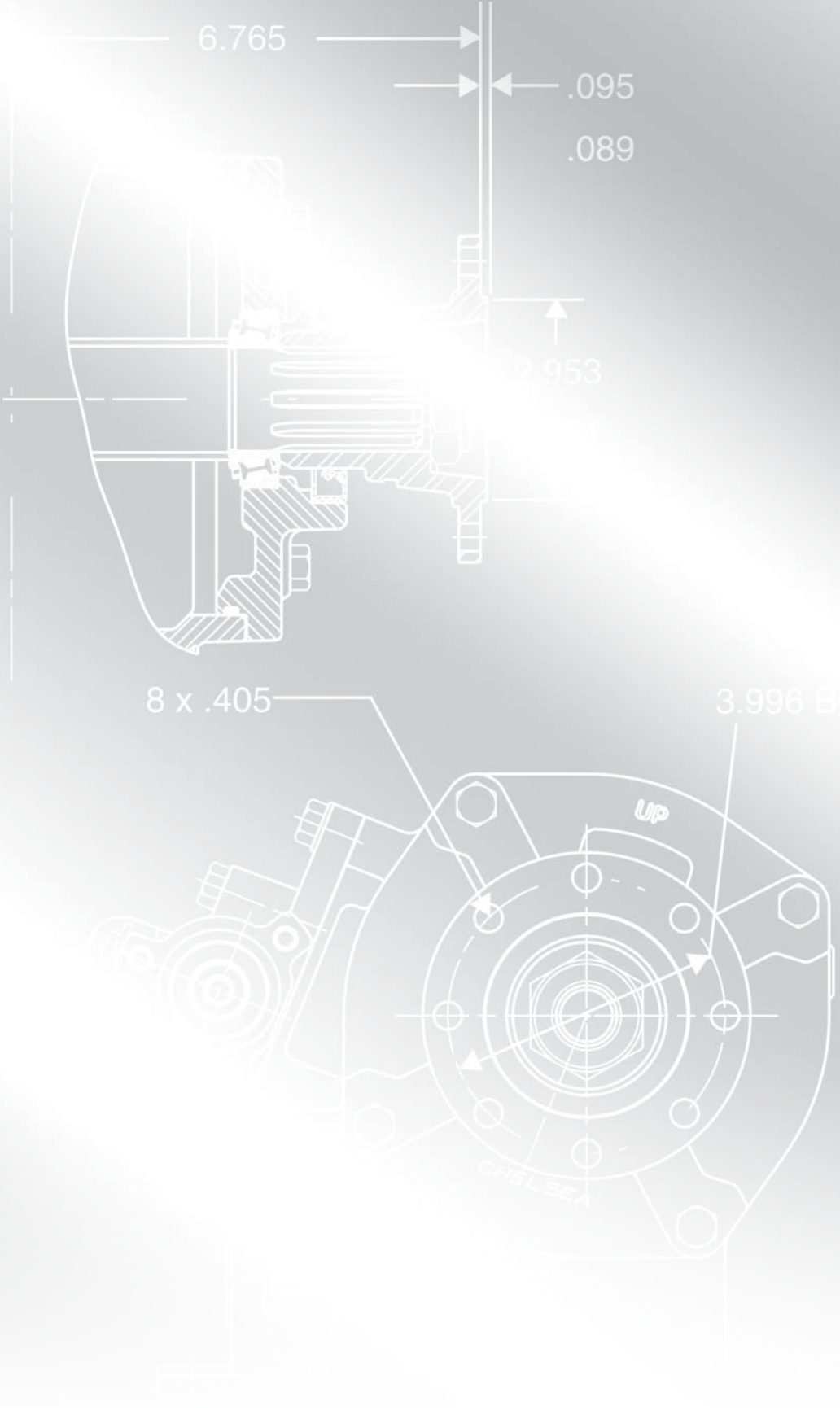
TECHNICAL INFORMATION



Parker Chelsea

ENGINEERING YOUR SUCCESS.

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Chelsea Products Division
Olive Branch, MS 38654 USA

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P.T.O. Options Chart – 6-Bolt P.T.O.s

P.T.O. Options Chart - 6-Bolt P.T.O.s		100	221	2442	290
Lubrication					
X	Standard	x	x		x
P	Pressure		x		
W	Wet Spline		x		
Shifting					
A	Air	x	x	x	x
C *	Heavy Duty Bracket Less Cable	x	x		
H	Less Wire Shift		x	x	x
M	Constant Mesh		x	x	
P	Electric/Air 12V	x	x	x	x
Q	Electric/Air 24V	x			
S	Air Shift w/ P.T.O. & Dump Combo Valve	x	x	x	x
T	Air Shift w/ P.T.O. & Dump Combo Valve Less Kick Out & Neutral Spring Return	x	x	x	x
V	Air Shift Less Installation Kit	x	x	x	x
W	Wire	x	x	x	
X	Wire, Less Cable & Knob		x	x	
Output					
AA	Special Pump Flange for Europe		x	x	x
AF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)		x (w)	x	x
AK	S.A.E. “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	x
AW	S.A.E. “B” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)		x (w)		x
AZ	Non Standard Flange, “C” Shaft (1-1/4" - 14 Tooth)		x	x	x
FF	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" w/ 1/4" key)		x	x	x
GA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x	x	
GB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x	x	
GE	Rotatable S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth) (Greaseable)		x	x	
GF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)		x	x	
GH	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)		x	x	x
GJ	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)		x	x	x
GK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x	x	
GP	S.A.E. “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x	x	
GQ**	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x	x	
GR	CHELSEA SPECIAL Pump Mount, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x	x	
GY	DIN 5462 Pump Mounting (Greaseable)		x	x	
GZ	Non Standard Flange, “C” Shaft (1.25" - 14 Tooth) (Greaseable)		x	x	
LA	S.A.E. “B” 2-Bolt Flange w/ Lube Pump (Same as AK)		x	x	
LB	S.A.E. “A” 2-Bolt Flange w/ Lube Pump (Same as XP)		x	x	
LC	S.A.E. “A” 2-Bolt Flange w/ Lube Pump (Same as XQ)		x	x	
LD	1-1/4" Round Shaft w/ Lube Pump (Same as XD)		x	x	
LF	S.A.E. “B” 2 or 4-Bolt Flange w/ Lube Pump (Same as XK)		x	x	
RA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	x
RB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	x
RC	Rotatable “A” 2-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)		x	x	x
RD	Rotatable “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	x
RE	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)		x	x	x
RF	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)		x	x	x
RH	Rotatable “A” 2-Bolt Flange, S.A.E. Shaft (3/4" - 11 Tooth)		x		x
RY	Rotatable DIN 5462 Pump Flange			x	x

* C for 100 Series = Special Shift Control & Bracket Kit (Isuzu)
** XQ/GQ same as XK/GK except flange rotated 90°
*** Order companion (3-1-604) separately
w = Wet Spline Option
NOTE: Always Check Price Book for Current Options

Continued on next page

P.T.O. Options Chart – 6-Bolt P.T.O.s

P.T.O. Options Chart - 6-Bolt P.T.O.s		100	221	2442	290
XA	7/8" Round Shaft w/ key	x			
XD	1-1/4" Round Shaft		x	x	x
XE	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)		x	x	x
XG	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)		x	x	x
XJ	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)		x	x	x
XK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	x
XL	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (7/8" - 13 Tooth)		x	x	x
XO	Special S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)		x	x	x
XP	Special S.A.E. “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	x
XQ**	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	
XR	Non Standard Flange, “B” Shaft (7/8" - 13 Tooth)		x	x	x
XV	1-1/4" Rd. w/ 1310 Series Flange			x	
XX***	1-1/4" S.A.E. Tapered Shaft w/ keyway		x	x	x
XY	DIN 5462 Pump Mounting		x	x	x

* C for 100 Series = Special Shift Control & Bracket Kit (Isuzu)
** XQ/GQ same as XK/GK except flange rotated 90°
*** Order companion (3-1-604) separately
w = Wet Spline Option
NOTE: Always Check Price Book for Current Options

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P.T.O. Options Chart – 6-Bolt P.T.O.s

P.T.O. Series		442	447	660
Lubrication				
X	Standard	x	x	x
P	Pressure	x	x	x
Shifting				
A	Air	x	x	x
C	Heavy Duty Bracket Less Cable	x	x	x
H	Less Wire Shift	x	x	x
M	Constant Mesh	x	x	x
P	Electric/Air 12V	x	x	x
S	P.T.O./Dump Pump Combo	x	x	x
T	P.T.O. & Pump Valve Less Kick Out & Neutral Spring Return	x	x	x
V	Air Shift Less Installation Kit	x	x	x
W	Wire	x	x	x
X	Wire, Less Cable & Knob	x	x	x
Output				
AA	Special Pump Flange for Europe	x	x	x
AF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x	x	x
AK	S.A.E. “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x
AW	S.A.E. “B” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)	x	x	x
AZ	Non Standard Flange, “C” Shaft (1-1/4" - 14 Tooth)	x	x	x
FF	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" w/ 1/4" key)	x	x	x
GA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x	x
GB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8"- 13 Tooth) (Greaseable)	x	x	x
GE	Rotatable S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth) (Greaseable)	x	x	x
GF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x	x	x
GH	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x	x	x
GJ	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x	x	x
GK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x	x
GP	S.A.E. “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x	x
GQ**	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x	x
GR	Chelsea Special Pump Mount, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x	x
GY	DIN 5462 Pump Mounting (Greaseable)	x	x	x
GZ	Non Standard Flange, “C” Shaft (1.25" - 14 Tooth) (Greaseable)	x	x	x
LA	S.A.E. “B” 2-Bolt Flange w/ Lube Pump (Same as AK)	x	x	x
LB	S.A.E. “A” 2-Bolt Flange w/ Lube Pump (Same as XP)	x	x	x
LC	S.A.E. “A” 2-Bolt Flange w/ Lube Pump (Same as XQ)	x	x	x
LD	1-1/4" Round Shaft w/ Lube Pump (Same as XD)	x	x	x
LF	S.A.E. “B” 2 or 4-Bolt Flange w/ Lube Pump (Same as XK)	x	x	x
RA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x
RB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x
RC	Rotatable “A” 2-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x	x	x
RD	Rotatable “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x
RE	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x	x	x
RF	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x	x	x
RH	Rotatable “A” 2-Bolt Flange, S.A.E. Shaft (3/4" - 11 Tooth)	x	x	x
RY	Rotatable DIN 5462 Pump Flange	x	x	x
SQ	S.A.E. “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x		

** XQ/GQ same as XK/GK except flange rotated 90°
*** Order companion (3-1-604) separately
w = Wet Spline Option
NOTE: Always Check Price Book for Current Options

Continued on next page

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P.T.O. Options Chart – 6-Bolt P.T.O.s

P.T.O. Series		442	447	660
XA	7/8" Round Shaft w/ key	x	x	x
XD	1-1/4" Round Shaft	x	x	x
XE	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x	x	x
XG	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)	x	x	x
XJ	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)	x	x	x
XK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x
XL	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard S.A.E. “B” Shaft (7/8" - 13 Tooth)	x	x	x
XO	Special S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)	x	x	x
XP	Special S.A.E. “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x
XQ**	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x
XR	Non Standard Flange, “B” Shaft (7/8" - 13 Tooth)	x		x
XV	1-1/4" Rd. w/ 1310 Series Flange	x	x	x
XX***	1-1/4" S.A.E. Tapered Shaft w/ keyway	x	x	x

** XQ/GQ same as XK/GK except flange rotated 90°
*** Order companion (3-1-604) separately
w = Wet Spline Option
NOTE: Always Check Price Book for Current Options

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Olive Branch, MS 38654 USA

For converting the 221, 290, 442, 447, 489, 660 and 2442 Series Chelsea P.T.O.s from a driveshaft output or as listed to a new pump flange output, use the following kits. Consult the Chelsea price book for availability by series.

Flange Conversion Kits

Pump Suffix	Kit Number Suffix	Kit Number	Flange Type	Shaft Type
AF	XD to AF	328591-30X	S.A.E. “B” 2 or 4-Bolt	1.00" - 15 Tooth Splined (BB)
AF (Wet Spline 221)	XD to AF	328591-140X	S.A.E. “B” 2 or 4-Bolt	1.00" - 15 Tooth Splined (BB)
AK	XD to AK	328591-28X	S.A.E. “B” 2-Bolt	.875" - 13 Tooth Splined (B)
AK (“B” Ratio)	XD to AK	329436-7X	S.A.E. “B” 2-Bolt	.875" - 13 Tooth Splined (B)
AW	XD to AW	328591-30X	S.A.E. “B” 2 or 4-Bolt	1.25" - 14 Tooth Splined (C)
AW (Wet Spline 221)	XD to AW	328591-140X	S.A.E. “B” 2 or 4-Bolt	1.25" - 14 Tooth Splined (C)
AZ	XD to AZ	328591-70X	S.A.E. “B” 4-Bolt	1.25" - 14 Tooth Splined (C)
FF	XD to FF	328591-29X	S.A.E. “B” 2 or 4-Bolt	.875" Round w/ .25" key
GA	XD to GA XR to GA RA to GA	328591-72X 328591-73X 328591-106X	S.A.E. “B” 2-Bolt	*.875" - 13 Tooth Splined (B)
GB	XD to GB XR to GB RB to GB	328591-74X 328591-75X 328591-107X	S.A.E. “B” 4-Bolt	*.875" - 13 Tooth Splined (B)
GF	XD to GF AF to GF	328591-71X 328591-108X	S.A.E. “B” 2 or 4-Bolt	*1.00" - 15 Tooth Splined (BB)
GH	XD to GH RF to GH	328591-116X 328591-114X	S.A.E. “B” 2-Bolt Rotatable	*1.00" - 15 Tooth Splined (BB)
GJ	XD to GJ RE to GJ	328591-138X 328591-114X	S.A.E. “B” 4-Bolt Rotatable	1.00" - 15 Tooth Splined (BB)
GK	XD to GK XK to GK	328591-89X 328591-86X	S.A.E. “B” 2 or 4-Bolt	*.875" - 13 Tooth Splined (B)
GP	XD to GP XP to GP	358591-90X 328591-86X	S.A.E. “A” 2-Bolt	*.875" - 13 Tooth Splined (B)
GQ	XD to GQ XQ to GQ	328591-91X 328591-86X	S.A.E. “B” 2 or 4-Bolt	*.875" - 13 Tooth Splined (B)
GR	XD to GR	328591-76X	CHELSEA SPECIAL 4-Bolt	*.875" - 13 Tooth Splined (B)
GY	XD to GY XY to GY	328591-92X 328591-87X	DIN 5462 Pump Mounting	*DIN 5462 Spline
GZ	XD to GZ AZ to GZ	328591-93X 328591-88X	S.A.E. “B” 4-Bolt	*1.25" - 14 Tooth Splined (C)
GA (660 Series)	XD to GA RA to GA	328591-124X 328591-109X	S.A.E. “B” 2-Bolt	*.875" - 13 Tooth Splined (B)
GB (660 Series)	XD to GB RG to GB	328591-125X 328591-110X	S.A.E. “B” 4-Bolt	*.875" - 13 Tooth Splined (B)
GF (660 Series)	XD to GF AF to GF	328591-123X 329591-111X	S.A.E. “B” 2 or 4-Bolt	*1.00" - 15 Tooth Splined (BB)
GH (660 Series)	XD to GH RF to GH	328591-117X 328591-115X	S.A.E. “B” 2-Bolt Rotatable	*1.00" - 15 Tooth Splined (BB)
GJ (660 Series)	XD to GJ RE to GJ	328591-139X 328591-115X	S.A.E. “B” 4-Bolt Rotatable	*1.00" - 15 Tooth Splined (BB)
GK (660 Series)	XD to GK XK to GK	328591-99X 328591-96X	S.A.E. “B” 2 or 4-Bolt	*.875" - 13 Tooth Splined (B)
GP (660 Series)	XD to GP XP to GP	328591-100X 328591-96X	S.A.E. “A” 2-Bolt	*.875" - 13 Tooth Splined (B)
GQ (660 Series)	XD to GQ XQ to GQ	328591-101X 328591-96X	S.A.E. “B” 2 or 4-Bolt	*.875" - 13 Tooth Splined (B)
GR (660 Series)	XD to GR	328591-126X	CHELSEA SPECIAL 4-Bolt	*.875" - 13 Tooth Splined (B)
GY (660 Series)	XD to GY	328591-102X	DIN 5462 Pump Mounting	*DIN 5462 Splined
GZ (660 Series)	XY to GY XD to GZ AZ to GZ	329591-97X 328591-103X 328591-98X	S.A.E. “B” 4-Bolt	*1.25" - 14 Tooth Splined (C)
LA (AK w/ Lube Pump)		328591-44X	S.A.E. “B” 2-Bolt	.875" - 13 Tooth Splined (B)

NOTE: Use 329097-1X to convert P.T.O.s with AK, XP, XQ, XN, or XK output to the self-lube pump option.

*Grease fitting on end of shaft

Continued on next page

Flange Conversion Kits

Pump Suffix	Kit Number Suffix	Kit Number	Flange Type	Shaft Type
LB (XP w/ Lube Pump)		328591-45X	S.A.E. “A” 2-Bolt	.875" - 13 Tooth Splined (B)
LC (XQ w/ Lube Pump)		328591-46X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
LF (XK w/ Lube Pump)		328591-48X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
RA	XD to RA	328591-55X	S.A.E. “B” 2-Bolt Rotatable	.875" - 13 Tooth Splined (B)
	XR to RA	328591-53X	S.A.E. “B” 2-Bolt Rotatable	.875" - 13 Tooth Splined (B)
RA (“B” Ratio)	XD to RA	329436-1X	S.A.E. “B” 2-Bolt Rotatable	.875" - 13 Tooth Splined (B)
RB	XD to RB	328591-56X	S.A.E. “B” 4-Bolt Rotatable	.875" - 13 Tooth Splined (B)
	XR to RB	328591-54X	S.A.E. “B” 4-Bolt Rotatable	.875" - 13 Tooth Splined (B)
RB (“B” Ratio)	XD to RB	329436-2X	S.A.E. “B” 4-Bolt Rotatable	.875" - 13 Tooth Splined (B)
RC	XD to RC	328591-112X	S.A.E. “A” 2-Bolt Rotatable	.625" - 9 Tooth Splined (A)
RD	XD to RD	328591-113X	S.A.E. “A” 2-Bolt Rotatable	.875" - 13 Tooth Splined (B)
RD (“B” Ratio)	XD to RD	329436-8X	S.A.E. “A” 2-Bolt Rotatable	.875" - 13 Tooth Splined (B)
RE	XD to RE	328591-134X	S.A.E. “B” 4-Bolt Rotatable	1.00" - 15 Tooth Splined (BB)
RF	XD to RF	328591-78X	S.A.E. “B” 2-Bolt Rotatable	1.00" - 15 Tooth Splined (BB)
RH	XD to RH	328591-151X	S.A.E. “A” 2-Bolt Rotatable	.750" - 11 Tooth Splined (19-4)
RY	XD to RY	328591-131X	DIN 5462 Rotatable	DIN 5462 Splined
SQ	XD to SQ	328591-149X	S.A.E. “B” 2-Bolt	.875" - 13 Tooth Splined (B)
SQ (“B” Ratio)	XD to SQ	329436-9X	S.A.E. “B” 2-Bolt	.875" - 13 Tooth Splined (B)
XE	XD to XE	328591-27X	S.A.E. “A” 2 or 4-Bolt	.625" - 9 Tooth Splined (A)
XG	XD to XG	328591-10X	Non-Standard 2-Bolt	.750" Round
XJ	XD to XJ	328591-11X	Non-Standard 2-Bolt	.750" Round
XK	XD to XK	328591-16X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
XK (“B” Ratio)	XD to XK	329436-3X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
XL	XD to XL	329591-18X	S.A.E. “A” 2-Bolt	.875" - 13 Tooth Splined (B)
XL (“B” Ratio)	XD to XL	329436-4X	S.A.E. “A” 2-Bolt	.875" - 13 Tooth Splined (B)
XO	XD to XL	328591-18X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
XO (“B” Ratio)	XD to XL	329436-6X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
XP	XD to XP	328591-23X	S.A.E. “A” 2-Bolt	.875" - 13 Tooth Splined (B)
XP (“B” Ratio)	XD to XP	329436-5X	S.A.E. “A” 2-Bolt	.875" - 13 Tooth Splined (B)
XQ	XD to XQ	328591-17X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
XQ (“B” Ratio)	XD ro XQ	329436-6X	S.A.E. “B” 2 or 4-Bolt	.875" - 13 Tooth Splined (B)
XR	XD to XR	328591-52X	CHELSEA SPECIAL	.875" - 13 Tooth Splined (B)
XV	XD to XV	328591-130X	1410 Companion Flange	1.25" Round
XX	XD to XX	328591-122X	1410 Companion Flange	1.25" S.A.E. Tapper
XY	XD to XY	328591-121X	DIN 5462 Pump Mounting	DIN 5462 Splined

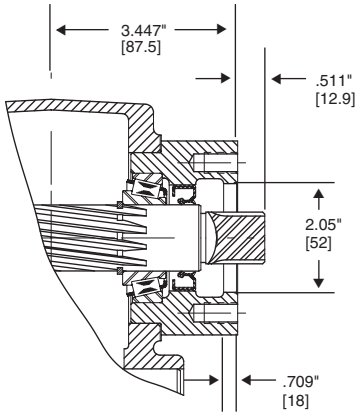
NOTE: Use 329097-1X to convert P.T.O.s with AK, XP, XQ, XN, or XK output to the self-lube pump option.

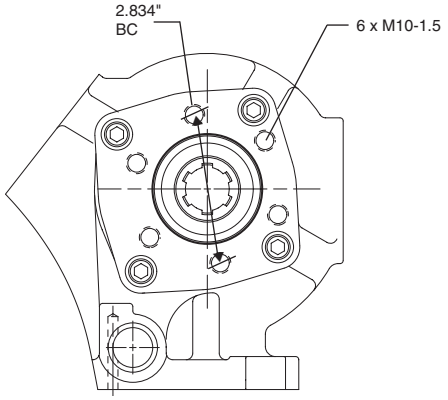
*Grease fitting on end of shaft

Six Bolt P.T.O. Flanges

Suffix AA
Special pump flange for Europe

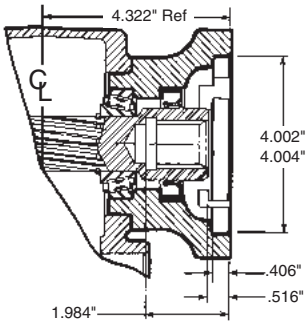
Available for the following P.T.O.s:
221, 290, 442, 447, 660, 2442

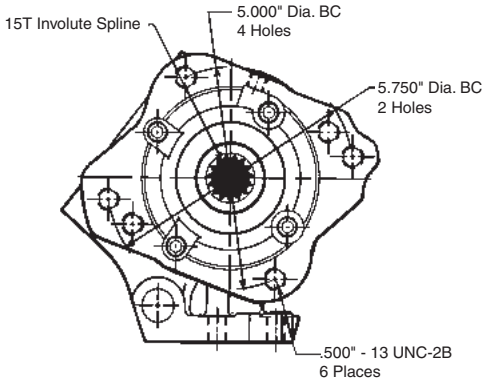




Suffix AF
S.A.E. Class “BB” 2 or 4-Bolt
For 1" - 15 Tooth Splined Shaft

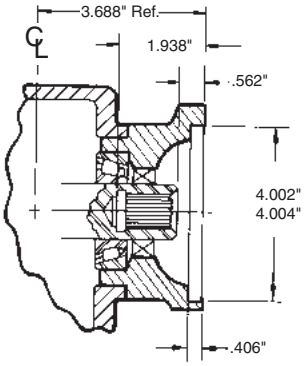
Available for the following P.T.O.s:
221, 260, 290, 442, 447,
489, 2442

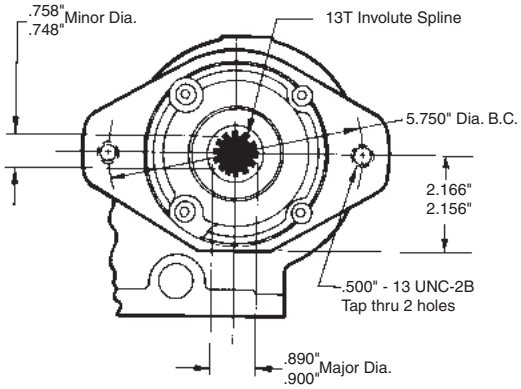




Suffix AK
S.A.E. Class “B” 2-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 260, 290, 442, 447,
489, 2442





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

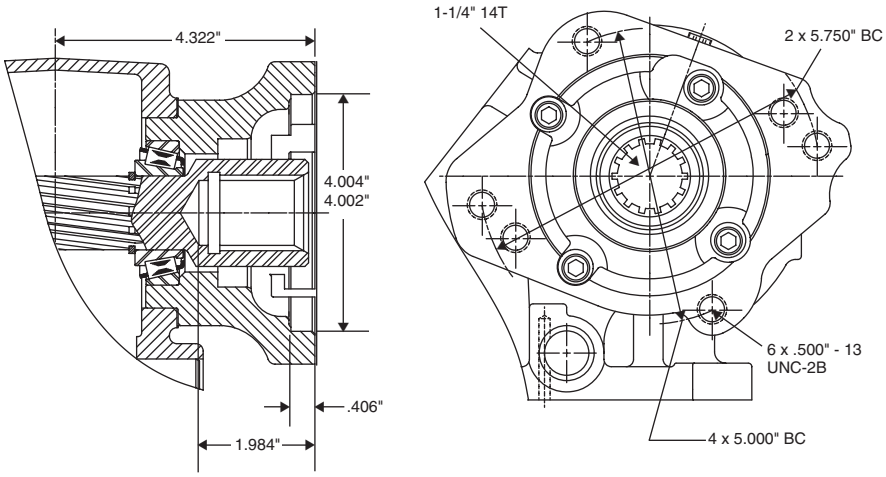
Parker Chelsea
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix AW

S.A.E. Class “B” 2 or 4-Bolt
For 1-1/4" - 14 Tooth Splined Shaft

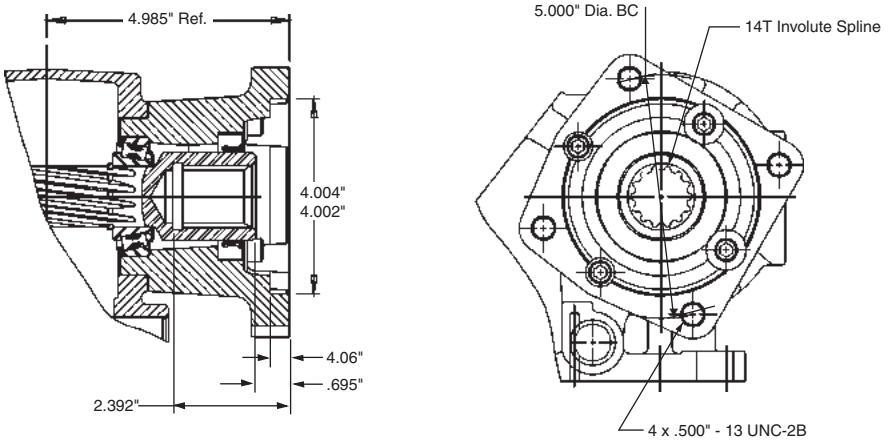
Available for the following P.T.O.s:
221, 260, 290, 442, 447,
489, 660, 680, 2442



Suffix AZ

Non Standard 4-Bolt
For 1-1/4" - 14 Tooth Splined Shaft

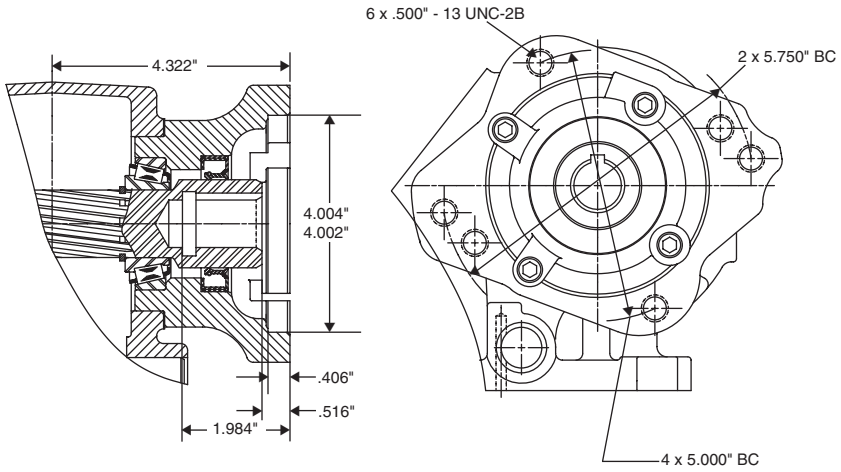
Available for the following P.T.O.s:
221, 260, 290, 442, 447,
489, 2442



Suffix FF

S.A.E. Class “B” 2 or 4-Bolt
For .875" - 1/4" Key

Available for the following P.T.O.s:
221, 260, 290, 442, 447,
489, 660, 680, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

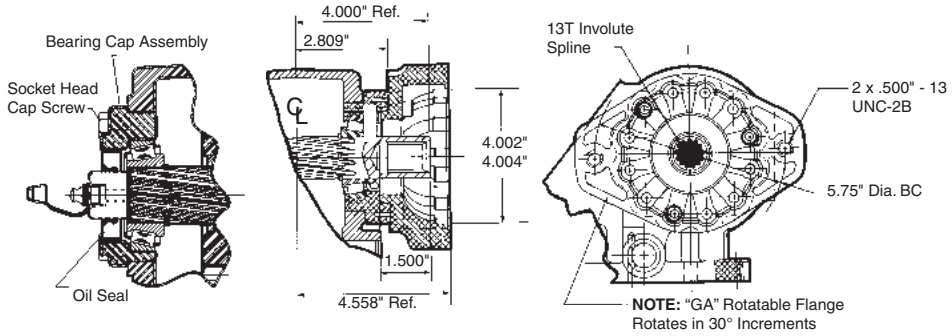
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix GA

S.A.E. Class “B” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

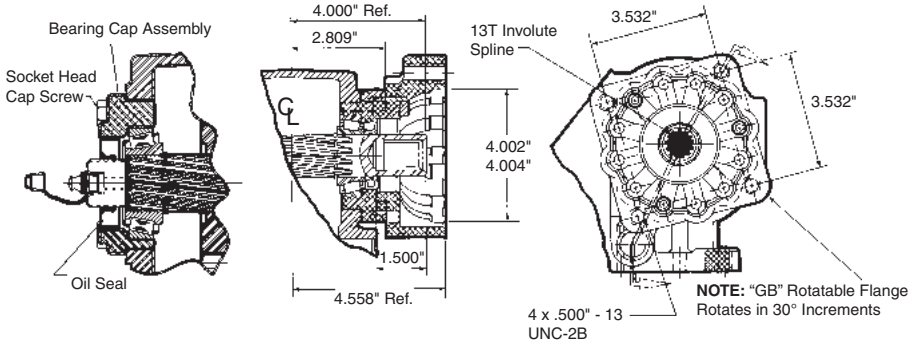
Available for the following P.T.O.s:
221, 260, 290, 442, 447, 489,
660, 2442



Suffix GB

S.A.E. Class “B” 4-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

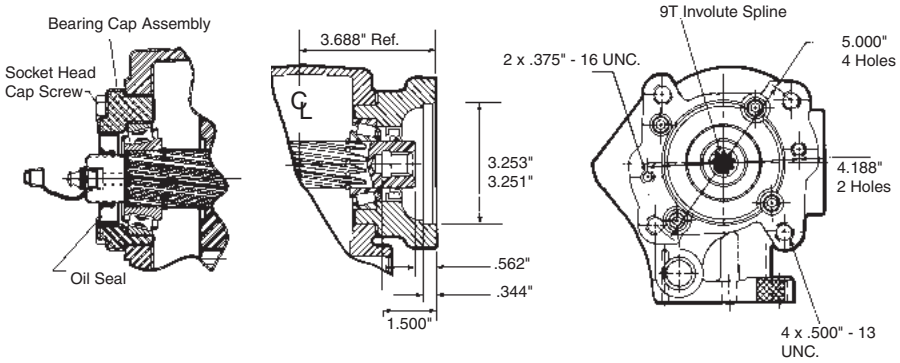
Available for the following P.T.O.s:
221, 260, 290, 442, 447, 489,
660, 2442



Suffix GE

S.A.E. Class “A” 2 or 4-Bolt
For 5/8" - 9 Tooth Splined Shaft,
(*Greaseable)

Available for the following P.T.O.s:
221, 260, 442, 447, 489, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

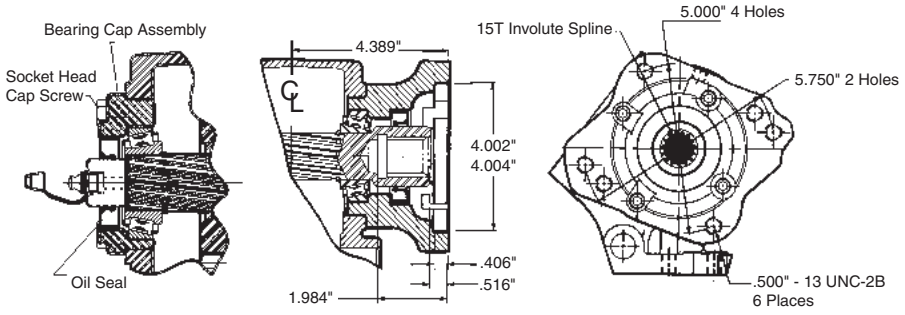
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix GF

S.A.E. Class “BB” 2 or 4-Bolt
For 1" - 15 Tooth Splined Shaft,
(*Greaseable)

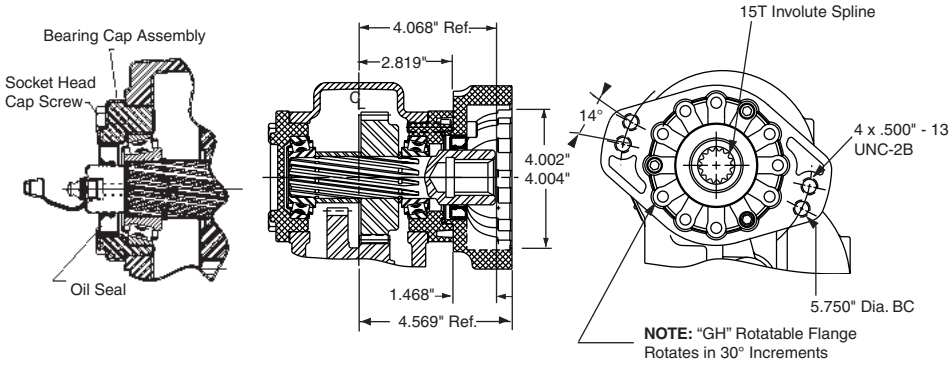
Available for the following P.T.O.s:
221, 260, 442, 447, 489,
660, 2442



Suffix GH

S.A.E. Class “BB” 2-Bolt Rotatable
For 1" - 15 Tooth Splined Shaft,
(*Greaseable)

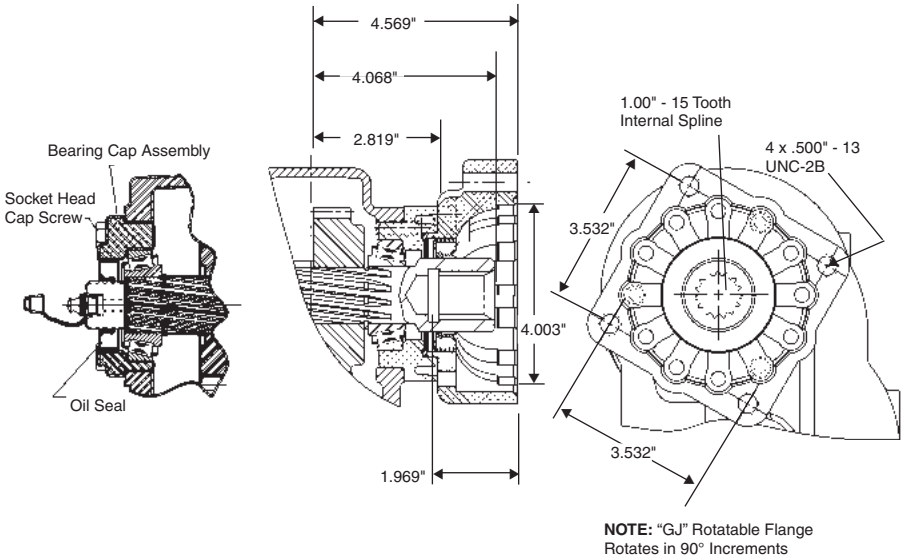
Available for the following P.T.O.s:
221, 260, 442, 447, 489,
660, 2442



Suffix GJ

S.A.E. Class “B” 4-Bolt Rotatable
For 1.00" - 15 Tooth Splined Shaft,
(*Greaseable)

Available for the following P.T.O.s:
221, 260, 442, 447, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

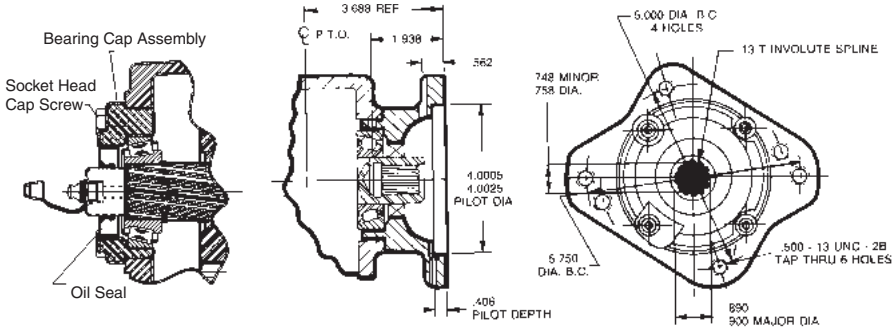
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix GK

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

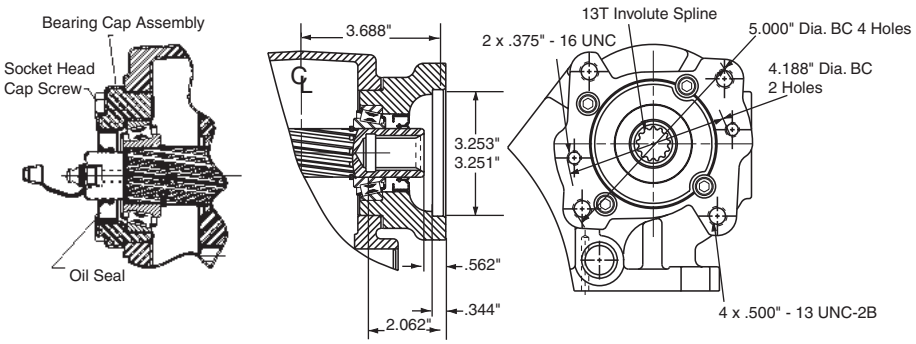
Available for the following P.T.O.s:
221, 260, 290, 442, 447,
489, 660, 2442



Suffix GP

S.A.E. Class “A” 2-Bolt
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

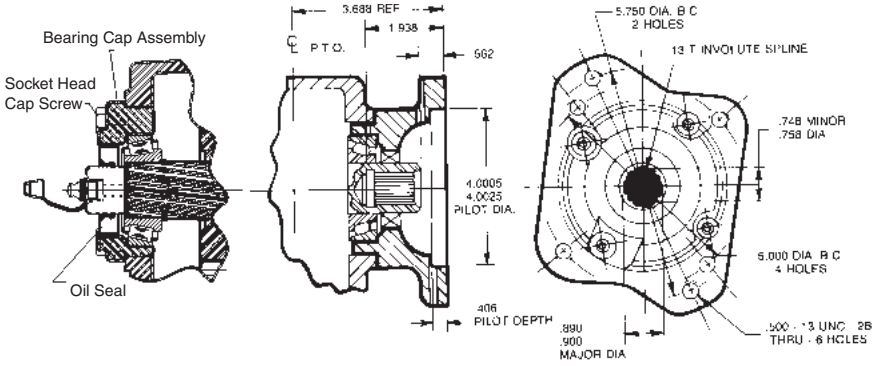
Available for the following P.T.O.s:
221, 230, 260, 442, 447, 489,
660, 2442



Suffix GQ

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

Available for the following P.T.O.s:
221, 260, 435, 442, 447,
489, 660, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

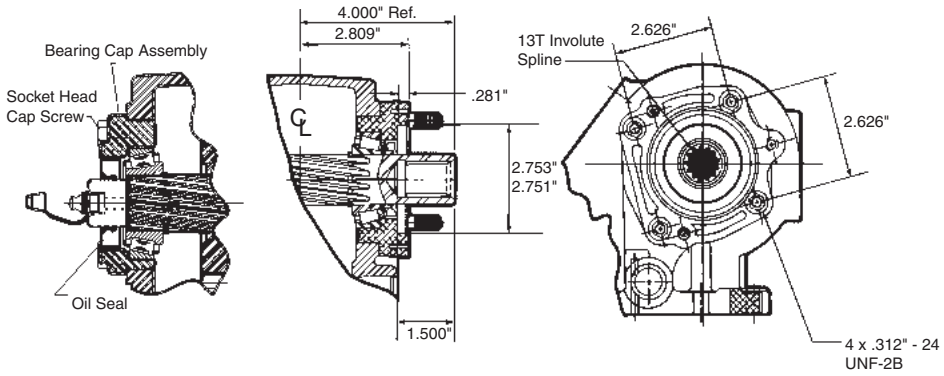
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix GR

For Chelsea Pumps
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

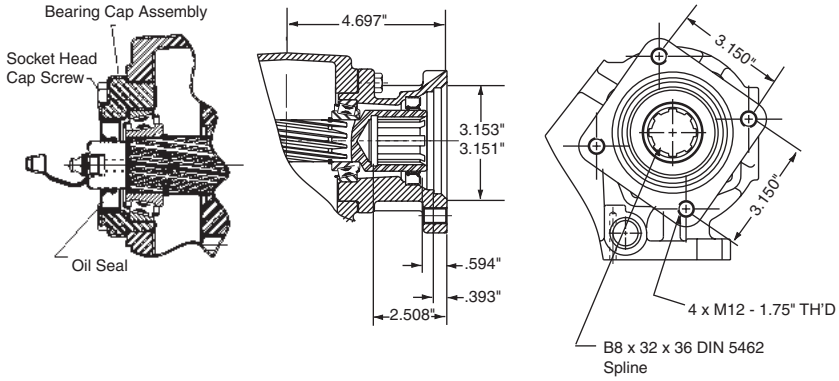
Available for the following P.T.O.s:
221, 260, 290, 442, 447, 489,
660, 2442



Suffix GY

DIN 5462 Pump Mounting
For B8 x 32 x 36 x 36 DIN 5462
Splined Shaft,
(*Greaseable)

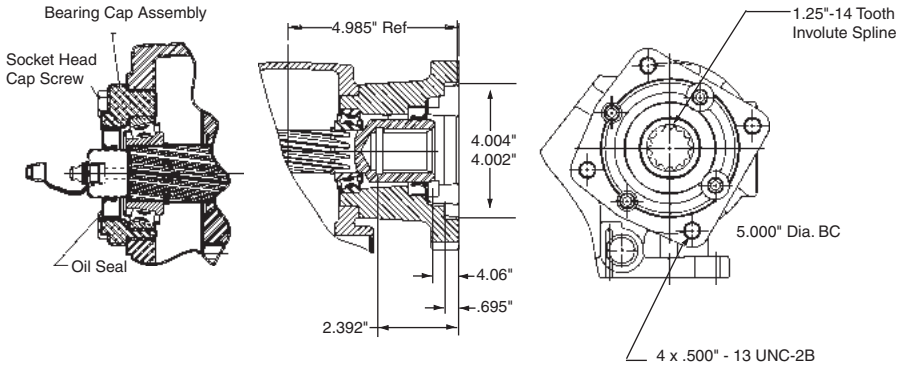
Available for the following P.T.O.s:
221, 260, 442, 447, 660, 2442



Suffix GZ

Non Standard 4-Bolt
For 1-1/4" - 14 Tooth Splined Shaft,
(*Greaseable)

Available for the following P.T.O.s:
221, 260, 290, 442, 447, 489,
660, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

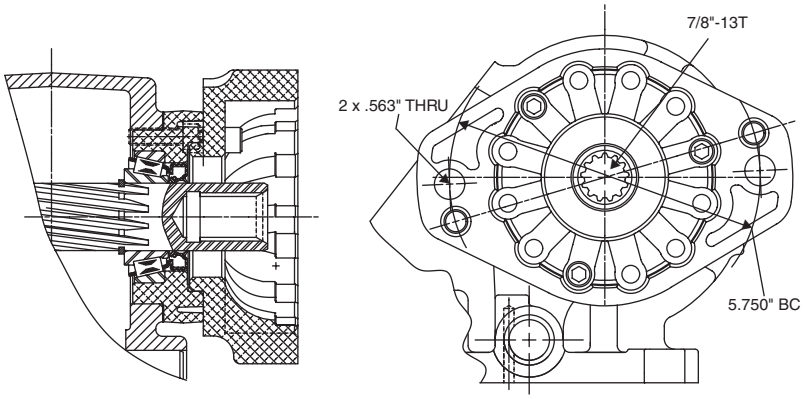
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix PA

S.A.E. Class “B” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
489

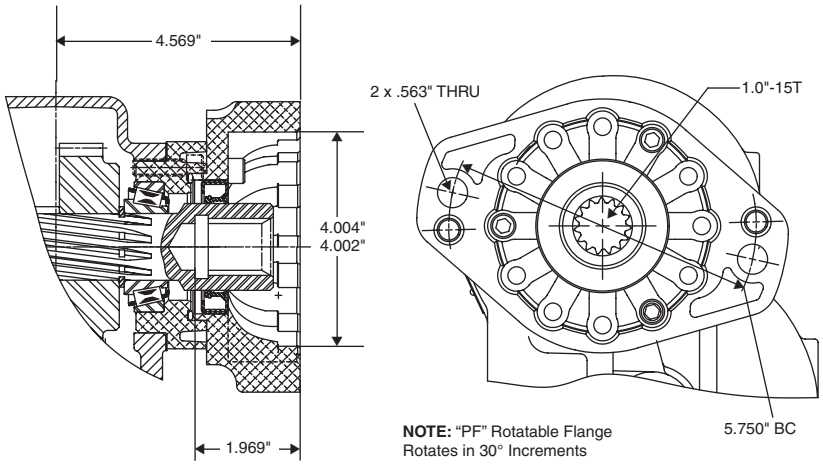


NOTE: “PA” Rotatable Flange
Rotates in 30° Increments

Suffix PF

S.A.E. Class “B” 2-Bolt Rotatable
For 1.0" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
489

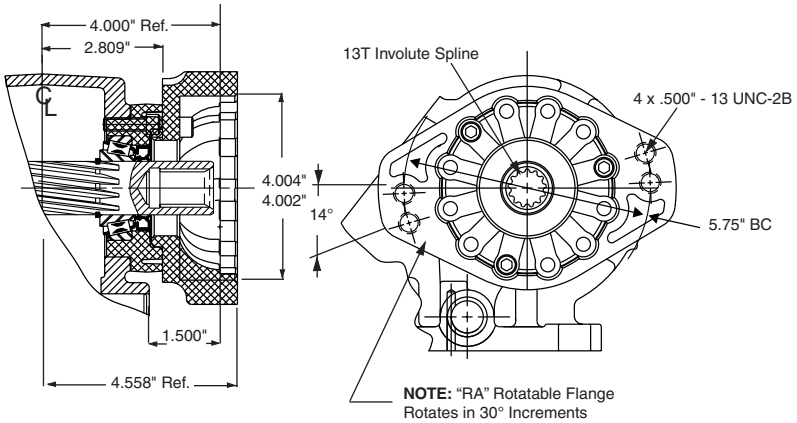


NOTE: “PF” Rotatable Flange
Rotates in 30° Increments

Suffix RA

S.A.E. Class “B” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 260, 290, 429, 435, 442, 447,
489, 2442



NOTE: “RA” Rotatable Flange
Rotates in 30° Increments

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

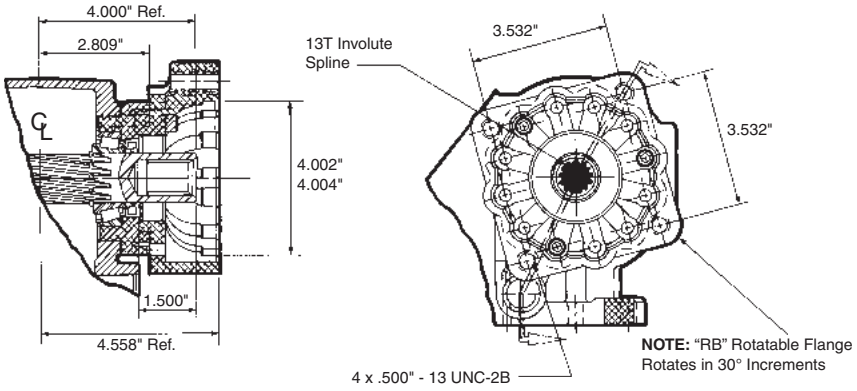
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix RB

S.A.E. Class “B” 4-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

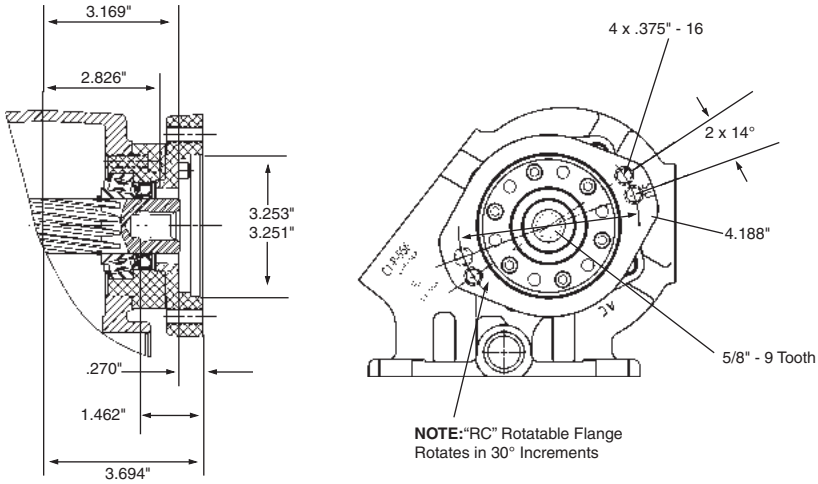
Available for the following P.T.O.s:
221, 260, 290, 429, 435, 442, 447, 489, 2442



Suffix RC

S.A.E. Class “A” 2-Bolt Rotatable
For 5/8" - 9 Tooth Splined Shaft

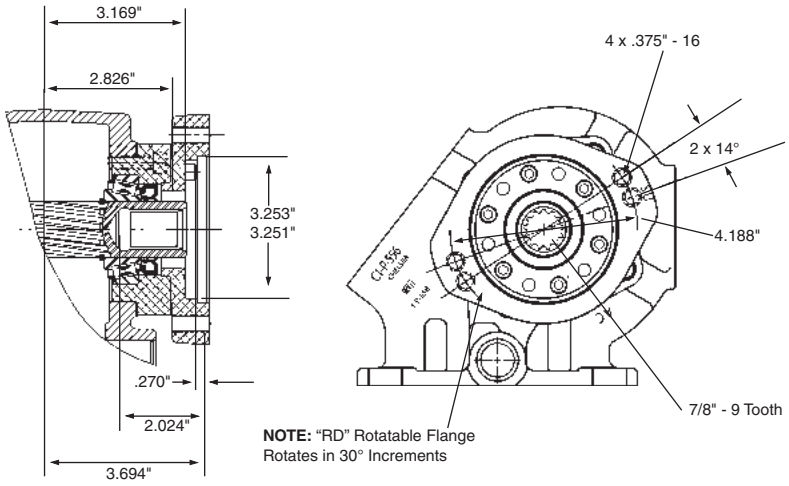
Available for the following P.T.O.s:
221, 260, 442, 447, 2442



Suffix RD

S.A.E. Class “A” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 260, 442, 447, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

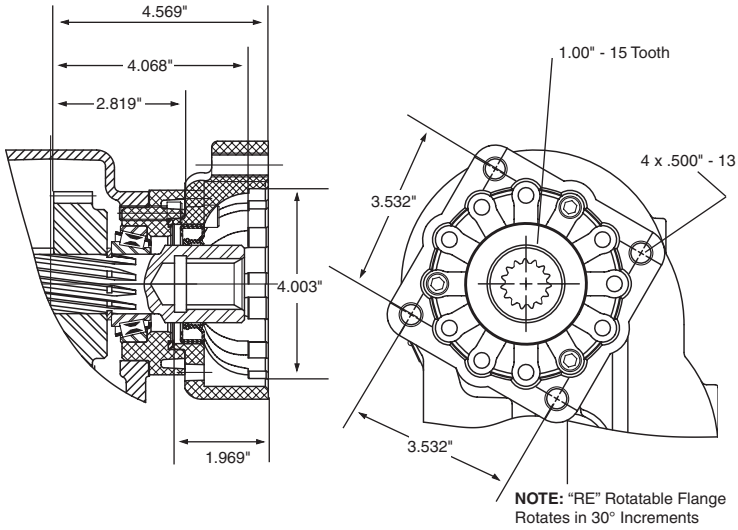
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Suffix RE

S.A.E. Class “B” 4-Bolt Rotatable
For 1.00" - 15 Tooth Splined Shaft

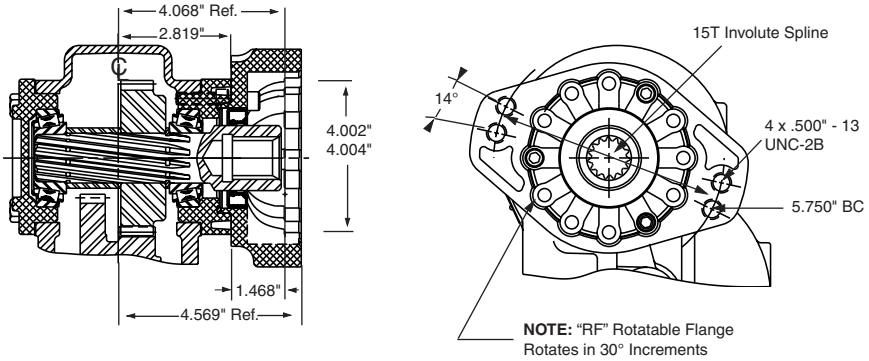
Available for the following P.T.O.s:
267, 290, 429, 442, 447, 489, 660, 2442



Suffix RF

S.A.E. Class “BB” 2-Bolt Rotatable
For 1" - 15 Tooth Splined Shaft

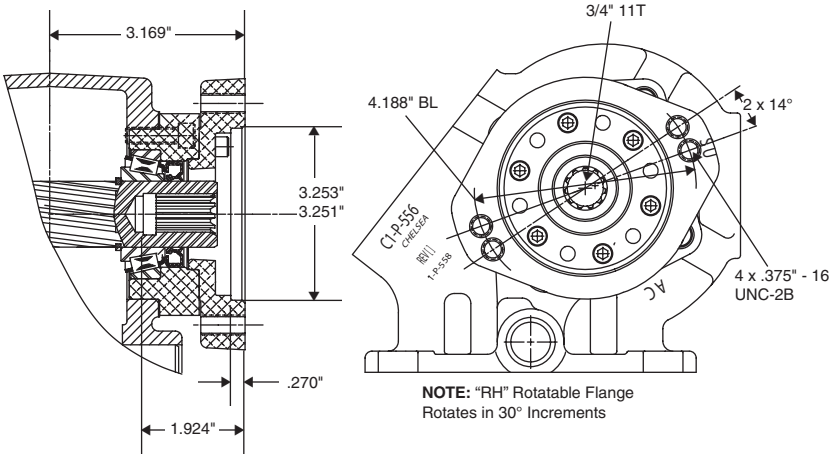
Available for the following P.T.O.s:
221, 260, 429, 442, 447, 489, 2442



Suffix RH

S.A.E. Class “A” 2-Bolt Rotatable
For 3/4" - 11 Tooth

Available for the following P.T.O.s:
221, 260, 442, 447, 660, 680, 489



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

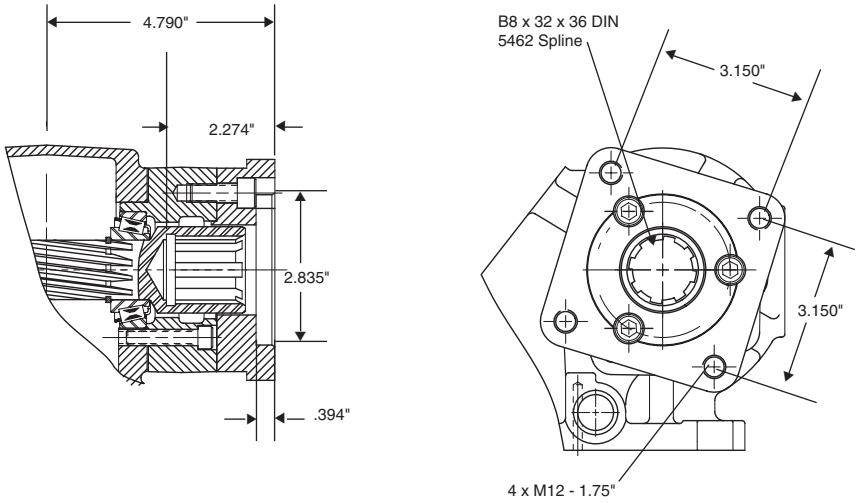
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Technical

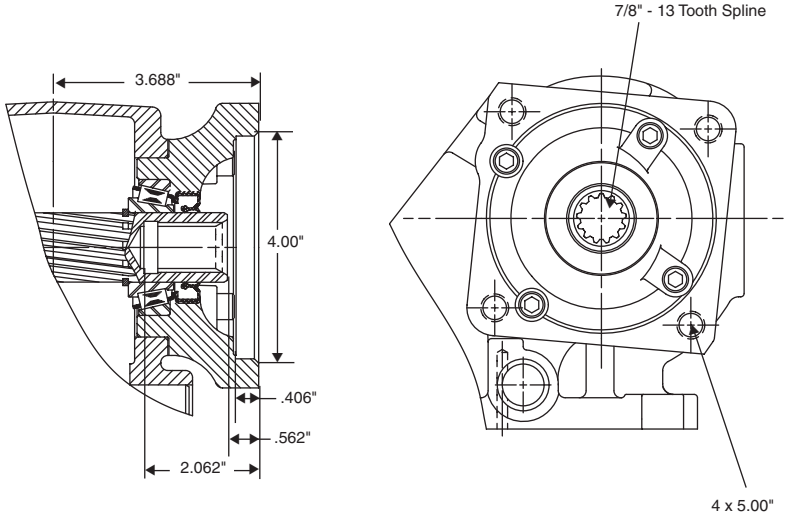
Suffix RY
DIN 5462 Pump Mounting

Available for the following P.T.O.s:
260, 442, 447, 660



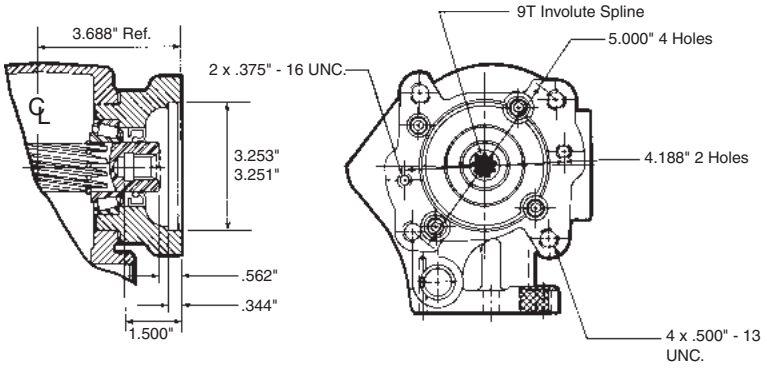
Suffix SQ
S.A.E. Class “B” 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 260, 435, 441, 442, 447,
489, 2442



Suffix XE
S.A.E. Class “A” 2 or 4-Bolt
For 5/8" - 9 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 260, 429, 442, 447, 489, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

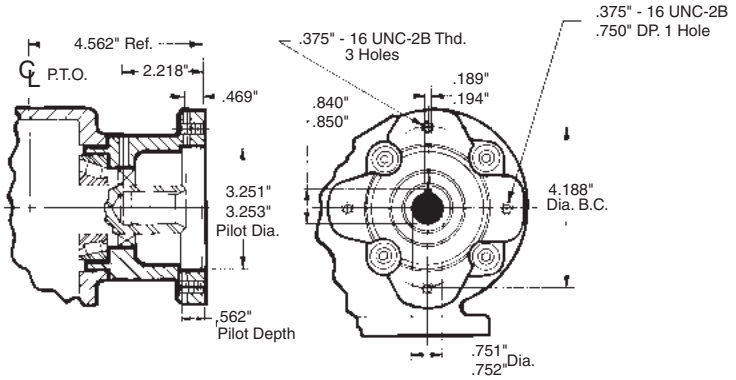
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XG

S.A.E. Class “A” 2-Bolt
For 3/4" Round Shaft

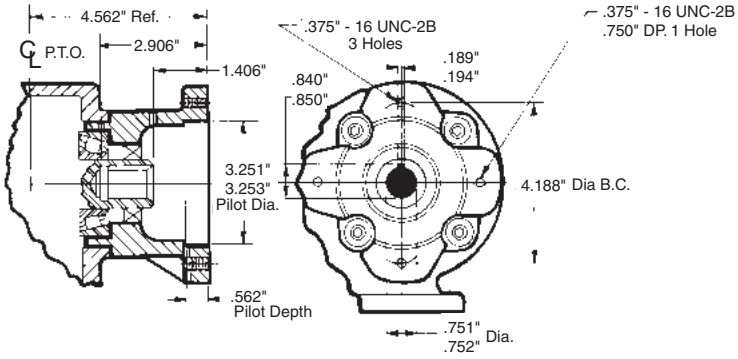
Available for the following P.T.O.s:
221, 260, 290, 442, 447, 489, 2442



Suffix XJ

S.A.E. Class “A” 2-Bolt
For 3/4" Round Shaft

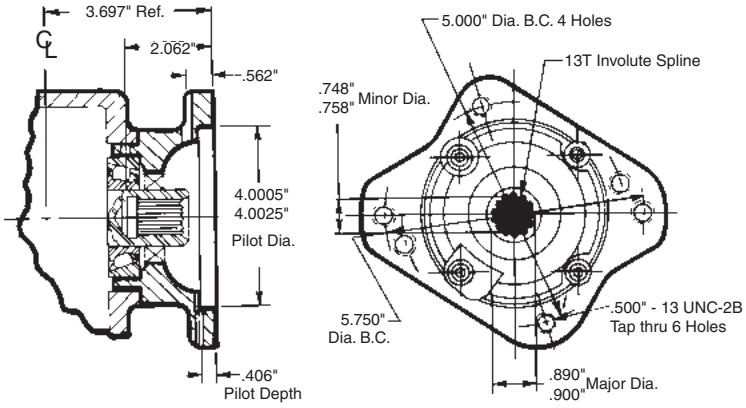
Available for the following P.T.O.s:
221, 260, 290, 441, 442, 447,
489, 2442



Suffix XK

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 260, 290, 441, 442, 447,
489, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

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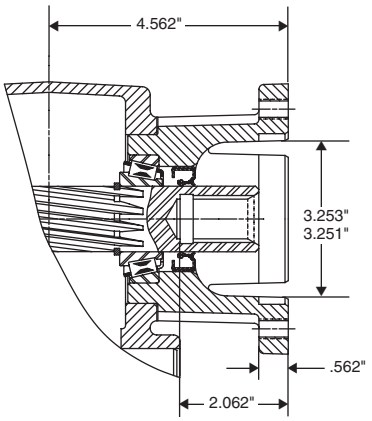
Olive Branch, MS 38654 USA

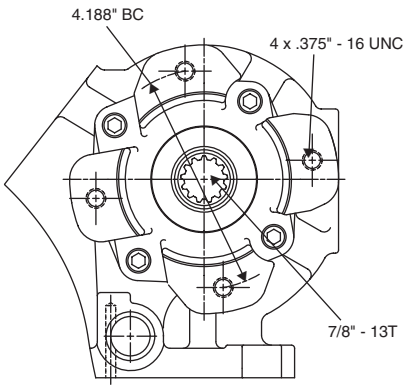
Technical

Suffix XL

S.A.E. Class “A” 2-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 260, 442, 447, 489, 660, 680, 2442

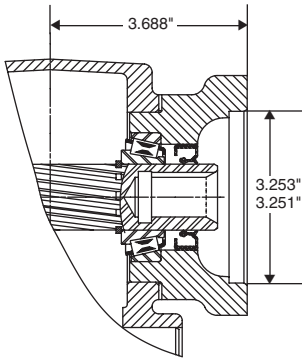


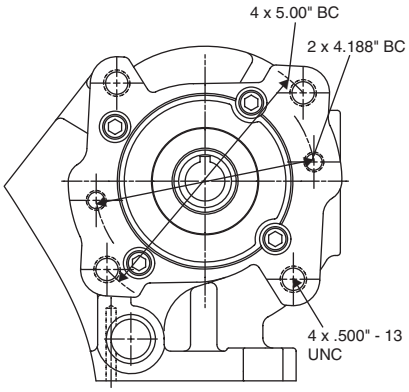


Suffix XO

S.A.E. Class “A” 2-Bolt
For 3/4" - 3/16" Key

Available for the following P.T.O.s:
221, 260, 290, 442, 447, 489, 660, 680, 2442,

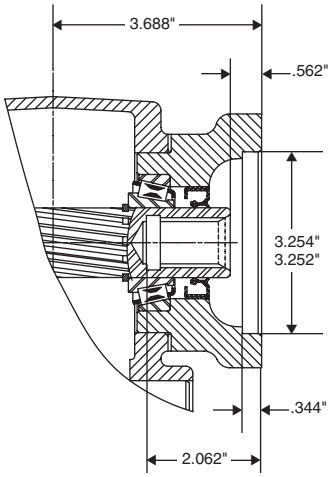


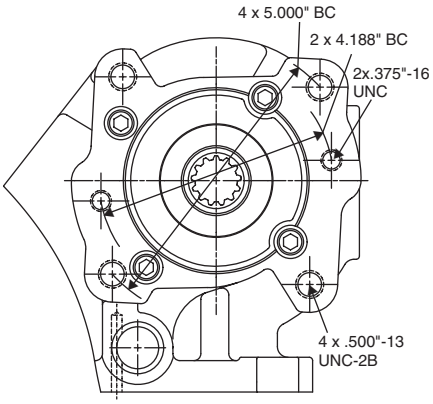


Suffix XP

S.A.E. Class “A” 2 or 4-Bolt
For 1.00" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
221, 290, 442, 447, 660, 2442





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

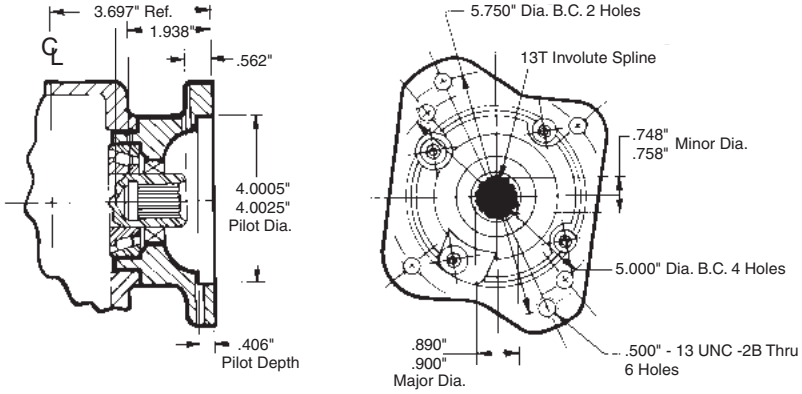
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XQ

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

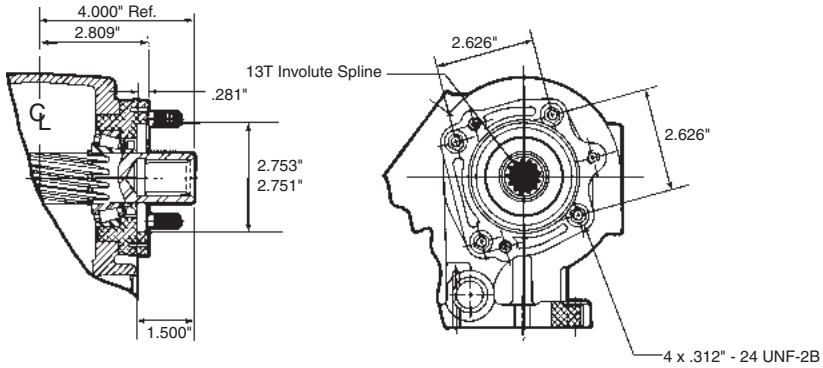
Available for the following P.T.O.s:
221, 260, 429, 435, 441, 442, 447, 489, 2442



Suffix XR

For Chelsea Pumps
For 7/8" - 13 Tooth Splined Shaft

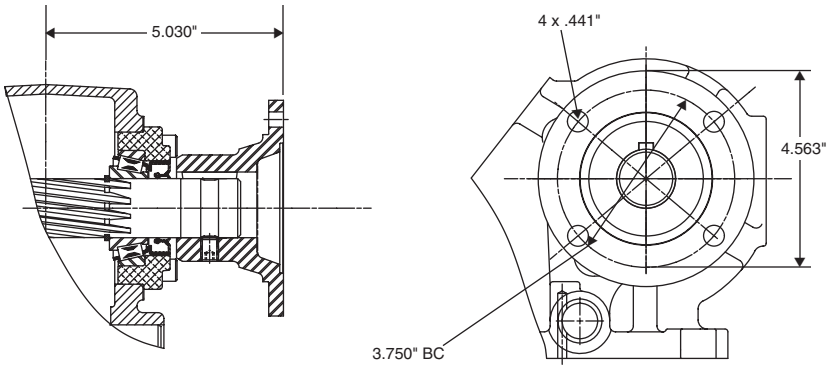
Available for the following P.T.O.s:
221, 260, 290, 429, 435, 441, 442, 447, 489, 2442



Suffix XV

1350/1410 Companion Flange
For 1.25" Round Shaft

Available for the following P.T.O.s:
442, 447, 489, 660, 680, 2442



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

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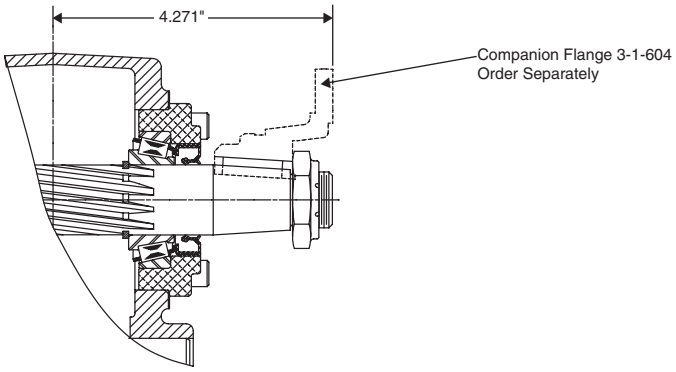
Olive Branch, MS 38654 USA

Technical

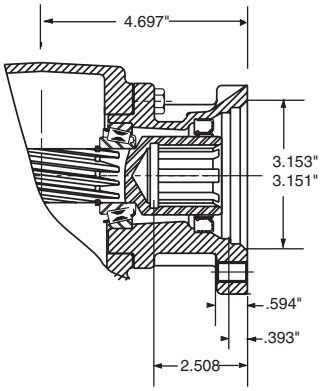
Suffix XX
For 1.250" S.A.E. Taper Shaft

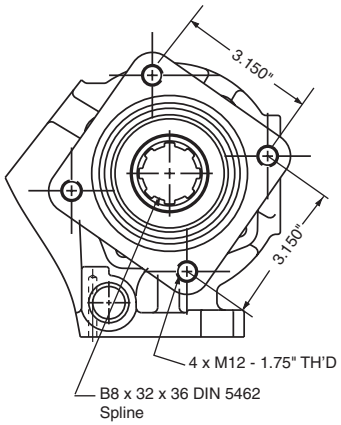
Available for the following P.T.O.s:
221, 290, 442, 447, 660, 2442



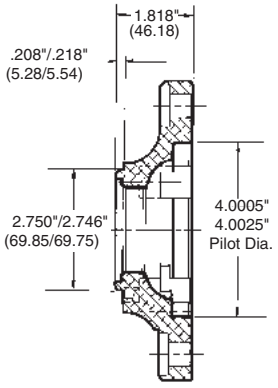
Suffix XY
DIN 5462 Pump Mounting
For B8 x 32 x 36 x 36 DIN 5462
Splined Shaft

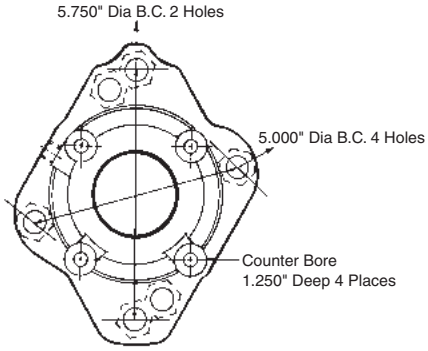
Available for the following P.T.O.s:
221, 260, 441, 442, 447, 660, 2442





21-P-525
(XR to XK Conversion Flange)





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

P.T.O. Shift Mechanisms Field Conversion Kits

Series/ Application	Assembly Arrangement	Wire To Air	Lever To Air	Wire to Elec. Over Air	Lever to Elec. Over Air
100	3 & 4	328390-86X	328390-85X		
221	3,4,5 & 6	328390-88X	328390-89X	328390-109X (12V) 328390-110X (24V)	328390-111X (12V) 328390-112X (24V)
290	3,4,5 & 6	328390-123X			
442	3,4,5 & 6	328390-117X	328390-117X	328390-119X (12V) 328390-120X (24V)	328390-119X (12V) 328390-120X (24V)
447	3,4,5 & 6	328390-125X	328390-117X	328390-127X (12V) 328390-129X (24V)	
660	3,4,5 & 6	328390-117X	328390-117X	328390-119X (12V) 328390-120X (24V)	

6-Bolt Cover Assemblies

Series/ Application	Assembly Arrangement	Wire Control	Air Control
100	3	328932-1X	328851X
100	4	328932-2X	328851X
100 ISUZU		329009X	
221	3 & 6	328805-1X	328723X
221	4 & 5	328805-2X	328723X
290	3, 4, 5 & 6		329363X
442 Q, W & X	3 & 6	329119-1X	
442 Q, W & X	4 & 5	329119-2X	
442 F, L, R, S & U	3 & 6	329121-1X	
442 F, L, R, S & U	4 & 5	329121-2X	
442 A, B & C	3 & 6	329271-1X	
442 A, B & C	4 & 5	329271-2X	
442 (All Ratios)	All		329361X
447 Q & W	3 & 6	329151-1X	
447 Q & W	4 & 5	329151-2X	
447 S, U & R	3 & 6	329152-1X	
447 S, U & R	4 & 5	329152-2X	
447 (All Ratios)	All		329363X
660 Q & W	3 & 6	329119-1X	
660 Q & W	4 & 5	329119-2X	
660 F, S & U	3 & 6	329121-1X	
660 F, S & U	4 & 5	329121-2X	
660 (All Ratios)	All		329361X

Technical

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Chelsea Products Division
Olive Branch, MS 38654 USA

Installation Kits

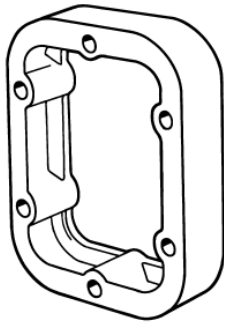
Series/ Application	Assembly Arrangement	Wire Control	Air Control	Electric Over Air		Air Shift w/ Combo Valve Less Kick Out	Air Shift w/ Combo Valve
				12 Volt	24 Volt		
100	3 & 4	328380X	328388-98X	328388-47X	328388-48X		328388-65X
221	3,4,5 & 6	328380X	328388-98X	328388-47X	328388-48X		328388-65X
290	3,4,5 & 6		328388-98X	328388-47X	328388-48X		328388-65X
442	3,4,5 & 6	328380X	328388-98X	328388-47X	328388-48X	328388-72X	328388-65X
447	3,4,5 & 6	328380X	328388-98X	328388-47X	328388-48X		328388-65X
660	3,4,5 & 6	328380X	328388-98X	328388-47X	328388-48X	328388-72X	328388-65X

Filler Blocks

Filler blocks are required as called for on the P.T.O. application pages, where it is necessary to use a spacer to adapt the Power Take-Off to a particular transmission.

Two filler blocks may be used in combination with one or more gaskets between the filler block surfaces.

In computing the total thickness of the filler block and gasket combination, use a factor of .012" (compressed thickness of a .020" gasket 35-P-9-2 or 35-P-15-2) for every .020" gasket required in the installation.



6-Bolt Filler Blocks

Part Number	"A" Thickness	Material	Part Number	"A" Thickness	Material
7-A-032	.032"	Fiber	7-A-550	.550"	Cast Iron
7-A-062	.062"	Fiber	7-A-562	.562"	Cast Iron
			7-A-700	.700"	Cast Iron
7-A-093	.093"	Steel	7-A-800	.800"	Cast Iron
7-A-125	.125"	Steel	7-A-1000	1.000"	Cast Iron
7-A-140	.140"	Steel	7-A-1180	1.180"	Cast Iron
7-A-165	.165"	Steel	7-A-1250	1.250"	Cast Iron
7-A-187	.187"	Steel	7-A-1468	1.468"	Cast Iron
			7-A-1520	1.520"	Cast Iron
7-A-200	.200"	Cast Iron	7-A-1640	1.640"	Cast Iron
7-A-240	.240"	Cast Iron	7-A-1875	1.875"	Cast Iron
7-A-270	.270"	Cast Iron	7-A-2000	2.000"	Cast Iron
7-A-300	.300"	Cast Iron			
7-A-350	.350"	Cast Iron			
7-A-400	.400"	Cast Iron			
7-A-450	.450"	Cast Iron			
7-A-500	.500"	Cast Iron			

P.T.O. Options Chart – 8-Bolt P.T.O.s

P.T.O. Series		489	680	812	823	880
Lubrication						
X	Standard	x	x	x	x	x
P	Pressure	x	x		x	x
Shifting						
A	Air	x	x	x	x	x
C	Heavy Duty Bracket Less Cable	x	x			
D	Air Shift, Disengaged, Ship Loose					x
H	No Shifter	x	x			x
M	Constant Mesh	x	x		x	x
P	Electric/Air 12V	x	x	x		
Q	Electric/Air 24V	x	x	x		
S	P.T.O. & Combo Valve	x	x			
T	P.T.O. & Pump Valve Less Kick Out & Neutral Spring Return	x	x			
U	P.T.O. & Pump Valve With Kick Out	x				
V	Air Shift Less Installation Kit	x	x	x	x	x
W	Wire	x	x	x		
X	Less Cable & Knob	x	x			
Y	Lever Control			x	x	x
Output						
AA	Special Pump for Europe	x	x			
AB	DIN 120 Flange				x	x
AC	DIN 100 Flange				x	x
AF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" 15 -Tooth)	x	x			x
AK	S.A.E. “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x		
AZ	Non Standard Flange, “C” Shaft (1-1/4" - 14 Tooth)	x	x			
GA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x			
GB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x			
GE	Rotatable S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft		x	x		
GF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x	x			
GH	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x	x			
GJ	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x	x			
GK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x			
GP	S.A.E. “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x			
GQ*	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x			
GR	CHELSEA SPECIAL Pump Mount, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x	x			
GS	S.A.E. “C” 2 or 4-Bolt Flange, “C” Shaft (1-1/4" - 14 Tooth) (Greasable)				x	x
GY	DIN 5462 Pump Mounting (Greaseable)	x	x			
GZ	Non Standard Flange, “C” Shaft (1-1/4" - 14 Tooth) (Greaseable)	x	x			
LA	S.A.E. “B” 2-Bolt Flange w/ Lube Pump (Same as AK)	x	x			
LB	S.A.E. “A” 2-Bolt Flange w/ Lube Pump (Same as XP)	x	x			
LC	S.A.E. “A” 2-Bolt Flange w/ Lube Pump (Same as XQ)	x	x			
LD	1-1/4" Round Shaft w/ Lube Pump (Same as XD)	x	x			
LF	S.A.E. “B” 2 or 4-Bolt Flange w/ Lube Pump (Same as XK)	x	x			x
LG	1-1/2" 10 Spline w/ 1410 & Lube Pump (Same as XV)				x	x
LH	S.A.E. “C” 2 or 4-Bolt Flange w/ Lube Pump (Same as XS)				x	x
LJ	S.A.E. “C” 2-Bolt Flange w/ Lube Pump (Same as XU)				x	
PA	Special Rotatable S.A.E. “B” 2-Bolt Flange for Parker P Series Sculptured Pump, “B” Shaft (7/8" - 13 Tooth)		x			
PF	Special Rotatable S.A.E. “B” 2-Bolt Flange for Parker P Series Sculptured Pump, “BB” Shaft (1.00" - 15 Tooth)		x			
RA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x		
RB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x	x		
RC	Rotatable “A” 2-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x	x			

* XQ/GQ same as XK/GK except flange rotated 90°
** Order companion (3-1-604) separately
w = Wet Spline Option
NOTE: Always Check Price Book for Current Options

Continued on next page

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

P.T.O. Options Chart – 8-Bolt P.T.O.s

P.T.O. Series		489	680	812	823	880
RD	Rotatable “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x			
RE	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x	x			
RF	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x	x			
RH	Rotatable “A” 2-Bolt Flange, S.A.E. Shaft (3/4" - 11 Tooth)	x	x			
RY	Rotatable DIN 5462 Pump Flange	x	x			
SQ	S.A.E. “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x			
SK	Double Pump S.A.E. “B” 2 & 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) & S.A.E. “C” 2 & 4-Bolt Flange, “C” Shaft (1-1/4" - 14 Tooth)					x(w)
SS	Double Pump S.A.E. “C” 2 & 4-Bolt Flanges, “C” Shafts (1-1/4" - 14 Tooth)					x(w)
XD	1-1/4" Round Shaft	x	x	x		
XE	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x	x			
XG	Non Standard S .A.E. “B” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)	x	x			
XJ	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)	x	x			
XK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x			x
XL	Non Standard S.A.E. “A” 2-Bolt Flange, Non Standard S.A.E. “B” Shaft (7/8" - 13 Tooth)	x	x			
XO	Special S.A.E. “A” 2-Bolt Flange, Non Standard Shaft (3/4" w/ 3/16" key)	x	x			
XP	Special S.A.E. “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x			
XQ*	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x			
XR	1-1/2" 10 spline w/ 1410 Series Flange	x	x	x		
XS	S.A.E. “C” 2 or 4-Bolt Flange, “C” Shaft (1-1/4" - 14 Tooth)				x	x(w)
XU	S.A.E. “C” 2-Bolt Flange, “C” Shaft (1-1/4" - 14 Tooth)				x	
XV	1-1/4" Rd. w/ 1310 Series Flanges	x	x			
XV	1-1/2" 10 Spline w/ 1410 Series Flange				x	x
XW	S.A.E. “C” 2 or 4-Bolt Wet Spline				w	
XX**	1-1/4" Tapered Shaft for Companion Flange 3-1-604	x	x	x		
XY	DIN 5462 Pump Mounting	x	x	x	x	x
YY	Double Pump DIN 80				x	x

* XQ/GQ same as XK/GK except flange rotated 90°
** Order companion (3-1-604) separately
w = Wet Spline Option
NOTE: Always Check Price Book for Current Options

For converting 8-Bolt Chelsea P.T.O.s from a driveshaft output to a pump flange output, use the following kits.

489 Series

Pump Suffix	Kit No. Suffix	Kit Number	Flange Type	Shaft Type
AF	XD to AF	328591-30X	S.A.E. "BB" 2 or 4-Bolt	1.00" - 15 Tooth Splined
AK	XD to AK	328591-28X	S.A.E. "B" 2-Bolt	7/8" - 13 Tooth Splined
AZ	XD to AZ	328591-70X	S.A.E. "B" 4-Bolt	1-1/4" - 14 Tooth Splined
GA	XD to GA	328591-72X	S.A.E. "B" 2-Bolt	*7/8" - 13 Tooth Internal Spline
	XR to GA	328591-73X		
	RA to GA	328591-106X		
GB	XD to GB	328591-74X	S.A.E. "B" 4-Bolt	*7/8" - 13 Tooth Internal Spline
	XR to GB	328591-75X		
	RB to GB	328591-107X		
GF	XD to GF	328591-71X	S.A.E. "BB" 2 or 4-Bolt	*1.00" - 15 Tooth Internal Spline
	AF to GF	328591-108X		
GH	XD to GH	328591-116X	S.A.E. "BB" 2-Bolt Rotatable	*1.00" - 15 Tooth Internal Spline
	RF to GH	328591-114X		
GJ	XD to GJ	328591-138X	S.A.E. "B" 4-Bolt Rotatable	*1.00" - 15 Tooth Splined
	RE to GJ	328591-114X		
GK	XD to GK	328591-89X	S.A.E. "B" 2 or 4-Bolt	*7/8" - 13 Tooth Internal Spline
	XK to GK	328591-86X		
GP	XD to GP	358591-90X	S.A.E. "A" 2-Bolt	*7/8" - 13 Tooth Internal Spline
	XP to GP	328591-86X		
GQ	XD to GQ	328591-91X	S.A.E. "B" 2 or 4-Bolt	*7/8" - 13 Tooth Internal Spline
	XQ to GQ	328591-86X		
GR	XD to GR	328591-76X	CHELSEA SPECIAL 4-Bolt	*7/8" - 13 Tooth Internal Spline
GY	XD to GY	328591-92X	DIN 5462 Pump Mounting	*DIN 5462 Spline
	XY to GY	328591-87X		
GZ	XD to GZ	328591-93X	S.A.E. "B" 4-Bolt	*1-1/4" - 14 Tooth Splined
	AZ to GZ	328591-88X		
LA (AK w/ Lube Pump)		328591-44X	S.A.E. "B" 2-Bolt	7/8" - 13 Tooth Splined
LB (XP w/ Lube Pump)		328591-45X	S.A.E. "A" 2-Bolt	7/8" - 13 Tooth Splined
LC (XQ w/ Lube Pump)		328591-46X	S.A.E. "B" 2 or 4-Bolt	7/8" - 13 Tooth Splined
LF (XK w/ Lube Pump)		328591-48X	S.A.E. "B" 2 or 4-Bolt	7/8" - 13 Tooth Splined
RA	XD to RA	328591-55X	S.A.E. "B" 2-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
	XR to RA	328591-53X	S.A.E. "B" 2-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
RB	XD to RB	328591-56X	S.A.E. "B" 4-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
	XR to RB	328591-54X	S.A.E. "B" 4-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
RC	XD to RC	328591-112X	S.A.E. "A" 2-Bolt Rotatable	5/8" - 9 Tooth Splined
RD	XD to RD	328591-113X	S.A.E. "A" 2-Bolt Rotatable	7/8" - 13 Tooth Splined
RE	XD to RE	328591-134X	S.A.E. "B" 4-Bolt Rotatable	1.00" - 15 Tooth Splined
RF	XD to RF	328591-78X	S.A.E. "BB" 2-Bolt Rotatable	1.00" - 15 Tooth Splined
RH	XD to RH	328591-151X	S.A.E. "A" 2-Bolt Rotatable	3/4" - 11 Tooth Splined
RY	XD to RY	328591-131X	DIN 5462 Pump Mounting Rotatable	DIN 5462 Spline
SQ	XD to SQ	328591-149X	S.A.E. "B" 2-Bolt	7/8" - 13 Tooth Splined
XE	XD to XE	328591-27X	S.A.E. "A" 2 or 4-Bolt	5/8" - 9 Tooth Splined
XG	XD to XG	328591-10X	Non Standard 2-Bolt	3/4" Round
XJ	XD to XJ	328591-11X	Non Standard 2-Bolt	3/4" Round
XK	XD to XK	328591-16X	S.A.E. "B" 2 or 4-Bolt	7/8" - 13 Tooth Splined
XL	XD to XL	329591-18X	S.A.E. "A" 2-Bolt	7/8" - 13 Tooth Splined
XO	XD to XL	328591-18X	S.A.E. "B" 2 or 4-Bolt	7/8" - 13 Tooth Splined
XP	XD to XP	328591-23X	S.A.E. "A" 2-Bolt	7/8" - 13 Tooth Splined
XQ	XD to XQ	328591-17X	S.A.E. "B" 2 or 4-Bolt	7/8" - 13 Tooth Splined
XR	XD to XR	328591-52X	CHELSEA SPECIAL	7/8" - 13 Tooth Splined
XV	XD to XV	328591-130X	1410 Companion Flange	1-1/4" Round
XX	XD to XX	328591-122X	1410 Companion Flange	1-1/4" S.A.E. Tapper
XY	XD to XY	328591-121X	DIN 5462 Pump Mounting	DIN 5462 Spline

NOTE: Use 329097-1X to convert P.T.O.s with AK, XP, XQ, XN, or XK output to the self-lube pump option.
*Grease fitting on end of shaft

Technical

680 Series

Pump Suffix	Kit No. Suffix	Kit Number	Flange Type	Shaft Type
AF	XD to AF	328591-30X	S.A.E. “BB” 2 or 4-Bolt	1.00" - 15 Tooth Internal Spline
AK	XD to AK	328591-28X	S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Internal Spline
AZ	XD to AZ	328591-70X	Non Standard 4-Bolt	1-1/4" - 14 Tooth Internal Spline
GA	XD to GA RA to GA	328591-124X 328591-109X	S.A.E. “B” 2-Bolt	*7/8" - 13 Tooth Internal Spline
GB	XD to GB RB to GB	328591-125X 328591-110X	S.A.E. “B” 4-Bolt	*7/8" - 13 Tooth Internal Spline
GF	XD to GF AF to GF	328591-123X 328591-111X	S.A.E. “BB” 2 or 4-Bolt	*1.00" - 15 Tooth Internal Spline
GH	XD to GH RF to GH	328591-117X 328591-115X	S.A.E. “BB” 2-Bolt Rotatable	*1.00" - 15 Tooth Internal Spline
GJ	XD to GJ RE to GJ	328591-139X 328591-115X	S.A.E. “B” 4-Bolt Rotatable	*1.00" - 15 Tooth Splined
GK	XD to GK XK to GK	328591-99X 328591-96X	S.A.E. “B” 2 or 4-Bolt	*7/8" - 13 Tooth Internal Spline
GP	XD to GP XP to GP	328591-100X 328591-96X	S.A.E. “A” 2-Bolt	*7/8" - 13 Tooth Internal Spline
GQ	XD to GQ XQ to GQ	328591-101X 328591-96X	S.A.E. “B” 2 or 4-Bolt	*7/8" - 13 Tooth Internal Spline
GR	XD to GR	328591-126X	CHELSEA SPECIAL 4-Bolt	*7/8" - 13 Tooth Internal Spline
GY	XD to GY XY to GY	328591-102X 328591-97X	DIN 5462	B8 x 32 x 36 DIN 5462 Spline
GZ	XD to GZ AZ to GZ	328591-103X 328591-98X	Non Standard 4-Bolt	*1-1/4" - 14 Tooth Internal Spline
LA (AK w/ Lube Pump)		328591-44X	S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Splined
LB (XP w/ Lube Pump)		328591-45X	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Splined
LC (XQ w/ Lube Pump)		328591-46X	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
LF (XK w/ Lube Pump)		328591-48X	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
RA	XD to RA XR to RA	328591-55X 328591-53X	S.A.E. “B” 2-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
RB	XD to RA XR to RA	328591-56X 328591-54X	S.A.E. “B” 4-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
RC	XD to RC	328591-112X	S.A.E. “A” 2-Bolt Rotatable	5/8" - 9 Tooth Internal Spline
RD	XD to RD	328591-113X	S.A.E. “A” 2-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
RE	XD to RE	328591-134X	S.A.E. “B” 4-Bolt Rotatable	1.00" - 15 Tooth Splined
RF	XD to RF	328591-78X	S.A.E. “BB” 2-Bolt Rotatable	1.00" - 15 Tooth Internal Spline
RH	XD to RH	328591-151X	S.A.E. “A” 2-Bolt Rotatable	3/4" - 11 Tooth Splined
RY	XD to RY	328591-131X	DIN 5462 Pump Mounting Rotatable	DIN 5462 Spline
XE	XD to XE	328591-27X	S.A.E. “A” 2 or 4-Bolt	5/8" - 9 Tooth Internal Spline
XG	XD to XG	328591-10X	Non Standard 2-Bolt	3/4" Round
XJ	XD to XJ	328591-11X	Non Standard 2-Bolt	3/4" Round
XK	XD to XK	328591-16X	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Internal Spline
XL	XD to XL	329591-18X	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Splined
XO	XD to XL	328591-18X	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
XP	XD to XP	328591-23X	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Splined
XQ	XD to XQ	328591-26X	S.A.E. “A” 2-Bolt	3/4" Round
XR	XD to XR	328591-23X	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Internal Spline
XV	XD to XV	328591-17X	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Internal Spline
XX	XD to XX	328591-52X	CHELSEA SPECIAL 4-Bolt	7/8" - 13 Tooth Internal Spline
XY	XD to XY	328591-121X	DIN 5462	B8 x 32 x 36 DIN 5462 Spline

*Grease fitting on end of shaft

812 Series

Pump Suffix	Kit No. Suffix	Kit Number	Flange Type	Shaft Type
RB	XD to RB XR to RB	328591-66X 328591-54X	S.A.E. “B” 4-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
XR	XD to XR	328591-64X	CHELSEA SPECIAL 4-Bolt	7/8" - 13 Tooth Internal Spline
RA	XR to RA XD to RA	328591-53X 328591-65X	S.A.E. “B” 2-Bolt Rotatable	7/8" - 13 Tooth Internal Spline

823 Series

Pump Suffix	Kit No. Suffix	Kit Number	Flange Type	Shaft Type
GS	XS to GS XV to GS	328591-136X 328591-137X	S.A.E. “C” 2 or 4-Bolt Flange S.A.E. “C” 2 or 4-Bolt Flange	“C” Shaft (1-1/4" - 14 Tooth) “C” Shaft (1-1/4" - 14 Tooth)
L*	XV to LG XS to LH XS to LJ XU to LH XU to LJ	329111X 329112X 329112X 329112X 329112X	1410 Series Flange S.A.E. “C” 2 or 4-Bolt Flange S.A.E. “C” 2 or 4-Bolt Flange S.A.E. “C” 2 or 4-Bolt Flange S.A.E. “C” 2 or 4-Bolt Flange	 “C” Shaft (1-1/4" - 14 Tooth) “C” Shaft (1-1/4" - 14 Tooth) “C” Shaft (1-1/4" - 14 Tooth) “C” Shaft (1-1/4" - 14 Tooth)

880 Series

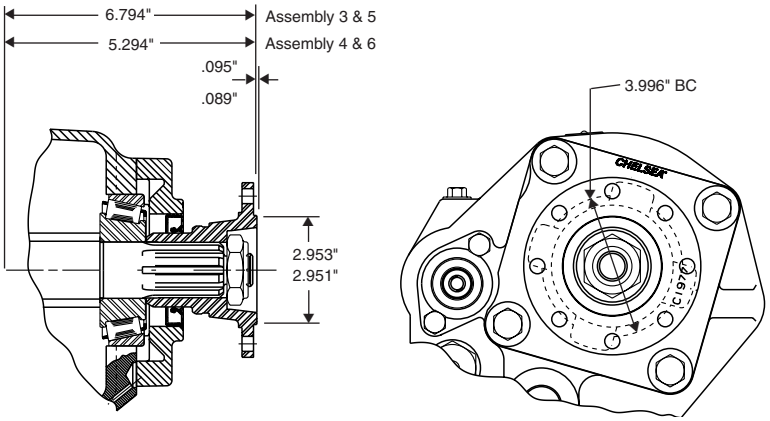
Pump Suffix	Kit No. Suffix	Kit Number	Flange Type	Shaft Type
AB (Splash Lube)	XV to AB	328591-59X	DIN 120 Companion Flange	1-3/4" - 16 Tooth Spline
AB (Pressure Lube)	XV to AB	328591-60X	DIN 120 Companion Flange	1-3/4" - 16 Tooth Spline
AZ (Splash Lube)	XV to AZ	328591-127X	S.A.E. “B” 2 & 4-Bolt	1-1/4" - 14 Tooth Involute Internal Spline
AZ (Pressure Lube)	AV to AZ	328591-128X	S.A.E. “B” 2 & 4-Bolt	1-1/4" - 14 Tooth Involute Internal Spline
GS	XS to GS	328591-133X	S.A.E. “C” 2 & 4-Bolt	1-1/4" - 14 Tooth Spline
	XV to GS	328591-135X	S.A.E. “C” 2 & 4-Bolt	1-1/4" - 14 Tooth Spline
L*	XV to LG	329111-1X	1410 Companion Flange	1-1/2" - 10 Spline (Each End)
	XS to LH	329111-2X	S.A.E. “C” 2 & 4-Bolt	1-1/4" - 14 Tooth Spline
	XK to LF	329111-2X	S.A.E. “B” 2 & 4-Bolt	7/8" - 13 Tooth Involute Internal Spline
SS (Splash Lube)	XV to SS	328591-50X	S.A.E. “C” 2 & 4-Bolt	1-1/4" - 14 Tooth Involute Internal Spline
SS (Pressure Lube)	XV to SS	328591-51X	S.A.E. “C” 2 & 4-Bolt	1-1/4" - 14 Tooth Involute Internal Spline
YY (Splash Lube)	XV to YY	328591-61X	DIN 80mm (Both Ends)	1.748/1.540 - 16 Tooth & 1.424/1.267 - 10 Tooth Spline
SK (Pressure Lube)	XV to SK	328591-67X	S.A.E. “B” 2 & 4-Bolt & S.A.E. “C” 2 & 4-Bolt	7/8" - 13 Involute & 1-1/4" Involute - Internal Splines
XK (Splash Lube)	XV to XK	328591-32X	S.A.E. “B” 2 & 4-Bolt	7/8" - 13 Tooth Involute Internal Spline
XK (Pressure Lube)	XV to XK	328591-58X	S.A.E. “B” 2 & 4-Bolt	7/8" - 13 Tooth Involute Internal Spline
XS (Splash Lube)	XV to XS	328591-31X	S.A.E. “C” 2 & 4-Bolt	1-1/4" - 14 Tooth Spline
XS (Pressure Lube)	XV to XS	328591-49X	S.A.E. “C” 2 & 4-Bolt	1-1/4" - 14 Tooth Spline
XY	XV to XY	328591-34X	DIN 80mm	B8 x 32 x 36 DIN 5462 Spline

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Note: See pages 2.7 thru 2.19 for 489 and 680 Flange Dimensions.

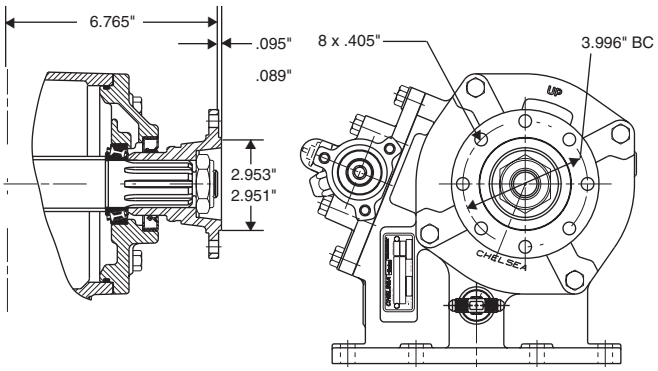
Suffix AB
Din 120 Companion Flange
For 1-3/4" - 16 Tooth Splined Shaft

Available for the following P.T.O.s:
823



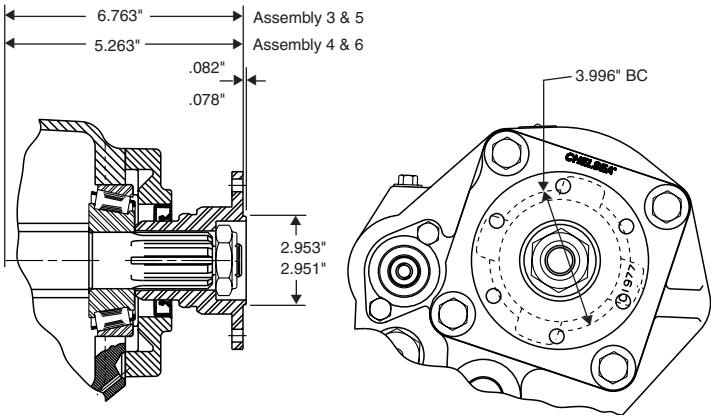
Suffix AB
Din 120 Companion Flange
For 1-3/4" - 16 Tooth Flange

Available for the following P.T.O.s:
880



Suffix AC
DIN 100 Companion Flange
For 1-3/4" - 16 Tooth Splined Shaft

Available for the following P.T.O.s:
823



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

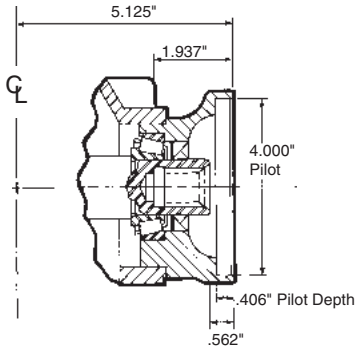
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

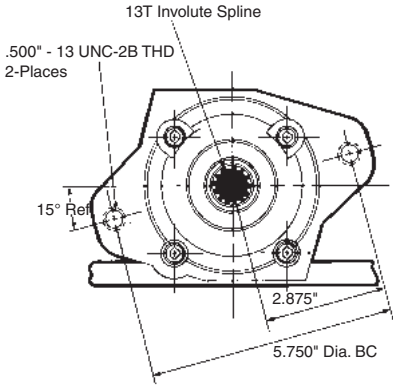
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix AK

S.A.E. Class “B” 2-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
812

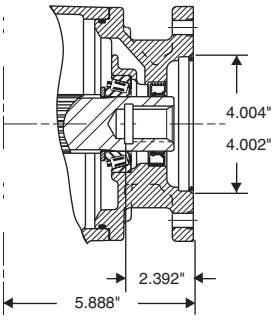


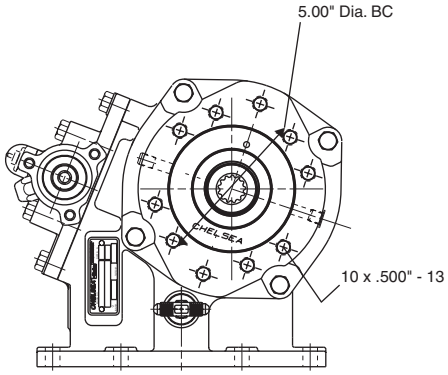


Suffix AZ

S.A.E. Class “B” 2 & 4-Bolt Flange
For 1-1/4" - 14 Tooth Spline Shaft

Available for the following P.T.O.s:
880

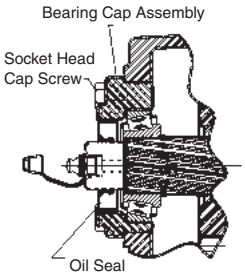


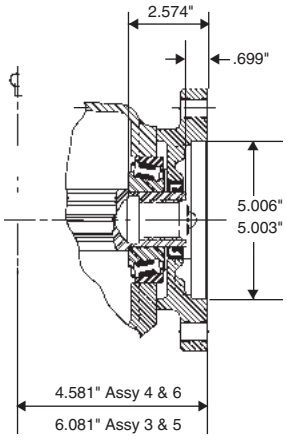


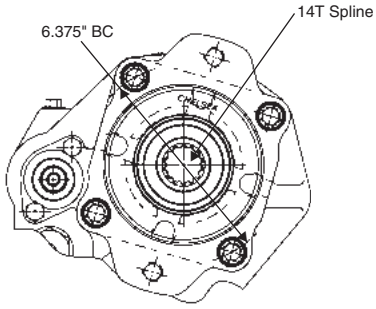
Suffix GS

S.A.E. “C” 2 or 4-Bolt
For 1-1/4" - 14 Tooth
Splined Shaft,
(*Greaseable)

Available for the
following P.T.O.s:
823







* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

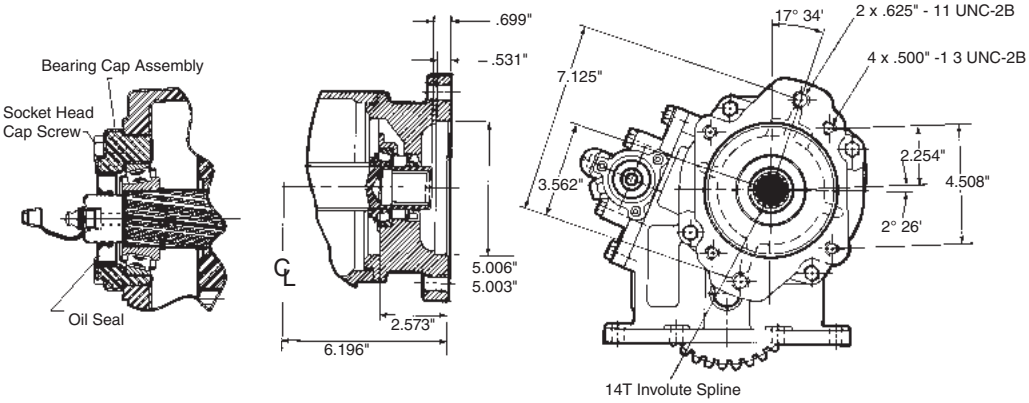
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix GS

S.A.E. Class “C” 2 or 4-Bolt
For 1 1/4" - 14 Tooth Involute Splined Shaft,
(*Greaseable)

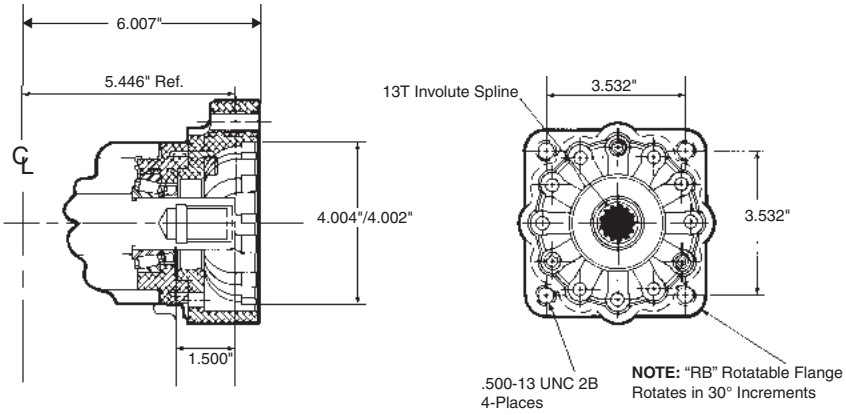
Available for the following P.T.O.s:
880



Suffix RB

S.A.E. Class “B” 4-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

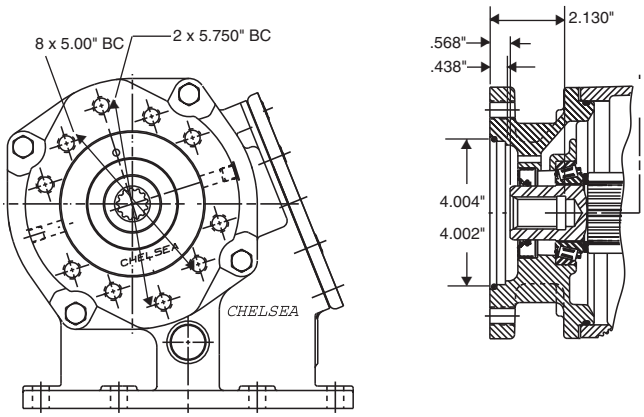
Available for the following P.T.O.s:
812



Suffix SK

S.A.E. Class “B” 2 & 4-Bolt Flange
S.A.E. Class “B” Shaft (7/8" - 13T Involute Spline)

Available for the following P.T.O.s:
880



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

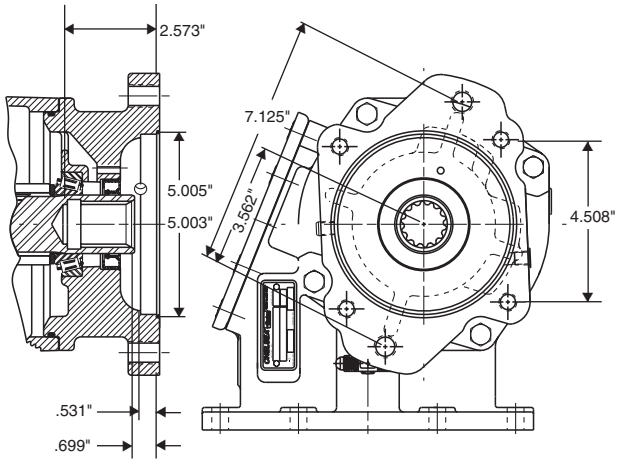
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Suffix SK

S.A.E. Class “C” 2 & 4-Bolt Flange
S.A.E. Class “C” Shaft (1-1/4" - 14T Involute Spline)

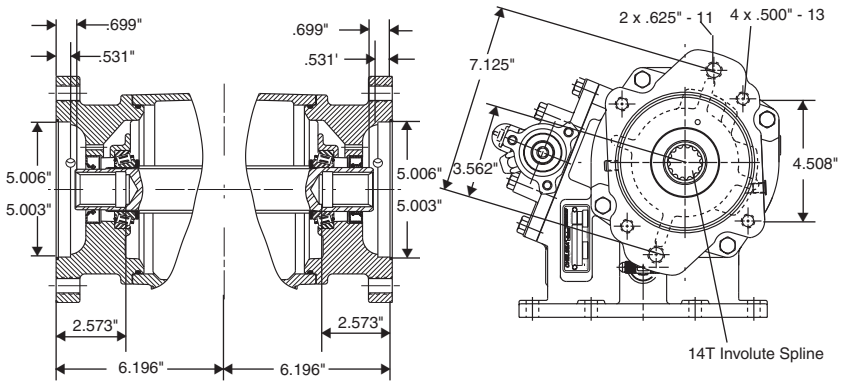
Available for the following P.T.O.s:
880



Suffix SS

S.A.E. Class “C” 2 & 4-Bolt Flange
S.A.E. Class “C” Shaft
(1-1/4" - 14T Involute Spline) Both Ends

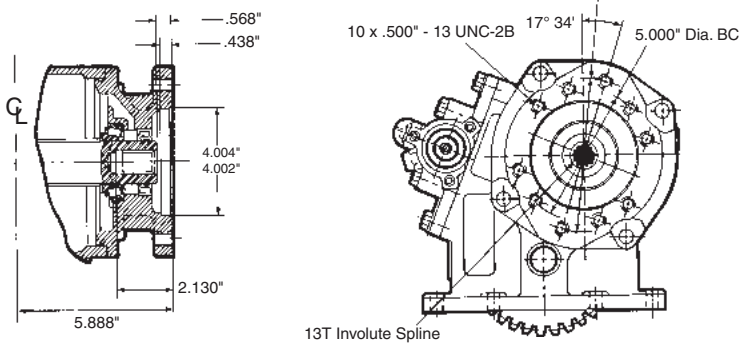
Available for the following P.T.O.s:
880



Suffix XK

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
880



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

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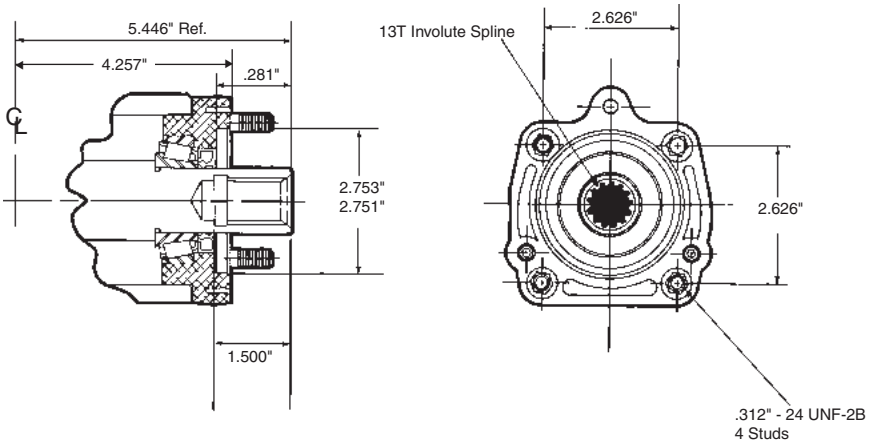
Technical

Suffix XR

For Chelsea / Tyrone Pumps
For 7/8" - 13 Tooth Splined Shaft

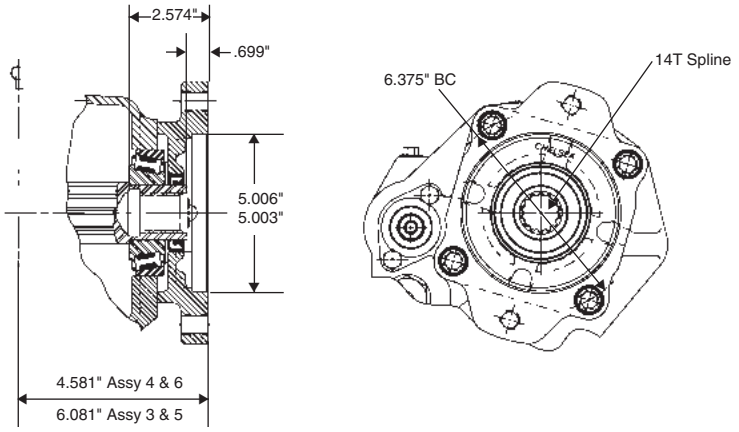
Available for the following P.T.O.s:
812



Suffix XS

S.A.E. "C" 2 or 4-Bolt
For 1-1/4" - 14 Tooth Splined Shaft

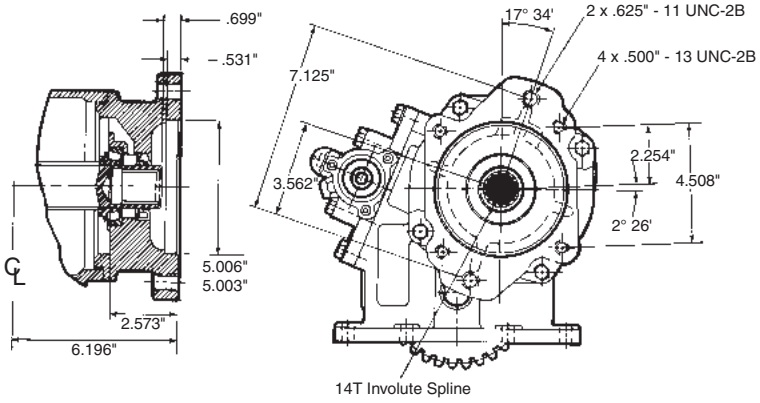
Available for the following P.T.O.s:
823



Suffix XS

S.A.E. Class "C" 2 or 4-Bolt
For 1 1/4" - 14 Tooth Involute Splined Shaft

Available for the following P.T.O.s:
880



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

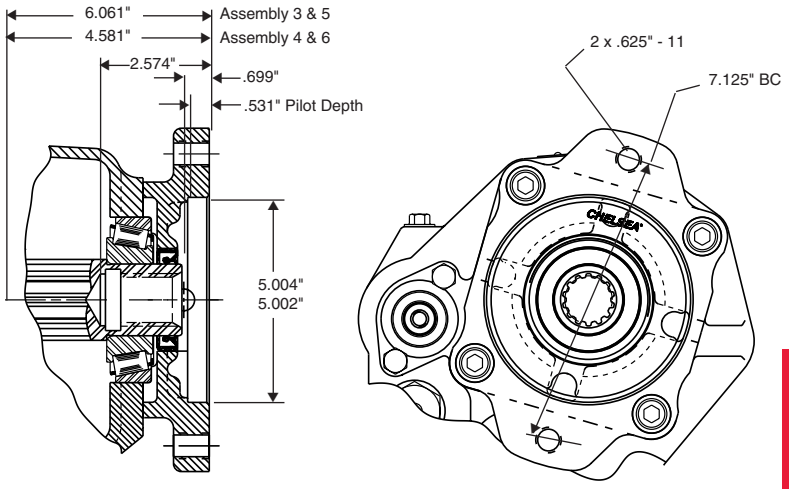
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XU

S.A.E. Class “C” 2-Bolt
For 1-1/4" - 14 Tooth Splined Shaft

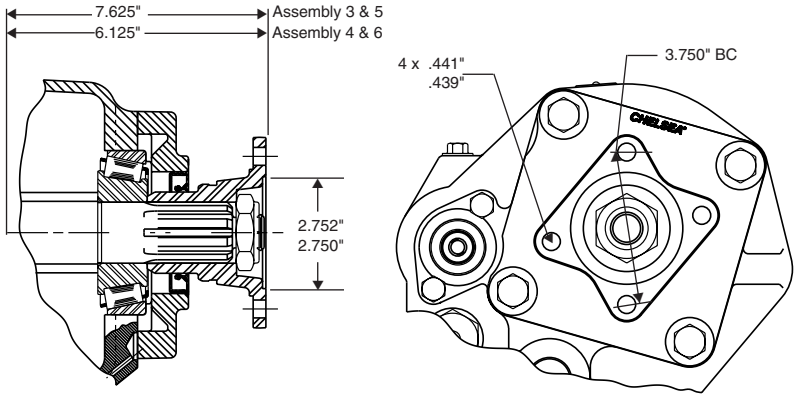
Available for the following P.T.O.s:
823



Suffix XV

Spicer 1410 Flange

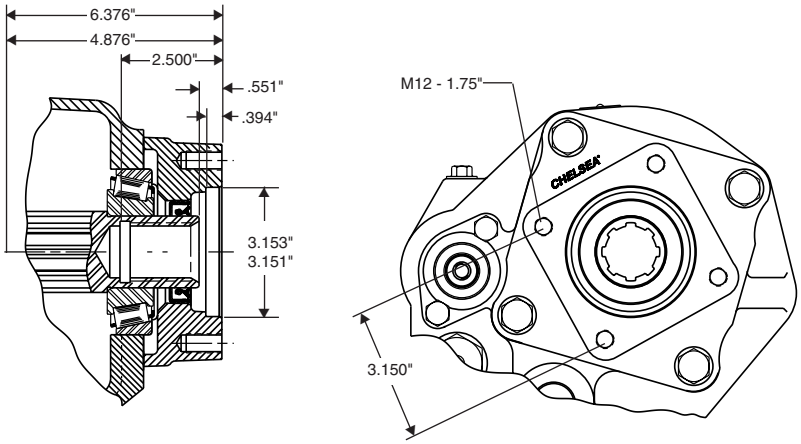
Available for the following P.T.O.s:
823



Suffix XY

DIN 5462 / ISO 14
For 32mm x 36mm - 8 Tooth Splined Shaft

Available for the following P.T.O.s:
823



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

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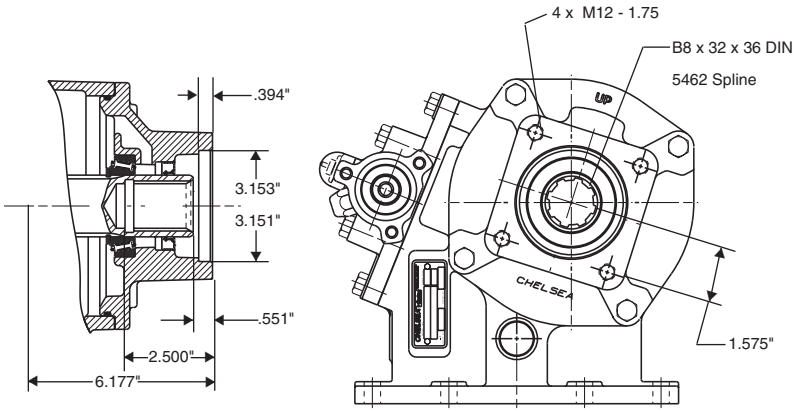
Technical

Suffix XY

Din 5462 Pump Mounting
For B8 x 32 x 36 Din 5462 Spline Shaft

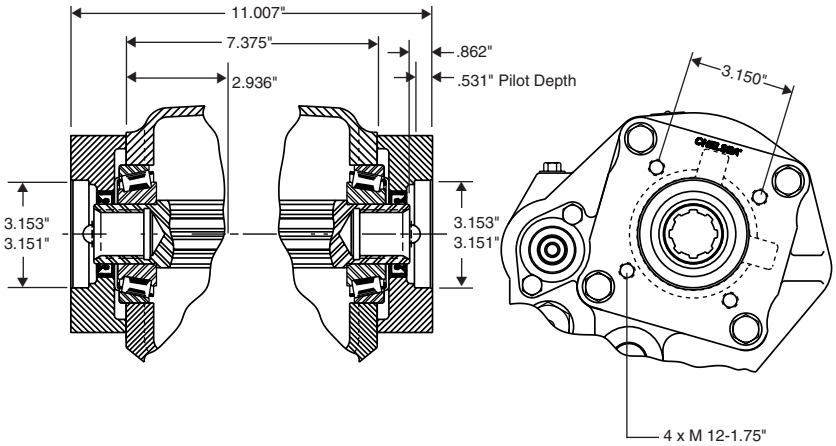
Available for the following P.T.O.s:
880



Suffix YY

Double output
For 32mm x 36mm - 8 Tooth Splined Shaft

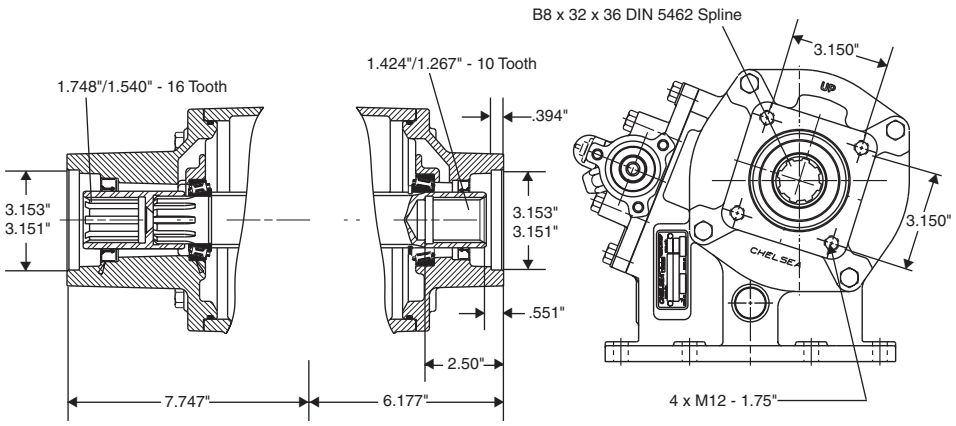
Available for the following P.T.O.s:
823



Suffix YY

DIN 80mm Pump Mounting
For dual Shaft 16 Tooth External /
10 Tooth Internal Spline

Available for the following P.T.O.s:
880



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

P.T.O. Shift Mechanisms Field Conversion Kits

Series	Assembly Arrangement	Wire To Air	Lever To Air	Wire to Elec. Over Air		Lever to Elec. Over Air	
				12 Volt	24 Volt	12 Volt	24 Volt
489	3, 4, 5 & 6	328390-117X	328390-117X	328390-119X	328390-120X	No Longer Available	No Longer Available
680	3, 4, 5 & 6	328390-117X	328390-117X	328390-119X	328390-120X		
812	3, 4, 5 & 6	328390-90X	328390-89X	328390-113X	328390-114X	328390-111X	328390-112X
823	3, 4, 5 & 6		328390-154X				

Cover Assemblies

Series/ Application	Assembly Arrangement	Wire Control	Lever Control	Air Control
489 Q, W & X 3 & 6	329119-1X		No Longer Available	
489 Q, W, & X 4 & 5	329119-2X			
489 F,L,R,S & U	3 & 6	329121-1X		
489 F,L,R,S & U	4 & 5	329121-2X		
489 A & C	3 & 6	329271-1X		
489 A & C	4 & 5	329271-2X		
489 (All Ratios)	All			329361X
680 Q	3 & 6	329119-1X		
680 Q	4 & 5	329119-2X		
680 F & S	3 & 6	329121-1X		
680 F & S	4 & 5	329121-2X		
680 (All Ratios)	All			329361X
812	3 & 6	328804-1X	328752X	328753X
812	4 & 5	328804-2X	328752X	328753X
880	3,4,5,6		329125X	329126X

Adapter Plates

Series/ Application	Assembly Arrangement	Wire Control	Air Control	Electric Over Air		Air Shift w/ Combo Valve P.T.O. Kick Out	Air Shift w/ Valve Combo
				12 Volt	24 Volt		
489	3,4,5,6	*328380X	328388-98X	328388-47X	328388-48X	328388-72X	328388-65X
680	3,4,5,6	*328380X	328388-98X	328388-47X	328388-48X	328388-72X	328388-65X
812		*328380X	328388-98X	328388-47X	328388-48X		
823			328388-61X				
880			329216-3X				

* Control Cable not Included

Parker Chelsea

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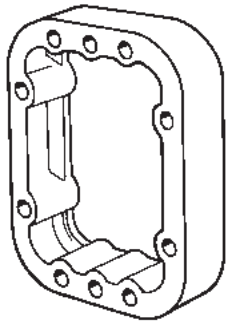
Chelsea Products Division
Olive Branch, MS 38654 USA

Filler Blocks



Filler blocks are required as called for on the P.T.O. application pages, where it is necessary to use a spacer to adapt the Power Take-Off to a particular transmission.

Two filler blocks may be used in combination with one or more gaskets between the filler block surfaces.

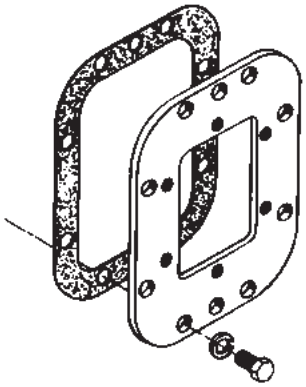
In computing the total thickness of the filler block and gasket combination, use a factor of .012" (compressed thickness of a .020" gasket 35-P-9-2 or 35-P-15-2) for every .020" gasket required in the installation.

8-Bolt Filler Blocks

Part Number	"A" Thickness	Material	Part Number	"A" Thickness	Material
8-A-032	.032"	Fiber	8-A-375	.375"	Cast Iron
8-A-093	.093"	Steel	8-A-500	.500"	Cast Iron
8-A-062	.062"	Fiber or Steel	8-A-600	.600"	Cast Iron
8-A-165	.165"	Steel	8-A-650	.650"	Cast Iron
8-A-190	.190"	Steel	8-A-700	.700"	Cast Iron
8-A-248	.248"	Steel or Cast Iron	8-A-1005	1.005"	Cast Iron
8-A-295	.295"	Cast Iron	8-A-1200	1.200"	Cast Iron

8-Bolt Adapter Plates

8-Bolt adapter plates are used to convert an S.A.E. 8-Bolt aperture or a non Standard opening to an S.A.E. 6-Bolt aperture.



Adapter Plates

Adapter Kit Number	"A" Thickness or Angularity	Adapter Plate Part Number	Stud Kit Number
310778X	.375"	26-P-22	328170-127X
328787X	.460"	26-P-27	328170-129X
328564X	.460"	26-P-27	328170-127X
328481X	.248"	328453X	328170-128X

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P.T.O. Options Chart – Powershift P.T.O.s

P.T.O. Series		230/231	236/238	243	252	270/271	800	852	885
Lubrication									
X	Standard	x	x		x	x	x		x
P	Pressure	x	x	x	x	x	x	x	x
Shifting									
A	Air Shift (Pilot Valve)	x	x						x
B	Electric/Hydraulic 12V			x	x	x	x	x	
D	Electric/Hydraulic 24V			x		x	x	x	
F	No Valve							x	
J	Electric/Air 24V w/ E.O.C.	x							x
K	Electric/Hydraulic 12V w/ E.O.C.			x		x	x	x	
L	Electric/Hydraulic 24V w/ E.O.C			x		x	x	x	
N	Electric/Air 12V w/ E.O.C.	x							x
P	Electric/Air 12V	x	x						x
Q	Electric/Air 24V	x	x						x
S	Air Shift w/ P.T.O./Dump Pump Combo Valve	x	x			x			
T	Air Shift w/ P.T.O./Dump Pump Combo Valve less Kick Out & Spring Return	x	x			x			
V	Air Shift, Less Installation Kit								x
Output									
AB	DIN 120								x
AD	S.A.E. “A” 2-Bolt			x	x				
AF	1-1/4" Round Shaft w/ Self Adjusting	x	x			x			
BA	1-1/4" Round Shaft w/ Self Adjusting Shaft Brake (Automatic Transmissions)	x				x			
BD*	1-1/4" Round Shaft w/ Self Adjusting/ Shaft Brake (Manual Transmissions)	x	x						
RA	Rotatable “B” 2-Bolt	x	x			x			
RB	Rotatable “B” 4-Bolt	x	x			x			
RF	Rotatable “B” 2-Bolt	x	x			x			
XB	1" Round Shaft			x	x				
XC	1-1/8" Round Shaft						x		
XD	1-1/4" Round Shaft	x	x			x			
XE	S.A.E. “A” 2-Bolt	x	x	x	x	x			
XK	S.A.E. “B” 2 or 4-Bolt	x	x			x			
XP	S.A.E. “A” 2-Bolt	x	x			x			
XR	Parker P16 Pump S Flange	x	x			x			
XS	S.A.E. “C” 2 or 4-Bolt							x	x
XU	S.A.E. “C” 2-Bolt							x	
XV	1-1/2" 10 Spline w/ 1410 Flange							x	x
XX	1-1/4" Tapered Shaft w/ DIN 100 Flange	x	x			x			
XY	Special (DIN 5462)	x	x			x			
XZ	1-1/8" Tapered Shaft							x	
45	P16-45A-1D6			x					
65	P16-65A-1D6			x					
85	P16-85A-1D6			x					
00	P16-100A-1D6			x					
15	P16-115A-1D6			x					
P37	CGP-P11C037-5AC				x				

***Not For Use on Automatic Transmissions**

NOTE: Always Check Price Book for Current Options

Continued on next page

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

P.T.O. Options Chart – Powershift P.T.O.s

P.T.O. Series	230/231	236/238	243	252	270/271	800	852	885
Output								
P42 CGP-P11C042-5AC				x				
P71 CGP-P11C071-5AC				x				
P82 CGP-P11C082-5AC				x				
1116 CGP-P11C016-1AC				x				
1121 CGP-P11C021-1AC				x				
1126 CGP-P11C026-1AC				x				
1129 CGP-P11C029-1AC				x				
1137 CGP-P11C037-1AC				x				
1449 CGP-P31C054-1AE				x				
1462 CGP-P31C061-1AE				x				

NOTE: Always Check Price Book for Current Options

Installation Kits

Series Application		Electric Over Air		Electric Over Hydraulic	
		12 Volt	24 Volt	12 Volt	24 Volt
230/231	w/o E.O.C.	328388-50X	328388-51X		
236/238	w/o E.O.C.	328388-50X	328388-51X		
252	w/o E.O.C.			**(1)** 329296-8X	
270/271	w/o E.O.C.			328715X	328749X
800	w/o E.O.C.			328715X	328749X
852	w/o E.O.C.			328715X	328749X
885	w/o E.O.C.	328388-50X	328388-51X		
230/231	w/ E.O.C.	328388-52X	328388-53X		
270/271	w/ E.O.C.			328929-12X	328929-24X
800	w/ E.O.C.	328929-12X	328929-24X		
885	w/ E.O.C.	328388-52X	328388-53X		

(1) ("G" Mounting)

Installation Kits

Series Application		w/ Pilot Valve	Combo Valve "S" Option	Combo Valve "T" Option	Dodge/Aisin AS68RC	RAM/Aisin AS68RC
230/231	w/o E.O.C.	328388-99X	328388-89X	328388-90X		
236/238	w/o E.O.C.	328388-99X	328388-89X	328388-90X		
252	w/o E.O.C.				**(2)** 329296-9X	**(3)** 329669-12X
270/271	w/o E.O.C.		328388-87X	328388-88X	**(2)** 329457-12X	**(3)** 329670-12X
800	w/o E.O.C.					
852	w/o E.O.C.					
885	w/o E.O.C.	328388-99X				
230/231	w/ E.O.C.					
270/271	w/ E.O.C.					
800	w/ E.O.C.					
885	w/ E.O.C.					

(2) ("D" Mounting)
(3) ("R" Mounting)

For converting Chelsea Powershift P.T.O.s from a driveshaft output to a pump flange output, use the following kits.

230/231, 236/238 & 2230 Series

Pump Suffix	Kit No. Suffix	Kit Number	Assembly	Flange Type	Shaft Type
AF	XD to AF	329160-50X	3 & 5	S.A.E. “B” 2 or 4-Bolt	1" - 15 Tooth Splined
	XD to AF	329160-51X	4 & 6	S.A.E. “B” 2 or 4-Bolt	1" - 15 Tooth Splined
BD*	XD to BD	329043-9X	3 & 5	XD w/ Shaft Brake	1-1/4" Round Shaft
	XD to BD	329043-10X	4 & 6	XD w/ Shaft Brake	1-1/4" Round Shaft
XK	XD to XK	329160-11X	3 & 5	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
	XD to XK	329160-15X	4 & 6	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
XP	XD to XP	329160-12X	3 & 5	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Splined
	XD to XP	329160-16X	4 & 6	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Splined
XR	XD to XR	329160-13X	3 & 5	Chelsea Special	7/8" - 13 Tooth Splined
RA	XD to RA	329160-33X	3 & 5	S.A.E. “B” 2-Bolt Rotatable	7/8" - 13 Tooth Splined
	XR to RA	329160-35X	3 & 5	S.A.E. “B” 2-Bolt Rotatable	7/8" - 13 Tooth Splined
RB	XD to RB	329160-34X	3 & 5	S.A.E. “B” 4-Bolt Rotatable	7/8" - 13 Tooth Splined
	XR to RB	329160-36X	3 & 5	S.A.E. “B” 4-Bolt Rotatable	7/8" - 13 Tooth Splined
RF	XD to RF	329160-46X	3 & 5	S.A.E. “B” 2-Bolt Rotatable	1" - 15 Tooth Splined
XE	XD to XE	329160-55X	3 & 5	S.A.E. “A” 2-Bolt	5/8" - 9 Tooth Splined
XX	XD to XX	329160-43X	ALL	DIN 100 Companion Flange	1-1/4" Tapered Shaft
XY	XD to XY	329160-14X	3 & 5	DIN 5462	8 Tooth Splined

270/271 Series

Pump Suffix	Kit No. Suffix	Kit Number	Assembly	Flange Type	Shaft Type
AF	XD to AF	329160-52X	3 & 5	S.A.E. “B” 2 or 4-Bolt	1" - 15 Tooth Splined
	XD to AF	329160-53X	4 & 6	S.A.E. “B” 2 or 4-Bolt	1" - 15 Tooth Splined
XK	XD to XK	329160-1X	3 & 5	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
	XD to XK	329160-5X	4 & 6	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
XP	XD to XP	329160-2X	3 & 5	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Splined
	XD to XP	329160-6X	4 & 6	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Splined
XR	XD to XR	329160-3X	3 & 5	Chelsea Special	7/8" - 13 Tooth Splined
RA	XD to RA	329160-31X	3 & 5	S.A.E. “B” 2-Bolt Rotatable	7/8" - 13 Tooth Splined
	XR to RA	329160-35X	3 & 5	S.A.E. “B” 2-Bolt Rotatable	7/8" - 13 Tooth Splined
RB	XD to RB	329160-32X	3 & 5	S.A.E. “B” 4-Bolt Rotatable	7/8" - 13 Tooth Splined
	XR to RB	329160-36X	3 & 5	S.A.E. “B” 4-Bolt Rotatable	7/8" - 13 Tooth Splined
RF	XD to RF	329160-47X	3 & 5	S.A.E. “B” 2-Bolt Rotatable	1" - 15 Tooth Splined
XE	XD to XE	329160-54X	3 & 5	S.A.E. “A” 2-Bolt	5/8" - 9 Tooth Splined
XX	XD to XX	329160-42X	ALL	DIN 100 Companion Flange	1-1/4" Tapered Shaft
XY	XD to XY	329160-4X	3 & 5	DIN 5462	8 Tooth Splined

885 Series

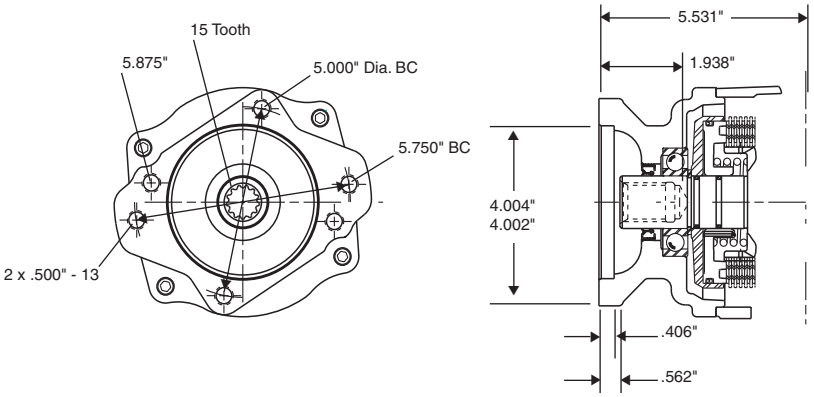
Pump Suffix	Kit No. Suffix	Kit Number	Assembly	Flange Type	Shaft Type
XS	XV to XS	328591-37X	3,4,5,6	S.A.E. “C” 2 or 4-Bolt	1-1/4" - 14 Tooth

***Not For Use on Automatic Transmissions**

Technical

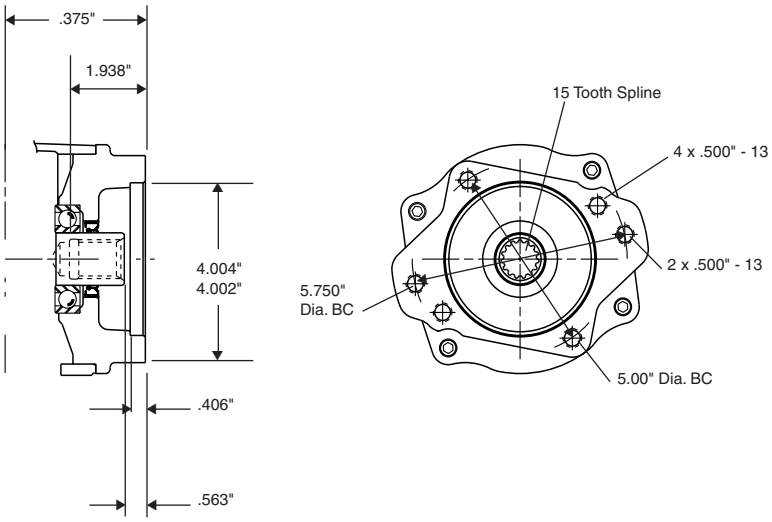
Suffix AF (Ass'y 3 & 5)
S.A.E. Class "BB" 2 or 4-Bolt
For 1" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230



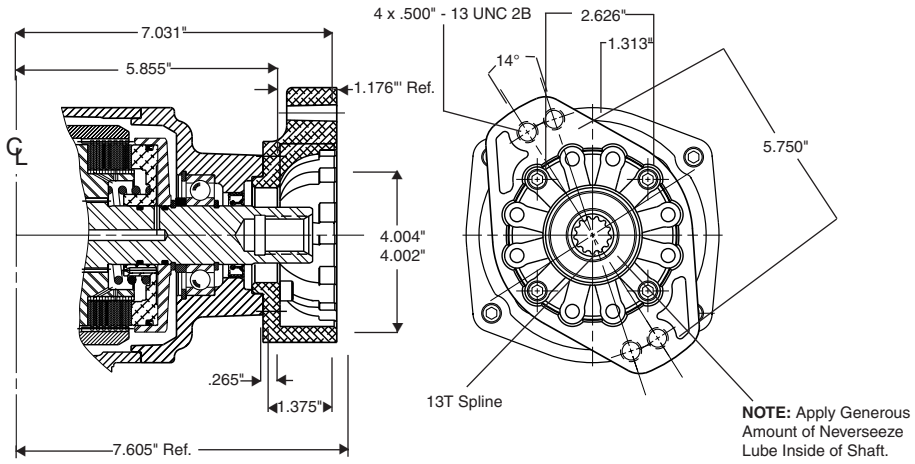
Suffix AF (Ass'y 4 & 6)
S.A.E. Class "BB" 2 or 4-Bolt
For 1" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230



Suffix RA (Ass'y 3 & 5)
S.A.E. Class "B" 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

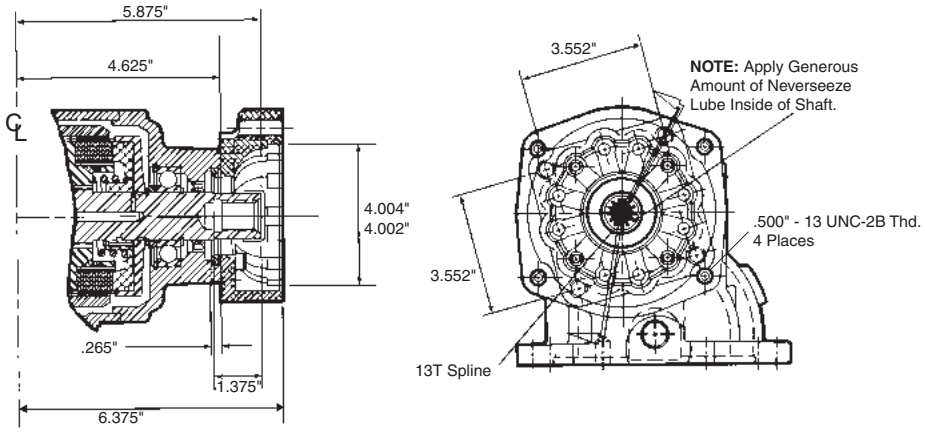
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

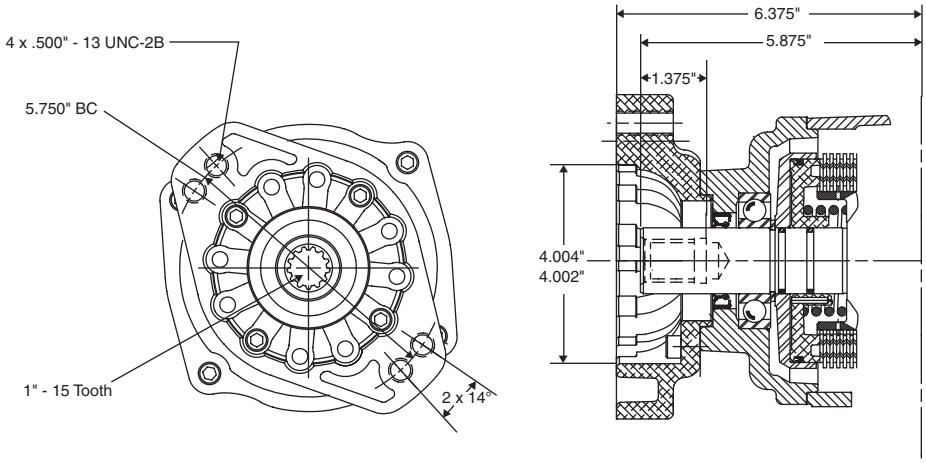
Suffix RB (Ass'y 3 & 5)
S.A.E. Class "B" 4-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230



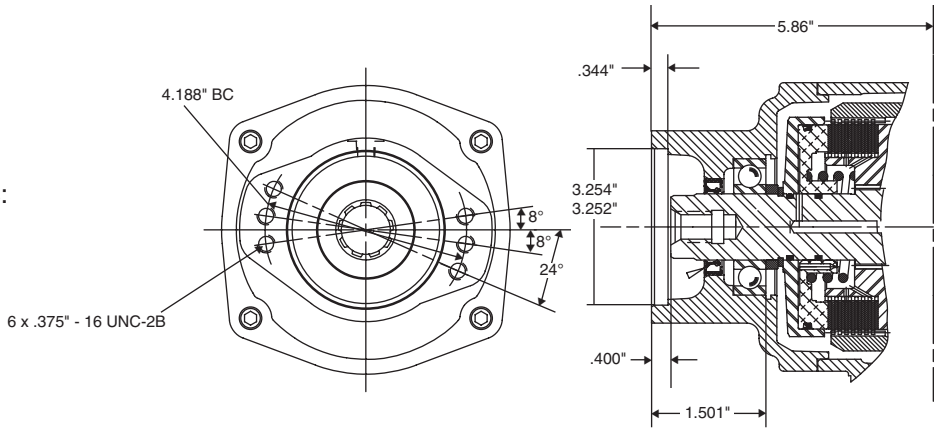
Suffix RF (Ass'y 3 & 5)
S.A.E. Class "BB" 2-Bolt Rotatable
For 1" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 270, 271



Suffix XE (Ass'y 3 & 5)
S.A.E. Class "A" 2-Bolt
For 5/8" - 9 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

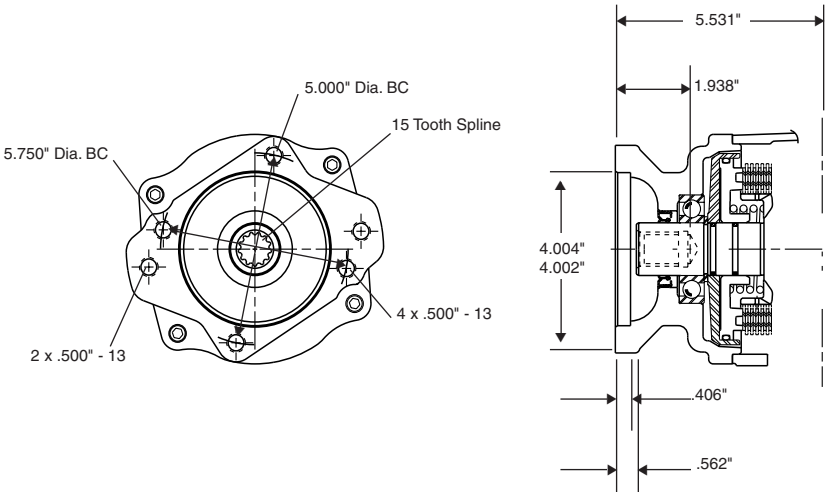
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Technical

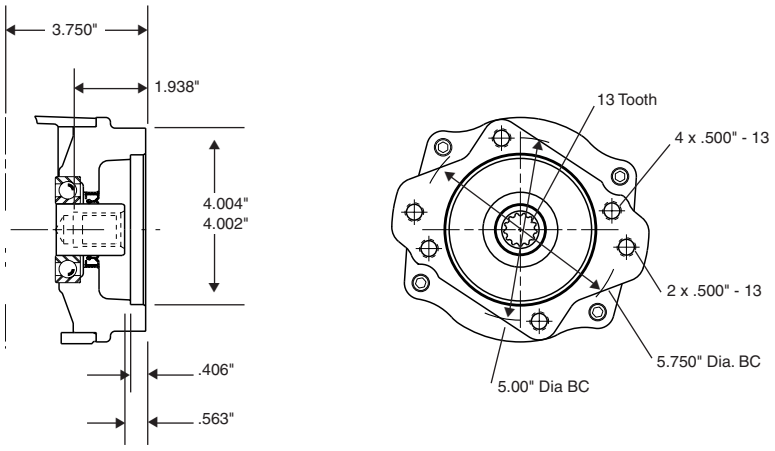
Suffix XK (Ass'y 3 & 5)
S.A.E. Class "B" 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230



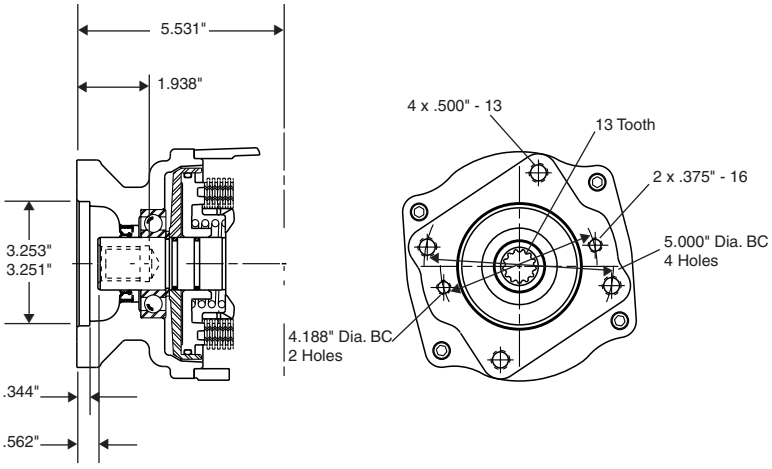
Suffix XK (Ass'y 4 & 6)
S.A.E. Class "B" 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230



Suffix XP (Ass'y 3 & 5)
S.A.E. Class "A" 2-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

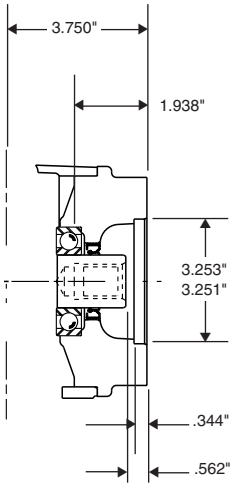
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

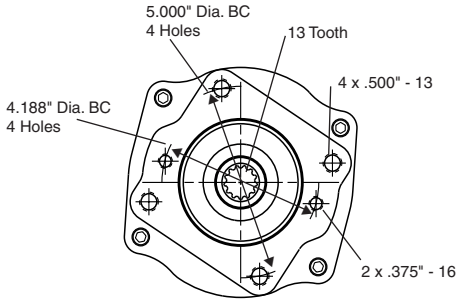
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Suffix XP (Ass'y 4 & 6)
S.A.E. Class "A" 2-Bolt
For 7/8" - 13 Tooth Splined Shaft

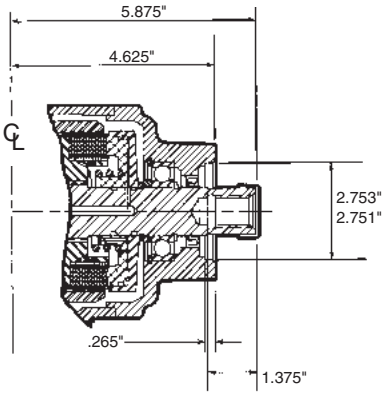
Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230

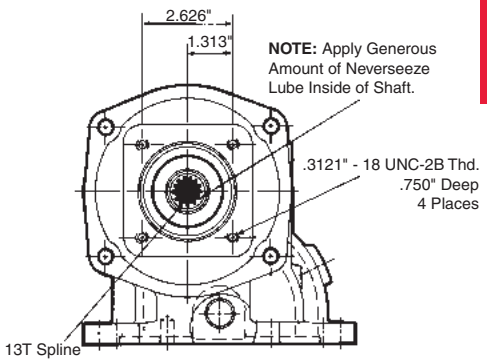




Suffix XR (Ass'y 3 & 5)
For Chelsea Pumps
For 7/8" - 13 Tooth Splined Shaft

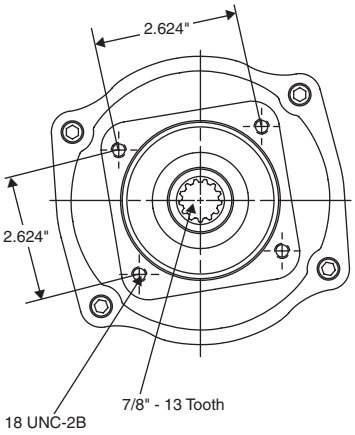
Available for the following P.T.O.s:
230, 231, 236, 238, 270, 271, 2230

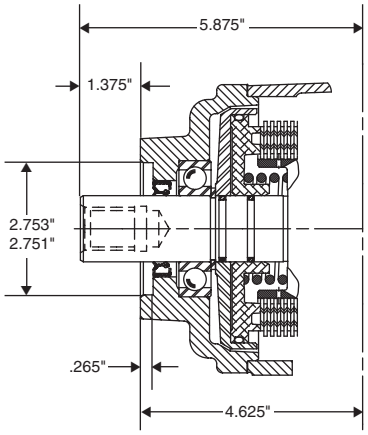




Suffix XR (Ass'y 3 & 5)
For Parker P16 "S" Flange Pump
S.A.E. Class "B" 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
230, 231, 236, 238, 271





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

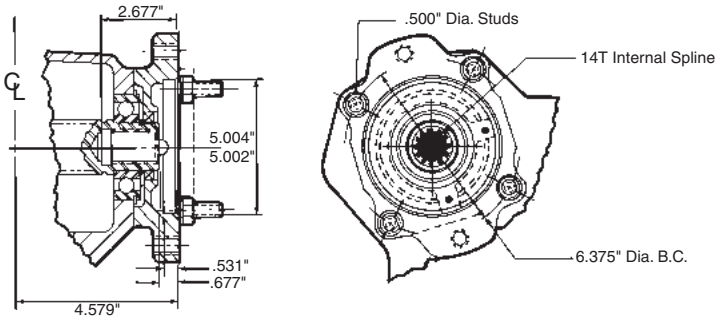
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Suffix XS

S.A.E. Class “C” 4-Bolt
For 1-1/4" - 14 Tooth Splined Shaft

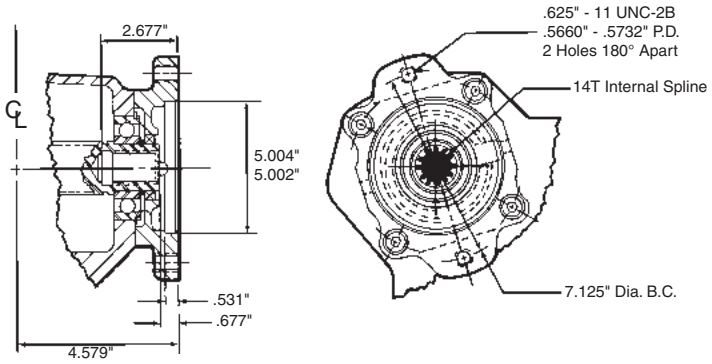
Available for the following P.T.O.s:
852, 885



Suffix XU

S.A.E. Class “C” 2-Bolt
For 1-1/4" - 14 Tooth Splined Shaft

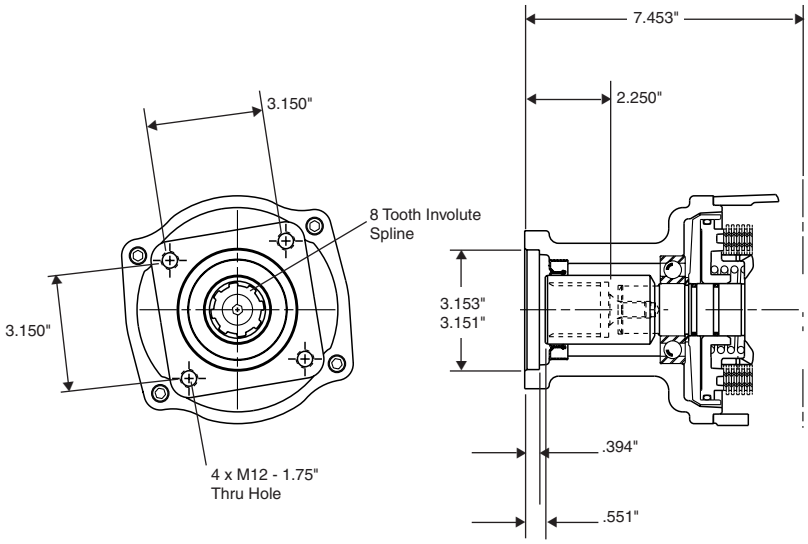
Available for the following P.T.O.s:
852



Suffix XY

Special for 1.4205/1.2645-8 Tooth
Splined Shaft

Available for the following P.T.O.s:
230, 236, 238, 270, 271



Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

P.T.O. Options Chart

P.T.O. Series		277/278	859	870	890	890C	892
Lubrication							
P	Pressure Lube	x	x	x			
R	Pressure Lube with Solenoid Cap Rotated 120 Degrees	x	x				
V	Rotated Valve Cap, Wet Spline	x					
W	Wet Spline	x	x	x	x	x	x
Shifting							
B	12 Volt Electric/Hydraulic	x	x	x	x	x	x
D	24 Volt Electric/Hydraulic	x	x	x	x	x	x
G	12 Volt Electric/Hydraulic w/ Remote Mounted Solenoid Valve			x	x	x	x
G	w/o Electronic Overspeed Control	x	x				
H	24 Volt Electric/Hydraulic w/ Remote Mounted Solenoid Valve			x	x	x	x
H	w/o Electronic Overspeed Control	x	x				
K	12 Volt Electric/Hydraulic w/ Electronic Overspeed Control	x	x	x	x	x	x
L	24 Volt Electric/Hydraulic w/ Electronic Overspeed Control	x	x	x	x	x	x
M	12 Volt w/o Installation Kit (Europe Only)	x	x				
N	24 Volt w/o Installation Kit (Europe Only)	x	x				
S	Air Shift w/ P.T.O./Dump Pump Combo Valve	x					
T	Air Shift w/ P.T.O./Dump Pump Combo Valve less Kick Out & Spring Return	x					
F	24 Volt Remote Valve Kit (Europe Only) 277 Series Only	x					
Output							
AB	DIN 120 Flange		x	x	x	x	x
AC	DIN 100 Flange		x	x	x	x	x
AF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x(w)			w		w
AZ	S.A.E. “B” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)		x		w		w
BA	Shaft Brake with 1-1/4" Round Shaft	x	x	x			
BB	Shaft Brake, DIN 120		x	x			
BC	Shaft Brake, DIN 100		x	x			
DA	S.A.E. “D” 4-Bolt with “D” Shaft (1.75" - 13 Tooth)				w		
CS	S.A.E. “C” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)					w	
CK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)					w	
CF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)					w	
CZ	S.A.E. “B” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)					w	
PA	Special Rotatable S.A.E. “B” 2-Bolt Flange for Parker P Series Sculptured Pump, “B” Shaft (7/8" - 13 Tooth)	x					
PF	Special Rotatable S.A.E. “B” 2-Bolt Flange for Parker P Series Sculptured Pump, “BB” Shaft (1.00" - 15 Tooth)	x					
RA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x					
RB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x					
RF	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x					
RG	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x					
RK	Rotatable S.A.E. “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x(w)					
RM	Rotatable S.A.E. “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x(w)					
RS	Rotatable S.A.E. “C” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)			x(w)			
RY	Rotatable DIN 5462 4-Bolt			x(w)			
RZ	Rotatable S.A.E. “B” 2 or 4-Bolt Flange, “C” Shaft (1.25"-14 Tooth)			x(w)			
XD	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x					
XE	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x					
XK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x(w)			w		w
XP	Special S.A.E. “A” Pilot 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x					
XR	Non Standard Flange, “B” Shaft (7/8" - 13 Tooth)	x					
XS	S.A.E. “C” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)		x		w		w
XV	1.50" - 10 Tooth Straight Spline Shaft with 1410 Flange (3-1-3881)	x	x	x	x	x	x
XX	1-1/4" S.A.E. Tapered Shaft w/ keyway	x					
XY	DIN 5462 Pump Mounting	x	x		w	w	w
ZS	S.A.E. “C” 4-Bolt Flange with “C” Shaft (1.25" - 14 Tooth)				w	w	
ZY	DIN 5462 Pump Mounting (Short Length)	x(w)					
G22	RA Output with G102-1-2.0R-4S-AS Pump (Available for 277X*FJP-S5G22 Only)	x					

(w) = Wet Spline Flange Option Must use the “W” Lube Option for this Output
NOTE: Always Check Price Book for Current Options

Parker Chelsea
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

For converting Chelsea Powershift P.T.O.s from a driveshaft output (XD or XV) to a pump flange output and / or a wet spline output.

277/278 Series

Pump Suffix	Kit Number	Assembly	Flange Type	Shaft Type
AF	329160-25X	5 (277), 3 (278)	S.A.E. “B” 2 or 4-Bolt	1.0" - 15 Tooth Spline
PA	329160-57X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt for Parker P Series Sculptered Pump	7/8" - 13 Tooth Spline
PF	329160-56X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt for Parker P Series Sculptered Pump	1.0" - 15 Tooth Spline
RA	329160-37X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RA (XR to RA)	329160-35X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RB	329160-38X	5 (277), 3 (278)	Rotatable S.A.E. “B” 4-Bolt	7/8" - 13 Tooth Spline
RB (XR to RB)	328160-36X	5 (277), 3 (278)	Rotatable S.A.E. “B” 4-Bolt	7/8" - 13 Tooth Spline
RF	329160-39X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	1.0" - 15 Tooth Spline
RG	329160-45X	5 (277), 3 (278)	Rotatable S.A.E. “B” 4-Bolt	1.0" - 15 Tooth Spline
RK	329160-66X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RK (RK Dry to Wet)	329160-67X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RK (XD to RK Wet)	329160-68X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RK (RA/RB to RK Wet)	329160-69X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RK (RA/RB to RK)	329160-70X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RM	329160-71X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	1.0" - 15 Tooth Spline
RM (XD to RM Wet)	329160-72X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	1.0" - 15 Tooth Spline
RM (RA/RB to RM)	329160-73X	5 (277), 3 (278)	Rotatable S.A.E. “B” 2-Bolt	1.0" - 15 Tooth Spline
XE	329160-58X	5 (277), 3 (278)	S.A.E. “A” 2 or 4-Bolt	5/8" - 9 Tooth
XK	329160-21X	5 (277), 3 (278)	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Spline
XK (XK to XK Wet)	329160-61X	5 (277), 3 (278)	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Spline
XP	329160-23X	5 (277), 3 (278)	S.A.E. “A” 2-Bolt	7/8" - 13 Tooth Spline
XR	329160-22X	5 (277), 3 (278)	CHELSEA SPECIAL	7/8" - 13 Tooth Spline
XY	329160-24X	5 (277), 3 (278)	DIN 5462 Pump Mounting	DIN 5462 8 - Tooth

859 Series

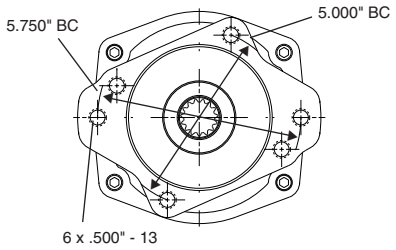
Pump Suffix	Kit Number	Assembly	Flange Type	Shaft Type
AZ	329160-44X	5	S.A.E. “B” 2 & 4-Bolt	1-1/4" - 14 Tooth Spline
XY	329160-40X	5	DIN 5462	DIN 5462 - 8 Tooth Spline
XS	329160-29X	5	S.A.E. “C” 2 or 4-Bolt Flange	1.25" - 14 Tooth

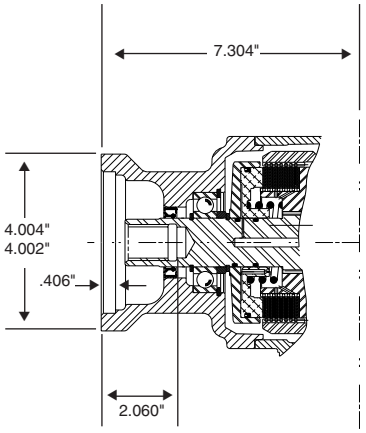
Continued on next page

Suffix AF

S.A.E. Class “B” 2 or 4-Bolt
For 1.00" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
277, 278

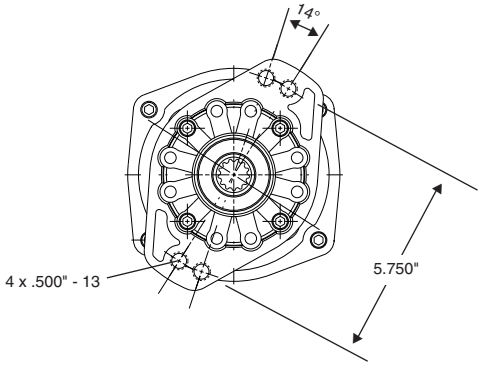


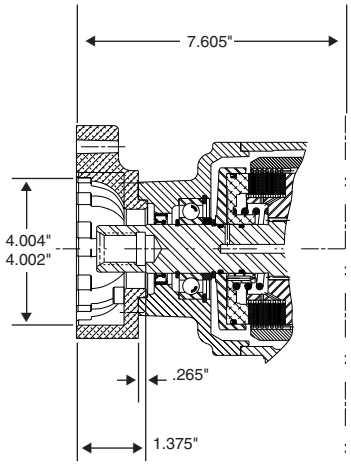


Suffix PA

S.A.E. Class “B” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
277, 278

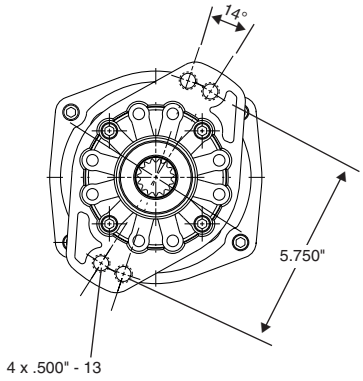


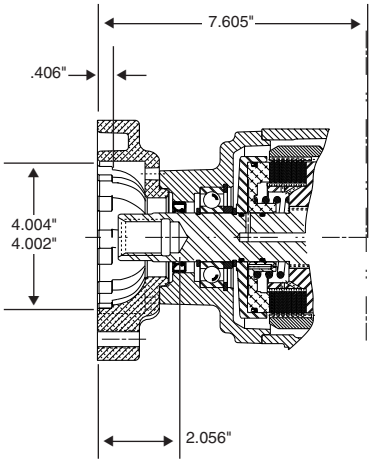


Suffix PF

S.A.E. Class “B” 2-Bolt Rotatable
For 1.00" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
277, 278





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

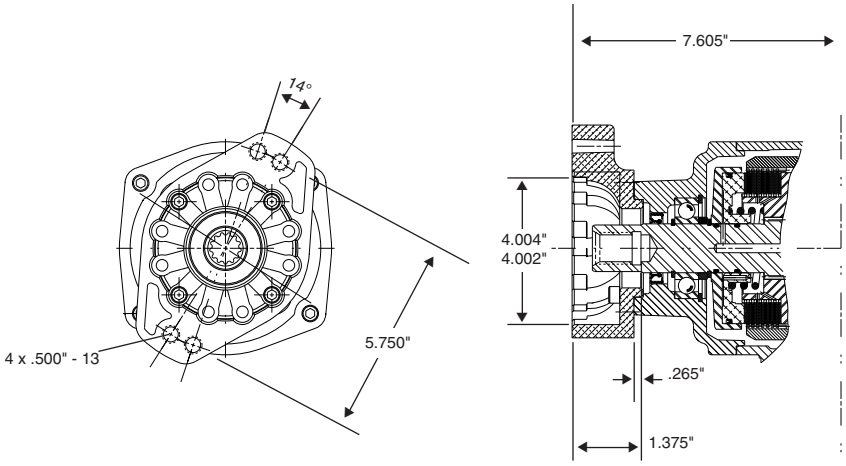
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix RA

S.A.E. Class “B” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

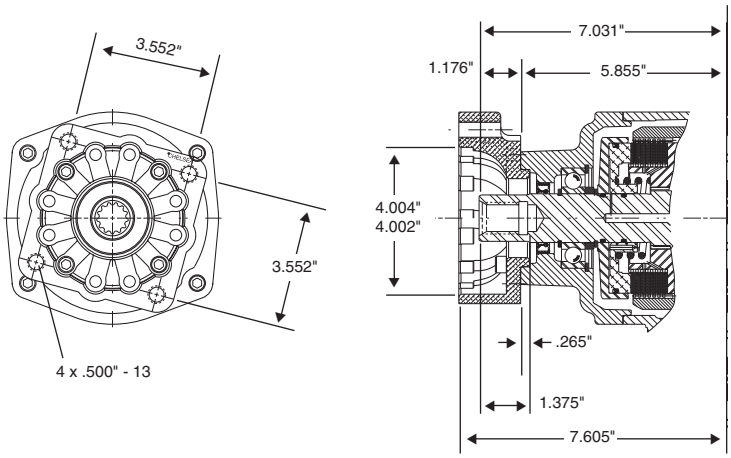
Available for the following P.T.O.s:
277, 278



Suffix RB

S.A.E. Class “B” 4-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

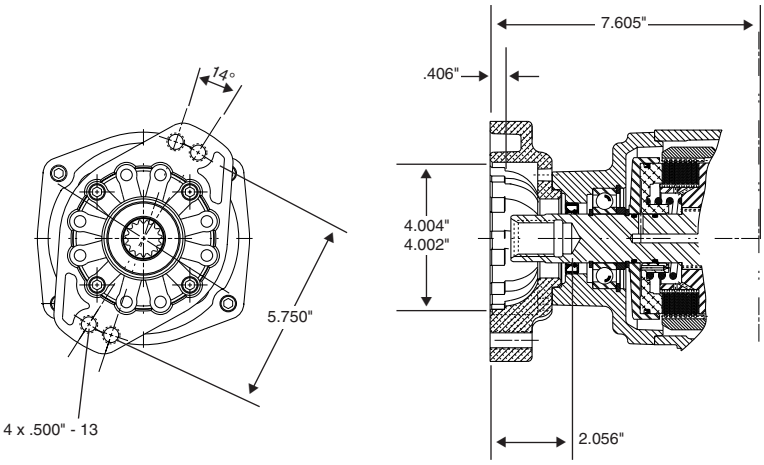
Available for the following P.T.O.s:
277, 278



Suffix RF

S.A.E. Class “B” 2-Bolt Rotatable
For 1.00" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
277, 278



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

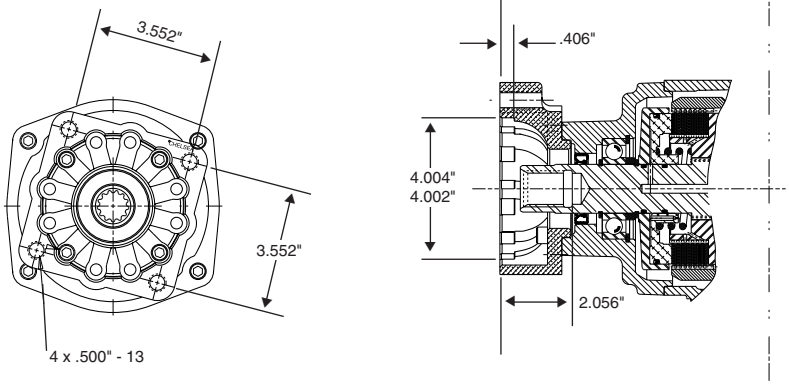
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix RG

S.A.E. Class “B” 4-Bolt Rotatable
For 1.00" - 15 Tooth Splined Shaft

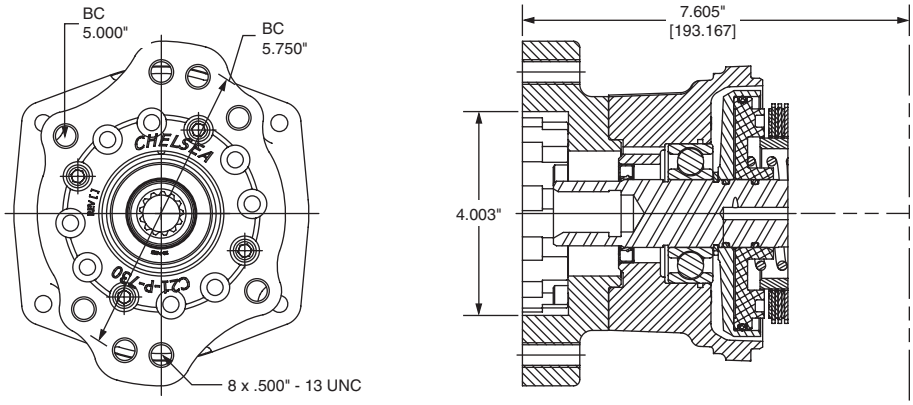
Available for the following P.T.O.s:
277, 278



Suffix RK

Rotatable S.A.E. “B” 2-Bolt S.A.E. “BB” Shaft
For 1.00" - 15 Tooth

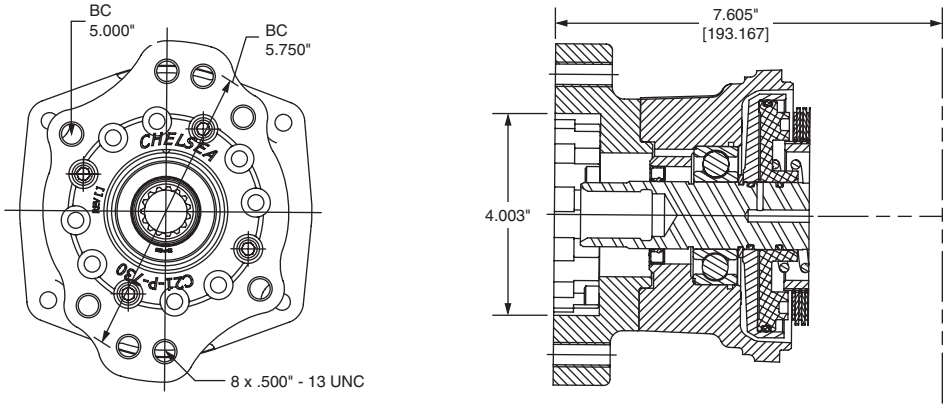
Available for the following P.T.O.s:
277, 278



Suffix RM

Rotatable S.A.E. “B” 2-Bolt S.A.E. “B” Shaft
For 7/8" - 13 Tooth

Available for the following P.T.O.s:
277, 278



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

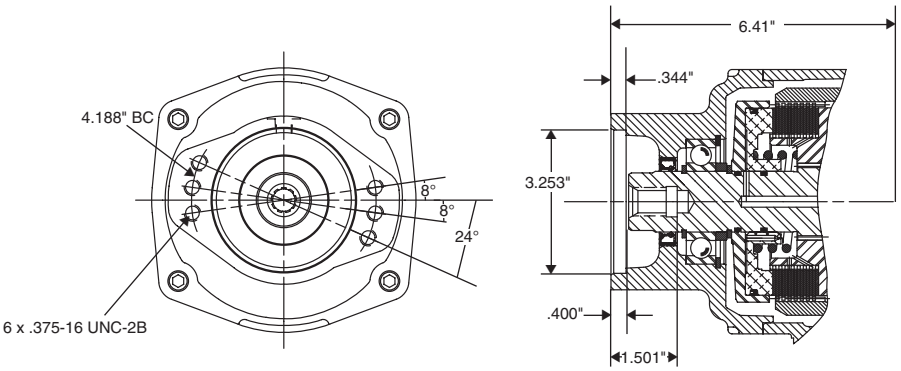
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix XE

S.A.E. Class “A” 2-Bolt
For 5/8" - 9 Tooth Splined Shaft

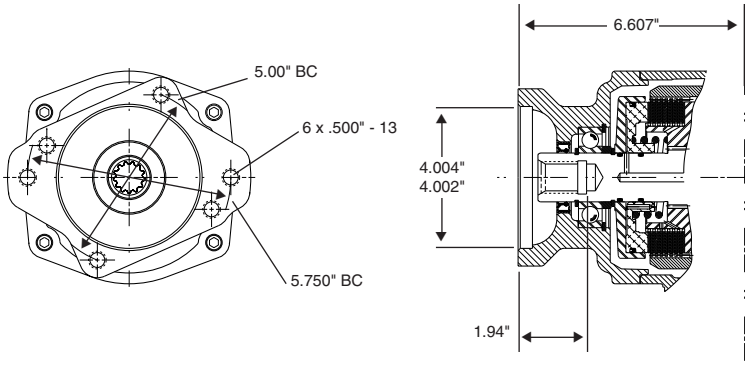
Available for the following P.T.O.s:
277, 278



Suffix XK

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

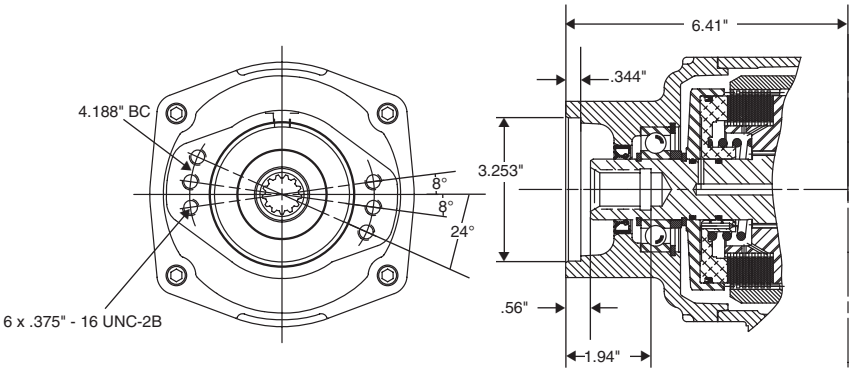
Available for the following P.T.O.s:
277, 278



Suffix XP

S.A.E. Class “A” 2-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
277, 278



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

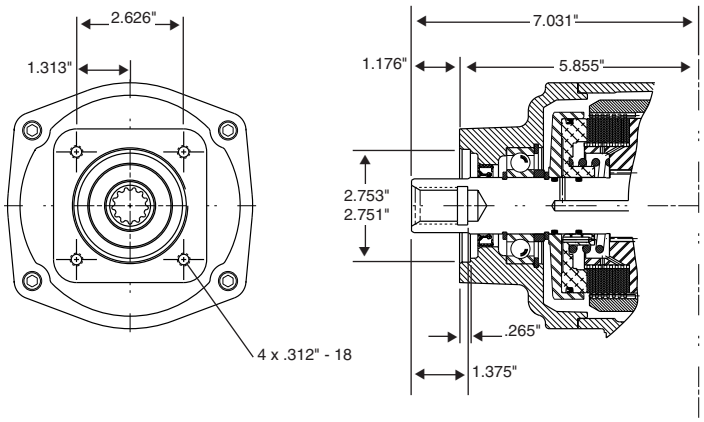
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XR

CHELSEA SPECIAL
For 7/8" - 13 Tooth Splined Shaft

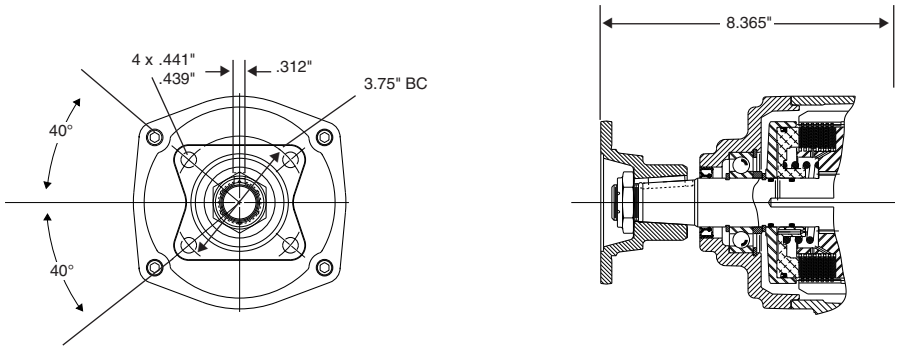
Available for the following P.T.O.s:
277, 278



Suffix XX

DIN 100 Flange for
1.25" Tapered Shaft

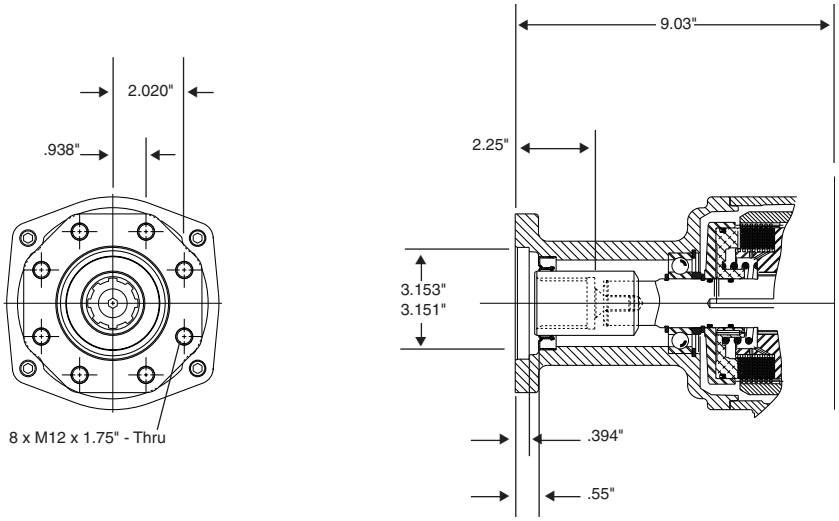
Available for the following P.T.O.s:
277, 278



Suffix XY

DIN 5462 Pump Mounting
8 Tooth Internal Spline

Available for the following P.T.O.s:
277, 278



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

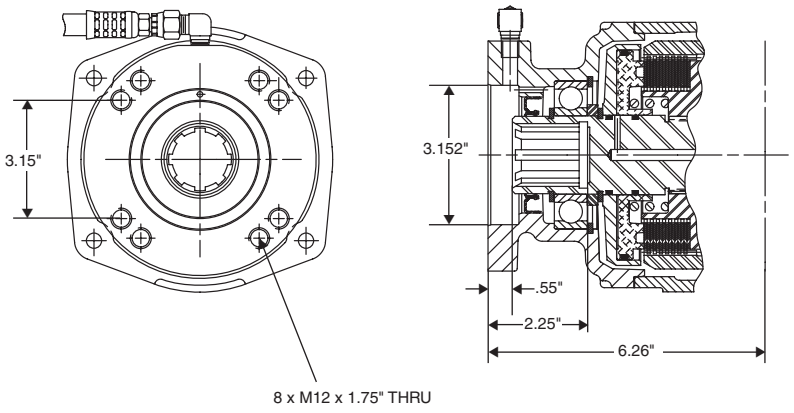
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix ZY
DIN 5462 Pump Mounting (Wet Spline)
8 Tooth Internal Spline

Available for the following P.T.O.s:
277, 278



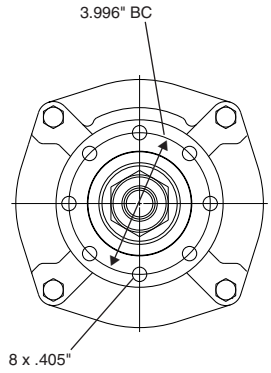
* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

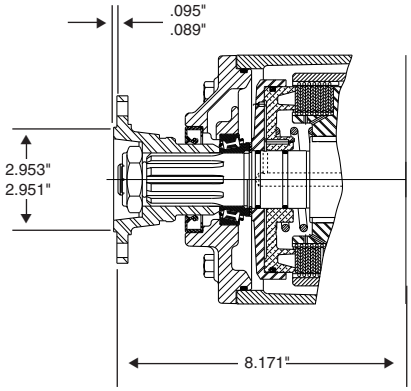
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix AB
DIN 125 Flange

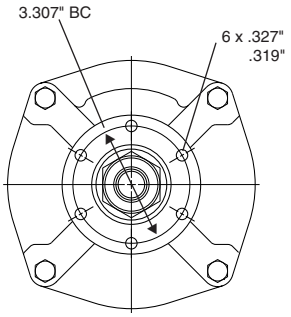
Available for the following P.T.O.s:
859

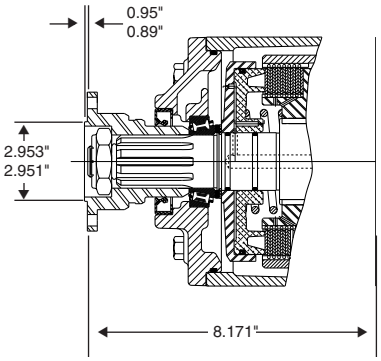




Suffix AC
DIN 100 Flange

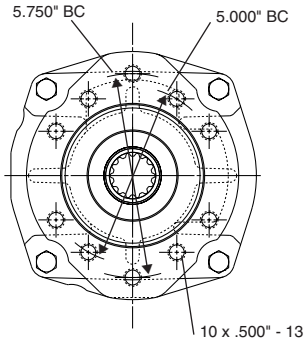
Available for the following P.T.O.s:
859

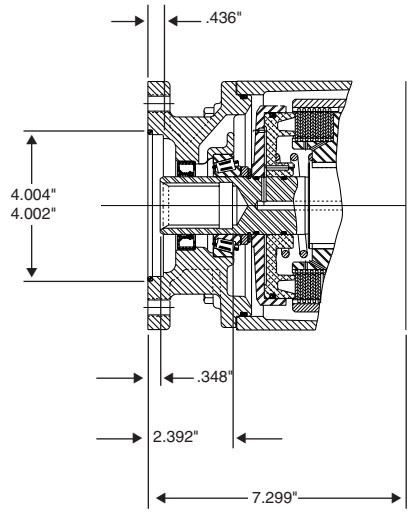




Suffix AZ
S.A.E. Class “B” 2 or 4-Bolt
For 1.25" - 14 Tooth Splined Shaft

Available for the following P.T.O.s:
859





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

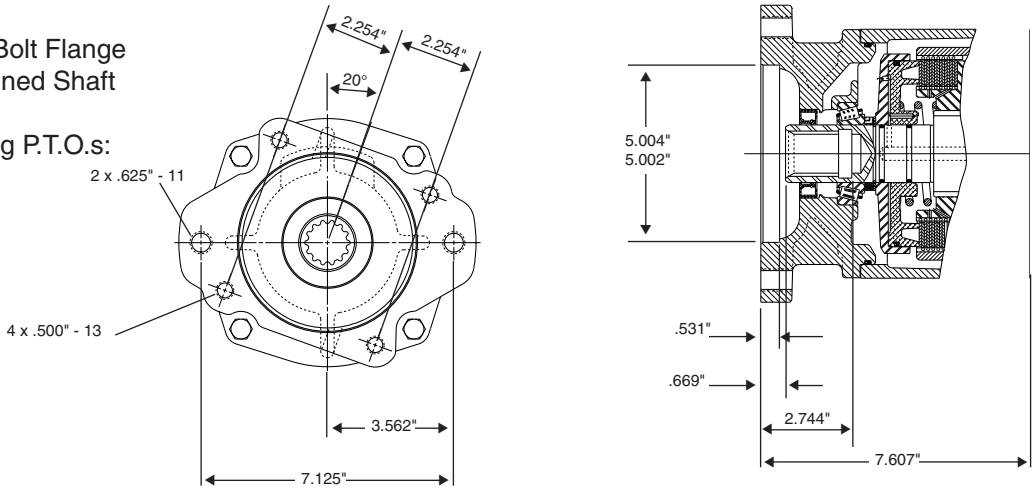
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix XS

S.A.E. Class “C” 2 or 4-Bolt Flange
For 1.25" - 14 Tooth Splined Shaft

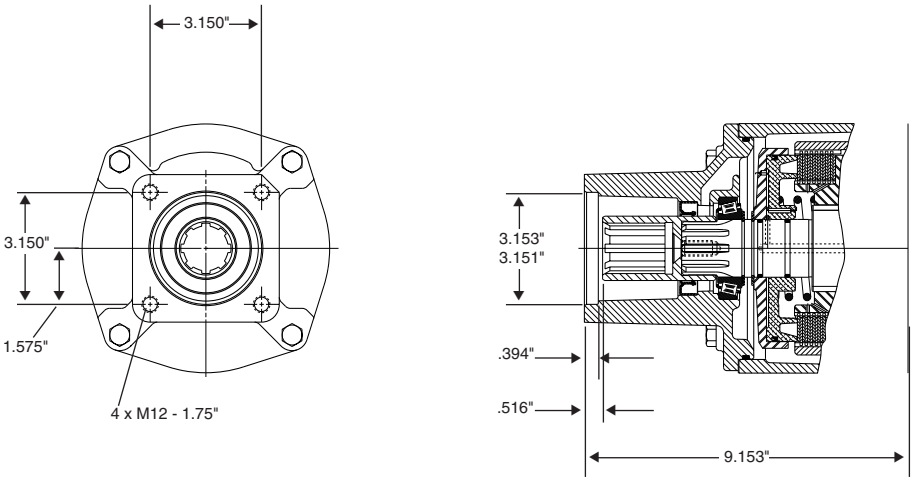
Available for the following P.T.O.s:
859



Suffix XY

DIN 5462 for 8 Tooth DIN Spline
(B8 x 32 x 36)

Available for the following P.T.O.s:
859



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

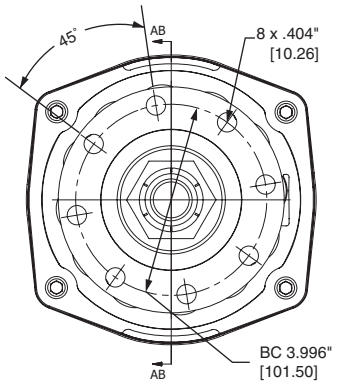
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

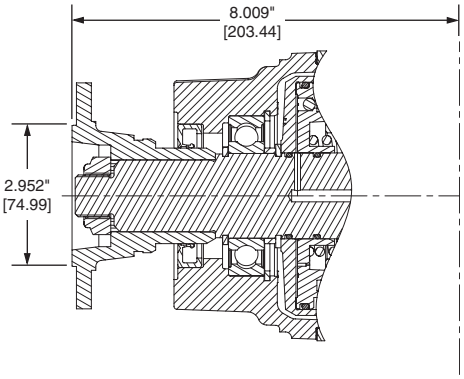
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix AB
DIN 120 Flange

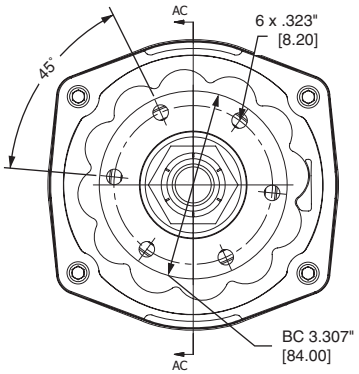
Available for the following P.T.O.s:
870

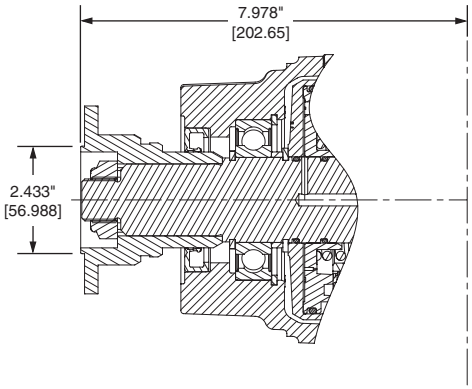




Suffix AC
DIN 100 Flange

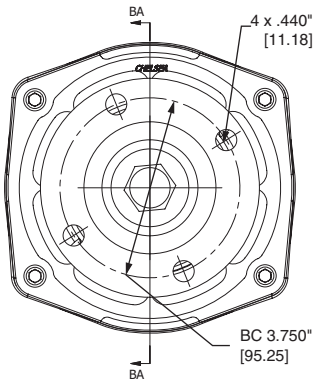
Available for the following P.T.O.s:
870

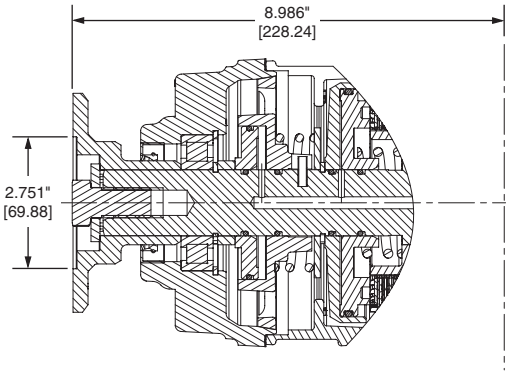




Suffix BA
Drage Brake w/ 1410 Flange

Available for the following P.T.O.s:
870





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

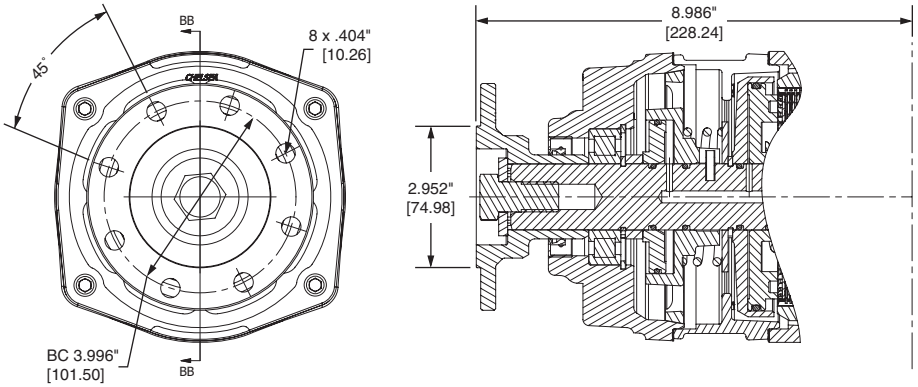
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix BB

Drage Brake w/ DIN 120 Flange

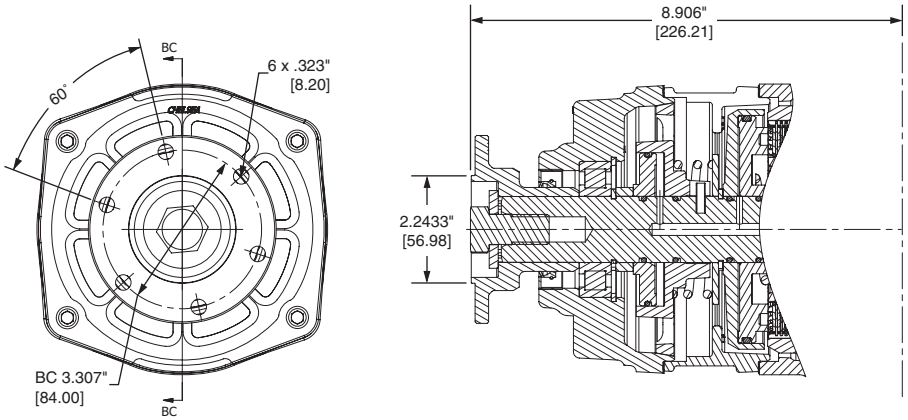
Available for the following P.T.O.s:
870



Suffix BC

Drage Brake w/ DIN 100 Flange

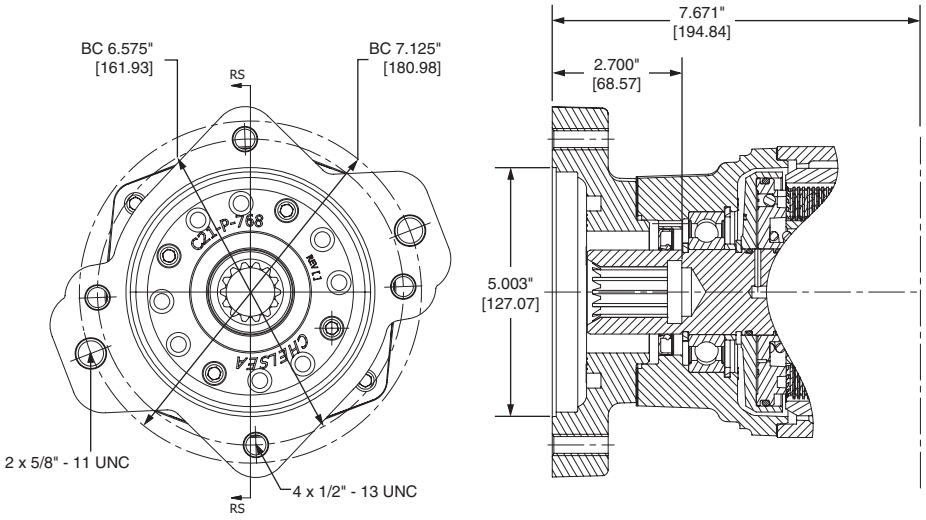
Available for the following P.T.O.s:
870



Suffix RS

S.A.E. Class “C” 2 or 4-Bolt
For 1.25" - 14 Tooth Splined Shaft

Available for the following P.T.O.s:
870



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

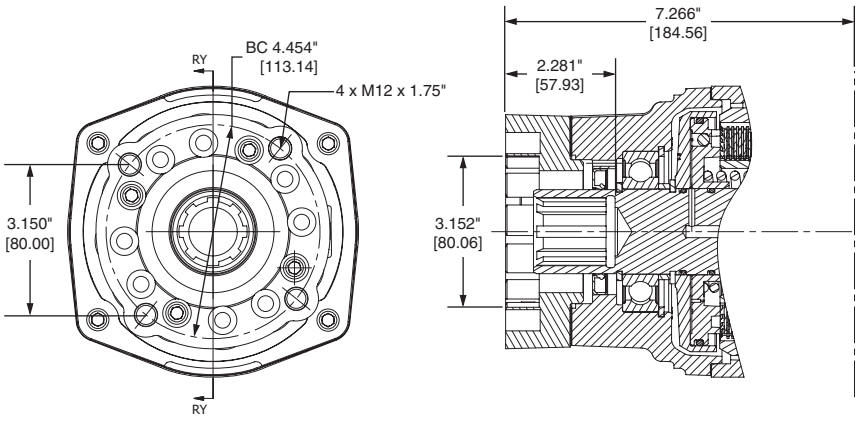
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Suffix RY

Rotatable DIN 5462 Flange

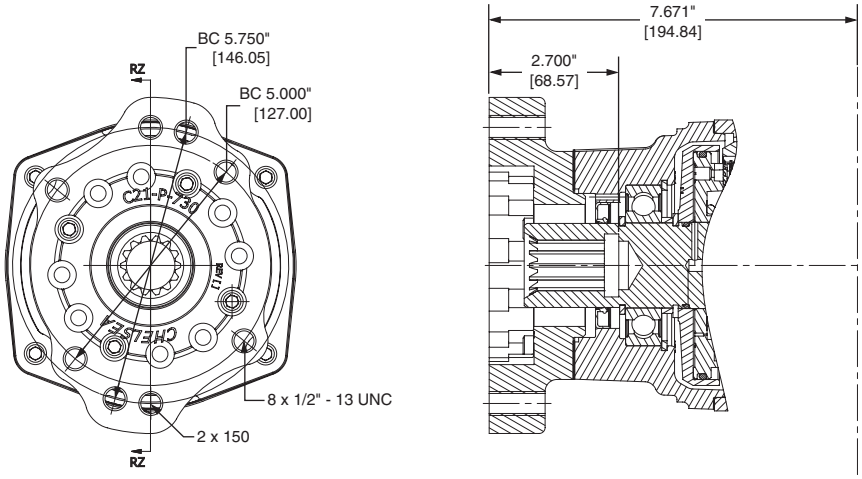
Available for the following P.T.O.s:
870



Suffix RZ

Rotatable S.A.E. “B” 2 or 4-Bolt
For 1.25" - 14 Tooth Spline and Shaft

Available for the following P.T.O.s:
870



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

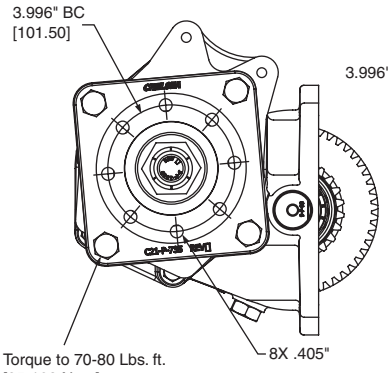
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

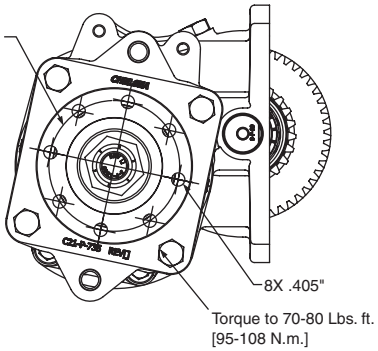
Technical

Suffix AB
DIN 120 Companion Flange

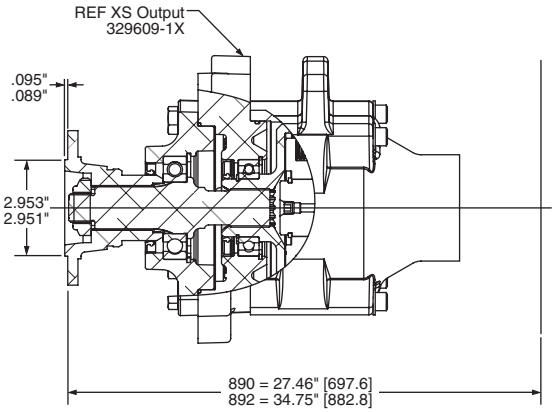
Available for the following P.T.O.s:
890, 892



Ass'y "3"



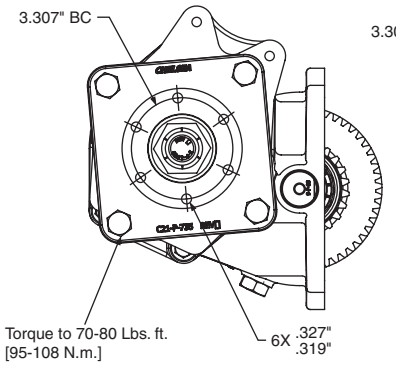
Ass'y "5"



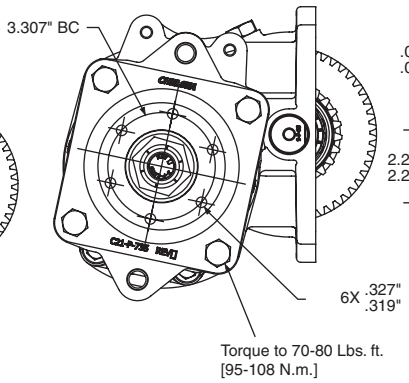
Ass'y "3" & "5"

Suffix AC
DIN 100 Companion Flange

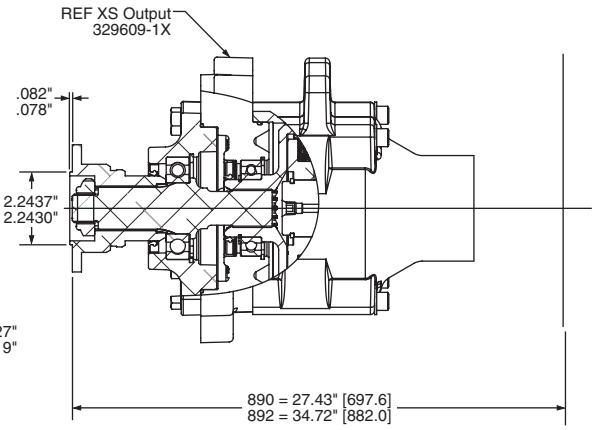
Available for the following P.T.O.s:
890, 892



Ass'y "3"



Ass'y "5"



Ass'y "3" & "5"

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

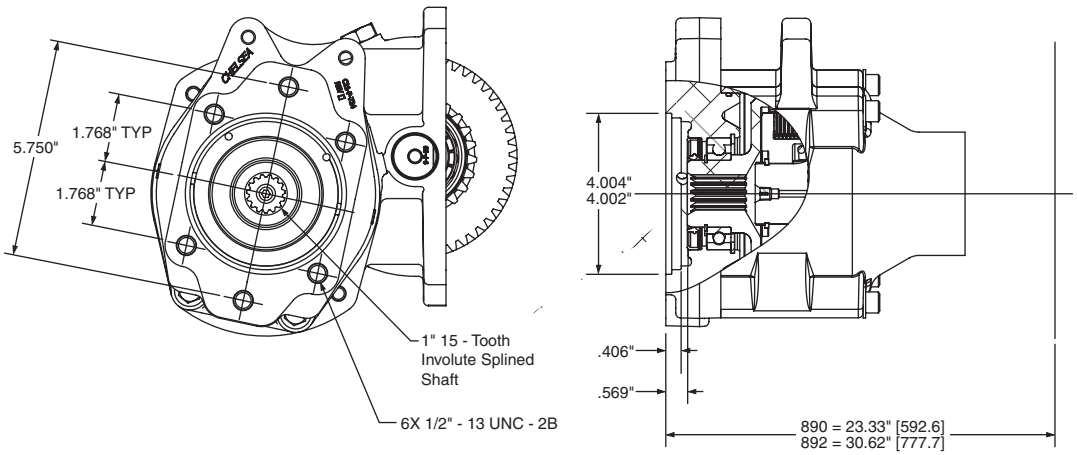
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix AF

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “BB” Shaft (1.00") 15T Involute Spline

Available for the following P.T.O.s:
890, 892

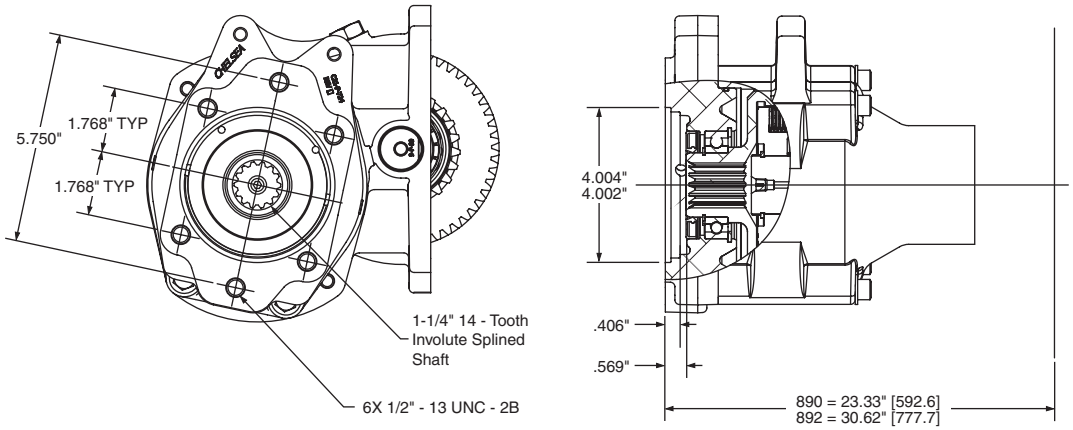


Ass’y “5”

Suffix AZ

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “C” Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
890, 892



Ass’y “5”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

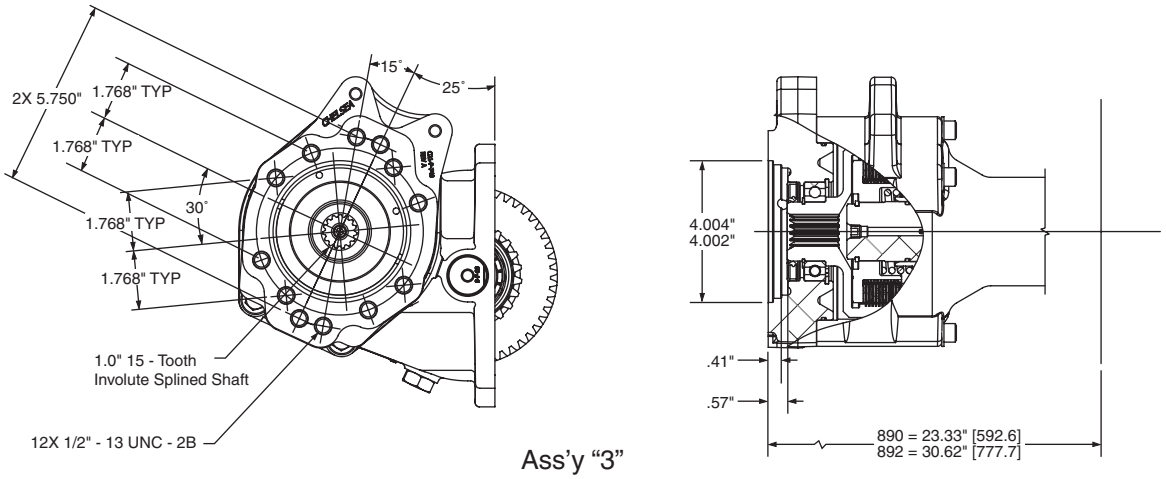
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix CF

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “BB” Shaft (1.00") 15T Involute Spline

Available for the following P.T.O.s:
890, 892

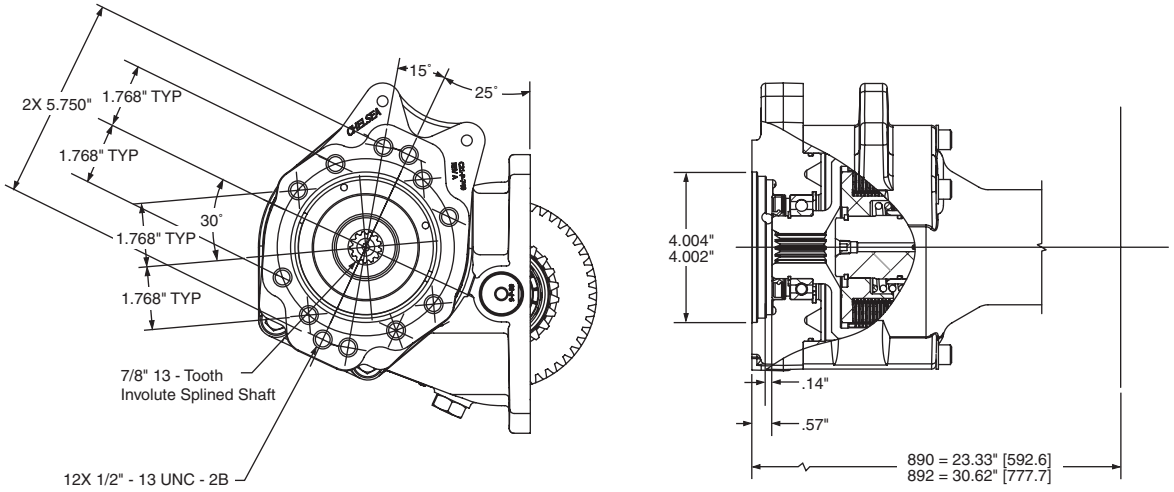


Ass’y “3”

Suffix CK

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “B” Shaft (7/8") 13T Involute Spline

Available for the following P.T.O.s:
890, 892



Ass’y “3”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

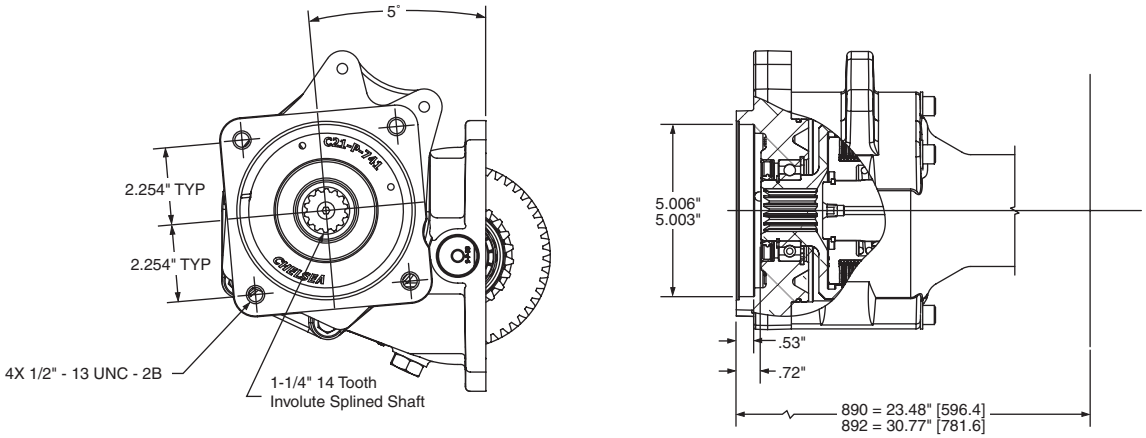
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix CS

S.A.E. Class “C” Pilot (5.000") 4-Bolt Flange
S.A.E. Class “C” Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
890, 892

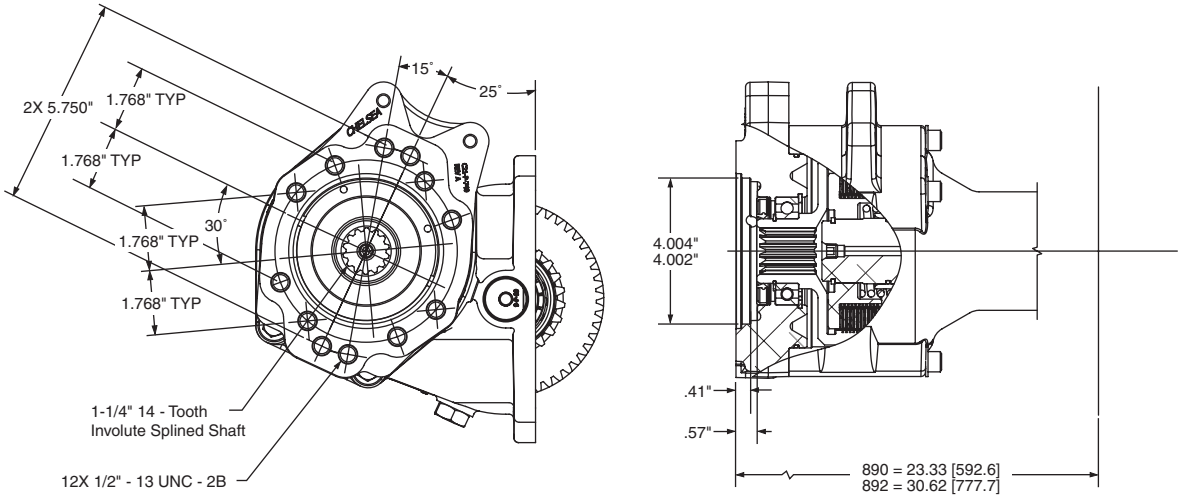


Ass’y “3”

Suffix CZ

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “C” Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
890, 892



Ass’y “3”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

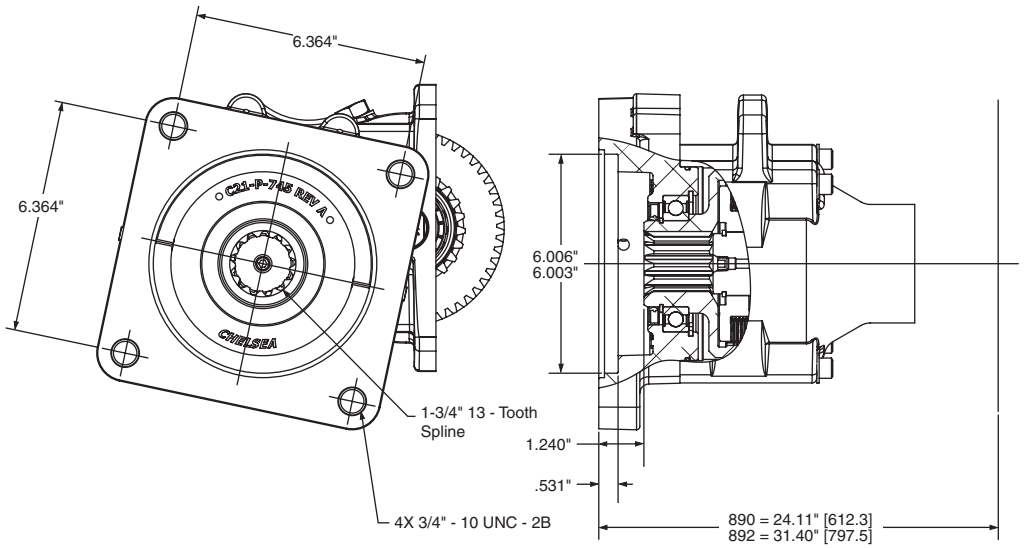
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix DA

S.A.E. Class “D” Pilot (6.000") 4-Bolt Flange
S.A.E. Class “D” Shaft (1.75") 13T Involute Spline

Available for the following P.T.O.s:
890, 892

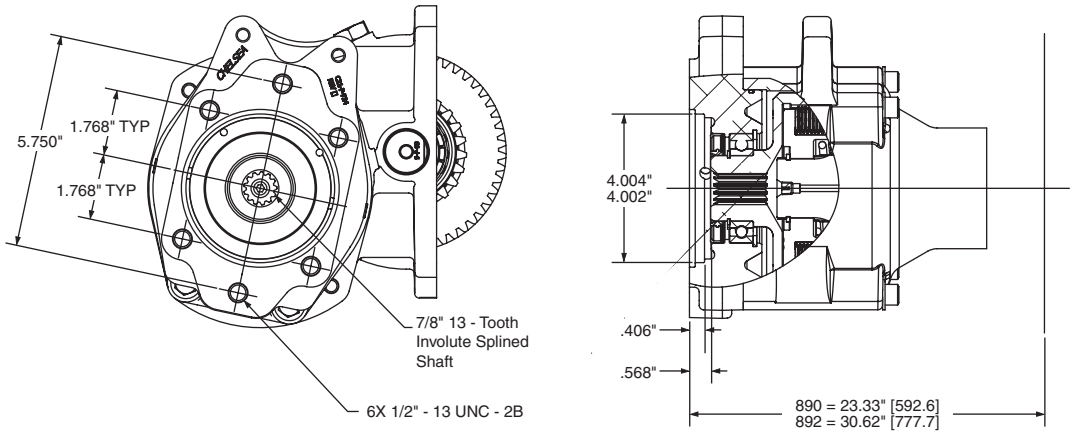


Ass’y “5”

Suffix XK

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “B” Shaft (7/8") 13T Involute Spline

Available for the following P.T.O.s:
890, 892



Ass’y “5”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

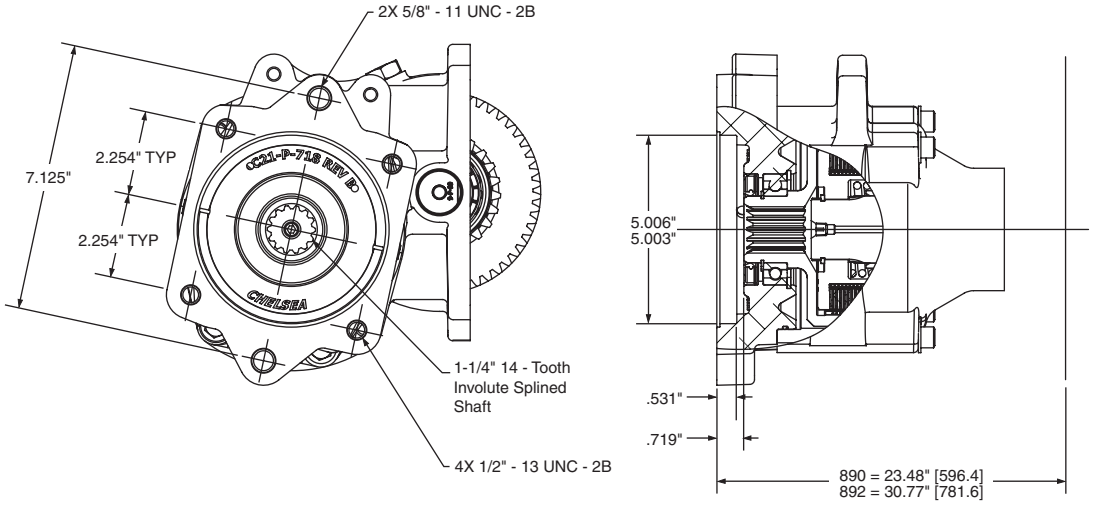
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XS

S.A.E. Class “C” Pilot (5.000") 2 or 4-Bolt Flange
S.A.E. Class “C” Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
890, 892

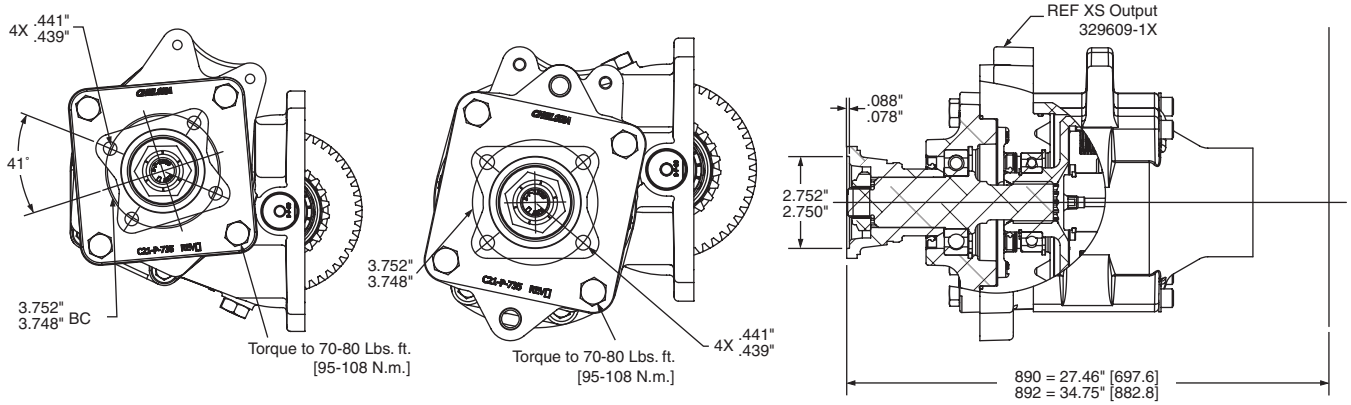


Ass’y “5”

Suffix XV

1410 Companion Flange

Available for the following P.T.O.s:
890, 892



Ass’y “3” Ass’y “5” Ass’y “3” & “5”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

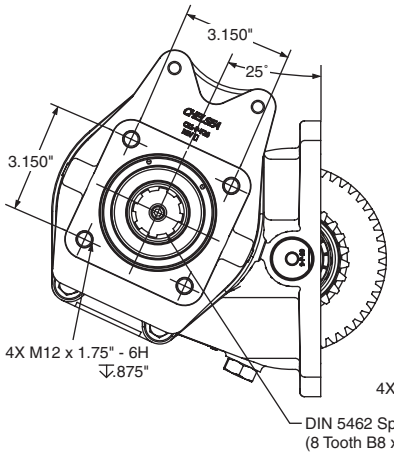
Technical

Technical

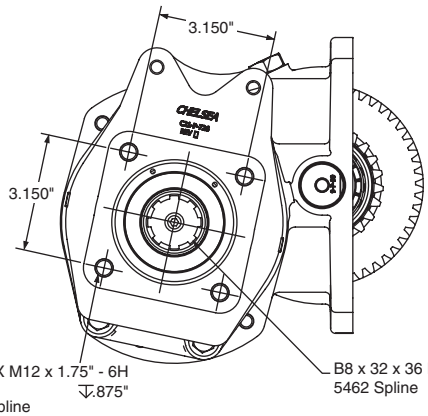
Suffix XY

DIN 5462 Pump Mounting

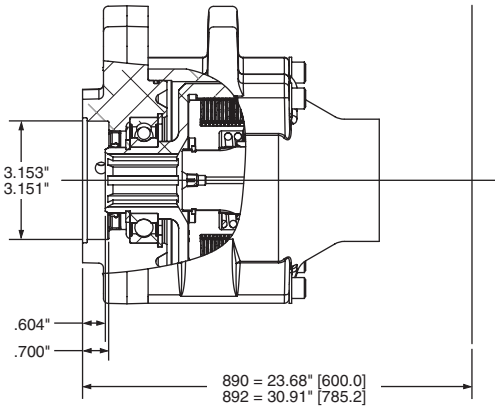
Available for the following P.T.O.s:
890, 892



Ass'y "3"



Ass'y "5"

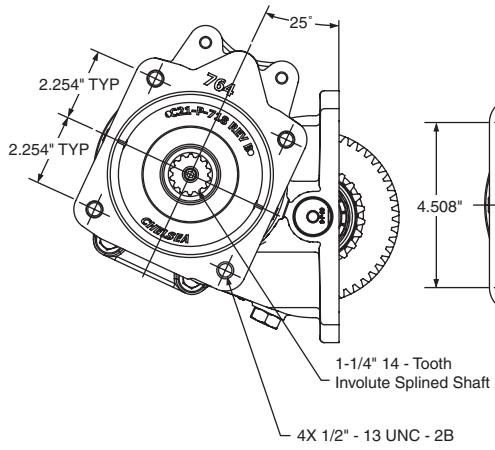


Ass'y "3" & "5"

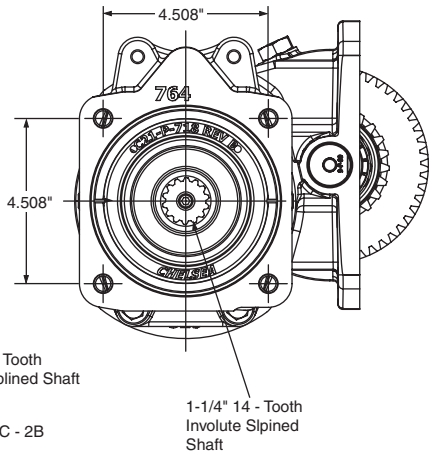
Suffix ZS

S.A.E. Class "C" Pilot (5.000") 4-Bolt Flange
S.A.E. Class "C" Shaft (1.25") 14T Involute Spline

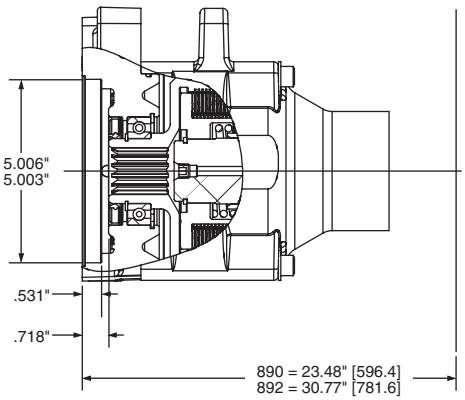
Available for the following P.T.O.s:
890, 892



Ass'y "3"



Ass'y "5"



Ass'y "3" & "5"

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Installation Kits

Series Applicaton	Electric Over Hydraulic w/ Remote Valve		Electric Over Hydraulic		P.T.O./ Dump Pump Combo Valve (S)	P.T.O./Dump Pump Combo Valve less Kick Out & Spring Return (T)
	12 Volt	24 Volt	12 Volt	24 Volt		
Allison (FJ)						
277/278 w/o E.O.C.	329237-12X	329237-24X	329024-12X	329024-24X	328388-85X	328388-86X
859 w/o E.O.C.	329237-12X	329237-24X	329024-12X	329024-24X		
870 w/o E.O.C.	329237-12X	329237-24X	329024-12X	329024-24X		
890 w/o E.O.C.	329653-12X	329653-24X	329024-12X	329024-24X		
277/278 w/ E.O.C.			329076X	329076X		
859 w/ E.O.C.			329076X	329076X		
870 w/ E.O.C.			329076X	329076X		
890 w/ E.O.C.			329076X	329076X		
Caterpillar (KV)						
277/278 w/o E.O.C.	329445-12X	329445-24X	329443-12X	329443-24X	328388-85X	328388-86X
859 w/o E.O.C.	329445-12X	329445-24X	329443-12X	329443-24X	328388-85X	328388-86X
870 w/o E.O.C.	329445-12X	329445-24X	329443-12X	329443-24X		
277/278 w/ E.O.C.			329444X	329444X		
859 w/ E.O.C.			329444X	329444X		
870 w/ E.O.C.			329444X	329444X		

NOTE: Controls for Electronic Over Speed Control (E.O.C.) - 329650X

Conversion Kits

Series Applicaton	Electric Over Hydraulic w/ Remote Valve		Electric Over Hydraulic	
	12 Volt	24 Volt	12 Volt	24 Volt
Allison (FJ)				
277/278 w/o E.O.C.	329354-12X	329354-24X		
859 w/o E.O.C.	329354-12X	329354-24X		
870 w/o E.O.C.	329354-12X	329354-24X		
277/278 w/ E.O.C.			329175-12X	329175-24X
859 w/ E.O.C.			329175-12X	329175-24X
			329175-12X	329175-24X
Caterpillar (KV)				
277/278 w/o E.O.C.	329447-12X	329447-24X		
859 w/o E.O.C.	329447-12X	329447-24X		
870 w/o E.O.C.	329447-12X	329447-24X		
277/278 w/ E.O.C.			329448-12X	329448-24X
859 w/ E.O.C.			329448-12X	329448-24X
870 w/ E.O.C.			329448-12X	329448-24X

Technical

P.T.O. Options Chart

P.T.O. Series		267*	269	867	877	897	897C	899
Lubrication								
P	Pressure Lube	x		x				
W	Wet Spline	x	x			x		
Shifting								
M	Constant Engagement No Shifter	x	x	x		x	x	
Output								
AB	DIN 120 Flange			x	x	x	x	x
AC	DIN 100 Flange			x	x	x	x	x
AF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	w		x(w)		w		w
AK	S.A.E. “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	w						
AW	S.A.E. 2 or 4-Bolt “C” Shaft (1.25" - 14 Tooth)	x						
AZ	S.A.E. “B” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)	x				w		w
CS	S.A.E. “C” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)						w	
CK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)						w	
CF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)						w	
CZ	S.A.E. “B” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)						w	
GA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x						
GB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x						
GE	Rotatable S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth) (Greaseable)	x						
GF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x						
GH	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x						
GJ	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)	x						
GK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x						
GQ	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x						
GR	CHELSEA SPECIAL Pump Mount, “B” Shaft (7/8" - 13 Tooth) (Greaseable)	x						
GY	DIN 5462 Pump Mounting (Greaseable)	x						
GZ	Non Standard Flange, “C” Shaft (1-1/4" - 14 Tooth) (Greaseable)	x						
PA	Special Rotatable S.A.E. “B” 2-Bolt Flange for Parker P Series Sculptured Pump, “B” Shaft (7/8" - 13 Tooth)	x						
PF	Special Rotatable S.A.E. “B” 2-Bolt Flange for Parker P Series Sculptured Pump, “BB” Shaft (1.00" - 15 Tooth)	x						
RA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x						
RB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x						
RC	Rotatable “A” 2-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x						
RD	Rotatable “A” 2-Bolt Flange, “B” Shaft (7/8" - 13 T)	x						
RE	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x						
RH	Rotatable S.A.E. “A” 2-Bolt w/ S.A.E. 19-4 (3/4" - 11 Tooth Shaft)	x						
RJ	Rotatable “B” 2 or 4-Bolt w/ “BB” Shaft (1.00" - 15 Tooth)	x						
RF	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x						
RS	Rotatable “C” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14T)				x(w)			
RY	Rotatable DIN 5462 Pump Flange	w			x(w)			
RZ	Rotatable S.A.E. “B” 2/4-Bolt, “C” Shaft (1.25" - 14 Tooth)				x(w)			
WF	S.A.E. “B” 2 or 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) Wet Spline Only	w						
XD	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x						
XE	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x						
XK	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)					w		w
XQ	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x						
XR	Non Standard Flange, “B” Shaft (7/8" - 13 Tooth)	x						
XS	S.A.E. “C” 2 or 4-Bolt Flange, “C” Shaft (1.25" - 14 Tooth)			x(w)		w		w
XV	10 Tooth Straight Spline Shaft w/ 1410 Flange (3-1-3881)			x	x	x	x	x
XX	1-1/4" S.A.E. Tapered Shaft w/ keyway	x						
XY	DIN 5462 Pump Mounting	x	w	x		w	w	w
ZS	S.A.E. “C” 4-Bolt Flange w/ “C” Shaft (1.25" - 14 Tooth)					w	w	

* Any 267 Series using a “3” Arrangement Requiring a S.A.E. “B” Output Must use the “XQ” or “AK” Output Option Due to Interference Between the “XK” Flange and the Pressure Lube Fitting.

(w) = Wet Spline Flange Option Must use the “W” Lube Option for this Output

NOTE: Always Check Price Book for Current Options

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

For converting Chelsea Powershift P.T.O.s from a driveshaft output (XD or XV) to a pump flange output and/or a wet spline output.

267 Series

Pump Suffix	Kit Number	Assembly	Flange Type	Shaft Type
AF	328591-129X	3,4,5,6	S.A.E. “B” 2 or 4-Bolt	1.0" - 15 Tooth Spline
AK	328591-141X	3,4,5,6	S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
AZ	328591-70X	3,4,5,6	Non Standard 4-Bolt	1-1/4" - 14 Tooth Spline
AW	328591-129X	3,4,5,6	S.A.E. “B” 2 or 4-Bolt	1-1/4" - 14 Tooth Spline
GA	328591-72X	3,4,5,6	Greaseable Rot. S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
GB	328591-74X	3,4,5,6	Greaseable Rot. S.A.E. “B” 4-Bolt	7/8" - 13 Tooth Spline
GF	328591-71X	3,4,5,6	Greaseable S.A.E. “B” 2 or 4-Bolt	1.0" - 15 Tooth Spline
GH	328591-116X	3,4,5,6	Greaseable S.A.E. “BB” 2-Bolt	1.0" - 15 Tooth Spline
GJ	328591-138X	3,4,5,6	Rotatable “B” 2-Bolt Flange, “BB” Shaft Greaseable	1.0" - 15 Tooth Spline
GK	328591-89X	3,4,5,6	Greaseable S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Spline
GQ	328591-91X	3,4,5,6	Greaseable S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Spline
GR	328591-76X	3,4,5,6	Greaseable CHELSEA SPECIAL	7/8" - 13 Tooth Spline
GY	328591-92X	3,4,5,6	Greaseable DIN 5462	DIN 5462
GZ	328591-93X	3,4,5,6	Greaseable Non-Standard 4-Bolt	1-1/4" - 14 Tooth Spline
PA	328591-143X	3,4,5,6	Rotatable S.A.E. “B” 2-Bolt for Parker P Series Sculptered Pump	7/8" - 13 Tooth Spline
PF	328591-142X	3,4,5,6	Rotatable S.A.E. “B” 2-Bolt for Parker P Series Sculptered Pump	1.0" - 15 Tooth Spline
RA	328591-55X	3,4,5,6	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RA (XR to RA)	328591-53X	3,4,5,6	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RB	328591-56X	3,4,5,6	Rotatable S.A.E. “B” 4-Bolt	7/8" - 13 Tooth Spline
RB (XR to RB)	328591-54X	3,4,5,6	Rotatable S.A.E. “B” 4-Bolt	7/8" - 13 Tooth Spline
RC	328591-112X	3,4,5,6	Rotatable S.A.E. “A” 2-Bolt	5/8" - 9 Tooth Spline
RD	328591-113X	3,4,5,6	Rotatable S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Spline
RE	328591-134X	3,4,5,6	Rotatable “B” 4-Bolt Flange, “BB” Shaft	1.0" - 15 Tooth Spline
RF	328591-78X	3,4,5,6	Rotatable S.A.E. “B” 2-Bolt	1.0" - 15 Tooth Spline
RY	328591-132X	3,4,5,6	Rotatable DIN 5462	DIN 5462
XE	328591-27X	3,4,5,6	S.A.E. “A” 2 or 4-Bolt	5/8" - 9 Tooth Spline
XK	328591-16X	4,5,6	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Spline
XQ	328591-17X	3,4,5,6	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Spline
XR	328591-52X	3,4,5,6	CHELSEA SPECIAL	7/8" - 13 Tooth Spline
XY	328591-121X	3,4,5,6	DIN 5462	DIN 5462

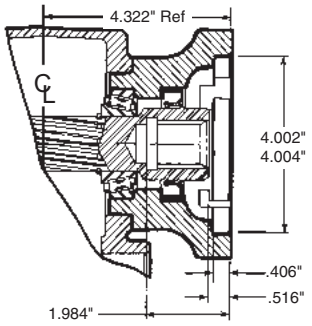
Continued on next page

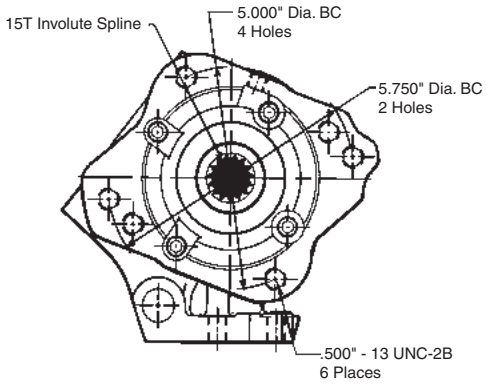
Technical

Suffix AF

S.A.E. Class “BB” 2 or 4-Bolt
For 1" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
267

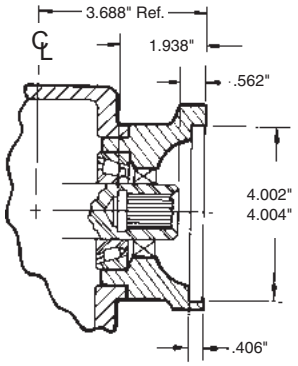


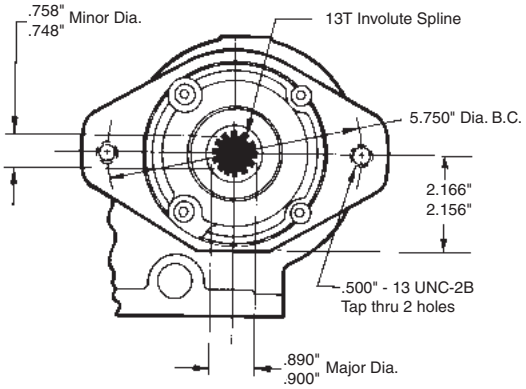


Suffix AK

S.A.E. Class “B” 2-Bolt
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
267

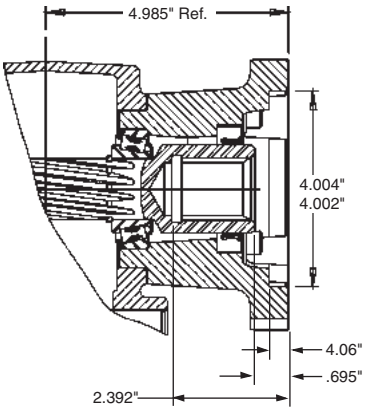


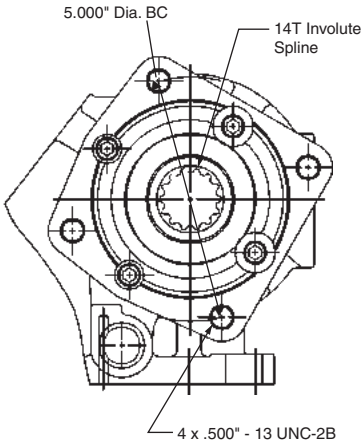


Suffix AZ

S.A.E. Class “B” 4-Bolt
For 1-1/4" - 14 Tooth Splined Shaft

Available for the following P.T.O.s:
267





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

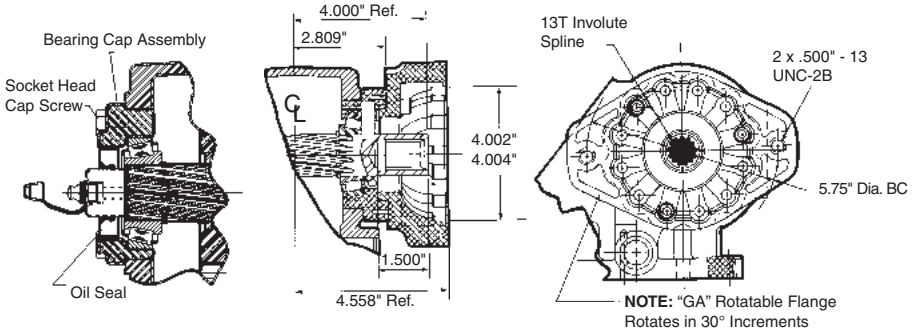
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix GA

S.A.E. Class “B” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

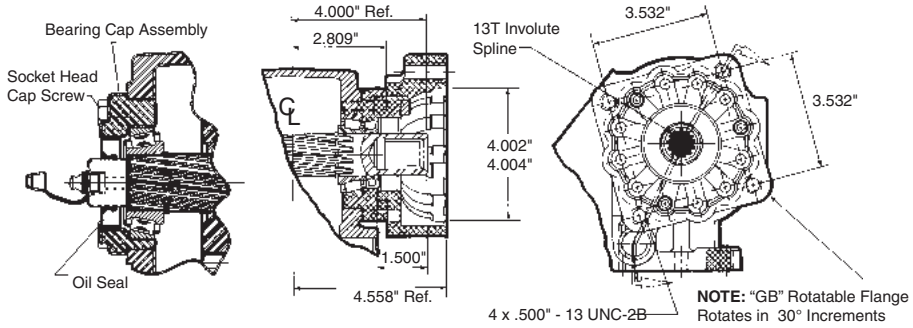
Available for the following P.T.O.s:
267



Suffix GB

S.A.E. Class “B” 4-Bolt Rotatable,
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

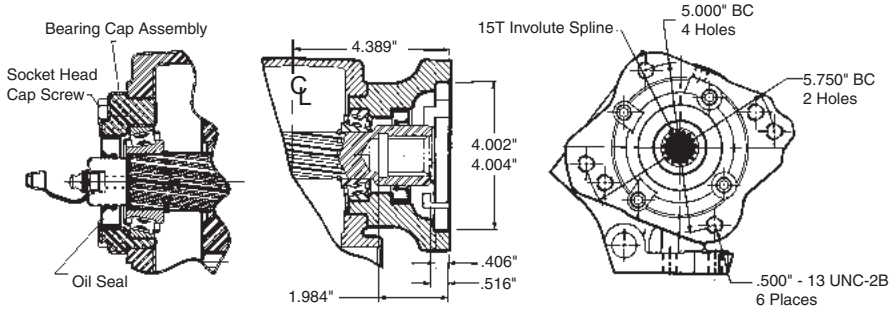
Available for the following P.T.O.s:
267



Suffix GF

S.A.E. Class “BB” 2 or 4-Bolt
For 1" - 15 Tooth Splined Shaft,
(*Greaseable)

Available for the following P.T.O.s:
267



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

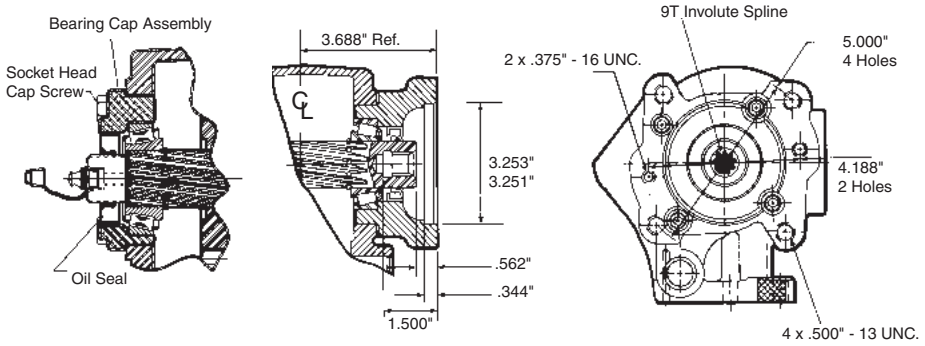
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix GE

S.A.E. Class “A” 2 or 4-Bolt
For 5/8" - 9 Tooth Splined Shaft,
(*Greaseable)

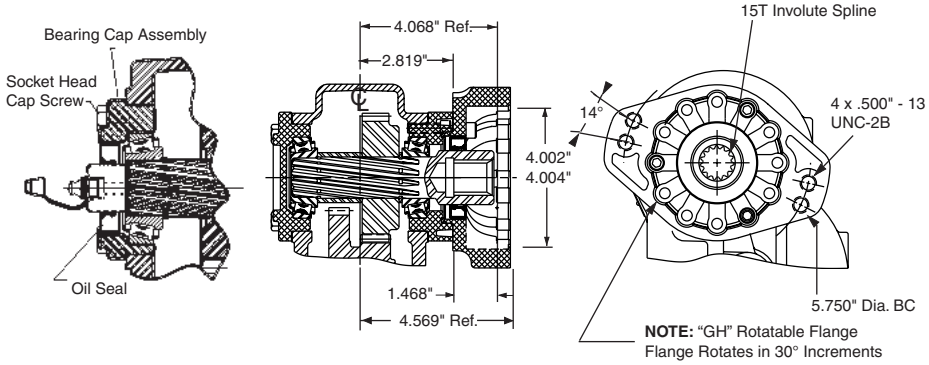
Available for the following P.T.O.s:
267



Suffix GH

S.A.E. Class “BB” 2-Bolt Rotatable
For 1" - 15 Tooth Splined Shaft,
(*Greaseable)

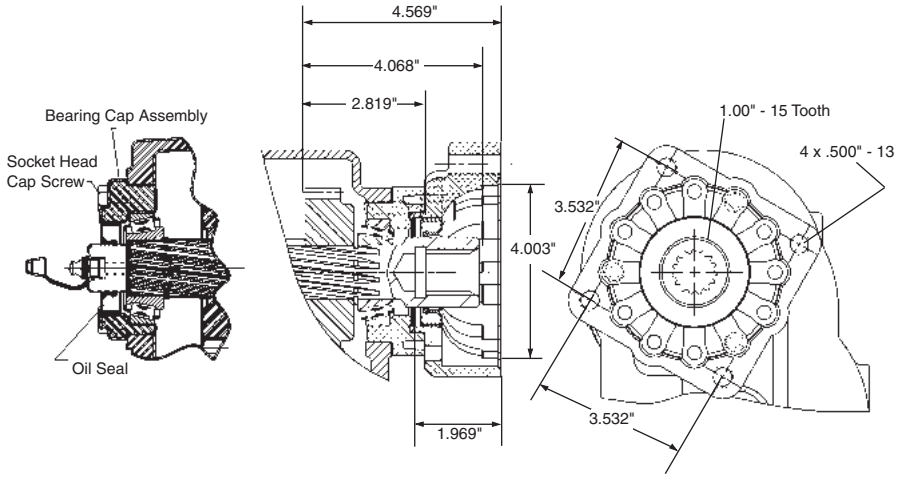
Available for the following P.T.O.s:
267



Suffix GJ

S.A.E. Class “B” 4-Bolt Rotatable
For 1" - 15 Tooth Splined Shaft,
(*Greaseable)

Available for the following P.T.O.s:
267



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

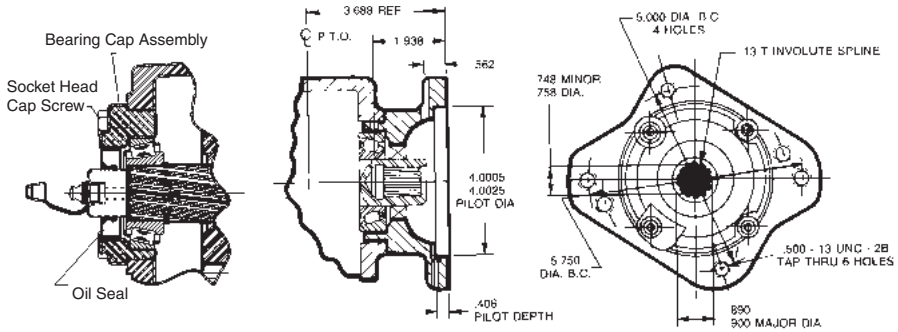
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix GK

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

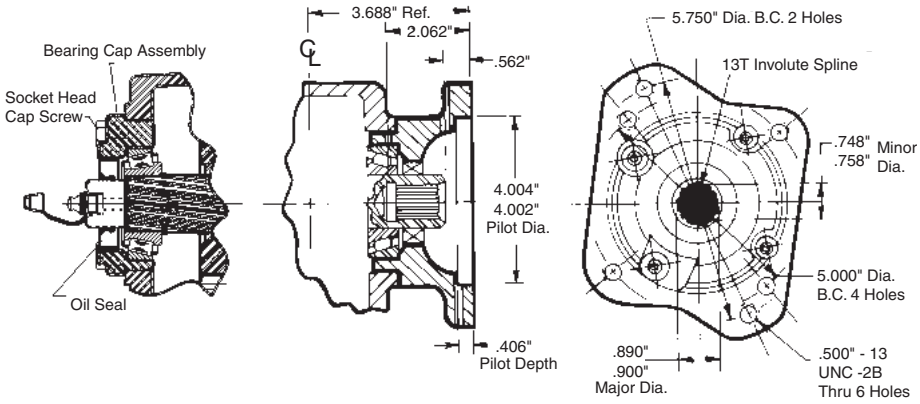
Available for the following P.T.O.s:
267



Suffix GQ

S.A.E. Class “B” 2-Bolt
For 7/8" - 15 Tooth
(*Greaseable)

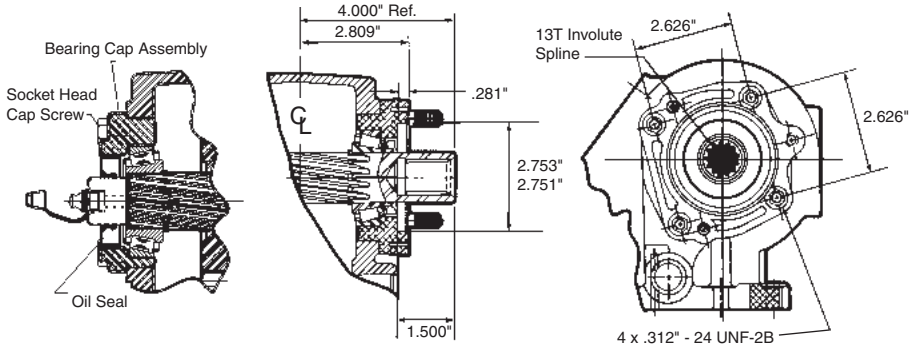
Available for the following P.T.O.s:
267



Suffix GR

For Chelsea Pumps
For 7/8" - 13 Tooth Splined Shaft,
(*Greaseable)

Available for the following P.T.O.s:
267



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

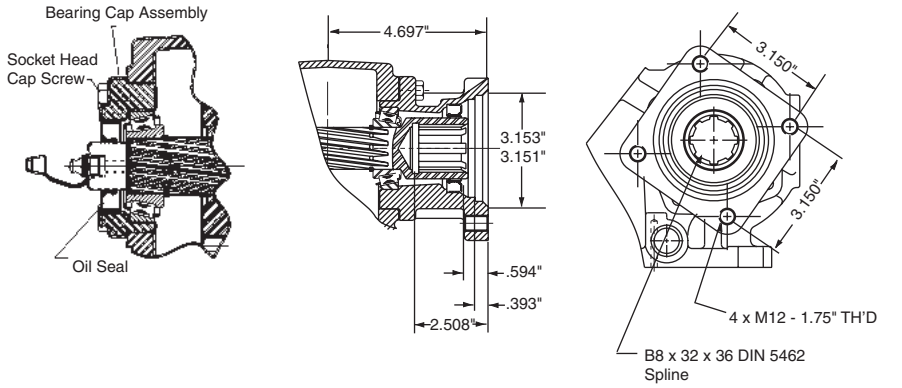
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix GY

DIN 5462
Pump Mounting
(*Greaseable)

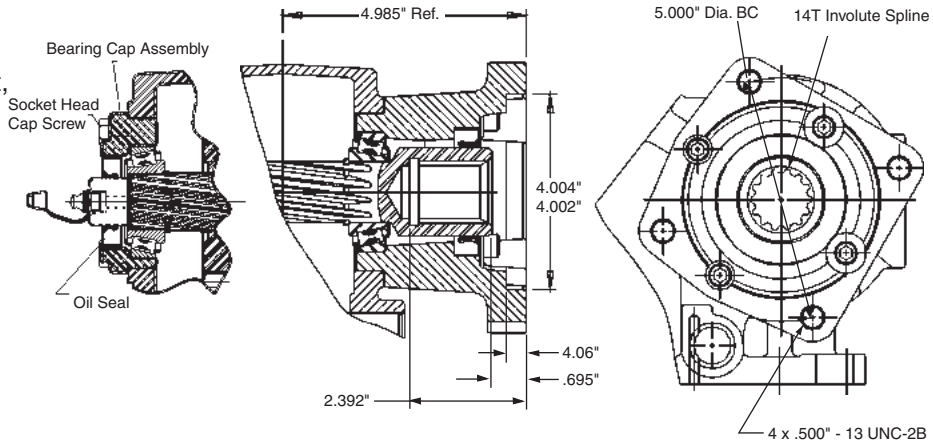
Available for the following P.T.O.s:
267



Suffix GZ

S.A.E. Class "B" 4-Bolt
For 1-1/4" - 14 Tooth Splined Shaft,
(*Greaseable)

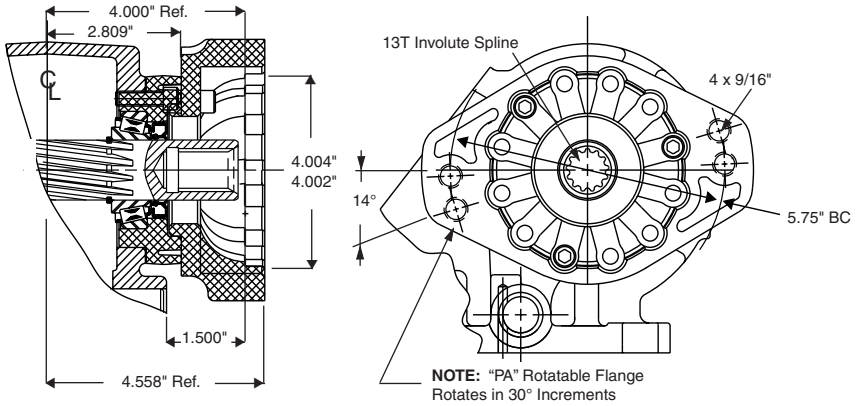
Available for the following P.T.O.s:
267



Suffix PA

S.A.E. Class "B" 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
267



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

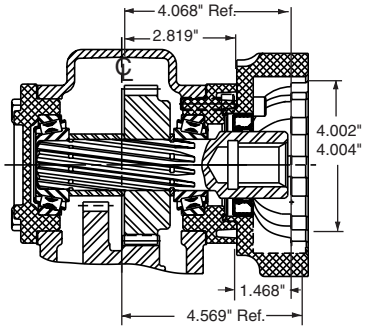
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

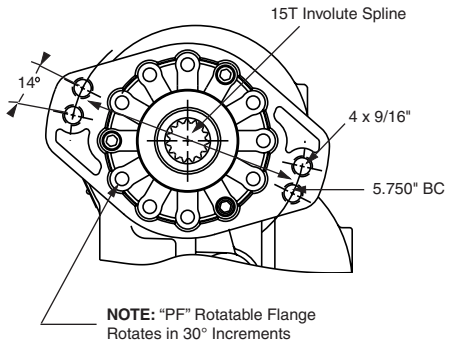
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix PF

S.A.E. Class “BB” 2-Bolt Rotatable
For 1" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
267

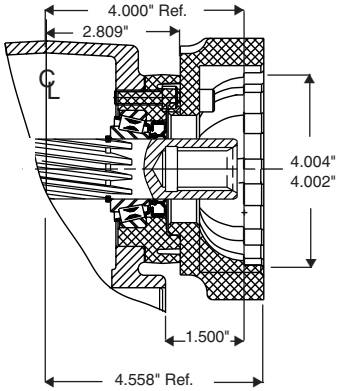


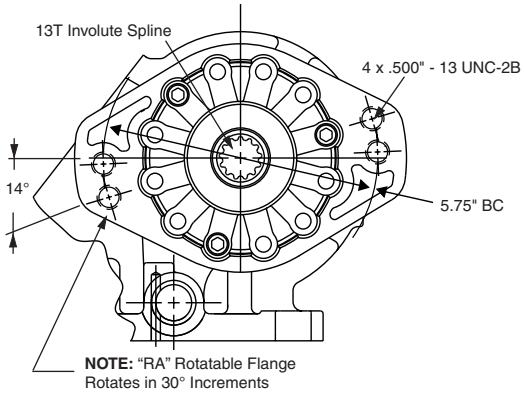


Suffix RA

S.A.E. Class “B” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
267

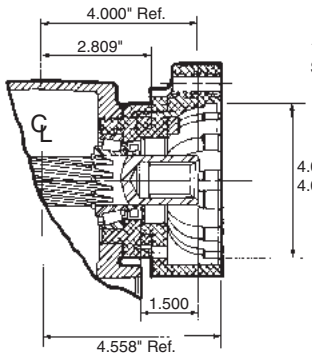


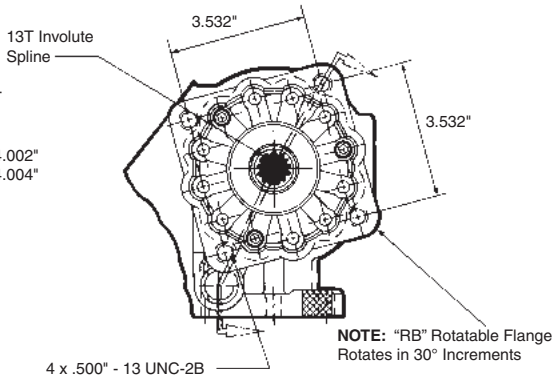


Suffix RB

S.A.E. Class “B” 4-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
267





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

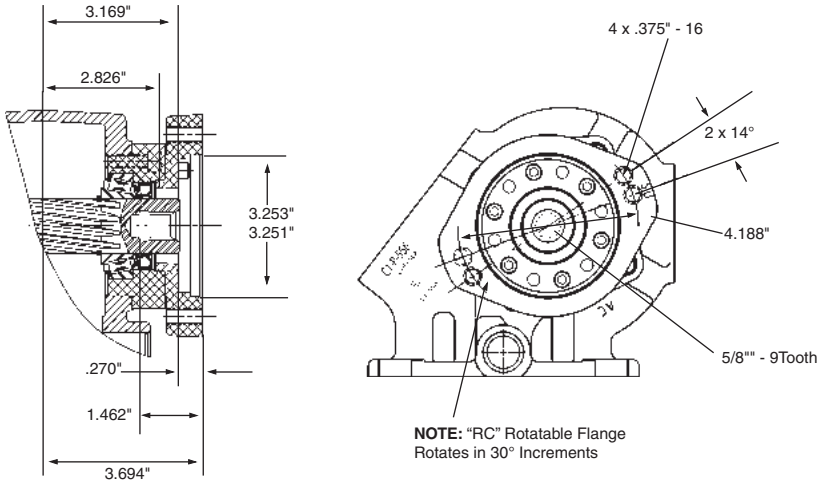
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix RC

S.A.E. Class “A” 2-Bolt Rotatable
For 5/8" - 9 Tooth Splined Shaft

Available for the following P.T.O.s:
267

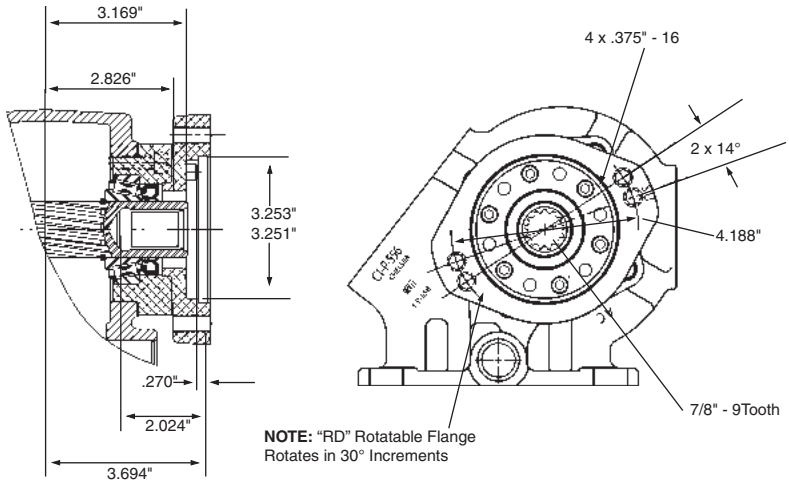


NOTE: “RC” Rotatable Flange
Rotates in 30° Increments

Suffix RD

S.A.E. Class “A” 2-Bolt Rotatable
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
267

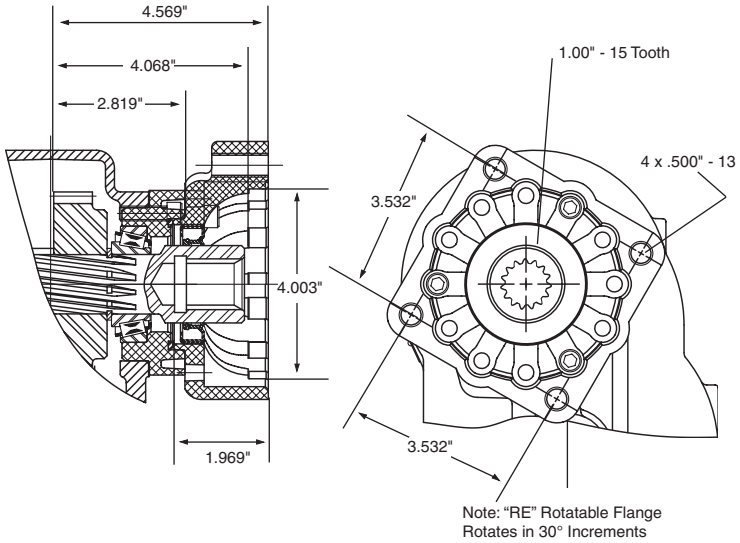


NOTE: “RD” Rotatable Flange
Rotates in 30° Increments

Suffix RE

S.A.E. Class “B” 4-Bolt Rotatable
For 1.00" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
267



Note: “RE” Rotatable Flange
Rotates in 30° Increments

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

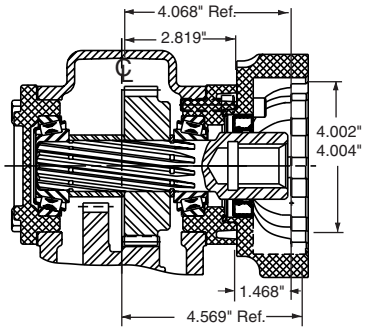
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

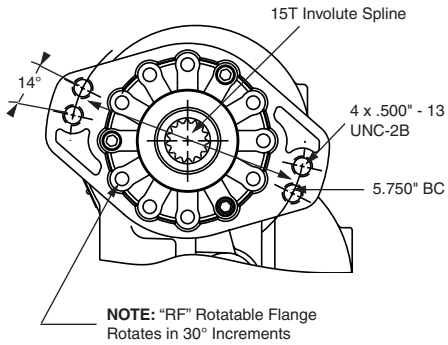
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix RF

S.A.E. Class “BB” 2-Bolt Rotatable
For 1" - 15 Tooth Splined Shaft

Available for the following P.T.O.s:
267

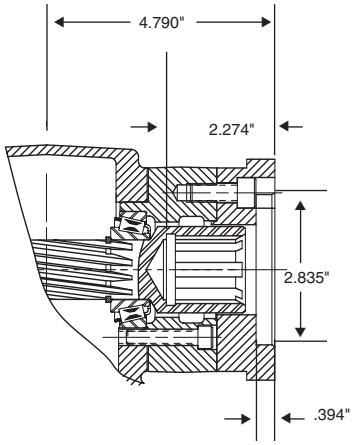


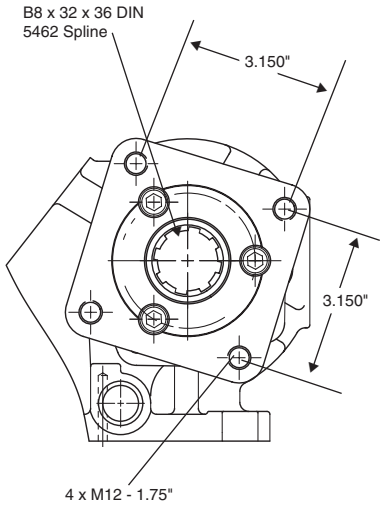


Suffix RY

DIN 5462 Pump Mounting

Available for the following P.T.O.s:
267

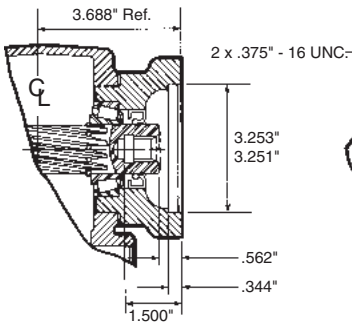


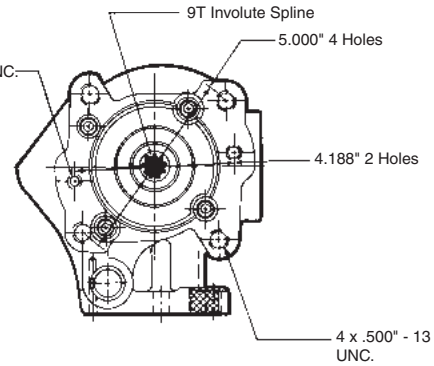


Suffix XE

S.A.E. Class “A” 2 or 4-Bolt
For 5/8" - 9 Tooth Splined Shaft

Available for the following P.T.O.s:
267





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

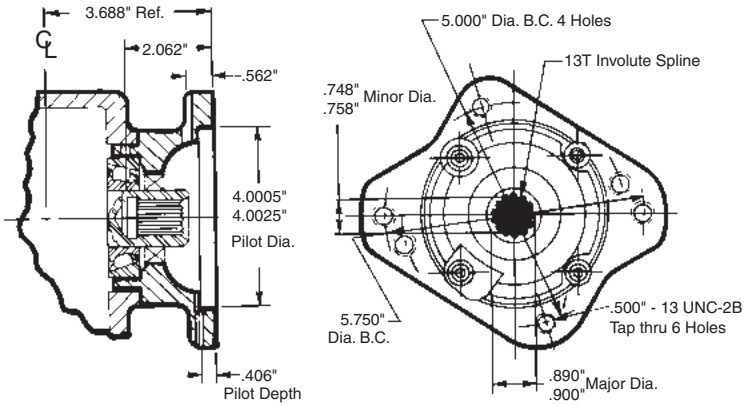
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix XK

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

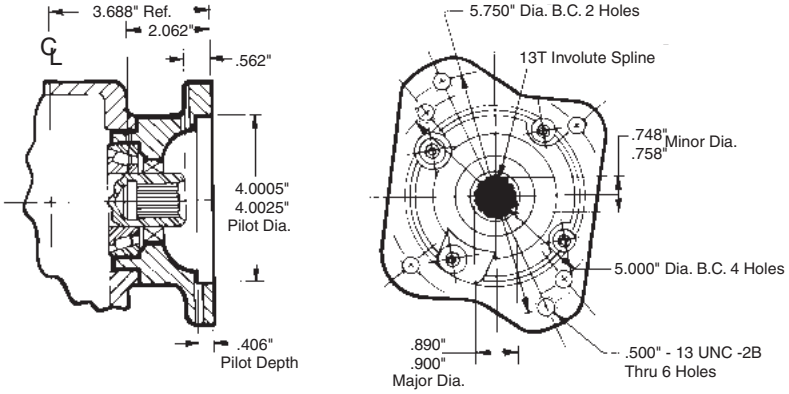
Available for the following P.T.O.s:
267



Suffix XQ

S.A.E. Class “B” 2 or 4-Bolt
For 7/8" - 13 Tooth Splined Shaft

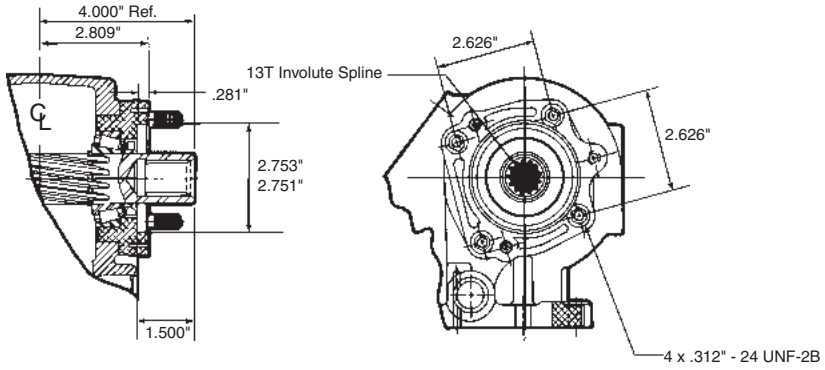
Available for the following P.T.O.s:
267



Suffix XR

For Chelsea Pumps
For 7/8" - 13 Tooth Splined Shaft

Available for the following P.T.O.s:
267



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

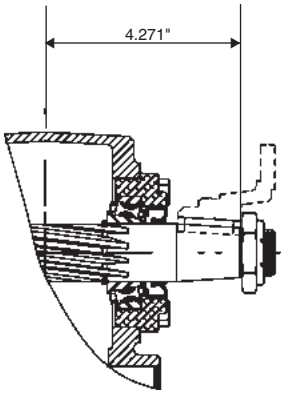
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XX

1-1/4" S.A.E. Tapered Shaft w/keyway
For Companion Flange 3-1-604

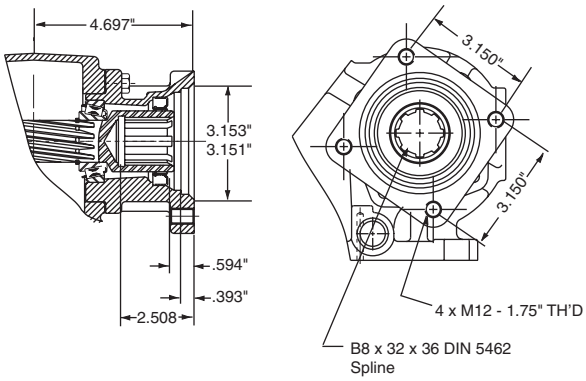
Available for the following P.T.O.s:
267



Suffix XY

DIN 5462 Pump Mounting

Available for the following P.T.O.s:
267



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

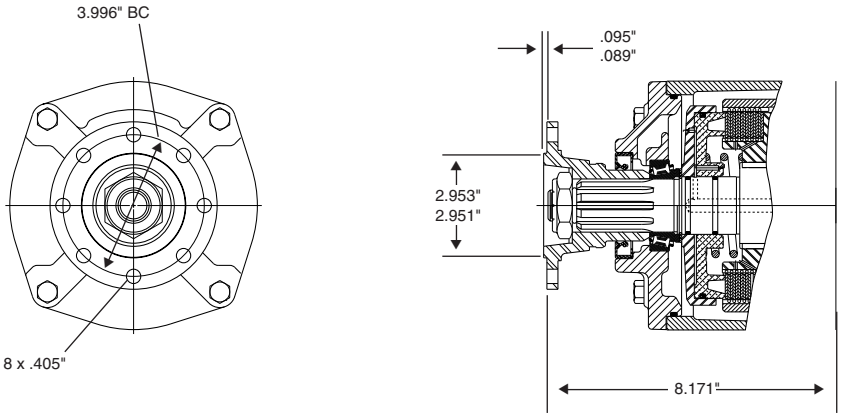
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

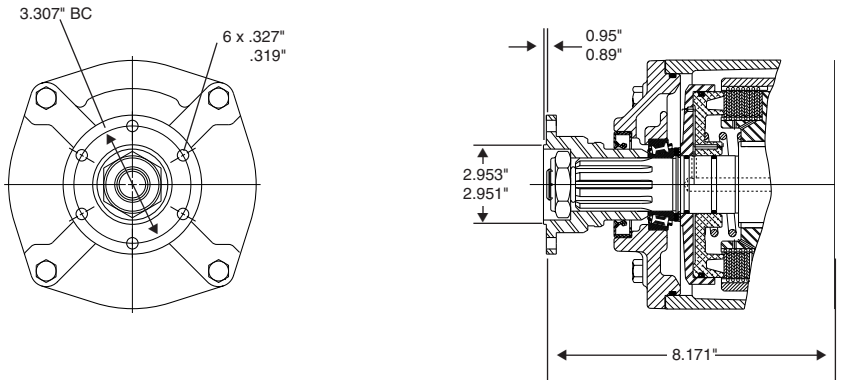
Suffix AB
DIN 125 Flange

Available for the following P.T.O.s:
859



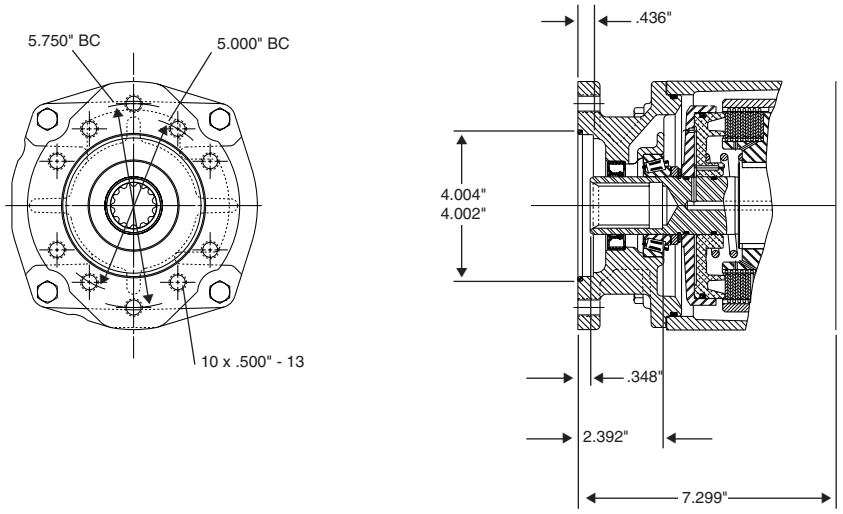
Suffix AC
DIN 100 Flange

Available for the following P.T.O.s:
859



Suffix AZ
S.A.E. Class “B” 2 or 4-Bolt
for 1.25" - 14 Tooth Splined Shaft

Available for the following P.T.O.s:
859



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

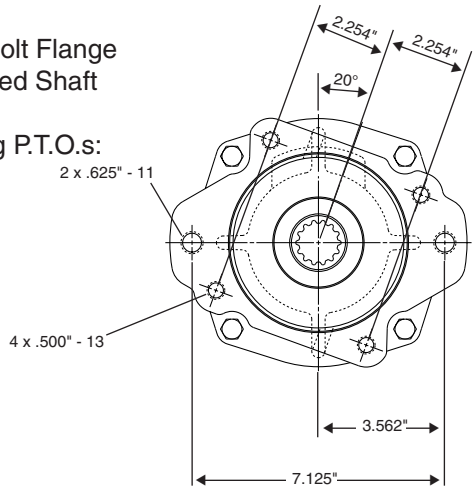
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

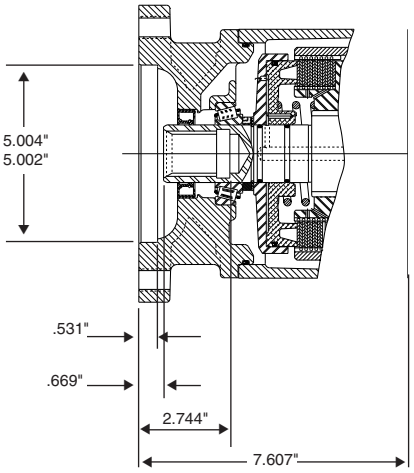
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XS

S.A.E. Class “C” 2 or 4-Bolt Flange
for 1.25" - 14 Tooth Splined Shaft

Available for the following P.T.O.s:
859

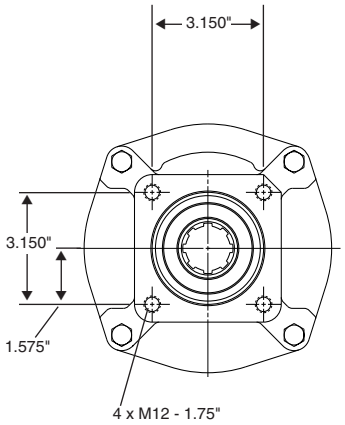


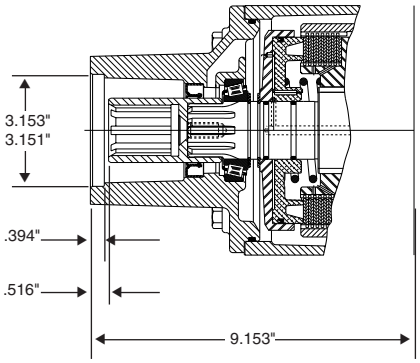


Suffix XY

DIN 5462 for 8 Tooth DIN Spline
(B8 x 32 x 36)

Available for the following P.T.O.s:
859





Technical

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

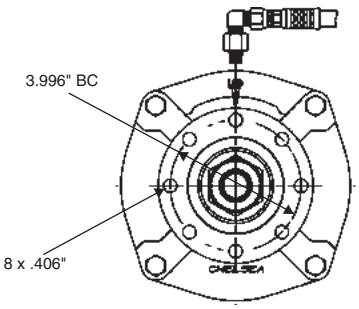
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

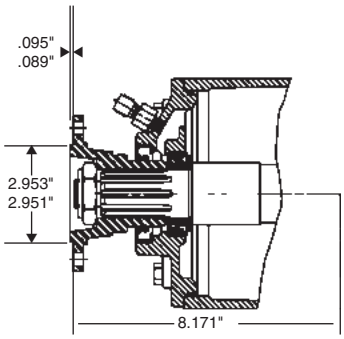
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

Suffix AB
DIN 120 Flange

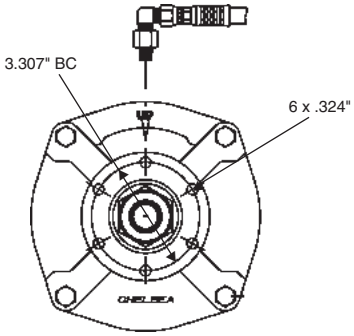
Available for the following P.T.O.s:
867

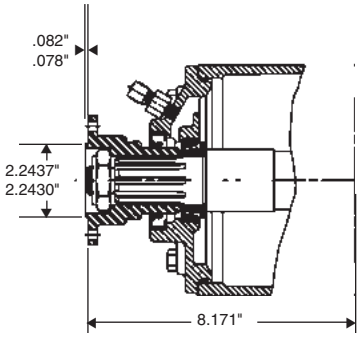




Suffix AC
DIN 100 Flange

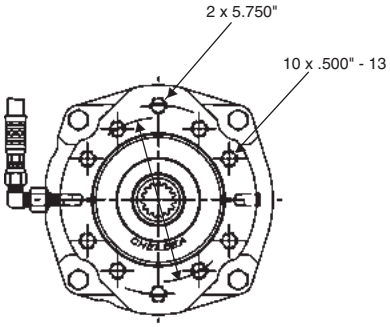
Available for the following P.T.O.s:
867

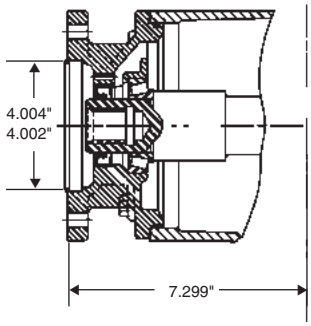




Suffix AF
S.A.E. Class “B” 2 or 4-Bolt Flange
For 1.00" - 15 Tooth

Available for the following P.T.O.s:
867





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

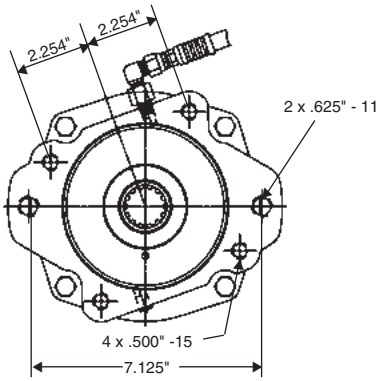
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

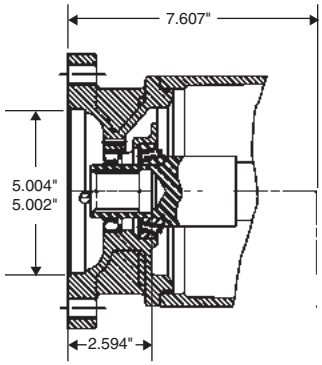
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XS

S.A.E. Class “C” 2 or 4-Bolt Flange
for 1.25" -14 Tooth Splined Shaft

Available for the following P.T.O.s:
867

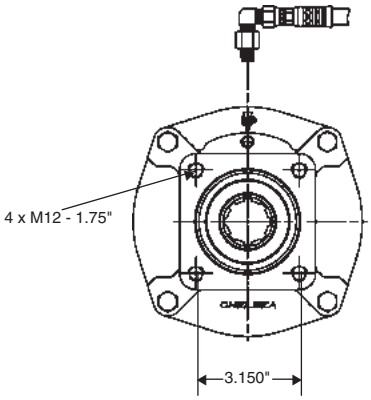


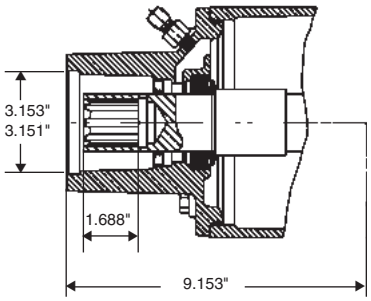


Suffix XY

DIN 5462 Pump Mounting

Available for the following P.T.O.s:
867





NOTE: For 897 Flange Dimensions, refer to pages 2.54 - 2.55 Powershift 890 section

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

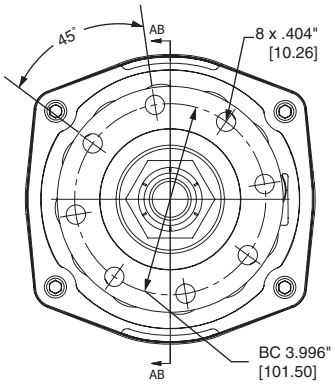
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

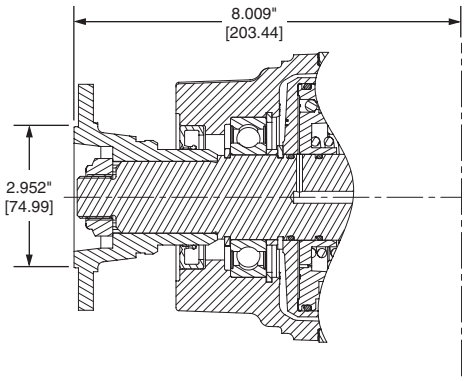
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix AB
DIN 120 Flange

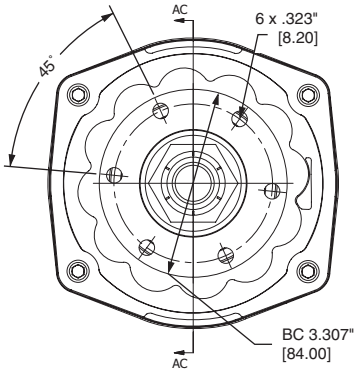
Available for the following P.T.O.s:
877

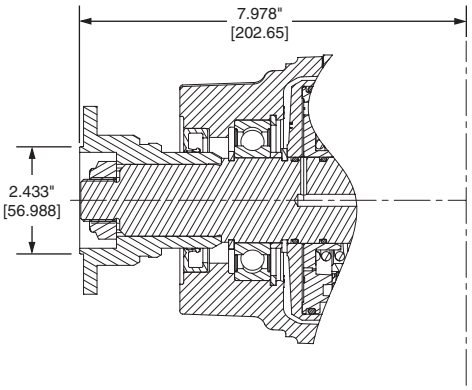




Suffix AC
DIN 100 Flange

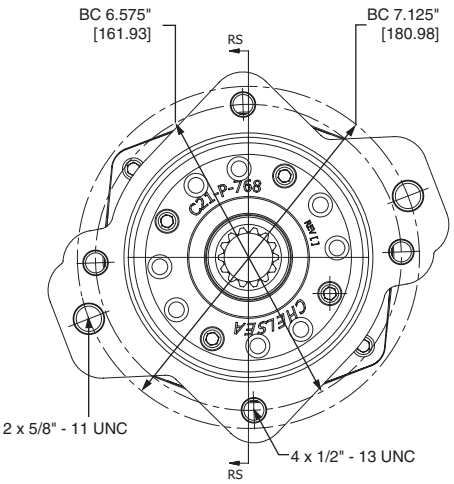
Available for the following P.T.O.s:
877

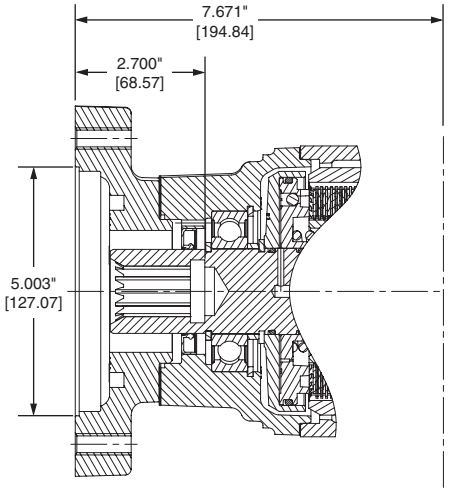




Suffix RS
S.A.E. Class “C” 2 or 4-Bolt
For 1.25" - 14 Tooth Splined Shaft

Available for the following P.T.O.s:
877





* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

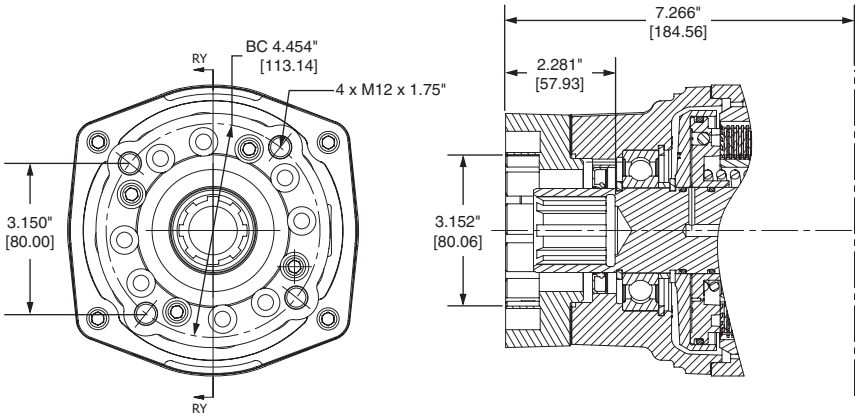
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix RY

Rotatable DIN 5462 Flange

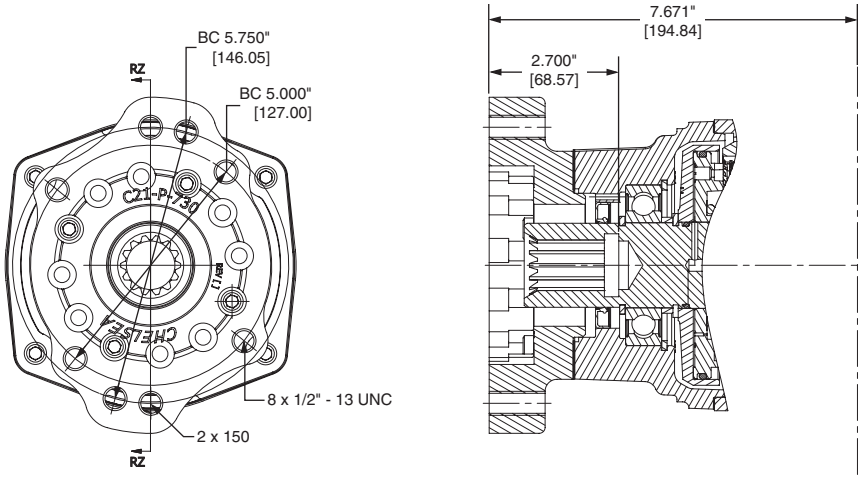
Available for the following P.T.O.s:
877



Suffix RZ

Rotatable S.A.E. “B” 2 or 4-Bolt
For 1.25" - 14 Tooth Spline and Shaft

Available for the following P.T.O.s:
877



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

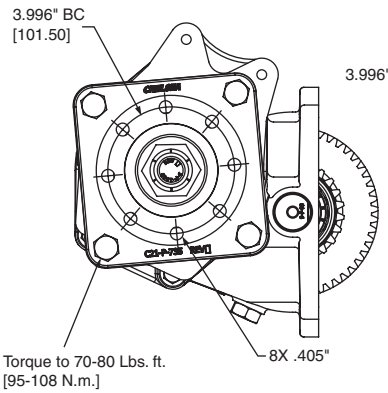
Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

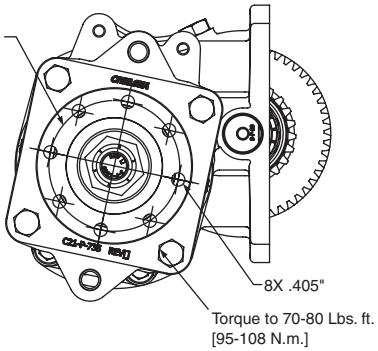
Technical

Suffix AB
DIN 120 Companion Flange

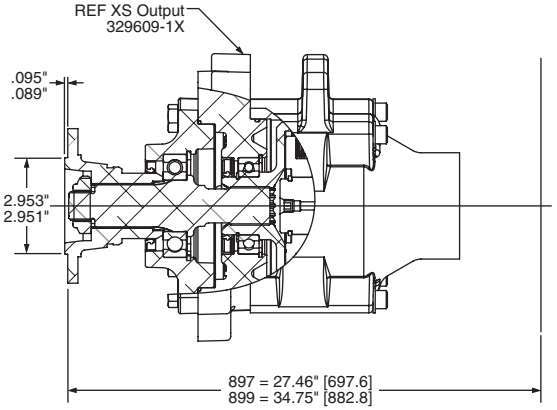
Available for the following P.T.O.s:
897, 899



Ass'y "3"



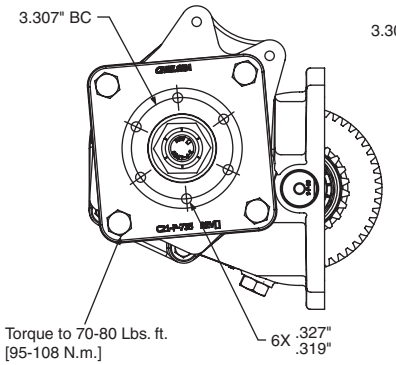
Ass'y "5"



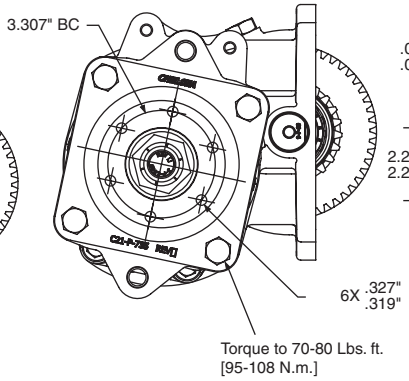
Ass'y "3" & "5"

Suffix AC
DIN 100 Companion Flange

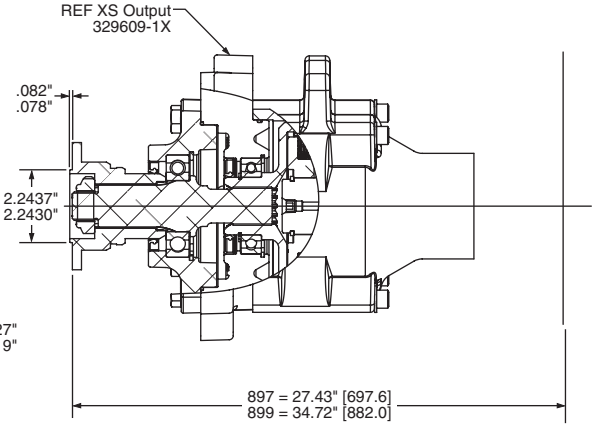
Available for the following P.T.O.s:
897, 899



Ass'y "3"



Ass'y "5"



Ass'y "3" & "5"

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

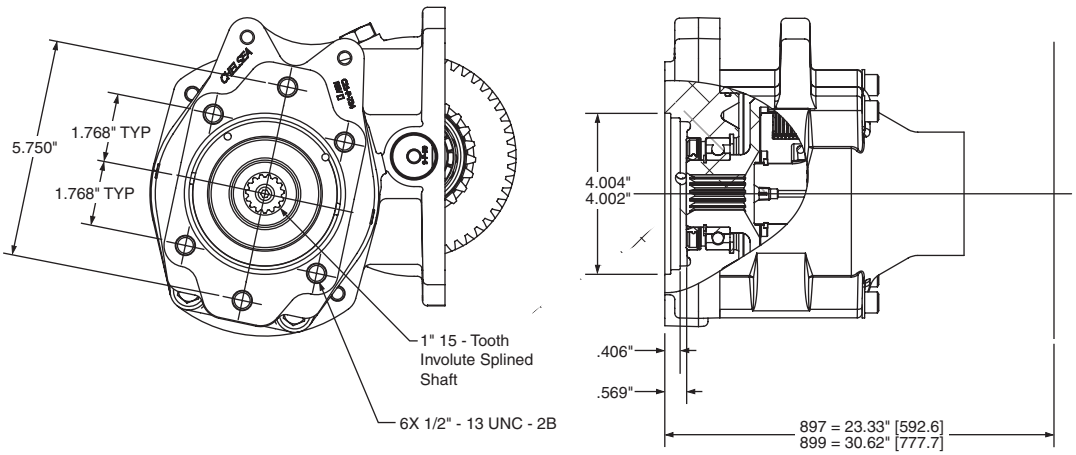
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix AF

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “BB” Shaft (1.00") 15T Involute Spline

Available for the following P.T.O.s:
897, 899

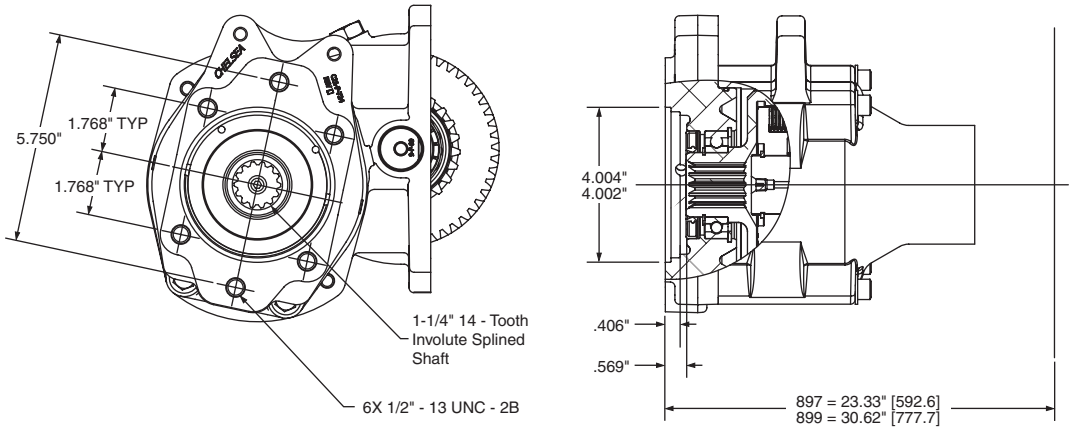


Ass’y “5”

Suffix AZ

S.A.E. Class “B” Pilot (4.000") 2 or 4 Bolt Flange
S.A.E. Class “C” Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
897, 899



Ass’y “5”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

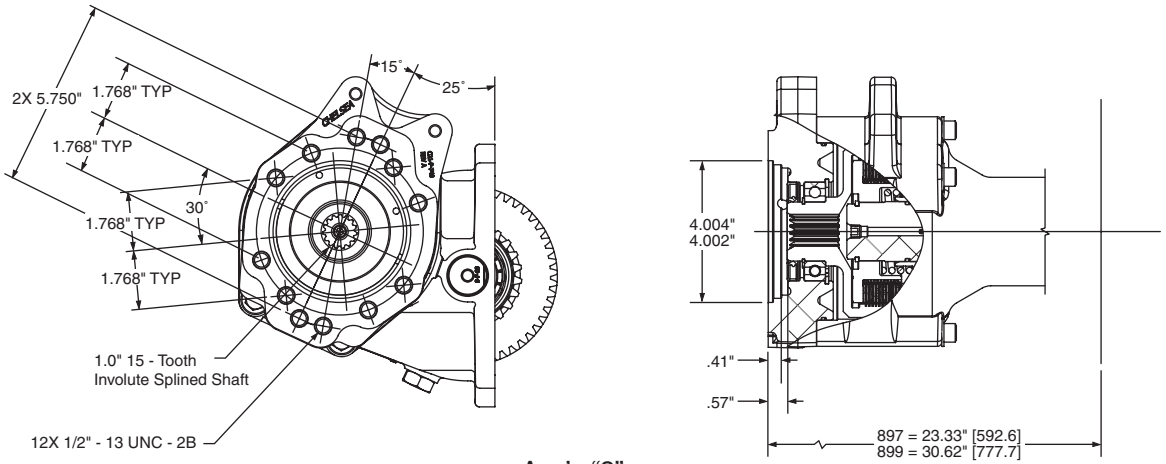
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix CF

S.A.E. Class “B” Pilot (4.000") 2 or 4 Bolt Flange
S.A.E. Class “BB” Shaft (1.00") 15T Involute Spline

Available for the following P.T.O.s:
897, 899

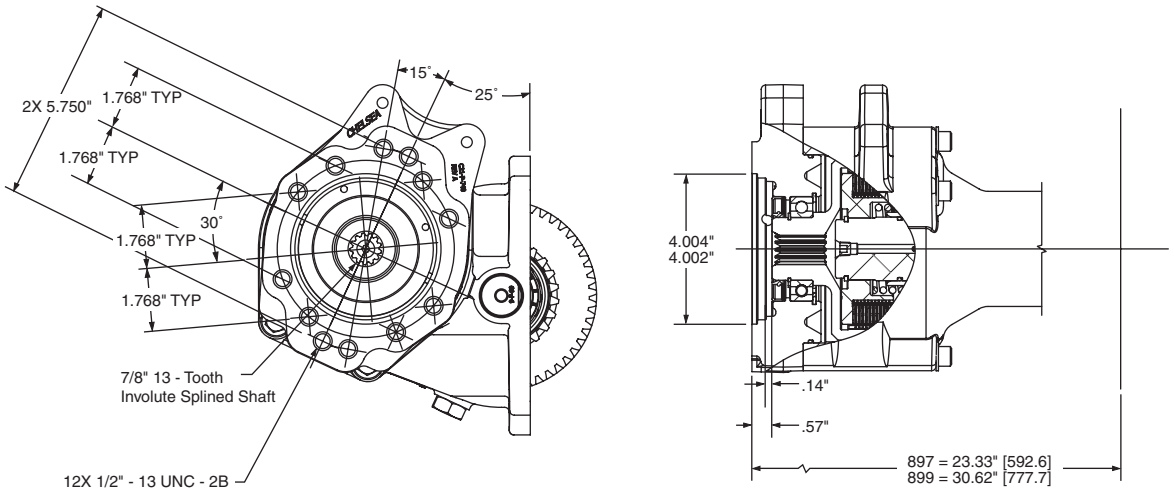


Ass’y “3”

Suffix CK

S.A.E. Class “B” Pilot (4.000") 2 or 4 Bolt Flange
S.A.E. Class “B” Shaft (7/8") 13T Involute Spline

Available for the following P.T.O.s:
897, 899



Ass’y “3”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

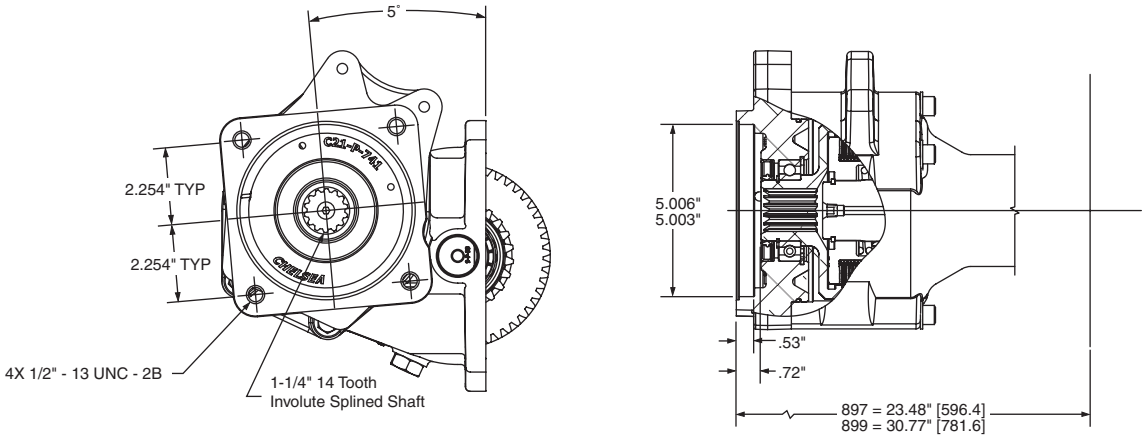
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix CS

S.A.E. Class “C” Pilot (5.000") 4-Bolt Flange
S.A.E. Class “C” Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
897, 899

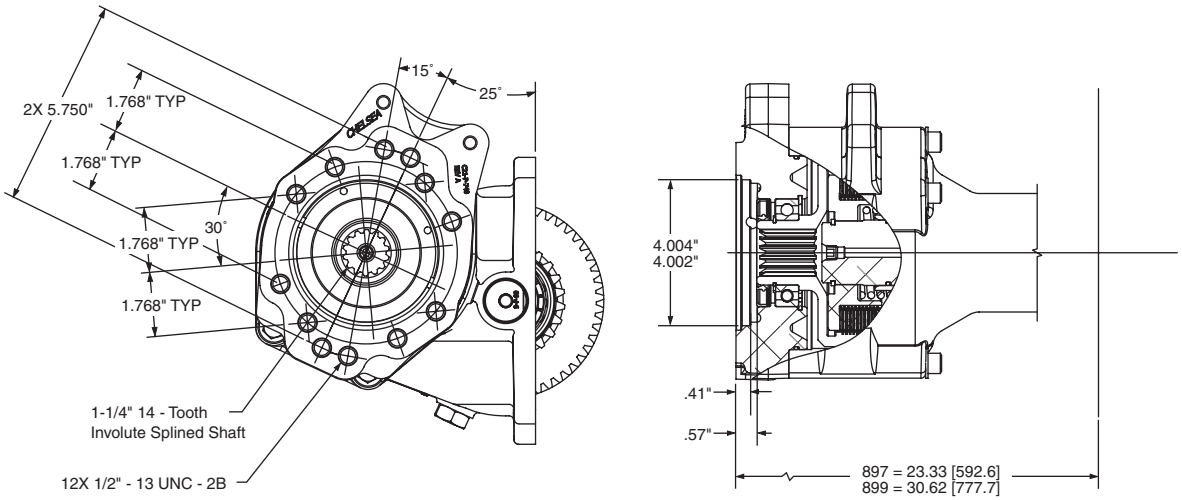


Ass’y “3”

Suffix CZ

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “C” Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
897, 899



Ass’y “3”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

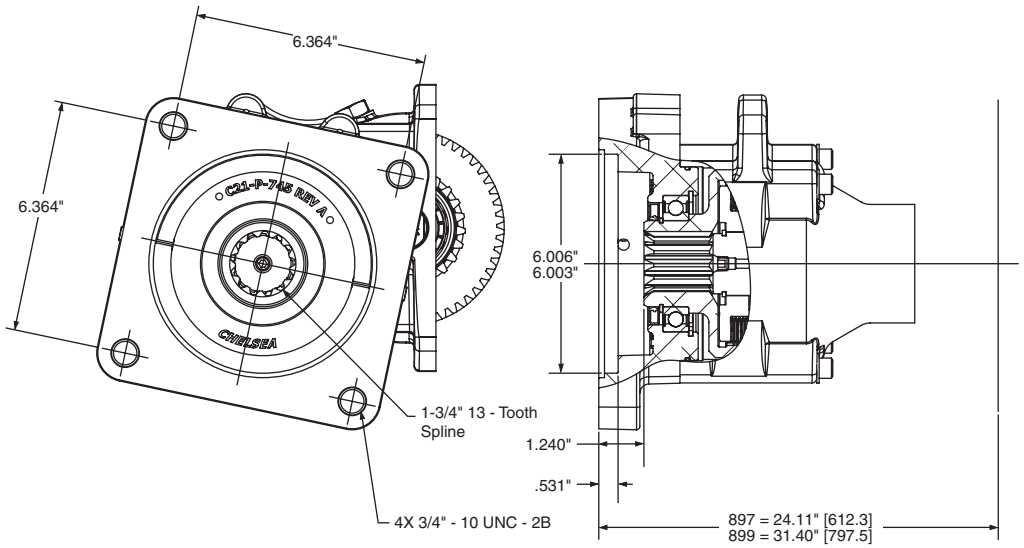
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix DA

S.A.E. Class “D” Pilot (6.000") 4-Bolt Flange
S.A.E. Class “D” Shaft (1.75") 13T Involute Spline

Available for the following P.T.O.s:
897, 899

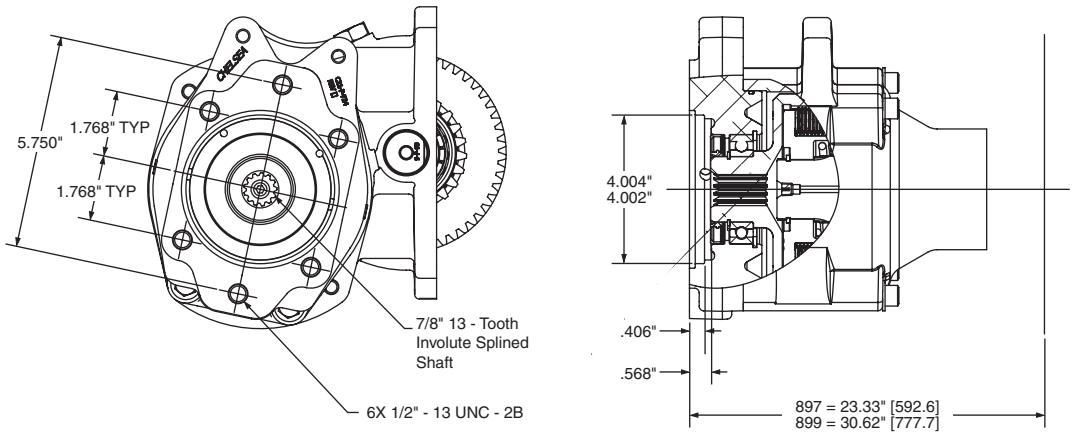


Ass’y “5”

Suffix XK

S.A.E. Class “B” Pilot (4.000") 2 or 4-Bolt Flange
S.A.E. Class “B” Shaft (.875") 13T Involute Spline

Available for the following P.T.O.s:
897, 899



Ass’y “5”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

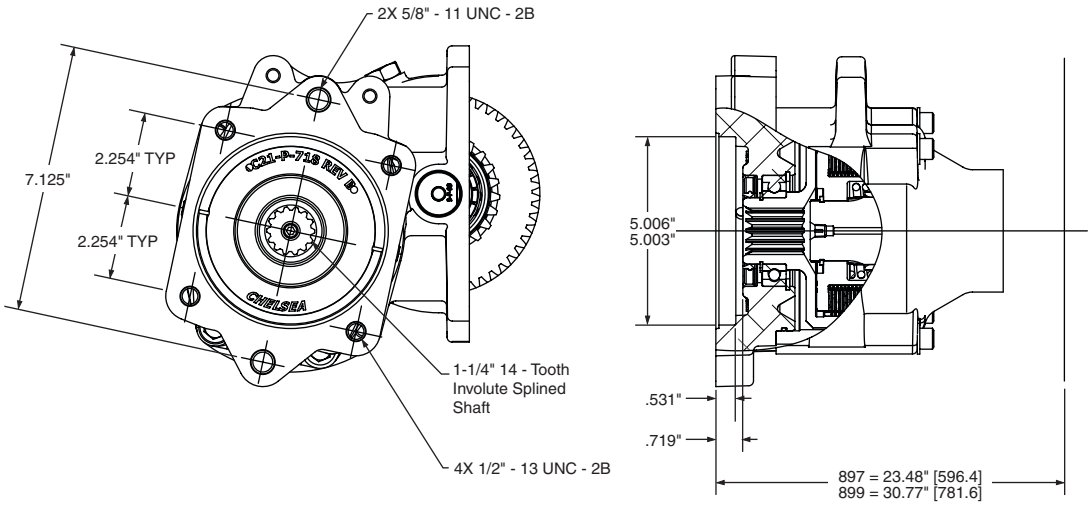
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Suffix XS

S.A.E. Class “C” Pilot (5.000") 2 or 4-Bolt Flange
S.A.E. Class “C” Shaft (1.25"), 14T Involute Spline

Available for the following P.T.O.s:
897, 899

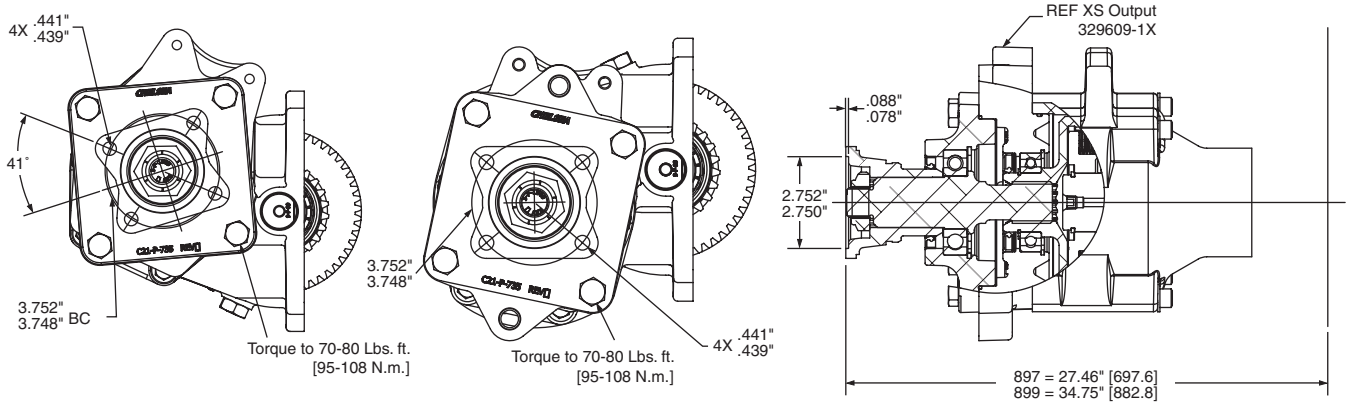


Ass’y “5”

Suffix XV

1410 Companion Flange

Available for the following P.T.O.s:
897, 899



Ass’y “3” Ass’y “5” Ass’y “3” & “5”

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

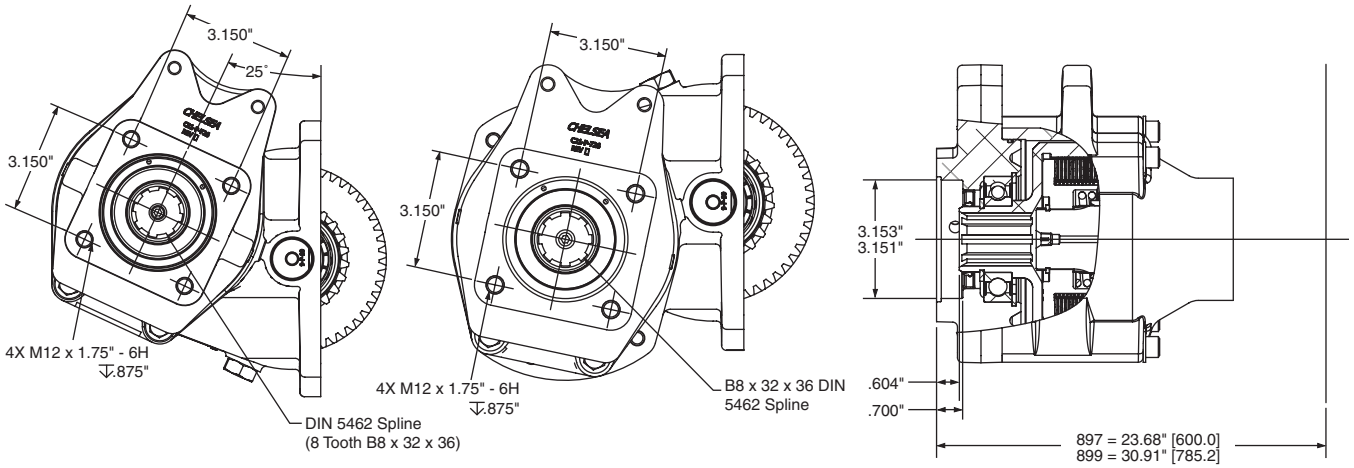
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

Suffix XY

DIN 5462 Pump Mounting

Available for the following P.T.O.s:
897, 899

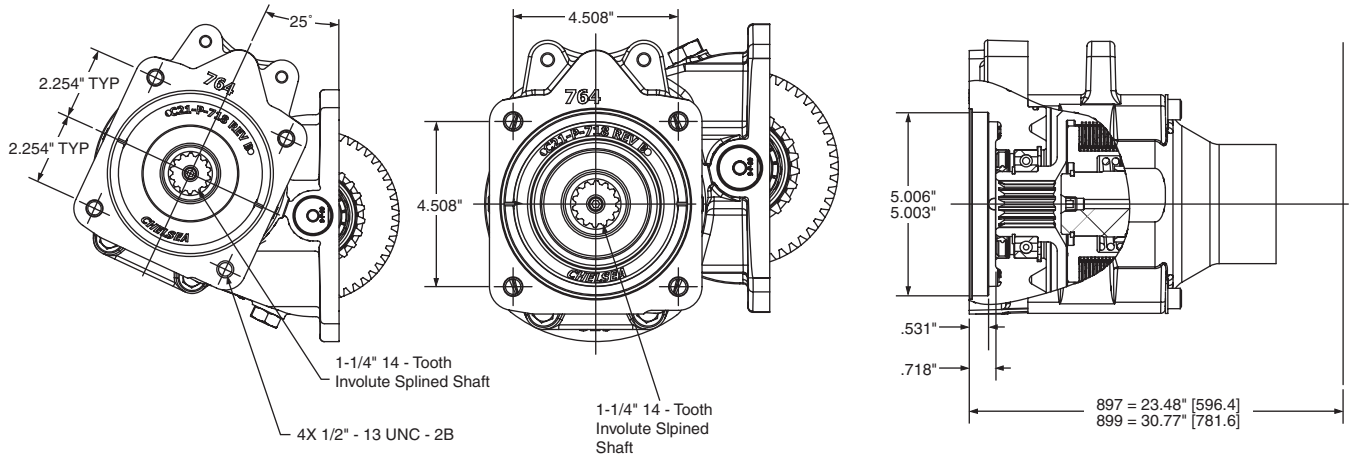


Ass'y "3" Ass'y "5" Ass'y "3" & "5"

Suffix ZS

S.A.E. Class "C" Pilot (5.000") 4-Bolt Flange
S.A.E. Class "C" Shaft (1.25") 14T Involute Spline

Available for the following P.T.O.s:
897, 899



Ass'y "3" Ass'y "5" Ass'y "3" & "5"

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

P.T.O. Options Chart – Ford Transmission

P.T.O. Series		247	248
Lubrication			
P	Pressure Lube	x	
X	Pressure Lube		x
Shifting			
B	12 Volt Electric/Hydraulic	x	x
K	12 Volt Electric Overspeed Control	x	x
Output			
AD	S.A.E. “A” 2-Bolt Flange w/ 3/4" - 11 Tooth Splined	x	x
XD	1.25" Dia. Keyed Shaft	x	x
XE	S.A.E. “A” 2-Bolt Flange w/ 5/8" - 9 Tooth Splined	x	x
XP	S.A.E. “A” 2-Bolt Flange w/ 7/8" - 13 Tooth Splined	x	x
Pumps			
16	Hyd. Pump 2.4 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
26	Hyd. Pump 3.9 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
32	Hyd. Pump 4.7 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
37	Hyd. Pump 5.5 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
42	Hyd. Pump 6.3 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
55	Hyd. Pump 8.2 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
61	Hyd. Pump 9.0 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
71	Hyd. Pump 10.6 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
82	Hyd. Pump 10.1 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
87	Hyd. Pump 10.8 GPM @1000 Engine RPM w/ 3/4" - 11 Tooth Spline		x
08	Hyd. Pump 12.1 GPM @1000 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)		x
09	Hyd. Pump 14.1 GPM @1000 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)		x
11	Hyd. Pump 16.1 GPM @1000 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)		x
15	Hyd. Pump 19.0 GPM @1000 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)		x
18	Hyd. Pump 22.6 GPM @1000 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)		x
20	Hyd. Pump 25.1 GPM @1000 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)		x
16	Hyd. Pump 2.9 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
26	Hyd. Pump 5.3 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
32	Hyd. Pump 5.9 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
37	Hyd. Pump 6.8 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
42	Hyd. Pump 7.8 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
55	Hyd. Pump 10.2 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
61	Hyd. Pump 11.2 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
71	Hyd. Pump 13.1 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
82	Hyd. Pump 15.1 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
86	Hyd. Pump 16.1 GPM @1200 Engine RPM w/ 3/4" - 11 Tooth Spline	x	
50	Hyd. Pump 9.2 GPM @1200 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)	x	
66	Hyd. Pump 12.2 GPM @1200 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)	x	
87	Hyd. Pump 16.0 GPM @1200 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)	x	
10	Hyd. Pump 18.5 GPM @1200 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)	x	
14	Hyd. Pump 25.0 GPM @1200 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)	x	
18	Hyd. Pump 28.0 GPM @1200 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)	x	
20	Hyd. Pump 31.0 GPM @1200 Engine RPM w/ 7/8" - 13 Tooth Spline (4 x 2 Only)	x	

NOTE: 247 Series is used on Ford TorqShift™ Transmission MY 2010 and Prior.
248 Series is used on Ford TorqShift™ 6 Transmission MY 2011 and After.

Technical

P.T.O. Options Chart – Rear Mount P.T.O.s

P.T.O. Series		511	522	523	540-04	541	CAT-H	CAT-D
Mounting Designator								
AA	ZF	x	x	x				
AA	Fuller				x			
AB	Iveco 2845.6	x	x	x				
AC	ZF/Meritor Freedomliner Astronic	x	x	x				
AD	ZF 16S151/181/221	x	x	x				
AE	Mercedes	x		x				
AG	Volvo	x		x				
AH	ZF	x		x				
AM	Fuller	x	x	x				
AQ	ZF	x		x				
AR	Fuller	x		x				
AS	Volvo	x		x				
AT	Fuller					x		
AU	Fuller					x		
BD	Fuller					x		
BJ	Fuller	x		x		x		
LA	Caterpillar CX Series						x	x
LG	Fuller	x		x		x		
LH	Fuller					x		
Lubrication								
X	Standard		x	x		x	x	x
W	Wet Spline	x	x				x	x
Shifting								
A	Air	x	x	x	x	x		
B	12 Volt Elec/Air						x	
D	24 Volt Elec/Air						x	
E	Less Shift Kit		x					
F	ZMTEC Installation, “AC” Input Gear (Freedomline Transmissions)		x					
H	Less Shifter Kit	x	x	x				
M	Constant Mesh							x
P	12 Volt Elec/Air	x	x	x				
Q	24 Volt Elec/Air		x					
V	Air, less installation kit		x					
Y	Lever					x		
Output								
AC	DIN 100 Pump Flange	w		x(w)				
AF	S.A.E. “B” 2 or 4-Bolt Flange, 1.00" - 15 Tooth Shaft						x(w)	x
AL	DIN 90 Pump Flange	w		x(w)			x(w)	x
AZ	S.A.E. “B” 2 or 4-Bolt Flange, 1.25" - 14 Tooth Shaft						x(w)	x
XD	1-1/4" [31.75mm] Round Shaft w/ keyway		x				x	
XK	S.A.E. “B” 2 or 4-Bolt Flange, 7/8" - 13 Tooth Shaft					x	x(w)	x
XS	S.A.E. “C” 2 or 4-Bolt Flange, 1.25" - 14 Tooth Shaft							x
XT	DIN 5462 Spline w/ 1310 Series Flange	x		x				
XV	1410 Series Flange	x		x	x	x		x
XX*	1-1/4" [31.75mm] S.A.E. Tapered Shaft w/keyway		x					
XY	DIN 5462 Pump Mounting	w	x	x(w)			x(w)	x

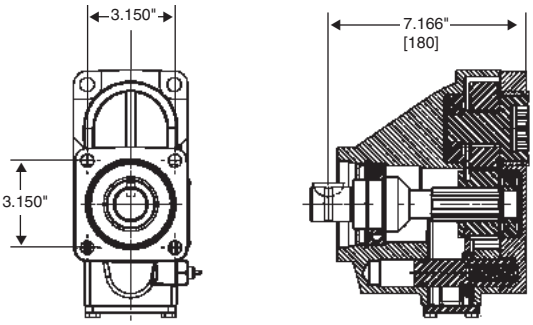
* Order companion flange (3-1-604) separately
w = Wet Spline Option
NOTE: Always Check Price Book for Current Options

Parker Chelsea
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

XD Output

Available for the following P.T.O.s:

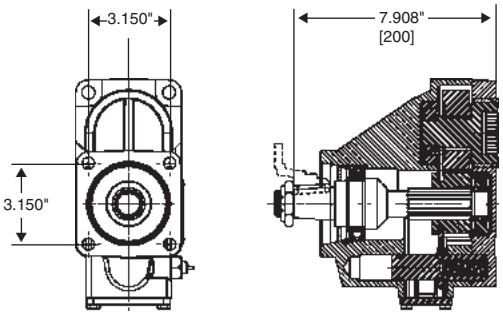
522



XX Output

Available for the following P.T.O.s:

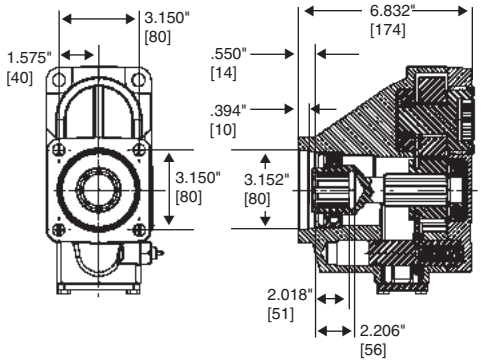
522



XY Output

Available for the following P.T.O.s:

522



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS

Use a bracket to support the pump to the transmission if:

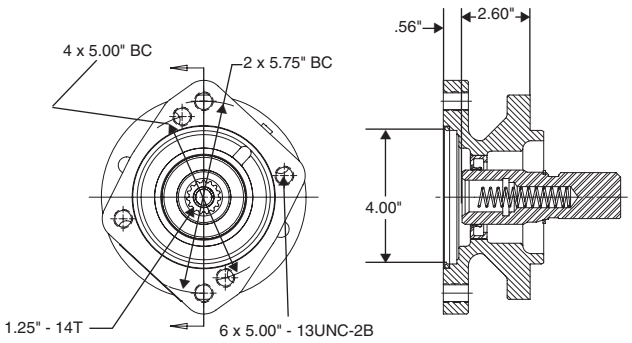
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

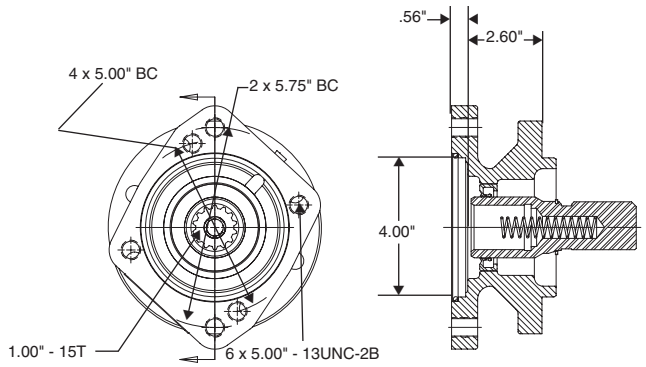
AF Output

Available for the following P.T.O.s:
CAT-D



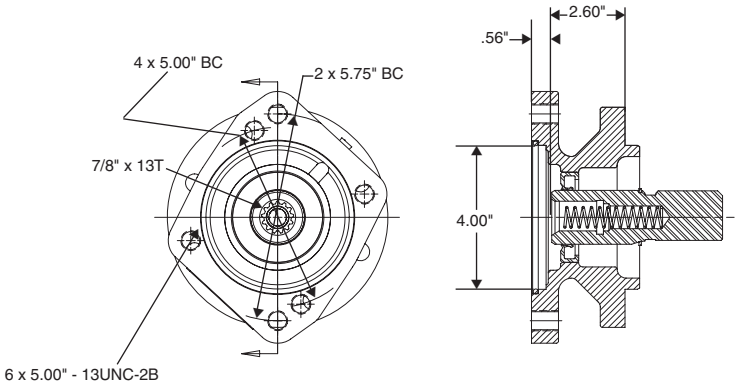
AZ Output

Available for the following P.T.O.s:
CAT-D



XK Output

Available for the following P.T.O.s:
CAT-D



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

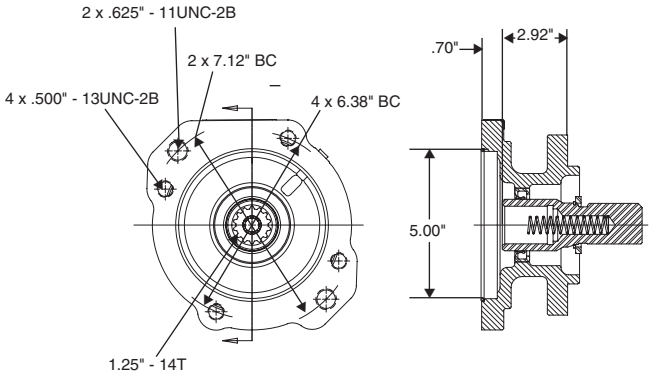
NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

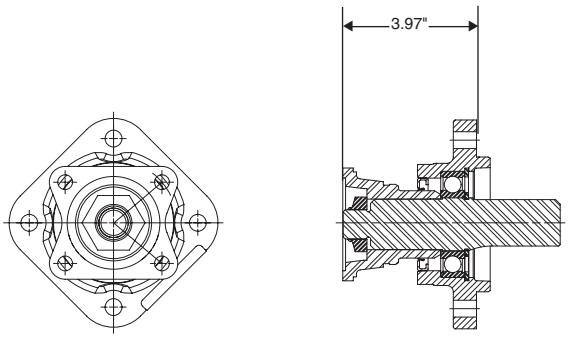
XS Output

Available for the following P.T.O.s:
CAT-D



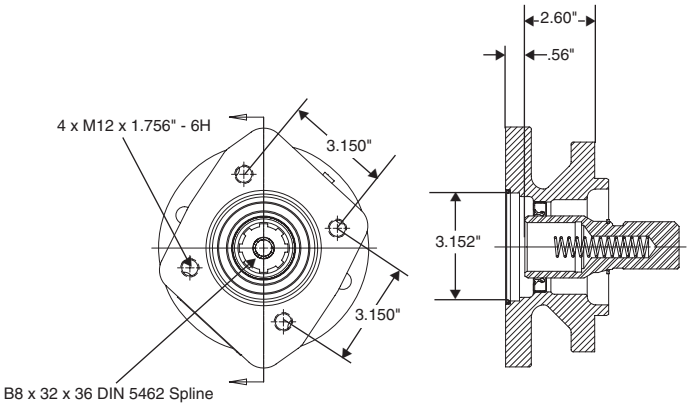
XV Output

Available for the following P.T.O.s:
CAT-D



XY Output

Available for the following P.T.O.s:
CAT-D



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

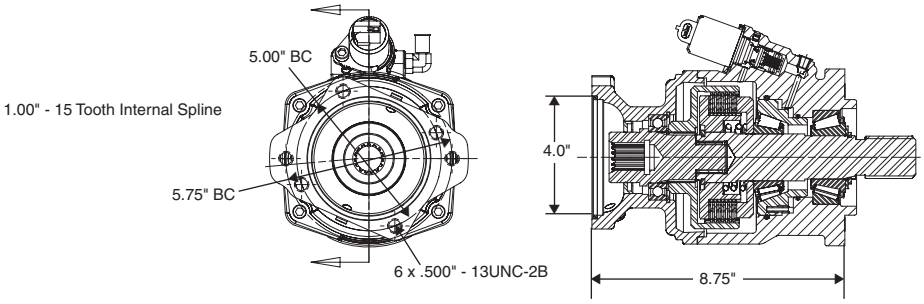
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

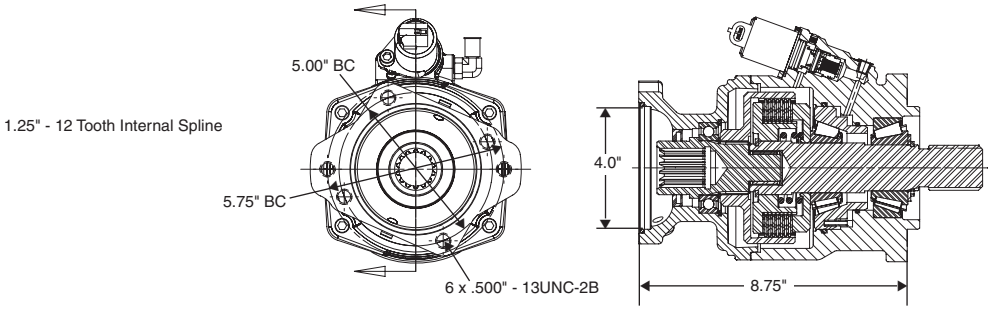
AF Output

Available for the following P.T.O.s:
CAT-H



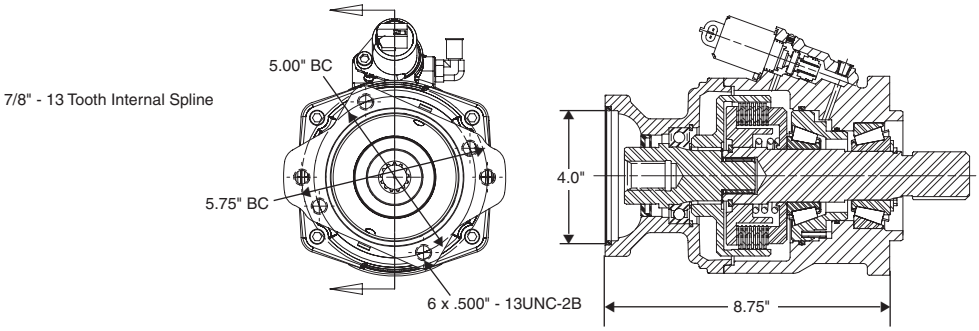
AZ Output

Available for the following P.T.O.s:
CAT-H



XK Output

Available for the following P.T.O.s:
CAT-H



* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS
Use a bracket to support the pump to the transmission if:

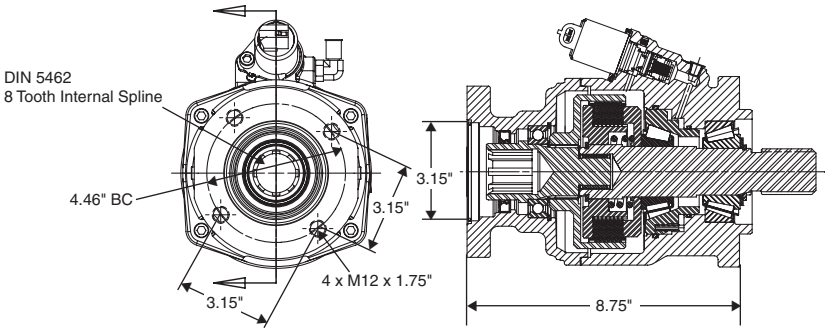
- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

XY Output

Available for the following P.T.O.s:

CAT-H



Technical

* Recommended Grease: Texaco Coupling Grease, Code 1912 or Equivalent

NOTE: PUMP INSTALLATION PRECAUTIONS

Use a bracket to support the pump to the transmission if:

- The pump weighs 40 pounds or more.
- The combined length of the P.T.O. and pump is 18 inches or more from the P.T.O. centerline to the end of the pump.

Also remember to pack the female pilot of the P.T.O. pump flange with grease before installing the pump on the P.T.O.

Technical

P.T.O. Options Chart – Dual Output Shaft P.T.O.s

P.T.O. Series		452
Lubrication		
X	Standard	x
Shifting		
W	Single Shift Wire Control	x
Output		
DD	1-1/4" Round Dual Shafts	x

NOTE: Always Check Price Book for Current Options

P.T.O. Options Chart – Reversible P.T.O.s

P.T.O. Series		340	352	863
Lubrication				
X	Standard	x	x	x
P	Pressure			x
Shifting				
A	Air	x	x	
G	Air Shift w/ cyl. Location Opposite of Output	x	x	
V	"A" Shift, less installation kit	x		
W	Wire		x	
Y	Lever		x	x
Output				
LG	1-1/2" - 10 Tooth w/ 1410 & Self Lube			x
XD	1-1/4" Round Shaft	x	x	
XV	1-1/2" - 10 Tooth w/ 1410 Series Flange			x

NOTE: Always Check Price Book for Current Options

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P.T.O. Options Chart – Asia Pacific P.T.O.s

P.T.O. Series		429	435
Lubrication			
X	Standard	x	x
Shifting			
A	Air	x	x
P	Electric/Air 12V	x	
Q	Electric/Air 24V	x	
W	Single Shift Wire Control	x	x
Output			
AZ	Non Standard Flange, “C” Shaft (1-1/4" - 14 Tooth)		x
GA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x
GB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x
GH	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)		x
GJ	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth) (Greaseable)		x
GQ	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x
GR	CHELSEA SPECIAL Pump Mount, “B” Shaft (7/8" - 13 Tooth) (Greaseable)		x
RA	Rotatable “B” 2-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x
RB	Rotatable “B” 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x
RE	Rotatable “B” 4-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x	x
RF	Rotatable “B” 2-Bolt Flange, “BB” Shaft (1.00" - 15 Tooth)	x	x
XD	1-1/4" Round Shaft	x	x
XE	S.A.E. “A” 2 or 4-Bolt Flange, “A” Shaft (5/8" - 9 Tooth)	x	
XQ*	S.A.E. “B” 2 or 4-Bolt Flange, “B” Shaft (7/8" - 13 Tooth)	x	x
XR	1-1/2" - 10 Tooth w/ 1410 Series Flange	x	x

*XQ/GQ same as XK/GK except flange rotated 90°

NOTE: See Pages 2.11 thru 2.19 for flange dimensions

NOTE: Always Check Price Book for Current Options

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Pump Flange Field Conversion Kits

Pump Suffix	Kit No. Suffix	Kit Number	Flange Type	Shaft Type
AK	XD to AK	328591-28X	S.A.E. “B” 2-Bolt	7/8" - 13 Tooth Splined
GA	XD to GA XR to GA RA to GA	328591-72X 328591-73X 328591-106X	S.A.E. “B” 2-Bolt	*7/8" - 13 Tooth Internal Spline
GB	XD to GB XR to GB RB to GB	328591-74X 328591-75X 328591-107X	S.A.E. “B” 4-Bolt	*7/8" - 13 Tooth Internal Spline
GH	XD to GH RF to GH	328591-116X 328591-114X	S.A.E. “BB” 2-Bolt Rotatable	*1.00" - 15 Tooth Internal Spline
GJ	XD to GJ RE to GJ	328591-138X 328591-114X	S.A.E. “B” 4-Bolt Rotatable	*1.00" - 15 Tooth Splined
GQ	XD to GQ XQ to GQ	328591-91X 328591-86X	S.A.E. “B” 2 or 4-Bolt	*7/8" - 13 Tooth Internal Spline
GR	XD to GR	328591-76X	CHELSEA SPECIAL 4-Bolt	*7/8" - 13 Tooth Internal Spline
RA	XD to RA XR to RA	328591-55X 328591-53X	S.A.E. “B” 2-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
RB	XD to RA XR to RA	328591-56X 328591-54X	S.A.E. “B” 4-Bolt Rotatable	7/8" - 13 Tooth Internal Spline
RE	XD to RE	328591-134X	S.A.E. “B” 4-Bolt Rotatable	1.00" - 15 Tooth Splined
RF	XD to RF	328591-45X	S.A.E. “BB” 2-Bolt Rotatable	1.00" - 15 Tooth Splined
XE	XD to XE	328591-27X	S.A.E. “A” 2 or 4-Bolt	5/8" - 9 Tooth Splined
XQ	XD to XQ	328591-17X	S.A.E. “B” 2 or 4-Bolt	7/8" - 13 Tooth Splined
XR	XD to XR	328591-52X	CHELSEA SPECIAL	7/8" - 13 Tooth Splined
XR	XD to XR	328591-52X	CHELSEA SPECIAL	7/8" - 13 Tooth Splined

*Grease fitting on end of shaft

Cover Assemblies

Series/ Application	Assembly Arrangement	Wire Control	Air Control
429	5	329121-2X w/ 5-A-188	329361X
435	3 & 6	329038-1X	329038-1X

Shifter Installation Kits

Series/ Application	Wire Control	Air Control	Electric Over Air	
			12 Volt	24 Volt
429		328388-98X	328388-47X	328388-48X
435	328380X	328388-98X		

P.T.O. Options Chart - Split Shaft P.T.O.s

P.T.O. Series		901	912	941
Shifting				
A	Air	x	x	x
Y	Lever	x	x	x
Input-Output Shaft				
C	1-3/4" - 10 Tooth	x		
G	2-3/4" Shaft w/ 1710 1/2 Rd. Yoke		x	
H	2-3/4" Shaft w/ 1810 1/2 Rd. Yoke		x	
J	Without Flanges		x	x
K	1410 Series Flange			x
L	1550 Series Flange			x
M	2-3/4" Shaft w/ 1610 companion flange		x	
P	Output shaft for Spicer 170-4-521-1X		x	
S	Output shaft for Spicer 250-4-241-1X		x	
P.T.O. Output Shaft				
XV	1-1/2" - 10 Tooth	x		
XK	S.A.E. “B” 2 or 4-Bolt	x		
XS	S.A.E. “C” 4-Bolt	x		
XU	S.A.E. “C” 2-Bolt	x		
XX	No P.T.O. Shaft			x
XX	2 - 8-Bolt P.T.O. openings with air shift or 3 - 8-Bolt opening		x	

Specifications Chart – 901 Series

Standard Output Shaft Size	— 1-3/4" - 10 Tooth —
Intermittent Torque Rating (Lbs. ft.)	500
Intermittent Torque Rating (N.m.)	678
Horsepower Rating for Intermittent Service	
At 500 R.P.M. of the Output Shaft (HP)	48
At 1000 R.P.M. of the Output Shaft (HP)	95
At 500 R.P.M. of the Output Shaft (Kw)	36
Approximate Weight:	— 185 lbs. [84 kg] —

Specifications Chart – 912 Series

Standard Output Shaft Size	— 2-3/4" - 10 Tooth —	
Max Thru Torque Capacity	Lbs. ft.	Nm
w/ Diesel Engine		
Automatic Transmission	13,000	17,625
Manual Transmission	12,000	16,270
w/ Gas Engine		
Automatic Transmission	16,000	21,693
Manual Transmission	15,000	20,337
Approximate Weight:	— 130 lbs. [59 kg] —	

Specifications Chart – 941 Series

Standard Output Shaft Size	— 1-1/2" - 12 Tooth —	
Max Thru Torque Capacity	Lbs. ft.	Nm
w/ Diesel Engine		
Automatic Transmission	3,100	4,203
Manual Transmission	2,900	3,932
w/ Gas Engine		
Automatic Transmission	4,200	5,694
Manual Transmission	3,900	5,288
Approximate Weight:	— 60 lbs. [27 kg] —	

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A Guide to Specifying Chelsea Geared Adapters

When you need to change P.T.O. output shaft rotation or clear a mounting obstacle, a geared adapter may fit the bill. However, it is important to note the following:

- Geared adapters will change the direction of P.T.O. rotation. Consider this when specifying driven equipment.
- Not all applications can use geared adapters. These situations are called out on the bottom of the Chelsea applications catalog pages. Check there before you spend time trying to specify a geared adapter.
- If an application cannot use an adapter, consider changing the P.T.O. assembly arrangement, moving the P.T.O. to the other side of the transmission, or using a change rotation gear box.
- Adapters are not available for use with P.T.O.s on automatic transmissions except the Allison 1000, 2000/2400 Series.
- Adapters are not available for use with 8-Bolt P.T.O.s.
- Current model Chelsea adapters do not change the P.T.O. speed.

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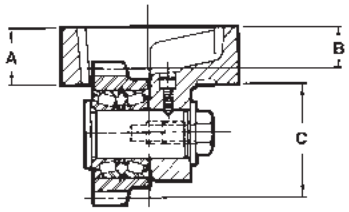
Standard Geared Adapter Assemblies

Assembly Number	Figure Number	Number of Teeth	A Body Thickness or Degree of Angularity	B Pitch Line to Outer Face	C Pitch Line to Inner Face
328530-1X	1	22	1.650"	1.085"	3.100"
328530-2X	1	18	1.650"	1.117"	3.067"
328554-1X	2	19	22°	1.085"	1.110"
329138X,-1X	3	24	49°	1.085"	1.085"

Figure 1

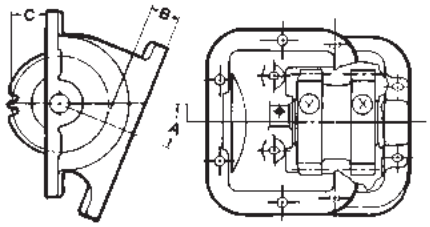


328530-1X
328530-2X

Where Used

328530-1X,-2X: Use on either side, any assembly arrangement, where the transmission gear pitch and pressure angle allows. These adapters will move the P.T.O. straight out from the transmission. These are deep reach geared adapters that generally require the use of extra spacers and special stud kits.

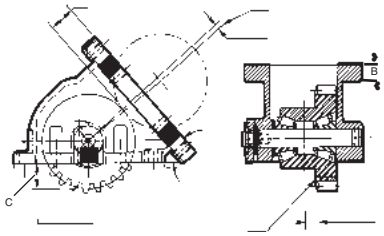
Figure 2



328554-1X

328554-1X: Use on the R.H. side of transmissions with a 6 pitch 20° pressure angle P.T.O. drive gear located towards the front of the opening. The adapter will move the P.T.O. down and towards the rear of the truck. Use a P.T.O. with a “3” assembly and an “AH” gear designator. This adapter requires the application to be derated by 30%.

Figure 3



329138X,-1X

329138X: Use on the R.H. side of transmissions with a 6 pitch 20° pressure angle P.T.O. drive gear located towards the **front** of the truck, or on the L.H. when the P.T.O. drive gear is located towards the **rear** of the truck. The adapter will drop the P.T.O. down at a 49° angle. Use P.T.O.s with the same assembly arrangement and gear detail as shown in the application catalog.

329138-1X: Use on the R.H. side of transmissions with a 6 pitch 20° pressure angle P.T.O. drive gear located towards the **rear** of the truck, or on the L.H. when the P.T.O. drive gear is located towards the **front** of the truck. The adapter will drop the P.T.O. down at a 49° angle. Use P.T.O.s with the same assembly arrangement and gear detail as shown in the application catalog.

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Technical

When a geared adapter can be used, four steps will help you specify it correctly.

1. Identify the correct gear detail and gear location.
2. Select the style that will perform the necessary function.
3. Calculate the correct backlash/spacing.
4. Select the correct stud kit.

Step 1: Identify the Gear Detail and Gear Location

The first step is to find adapters that will fit your application.

At the top of each transmission application page, Chelsea lists gear data. For example, on FLR-34, on the right hand side, the transmission gear is a 6 pitch, 20° spur gear (AH Input Gear). The transmission gear is forward of the centerline of the P.T.O. opening.

To select an adapter for this application, look only at adapters that have a 6 pitch, 20° spur gear (AH Input Gear) that is forward of the adapter body centerline when used on the right hand side of a transmission.

NOTE: If gear pitch unknown contact Chelsea Customer Service.

Step 2: Select the Style

The second step is to further narrow down your choices according to your application requirement.

If the purpose of specifying a geared adapter is simply to change rotation, look for the least expensive adapter available. Typically, this means an adapter that will bring the P.T.O. straight out from the transmission. Also check whether the adapter requires you to derate the P.T.O. torque rating. This occurs when the adapter contains needle bearings rather than roller bearings.

If the purpose of specifying a geared adapter is to clear mounting obstacles, determine whether moving the P.T.O. away from the transmission is enough, or whether it is necessary to angle the P.T.O. down to clear the object.

Always keep in mind how much room you have to work with and what mounting obstacles exist.

For our example, let's say we have 328530-1X on the shelf and it looks like it will work.

Step 3: Calculate the Backlash and Spacing.

Next, you must establish correct backlash between the transmission and the geared adapter. To do this, calculate the adapter P.L. (pitch line) to inner face dimension minus the transmission pitch line to aperture face dimension.

On page 2.85 of this booklet, we see that the adapter P.L. (pitch line) to inner face dimension for adapter 328530-1X is 3.100. On FLR-34 application page, for the right hand opening, we see that the P.L. (pitch line) to aperture face dimension for the transmission is 1.0850.

3.100 (adapter pitch line to inner face dimension)
- 1.085 (transmission P.L. to aperture face dimension)
2.015

In this example, we would need to back the adapter away from the transmission gear 2.015" to establish correct backlash. We would select a 7-A-2000 filler block (page 2.22 of this booklet), and use a thin gasket (.010") on each side of the filler block.

Our theoretical backlash is .003". We need to have between .006" and .012". Most likely, once the adapter is actually mounted and backlash is measured, it will fall between the accepted range. This is because the transmission case and the adapter may vary a few thousandths from the listed measurements.

NOTE: It is always the responsibility of the installer to measure and establish correct backlash. Follow the instructions given in the P.T.O. Owner's Manual and the Adapter Gears Owner's Manual.

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Step 4: Select the Correct Stud Kit

To calculate the necessary length of the mounting studs for a P.T.O./adapter combination, add the following dimensions together.

	Body thickness of the adapter
+	Thickness of spacers/filler blocks
+	Thickness of P.T.O. mounting flange
+	Gaskets between the transmission adapter, and P.T.O.
+	Stud outer diameter x 4
	Required stud length, ± 1/16"

In our example:

328530-1X adapter body thickness	1.650"
7-A-200 filler thickness	2.000"
442X Series mounting flange thickness	.563"
(4) .010" gaskets*	.024"
Stud diameter** (.375) x 4	1.500"
	5.737"

Stud kit 7170-32X contains studs that are 5.750" long. Stud kits are listed in Chelsea publication HY25-2002-M1/US.

Remember that each application is different. It is up to the installer to make sure backlash between the transmission and adapter, and between the adapter and the P.T.O., is correct.

The 626, 628, 630 and 645 family of adapters is designed to simplify your selection and installation of a geared adapter when you require a change in rotation or are trying to clear an obstacle.

These adapters use the same input gears as the 442 and 489 Series P.T.O.s, and are available in kits. The 626 adapter fits a 6-Bolt opening and moves the P.T.O. straight out from the transmission. The 630 fits a 6-Bolt opening and angles the P.T.O. down at a 30° angle. The 645 fits a 6-Bolt opening and angles the P.T.O. down at a 45° angle. The 628 adapter fits an 8-Bolt transmission opening and accommodates a 6-Bolt P.T.O. The 626 and 645 are designed to mount to the Eaton Lightning transmission.

The 626, 630 and 645 adapter assemblies have the same pitch line to mounting face dimensions as the 442 Series, while the 628 will have the same mounting dimensions as the 489 Series. This means the same mounting hardware and spacers you use to mount the P.T.O. to a specific application will be the same hardware you use to mount the geared adapter to that application.

Using the 626, 628, 630 or 645 will change the direction of P.T.O. rotation. It will not change the speed of the P.T.O.

Technical

* A .010" gasket will compress to .006" if the capscrews or nuts are torqued properly. A .020" will compress to .012".

** Based on standard 442 stud diameter for this example.

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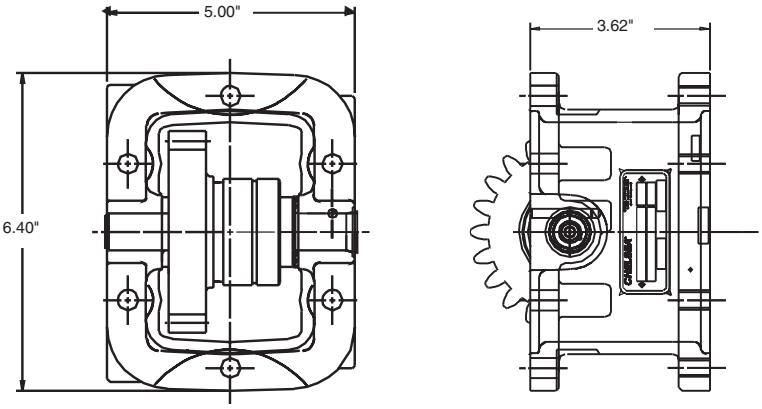
Technical

626 Series
Six Bolt to Six Bolt Straight

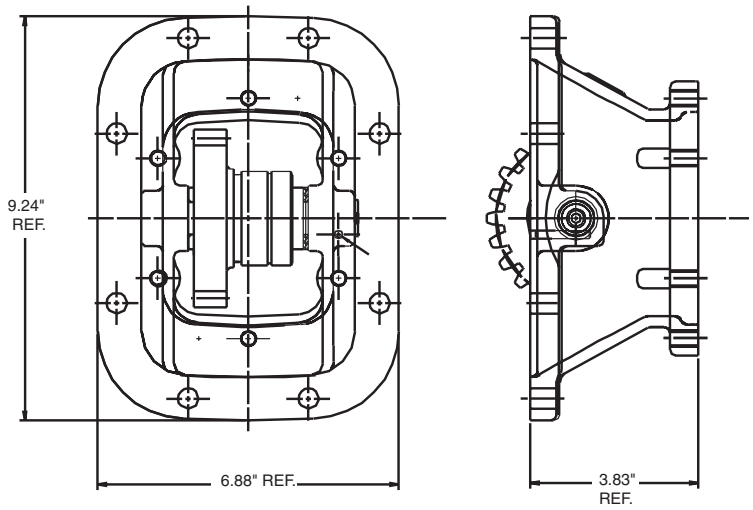
- 6-Bolt P.T.O. for a 6-Bolt Transmission Opening
- Moves the P.T.O. straight out from the transmission
- Uses the same input gears as the 442 and 489 Series
- Uses the same mounting hardware and spacers used to mount a 442 Series to a specific application



626 Series

628 Series
Six Bolt to Eight Bolt Straight

- 6-Bolt P.T.O. for a 8-Bolt Transmission Opening
- Moves the P.T.O. straight out from the transmission
- Uses the same input gears as the 442 and 489 Series
- Uses the same mounting hardware and spacers used to mount a 489 Series to a specific application



628 Series

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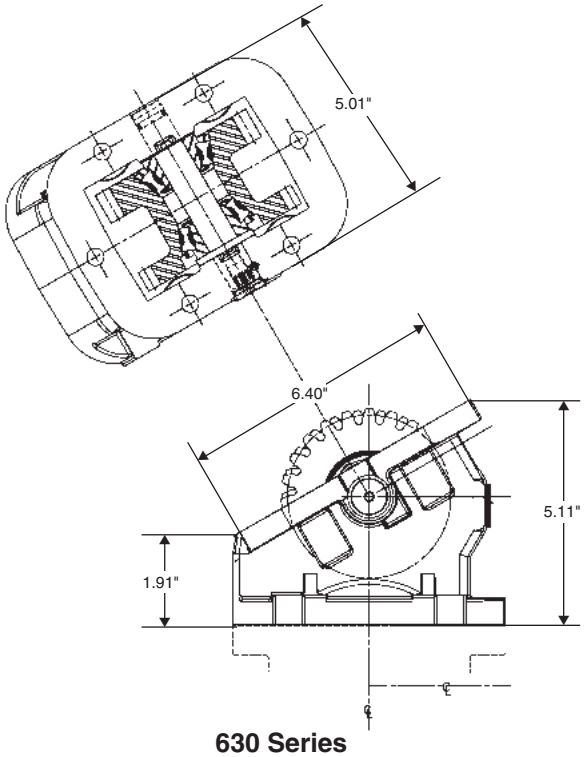
630 Series

Six Bolt to Six Bolt 30 Degrees

- 6-Bolt P.T.O. for a 6-Bolt Transmission Opening
- Moves the P.T.O. down at a 30° angle, helping to eliminate interference problems
- Uses the same input gears as the 442 and 489 Series

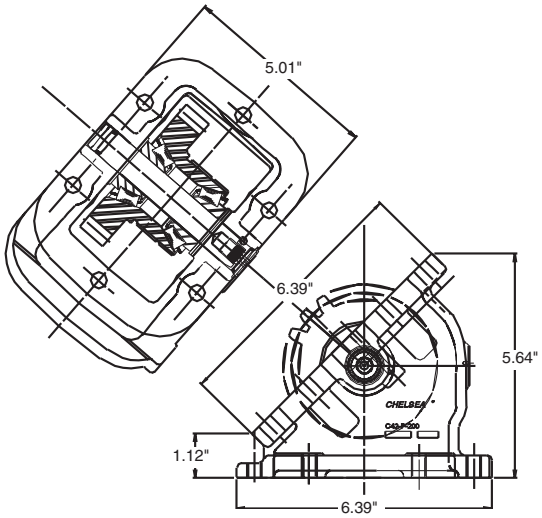


630 Series

645 Series

Six Bolt to Six Bolt 45 Degrees

- 6-Bolt P.T.O. for a 6-Bolt Transmission Opening
- Moves the P.T.O. down at a 45° angle, helping to eliminate interference problems
- Uses the same input gears as the 442 and 489 Series



645 Series

Technical

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Technical

626 Gear Chart

Adapter Input Gear				Mounting Information P.T.O. to Adapter		P.T.O. Gear (Packaged Loose w/Adapter)			
Model No.	Part No.	Helix Angle	No. Teeth	Spacer Designator	Stud Kit	P.T.O. Pitch	Part No.	Helix Angle	No. Teeth
626*AB	5-P-1001	Spur	19	7-A-140	7170-3X	—**AB	5-P-1001	Spur	19
626*AG	5-P-1003	Spur	22	7-A-140	7170-3X	—**AG	5-P-1003	Spur	22
626*AH	5-P-1004	Spur	22	7-A-140	7170-3X	—**AH	5-P-1004	Spur	22
626*AP	5-P-1006	Left Hand	21	7-A-140	7170-3X	—**GX	5-P-1183	Right Hand	21
626*AR	5-P-1008	Left Hand	21	7-A-187	7170-3X	—**GY	5-P-1184	Right Hand	21
626*AW	5-P-1009	Left Hand	22	7-A-270	7170-4X	—**GZ	5-P-1185	Right Hand	22
626*AX	5-P-1010	Right Hand	22	7-A-140	7170-3X	—**HA	5-P-1186	Left Hand	22
626*BG	5-P-1015	Left Hand	23	7-A-140	7170-3X	—**HB	5-P-1187	Right Hand	23
626*BH	5-P-1016	Right Hand	25	7-A-240	7170-4X	—**BJ	5-P-1017	Left Hand	25
626*BQ	5-P-1023	Left Hand	25	7-A-200	7170-4X	—**BP	5-P-1022	Right Hand	26
626*BS	5-P-1025	Left Hand	22	7-A-062	7170-4X	—**BR	5-P-1024	Right Hand	26
626*CB	5-P-1029	Left Hand	25	7-A-140	7170-3X	—**HD	5-P-1189	Right Hand	25
626*CD	5-P-1031	Left Hand	27	7-A-270	7170-4X	—**HE	5-P-1190	Right Hand	27
626*DA	5-P-1037	Spur	23	——	——	—**DA	5-P-1037	Spur	23
626*DC	5-P-1039	Spur	19	7-A-093	7170-3X	—**DC	5-P-1039	Spur	19
626*DM	5-P-1045	Left Hand	17	7-A-125	7170-3X	—**HF	5-P-1191	Right Hand	17
626*DN	5-P-1046	Left Hand	19	——	——	—**HG	5-P-1192	Right Hand	19
626*DU	5-P-1050	Left Hand	28	7-A-240	7170-4X	—**HH	5-P-1193	Right Hand	28
626*EC	5-P-1055	Left Hand	36	7-A-300	7170-4X	—**HJ	5-P-1194	Right Hand	36
626*ED	5-P-1056	Left Hand	34	7-A-240	7170-4X	—**HK	5-P-1195	Right Hand	34
626*ES	5-P-1059	Left Hand	22	7-A-062	——	—**HL	5-P-1196	Right Hand	22
626*EV	5-P-1060	Spur	40	7-A-300	7170-4X	—**EV	5-P-1060	Spur	40
626*EW	5-P-1061	Left Hand	20	7-A-125	7170-3X	—**HM	5-P-1197	Right Hand	20
626*FC	5-P-1064	Left Hand	26	7-A-165	7170-3X	—**HP	5-P-1199	Right Hand	26
626*FE	5-P-1065	Left Hand	29	7-A-270	7170-4X	—**HQ	5-P-1200	Right Hand	29
626*FN	5-P-1070	Left Hand	26	7-A-300	7170-4X	—**HR	5-P-1201	Right Hand	26
626*GQ	5-P-1150	Left Hand	26	7-A-125	7170-3X	—**HS	5-P-1202	Right Hand	26
626*GR	5-P-1157	Spur	23	7-A-062	——	—**GR	5-P-1157	Spur	23
626*HV	5-P-1300	Spur	24	7-A-140	328170-94X	—*HV	5-P-1300	Spur	24
626*HY	5-P-1237	Left Hand	26	7-A-125	328170-94X	—**JB	5-P-1244	Right Hand	26
626*IT	KIT ADAPTER	——	——	——	——	——	——	——	——
626DJA	5-P-1243	Left Hand	27	7-A-165	7170-3X	—**JC	5-P-1247	Right Hand	27
626*JD	5-P-1248	Left Hand	20	7-A-200	7170-3X	—**JE	5-P-1249	Right Hand	20
626*JK	5-P-1261	Left Hand	24	7-A-187	7170-3X	—**JL	5-P-1262	Right Hand	24
626*JM	5-P-1263	Left Hand	22	7-A-125	7170-3X	—**JN	5-P-1264	Right Hand	22
626*JS	5-P-1310	Left Hand	20	7-A-062	——	—**JY	5-P-1312	Right Hand	20
626*JU	5-P-1316	Left Hand	25	7-A-200	7170-4X	—**KA	5-P-1318	Right Hand	25
626*JW	5-P-1319	Left Hand	23	7-A-093	7170-3X	—**KB	5-P-1321	Right Hand	23
626*KJ	5-P-1405	Left Hand	33	——	328170-94X	—**KK	5-P-1406	Right Hand	33
626*KL	5-P-1407	Left Hand	29	7-A-200	7170-4X	—**KM	5-P-1408	Right Hand	29
626*KN	5-P-1383	Left Hand	27	7-A-270	7170-4X	—**KP	5-P-1384	Right Hand	27
626*KX	5-P-1411	Left Hand	26	7-A-125	328170-94X	—**KY	5-P-1412	Right Hand	26

628 Gear Chart

Adapter Input Gear				Mounting Information P.T.O. to Adapter		P.T.O. Gear (Packaged Loose w/Adapter)			
Model No.	Part No.	Helix Angle	No. Teeth	Spacer Designator	Stud Kit	P.T.O. Pitch	Part No.	Helix Angle	No. Teeth
628*AB	5-P-1001	Spur	19	7-A-140	7170-3X	—**AB	5-P-1001	Spur	19
628*AH	5-P-1004	Spur	22	7-A-165	7170-3X	—**AH	5-P-1004	Spur	22
628*AR	5-P-1008	Left Hand	21	7-A-200	7170-3X	—**GY	5-P-1184	Right Hand	21
628*BG	5-P-1015	Left Hand	23	7-A-165	7170-3X	—**HB	5-P-1187	Right Hand	23
628*DA	5-P-1037	Spur	23	——	328170-76X	—**DA	5-P-1037	Spur	23
628*DB	5-P-1038	Spur	39	7-A-300	7170-5X	—**DB	5-P-1038	Spur	39
628*DU	5-P-1050	Left Hand	28	7-A-270	7170-5X	—**HH	5-P-1193	Right Hand	28
628*EV	5-P-1060	Spur	40	7-A-300	7170-5X	—**EV	5-P-1060	Spur	40
628*IT	KIT ADAPTER	——	——	——	——	——	——	——	——

630 Gear Chart

Adapter Input Gear				Mounting Information P.T.O. to Adapter		P.T.O. Gear (Packaged Loose w/Adapter)			
Model No.	Part No.	Helix Angle	No. Teeth	Spacer Designator	Stud Kit	P.T.O. Pitch	Part No.	Helix Angle	No. Teeth
630*AB	5-P-1001	Spur	19	7-A-140	7170-3X	—**AB	5-P-1001	Spur	19
630*AG	5-P-1003	Spur	22	7-A-140	7170-3X	—**AB	5-P-1001	Spur	19
630*AH	5-P-1004	Spur	22	7-A-140	7170-3X	—**AH	5-P-1004	Spur	22
630*AP	5-P-1006	Left Hand	21	7-A-140	7170-3X	—**GX	5-P-1183	Right Hand	21
630*AR	5-P-1008	Left Hand	21	7-A-187	7170-3X	—**GY	5-P-1184	Right Hand	21
630*AW	5-P-1009	Left Hand	22	7-A-270	7170-4X	—**GZ	5-P-1185	Right Hand	22
630*AX	5-P-1010	Right Hand	22	7-A-140	7170-3X	—**HA	5-P-1186	Left Hand	22
630*BG	5-P-1015	Left Hand	23	7-A-140	7170-3X	—**HB	5-P-1187	Right Hand	23
630*BM	5-P-1020	Left Hand	22	——	——	——	——	——	——
630*BQ	5-P-1023	Left Hand	25	7-A-200	7170-4X	—**BP	5-P-1022	Right Hand	26
630*BS	5-P-1025	Left Hand	26	7-A-062	7170-4X	—**BR	5-P-1024	Right Hand	26
630*CB	5-P-1029	Left Hand	25	7-A-140	7170-3X	—**HD	5-P-1189	Right Hand	25
630*CD	5-P-1031	Left Hand	27	7-A-270	7170-4X	—**HE	5-P-1190	Right Hand	27
630*DA	5-P-1037	Spur	23	——	——	—**DA	5-P-1037	Spur	23
630*DC	5-P-1039	Spur	19	7-A-093	7170-3X	—**DC	5-P-1039	Spur	19
630*DM	5-P-1045	Left Hand	17	7-A-125	7170-3X	—**HF	5-P-1191	Right Hand	17
630*DN	5-P-1046	Left Hand	19	——	——	—**HG	5-P-1192	Right Hand	19
630*DU	5-P-1050	Left Hand	28	7-A-240	7170-4X	—**HH	5-P-1193	Right Hand	28
630*EC	5-P-1055	Left Hand	36	7-A-300	7170-4X	—**HJ	5-P-1194	Right Hand	36
630*ED	5-P-1056	Left Hand	34	7-A-240	7170-4X	—**HK	5-P-1195	Right Hand	34
630*ES	5-P-1059	Left Hand	22	7-A-062	——	—**HL	5-P-1196	Right Hand	22
630*EV	5-P-1060	Spur	40	7-A-300	7170-4X	—**EV	5-P-1060	Spur	40
630*EW	5-P-1061	Left Hand	20	7-A-125	7170-3X	—**HM	5-P-1197	Right Hand	20
630*FC	5-P-1064	Left Hand	26	7-A-165	7170-3X	—**HP	5-P-1199	Right Hand	26
630*FE	5-P-1065	Left Hand	29	7-A-270	7170-4X	—**HQ	5-P-1200	Right Hand	29
630*FN	5-P-1070	Left Hand	26	7-A-300	7170-4X	—**HR	5-P-1201	Right Hand	26
630*GQ	5-P-1150	Left Hand	26	7-A-125	7170-3X	—**HS	5-P-1202	Right Hand	26
630*GR	5-P-1157	Spur	23	7-A-062	——	—**GR	5-P-1157	Spur	23
630*HV	5-P-1300	Spur	24	7-A-140	328170-94X	—**HV	5-P-1300	Spur	24
630*HY	5-P-1237	Left Hand	26	7-A-125	7170-1X	—**JB	5-P-1244	Right Hand	26
630*IT	KIT ADAPTER	——	——	——	——	——	——	——	——
630*JK	5-P-1261	Left Hand	24	7-A-187	7170-3X	—**JL	5-P-1262	Right Hand	24
630*JM	5-P-1263	Left Hand	22	7-A-125	7170-3X	—**JN	5-P-1264	Right Hand	22
630*JU	5-P-1316	Left Hand	25	7-A-200	7170-4X	—**KA	5-P-1318	Right Hand	25
630*JW	5-P-1319	Left Hand	23	7-A-093	7170-3X	—**KB	5-P-1321	Right Hand	23
630*KJ	5-P-1405	Left Hand	33	——	328170-94X	—**KK	5-P-1406	Right Hand	33
630*KL	5-P-1407	Left Hand	29	7-A-200	7170-4X	—**KM	5-P-1408	Right Hand	29
630*KN	5-P-1383	Left Hand	27	7-A-270	7170-4X	—**KP	5-P-1384	Right Hand	27
630*KX	5-P-1411	Left Hand	26	7-A-125	328170-94X	—**KY	5-P-1412	Right Hand	26

Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Technical

645 Gear Chart

Adapter Input Gear				Mounting Information P.T.O. to Adapter		P.T.O. Gear (Packaged Loose w/Adapter)			
Model No.	Part No.	Helix Angle	No. Teeth	Spacer Designator	Stud Kit	P.T.O. Pitch	Part No.	Helix Angle	No. Teeth
645*AB	5-P-1001	Spur	19	7-A-140	7170-3X	—**AB	5-P-1001	Spur	19
645*AG	5-P-1003	Spur	22	7-A-140	7170-3X	—**AG	5-P-1003	Spur	22
645*AH	5-P-1004	Spur	22	7-A-140	7170-3X	—**AH	5-P-1004	Spur	22
645*AP	5-P-1006	Left Hand	21	7-A-140	7170-3X	—**GX	5-P-1183	Right Hand	21
645*AR	5-P-1008	Left Hand	21	7-A-187	7170-3X	—**GY	5-P-1184	Right Hand	21
645*AW	5-P-1009	Left Hand	22	7-A-270	7170-4X	—**GZ	5-P-1185	Right Hand	22
626*AX	5-P-1010	Right Hand	22	7-A-140	7170-3X	—**HA	5-P-1186	Left Hand	22
626*BG	5-P-1015	Left Hand	23	7-A-140	7170-3X	—**HB	5-P-1187	Right Hand	23
626*BH	5-P-1016	Right Hand	25	7-A-240	7170-4X	—**BJ	5-P-1017	Left Hand	25
645*BQ	5-P-1023	Left Hand	25	7-A-200	7170-4X	—**BP	5-P-1022	Right Hand	26
626*BS	5-P-1025	Left Hand	22	7-A-062	7170-4X	—**BR	5-P-1024	Right Hand	26
645*CB	5-P-1029	Left Hand	25	7-A-140	7170-3X	—**HD	5-P-1189	Right Hand	25
645*CD	5-P-1031	Left Hand	27	7-A-270	7170-4X	—**HE	5-P-1190	Right Hand	27
645*DA	5-P-1037	Spur	23	——	——	—**DA	5-P-1037	Spur	23
626*DC	5-P-1039	Spur	19	7-A-093	7170-3X	—**DC	5-P-1039	Spur	19
626*DM	5-P-1045	Left Hand	17	7-A-125	7170-3X	—**HF	5-P-1191	Right Hand	17
626*DN	5-P-1046	Left Hand	19	——	——	—**HG	5-P-1192	Right Hand	19
645*DU	5-P-1050	Left Hand	28	7-A-240	7170-4X	—**HH	5-P-1193	Right Hand	28
626*EC	5-P-1055	Left Hand	36	7-A-300	7170-4X	—**HJ	5-P-1194	Right Hand	36
645*ED	5-P-1056	Left Hand	34	7-A-240	7170-4X	—**HK	5-P-1195	Right Hand	34
645*ES	5-P-1059	Left Hand	22	7-A-062	——	—**HL	5-P-1196	Right Hand	22
645*EV	5-P-1060	Spur	40	7-A-300	7170-4X	—**EV	5-P-1060	Spur	40
645*EW	5-P-1061	Left Hand	20	7-A-125	7170-3X	—**HM	5-P-1197	Right Hand	20
645*FC	5-P-1064	Left Hand	26	7-A-165	7170-3X	—**HP	5-P-1199	Right Hand	26
626*FE	5-P-1065	Left Hand	29	7-A-270	7170-4X	—**HQ	5-P-1200	Right Hand	29
645*FN	5-P-1070	Left Hand	26	7-A-300	7170-4X	—**HR	5-P-1201	Right Hand	26
626*GQ	5-P-1150	Left Hand	26	7-A-125	7170-3X	—**HS	5-P-1202	Right Hand	26
645*GR	5-P-1157	Spur	23	7-A-062	——	—**GR	5-P-1157	Spur	23
626*HV	5-P-1300	Spur	24	7-A-140	328170-94X	—*HV	5-P-1300	Spur	24
645*HY	5-P-1237	Left Hand	26	7-A-125	328170-94X	—**JB	5-P-1244	Right Hand	26
626DJA	5-P-1243	Left Hand	27	7-A-165	7170-3X	—*JC	5-P-1247	Right Hand	27
645*IT	KIT ADAPTER	——	——	——	——	——	——	——	——
645*JD	5-P-1248	Left Hand	20	7-A-200	7170-3X	—**JE	5-P-1249	Right Hand	20
645*JK	5-P-1261	Left Hand	24	7-A-187	7170-3X	—**JL	5-P-1262	Right Hand	24
645*JM	5-P-1263	Left Hand	22	7-A-125	7170-3X	—**JN	5-P-1264	Right Hand	22
645*JP	5-P-1268	Left Hand	33	7-A-187	7170-3X	—**JQ	5-P-1269	Right Hand	33
645*JS	5-P-1310	Left Hand	20	7-A-062	——	—**JY	5-P-1312	Right Hand	20
645*JU	5-P-1316	Left Hand	25	7-A-200	7170-4X	—**KA	5-P-1318	Right Hand	25
645*JW	5-P-1319	Left Hand	23	7-A-093	7170-3X	—**KB	5-P-1321	Right Hand	23
645*KJ	5-P-1405	Left Hand	33	——	328170-94X	—**KK	5-P-1406	Right Hand	33
645*KL	5-P-1407	Left Hand	29	7-A-200	7170-4X	—**KM	5-P-1408	Right Hand	29
645*KN	5-P-1383	Left Hand	27	7-A-270	7170-4X	—**KP	5-P-1384	Right Hand	27
645*KX	5-P-1411	Left Hand	26	7-A-125	328170-94X	—**KY	5-P-1412	Right Hand	——

When these adapters or plates appear on a transmission application page or come with the P.T.O. assembly, they MUST be used. There are no substitutes.

As with other Chelsea P.T.O.s, these geared adapters will change P.T.O. rotation, but they will not change P.T.O. speed.

Geared Adapters and Plates for Import Transmissions

Transmission	Adapter Gear or Plate General Description	"A" Body Thickness or Degree of Angularity
Hino		
328888X **(4)**	Hino KA & KB, MF06S "KK" Code Models 3320, 3323 & 5523	2"
328887-1X **(1)**	Hino LA, LE05S "CG" Code, LH05S, LB	2"
328962X **(1)**	Hino LF06S "DG" Code, Models 2218 & 2218LP	2"
328993X **(1)**	Hino MG06S "LK" & "LL" Codes	2"
329007X **(1)**	Hino LF06S "DH" & "DJ" Codes	2"
329095X **(1)**	Hino LF05S Models 1415 & 1715	2"
Isuzu		
328960-1X **(1)**	Isuzu MBG5B & MBG5H	3.750"
328960-2X **(1)**	Isuzu MBG5F	3.750"
329000-1X **(1)**	Isuzu MSA-5D & MXA-5D	1.155"
328985X **(1)**	Isuzu MLD6E, MLD6C, MLD6F & MLD6Q	1.750"
Mitsubishi		
328997X **(1)**	M4, M5, M6, M5S5 Models FH100 & FK415, M6S5 Models FK455 & FM555, M6S6 Model FM555	45°
42-P-211 **(3)**	MO35S5 & MO38S6 (included with 447C P.T.O.)	1.470"
Nissan		
329011X **(4)**	MPS-50V, TMH-402 "CPB" Series, TMH-425 "CPB" Series, & TMH-462	24°
42-P-190 **(3)**	MLS-61A, MLS-61B UD3000SD (included with 447A P.T.O.)	1.329"

(1) This geared adapter adapts a non-standard opening on the transmission to a standard 6-Bolt opening. It will move the P.T.O. straight out from the transmission by approximately the amount indicated in column "A".

(2) This is a wedge shaped adapter that adapts a non-standard 8-Bolt opening on the transmission to a standard 6-Bolt opening. It will move the P.T.O. out approximately 2.5" and down at a 45° angle.

(3) This is an adapter plate that converts the non-standard opening on the transmission to a standard 6-Bolt opening.

(4) This is a wedge shaped spacer that adapts the non-standard 8-Bolt opening on the transmission to a standard 6-Bolt opening.

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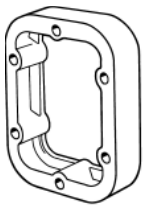

The lubricant in the transmission also lubricates the P.T.O. Therefore, one or more gaskets (as required) must always be used between the metal surfaces of the Power Take-Off, the adapter gear assembly, the adapter plate, and the filler block(s).

Mounting Gasket Kits

Gasket Kit Part Number	Qty.	Gasket Part Number	Application
328570-1X	25 25	35-P-15-1 35-P-15-2	Standard 8 Bolt
328570-2X	10	35-P-15-1	Standard 8 Bolt
328570-3X	100	35-P-9-1	Standard 6 Bolt
328570-4X	100	35-P-9-2	Standard 6 Bolt
328570-6X	50	35-P-9-2	Standard 6 Bolt
329062-3X	25	35-P-56 329015X	328888X, 329011X, & Adapters
329062-5X	25 25	35-P-63-1 35-P-63-2	328957X Adapter
329062-7X	25	35-P-65	328962X & 328993X Adapters
329062-8X	25	35-P-67	328983X Adapter
329062-9X	25 25	35-P-68-1 35-P-68-2	328985X Adapter
329062-10X	25	35-P-72	328997X Adapter
329062-11X	25	35-P-73	329000-1X Adapter

Special Mounting Gaskets

Gasket Part Number	Application
35-P-41	270 X AAJ
35-P-69	271 Series Adapter Plate Mounting
35-P-74	267, 269, 277/278, 859, 870/877, 890/897
35-P-8	435, 437
35-P-84	271 Series P.T.O. Mounting
22-P-120	247 Series
22-P-124	248 Series

Cable Controls Stainless Steel Vinyl Covered Wire

Assembly (Wire & Knob)	Wire Only	Knob Only
328346-10X*	378441-10 (10 Foot Length)	378502
328346-15X**	378441-15 (15 Foot Length)	378502
328346-20X	378441-20 (20 Foot Length)	378502
328346-25X	378441-25 (25 Foot Length)	378502
328346-30X	378441-30 (30 Foot Length)	378502

*This 10 foot cable and knob are standard on the following Chelsea P.T.O.s with a "W" shifter type: 100, 221, 260, 290, 352, 435, 442, 447, 489, and 812.

** The 15 foot cable is standard on the 2442.

Gasket and Seal Kits

P.T.O. Series Part Number	Gasket and Seal Kit	Shifter Cover Seal Kit Part Number		
		Cable Control	Lever Control	Air Control
100	328356-15X	328356-15X	328356-26X	328356-17X
221	328356-13X			
230	328356-55X 329043-13X (BD Output)			
231	328356-56X			
236	329043-7X* 329043-8X** 329043-13X (BD Output)			
238	329043-27X* 329043-28X** 329043-13X (BD Output)			
247	329376-1X			
267	329337-2X			
270	328970X* 328971X*** 329043-18X (BA Output) 328356-21X			
271	328970X* 328971X*** 329043-18X (BA Output) 328356-22X			
277/278	329071-33X (XY Output Only) 329071-19X			
290	328356-67X			328356-71X
295			328356-71X	
442,447	328356-67X 328356-69X (A & C Ratio)	328356-15X	328356-26X	328356-71X
452	328356-59X	328356-15X		
489	328356-50X 328356-69X (A & C Ratio)	328356-15X	328356-26X	328356-17X
660/680	328356-15X	328356-26X	328356-17X	
812	328356-48X	328356-15X	328356-18X	328356-19X
823 Standard Output		328356-2X	328356-2X	
823 w/shifter seal (AB, AC & XV Output) less shifter seal (AB, AC & XV Output)		 328356-3X 328356-5X	 328356-3X 328356-5X	
859	329071-20X			
863	328356-39X			
867	329071-27X (XS Output) 329071-28X (XV & AB Output) 329071-29X (XY Output) 329071-34X (AF Output)			
870	329071-55X (XV, RS Output) (RZ, RY Output)			
880 Standard Output Pump Output	 328356-51X 328356-52X		 328356-53X 328356-53X	 328356-54X 328356-54X
890	329071-46X (XS, XK, AF, AZ) 329071-47X (XY)			
901	328267X			328356-40X
912 Speedometer w/o Speedometer	328356-65X 328356-63X 328356-64X		328356-62X	
931 Standard Output Pump Flange	 328356-45X 328356-46X			
2230 Top Unit Bottom Unit	 328356-15X 328356-55X			
2442 Top Unit Bottom Unit	 328356-15X 328356-13X	 328356-15X	 328356-26X	 328356-17X

* Seal, Gasket, Bearing, Clutch Pack Kit
** Seal, Gasket Bearing, Piston, Clutch Pack Kit
***Gasket, Seal, Bearing, Clutch Pack Kit w/Piston & Back-up Cylinder

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The kits shown below are included for standard applications. Many applications require special stud kits. These are called out on the application pages in the Chelsea HY25-3000/US catalog. Therefore, always consult the application pages in the Chelsea HY25-3000/US before specifying stud kits.

Mounting Kits

Series	Standard (X*)	Deep Mount (Z*)	Metric (G*)	Miscellaneous
CAT-D	7170-120X			7170-119X (XV)
CAT-H	7170-120X			
100	8000-4X		7170-64X	
221	328170-1X	328170-26X		(R*) 328170-155X
230	328170-101X		7170-103X	
231			7170-104X	(M*) 7170-74X
236	328170-94X	328170-95X	7170-72X	
238	328170-200X	328170-200X	328170-201X	
243				(A*) 7170-100X
247				(F*) 8000-19X
252			7170-102X (Allison)	7170-121X (RAM/Aisin)
267	7170-86X			(J*) 7170-87X
269	7170-107X (FJ), 7170-118X (KV)			
270	328170-101X		7170-103X	(A*) 328170-205X
271			7170-104X	(M*) 7170-74X
277	7170-86X			
278	7170-107X			
290	328170-76X		7170-72X	
295	328170-76X		7170-72X	(K*) 328170-76X
340	328170-94X	328170-95X	7170-72X	(S*) 328170-95X
352	328170-76X	328170-94X	7170-72X	
429				7170-72X
435	Varies by transmission. Consult the Chelsea HY25-3000/US catalog.			
442	328170-76X	328170-77X	7170-72X	
447	328170-76X	328170-77X	7170-72X	
452	328170-76X	328170-94X	7170-72X	
489	328170-200X	328170-200X	328170-201X	
522	8000-18X			
541	328794-50X			
660	328170-76X	328170-77X	7170-72X	(D*) 7170-72X
680	328170-200X	328170-200X	7170-68X	
800	328170-113X			
812	328170-115X	328170-115X	7170-113X	
823	328170-8X		328170-185X	
852	328170-8X			
859	7170-86X			
863	328170-8X		328170-185X	
870	7170-86X (FJ, LN), 7170-117X (KV)			
877	7170-86X			
880	328170-192X	328170-195X	328170-201X	
885	328170-192X			
890	7170-86X			
890C	7170-123X			
892	7170-86X			
897	7170-86X			
897C	7170-123X			
899	7170-86X			
626	328170-76X		7170-72X	7170-72X (626DJA*)
628	328170-209X	328170-209X	328170-201X	
630	328170-76X	328170-77X	7170-78X	7170-72X (630DJA*)
645	328170-76X	328170-77X	7170-78X	7170-72X (645DJA*)
329138X,-1X	328170-95X		7170-72X	
328481X	328170-128X			
328481G			8000-14X	
328564X	328170-127X			
328564G			8000-15X	

* This letter is the Mounting Type Designator found in the Model Number — Example: 442XSAHX-A3XK

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Chelsea Products Division
Olive Branch, MS 38654 USA

890 Family Bracket Kits

3000 Series Side Side

Model	Arr.	Kit Part Number	Mounting P.T.O. Code	Description	Bracket	Pressure Hose	Lube Hose
890/897	5	329645-1X	L	Bracket Kit & Hose “L” Mount MD Left Side	50-P-60	329130-5X	329130-11X
890/897	5	329645-2X	R	Bracket Kit & Hose “R” Mount MD Right Side	50-P-61	329130-11X	329130-11X
890/897	5	329645-12X	M	Bracket Kit & Hose “M” Mount MD with Retarder Left Side	50-P-120	329130-5X	329130-11X

3000 Series Side Top

890/897	5	329645-4X	E	Bracket Kit & Hose “E” Mount MD T/S Left Side	50-P-72	329130-5X	329130-11X
890/897	5	329645-5X	T	Bracket Kit & Hose “T” Mount MD T/S Top Right	50-P-67	329075-2X	329130-11X
890/897	5	329645-14X	F	Bracket Kit & Hose “F” Mount MD T/S with Retarder Left Side	*50-P-129	329130-5X	329130-11X
890/897	5	329645-15X	G	Bracket Kit & Hose “G” Mount MD T/S with Retarder Top Right Side	50-P-75	329075-2X	329130-11X

4000 Series 5-Speed

890/897	5	329645-3X	H	Bracket Kit & Hose “H” Mount HD Left Side	50-P-62	329130-4X	329130-11X
890/897	5	329645-6X	U	Bracket Kit & Hose “U” Mount HD Top	50-P-73	329075-2X	329130-11X
890/897	3	329645-7X	C	Bracket Kit & Hose “C” Mount HD with Cooler Left Side	50-P-74	329130-4X	329130-11X
890/897	3	329645-10X	J	Bracket Kit & Hose “J” Mount HD with Retarder Left Side	50-P-126	329130-4X	329130-11X
890/897	5	329645-11X	K	Bracket Kit & Hose “K” Mount HD with Retarder Top Right Side	50-P-127	329075-2X	329130-11X

4700/4800 Series 7-Speed

892/899	5	329645-8X	H	Bracket Kit & Hose “H” Mount 4700 Left Side	50-P-62	329130-4X	329075-2X
892/899	5	329645-9X	U	Bracket Kit & Hose “U” Mount 4700 Top	50-P-73	329075-2X	329075-2X
892/899	3	329645-16X	C	Bracket Kit & Hose “C” Mount 4700 Left Side with Cooler	50-P-74	329130-4X	329075-2X
892/899	3	329645-17X	J	Bracket Kit & Hose “J” Mount 4700 with Retarder Left Side	50-P-126	329130-4X	329075-2X
892/899	5	329645-18X	K	Bracket Kit & Hose “K” Mount 4700 with Retarder Top Right Side	50-P-127	329075-2X	329075-2X

Arr. = P.T.O. Assembly Arrangement

Technical

P.T.O./Dump Pump Combo Valve:

This shift option is designed to make P.T.O./dump pump air shift applications safer and easier. The compact design features a safety interlock to prevent accidental P.T.O. engagement, automatic P.T.O. disengagement when in the “lower” position to prevent the P.T.O. from being accidentally left in gear, and controlled lowering (feathering) for smooth dump body descent. The controls are easily operated, even when the driver is wearing gloves. It is ideal for use in systems with Chelsea dump pumps, wet line reservoirs and P.T.O.s.

Features

Part Number	P.T.O. Kick Out	Spring Reurn to Neutral on Dump Valve Control	Manual Return to Neutral on Dump Valve	Safety Lock on P.T.O.	Dentent Lock on Neutral	Smooth Descent	LED Light
Air Shift P.T.O.s							
329214X & -2X	x	x		x	x	x	x
329316X & -2X			x	x	x	x	x
329358X	x		x	x	x	x	x
Hydraulic Shift P.T.O.s							
329214-1X	x	x		x	x	x	x
329216-1X			x	x	x	x	x

Order Code	P.T.O. Models	Chelsea Part No.	Installation Kit	Description
		Air Shift P.T.O.s		
S	442 & 489	329214X	328388-65X	Hoist-P.T.O. control valve that allows a smooth descent of the body in the “lower” position. Features automatic disengagement of the P.T.O. in “lower”. Lever on the control valve returns to neutral from the “raise” position when released (dead man’s handle).
S	230/231 & 236	329214-2X	328388-89X	
T	442 & 489	329316X	328388-72X	Hoist-P.T.O. control valve that allows a smooth descent of the body in the “lower” position. Requires manual disengagement of the P.T.O. in “lower”.
T	230/231 & 236	329316-2X	328388-90X	
U	442 & 489	329358X	328388-79X	Hoist-P.T.O. control valve that allows a smooth descent of the body in the “lower” position. Requires manual disengagement of the P.T.O. in “lower”.
		Hydraulic Shift P.T.O.s		
S	277/278	329214-1X	328388-85X	Hoist-P.T.O. control valve that allows a smooth descent of the body in the “lower” position. Features automatic disengagement of the P.T.O. in “lower”. Lever on the control valve returns to neutral from the “raise” position when released (dead man’s handle).
S	270/271	329214-1X	328388-87X	
T	277/278	329216-1X	328388-86X	Hoist-P.T.O. control valve that allows a smooth descent of the body in the “lower” position. Requires manual disengagement of the P.T.O. in “lower”.
T	270/271	329216-1X	328388-88X	

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General Specifications

Pump	Gear Width	GPM US at 1000 R.P.M.	Cubic Inch Displacement	Horsepower Input (at 2000 PSI) 1000 R.P.M.	Maximum Pressure	Maximum Speed
C101/102-20	2.000"	22	5.1	25.6	2500	2400 R.P.M.
C101/102-25	2.500"	27.6	6.38	31	2500	2500 R.P.M.
G101/102-1-0.7	.750"	6.4	1.48	6.2	2500	2500 R.P.M.
G101/102-1-1.5	1.500"	12.8	2.96	13.7	2500	2500 R.P.M.
G101/102-1-2.0	2.000"	17	3.94	18.8	2500	2500 R.P.M.

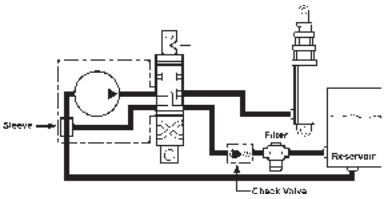
All data based on S.A.E. 10W oil at 150°F. Minimum pump speed at pressure is 800 R.P.M. US Gallons displacements are theoretical. They will vary depending on speed, pressure, and temperature.

Three-Line Installation (for intermittent or continuous operation)

With the internal sleeve installed and three-line installation, two advantages are provided:
A. Minimizes the possibility of overheating
B. The filter keeps the system clean for prolonged trouble-free operation.*
*If filter is used, check valve must be added to prevent backflushing filter.

Dump Pump 3-Line System Shown in the Neutral Mode

In the neutral mode, all the flow goes across the spool to the Return Port and back to tank because the internal by-pass passage is blocked by the sleeve in the inlet port. Any pressure higher than the setting of the relief valve is relieved internally through the by-pass to the Return Port.

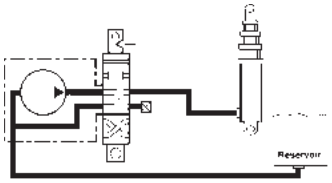


Two-Line Installation (for intermittent operation only)

With the internal sleeve removed a two-line hook-up can be arranged, however the oil circulates internally (within the pump). Continuous operation may result in overheating.

Dump Pump 2-Line System Shown in the Neutral Mode

In the neutral mode, the flow goes across the spool to the Return Port and the integral by-pass passages. Because the Return Port is plugged, and the pressure drop through the by-pass is less than what is required to activate the cylinder, all flow goes through the by-pass back to the inlet side of the pump. Any pressure higher than the setting of the relief valve is relieved internally through the by-pass, back to the inlet port.



These pumps are shipped with an internal sleeve for three-line (continuous duty, filtered) systems. For two-line systems for intermittent duty cycles*, discard the sleeve.

*Pump/P.T.O. operates 5 out of every 15 minutes. Note that three-line systems are always recommended to prolong the trouble-free operation of the hydraulic system.

Notes

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