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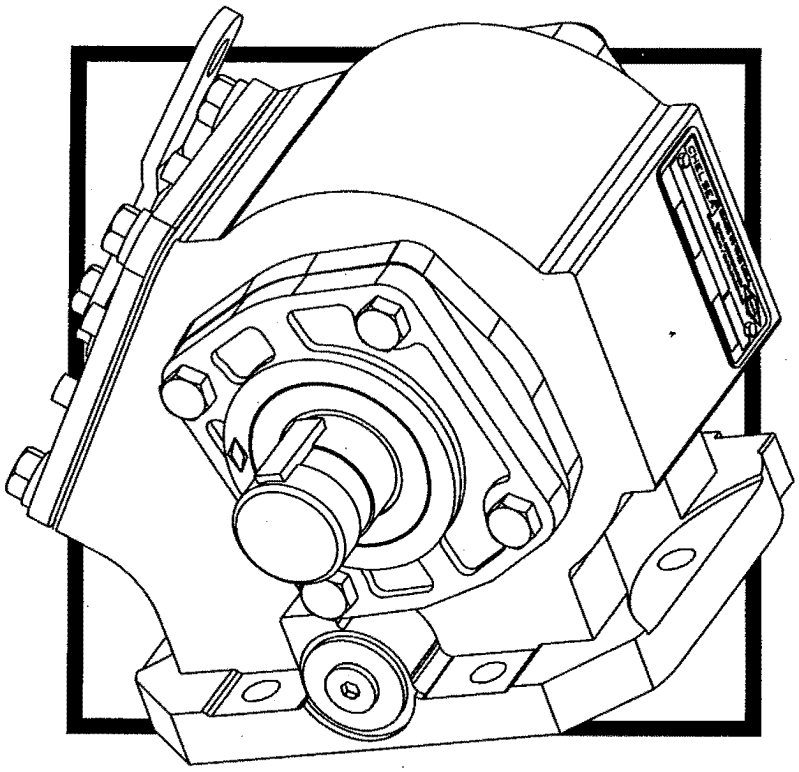
REPLACEMENT PARTS 440,446 & 488 SERIES POWER TAKE-OFFS MANAUL

S.A.E. SIX OR EIGHT HOLE, TWO GEAR-SINGLE SPEED



DANA

CHELSEA

P410-440
MARCH, 1996

SUPERSEDES
P410-440
DATED FEBRUARY 1994

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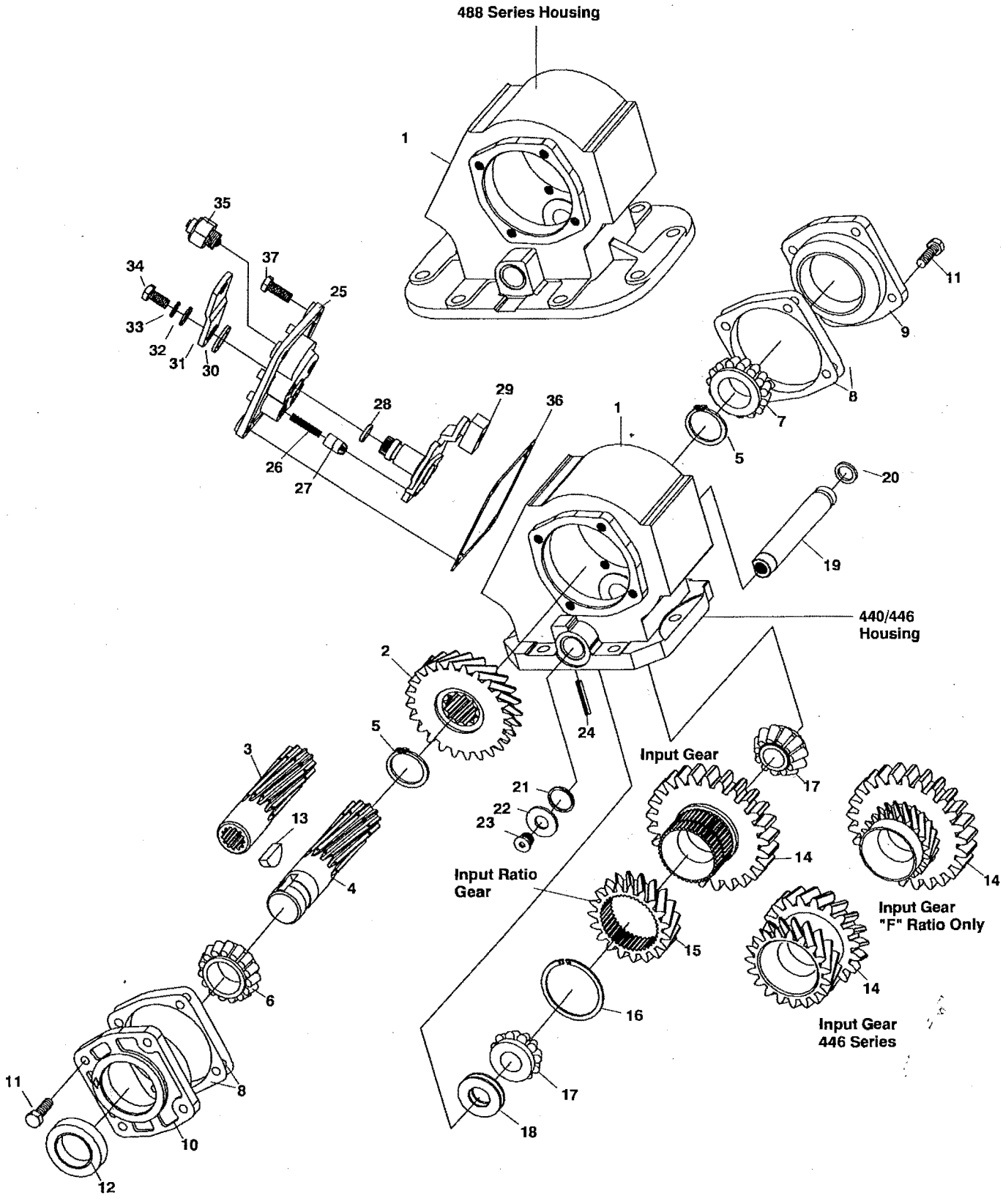

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Item	Part Number	Description	Quantity		
			440	446	488
1	1-P-495X	HOUSING, Standard Mount (Includes Item 24)	1	1	-
	1-P-496X	HOUSING, Deep Mount (Includes Item 24)	1	1	-
	1-P-499X	HOUSING, 8-Bolt Standard Mount (Includes Item 24)	-	-	1
	1-P-527	HOUSING, Special for JATCO	1	-	-
2	See Chart Pgs. 14,16,17	OUTPUT GEAR	1	1	1
3	See Chart Pg. 19	OUTPUT SHAFT, Pump Mount	1	1	1
4	3-P-202	OUTPUT SHAFT, Standard 1 1/4" Rd. 5/16 K.W.	1	1	1
5	378391	LOCKRING	2	2	2
6	550397	BEARING CONE	1	1	1
7	550532	BEARING CONE	1	1	1
8	22-P-24-1	BEARING CAP GASKET (.010)	A.R.	A.R.	A.R.
	22-P-24-2	BEARING CAP GASKET (.020)	A.R.	A.R.	A.R.
	22-P-24-3	BEARING CAP GASKET (.015)	A.R.	A.R.	A.R.
9	328274X	BEARING CAP ASS'Y, Closed End	1	1	1
N.S.	550221	BEARING RACE	1	1	1
10	328273X	BEARING CAP ASS'Y, Open End	1	1	1
N.S.	550221	BEARING RACE	1	1	1
	See Chart Pg. 19	BEARING CAP ASS'Y, Pump Mount	1	1	1
11	378430-10	HEX CAPSCREW .312-18 x 1.000"	4	4	4
12	See Chart Pg. 19	OIL SEAL, Pump Mount	1	1	1
	28-P-216	OIL SEAL, Standard Output Shaft	1	1	1
13	500007-29	WOODRUFF KEY	1	1	1
14	See Chart Pg. 13-17	INPUT GEAR	1	1	1
15	See Chart Pg. 17	INPUT RATIO GEAR	1	1	1
16	379522	LOCK RING	1	1	1
17	550439 -1 .055	BEARING CONE	2	2	2
18	14-P-15 -2 .065	SPACER, Input Gear	A.R.	A.R.	A.R.
19	9-P-74 -3	IDLER SHAFT, Standard	1	1	1
	9-P-76	IDLER SHAFT, Pressure Lube	1	1	1
20	28-P-191	O-RING	1	1	1
21	28-P-190	O-RING	1	1	1
22	379542	RETAINER, O-RING	1	1	1
23	379484	STRAIGHT THREAD HEX SOCKET	1	1	1
24	500597-14	ROLL PIN (1" long), Deep Mount	1	1	
	500597-16	ROLL PIN (1.125" long), Standard Mount	1	1	1
		CABLE CONTROL COVER ASSEMBLIES			
		FOR RATIOS Q, W, & X			
	329119-1X	ASSEMBLIES 3 & 6	1	-	1
	329119-2X	ASSEMBLIES 4 & 5	1	-	1
		FOR RATIOS F, L, R, S, & U			
	329121-1X	ASSEMBLIES 3 & 6	1	-	1
	329121-2X	ASSEMBLIES 4 & 5	1	-	1
		FOR RATIOS Q & W			
	329151-1X	ASSEMBLIES 3 & 6	-	1	-
	329151-2X	ASSEMBLIES 4 & 5	-	1	-
		FOR RATIOS R, S & U			
	329152-1X	ASSEMBLIES 3 & 6	-	1	-
	329152-2X	ASSEMBLIES 4 & 5	-	1	-

N.S. — Not Shown A.R. — As Required

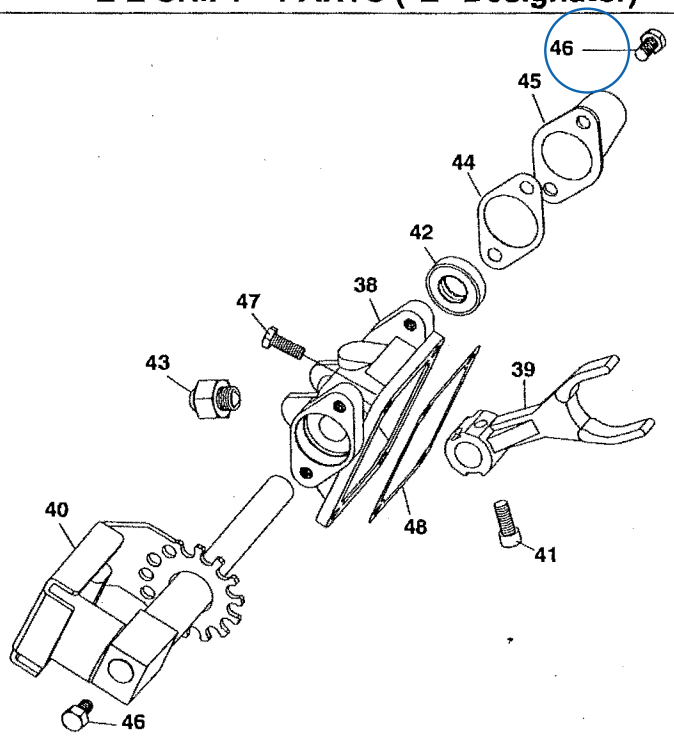
Table continued on following page.

Item	Part Number	Description	Quantity		
			440	446	488
		All the shift cover assemblies shown on previous page include items 25 thru 35			
25	34-P-74	SHIFTER COVER	1	1	1
26 ▶	37-P-19	SPRING	1	1	1
27 ▶	63-P-16	POPPET PIN	1	1	1
28 ▶	28-P-191	O-RING	1	1	1
		POST & PLATE ASS'Y FOR RATIOS Q, W, & X			
29 ▶	329118-1X	FOR ASSEMBLIES 3 & 6	1	1	1
▶	329118-2X	FOR ASSEMBLIES 4 & 5	1	1	1
		POST & PLATE ASS'Y FOR RATIOS F, L, R, S & U			
29 ▶	329120-1X or	FOR ASSEMBLIES 3 & 6	1	1	1
▶	329120-2X	FOR ASSEMBLIES 4 & 5	1	1	1
30 ▶	378004	FLAT WASHER	1	1	1
31 ▶	51-P-22	SHIFTER LEVER	1	1	1
32 ▶	500365-22	FLAT WASHER	1	1	1
33 ▶	500356-10	LOCK WASHER	1	1	1
34 ▶	500409-6	HEX CAPSCREW	1	-	1
35	379639	INDICATOR SWITCH, Pin Style	1	-	1
▶	379652	INDICATOR SWITCH, Pin Style		1	
36 ▶	35-P-8	GASKET, SHIFT COVER	1	1	1
37 ▶	378430-9	HEX CAPSCREW .312-18 X .875	4	4	4
		PARTS SHIPPED LOOSE			
▶	328170-200X	STUD KIT (For pump mounts AF, AZ, FF, LB, LC, LF, XE, XK, XO, XP & XQ)	-	-	1
▶	328170-127X	STUD KIT, Standard Mount	-	-	1
	328170-76X	STUD KIT, Standard Mount	1	1	-
▶	328170-77X	STUD KIT, Deep Mount	1	1	-
	7170-72X	STUD KIT, Metric Standard Mount	1	-	-
▶	328346-10X	CABLE CONTROL ASSEMBLY (Includes 378441-10 Cable and 378502 Knob)	1	1	1
▶	328380X	WIRE CONTROL PARTS BAG	1	1	1
	328388-37X	AIR SHIFT INSTALLATION KIT	1	1	1
▶	328388-47X	ELECTRIC/AIR INSTALLATION KIT 12V	1	1	1
▶	328388-48X	ELECTRIC/AIR INSTALLATION KIT 24V	1	1	1
	329166-12X	ELECTRIC SHIFT INSTALLATION KIT 12V	1	1	1
▶	328388-69X	COMBO VALVE KIT, Converts single air to dual air	1	1	1
	328751X	INDICATOR LIGHT INSTALLATION KIT	1	1	1
▶	68-P-18	NAME PLATE	1	1	1
▶	378978	12V INDICATOR LIGHT	1	1	1
▶	378884	9-AMP FUSE HOLDER	1	1	1
	379319	INDICATOR SWITCH BOOT	1	1	1
▶	328711X	PUMP MOUNTING KIT ("XR" Output)	1	1	1
▶	328948-6X	GASKETS & INSTALLATION INSTRUCTIONS	1	1	-
	328948-8X	GASKETS & INSTALLATION INSTRUCTIONS	-	-	1

Item	Part Number	Description	Quantity		
			440	446	488
		SERVICE AND REPAIR KITS			
	▶ 329202X	SERVICE KIT (Includes 379639, 379640 & 379252)	1	-	1
	▶ 329218X	SERVICE KIT (Includes 379640 & 379252)	1	1	1
	▶ 329221X	SERVICE KIT (Includes 379652, 379640 & 379252)	-	1	-
	▶ 328356-13X	GASKET & SEAL KIT	1	1	-
	▶ 328356-50X	GASKET & SEAL KIT	-	-	1
	▶ 328356-15X	SHIFT COVER SEAL KIT (Cable Control)	1	1	1
	▶ 328356-17X	SHIFT COVER SEAL KIT (Air Shift)	1	1	1
	328356-26X	SHIFT COVER SEAL KIT (Lever Control)	1	1	1
	▶ 329143X	SHIFT SHAFT COVER KIT (Includes Items 60, 61, 62 on pg. 7)	1	1	1
	328594-8X	REPAIR KIT, Standard Idler Shaft (Contains Items Listed Below)			
	9-P-74	IDLER SHAFT	1	1	1
	14-P-15-1	SPACER, Input Gear (.055)	2	2	2
	14-P-15-2	SPACER, Input Gear (.060)	2	2	2
	14-P-15-3	SPACER, Input Gear (.065)	2	2	2
	▶ 379484	HEX SOCKET, Straight Thread	1	1	1
	▶ 379542	RETAINER, O-Ring	1	1	1
	▶ 28-P-190	O-RING	1	1	1
	▶ 28-P-191	O-RING	1	1	1
	▶ 550439	BEARING CONE	2	2	2
	328594-9X	REPAIR KIT, Pressure Lube Idler Shaft (Contains Items Listed Below)			
	9-P-76	IDLER SHAFT, Pressure Lubed	1	1	1
	14-P-15-1	SPACER, Input Gear (.055)	2	2	2
	14-P-15-2	SPACER, Input Gear (.060)	2	2	2
	14-P-15-3	SPACER, Input Gear (.065)	2	2	2
	▶ 379484	HEX SOCKET, Straight Thread	1	1	1
	▶ 379542	RETAINER, O-Ring	1	1	1
	▶ 28-P-190	O-RING	1	1	1
	▶ 28-P-191	O-RING	1	1	1
	▶ 550439	BEARING CONE	2	2	2
	▶ 500841-1	90° ELBOW	1	1	1

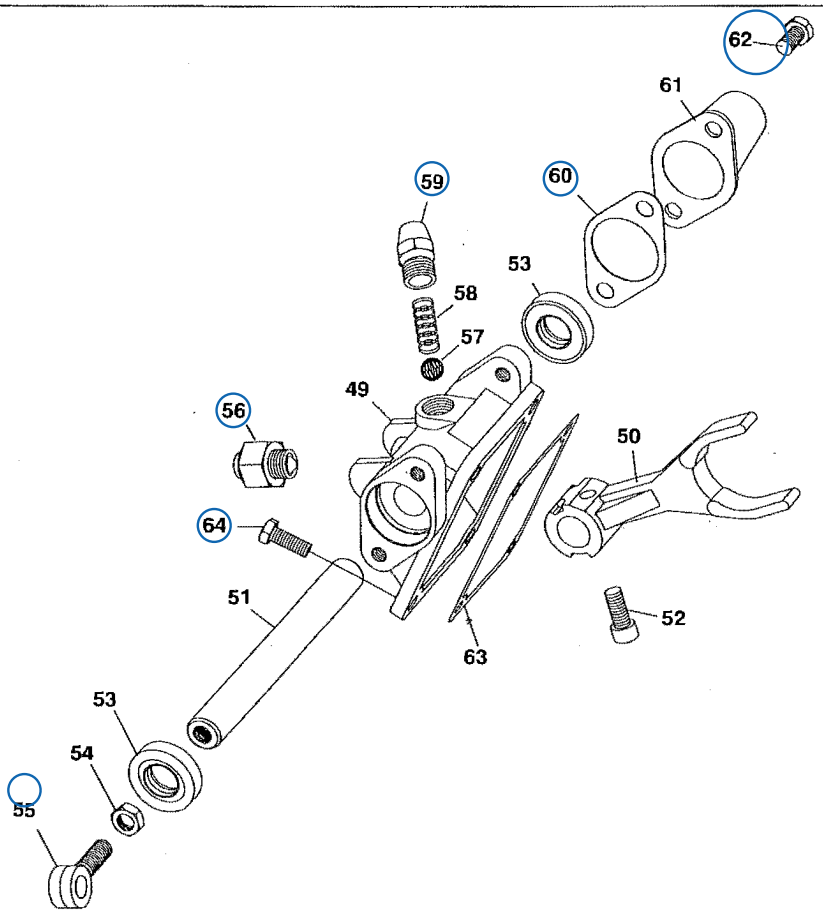
440, 446 & 488 SERIES
E-Z SHIFT™ PARTS ("Z" Designator)

CHELSEA



Item	Part Number	Description	Quantity		
			440	446	488
	329165-1X	SHIFT COVER ASSEMBLY 12V (Ass'y 3 & 6)	1	-	1
	329165-2X	SHIFT COVER ASSEMBLY 12V (Ass'y 4 & 5)	1	-	1
	329169-1X	SHIFT COVER ASSEMBLY 12V (Ass'y 3 & 6)	-	1	-
	329169-2X	SHIFT COVER ASSEMBLY 12V (Ass'y 4 & 5)	-	1	-
		All the assemblies shown above include items 38 thru 46			
38	34-P-76	SHIFT COVER	1	1	1
39 ▶	32-P-166	SHIFTER FORK	1	1	1
40	329162-12X	ELECTRIC SHIFT ASS'Y	1	1	1
41 ▶	378447-4	SOCKET HEAD CAPSCREW	1	1	1
42 ▶	28-P-207	OIL SEAL	1	1	1
43	379639	INDICATOR SWITCH	1	-	1
▶	379652	INDICATOR SWITCH	-	1	-
44 ▶	35-P-14	GASKET, Shifter Shaft Cover	1	1	1
45 ▶	65-P-23	SHIFTER SHAFT COVER	1	1	1
46 ▶	378430-4	HEX CAPSCREW .312-18 x .500"	4	4	4
47 ▶	378430-8	HEX CAPSCREW .312-18 x .750"	4	4	4
48 ▶	35-P-8	GASKET, Shifter Cover	1	1	1
		E-Z SHIFT CONVERSION KITS			
	328390-138X	CABLE TO E-Z SHIFT (Ass'y 3 & 6)	1	-	1
	328390-139X	CABLE TO E-Z SHIFT (Ass'y 4 & 5)	1	-	1
	328390-141X	CABLE TO E-Z SHIFT - Q & W Ratios Only (Ass'y 3 & 6)	-	1	-
	328390-142X	CABLE TO E-Z SHIFT - Q & W Ratios Only (Ass'y 4 & 5)	-	1	-
	328390-143X	CABLE TO E-Z SHIFT - R, S & U Ratios Only (Ass'y 3 & 6)	-	1	-
	328390-144X	CABLE TO E-Z SHIFT - R, S & U Ratios Only (Ass'y 4 & 5)	-	1	-
	328390-140X	LEVER TO E-Z SHIFT	1	1	1

440, 446 & 488 SERIES
LEVER CONTROL PARTS ("Y" Designator)



Item	Part Number	Description	Quantity		
			440	446	488
	329035-1X	LEVER CONTROL ASS'Y (Ass'y 3 & 6)	1	-	1
	329035-2X	LEVER CONTROL ASS'Y (Ass'y 4 & 5)	1	-	1
	329040-1X	LEVER CONTROL ASS'Y (Ass'y 3 & 6)	-	1	-
	329040-2X	LEVER CONTROL ASS'Y (Ass'y 4 & 5)	-	1	-
		Assemblies shown above include items 49 thru 62			
49	34-P-87	SHIFTER COVER	1	1	1
50 ▶	32-P-166	SHIFTER FORK	1	1	1
51 ▶	11-P-112	SHIFTER SHAFT	1	1	1
52 ▶	378447-4	SOCKET HEAD CAPSCREW	1	1	1
53 ▶	28-P-207	OIL SEAL	2	2	2
54 ▶	500381-3	HEX LOCK NUT .375-24	1	1	1
55 ▶	36-P-1	EYE BOLT	1	1	1
56	379639	INDICATOR SWITCH	1	-	1
▶	379652	INDICATOR SWITCH	-	1	-
57 ▶	378002	POPPET BALL	1	1	1
58 ▶	37-P-41	POPPET SPRING	1	1	1
59 ▶	378554	POPPET CAP	1	1	1
60 ▶	35-P-14	GASKET, Shift Shaft Cover	1	1	1
61 ▶	65-P-23	SHIFTER SHAFT COVER	1	1	1
62 ▶	378430-4	HEX CAPSCREW	2	2	2
63 ▶	35-P-8	GASKET, Shift Cover	1	1	1
64 ▶	378430-8	HEX CAPSCREW .312-18 X .750	4	4	4

440, 446 & 488 SERIES
AIR CONTROL PARTS

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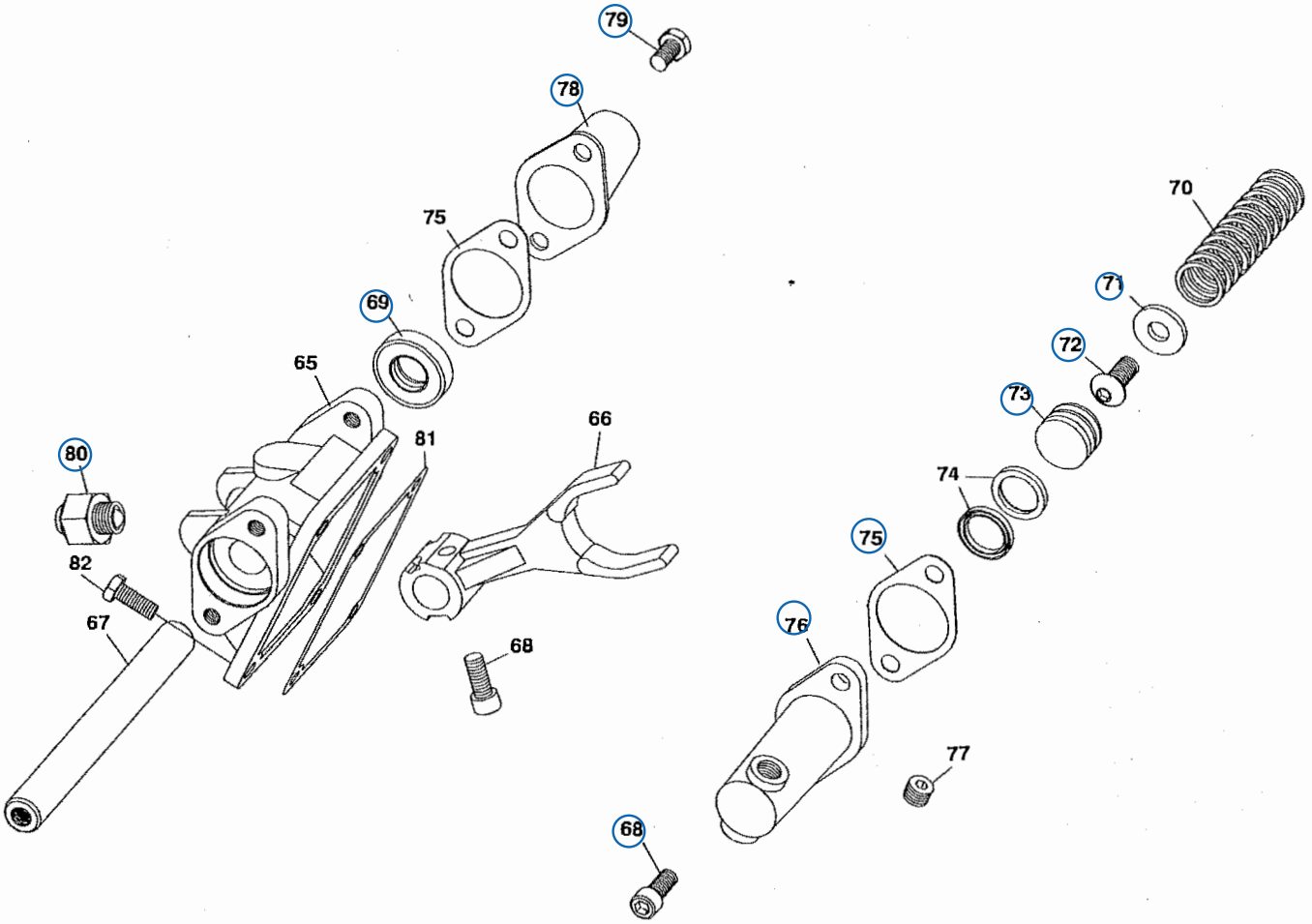

440, 446 & 488 SERIES

AIR CONTROL PARTS ("A" Designator)

Item	Part Number	Description	Quantity		
			440	446	488
	329036-1X	SHIFT COVER ASSEMBLY (Ass'y 3 & 6)	1	-	1
	329036-2X	SHIFT COVER ASSEMBLY (Ass'y 4 & 5)	1	-	1
▶	329042-1X	SHIFT COVER ASSEMBLY (Ass'y 3 & 6)	-	1	-
	329042-2X	SHIFT COVER ASSEMBLY (Ass'y 4 & 5)	-	1	-
		Assemblies shown above include items 65 thru 80			
65	34-P-76	SHIFTER COVER	1	1	1
66 ▶	32-P-166	SHIFTER FORK	1	1	1
67 ▶	11-P-112	SHIFTER SHAFT	1	1	1
68 ▶	378447-4	SOCKET HEAD CAPSCREW .312-18 x .750"	3	3	3
69 ▶	28-P-207	OIL SEAL	1	1	1
70 ▶	37-P-25	RETURN SPRING	1	1	1
71 ▶	378462	WASHER	1	1	1
72	378908	BUTTON HEAD CAPSCREW	1	1	1
73	66-P-4	PISTON	1	1	1
74 ▶	28-P-256	BLOCK VEE RING	2	2	2
75 ▶	35-P-14	GASKET, Shifter Shaft Cover	2	2	2
76 ▶	65-P-14	CYLINDER	1	1	1
77 ▶	379231	PIPE PLUG	1	1	1
78 ▶	65-P-23	SHIFTER SHAFT COVER	1	1	1
79 ▶	378430-4	HEX CAPSCREW .312-18 x .500"	2	2	2
80	379639	INDICATOR SWITCH	1	-	1
▶	379652	INDICATOR SWITCH	-	1	-
81 ▶	35-P-8	GASKET, Shift Cover	1	1	1
82 ▶	378430-8	HEX CAPSCREW .312-18 X .750	4	4	4
		AIR SHIFT CONVERSION KITS			
	328390-85X	LEVER TO AIR SHIFT	1	1	1
	328390-105X	LEVER TO ELECTRIC OVER AIR 12V	1	-	1
	328390-106X	LEVER TO ELECTRIC OVER AIR 24V	1	-	1
	328390-117X	CABLE TO AIR (Ass'y 3 & 6)	1	-	1
	328390-118X	CABLE TO AIR (Ass'y 4 & 5)	1	-	1
	328390-125X	CABLE TO AIR (Ass'y 3 & 6)	-	1	-
	328390-126X	CABLE TO AIR (Ass'y 4 & 5)	-	1	-
▶	328390-119X	CABLE TO ELECTRIC/AIR 12V (Ass'y 3 & 6)	1	-	1
▶	328390-120X	CABLE TO ELECTRIC/AIR 24V (Ass'y 3 & 6)	1	-	1
	328390-121X	CABLE TO ELECTRIC/AIR 12V (Ass'y 4 & 5)	1	-	1
	328390-122X	CABLE TO ELECTRIC/AIR 24V (Ass'y 4 & 5)	1	-	1
	328390-131X	CABLE TO ELECTRIC/AIR 12V (Ass'y 3 & 6)	-	1	-
	328390-133X	CABLE TO ELECTRIC/AIR 24V (Ass'y 3 & 6)	-	1	-
	328390-132X	CABLE TO ELECTRIC/AIR 12V (Ass'y 4 & 5)	-	1	-
	328390-134X	CABLE TO ELECTRIC/AIR 24V (Ass'y 4 & 5)	-	1	-

440, 446 & 488 SERIES
SHIFTER KITS

CHELSEA®

For P.T.O.'s ordered without the shifter (Shifter Type "H"), the kits shown below will provide all the components required to complete the assembly.

Part Number	Description
	440 & 488 Series
▶ 329106-39X	AIR SHIFT (Ass'y 3 & 6)
▶ 329106-40X	AIR SHIFT (Ass'y 4 & 5)
▶ 329106-43X	ELECTRIC/AIR 12V (Ass'y 3 & 6)
329106-44X	ELECTRIC/AIR 12V (Ass'y 4 & 5)
329106-45X	ELECTRIC/AIR 24V (Ass'y 3 & 6)
329106-46X	ELECTRIC/AIR 24V (Ass'y 4 & 5)
329106-47X	LEVER SHIFT (Ass'y 3 & 6)
329106-48X	LEVER SHIFT (Ass'y 4 & 5)
329106-105X	CABLE SHIFT (Q, W, & X Ratios, Ass'y 3 & 6)
▶ 329106-106X	CABLE SHIFT (Q, W, & X Ratios, Ass'y 4 & 5)
▶ 329106-107X	CABLE SHIFT, Less cable (Q, W, & X Ratios, Ass'y 3 & 6)
329106-108X	CABLE SHIFT, Less Cable (Q, W, & X Ratios, Ass'y 4 & 5)
▶ 329106-109X	CABLE SHIFT (F, L, R, S & U Ratios, Ass'y 3 & 6)
329106-110X	CABLE SHIFT (F, L, R, S & U Ratios, Ass'y 4 & 5)
▶ 329106-111X	CABLE SHIFT, Less Cable (F, L, R, S & U Ratios, Ass'y 3 & 6)
▶ 329106-112X	CABLE SHIFT, Less Cable (F, L, R, S & U Ratios, Ass'y 4 & 5)
329106-125X	E-Z SHIFT (Ass'y 3 & 6)
329106-126X	E-Z SHIFT (Ass'y 4 & 5)
▶ 329143X	DUST COVER KIT FOR LEVER & AIR SHIFTERS
	446 SERIES
329106-71X	AIR SHIFT (Ass'y 3 & 6)
329106-72X	AIR SHIFT (Ass'y 4 & 5)
▶ 329106-75X	ELECTRIC/AIR 12V (Ass'y 3 & 6)
329106-76X	ELECTRIC/AIR 12V (Ass'y 4 & 5)
329106-77X	ELECTRIC/AIR 24V (Ass'y 3 & 6)
329106-78X	ELECTRIC/AIR 24V (Ass'y 4 & 5)
329106-79X	LEVER SHIFT (Ass'y 3 & 6)
329106-80X	LEVER SHIFT (Ass'y 4 & 5)
329106-113X	CABLE SHIFT (Q & W Ratios, Ass'y 3 & 6)
329106-114X	CABLE SHIFT (Q & W Ratios, Ass'y 4 & 5)
329106-117X	CABLE SHIFT (R, S & U Ratios, Ass'y 3 & 6)
329106-118X	CABLE SHIFT (R, S & U Ratios, Ass'y 4 & 5)
329106-129X	E-Z SHIFT (Ass'y 3 & 6)
329106-130X	E-Z SHIFT (Ass'y 4 & 5)
▶ 329143X	DUST COVER KIT FOR LEVER & AIR SHIFTERS

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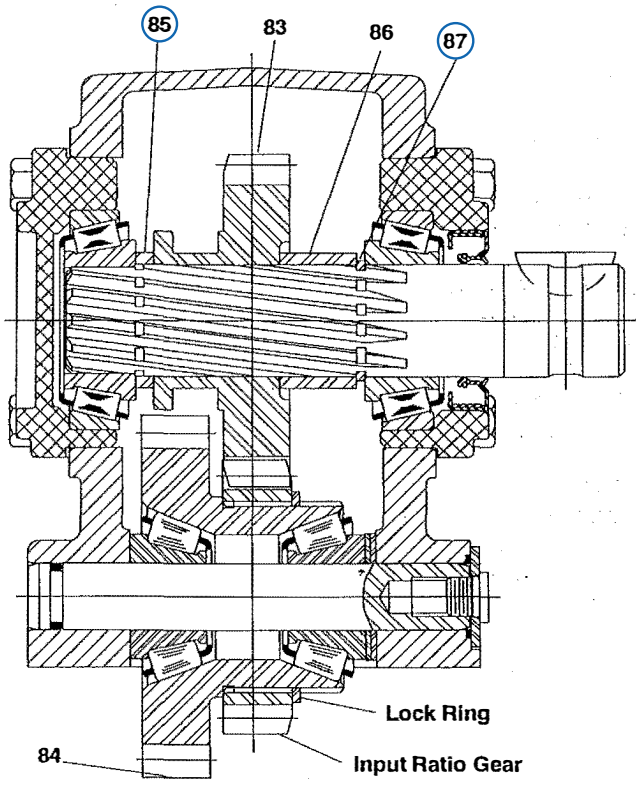
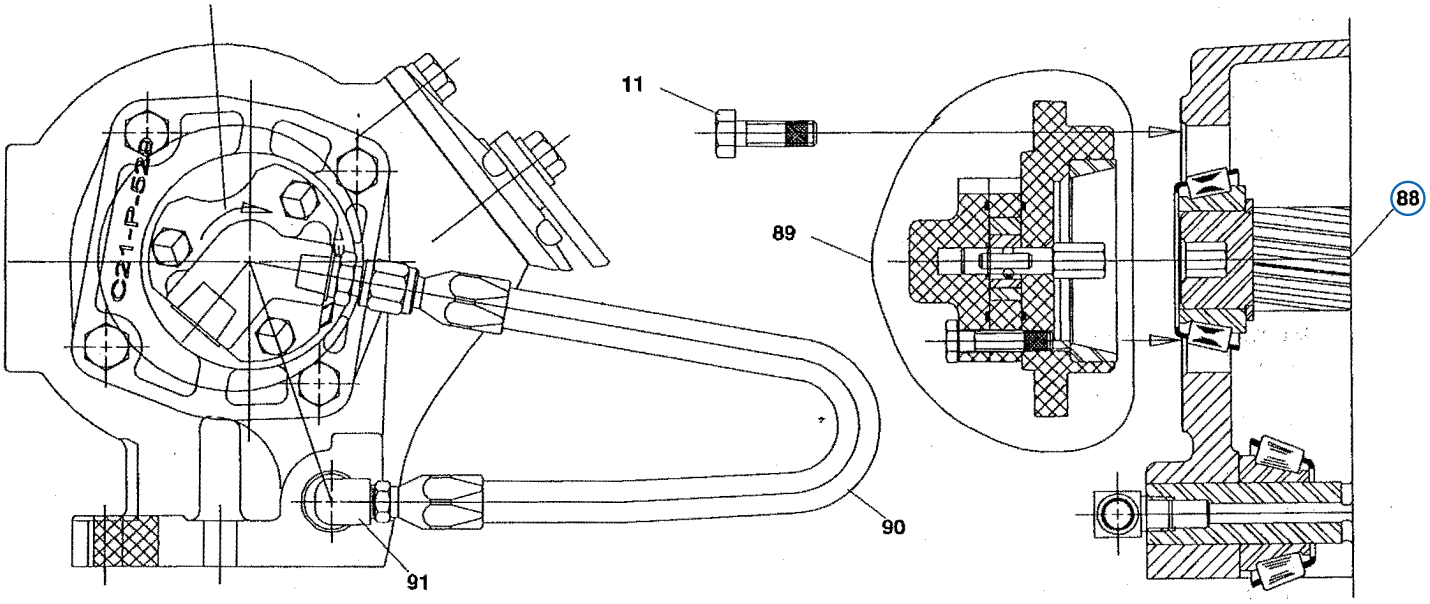
440 & 488 SERIES
CONSTANT MESH PARTS ("M" Designator)



Item	Part Number	Description	Quantity 440	Quantity 488
83	See Chart Pg. 16-17	OUTPUT GEAR	1	1
84	See Chart Pg. 13-17	INPUT GEAR	1	1
85 ▶	4-P-166	SPACER, Drive Shaft	1	1
86	4-P-167	SPACER, Drive Shaft	1	1
87 ▶	378391	LOCK RING	1	1
N.S.	34-P-39	COVER PLATE (For Shifter Opening)	1	1
N.S.	35-P-8	GASKET, Cover Plate (For Shifter Opening)	1	1
N.S.	378430-6	HEX CAPSCREW .312-18 X .625	4	4

NOTE: The 446 Series is not available as a Constant Mesh P.T.O.

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" and "W" Ratios.
Rotate as needed for "F", "L", "R", "S" and "U" Ratios.

Item	Part Number	Description	Quantity		
			440	446	488
11 ▶	378430-10	HEX CAPSCREW .312-18 x 1.000"	4	4	4
88 ▶	3-P-857	OUTPUT SHAFT (LD Output)	1	1	1
	3-P-858	OUTPUT SHAFT (LA, LB, LC, LE, LF Output)	1	1	1
89	329091X	LUBE PUMP & BEARING CAP ASSEMBLY	1	1	1
90 ▶	329092X	PRESSURE LUBE HOSE ASSEMBLY	1	1	1
91 ▶	500841-1	90° STREET ELBOW	1	1	1

440 SERIES
INPUT GEAR CHART

Model Number	Part Number	Pitch	Pressure Angle	Helix Angle	No. Teeth
L, Q, R, S, U, W & X Ratios					
440**AB	5-P-1001	5/7	20°	Spur	19
440**AC	5-P-1002	5.34737	22.5°	Spur	19
440**AG	5-P-1003	6/8	17.30°	Spur	22
440**AH	5-P-1004	6/8	20°	Spur	22
440**AL	5-P-1005	6.2418	19.17°	Spur	22
440**AP	5-P-1006	6	17.30°	22° 15' L.H.	21
440**AQ	5-P-1007	6/8	17.30°	26° 00' 48" L.H.	21
440**AR	5-P-1008	6	17.30°	26° 10' 37" L.H.	21
440**AW	5-P-1009	6	20°	17° 40' 41" L.H.	22
440**AX	5-P-1010	6.100	25°	18° 40' 48" R.H.	22
440**BA	5-P-1011	6.540	18.465°	23° 26' 48" L.H.	23
440**BC	5-P-1012	6.100	25°	32° 16' 48" L.H.	18
440**BE	5-P-1013	7	20°	Spur	27
440**BG	5-P-1015	7	17.30°	28° 04' 23" L.H.	23
440**BH	5-P-1016	7	20°	20° R.H.	25
440**BK	5-P-1018	7	20°	28° L.H.	23
440**BL	5-P-1019	7	20°	30° 20' 40" R.H.	22
440**BM	5-P-1020	7	25°	30° 46' 48" L.H.	22
440**BN	5-P-1021	7.1952	16.8836°	33° 30' L.H.	22
440**BP	5-P-1022	7.345	20°	24° R.H.	26
440**BQ	5-P-1023	7.345	20°	24° L.H.	25
440**BR	5-P-1024	7.6168	18.489°	23° 12' 57" R.H.	26
440**BS	5-P-1025	7.6168	18.489°	23° 12' 57" L.H.	26
440**BU	5-P-1026	8.35	20°	Spur	33
440**BZ	5-P-1028	8.0829	20°	30° L.H.	26
440**CB	5-P-1029	8.1160	20°	33° 30' L.H.	25
440**CD	5-P-1031	8.0829	20°	30° L.H.	27
440**CM	5-P-1035	6/8	20°	Spur	22
440**CR	5-P-1036	5	17.30°	24° 48' 42" L.H.	17
440**DA	5-P-1037	6.48	17.6528°	Spur	23
440**DB	5-P-1038	10.10	20°	Spur	39
440**DC	5-P-1039	5.08	20°	Spur	19
440**DH	5-P-1041	6.35	20°	21° 45' L.H.	21
440**DJ	5-P-1042	8.4666	22.30°	28° 27' 29" L.H.	28
440**DK	5-P-1043	7.8154	22.30°	28° 30' 24" L.H.	26
440**DM	5-P-1045	5.700	25°	38° 42' L.H.	17
440**DN	5-P-1046	6.100	25°	32° 30' L.H.	19
440**DQ	5-P-1048	5.4978	22.30°	16° 57' 59" L.H.	20
440**DU	5-P-1050	7.500	22°	15° L.H.	28
440**DX	5-P-1052	7.3449	20°	24° L.H.	26
440**DY	5-P-1053	5.700	25°	38° 42' L.H.	16

(Continued on next page.)

440 SERIES
INPUT GEAR CHART

CHELSEA® DANA

Model Number	Part Number	Pitch	Pressure Angle	Helix Angle	No. Teeth
440**EC	5-P-1055	10.3673	20°	28° L.H.	36
440**ED	5-P-1056	9.9608	20°	28° 30' L.H.	34
440**EL	5-P-1075	8.00	20°	15° R.H.	30
440**EP	5-P-1057	9.6046	20°	21° 36' R.H.	35
440**ES	5-P-1059	6.35	20°	22° L.H.	22
440**EV	5-P-1060	10.10	21.30°	Spur	40
440**EW	5-P-1061	6.100	20.30°	29° L.H.	20
440**FA†	5-P-894	8.4667	20°	Spur	34
440**FC	5-P-1064	7.9366	22.4987°	30° L.H.	26
440**FE	5-P-1065	8.4667	17.30°	28.481° L.H.	29
440**FM	5-P-1069	10	20°	Spur	28
440**FN	5-P-1070	7.00	17.30°	18° L.H.	26
440**FP	5-P-1071	6.773	22.30°	23° 51' 56" L.H.	23
440**FQ	5-P-1072	6.3500	22.30°	24° 48' 28" L.H.	21
440**FW	5-P-1098	7.55	23°	19° L.H.	28
440**GQ	5-P-1150	8.1935	20°	29° 59' 17" L.H.	26
440**GR	5-P-1157	6.35	20°	Spur	23
440**GS	5-P-1152	9.9608	20°	28° 30' L.H.	29

†440**FA is used on the Jatco Automatic Transmission. Use 2-P-709 for the output gear.

440 SERIES INPUT RATIO GEAR CHART

Ratio	Part Number	No. Teeth
F	See Chart Next Page	
L	**5-P-964**	25
Q	**5-P-965**	19
R	**5-P-1214**	22
S	**5-P-966**	24
U	**5-P-967**	26
W	**5-P-968**	26
X	**5-P-969**	38

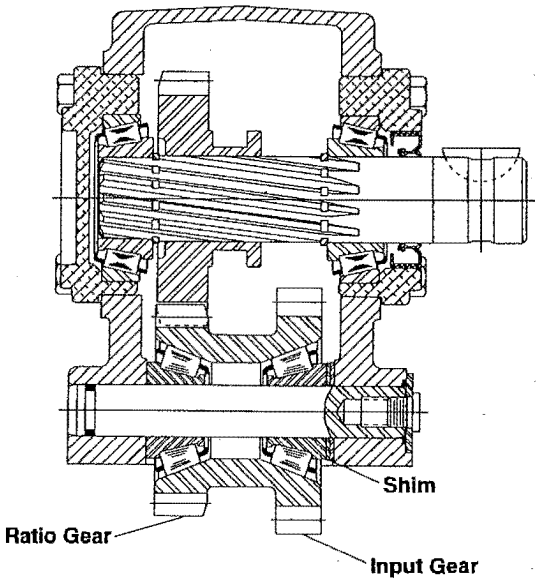
440 SERIES OUTPUT GEAR CHART

Ratio	Part Number	No. Teeth
F	2-P-726	37
L	2-P-727	34
Q	2-P-559	24
R	2-P-559	24
S	2-P-637	22
U	2-P-560	20
W	2-P-561	17
X	2-P-728	21

440 SERIES
INPUT GEAR CHART

Model Number	Part Number	Pitch	Pressure Angle	Helix Angle	No. Teeth (Input Gear)	No. Teeth (Ratio Gear)
F Ratio Only						
440*FAB	5-P-1076	5/7	20°	Spur	19	21
440*FAH	5-P-1077	6/8	20°	Spur	22	21
440*FAP	5-P-1079	6	17.30°	22° 15' L.H.	21	21
440*FAR	5-P-1080	6	17.30°	26° 10' 37" L.H.	21	21
440*FBC	5-P-1081	6.100	25°	32° 16' 48" L.H.	18	21
440*FBG	5-P-1082	7	17.30°	28° 04' 23" L.H.	23	21
440*FBM	5-P-1083	7	25°	30° 46' 48" L.H.	22	21
440*FBQ	5-P-1084	7.34498	20°	24° L.H.	25	21
440*FDA	5-P-1085	6.4800	17.6528°	Spur	23	21
440*FDJ	5-P-1086	8.467	22.30°	28° 27' 29" L.H.	28	21
440*FDN	5-P-1087	6.100	25°	32° 30' L.H.	19	21
440*FDU	5-P-1088	7.500	22°	15° L.H.	28	21
440*FEC	5-P-1089	10.3673	20°	28° L.H.	36	21
440*FED	5-P-1090	9.9608	20°	28° 30' L.H.	34	21
440*FEP	5-P-1091	9.6046	20°	21° 36' R.H.	35	21
440*FES	5-P-1092	6.35	20°	22° L.H.	22	21
440*FEV	5-P-1094	10.10	21.30°	Spur	40	21
440*FEW	5-P-1095	6.100	20.30°	29° L.H.	20	21
440*FFE	5-P-1096	8.4667	17.30°	28.481° L.H.	29	21
440*FFN	5-P-1097	7	17.30°	18° L.H.	26	21
440*FGQ	5-P-1149	8.1935	20°	29° 59' 17" L.H.	26	21
440*FGS	5-P-1151	9.9608	20°	28° 30' L.H.	29	21

446 SERIES
GEAR CHART



Model Number	Input Gear Part Number	Pitch	Pressure Angle	Helix Angle	No. Teeth• (Input Gear)	No. Teeth•• (Ratio Gear)	Output Gear	
							Part Number	No. Teeth
446*QCD	5-P-1178	8.0829	20°	30° L.H.	27	19	2-P-697	24
446*QES	5-P-869	6.35	20°	22° L. H.	22	19	2-P-697	24
446*QET	5-P-865	6.5	20°	23° L H.	19	19	2-P-697	24
446*QFX	5-P-979	6.9589	20°	25° L.H.	29	19	2-P-697	24
446*QGP	5-P-1145	6.2716	22.5°	Spur	23	19	2-P-697	24
446*RCD	5-P-1218	8.0829	20°	30° L.H.	27	22	2-P-697	24
446*RES	5-P-1216	6.35	20°	22° L.H.	22	22	2-P-697	24
446*RET	5-P-1215	6.5	20°	23° L.H.	19	22	2-P-697	24
446*RGP	5-P-1217	6.2716	22.5°	Spur	23	22	2-P-697	24
446*SCD	5-P-1179	8.0829	20°	30° L.H.	27	24	2-P-698	22
446*SES	5-P-870	6.35	20°	22° L.H.	22	24	2-P-698	22
446*SET	5-P-866	6.5	20°	23° L.H.	19	24	2-P-698	22
446*SGP	5-P-1146	6.2716	22.5°	Spur	23	24	2-P-698	22
446*UCD	5-P-1180	8.0829	20°	30° L.H.	27	26	2-P-699	20
446*UES	5-P-871	6.35	20°	22° L.H.	22	26	2-P-699	20
446*UET	5-P-867	6.5	20°	23° L.H.	19	26	2-P-699	20
446*UFE	5-P-889	8.4667	17.5°	28.481° L.H.	24	26	2-P-699	20
446*UGP	5-P-1147	6.2716	22.5°	Spur	23	26	2-P-699	20
446*WCD	5-P-1181	8.0829	20°	30° L.H.	27	26	2-P-700	17
446*WES	5-P-872	6.35	20°	22° L.H.	22	26	2-P-700	17
446*WET	5-P-868	6.5	20°	23° L.H.	19	26	2-P-700	17
446*WFE	5-P-890	8.4667	17.5°	28.481° L.H.	29	26	2-P-700	17
446*WGD	5-P-988	5.2917	24°	11.4167° R.H.	19	26	2-P-700	17
446*WGP	5-P-1148	6.2716	22.5°	Spur	23	26	2-P-700	17

• Input gear meshes with the transmission
•• Ratio gear meshes with the P.T.O. Output Gear

NOTE: The unique design of the 446 Series input gear requires that the Spacers used to shim the input bearings be placed opposite of the normal position found on the 440 and 488 series. For the 446 Series install the Input gear spacers (item 18 on pg. 3) on the idler shaft between the Input Gear and PTO housing.

488 SERIES

INPUT GEAR CHART

Model Number	Input Gear Part Number	Pitch	Pressure Angle	Helix Angle	No. Teeth
L, Q, S, U, W & X Ratios					
488**AB	5-P-1001	5/7	20°	Spur	19
488**AH	5-P-1004	6/8	20°	Spur	22
488**AR	5-P-1008	6	17.30°	26° 10' 37" L.H.	21
488**BG	5-P-1015	7	17.30°	28° 04' 23" L.H.	23
488**DA	5-P-1037	6.4800	17.6528°	Spur	23
488**DU	5-P-1050	7.500	22°	15° L.H.	28
488**EV	5-P-1060	10.10	21.30°	Spur	40

488 SERIES INPUT RATIO GEAR CHART

Ratio	Input Gear Part Number	No. Teeth
F	See Chart Below	
L	5-P-964	25
Q	5-P-965	19
R	5-P-1214	22
S	5-P-966	24
U	5-P-967	26
W	5-P-968	26
X	5-P-969	38

488 SERIES OUTPUT GEAR CHART

Ratio	Part Number	No. Teeth
F	2-P-726	37
L	2-P-727	34
Q	2-P-559	24
R	2-P-559	24
S	2-P-637	22
U	2-P-560	20
W	2-P-561	17
X	2-P-728	21

488 "F" RATIO GEAR CHART

Model Number	Input Gear Part Number	Pitch	Pressure Angle	Helix Angle	No. Teeth (Input Gear)	No. Teeth (Ratio Gear)
F Ratio Only						
488*FAB	5-P-1076	5/7	20°	Spur	19	21
488*FAH	5-P-1077	6/8	20°	Spur	22	21
488*FAR	5-P-1080	6	17.30°	26° 10' 37" L.H.	21	21
488*FBG	5-P-1082	7	17.30°	28° 04' 23" L.H.	23	21
488*FDU	5-P-1088	7.500	22°	15° L.H.	28	21
488*FEV	5-P-1094	10.10	21.30°	Spur	40	21

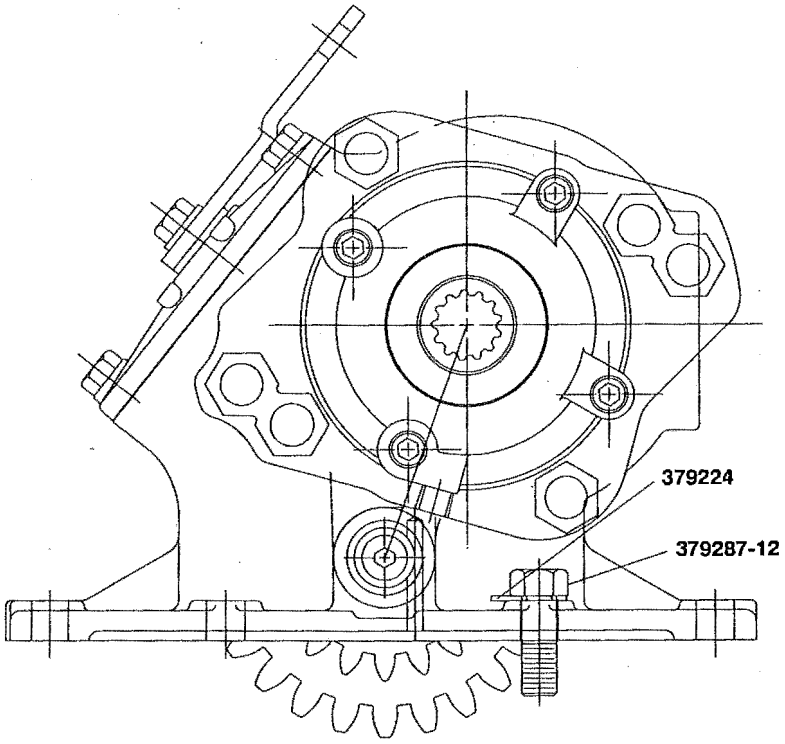
440, 446 & 488 SERIES
DIRECT MOUNT PUMP CONVERSION KITS

CHELSEA DANA

Flange Suffix	Flange Type	Shaft Type	Conversion Kit *
AF	S.A.E. "BB" 2 or 4 bolt	1"-15 Spline	328591-30X
AK	S.A.E. "B" 2 bolt	7/8"-13 Spline	328591-28X
FF	S.A.E. "B" 2 or 4 bolt	7/8" Round	328591-29X
LA•	S.A.E. "B" 2 bolt	7/8"- 13 Spline	328591-44X
LB•	S.A.E. "A" Pilot 2 bolt	7/8"-13 Spline	328591-45X
LC•	S.A.E. "B" 2 or 4 bolt	7/8"-13 Spline	328591-46X
LE•	6 Bolt Round	7/8"-13 Spline	328591-47X
LF•	S.A.E. "B" 2 or 4 bolt	7/8"-13 Spline	328591-48X
RA	S.A.E. "B" 2 bolt	7/8"-13 Spline	328591-55X
RB	S.A.E. "B" 4 bolt	7/8"-13 Spline	328591-56X
XE	S.A.E. "A" 2 or 4 bolt	5/8"- 9 Spline	328591-27X
XG	Non-Standard 4 bolt	3/4" Round	328591-10X
XJ	Non-Standard 4 bolt	3/4" Round	328591-11X
XK	S.A.E. "B" 2 or 4 bolt	7/8"-13 Spline	328591-16X
XL	Non-Standard 4 bolt	7/8"-13 Spline	328591-18X
XM	Non-Standard 4 bolt	3/4" Round	328591-20X
XN	6 Bolt Round	7/8"-13 Spline	328591-21X
XO	S.A.E. "A" Pilot 2 bolt	3/4" Round	328591-26X
XP	S.A.E. "A" Pilot 2 bolt	7/8"-13 Spline	328591-23X
XQ **	S.A.E. "B" 2 or 4 bolt	7/8"-13 Spline	328591-17X
XR	Chelsea Special	7/8"-13 Spline	328591-52X
	XR to "XK" Conversion Flange 21-P-525		

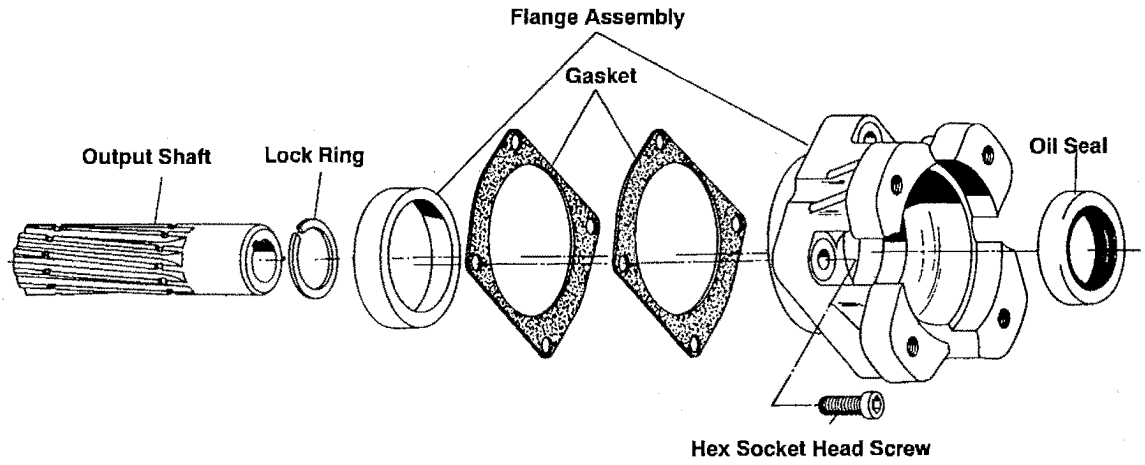
• Lube Pump Option
**Similar to "K" Assembly, only rotated 65°.

488 SERIES
PUMP FLANGE CONVERSION FOR
AF, FF, LB, LC, LF, XE, XK, XO, XP, AND XQ



When converting a 488 series standard output shaft to the above pump flanges it will be necessary to install the following two parts: one hex head capscrew (379287-12) and a tab lock washer (379224) from the 328170-127X mounting stud kit. These items must be installed in the mounting hole before the pump flange is attached. Do not bend over the tabs of the lock washer. This will be done when the PTO is installed on the vehicle.

440, 446 & 488 SERIES
PUMP CONVERSION KIT BILL OF MATERIAL

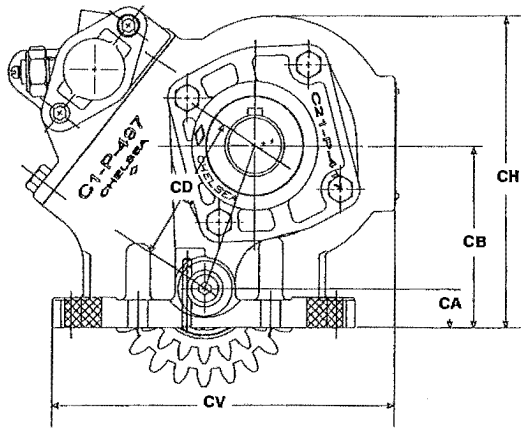


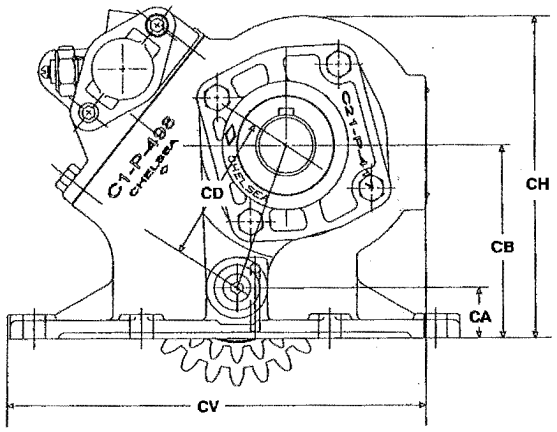
Flange Suffix	Conversion Kit *	Flange Assembly	Output Shaft	Socket Head (4 Req'd)	Oil Seal
AF	328591-30X	329088X	3-P-854	378447-10	28-P-219
AK	328591-28X	328989X	3-P-282	378447-8	28-P-216
FF	328591-29X	329088X	3-P-851	378447-10	28-P-219
LA•	328591-44X	328989X	3-P-858	378447-8	28-P-216
LB•	328591-45X	328328X	3-P-858	378447-8	28-P-216
LC•	328591-46X	328589X	3-P-858	378447-8	28-P-216
LE•	328591-47X	328584X	3-P-858	378447-8	28-P-216
LF•	328591-48X	328333X	3-P-858	378447-8	28-P-216
RA	328591-55X	329195X	3-P-283	378447-6(††)	28-P-216
RB	328591-56X	329195X	3-P-283	378447-6(††)	28-P-216
XE	328591-27X	328328X	3-P-800	378447-8	28-P-216
XG	328591-10X	328580X	3-P-281	378447-8	28-P-216
XJ	328591-11X	328580X	3-P-284	378447-8	28-P-216
XK	328591-16X	328333X	3-P-282	378447-8	28-P-216
XL	328591-18X	328580X	3-P-283	378447-8	28-P-216
XM	328591-20X	328583X	3-P-284	378447-8	28-P-216
XN	328591-21X	328584X	3-P-282	378447-8	28-P-216
XO	328591-26X	328328X	3-P-284	378447-8	28-P-216
XP	328591-23X	328328X	3-P-282	378447-8	28-P-216
XQ **	328591-17X	328589X	3-P-282	378447-8	28-P-216
XR	328591-52X	329194X	3-P-283	379673(†)	28-P-216

• Lube Pump Option
* Consists of all items shown in the illustration, plus Lock Ring (item 5) and Bearing Cap Gasket (item 8).
** Similar to "K" Assembly, only rotated 65°.
† Special shoulder stud
††Seven required; four to fasten the Flange Assembly 328195X to the housing and three to fasten the rotatable flange to the flange assembly.

NOTE: To convert PTO's with AK, XP, XQ, XN, or XK output to the lube pump option, use 329097-1X. To convert PTO's with XD output to the lube pump option, use 329096-1X

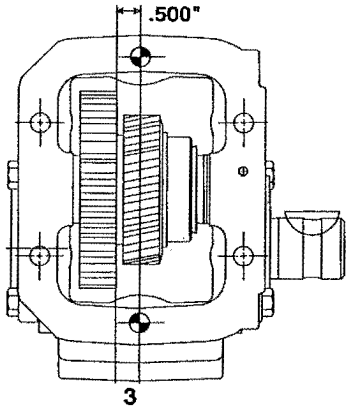
440, 446 & 488 SERIES
PTO HOUSING DIMENSIONS





PTO Series	Part Number	CA	CB	CD	CH	CV
440/446 Standard	1-P-495X	0.792	3.700 (Q,W,X) 3.799 (F,L,R,S,U)	2.908 (Q,W,X) 3.007 (F,L,S,U)	6.375	7.000
440/446 Deep Mount	1-P-496X	0.572	3.480 (Q,W,X) 3.579 (F,L,R,S,U)	2.908 (Q,W,X) 3.007 (F,L,S,U)	6.155	7.000
440J Jatco	1-P-527	0.575	3.534	3.200	6.158	7.000
488	1-P-499X	1.040	3.948 (Q,W,X) 4.047 (F,L,R,S,U)	3.087 (Q,W,X) 3.317 (F,L,S,U)	6.594	8.500

ASSEMBLY ARRANGEMENTS



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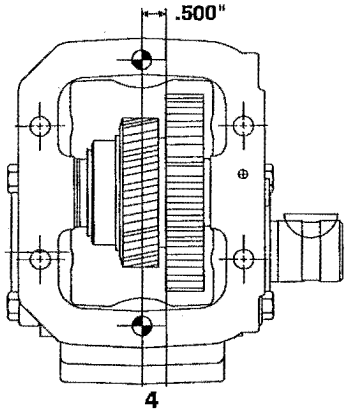

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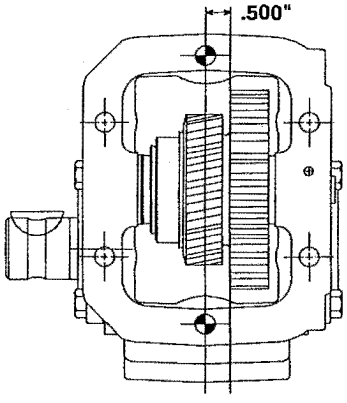

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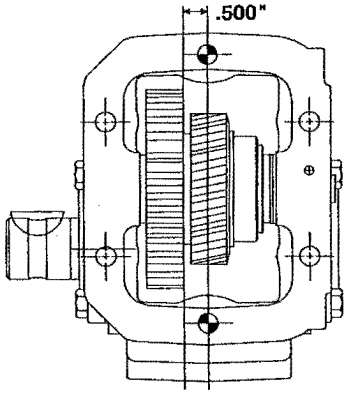

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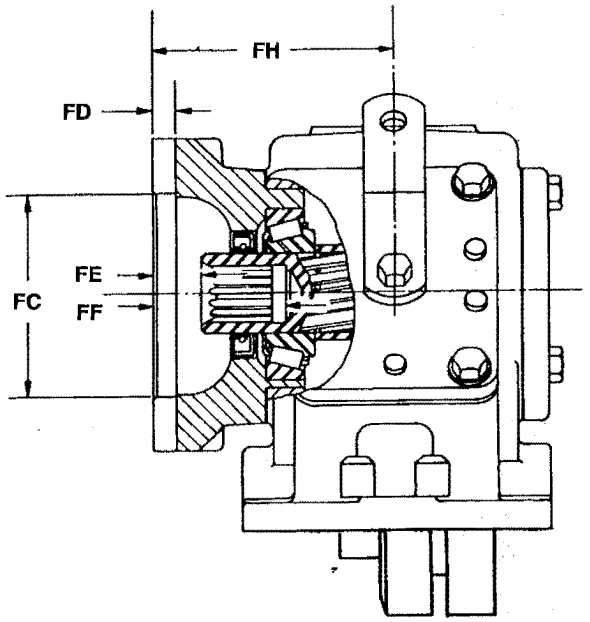

PUMP FLANGE & SHAFT DIMENSIONS

Pump Flange Suffix	Bolt Circle Dia.	BOLT HOLES		FC	FD	FE	FF	FH	OUTPUT SHAFT	Keyway Width
		Tapped Hole	No. Equally Spaced	Female Pilot Diameter	Pilot Depth	Face to end of Shaft	Face thru Hole	Face to Center of PTO	Hole Dia.	
AF	5.00	.500"-13	4	4.003	.406	.516	1.984	4.389	1"-15 Spline	—
	5.75	.500"-13	2	4.003	.406	.516	1.984	4.389	1"-15 Spline	—
AK	5.75	.500"-13	2	4.003	.406	.562	2.062	3.688	7/8"-13 Spline	—
FF	5.00	.500"-13	4	4.003	.406	.516	1.984	4.389	7/8" Round	1/4"
	5.75	.500"-13	2	4.003	.406	.516	1.984	4.389	7/8" Round	1/4"
LA	5.75	.500"-13	2	4.003	.406	.562	2.062	3.688	7/8"-13 Spline	—
LB	5.00	.500"-13	4	3.253	.344	.562	2.062	3.688	7/8"-13 Spline	—
LC	5.00	.500"-13	4	4.003	.406	.562	2.062	3.688	7/8"-13 Spline	—
	5.75	.500"-13	2	4.003	.406	.562	2.062	3.688		
LE	4.75	.406"	6	3.253	.375	.750	2.250	3.875	7/8"-13 Spline	—
LF	5.00	.500"-13	4	4.003	.406	.562	2.062	3.688	7/8"-13 Spline	—
	5.75	.500"-13	2	4.003	.406	.562	2.062	3.688		
RA	5.75	.500"-13	2	4.003	.406	.558	2.058	4.558	7/8"-13 Spline	—
RB	5.00	.500"-13	4	4.003	.406	.558	2.058	4.558	7/8"-13 Spline	—
XE	5.00	.500"-13	4	3.253	.344	.562	1.500	3.688	5/8"-9 Spline	—
XG	4.19	.375"-16	4	3.253	.562	.562	2.331	4.582	3/4" Round	3/16"
XJ	4.19	.375"-16	4	3.253	.562	1.406	3.018	4.582	3/4" Round	3/16"
XK	5.00	.500"-13	4	4.003	.406	.562	2.062	3.688	7/8"-13 Spline	—
	5.75	.500"-13	2	4.003	.406	.562	2.062	3.688		
XL	4.19	.375"-16	4	3.253	.562	.562	2.062	4.562	7/8"-13 Spline	—
XM	3.25	.375"-16	6	2.628	.688	.312	1.812	3.438	3/4" Round	3/16"
XN	4.75	.406"	6	3.253	.375	.750	2.250	3.875	7/8"-13 Spline	—
XO	5.00	.500"-13	4	3.253	.344	.562	2.062	3.688	3/4" Round	3/16"
XP	5.00	.500"-13	4	3.253	.344	.562	2.062	3.688	7/8"-13 Spline	—
XQ	5.00	.500"-13	4	4.003	.406	.562	2.062	3.688	7/8"-13 Spline	—
	5.75	.500"-13	2	4.003	.406	.562	2.062	3.688		
XR	3.71	.312"-24	4	2.752	.281	N/A	N/A	2.809	7/8"-13 Spline	—

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

440 & 446 SERIES
MODEL NUMBER DESIGNATION

CHELSEA

440 X Q AB X – Y 3 XD

BASIC MODEL
440

MOUNTING TYPE
X = Standard Mounting
Z = Deep Mount
G = Standard/Metric
K = Less Stud Kit Std. Mtg.
L = Less Stud Kit Deep Mtg.

GEAR RATIO
F L Q
R S U
W X

INPUT GEAR DESIGNATOR
(See Charts on Pgs. 13-15)

LUBRICATION
X = NO OPTION AVAILABLE
P = Pressure Lube

OUTPUT TYPE

AF =	SAE "BB" 2 or 4 Bolt	XG =	SAE "A" 2 Bolt
AK =	SAE "B" 2 Bolt	XJ =	SAE "A" 2 Bolt
FF =	SAE "B" 2 or 4 Bolt	XK =	SAE "B" 2 or 4 Bolt
LA =	SAE "B" w/Self Lube	XL =	SAE "A" 2 Bolt
LB =	SAE "A" w/Self Lube	XM =	6 Bolt
LC =	SAE "B" w/Self Lube	XN =	6 Bolt
LD =	1.250" Rd. w/Self Lube		
LE =	6 Bolt w/Self Lube	XO =	SAE "A" 2 Bolt
LF =	SAE "B" w/Self Lube	XP =	SAE "A" 2 Bolt
XD =	1.250" Rd.	XQ =	SAE "B" 2 Bolt
XE =	SAE "A" 2 or 4 Bolt	XR =	CHELSEA Special

ASSEMBLY ARRANGEMENT
3, 4, 5, 6

SHIFTER TYPE

A =	Air	H =	No Shift Cover
W =	Cable	P =	12 Volt Electric/Air
Y =	Lever	Q =	24 Volt Electric/Air
M =	Constant Mesh (No Shifter)		
X =	Less Cable & Knob		
Z =	E-Z Shift		
S =	Combo Valve		

446 X Q ET X – Y 3 XD

BASIC MODEL
446

MOUNTING TYPE
X = Standard Mounting
Z = Deep Mount
G = Standard/Metric
K = Less Stud Kit Std. Mtg.
L = Less Stud Kit Deep Mtg.

GEAR RATIO
Q R
S U
W

INPUT GEAR DESIGNATOR
(See Chart on Pg. 16)

LUBRICATION
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P = Pressure Lube

OUTPUT TYPE

AF =	SAE "BB" 2 or 4 Bolt	XG =	SAE "A" 2 Bolt
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FF =	SAE "B" 2 or 4 Bolt	XK =	SAE "B" 2 or 4 Bolt
LA =	SAE "B" w/Self Lube	XL =	SAE "A" 2 Bolt
LB =	SAE "A" w/Self Lube	XM =	6 Bolt
LC =	SAE "B" w/Self Lube	XN =	6 Bolt
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ASSEMBLY ARRANGEMENT
3, 4, 5, 6

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