	.500" - 13T	4	4.003"	0.406"	0.562"	2.062"	3.688"	—	—
XR	3.710"	.312" - 24T (Studs)	4	2.752"	0.281"	N/A	N/A	2.809"	7/8" - 13T Spline	—
XV	3.750"	N/A	4	2.752"	.0880"	N/A	N/A	5.030"	1-1/4" Rd.	—
XY, GY	4.454"	M12 - 1.75"	4	3.152"	0.393"	0.594"	2.508"	4.697"	DIN 5462	—

● Rotatable Flange Rotates in 30° Increments — ■ Two Set of Holes Spaced 14° Apart — ◆ Not Tapped

NOTE: To convert an "XR" to an "XK", use conversion flange number 21-P-525

Air Shift Conversion Kit

Parts List
221 Series

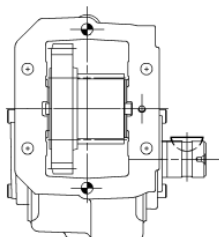
Part Number	Description	Qty.
➤ 328390-88X	Conversion Kit, Cable to Air all Assemblies.....	1
328390-89X	Conversion Kit, Lever to Air all Assemblies.....	1
➤ 328390-109X	Conversion Kit, Wire to 12V Electric over Air.....	1
328390-110X	Conversion Kit, Wire to 24V Electric over Air.....	1
328390-111X	Conversion Kit, Lever to 12V Electric over Air.....	1
328390-112X	Conversion Kit, Lever to 24V Electric over Air.....	1

Model Number Designation

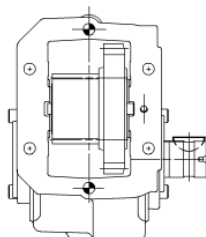
	221	X	Q	AH	P	-	A	3	XD	
Basic Model 221										
Mounting Option Q = Extra Deep Mount R = Special Clearance Housing X = Standard Mounting Z = Deep Mount										
Gear Ratio C = 14/29 E = 15/28 L = 18/25 P = 20/23										
Input Gear (See Chart on Page 5)										
Lube Option P = Pressure Lube X = No Lubrication W = Wet Spline (England Only)										
Shift Option A = Air Shift C = Heavy Duty Bracket Less Cable H = Less Wire Shift Cover M = Constant Mesh P = 12 Volt Electric Over Air Q = 24 Volt Electric Over Air V = Air Shift Less Shift Installation Kit S = P.T.O. & Pump Combo Valve T = Combo Valve Less Kick Out & Neutral Spring Return W = Wire Control X = Less Cable and Knob										
Assembly Arrangement 3, 4, 5, 6										
										Output Option
										AA = Non Standard
										AF = S.A.E. "BB" 2 or 4-Bolt 1" - 15T
										AK = S.A.E. "B" 2-Bolt 7/8" - 13T
										AZ = S.A.E. "B" 4-Bolt 1-1/4" - 14T
										FF = S.A.E. "B" 2 or 4-Bolt
										GA = Greaseable Rot. "B" 2-Bolt 7/8" - 13T
										GB = Greaseable Rot. "B" 4-Bolt 7/8" - 13T
										GF = Greaseable S.A.E. "BB" 2 or 4-Bolt 1" - 15T
										GH = Greaseable Rot. S.A.E. "BB" 2-Bolt 1" - 15T
										GJ = S.A.E. "B" 4-Bolt Rotatable
										GK = Greaseable S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
										GP = Greaseable S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
										GQ = Greaseable S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
										GR = Greaseable CHELSEA Special 7/8" - 13T
										GY = Greaseable DIN 5462 8T
										GZ = Greaseable S.A.E. "B" 4-Bolt 1-1/4" - 14T
										LB = S.A.E. "A" 2-Bolt w/Self Lube Pump 7/8" - 13T
										LC = S.A.E. "B" 2 or 4-Bolt w/Self Lube 7/8" - 13T
										LD = 1-1/4" Rd w/Self Lube Pump
										LF = S.A.E. "B" 2 or 4-Bolt w/Self Lube 7/8" - 13T
										RA = Rotatable S.A.E. "B" 2-Bolt 7/8" - 13T
										RB = Rotatable S.A.E. "B" 4-Bolt 7/8" - 13T
										RC = Rotatable S.A.E. "A" 2-Bolt 5/8" - 9T
										RE = Rotatable S.A.E. "BB" 4-Bolt 1" - 15T
										RF = Rotatable S.A.E. "BB" 2-Bolt 1" - 15T
										RY = Rotatable DIN 5462 8T
										RD = Rotatable S.A.E. "A" 2-Bolt 7/8" - 13T
										XD = 1-1/4" Rd Standard Shaft
										XE = S.A.E. "A" 2 or 4-Bolt 5/8" - 9T
										XG = S.A.E. "A" 2-Bolt 3/4" Rd
										XJ = S.A.E. "A" 2-Bolt 3/4" Rd
										XK = S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
										XL = Non Standard 2-Bolt
										XO = S.A.E. "A" Pilot 2-Bolt
										XP = S.A.E. "A" Pilot 2-Bolt
										XQ = S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
										XR = CHELSEA Special 7/8" - 13T
										XX = Tapered Output Shaft
										XY = DIN 5462 8T
										*XQ = S.A.E. "B" 2 or 4-Bolt 7/8" - 13T

Assembly Arrangements

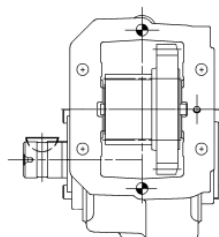
*Similar to "XK" flange rotated 90°



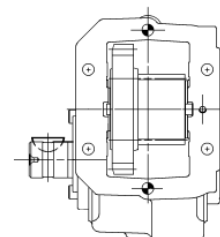
Ass'y 3



Ass'y 4

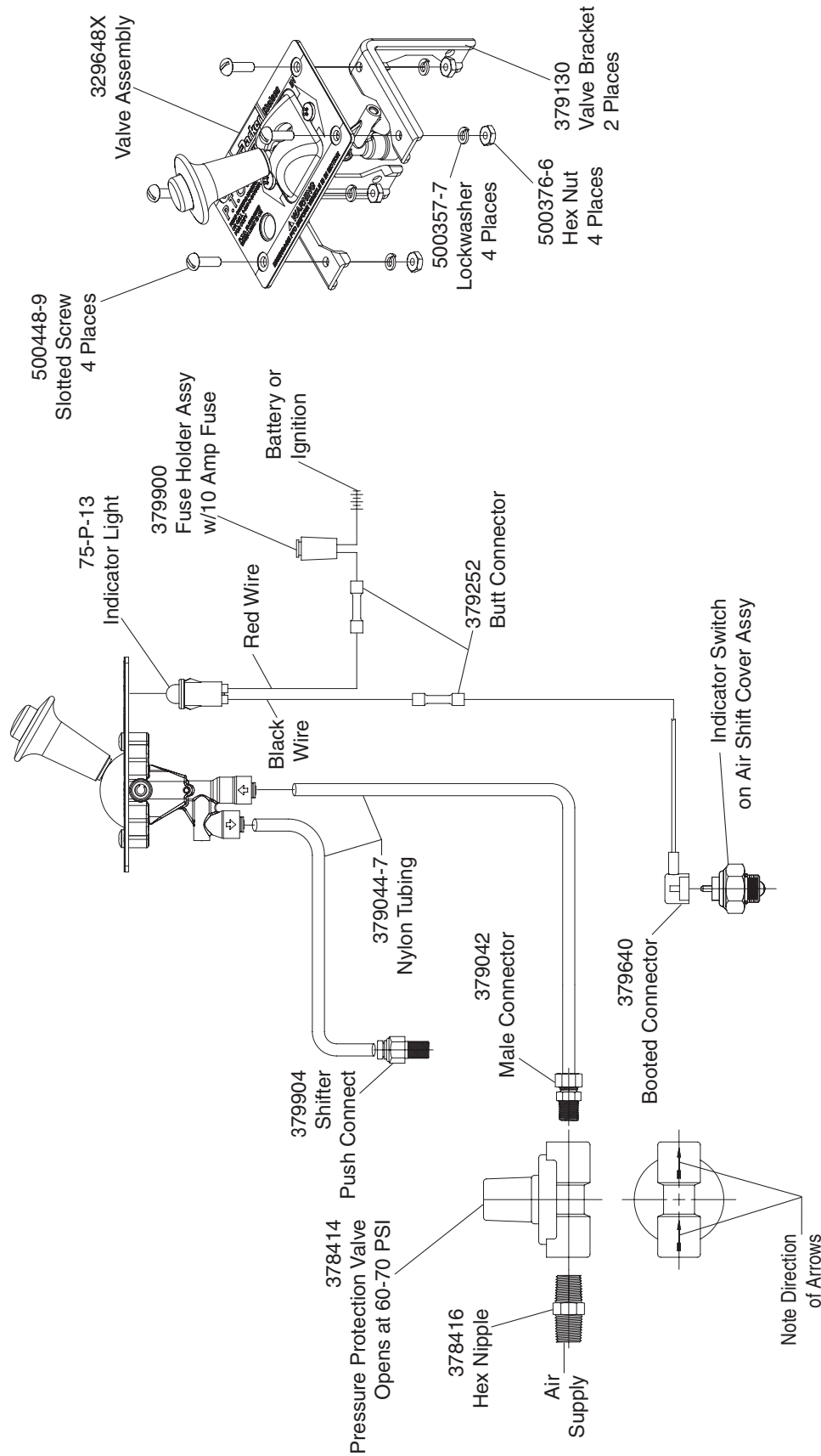


Ass'y 5



Ass'y 6

Air Shift Installation Sketch for 221 Series Using: Williams Valve (SK-462 Rev A)



NOTE: When this installation is used on vehicles with automatic transmissions the P.T.O. drive must be stopped before shifting.

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

328388-98X Installation Kit
 See SK-204 Drilling Template for Control Plate

Kits Bill of Materials**Parts List
221 Series**

329068X		328356-15X	
► 1-P-470	HSG.....	► 22-P-69	Seal Kit, Cable Shift
► 328170-155X	Stud Kit,	► 28-P-191	Gasket
► 378766	Capscrew.....	► 28-P-226	O-Ring .54"
► 378767	Retaining	► 35-P-8	Thrust Bearing
		35-P-9-1	Shifter Cover.....
		35-P-9-2	Gasket, Mounting.....
			Gasket, Mounting.....
329337X		328356-18X	
► 379964	E.O.C. Installation Kit	► 28-P-229	Seal Kit, Lever Shift
► 500841-1	Pipe Adapter with Restriction	► 28-P-42	Oil Seal
► 379627	90° Elbow	► 35-P-8	O-Ring 1.0"
► 35-P-92	Tee		Shifter Cover
SK-371	Gasket		
	Installation Sketch.....		
328170-1X		328356-19X	
► 378018	P.T.O. Mounting Stud Kit (Standard Mount)	► 28-P-41	Seal Kit, Air Shift
► 378431-13	Washer, Copper.....	► 28-P-42	O-Ring .73"
► 378431-30	Capscrew.....	► 35-P-8	O-Ring 1.0"
► 378431-42	Hex Capscrew		Shifter Cover
► 379423-18	Capscrew.....		
► 378774	Stud (2.0").....		
► 379744	Tablock Washer.....		
► 379744	Flange Nut		
328170-26X		328380X	
► 379744	P.T.O. Mounting Stud Kit (Deep Mount)	► 378326	Wire Control Mounting Parts Bag ("W" Shifter)
► 378018	Flange Nut	► 50-P-17	Nut, Hex.....
► 378431-11	Washer, Copper.....	► 50-P-19	Bracket, Wire Control
► 378431-29	Hex Capscrew	► 500396-8	Swivel Bracket
► 378431-41	Capscrew.....	► 500568-4	Screw, Hex.....
► 379423-13	Capscrew.....	► 378019	Set Screw
► 378774	Stud .375"		Pivot Pin.....
	Tablock Washer.....		
328170-155X		328383-37X	
► 378018	P.T.O. Mounting Stud Kit (Mounting Type "R" Only)	► 328388-44X	Air Shift
► 378431-42	Washer, Copper.....	329090-1X	Air Shift
► 379423-18	Capscrew.....	► 379044-6	Valve Kit.....
► 378774	Stud (2.0").....	► 379130	Nylon Tubing
► 379744	Tablock Washer.....	► 68-P-27	Support Bracket
► 379744	Flange Nut	► 379640	Control Plate
► 378431-14	Capscrew.....		Booted Connector.....
328346-10X		328388-44X	
► 378441-10	Wire Control Cable ("W" Shifter)	► 378416	Air Shift Kit
► 378502	10 Ft. Wire	► 378978	Hex Nipple
	Knob	► 379042	Indicator.....
		► 379043	Male Connector
		► 379252	Male Elbow
		► 500357-7	Butt Connector.....
		► 500376-6	Lockwasher.....
		► 500448-9	Nut 10-24.....
		► 379900	Screw Slot.....
		► 379904	Ass'y Fuse
			Push Connect
328356-13X			
22-P-127-1	Gasket & Seal Field Replacement Kit		
22-P-127-2	Gasket, Bearing Cap		
22-P-127-3	Gasket, Bearing Cap		
► 28-P-190	Gasket, Bearing Cap		
► 28-P-191	O-Ring		
► 28-P-216	O-Ring		
► 35-P-8	Oil Seal		
35-P-9-1	Gasket, Shifter Cover		
35-P-9-2	Gasket, Housing (.010")		
► 378391	Gasket, Housing (.020")		
► 378774	Lockring		
	Lockwasher.....		

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Kits Bill of Materials**Parts List
221 Series**

► 328388-47X 12V Electric Over Air ► 328388-46X Inst Kit "P Shift Option 1 ► 378414 Pressure Protection Valve..... 1 ► 378881 Rocker Swivel 1 ► 378978 Indicator 1 379044-7 Nylon Tubing 1 ► 379252 Butt Connector..... 2 ► 379258 Bracket..... 1 ► 379303-1 Valve 12V..... 1 ► 379336 Switch Bracket..... 1 ► 379254-3 Wire, Green 1 ► 379106 Breather Cap 1 ► 379640 Booted Connector..... 1	328390-110X 24 Volt Field Conversion Kit (Wire to Electric) ► 328388-48X 24V Electric 1 ► 328723X Air Shift 1 ► 35-P-8 Shifter Cover..... 1 ► 378430-8 Capscrew Hex Head (.312" - 18 x .875") 4 Owners Manual HY25-1135-M1/US 1
► 328388-48X 24V Electric Over Air ► 379640 Booted Connector..... 1 ► 328388-46X Inst Kit "P" Shift Option 1 ► 378414 Pressure Protection Valve..... 1 ► 378881 Rocker Swivel 1 379005 Indicator 1 379044-7 Nylon Tubing 1 ► 379252 Butt Connector..... 1 ► 379258 Bracket..... 1 ► 379303-2 Valve 24V..... 1 ► 379336 Switch Bracket..... 1 ► 379106 Breather Cap 1 ► 379254-3 Wire, Green 1	328390-111X 12 Volt Field Conversion Kit (Lever to Electric) ► 11-P-75 Piston Shaft 1 ► 28-P-41 O-Ring 1 ► 28-P-42 O-Ring 2 ► 328388-47X 12V Electric 1 ► 35-P-8 Shifter Cover..... 1 ► 37-P-21 Shifter Spring..... 1 ► 378315 Cover Plug 1 ► 378316 Retainer/Snap Ring 1 Owners Manual HY25-1135-M1/US 1
► 328388-65X Air-O-Matic Shift ► 329214X Apsco Valve 1 ► 378414 Pressure Protection Valve..... 1 ► 328388-64X Airshift Kit 1	328390-112X 24 Volt Field Conversion Kit (Lever to Electric) ► 11-P-75 Piston Shaft 1 ► 28-P-41 O-Ring 1 ► 28-P-42 O-Ring 2 ► 328388-48X 24V Electric 1 ► 35-P-8 Shifter Cover..... 1 ► 37-P-21 Shifter Spring..... 1 ► 378315 Cover Plug 1 ► 378316 Retainer/Snap Ring 1 Owners Manual HY25-1135-M1/US 1
► 328388-98X Air Shift Installation Kit ("A" Shifter) ► 328388-97X Air Shift 1 ► 329090-6X Kit Valve 1 379044-7 Nylon Tubing 1 ► 379130 Support Bracket..... 2 ► 379640 Booted Connector..... 1	328723X Shifter Cover Ass'y, Air Shift ► 11-P-75 Piston Shaft 1 ► 28-P-41 O-Ring 1 ► 28-P-42 O-Ring 2 ► 32-P-129 Shifter Fork 1 ► 34-P-115 Cover A/S 1 ► 37-P-21 Shifter Spring..... 1 ► 378285-1 Guide Screen..... 1 ► 378315 Cover Plug 2 ► 378316 Retainer/Snap Ring 2 ► 378447-4 Capscrew, Socket Head w/lockpatch 1 ► 379639 Indicator Switch 1 500897-5 Plug Shipping 1
► 328390-88X Air Shift Field Conversion Kit ► 328723X Air Shift 1 ► 35-P-8 Shifter Cover..... 1 ► 378430-8 Capscrew Hex Head (.312" - 18 x .875") 4 ► 328388-98X Kit Installation 1 Owners Manual HY25-1135-M1/US 1	
► 328390-109X 12 Volt Field Conversion Kit (Wire to Electric) ► 328388-47X 12V Electric 1 ► 328723X Air Shift..... 1 ► 35-P-8 Shifter Cover..... 1 ► 378430-8 Capscrew Hex Head (.312" - 18 x .875") 4 Owners Manual HY25-1135-M1/US 1	

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Kits Bill of Materials**Parts List
221 Series**

328724X	Lever Shift Cover		328948-6X	6-Bolt Gasket & Installation Instructions	
▶ 28-P-229	Oil Seal	1	35-P-9-1	Mounting Gasket .010"	2
▶ 28-P-42	O-Ring 1.0"	1	35-P-9-2	Mounting Gasket .020"	2
▶ 32-P-129	Shifter Fork	1	▶ 379085-1	P.T.O. Instruction Decal	1
▶ 34-P-60	Cover, Lever	1	328946X	Caution Label Kit	1
▶ 36-P-1	Eye Bolt	1	▶ 379624	Product Warranty Card	1
▶ 37-P-41	Spring .40"	1	Owners Manual	HY25-1135-M1/US	1
▶ 378002	Ball Shift	1	Safety Guide	HY25-1002-M1/US	1
▶ 378285-1	Guide Screw	1			
▶ 378315	Cover Plug	1	328949-6X	Gasket Installation Instructions 221CAJ, EAJ	
▶ 378316	Retainer/Snap Ring	1	▶ 379624	Product Warranty Card	1
▶ 378447-4	Capscrew Screw	1	328946X	Caution Label Kit	1
▶ 378554	Cap Poppet	1	▶ 35-P-41	Gasket, Housing	1
▶ 379639	Switch Indicator	1	▶ 379085-1	P.T.O. Instructions Decal	1
▶ 500381-3	Hex Lock Nut	1	Owners Manual	HY25-1135-M1/US	1
▶ 11-P-117	Shifter Shaft	1	Safety Guide	HY25-1002-M1/US	1
▶ 328751-1X	Installation Kit ("C", "H", "W", "X", "Y")				
▶ 68-P-18	Name Plate	1			
▶ 378978	Indicator Light, 12V	1			
▶ 379900	Fuse Holder, 10-Amp	1			
▶ 379252	Butt Connector	2			
▶ 379640	Booted Connector ("V" Shifter Option)	1			
▶ 328803-1X	Post & Assembly (3 &6)				
62-P-31	Shifter Plate	1			
63-P-5	Shifter Pin	1			
64-P-3	Shifter Shoe	1			
378244	Shifter Post	1			
378246	Snap Ring	1			
378325	Rivet	1			
378313	Lifter Plate	1			
▶ 328805-1X	Shifter Cover Ass'y, Wire Control (Ass'y 3 & 6)				
▶ 28-P-191	O-Ring	1			
▶ 328803-1X	Post & Plate	1			
▶ 34-P-74	Shifter Cover	1			
▶ 37-P-19	Spring	1			
▶ 378004	Flat Washer	1			
▶ 379639	Indicator Switch	1			
▶ 500356-10	Lock Washer	1			
▶ 500365-22	Flat Washer	1			
▶ 500409-6	Capscrew Hex Head (.312" - 18 x .875")	1			
▶ 51-P-22	Shifter Lever	1			
▶ 63-P-16	Poppet Shift	1			
▶ 328805-2X	Shifter Cover Ass'y, Wire Control (Ass'y 4 & 5)				
▶ 28-P-191	O-Ring	1			
▶ 328803-2X	Post & Plate	1			
▶ 34-P-74	Shifter Cover	1			
▶ 37-P-19	Spring	1			
▶ 378004	Flat Washer	1			
▶ 379639	Indicator Switch	1			
▶ 500356-10	Lock Washer	1			
▶ 500365-22	Flat Washer	1			
▶ 500409-6	Capscrew Hex Head (.312" - 18 x .875")	1			
▶ 51-P-22	Shifter Lever	1			
▶ 63-P-16	Poppet Shift	1			

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11. Improper use and Indemnity. Buyer shall indemnify, defend, and hold Seller harmless from any claim, liability, damages, lawsuits, and costs (including attorney fees), whether for personal injury, property damage, patent, trademark or copyright infringement or any other claim, brought by or incurred by Buyer, Buyer's employees, or any other person, arising out of: (a) improper selection, improper application or other misuse of Products purchased by Buyer from Seller; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller's use of patterns, plans, drawings, or specifications furnished by Buyer to manufacture Product; or (d) Buyer's failure to comply with these terms and conditions. Seller shall not indemnify Buyer under any circumstance except as otherwise provided.

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13. Limitation on Assignment. Buyer may not assign its rights or obligations under this agreement without the prior written consent of Seller.

14. Force Majeure. Seller does not assume the risk 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, strikes or labor disputes, acts of any government or government agency, acts of nature, delays or failures in delivery from carriers or suppliers, shortages of materials, or any other cause beyond Seller's reasonable control.

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19. Entire Agreement. This agreement contains the entire agreement between the Buyer and Seller and constitutes the final, complete and exclusive expression of the terms of sale. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter are herein merged.

20. Compliance with Law, U. K. Bribery Act and U.S. Foreign Corrupt Practices Act. Buyer agrees to comply with all applicable laws and regulations, including both those of the United Kingdom and the United States of America, and of the country or countries of the Territory in which Buyer may operate, including without limitation the U. K. Bribery Act, the U.S. Foreign Corrupt Practices Act ("FCPA") and the U.S. Anti-Kickback Act (the "Anti-Kickback Act"), and agrees to indemnify and hold harmless Seller from the consequences of any violation of such provisions by Buyer, its employees or agents. Buyer acknowledges that they are familiar with the provisions of the U. K. Bribery Act, the FCPA and the Anti-Kickback Act, and certifies that Buyer will adhere to the requirements thereof. In particular, Buyer represents and agrees that Buyer shall not make any payment or give anything of value, directly or indirectly to any governmental official, any foreign political party or official thereof, any candidate for foreign political office, or any commercial entity or person, for the purpose of influencing such person to purchase products or otherwise benefit the business of Seller.

02/12



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