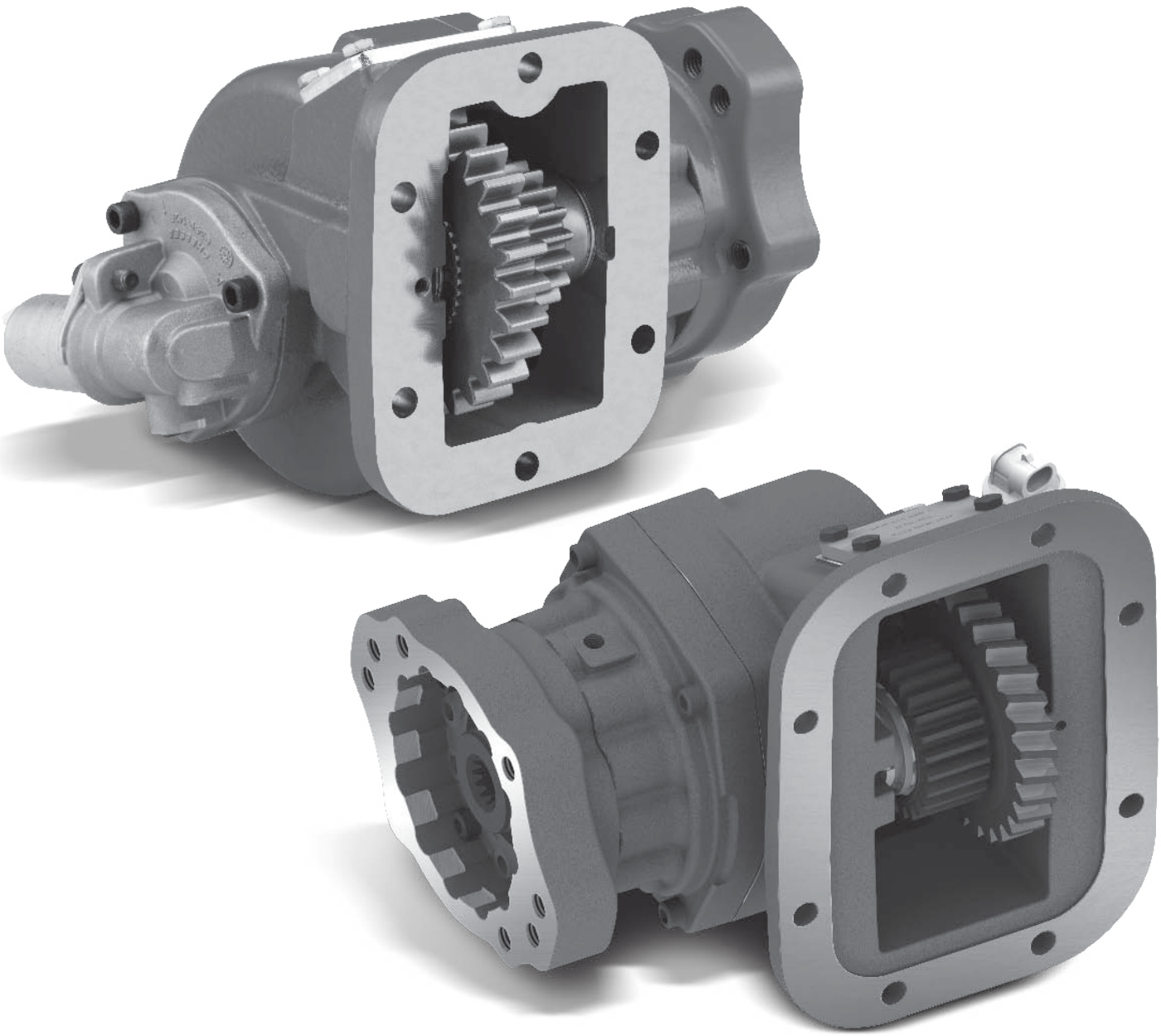
Effective: May 15, 2017
Supersedes: HY25-2272-M1/US January 15, 2017



Power Take-Offs Parts List

272, 282 Series

Parker | Chelsea

ENGINEERING YOUR SUCCESS.

WARNING — User Responsibility

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

Offer of Sale

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the "Offer of Sale".

© Copyright 2017, Parker Hannifin Corporation, All Rights Reserved

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

Model Number Designator - 272 Series 1
Model Number Designator - 282 Series 2
Exploded View 3
Bill of Materials 4-6
Gear Ratio Options - 272 Series 7-8
Gear Ratio Options - 282 Series 9
Lube Options 10
Shift Options 11-12
Assembly Arrangements 13-14
Output Options 15-23
Installation Sketches 24-45
Kits Bill of Materials 46-58
Offer of Sale 60

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

Model Number Designator

272/282 Series

272 X B FN P – B 5 XD

Basic Model

272

Mounting Option

- **X** = Standard Stud Kit
- **G** = Metric Stud Kit
- **K** = Standard Mount w/o Stud Kit
- **Z** = Deep Mount
- **L** = Deep Mount w/o Stud Kit
- **M** = Low-Profile w/ Standard Stud Kit
- **N** = Low-Profile w/ Metric Stud Kit
- **A** = Aisin Only (Non-Dodge/Ram)
- **D** = Dodge/Aisin
- **R** = RAM/Aisin

Gear Ratio

- **A** = 19/53
- **B** = 22/50
- **C** = 25/47
- **D** = 28/44
- **G** = 31/41
- **K** = 33/39
- **M** = 35/37
- **P** = 37/35
- **S** = 39/33

Input Option

Aisin
Allison
EATON Fuller
Mack
NOTE: For more details, see Application Catalog. (Transmission model number required.)

Lube Option

- **X** = No Pressure Lube

Pressure

- **P** = Pressure Lube
- [5] **R** = Valve Cap Rotated 120°
- [5] **S** = Valve Cap Rotated 240°

Wet Spline

- [5] **W** = Wet Spline
- [5] **V** = Valve Cap Rotated 120° w/ Wet Spline
- [5] **Y** = Valve Cap Rotated 240° w/ Wet Spline

[5] Automatically pressure lubed
[64] Hyd shift PTOs only

Output Option

Driveline Output

- **XD** = Rd Standard Shaft (1-1/4"-5/16" Key)
- **XV** = 1410 Series Companion Flange
- **BD** = Drag Brake - Rd Standard Shaft (1-1/4"-5/16" Key)
- **BV** = Drag Brake - 1410 Series Companion Flange
- [64] **SD** = Smart Start - Rd Standard Shaft (1-1/4"-5/16" Key)
- [64] **SV** = Smart Start - 1410 Series Companion Flange
- **AB** = DIN 120 Flange
- **AC** = DIN 100 Flange

Pump Mount

- **RE** = Rotatable SAE A 2-Bolt Flange, SAE A Shaft (5/8" - 9T)
- **RB** = Rotatable SAE B 4-Bolt Flange, SAE B Shaft (7/8" - 13T)
- **RK** = Rotatable SAE B 2 or 4-Bolt Flange, SAE B Shaft (7/8" - 13T)
- **RF** = Rotatable SAE B 2 or 4-Bolt Flange, SAE BB Shaft (1" - 15T)
- **RZ** = Rotatable SAE B 2 or 4-Bolt Flange, SAE C Shaft (1-1/4" - 14T)
- **RS** = Rotatable SAE C 2 or 4-Bolt Flange, SAE C Shaft (1-1/4" - 14T)
- **RY** = Rotatable ISO 7653 Flange, DIN 5462 Shaft
- **XR** = Chelsea Special (Cloverleaf), SAE B Shaft (7/8" - 13T)

Assembly Arrangement

- **3** = Right side - bulge down
  Left side - bulge up
- **5** = Left side - bulge down
  Right side - bulge up

Shift Option

Hydraulic

- **B** = 12V Elec/Hyd
- **D** = 24V Elec/Hyd
- **E** = 12V Elec/Hyd w/o Installation Kit
- **N** = 24V Elec/Hyd w/o Installation Kit
- **K** = 12V Elec/Hyd w/ EOC
- **L** = 24V Elec/Hyd w/ EOC
- **G** = 12V Elec/Hyd Remote Valve w/o EOC
- **H** = 24V Elec/Hyd Remote Valve w/o EOC

Air

- **A** = Manual Air Shift
- **V** = Manual Air Shift w/o Installation Kit
- **1** = 12V Elec/Air
- **2** = 24V Elec/Air
- **J** = 12V Elec/Air w/ EOC
- **3** = 24V Elec/Air w/ EOC
- **P** = 12V Elec/Air Remote
- **Q** = 24V Elec/Air Remote
- **R** = 12V Elec/Air Remote w/ EOC
- **4** = 24V Elec/Air Remote w/ EOC

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

282 X B AJ X – B 5 X D

Basic Model

282

Mounting Option

- **X** = Standard Mount
- **G** = Metric Stud Kit
- **K** = Standard Mount w/o Stud Kit
- **E** = EATON Fuller Mount (Brazil)

Gear Ratio

- **B** = 22/50
- **C** = 25/47
- **D** = 28/44
- **G** = 31/41
- **K** = 33/39
- **M** = 35/37
- **P** = 37/35
- **S** = 39/33
- **T** = 41/31

Input Option

Aisin
Allison
EATON Fuller
Mack
NOTE: For more details, see Application Catalog. (Transmission model number required.)

Lube Option

- **X** = No Pressure Lube

Pressure

- **P** = Pressure Lube
- [5] **R** = Valve Cap Rotated 120°
- [5] **S** = Valve Cap Rotated 240°

Wet Spline

- [5] **W** = Wet Spline
- [5] **V** = Valve Cap Rotated 120° w/ Wet Spline
- [5] **Y** = Valve Cap Rotated 240° w/ Wet Spline

[5] Automatically pressure lubed
[64] Hyd shift PTOs only

Output Option

Driveline Output

- **XD** = Rd Standard Shaft (1-1/4"-5/16" Key)
- **XV** = 1410 Series Companion Flange
- **BD** = Drag Brake - Rd Standard Shaft (1-1/4"-5/16" Key)
- **BV** = Drag Brake - 1410 Series Companion Flange
- [64] **SD** = Smart Start - Rd Standard Shaft (1-1/4"-5/16" Key)
- [64] **SV** = Smart Start - 1410 Series Companion Flange
- **AB** = DIN 120 Flange
- **AC** = DIN 100 Flange

Pump Mount

- **RE** = Rotatable SAE A 2-Bolt Flange, SAE A Shaft (5/8" - 9T)
- **RB** = Rotatable SAE B 4-Bolt Flange, SAE B Shaft (7/8" - 13T)
- **RK** = Rotatable SAE B 2 or 4-Bolt Flange, SAE B Shaft (7/8" - 13T)
- **RF** = Rotatable SAE B 2 or 4-Bolt Flange, SAE BB Shaft (1" - 15T)
- **RZ** = Rotatable SAE B 2 or 4-Bolt Flange, SAE C Shaft (1-1/4" - 14T)
- **RS** = Rotatable SAE C 2 or 4-Bolt Flange, SAE C Shaft (1-1/4" - 14T)
- **RY** = Rotatable ISO 7653 Flange, DIN 5462 Shaft
- **XR** = Chelsea Special (Cloverleaf), SAE B Shaft (7/8" - 13T)

Assembly Arrangement

- **3** = Right side - bulge down
Left side - bulge up
- **5** = Left side - bulge down
Right side - bulge up

Shift Option

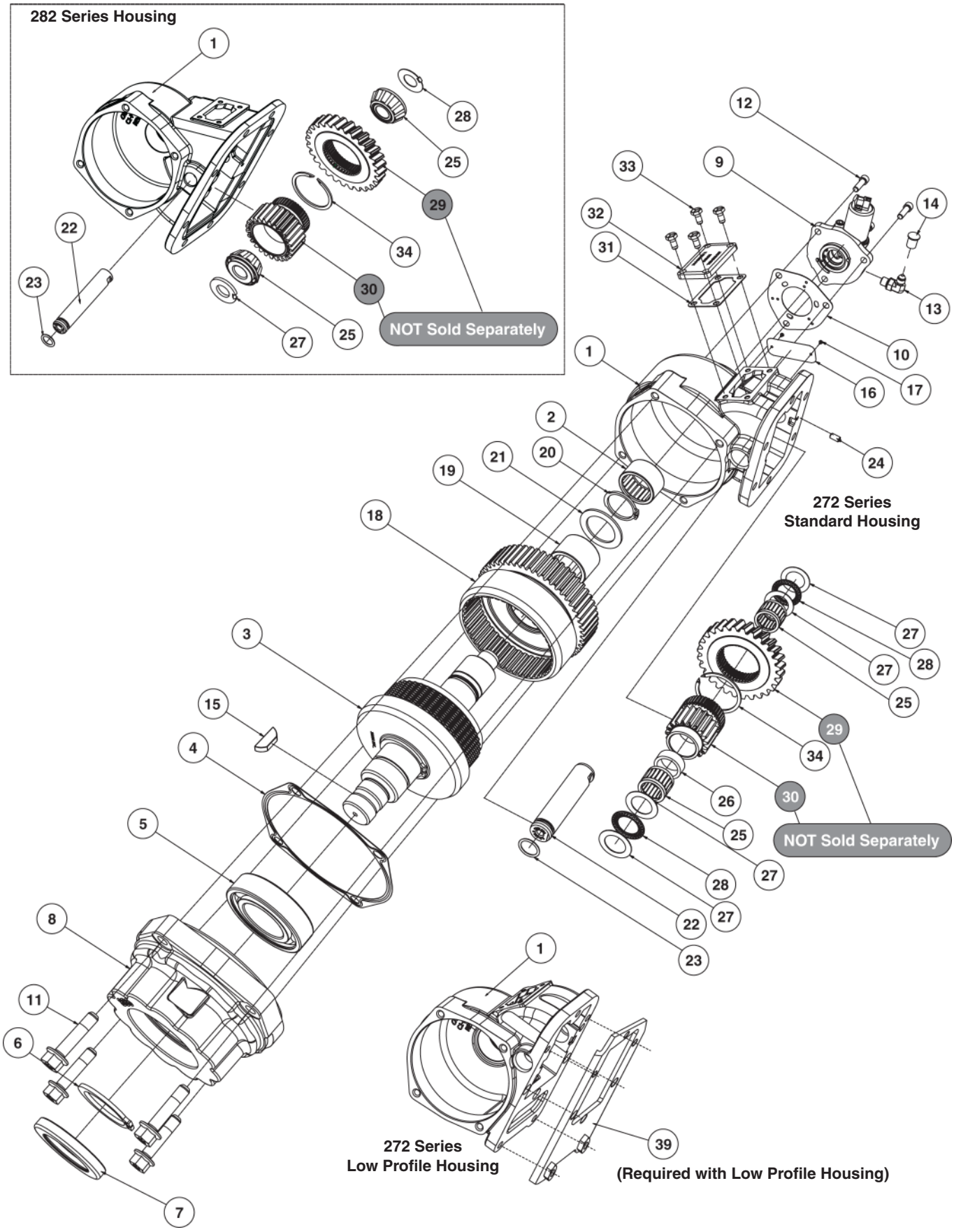
Hydraulic

- **B** = 12V Elec/Hyd
- **D** = 24V Elec/Hyd
- **E** = 12V Elec/Hyd w/o Installation Kit
- **N** = 24V Elec/Hyd w/o Installation Kit
- **K** = 12V Elec/Hyd w/ EOC
- **L** = 24V Elec/Hyd w/ EOC
- **G** = 12V Elec/Hyd Remote Valve w/o EOC
- **H** = 24V Elec/Hyd Remote Valve w/o EOC

Air

- **A** = Manual Air Shift
- **V** = Manual Air Shift w/o Installation Kit
- **1** = 12V Elec/Air
- **2** = 24V Elec/Air
- **J** = 12V Elec/Air w/ EOC
- **3** = 24V Elec/Air w/ EOC
- **P** = 12V Elec/Air Remote
- **Q** = 24V Elec/Air Remote
- **R** = 12V Elec/Air Remote w/ EOC
- **4** = 24V Elec/Air Remote w/ EOC

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



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

Item	Part Number	Description	Qty. 272	Qty. 282
1	**1-P-766**	Housing (3 Arrangement A, D, G, K, R, X)	1 or	
	1-P-767	Housing (5 Arrangement A, D, G, K, R, X)	1 or	
	1-P-769	Housing (3 Arrangement, Low Profile M, N)	1 or	
	1-P-771	Housing (5 Arrangement, Low Profile M, N)	1 or	
	1-P-722	Housing (3 Arrangement, Deep Mount L, Z)	1 or	
	1-P-723	Housing (5 Arrangement, Deep Mount L, Z)	1	
	1-P-770	Housing (3 Arrangement ALL)		1 or
	1-P-772	Housing (5 Arrangement ALL)		1
2	**560972**	Needle Roller Bearing Ass'y 1.500" x 1.875" x 1.000"	1	1
3	**329828-1X**	Drive Shaft & Clutch Ass'y XD (3-P-1133 Shaft) (HYD)	1 or	1 or
	329829X	Drive Shaft & Clutch Ass'y BV (3-P-1139 Shaft) (HYD)	1 or	1 or
	329832-1X	Drive Shaft & Clutch Ass'y XD (3-P-1133 Shaft) (AIR)	1	1
	329833X	Drive Shaft & Clutch Ass'y BV (3-P-1139 Shaft) (AIR)	1	1
4	**22-P-151**	Gasket	1	1
5	**550311**	Bearing-Ball 1.77" x 3.346" x .748"	1	1
6	**379555**	Lockring	1	1
7	**28-P-267**	Oil Seal 2.627" x 1.750" x .312"	1	
	28-P-225	Oil Seal 2.004" x 1.375" x .315"		1
8	**21-P-886**	Bearing Cap	1	1
9	**See pages 11-12**	Valve and Shift Cap Assembly	1	1
10	**22-P-112**	Valve Cap Gasket	1	1
11	**380563-14**	Hex Flange Head Capscrew .375"-16 x 1.500" Grade 8 (Non-Drag Brake Option)	4 or	4 or
	380563-28	Hex Flange Head Capscrew .375"-16 x 3.500" Grade 8 (Drag Brake Option)	4	4
12	**378447-6**	Socket Head Capscrew .312"-18 x 1.000"	3	3
13	**379486**	90° Elbow .438"-20 (Hydraulic Shift Options Only)	1	1
14	**379564-2**	Thread Cap .438" (Hydraulic Shift Options Only)	1	1
15	**500007-29**	Woodruff Key (XD Output Only)	1	1
16	**68-P-51**	Name Plate	1	1
17	**378422**	Drive Screw	2	2
18	**See pages 7-9**	Output Gear	1	1
19	**561088**	Bearing-Needle Roller Ass'y 1.500" x 1.875" x 1.250"	1	1
20	**379746**	Lockring	1	1
21	**31-P-70**	Thrust Washer 1.507" x 2.167" x .094"	1	1
22	**9-P-109**	Idler Shaft 1.00"	1	
	9-P-106	Idler Shaft .75"	N/R	1
23	**28-P-198**	O-Ring .798" x .103"	1	
	28-P-191	O-Ring .549" x .103"	N/R	1
24	**378452-7**	Set Screw Socket Head .250"-20 x .500"	1	1
25	**550886**	Bearing-Needle Roller Ass'y 1.000" x 1.312" x 1.000"	2	N/R
	550439	Bearing-Tapered Cone .750" x .8598"	N/R	2
	561006	Bearing-Tapered Cone .750" x .655" (B Ratio Only)	N/R	2
26	**14-P-54**	Spacer 1.035" x 1.310" x .462"	1	N/R
27	**31-P-61**	Thrust Washer 1.007" x 1.542" x .031"	4	N/R
	14-P-73-1	Spacer .762" x 1.5" x .150"	N/R	1
	14-P-73-2	Spacer .762" x 1.5" x .153"	N/R	1
	14-P-73-3	Spacer .762" x 1.5" x .156"	N/R	1
28	**560920**	Thrust Bearing 1.000" x .078"	2	N/R
	31-P-102	Thrust Washer .754" x .440" x .030	N/R	1

N/R = Not Required

Continued on Next Page

Item	Part Number	Description	Qty. 272	Qty. 282
Not Sold Separately				
29	**See pages 7-9**	Input Gear	1	1
30	**See pages 7-9**	Ratio Gear	1	1
31	**35-P-118**	Gasket	1	1
32	**34-P-315**	Cover Plate	1 or	1 or
	34-P-316	Cover Plate EOC (w/ EOC or J, K, L, R, 3, 4 Shift Types Only)	1	1
33	**378429-4**	Hex Head Capscrew .250"-20 x .500"	4	4
34	**379522**	Lockring	1	1
35	**380511**	Tapered Plug .302" (W, V & Y Lubrication Only)	1	1
36	**69-P-18**	Wet Spline Tag (W, V & Y Lubrication Only)	1	1
37	**379231**	Pipe Plug .125"-27 (w/ EOC or J, K, L, R, 3, 4 Shift Types Only)	1	1
38	**379242**	Straight Adapter .125"-27 x .750"-16 (w/ EOC or J, K, L, R, 3, 4 Shift Types Only)	1	1
39	**329150X**	Adapter Plate	1	
		See pages 46-58 for Bill of Materials for the below loose parts.		
		SERVICE KITS		
	329071-62X	Gasket & Seal Kit (All Outputs Except BD, BV)		
		For BD, BV Outputs use 329071-62X plus parts below:		
	28-P-244	O-Ring 1.174" x .103"	2	
	22-P-151	Gasket	1	
	329071-63X	Bearing Kit AB, AC, XD, XV, RF, RK, RS, RY, RZ (All Outputs Except BV, BD)		
	329071-64X	Bearing Kit (BV & BD Outputs)		
	329071-83X	Hydraulic Solenoid Valve O-Ring Kit (For Part Number 380123**)		
	329678X	Gear & Clutch Plates Kit (All)		
		STUD KITS		
	7170-127X	Standard Stud Kit (272M)	1 or	
	7170-129X	Standard Stud Kit (272X, E)	1 or	
	7170-130X	Metric Stud Kit (272N)	1 or	
	7170-72X	Metric Stud Kit (272G Except KU Gear)	1 or	
	7170-128X	Metric Stud Kit (272G*KU)	1 or	
	7170-131X	Stud Kit (272Z)	1	
	328170-200X	Stud Kit (282X)		1 or
	328170-201X	Metric Stud Kit (282G)		1
		INSTALLATION INSTRUCTIONS KITS (Mounting Gaskets are included in Gasket Kits)		
	328950-6X	Gasket & Installation Instructions Kit (All 272 Except M & N Mounting)	1 or	
	328948-5X	Gasket & Installation Instructions Kit (All 272 M & N Mounting)	1	
	3298951-8X	Gasket & Installation Instructions Kit (All 282)		1
		MOUNTING GASKETS		
		(All 272 Except M & N Mounting)		
	35-P-9-1	Mounting Gasket .010" 6-Bolt	2	
	35-P-9-2	Mounting Gasket .020" 6-Bolt	2	
	35-P-41	Mounting Gasket .030" 6-Bolt	1	
		(All 272 M & N Mounting)	1	
	35-P-69	Mounting Gasket	1	
	35-P-84	Mounting Gasket (Long)	1	
		(All 282)		
	35-P-15-1	Mounting Gasket .010" 8-Bolt		2
	35-P-15-2	Mounting Gasket .020" 8-Bolt		2

N/R = Not Required

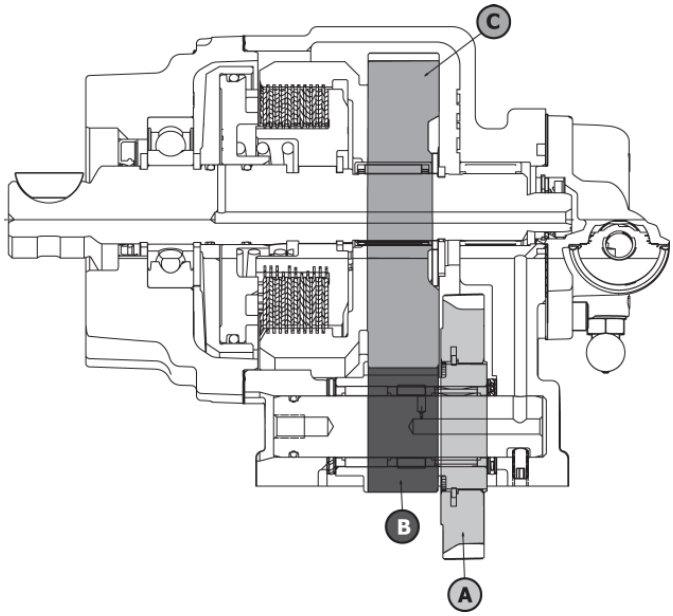
Continued on Next Page

Item	Part Number	Description	Qty. 272	Qty. 282
		HYDRAULIC INSTALLATION KITS		
	329892-12X	12V Hyd Valve Installation Kit (B Shift, Except HV Gear)	1 or	1 or
	329882-12X	12V Hyd Valve Installation Kit (B Shift, HV Gear)	1 or	
	329907-12X	12V Hyd Valve Installation Kit (B Shift, KU Gear, Except D, R Mount)	1 or	
	329884-12X	12V Hyd Valve Installation Kit (B Shift, KU Gear, D Mount)	1 or	
	329841-12X	12V Hyd Valve Installation Kit (B Shift, KU Gear, R Mount)	1 or	
	329892-24X	24V Hyd Valve Installation Kit (D Shift, Except HV Gear)	1 or	1 or
	329882-24X	24V Hyd Valve Installation Kit (D Shift, HV Gear)	1 or	
	329907-24X	24V Hyd Valve Installation Kit (D Shift, KU Gear, Except D, R Mount)	1 or	
	329885-12X	12V Remote Hyd Valve Installation Kit (G Shift, Except HV Gear)	1 or	1 or
	329842-12X	12V Remote Hyd Valve Installation Kit (G Shift, HV Gear)	1 or	
	329908-12X	12V Remote Hyd Valve Installation Kit (G Shift, KU Gear, Except D, R Mount)	1 or	
	329888-12X	12V Remote Hyd Valve Installation Kit (G Shift, KU Gear, D Mount)	1 or	
	329887-12X	12V Remote Hyd Valve Installation Kit (G Shift, KU Gear, R Mount)	1 or	
	329885-24X	24V Remote Hyd Valve Installation Kit (H Shift, Except HV Gear)	1 or	1 or
	329842-24X	24V Remote Hyd Valve Installation Kit (H Shift, HV Gear)	1 or	
	329908-24X	24V Remote Hyd Valve Installation Kit (H Shift, KU Gear, Except D, R Mount)	1 or	
	329900X	12V & 24V Hyd Valve Installation Kit w/ EOC (K Shift & L Shift, Except HV, KU Gear)	1 or	1
	329883X	12V & 24V Hyd Valve Installation Kit w/ EOC (K Shift & L Shift, HV Gear)	1 or	
	329886X	12V & 24V Hyd Valve Installation Kit w/ EOC (K Shift & L Shift, KU Gear, D, R Mount)	1	
		AIR INSTALLATION KITS		
	328388-113X	Air Shift Installation Kit (A Shift)	1 or	1 or
	329893-12X	12V Elec/Air Valve Installation Kit (1 Shift)	1 or	1 or
	329909-12X	12V Elec/Air Valve Installation Kit (1 Shift, HV Gear)	1 or	
	329891-12X	12V Remote Elec/Air Valve Installation Kit (P Shift, Except HV Gear)	1 or	1 or
	329910-12X	12V Remote Elec/Air Valve Installation Kit (P Shift, HV Gear)	1 or	
	329889-12X	12V Remote Elec/Air Valve Installation Kit w/ EOC (R Shift, Except HV Gear)	1 or	1 or
	329890-12X	12V Remote Elec/Air Valve Installation Kit w/ EOC (R Shift, HV Gear)	1 or	
	329893-24X	24V Elec/Air Valve Installation Kit (2 Shift, Except HV Gear)	1 or	1 or
	329909-24X	24V Elec/Air Valve Installation Kit (2 Shift, HV Gear)	1 or	
	329891-24X	24V Remote Elec/Air Valve Installation Kit (Q Shift, Except HV Gear)	1 or	1 or
	329910-24X	24V Remote Elec/Air Valve Installation Kit (Q Shift, HV Gear)	1 or	
	329889-24X	24V Remote Elec/Air Valve Installation Kit w/ EOC (4 Shift, Except HV Gear)	1 or	1 or
	329890-24X	24V Remote Elec/Air Valve Installation Kit w/ EOC (4 Shift, HV Gear)	1 or	
	329894X	12V & 24V Elec/Air Valve Installation Kit w/ EOC (J Shift & 3 Shift, Except HV Gear)	1 or	1 or
	329911X	12V & 24V Elec/Air Valve Installation Kit w/ EOC (J Shift & 3 Shift, HV Gear)	1 or	
		CONVERSION KITS		
	329175-12X	12V w/ EOC Conversion Kit		
	329354-12X	12V Remote Hyd Valve Conversion Kit (All)		
	329175-24X	24V w/ EOC Conversion Kit		
	329354-24X	24V Remote Hyd Valve Conversion Kit (All)		
	See pages 55-58	Output Conversion Kits Bill of Materials		

N/R = Not Required

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

Gear Chart – 272 Series



GEAR DESIGNATOR	INPUT GEAR ASSEMBLY	NOT Sold Separately				OUTPUT GEAR (18)	NO. TEETH C
		INPUT GEAR (29)	NO. TEETH A	RATIO GEAR (30)	NO. TEETH B		
272*AFN	5-P-1509-1X	5-P-1509	28	5-P-1498	19	2-P-925	53
272*BFN	5-P-1509-2X	5-P-1509	28	5-P-1499	22	2-P-926	50
272*CFN	5-P-1509-3X	5-P-1509	28	5-P-1500	25	2-P-927	47
272*DFN	5-P-1509-4X	5-P-1509	28	5-P-1501	28	2-P-928	44
272*GFN	5-P-1509-5X	5-P-1509	28	5-P-1502	31	2-P-929	41
272*KFN	5-P-1509-6X	5-P-1509	28	5-P-1503	33	2-P-931	39
272*MFN	5-P-1509-7X	5-P-1509	28	5-P-1504	35	2-P-933	37
272*PFN	5-P-1509-8X	5-P-1509	28	5-P-1505	37	2-P-935	35
272*SFN	5-P-1509-9X	5-P-1509	28	5-P-1506	39	2-P-936	33
272*AAJ	5-P-1510-1X	5-P-1510	25	5-P-1498	19	2-P-925	53
272*BAJ	5-P-1510-2X	5-P-1510	25	5-P-1499	22	2-P-926	50
272*CAJ	5-P-1510-3X	5-P-1510	25	5-P-1500	25	2-P-927	47
272*DAJ	5-P-1510-4X	5-P-1510	25	5-P-1501	28	2-P-928	44
272*GAJ	5-P-1510-5X	5-P-1510	25	5-P-1502	31	2-P-929	41
272*KAJ	5-P-1510-6X	5-P-1510	25	5-P-1503	33	2-P-931	39
272*MAJ	5-P-1510-7X	5-P-1510	25	5-P-1504	35	2-P-933	37
272*PAJ	5-P-1510-8X	5-P-1510	25	5-P-1505	37	2-P-935	35
272*SAJ	5-P-1510-9X	5-P-1510	25	5-P-1506	39	2-P-936	33
272*ADA	5-P-1511-1X	5-P-1511	27	5-P-1498	19	2-P-925	53
272*BDA	5-P-1511-2X	5-P-1511	27	5-P-1499	22	2-P-926	50
272*CDA	5-P-1511-3X	5-P-1511	27	5-P-1500	25	2-P-927	47
272*DDA	5-P-1511-4X	5-P-1511	27	5-P-1501	28	2-P-928	44
272*GDA	5-P-1511-5X	5-P-1511	27	5-P-1502	31	2-P-929	41
272*KDA	5-P-1511-6X	5-P-1511	27	5-P-1503	33	2-P-931	39
272*MDA	5-P-1511-7X	5-P-1511	27	5-P-1504	35	2-P-933	37
272*PDA	5-P-1511-8X	5-P-1511	27	5-P-1505	37	2-P-935	35
272*SDA	5-P-1511-9X	5-P-1511	27	5-P-1506	39	2-P-936	33
272*AES	5-P-1512-1X	5-P-1512	23	5-P-1498	19	2-P-925	53
272*BES	5-P-1512-2X	5-P-1512	23	5-P-1499	22	2-P-926	50
272*CES	5-P-1512-3X	5-P-1512	23	5-P-1500	25	2-P-927	47
272*DES	5-P-1512-4X	5-P-1512	23	5-P-1501	28	2-P-928	44
272*GES	5-P-1512-5X	5-P-1512	23	5-P-1502	31	2-P-929	41
272*KES	5-P-1512-6X	5-P-1512	23	5-P-1503	33	2-P-931	39
272*MES	5-P-1512-7X	5-P-1512	23	5-P-1504	35	2-P-933	37
272*PES	5-P-1512-8X	5-P-1512	23	5-P-1505	37	2-P-935	35
272*SES	5-P-1512-9X	5-P-1512	23	5-P-1506	39	2-P-936	33

NOTE: Input Gear Assembly includes Input Gear, Ratio Gear and 379522 pre-assembled.

Continued on Next Page

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

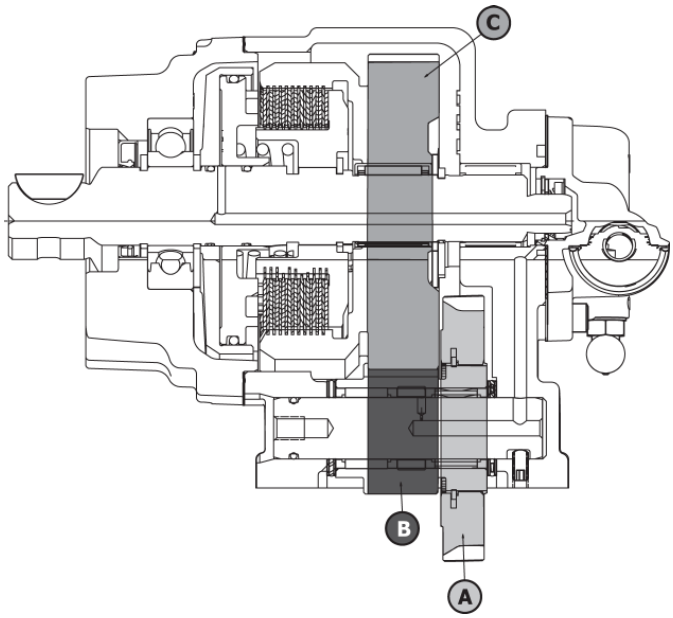
Gear Chart – 272 Series (Continued)

GEAR DESIGNATOR	INPUT GEAR ASSEMBLY	NOT Sold Separately				OUTPUT GEAR (18)	NO. TEETH C
		INPUT GEAR (29)	NO. TEETH A	RATIO GEAR (30)	NO. TEETH B		
272*AJK	5-P-1513-1X	5-P-1513	26	5-P-1498	19	2-P-925	53
272*BJK	5-P-1513-2X	5-P-1513	26	5-P-1499	22	2-P-926	50
272*CJK	5-P-1513-3X	5-P-1513	26	5-P-1500	25	2-P-927	47
272*DJK	5-P-1513-4X	5-P-1513	26	5-P-1501	28	2-P-928	44
272*GJK	5-P-1513-5X	5-P-1513	26	5-P-1502	31	2-P-929	41
272*KJK	5-P-1513-6X	5-P-1513	26	5-P-1503	33	2-P-931	39
272*MJK	5-P-1513-7X	5-P-1513	26	5-P-1504	35	2-P-933	37
272*PJK	5-P-1513-8X	5-P-1513	26	5-P-1505	37	2-P-935	35
272*SJK	5-P-1513-9X	5-P-1513	26	5-P-1506	39	2-P-936	33
272*AJW	5-P-1514-1X	5-P-1514	25	5-P-1498	19	2-P-925	53
272*BJW	5-P-1514-2X	5-P-1514	25	5-P-1499	22	2-P-926	50
272*CJW	5-P-1514-3X	5-P-1514	25	5-P-1500	25	2-P-927	47
272*DJW	5-P-1514-4X	5-P-1514	25	5-P-1501	28	2-P-928	44
272*GJW	5-P-1514-5X	5-P-1514	25	5-P-1502	31	2-P-929	41
272*KJW	5-P-1514-6X	5-P-1514	25	5-P-1503	33	2-P-931	39
272*MJW	5-P-1514-7X	5-P-1514	25	5-P-1504	35	2-P-933	37
272*PJW	5-P-1514-8X	5-P-1514	25	5-P-1505	37	2-P-935	35
272*SJW	5-P-1514-9X	5-P-1514	25	5-P-1506	39	2-P-936	33
272*AKU	5-P-1515-1X	5-P-1515	36	5-P-1498	19	2-P-925	53
272*BKU	5-P-1515-2X	5-P-1515	36	5-P-1499	22	2-P-926	50
272*CKU	5-P-1515-3X	5-P-1515	36	5-P-1500	25	2-P-927	47
272*DKU	5-P-1515-4X	5-P-1515	36	5-P-1501	28	2-P-928	44
272*GKU	5-P-1515-5X	5-P-1515	36	5-P-1502	31	2-P-929	41
272*KKU	5-P-1515-6X	5-P-1515	36	5-P-1503	33	2-P-931	39
272*MKU	5-P-1515-7X	5-P-1515	36	5-P-1504	35	2-P-933	37
272*PKU	5-P-1515-8X	5-P-1515	36	5-P-1505	37	2-P-935	35
272*SKU	5-P-1515-9X	5-P-1515	36	5-P-1506	39	2-P-936	33
272*AHV	5-P-1516-1X	5-P-1516	27	5-P-1498	19	2-P-925	53
272*BHV	5-P-1516-2X	5-P-1516	27	5-P-1499	22	2-P-926	50
272*CHV	5-P-1516-3X	5-P-1516	27	5-P-1500	25	2-P-927	47
272*DHV	5-P-1516-4X	5-P-1516	27	5-P-1501	28	2-P-928	44
272*GHV	5-P-1516-5X	5-P-1516	27	5-P-1502	31	2-P-929	41
272*KHV	5-P-1516-6X	5-P-1516	27	5-P-1503	33	2-P-931	39
272*MHV	5-P-1516-7X	5-P-1516	27	5-P-1504	35	2-P-933	37
272*PHV	5-P-1516-8X	5-P-1516	27	5-P-1505	37	2-P-935	35
272*SHV	5-P-1516-9X	5-P-1516	27	5-P-1506	39	2-P-936	33
272*AAK	5-P-1517-1X	5-P-1517	25	5-P-1498	19	2-P-925	53
272*BAK	5-P-1517-2X	5-P-1517	25	5-P-1499	22	2-P-926	50
272*CAK	5-P-1517-3X	5-P-1556	25	5-P-1500	25	2-P-927	47
272*DAK	5-P-1517-4X	5-P-1517	25	5-P-1501	28	2-P-928	44
272*GAK	5-P-1517-5X	5-P-1517	25	5-P-1502	31	2-P-929	41
272*KAK	5-P-1517-6X	5-P-1517	25	5-P-1503	33	2-P-931	39
272*MAK	5-P-1517-7X	5-P-1517	25	5-P-1504	35	2-P-933	37
272*PAK	5-P-1517-8X	5-P-1517	25	5-P-1505	37	2-P-935	35
272*SAK	5-P-1517-9X	5-P-1517	25	5-P-1506	39	2-P-936	33
272*AKN	5-P-1556-1X	5-P-1556	25	5-P-1498	19	2-P-925	53
272*BKN	5-P-1556-2X	5-P-1556	25	5-P-1499	22	2-P-926	50
272*CKN	5-P-1556-3X	5-P-1556	25	5-P-1500	25	2-P-927	47
272*DKN	5-P-1556-4X	5-P-1556	25	5-P-1501	28	2-P-928	44
272*GKN	5-P-1556-5X	5-P-1556	25	5-P-1502	31	2-P-929	41
272*KKN	5-P-1556-6X	5-P-1556	25	5-P-1503	33	2-P-931	39
272*MKN	5-P-1556-7X	5-P-1556	25	5-P-1504	35	2-P-933	37
272*PKN	5-P-1556-8X	5-P-1556	25	5-P-1505	37	2-P-935	35
272*SKN	5-P-1556-9X	5-P-1556	25	5-P-1506	39	2-P-936	33

NOTE: Input Gear Assembly includes Input Gear, Ratio Gear and 379522 pre-assembled.

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

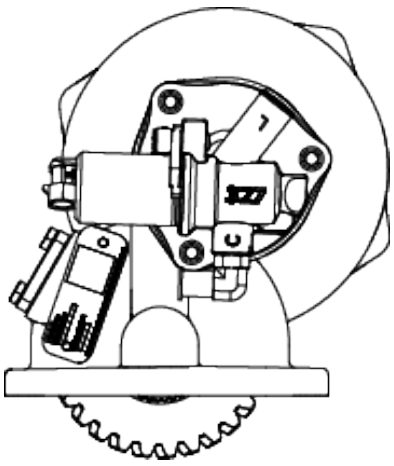
Gear Chart – 282 Series



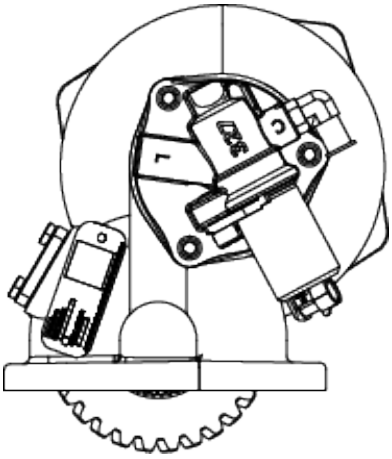
GEAR DESIGNATOR	INPUT GEAR ASSEMBLY	NOT Sold Separately				OUTPUT GEAR (18)	NO. TEETH C
		INPUT GEAR (29)	NO. TEETH A	RATIO GEAR (30)	NO. TEETH B		
282*BAJ	5-P-1510-11X	5-P-1510	25	5-P-1478	22	2-P-926	50
282*CAJ	5-P-1510-12X	5-P-1510	25	5-P-1495	25	2-P-927	47
282*DAJ	5-P-1510-13X	5-P-1510	25	5-P-1479	28	2-P-928	44
282*GAJ	5-P-1510-14X	5-P-1510	25	5-P-1480	31	2-P-929	41
282*KAJ	5-P-1510-15X	5-P-1510	25	5-P-1481	33	2-P-931	39
282*MAJ	5-P-1510-16X	5-P-1510	25	5-P-1482	35	2-P-933	37
282*PAJ	5-P-1510-17X	5-P-1510	25	5-P-1483	37	2-P-935	35
282*SAJ	5-P-1510-18X	5-P-1510	25	5-P-1484	39	2-P-936	33
282*TAJ	5-P-1510-19X	5-P-1510	25	5-P-1497	41	2-P-937	31
282*BDA	5-P-1511-11X	5-P-1511	27	5-P-1478	22	2-P-926	50
282*CDA	5-P-1511-12X	5-P-1511	27	5-P-1495	25	2-P-927	47
282*DDA	5-P-1511-13X	5-P-1511	27	5-P-1479	28	2-P-928	44
282*GDA	5-P-1511-14X	5-P-1511	27	5-P-1480	31	2-P-929	41
282*KDA	5-P-1511-15X	5-P-1511	27	5-P-1481	33	2-P-931	39
282*MDA	5-P-1511-16X	5-P-1511	27	5-P-1482	35	2-P-933	37
282*PDA	5-P-1511-17X	5-P-1511	27	5-P-1483	37	2-P-935	35
282*SDA	5-P-1511-18X	5-P-1511	27	5-P-1484	39	2-P-936	33
282*TDA	5-P-1511-19X	5-P-1511	27	5-P-1497	41	2-P-937	31
282*BAK	5-P-1517-11X	5-P-1517	25	5-P-1478	22	2-P-926	50
282*CAK	5-P-1517-12X	5-P-1517	25	5-P-1495	25	2-P-927	47
282*DAK	5-P-1517-13X	5-P-1517	25	5-P-1479	28	2-P-928	44
282*GAK	5-P-1517-14X	5-P-1517	25	5-P-1480	31	2-P-929	41
282*KAK	5-P-1517-15X	5-P-1517	25	5-P-1481	33	2-P-931	39
282*MAK	5-P-1517-16X	5-P-1517	25	5-P-1482	35	2-P-933	37
282*PAK	5-P-1517-17X	5-P-1517	25	5-P-1483	37	2-P-935	35
282*SAK	5-P-1517-18X	5-P-1517	25	5-P-1484	39	2-P-936	33
282*TAK	5-P-1517-19X	5-P-1517	25	5-P-1497	41	2-P-937	31

NOTE: Input Gear Assembly includes Input Gear, Ratio Gear and 379522 pre-assembled.

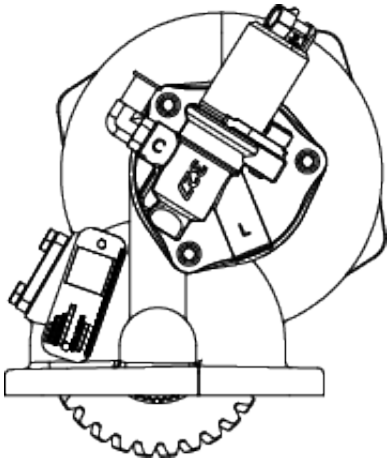
Pressure Lube



P = Pressure Lube

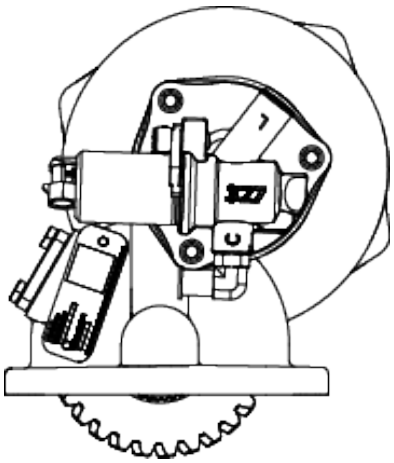


R = Valve Cap Rotated 120°

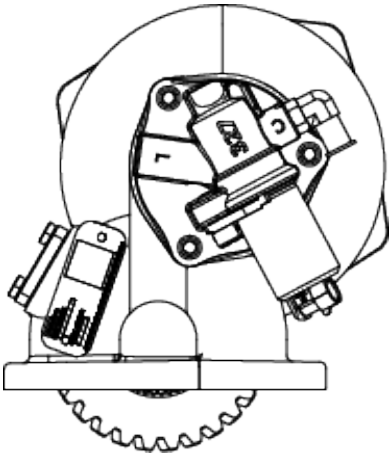


S = Valve Cap Rotated 240°

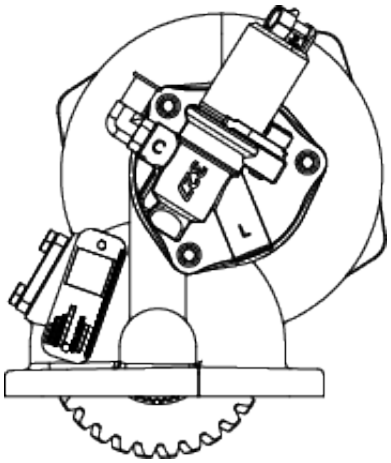
Wet Spline



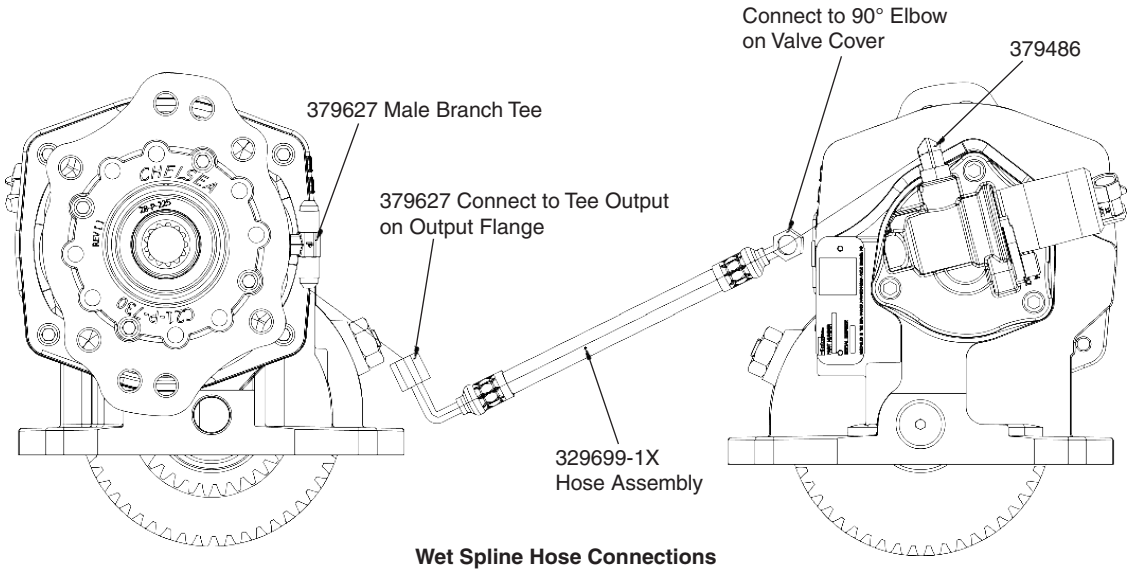
W = Wet Spline



V = Valve Cap Rotated 120°
w/ Wet Spline



Y = Valve Cap Rotated 240°
w/ Wet Spline

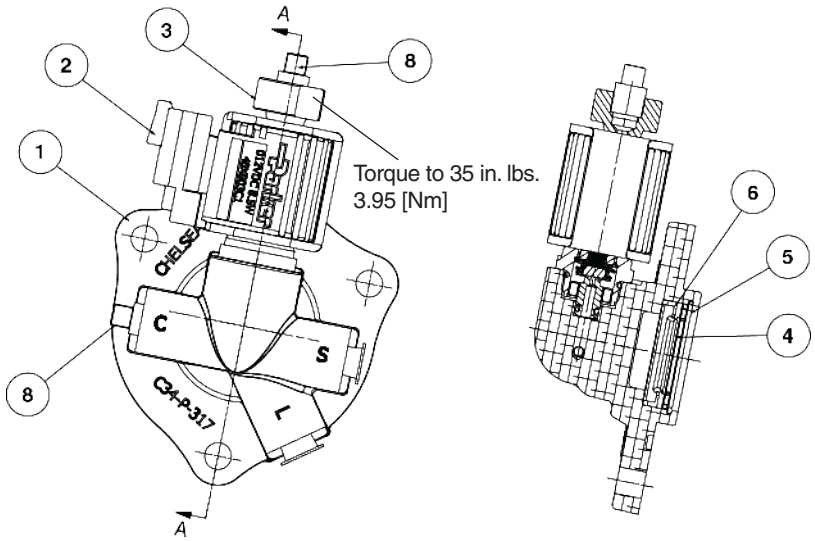


Wet Spline Hose Connections

NOTE: Valve position displayed are for 5 Arrangement PTO

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

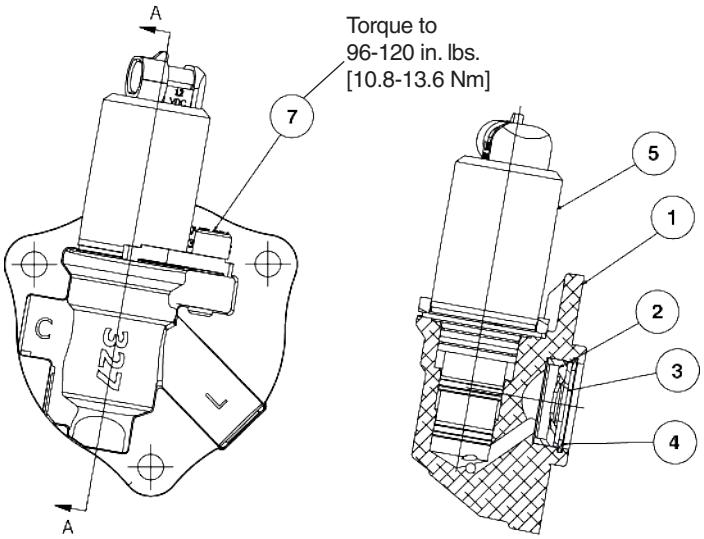
Valve Cap Assembly (Air) – 329858-*X



Pressure Lube	Shift Option	Assembly
Yes	J & 1	329858-1X
No	J & 1	329858-2X
Yes	3 & 2	329858-3X
No	3 & 2	329858-4X

Item	Part Number	Description	Qty.
1	**34-P-318-1**	Air Integral Cap w/o Lube (329858-2X & 329858-4X)	1
	34-P-318	Air Integral Cap w/ Lube (329858-1X & 329858-3X)	1 or
2	**75-P-35-12**	Air Valve Coil 12V (329858-1X & 329858-2X)	1 or
	75-P-35-24	Air Valve Coil 24V (329858-3X & 329858-4X)	1
3	**380574**	Valve-Pneumatic Plunger Ass'y	1
4	**378811**	Seal Plate Backup	1
5	**378849**	Lockring	1
6	**28-P-179**	Oil Seal 1.379" x .875" x .249"	1

Valve Cap Assembly (Hydraulic) – 329872-*X



Pressure Lube	Shift Option	Assembly
Yes	B, E, & K	329872-1X
No	B, E, & K	329872-2X
Yes	D, L, & N	329872-3X
No	D, L, & N	329872-4X

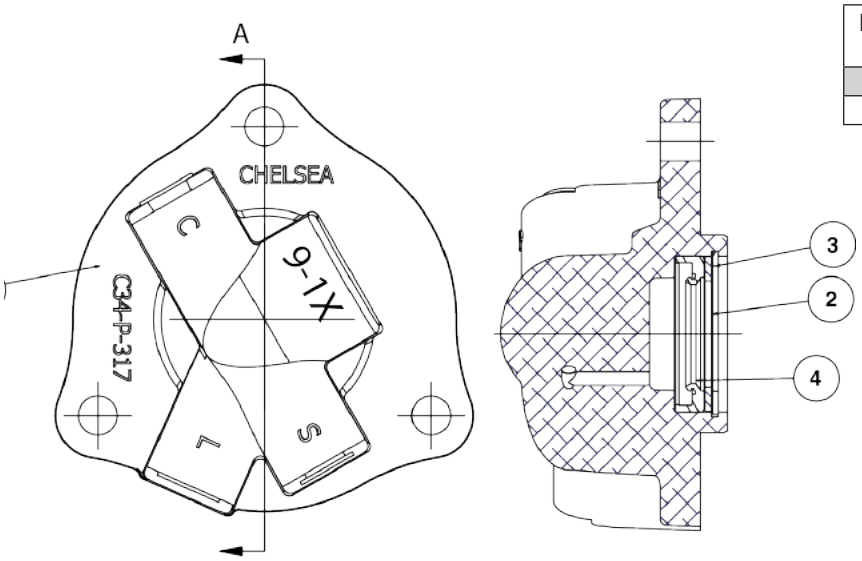
Item	Part Number	Description	Qty.
1	**34-P-327**	High Pressure w/ Lube Valve Cap Solenoid Port (329872-1X & 329872-3X)	1 or
	34-P-326	High Pressure w/ Lube Valve Cap Solenoid Port (329872-2X & 329872-4X)	1
2	**28-P-119**	Oil Seal 1.379" x .875" x .250"	1
3	**378811**	Seal Backup Plate	1
4	**378849**	Lock ring	1
5	**380123-12**	Non Regulating Cartridge Valve 12V (329872-1X & 329872-2X)	1 or
5	**380123-24**	Non Regulating Cartridge Valve 24V (329872-3X & 329872-4X)	1
7	**378447-4**	Socket Head Capscrew .312"-18 x .750"	1
N.S.	**329071-83X**	Hydraulic Solenoid Vlave O-Ring Kit	1

N.S. – Not Shown

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

Remote Valve Cap Assembly (Air) – 329859X

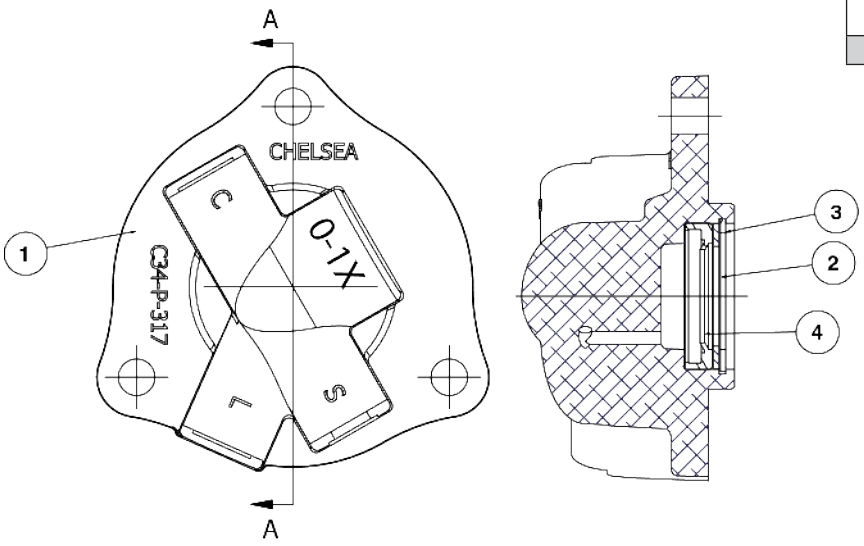
Pressure Lube	Shift Option	Assembly
Yes	A, P, Q, R, V, & 4	329859-1X
No	A, P, Q, R, V, & 4	329859-2X



Item	Part Number	Description	Qty.
1	**34-P-318-2**	Remote Air Cap w/ Lube (329859-1X)	1 or
	34-P-318-3	Remote Air Cap w/o Lube (329859-2X)	1
2	**378811**	Backup Seal Plate	1
3	**378849**	Lock ring	1
4	**28-P-179**	Oil Seal 1.379" x .875" x .249"	1

Remote Valve Cap Assembly (Hydraulic) – 329880X

Pressure Lube	Shift Option	Assembly
Yes	G & H	329880-1X

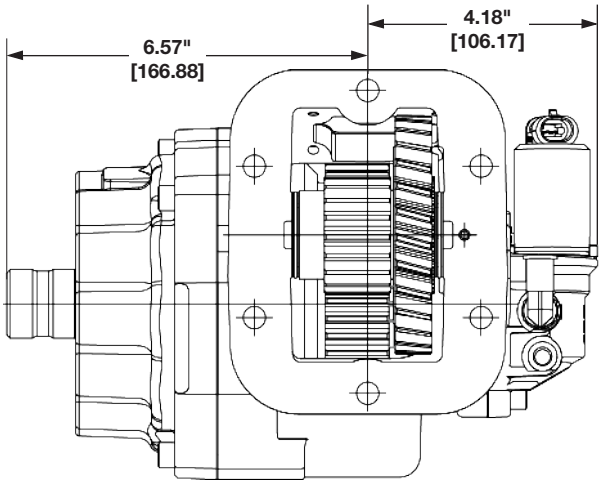


Item	Part Number	Description	Qty.
1	**34-P-320**	Hydraulic Remote Cap w/ Lube (329880-1X)	11
2	**378811**	Backup Seal Plate	1
3	**378849**	Lock ring	1
4	**28-P-119**	Oil Seal 1.379" x .875" x .250"	1

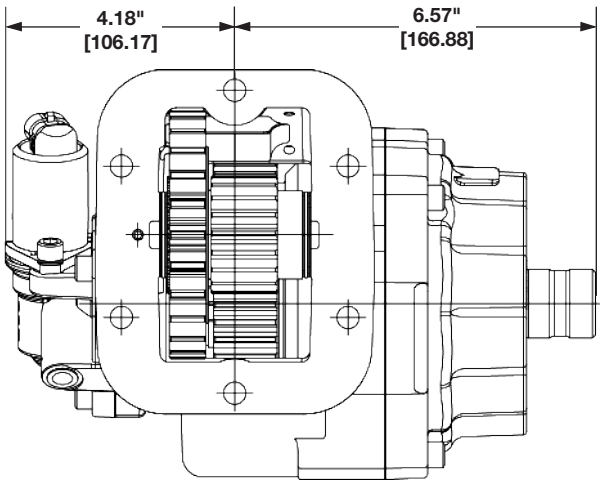
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Housing Dimensions

272 Series



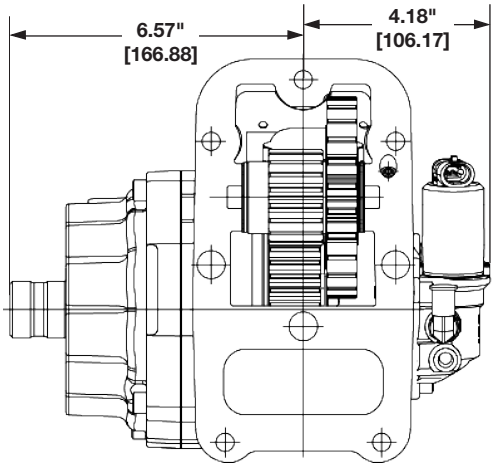
5 Arrangement



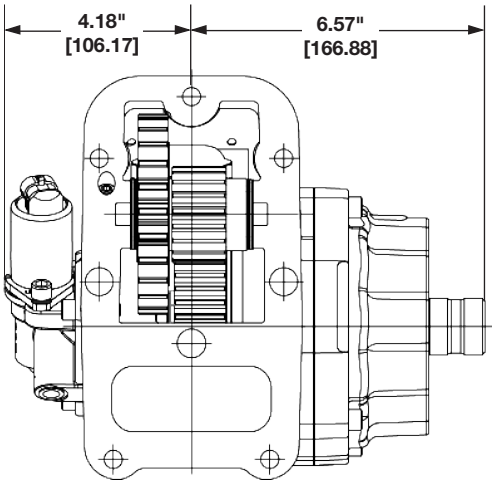
3 Arrangement

in. [mm]

272M Series



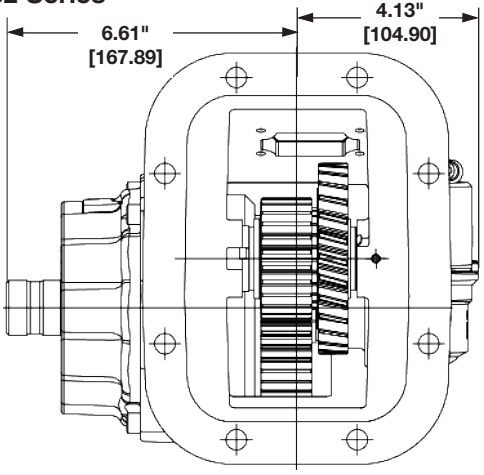
5 Arrangement



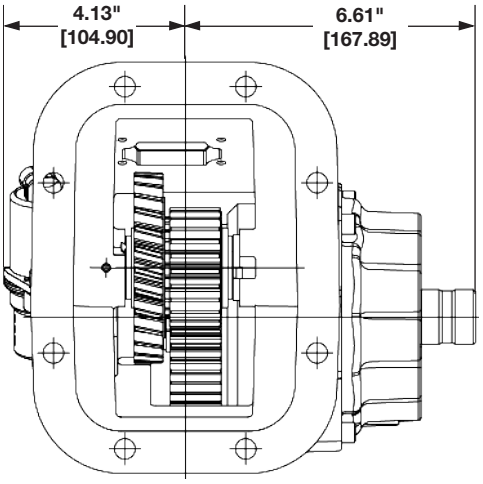
3 Arrangement

in. [mm]

282 Series



5 Arrangement



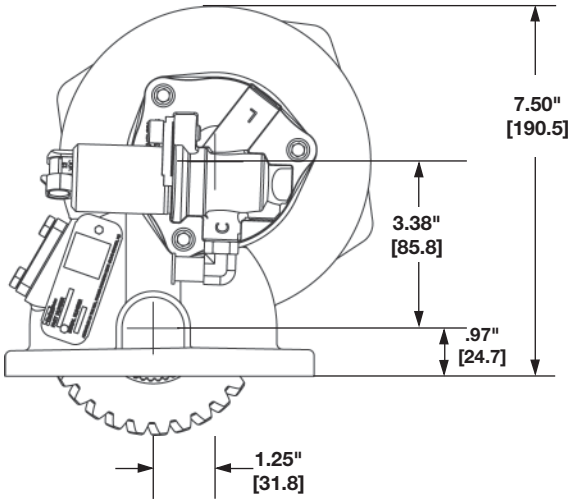
3 Arrangement

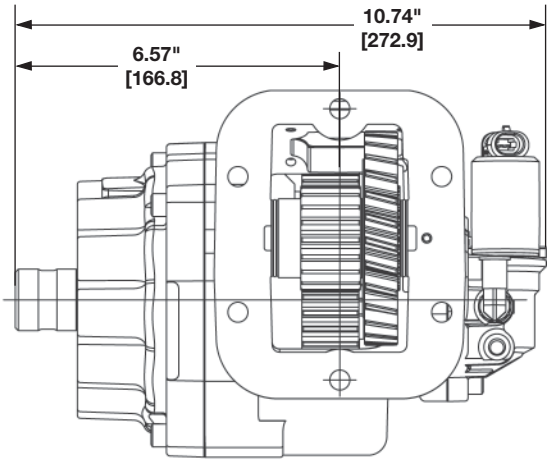
in. [mm]

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

Housing Dimensions

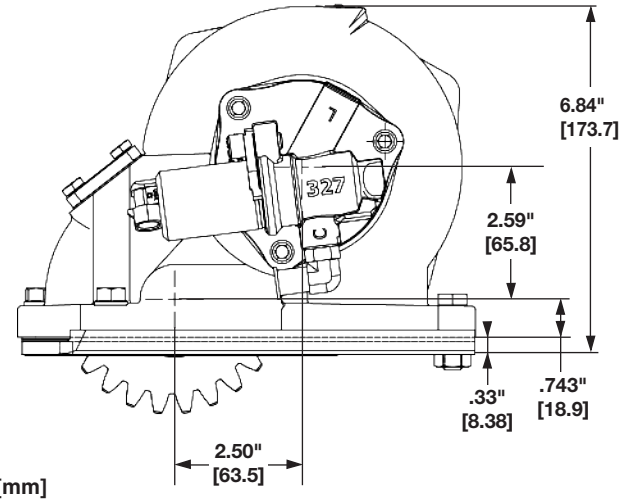
272 Series

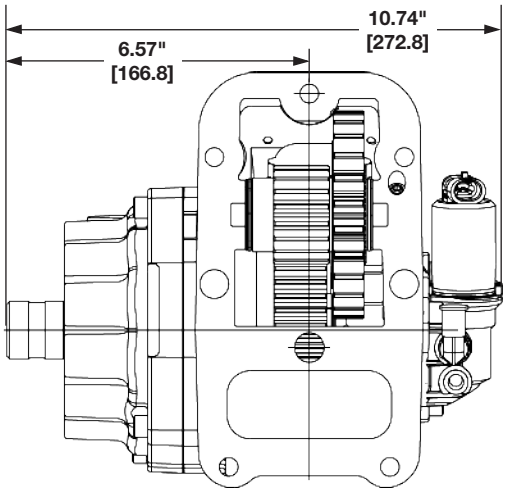




in. [mm]

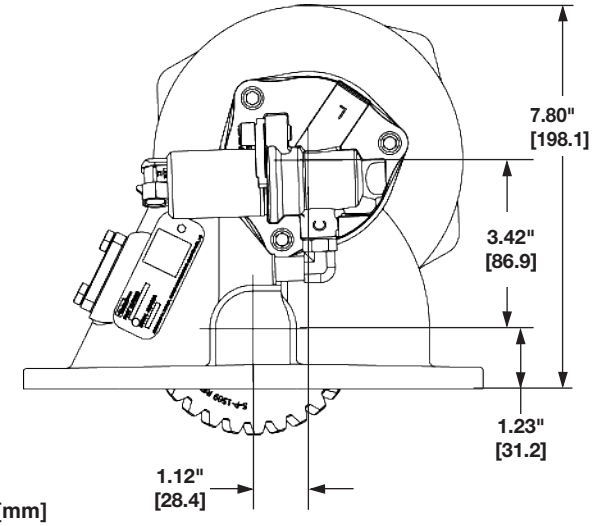
272M Series

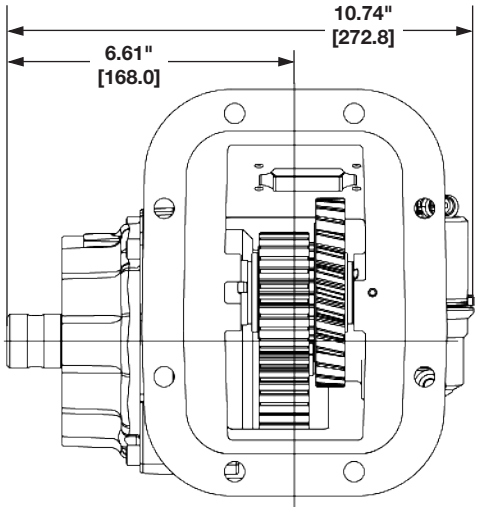




in. [mm]

282 Series

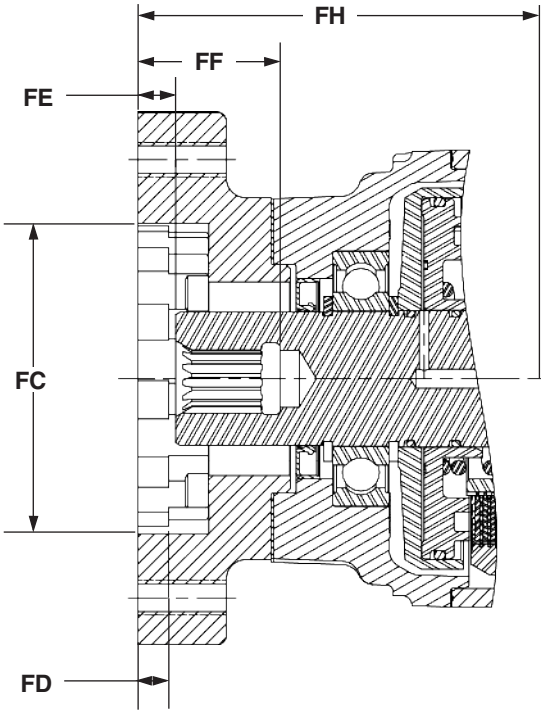




in. [mm]

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

Pump Flange & Shaft Dimensions



Pump Flange Suffix	Bolt Circle Dia.	Bolt Holes		FC	FD	FE	FF	FH	Output Shaft	
		Tapped Hole	No. Equally Spaced	Female Pilot Dia.	Pilot Depth	Face to End of Shaft	Face thru Hole	Face to Center of PTO	Nominal Shaft Size M = Male F = Female	Key-way Width
AB	3.996"	.404" ▸	8	2.952"	.0892"			7.486"	M	
AC	3.307"	.323" ▸	6	2.243"	.0892"			7.455	M	
BD								8.852	M	1-1/4"
BV	3.750"	.440" ▸	4	2.751"	.0830"			8.734	M	
RE	4.188"	5/16"-18 UNC-2B	16	3.251"	.344"	.4000"	1.502"	5.640"	5/8" - 9T Spline - F	
RF	5.000"	1/2"-13 UNC-2B	4	4.003"	.406"	.592"	2.060"	6.861"	1" - 15T Spline - F	
	5.750"	1/2"-13 UNC-2B	4	4.003"	.406"	.592"	2.060"	6.861"	1" - 15T Spline - F	
RK	5.000"	1/2"-13 UNC-2B	4	4.003"	.406"	.497"	1.872"	6.861"	7/8" - 13T Spline - F	
	5.750"	1/2"-13 UNC-2B	4	4.003"	.406"	.497"	1.872"	6.861"	7/8" - 13T Spline - F	
RS	6.375"	1/2"-13 UNC-2B	4	5.004	.531"	.730"	2.700"	6.861"	1-1/4" - 14T Spline - F	
	7.125"	5/8"-11 UNC-2B	2	5.004	.531"	.730"	2.700"	6.861"	1-1/4" - 14T Spline - F	
RY	4.454"	M12 x 1.75"	4	3.152"		.581	2.281"	6.456"	DIN 5462 - F	
RZ	5.000"	1/2"-13 UNC-2B	4	4.003"	0.406"	.730"	2.700"	6.861"	1-1/4" - 14T Spline - F	
	5.750"	1/2"-13 UNC-2B	4	4.003"	0.406"	.730"	2.700"	6.861"	1-1/4" - 14T Spline - F	
SD								6.570"	M	1-1/4"
SV	3.750"	.442" ▸	4	2.751"	.082"			7.486"	1-1/2" - 10T Spline - M	
XR	3.712"								F	
XV	3.750"	.442" ▸	4	2.751"	.0830			7.486"	1-1/2" - 10T Spline - M	

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

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

Output Conversion Kits

Output Option	Flange Type	Shaft Type	Conversion Kit	
AB	DIN 120	DIN 120 Series Companion Flange	XD to AB	329160-112X
AC	DIN 100	DIN 100 Series Companion Flange	XD to AC	329160-113X
BD	N/A	Rd Standard Shaft (1-1/4"-5/16" Key) w/ Drag Brake	XD to BD	329160-103X
BV	N/A	1410 Series Companion Flange w/ Drag Brake	XD to BV	329160-102X
RE	SAE A 2-Bolt Flange	SAE A Shaft (5/8" - 9T)	XD to RE (DRY)	329160-118X
RF	SAE B 2 or 4-Bolt Flange	SAE BB Shaft (1" - 15T)	XD to RF (DRY)	329160-104X
			XD to RF (WET)	329160-105X
RK	SAE B 2 or 4-Bolt Flange	SAE B Shaft (7/8" - 13T)	XD to RK (DRY)	329160-100X
			XD to RK (WET)	329160-101X
RS	SAE C 2 or 4-Bolt Flange	SAE C Shaft (1-1/4" - 14T)	XD to RS (DRY)	329160-106X
			XD to RS (WET)	329160-107X
RY	ISO 7653 (80 x 80 mm)	DIN 5462 Shaft (B8x32x36)	XD to RY (DRY)	329160-108X
			XD to RY (WET)	329160-109X
RZ	SAE B 2 or 4-Bolt Flange	SAE C Shaft (1-1/4" - 14T)	XD to RZ (DRY)	329160-110X
			XD to RZ (WET)	329160-111X
XV	N/A	1410 Series Companion Flange	XD to XV	329160-116X
XR	Chelsea Special (Cloverleaf)	SAE B Shaft (7/8" - 13T)	XD to XR	329160-143X

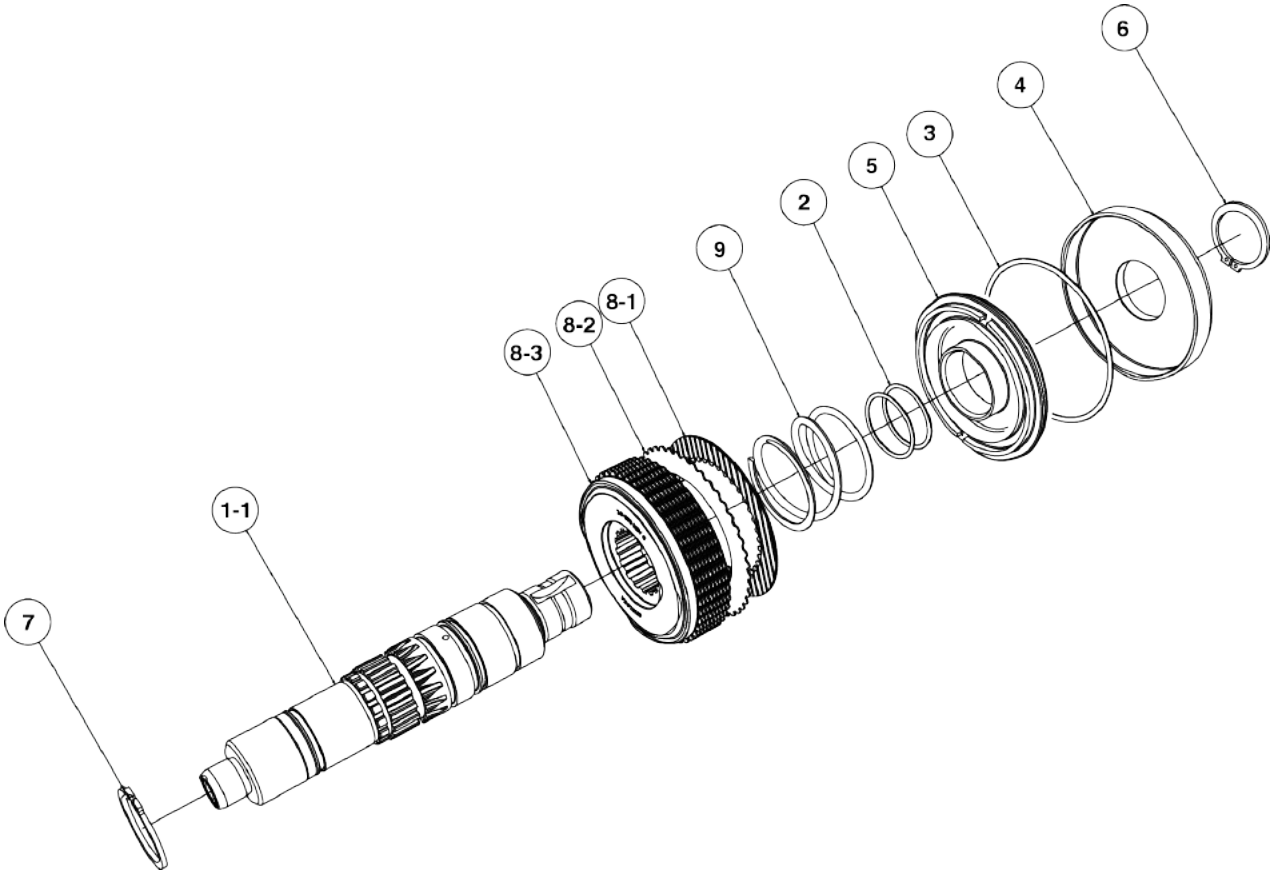
N/A = Not Applicable
NOTE: Check Current Price Sheet for Availability of Output Options

SAE Chart

SAE Standard	A	B	BB	C	D
Flange Pilot	3.25"	4.00"		5.00"	6.00"
Shaft	.625"	.875"	1.00"	1.25"	1.75"
Spline Count	9T	13T	15T	14T	13T

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

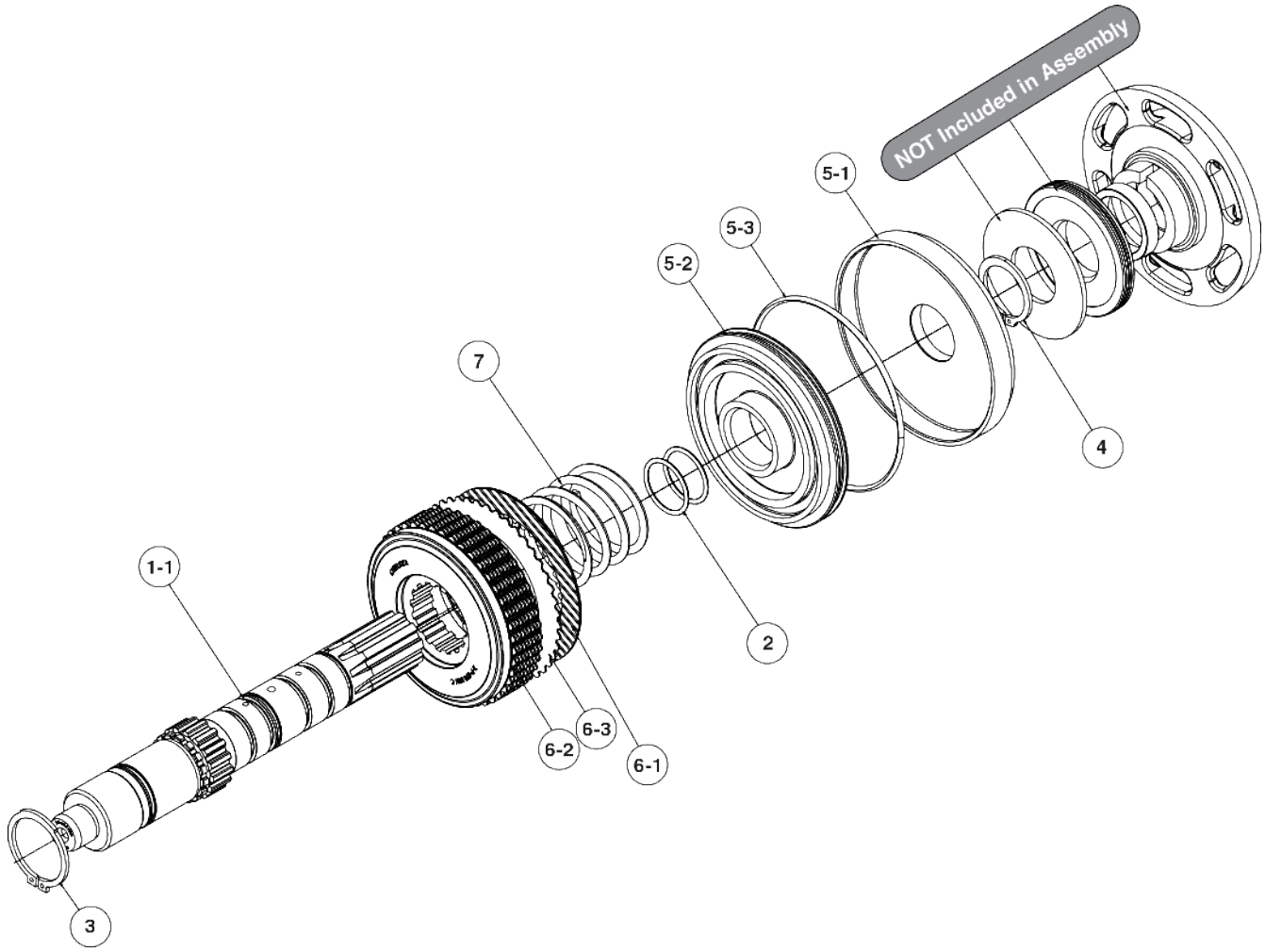
Drive Shaft & Clutch Assembly – (Hyd) 329828-*X & (Air) 329832-*X



Item	Part Number	Description	Qty.
1-1	**3-P-1133**	XD Output Shaft (329828-1X & 329832-1X)	1 or
	3-P-1134	XV, AB, & AC Output Shaft 10T Straight (329828-2X & 329832-2X)	1 or
	3-P-1135	RK & XR Output Shaft .875" - 13T (329828-3X & 329832-3X)	1 or
	3-P-1136	RF Output Shaft 1.02" - 15T (329828-4X & 329832-4X)	1 or
	3-P-1137	RS, RZ Output Shaft 1.25" - 14T (329828-5X & 329832-5X)	1 or
	3-P-1138	RY Output Shaft DIN 8T (329828-6X & 329832-6X)	1
	3-P-1168	SD Smart Start, Output Shaft (329828-8X)	1
	3-P-1169	SV Smart Start, 10T Straight Output Shaft (329828-9X)	1
	3-P-1170	RE Output Shaft .625" - 9T (329828-10X & 329832-8X)	1
2	**28-P-285**	O-Ring 1.597" x .103"	2
3	**28-P-178**	O-Ring 4.484" x .138"	1
4	**380051**	Clutch Back up Cylinder	1
5	**380110-1**	Clutch Piston (Hydraulic Shift)	1
	380110-2	Clutch Piston (Air Shift)	1
6	**379555**	Lock ring	1
7	**380069**	Lock ring	1
8	**329678X**	Gear & Clutch Plates Kit	1
8-1	**379485**	Friction Disc	11
8-3	**2-P-858**	Inner Hub Gear	1
8-2	**380065**	Clutch Plate	10
9	**37-P-72**	Spring 2.14" x 1.941"	1

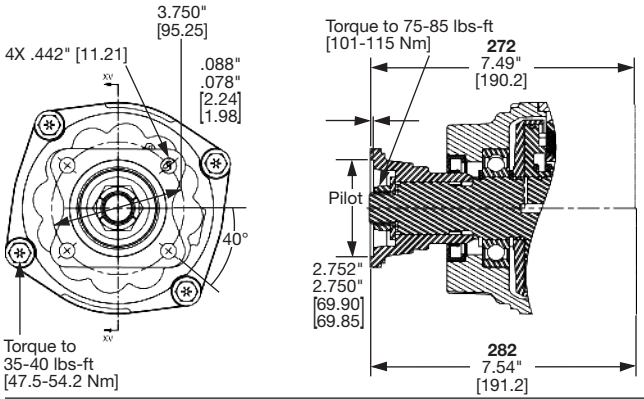
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Drive Shaft & Clutch Assembly – (Hyd) 329829-*X & (Air) 329833-*X w/ Drag Brake



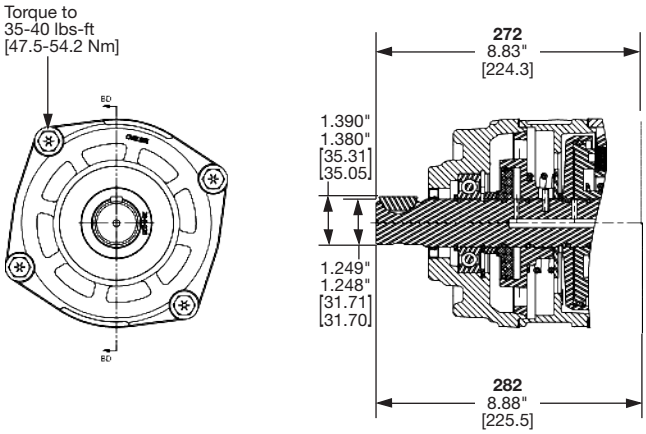
Item	Part Number	Description	Qty.
1-1	**3-P-1139**	BV Output Shaft (329829X & 329833X)	1 or
	3-P-1142	BD Output Shaft (329829-1X & 329833-1X)	1
2	**28-P-244**	O-Ring 1.174" x .103"	2
3	**380069**	Lock ring	1
4	**378576**	Lock ring	1
5	**329179X**	Piston & Back up Cylinder Ass'y (Hydraulic Shift)	1 or
	329179-1X	Piston & Back up Cylinder Ass'y (Air Shift)	1
5-1	**379323**	Back up Clutch Cylinder (Hydraulic Shift)	1 or
	379323-1	Back up Clutch Cylinder (Air Shift)	1
5-2	**380057**	Air Clutch Piston (Hydraulic Shift)	1 or
	380057-1	Air Clutch Piston (Air Shift)	1
5-3	**28-P-178**	O-Ring 4.359" x .138"	1
6	**329678X**	Gear & Clutch Plates Kit	1
6-1	**379485**	Friction Disc	11
6-2	**2-P-858**	Inner Hub Gear	1
6-3	**380065**	Clutch Plate	10
7	**37-P-39**	Spring 2.552" x 1.985"	1

Bill of Materials

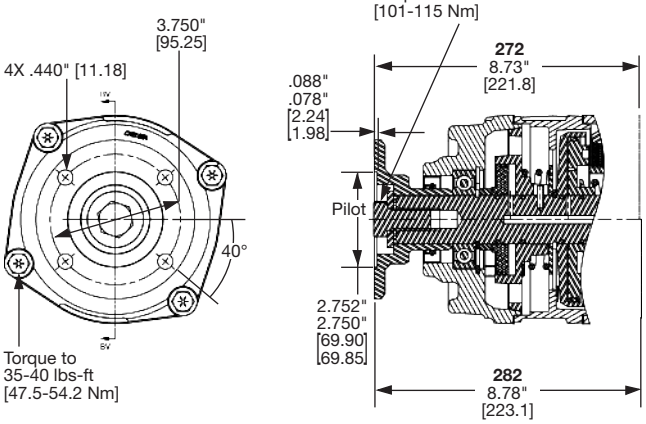


XV Output Option 1410 Series Companion Flange*		
Part Number	**Description**	**Qty.**
329828-2X	Shaft & Clutch Ass'y (3-P-1134 Shaft) (HYD)	1 or
329832-2X	Shaft & Clutch Ass'y (3-P-1134 Shaft) (AIR)	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
21-P-886	Bearing Cap	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
380486	Lock Nut - Nylon, Thin .875"-14	1
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
380503	1410 Series Companion Flange	1
†329160-116X	**Conversion Kit (XD to XV)**	

***** 1-1/2" - 10T Spline Shaft



BD Output Option Rd Standard Shaft (1-1/4"-5/16" Key) with Drag Brake		
Part Number	**Description**	**Qty.**
329829-1X	Shaft & Clutch Ass'y (3-P-1142 Shaft) (HYD)	1 or
329833-1X	Shaft & Clutch Ass'y (3-P-1142 Shaft) (AIR)	1
22-P-151	Gasket	1
550010	Ball Bearing 1.378" x 2.8346" x .6693"	1
28-P-225	Oil Seal 2.004" x 1.375" x .315"	1
21-P-888	Bearing Cap - Drag Brake	1
380563-28	Hex Flange Head Capscrew .375"-16 x 3.500"	4
500007-29	Woodruff Key	1
378576	Lockring	2
28-P-244	O-Ring 1.175" x .103"	2
23-P-73	Bearing Cap Spacer - Drag Brake	1
31-P-113	Thrust Washer 1.385" x 3.125" x .125"	1
329410X	Brake Ass'y	1
379977	Spring Pin	1
4-P-186	Spacer 1.385" x 1.750" x .365"	1
37-P-24	Spring 2.531" x 2.13" x .207" (AIR)	1
†329160-103X	**Conversion Kit (XD to BD)**	

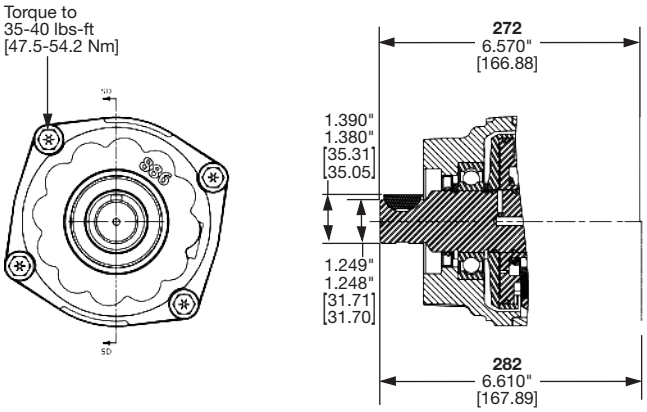


BV Output Option 1410 Companion Flange with Drag Brake		
Part Number	**Description**	**Qty.**
329829X	Shaft & Clutch Ass'y (3-P-1139 Shaft) (HYD)	1 or
329833X	Shaft & Clutch Ass'y (3-P-1139 Shaft) (AIR)	1
22-P-151	Gasket	1
550010	Ball Bearing 1.378" x 2.8346" x .6693"	1
28-P-212	Oil Seal 2.506" x 1.750" x .315"	1
21-P-884	Bearing Cap	1
378435-7	Hex Head Capscrew .625"-11 x 1.250"	1
380563-28	Hex Flange Head Capscrew .375"-16 x 3.500"	4
378895	Lockring	1
378576	Lockring	1
28-P-244	O-Ring 1.175" x .103"	2
23-P-73	Oil Seal 2.506" x 1.750" x .315"	1
31-P-113	Thrust Washer 1.385" x 3.125" x .125"	1
329410X	Brake Ass'y	1
379977	Spring Pin	1
4-P-186	Spacer 1.385" x 1.750" x .365"	1
37-P-60	Spring 2.531" x 2.13" x .172" (HYD)	1 or
37-P-24	Spring 2.531" x 2.13" x .207" (AIR)	1
4-P-130	Spacer .640" x 1.620" x .188"	1
380081	1410 Series Companion Flange	1
† 329160-102X	**Conversion Kit (XD to BV)**	

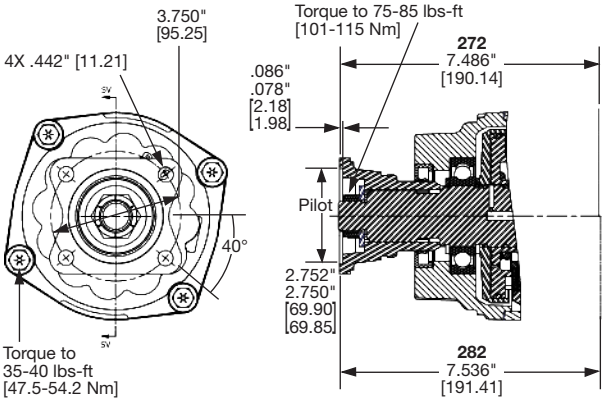
†Conversion Kits do not include all parts shown above.

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

Bill of Materials

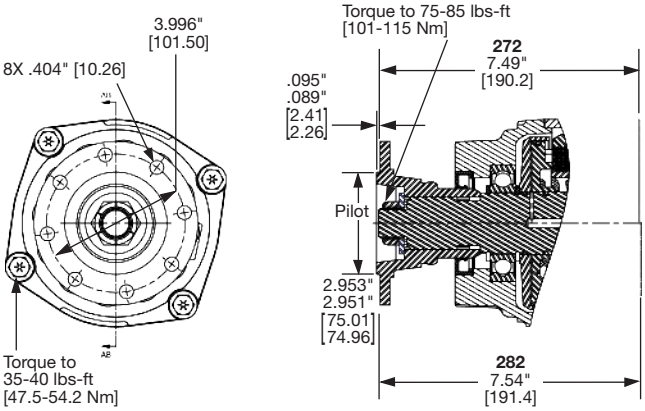


SD Output Option Rd Standard Shaft (1-1/4"-5/16" Key) – Smart Start		
Part Number	**Description**	**Qty.**
329828-8X	Shaft & Clutch Ass'y XD Smart Start (3-P-1168) ...	1
28-P-267	Oil Seal 2.627" x 1.75" x .312"	1
21-P-886	Bearing Cap	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
500007-29	Woodruff Key	1
†329160-142X	**Conversion Kit (XD to SD)**	



SV Output Option 1410 Series Companion Flange – Smart Start*		
Part Number	**Description**	**Qty.**
329828-9X	Shaft & Clutch Ass'y XV Smart Start (3-P-1169)	1
21-P-886	Bearing Cap	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
380486	Lock Nut - Nylon, Thin .875"-14	1
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
380081	1410 Series Companion Flange	1
†329160-144X	**Conversion Kit (XD to SV)**	

* 1-1/2" - 10T Spline Shaft



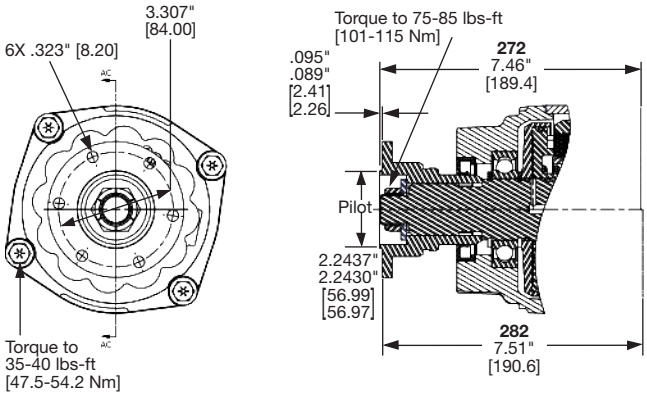
AB Output Option DIN 120 Flange*		
Part Number	**Description**	**Qty.**
329828-2X	Shaft & Clutch Ass'y (3-P-1134 Shaft) (HYD)	1 or
329832-2X	Shaft & Clutch Ass'y (3-P-1134 Shaft) (AIR)	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
21-P-886	Bearing Cap	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
380486	Lock Nut - Nylon, Thin .875"-14	1
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
379558	DIN 120	1
†329160-112X	**Conversion Kit (XD to AB)**	

* 1-1/2" - 10T Spline Shaft

†Conversion Kits do not include all parts shown above.

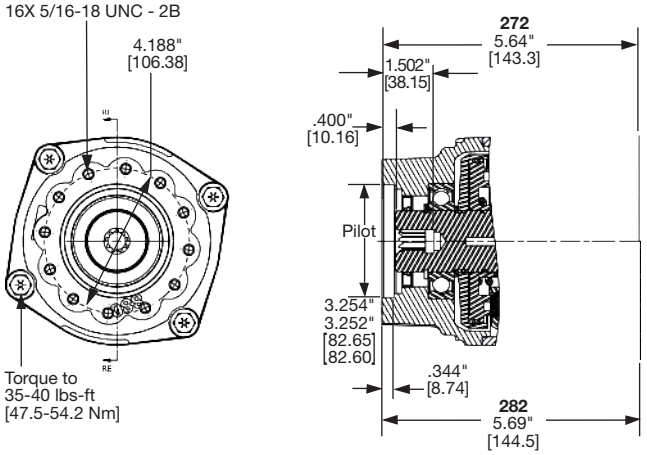
Parker Hannifin Corporation
Chelsea Products Division
Olive Branch, MS 38654 USA

Bill of Materials

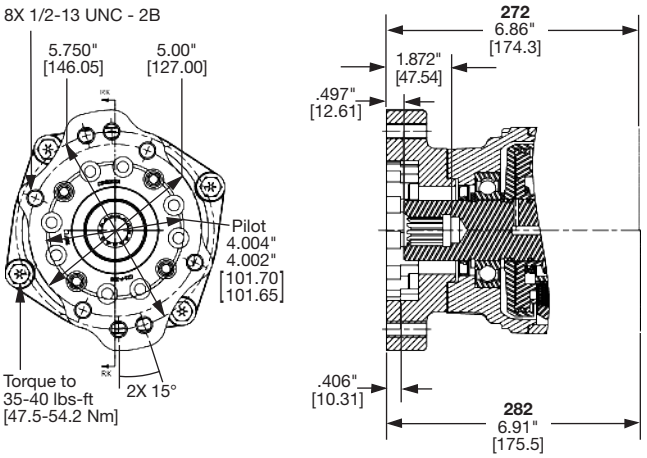


AC Output Option DIN 100 Flange*		
Part Number	**Description**	**Qty.**
329828-2X	Shaft & Clutch Ass'y (3-P-1134 Shaft) (HYD)	1 or
329832-2X	Shaft & Clutch Ass'y (3-P-1134 Shaft) (AIR).....	1
28-P-211	Oil Seal 3.001" x 2.00" x .375".....	1
21-P-886	Bearing Cap.....	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
380486	Lock Nut - Nylon, Thin .875"-14.....	1
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
379742	DIN 100	1
†329160-113X	**Conversion Kit (XD to AC)**	

* 1-1/2" - 10T Spline Shaft



RE Output Option Rotatable SAE A 2-Bolt Flange, SAE A Shaft (5/8" - 9T)		
Part Number	**Description**	**Qty.**
329828-10X	Shaft & Clutch Ass'y (3-P-1170 Shaft) (HYD)	1 or
329832-8X	Shaft & Clutch Ass'y (3-P-1170 Shaft) (AIR).....	1
28-P-267	Oil Seal 2.627" x 1.750" x .312".....	1
21-P-880	Bearing Cap RE (DRY).....	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
†329160-118X	**Conversion Kit (XD to RE DRY)**	

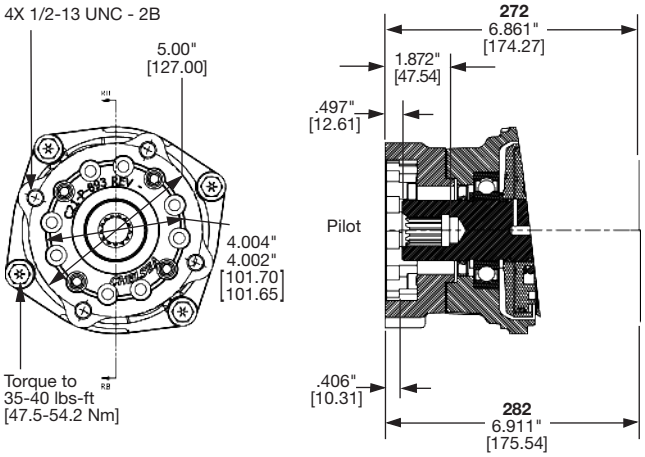


RK Output Option Rotatable SAE B 2 or 4-Bolt Flange, SAE B Shaft (7/8" - 13T)		
Part Number	**Description**	**Qty.**
329828-3X	Shaft & Clutch Ass'y (3-P-1135 Shaft) (HYD)	1 or
329832-3X	Shaft & Clutch Ass'y (3-P-1135 Shaft) (AIR).....	1
28-P-267	Oil Seal 2.627" x 1.750" x .312".....	1
21-P-885	Bearing Cap (DRY).....	1 or
21-P-887	Bearing Cap (WET)	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
328170-216X	Capscrew Kit (378447-8 Qty. 4).....	1
21-P-731	Pump Flange	1
35-P-101	Bearing Cap Gasket - Wet Spline.....	1
	WET SPLINE LOOSE PARTS	
329699-1X	Hose Assembly.....	1
329700X	Wet Spline Parts Kit.....	1
329658X	Cover Kit.....	1
†329160-100X	**Conversion Kit (XD to RK DRY)**	
†329160-101X	**Conversion Kit (XD to RK WET)**	

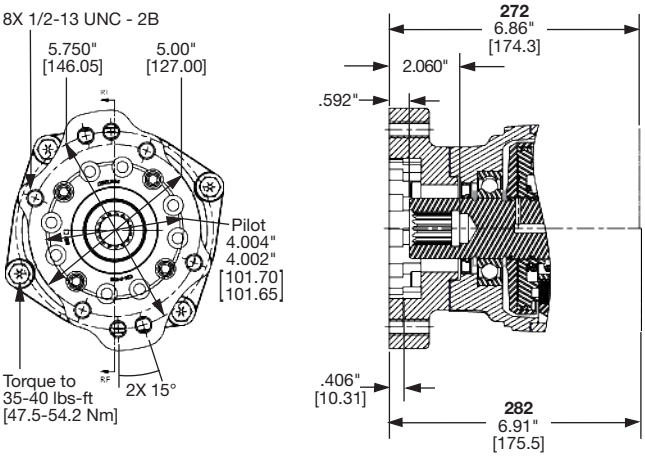
†Conversion Kits do not include all parts shown above.

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

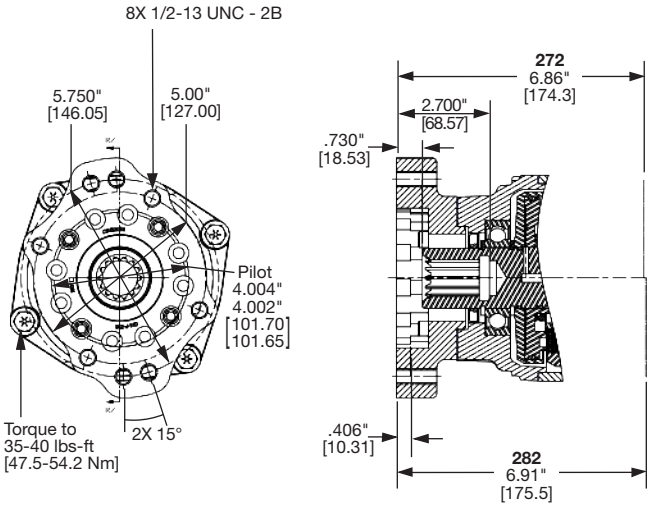
Bill of Materials



RB Output Option Rotatable SAE B 4-Bolt Flange, SAE B Shaft (7/8" - 13T)		
Part Number	**Description**	**Qty.**
329828-3X	Shaft & Clutch Ass'y (3-P-1135 Shaft) (HYD)	1 or
329832-3X	Shaft & Clutch Ass'y (3-P-1135 Shaft) (AIR)	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-885	Bearing Cap (DRY)	1 or
21-P-887	Bearing Cap (WET)	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
328170-216X	Capscrew Kit (378447-8 Qty. 4)	1
21-P-894	Pump Flange	1
35-P-101	Bearing Cap Gasket - Wet Spline	1
	WET SPLINE LOOSE PARTS	1
329699-1X	Hose Assembly	1
329700X	Wet Spline Parts Kit	1
329658X	Cover Kit	1
†329160-145X	**Conversion Kit (XD to RB DRY)**	
†329160-146X	**Conversion Kit (XD to RB WET)**	



RF Output Option Rotatable SAE B 2 or 4-Bolt Flange, SAE BB Shaft (1" - 15T)		
Part Number	**Description**	**Qty.**
329828-4X	Shaft & Clutch Ass'y (3-P-1136 Shaft) (HYD)	1 or
329832-4X	Shaft & Clutch Ass'y (3-P-1136 Shaft) (AIR)	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-885	Bearing Cap (DRY)	1 or
21-P-887	Bearing Cap (WET)	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
328170-216X	Capscrew Kit (378447-8 Qty. 4)	1
21-P-731	Pump Flange	1
35-P-101	Bearing Cap Gasket - Wet Spline	1
	WET SPLINE LOOSE PARTS	
329699-1X	Hose Assembly	1
329700X	Wet Spline Parts Kit	1
329658X	Cover Kit	1
†329160-104X	**Conversion Kit (XD to RF DRY)**	
†329160-105X	**Conversion Kit (XD to RF WET)**	

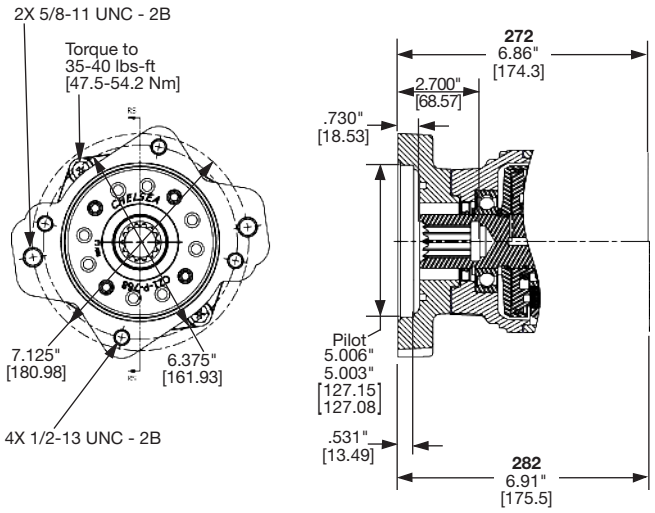


RZ Output Option Rotatable SAE B 2 or 4-Bolt Flange, SAE C Shaft (1-1/4" - 14T)		
Part Number	**Description**	**Qty.**
329828-5X	Shaft & Clutch Ass'y (3-P-1137 Shaft) (HYD)	1 or
329832-5X	Shaft & Clutch Ass'y (3-P-1137 Shaft) (AIR)	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-885	Bearing Cap (DRY)	1 or
21-P-887	Bearing Cap (WET)	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
328170-216X	Capscrew Kit (378447-8 Qty. 4)	1
21-P-731	Pump Flange	1
35-P-101	Bearing Cap Gasket - Wet Spline	1
	WET SPLINE LOOSE PARTS	1
329699-1X	Hose Assembly	1
329700X	Wet Spline Parts Kit	1
329658X	Cover Kit	1
†329160-110X	**Conversion Kit (XV to RZ DRY)**	
†329160-111X	**Conversion Kit (XV to RZ WET)**	

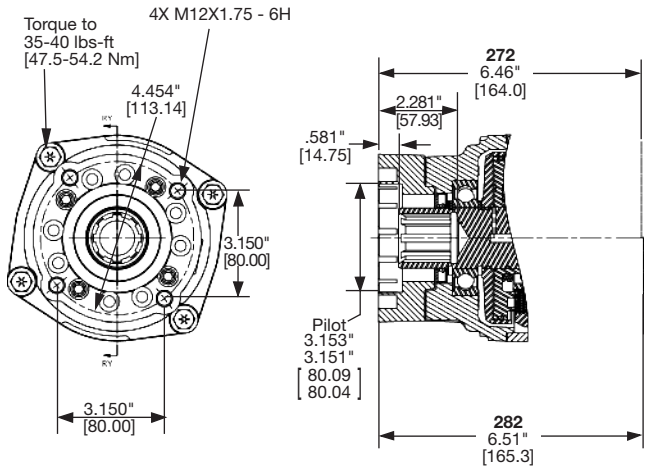
†Conversion Kits do not include all parts shown above.

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

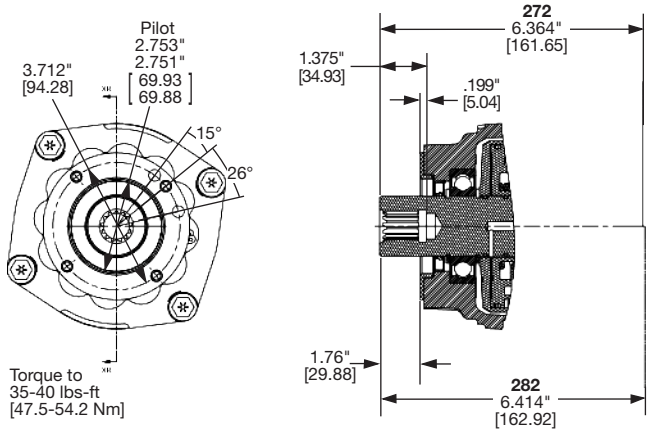
Bill of Materials



RS Output Option Rotatable SAE C 2 or 4-Bolt Flange, SAE C Shaft (1-1/4" - 14T)		
Part Number	**Description**	**Qty.**
329828-5X	Shaft & Clutch Ass'y (3-P-1137 Shaft) (HYD)	1 or
329832-5X	Shaft & Clutch Ass'y (3-P-1137 Shaft) (AIR)	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-885	Bearing Cap (DRY)	1 or
21-P-887	Bearing Cap (WET)	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
328170-216X	Capscrew Kit (378447-8 Qty. 4)	1
21-P-769	Pump Flange	1
35-P-101	Bearing Cap Gasket - Wet Spline	1
	WET SPLINE LOOSE PARTS	
329699-1X	Hose Assembly	1
329744X	Wet Spline Loose Parts Kit	1
329654X	Cover Kit	1
†329160-106X	**Conversion Kit (XD to RS DRY)**	
†329160-107X	**Conversion Kit (XD to RS WET)**	



RY Output Option Rotatable ISO 7653 Pump Mount, DIN 5462 Shaft		
Part Number	**Description**	**Qty.**
329828-6X	Shaft & Clutch Ass'y (3-P-1138 Shaft) (HYD)	1 or
329832-6X	Shaft & Clutch Ass'y (3-P-1138 Shaft) (AIR)	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-885	Bearing Cap (DRY)	1 or
21-P-887	Bearing Cap (WET)	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
328170-216X	Capscrew Kit (378447-8 Qty. 4)	1
21-P-771	Pump Flange	1
35-P-101	Bearing Cap Gasket - Wet Spline	1
	WET SPLINE LOOSE PARTS	
329699-1X	Hose Assembly	1
329742X	Wet Spline Loose Parts Kit	1
329659X	Cover Kit	1
†329160-108X	**Conversion Kit (XD to RY DRY)**	
†329160-109X	**Conversion Kit (XD to RY WET)**	



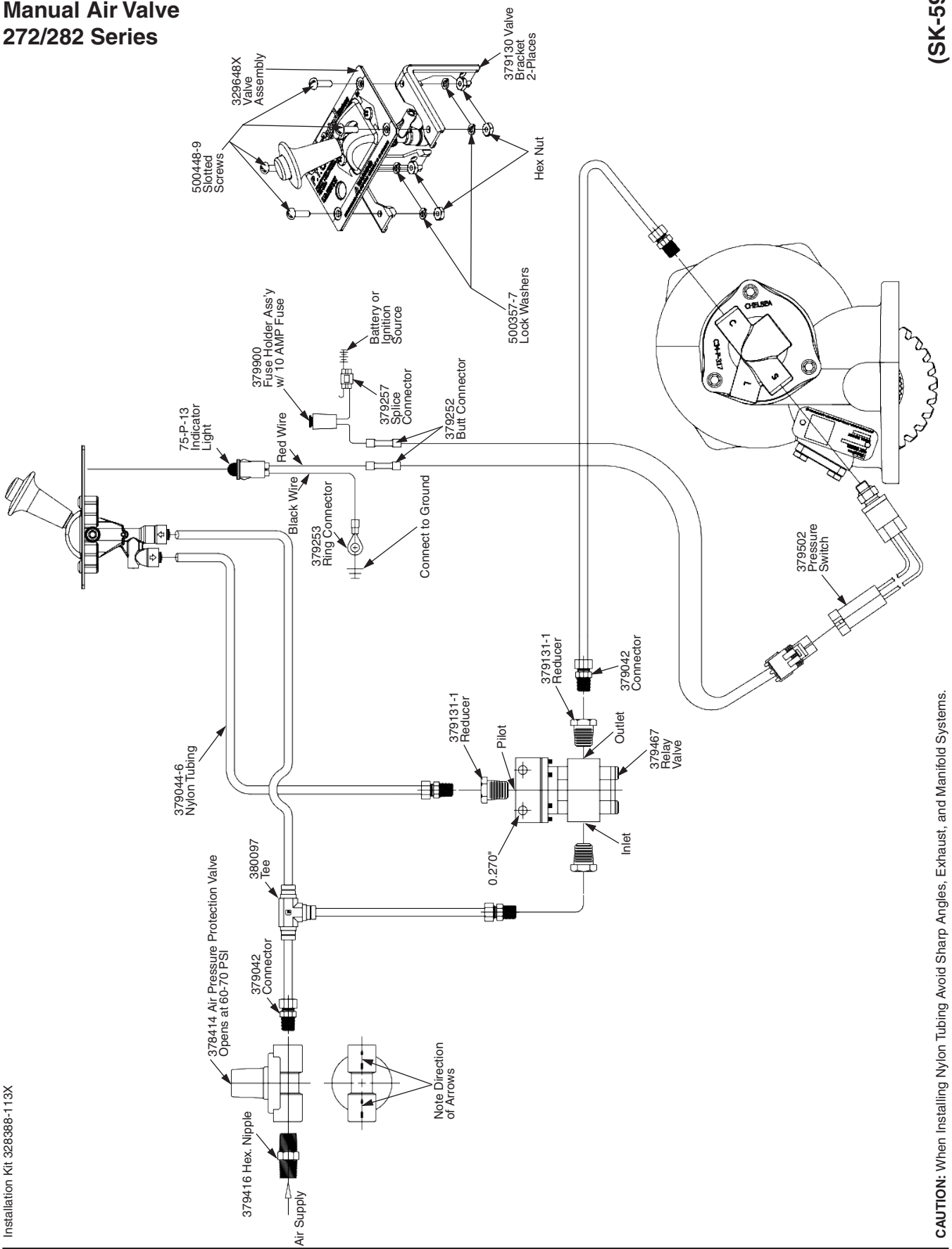
XR Output Option Chelsea Special (Cloverleaf), SAE B Shaft (7/8" - 13T)		
Part Number	**Description**	**Qty.**
329828-3X	Shaft & Clutch Ass'y (3-P-1135 Shaft) (HYD)	1 or
329832-3X	Shaft & Clutch Ass'y (3-P-1135 Shaft) (AIR)	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-885	Bearing Cap (DRY)	1
380563-14	Hex Flange Head Capscrew .875"-16 x 1.5"	4
4-P-209	Spacer, (Included in Kit)	1
328748X	XR Pump Mounting Kit	1
†329160-143X	**Conversion Kit (XD to XR)**	

†Conversion Kits do not include all parts shown above.

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

Shift Option A
Manual Air Valve
272/282 Series

(SK-595)



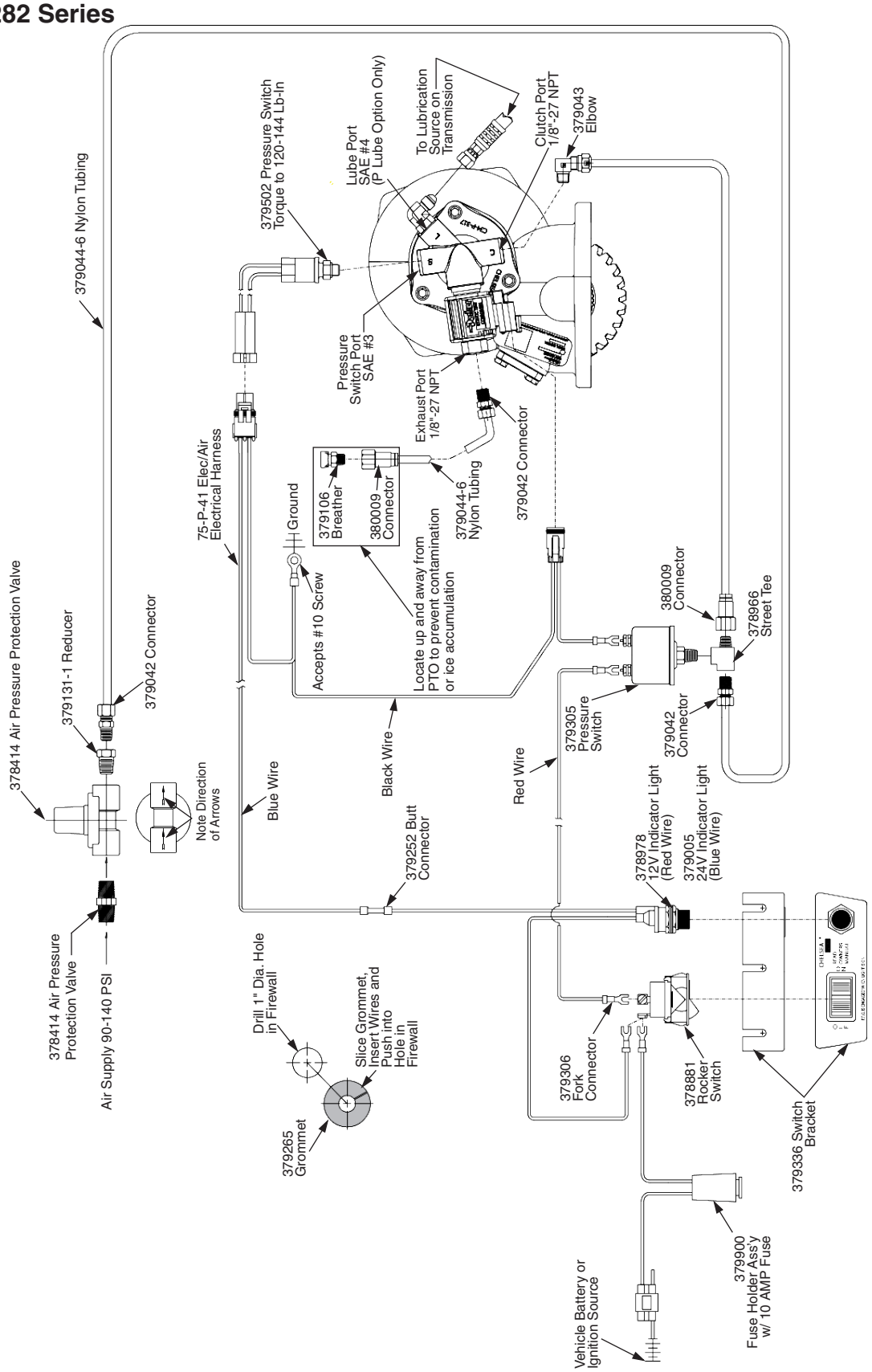
Installation Kit 328388-113X

CAUTION: When Installing Nylon Tubing Avoid Sharp Angles, Exhaust, and Manifold Systems.

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

Shift Option 1 (12V) & 2 (24V)
Elec/Air w/o EOC (Integral Air Valve)
272/282 Series

(SK-589)



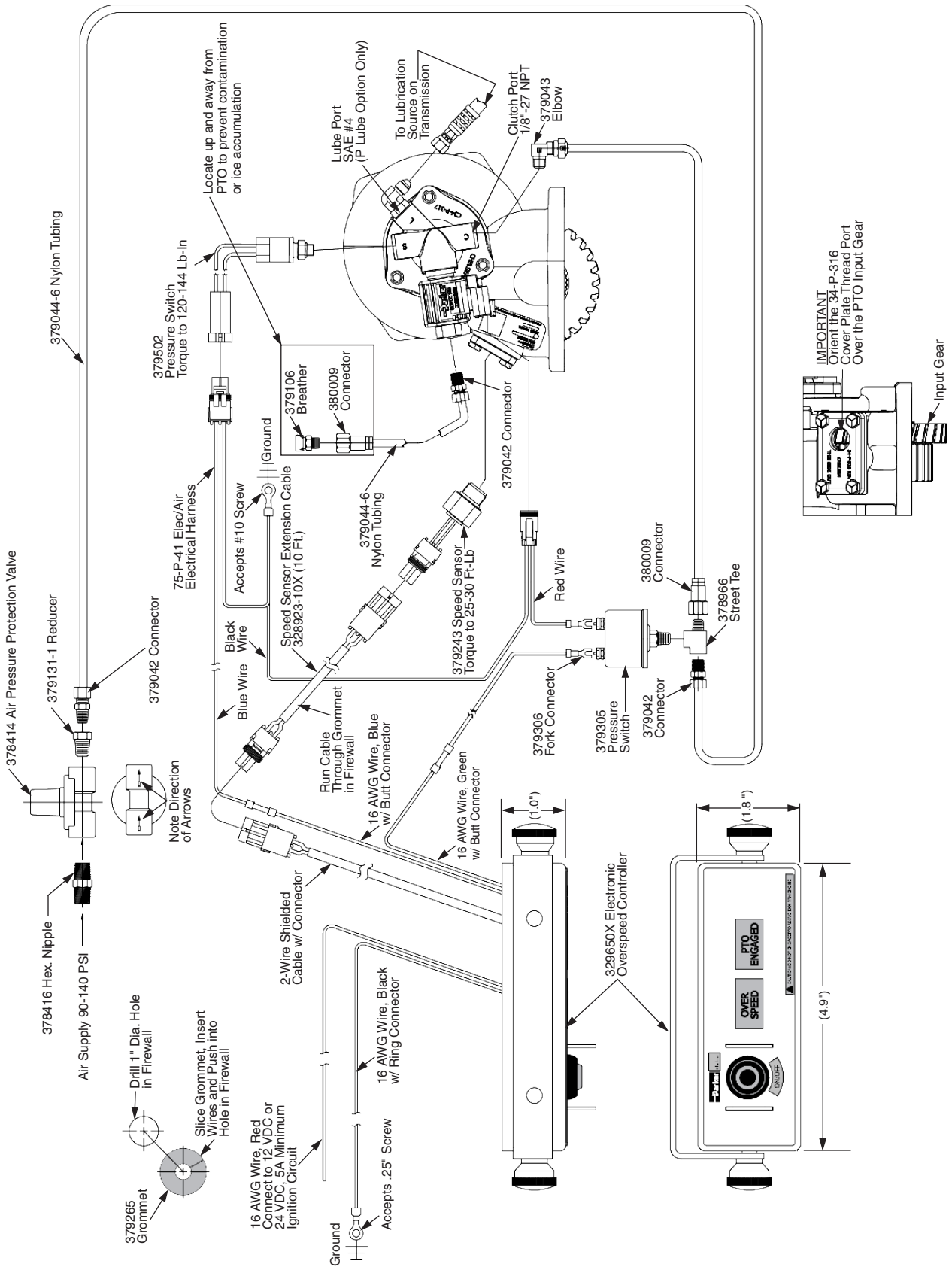
NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

Installation - Kit 329893-12X (12V)
Installation - Kit 329893-24X (24V)

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

Shift Option J (12V) & 3 (24V)
Elec/Air w/ EOC (Integral Air Valve)
272/282 Series

(SK-590)



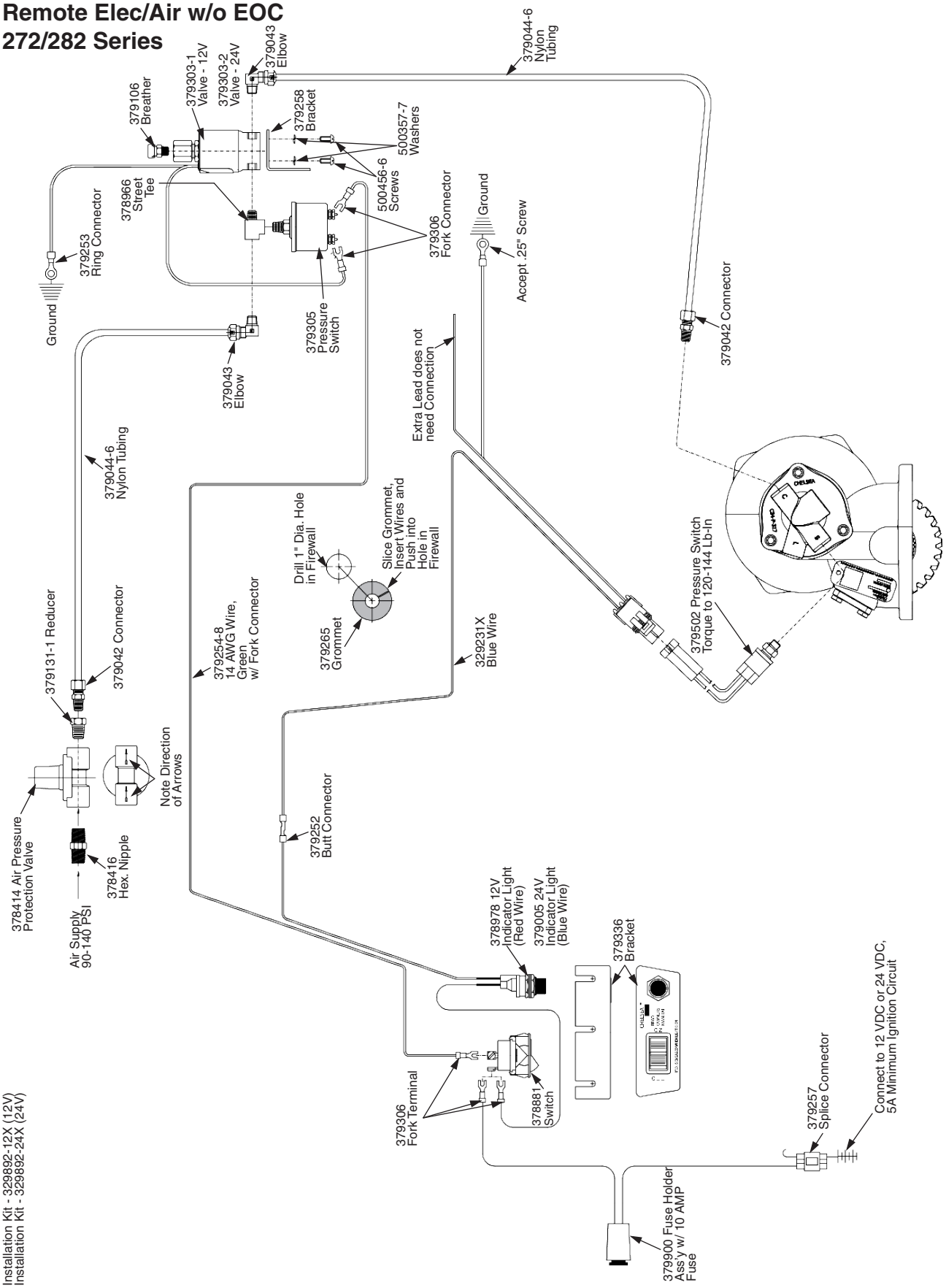
Installation Kit - 329894X

NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Shift Option P (12V) & Q (24V)
Remote Elec/Air w/o EOC
272/282 Series

(SK-596)



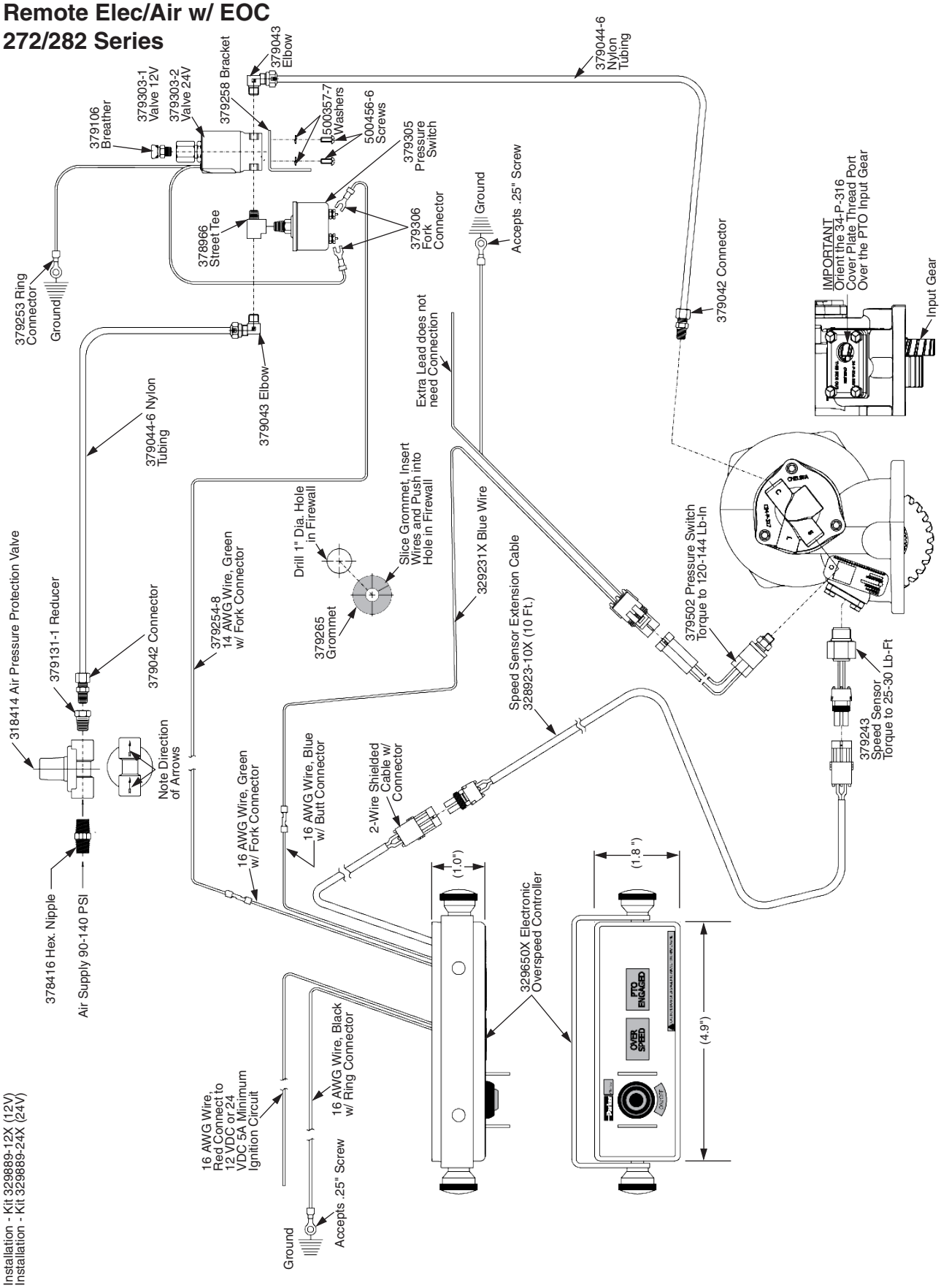
Installation Kit - 329892-12X (12V)
Installation Kit - 329892-24X (24V)

NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Shift Option R (12V) & 4 (24V)
Remote Elec/Air w/ EOC
272/282 Series

(SK-583)

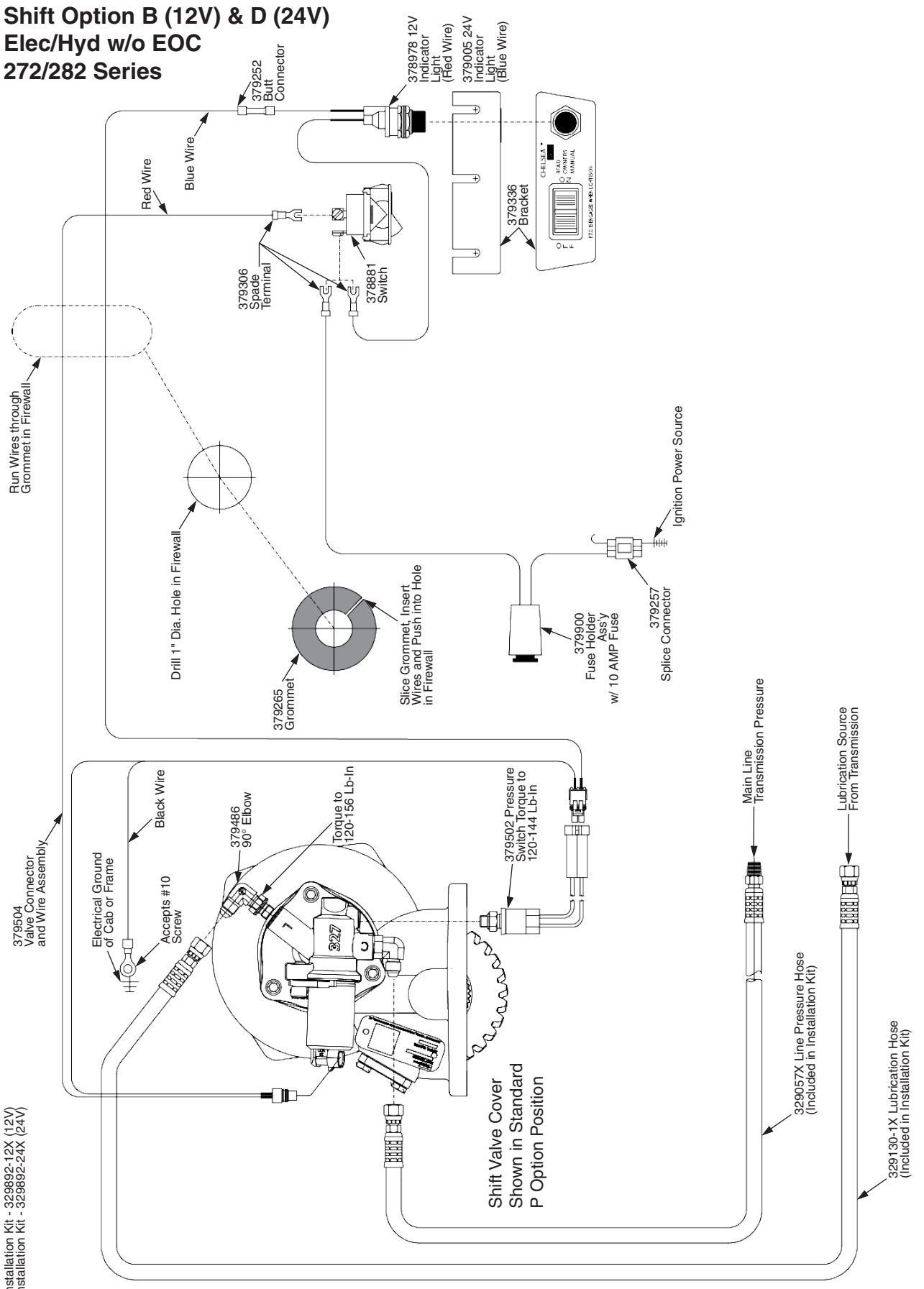


NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Shift Option B (12V) & D (24V) Elec/Hyd w/o EOC 272/282 Series

(SK-572)

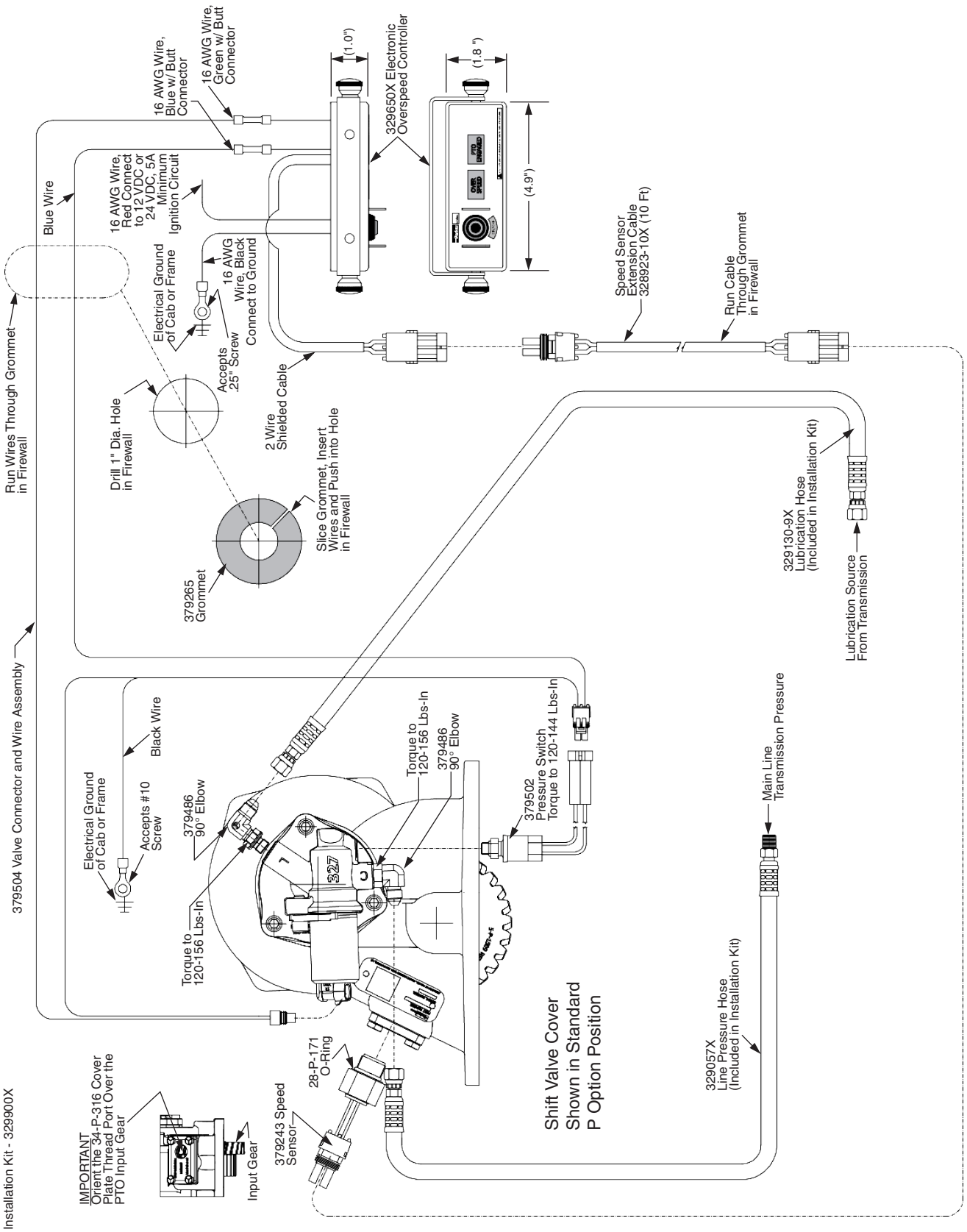


NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Shift Option K (12V) & L (24V)
Elec/Hyd w/ EOC
282 Series

(SK-598)

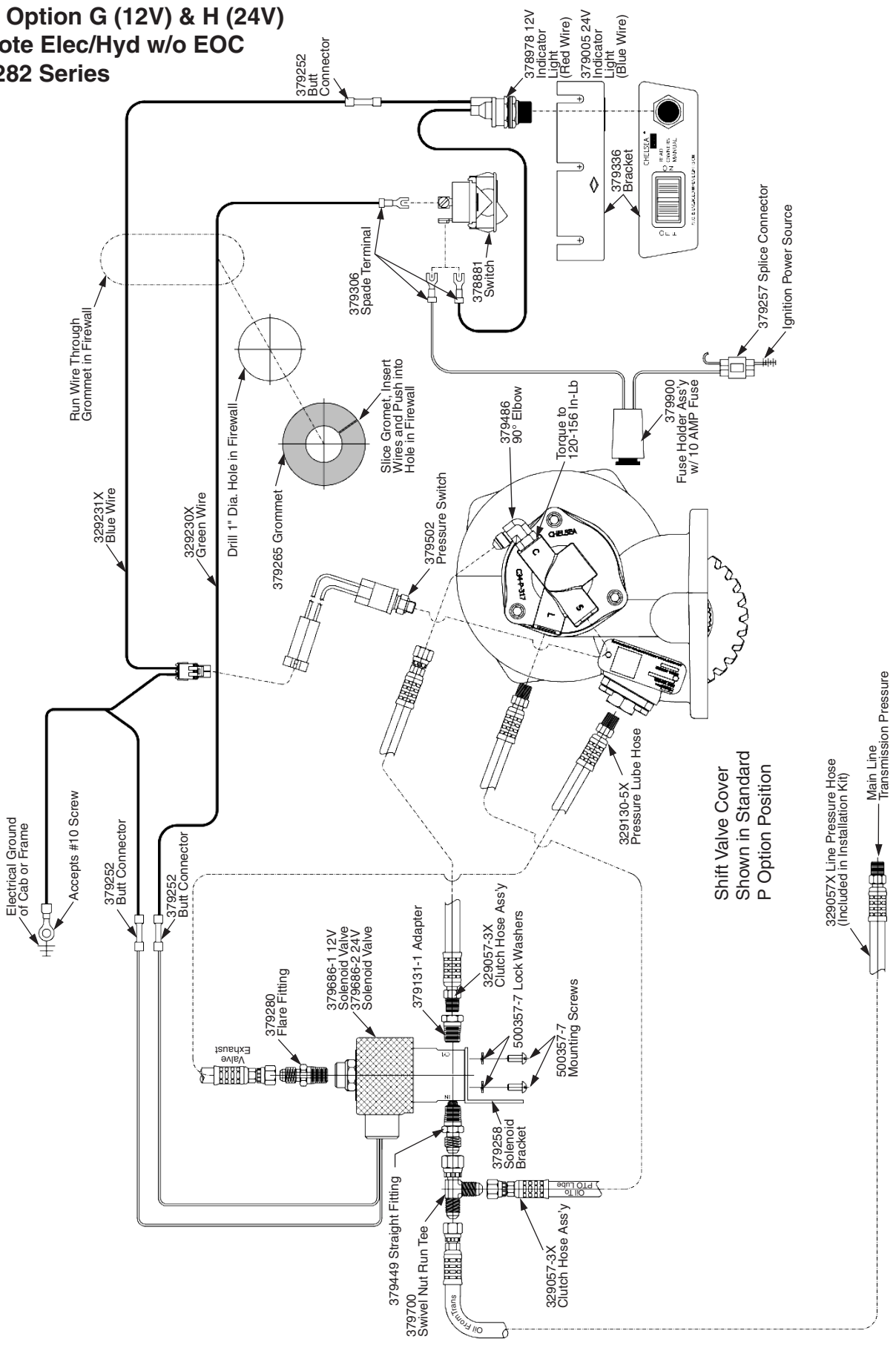


NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Shift Option G (12V) & H (24V) Remote Elec/Hyd w/o EOC 272/282 Series

(SK-576)



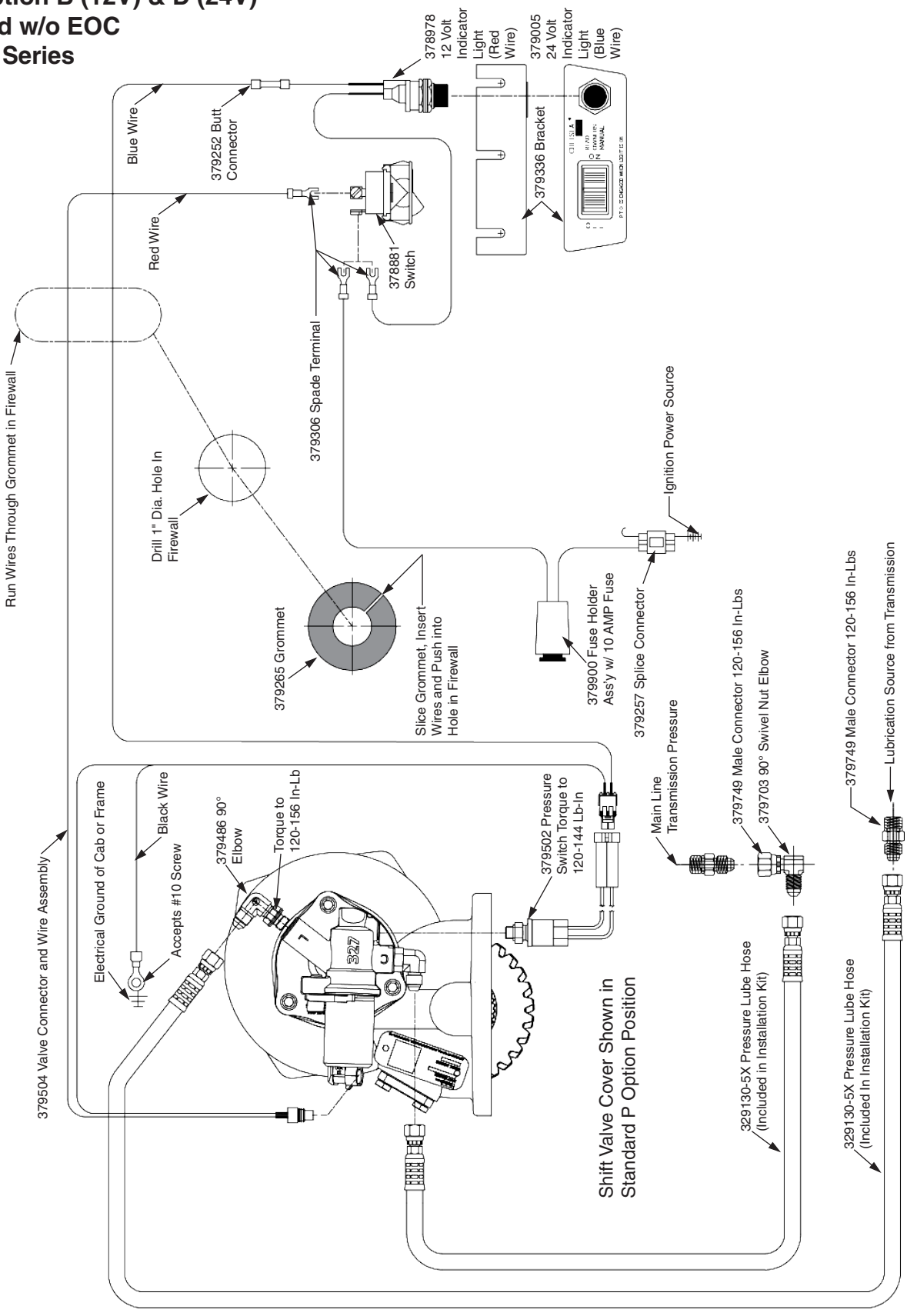
Installation Kit - 329885-12X (12V)
Installation Kit - 329885-24X (24V)

NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Transmission Models MY400, MY600, A445, A443E MO35A4
Non Dodge/RAM
Shift Option B (12V) & D (24V)
Elec/Hyd w/o EOC
272/282 Series

(SK-603)



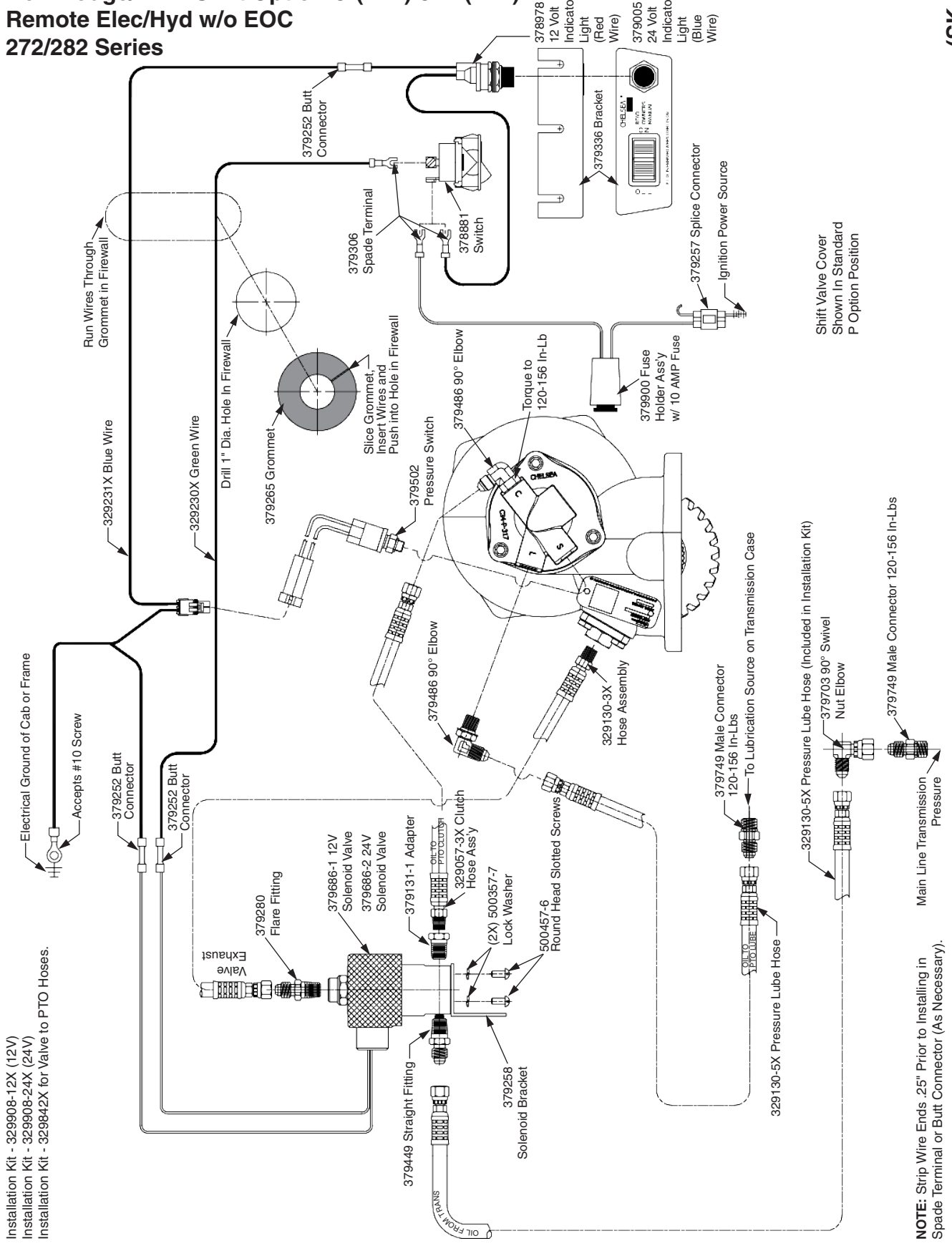
Installation Kit 329907-12X (12V)
Installation Kit 329907-24X (24V)

NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Transmission Models MY400, MY600, A445, A443E MO35A4
Non-Dodge/RAM Shift Option G (12V) & H (24V)
Remote Elec/Hyd w/o EOC
272/282 Series

(SK-604)



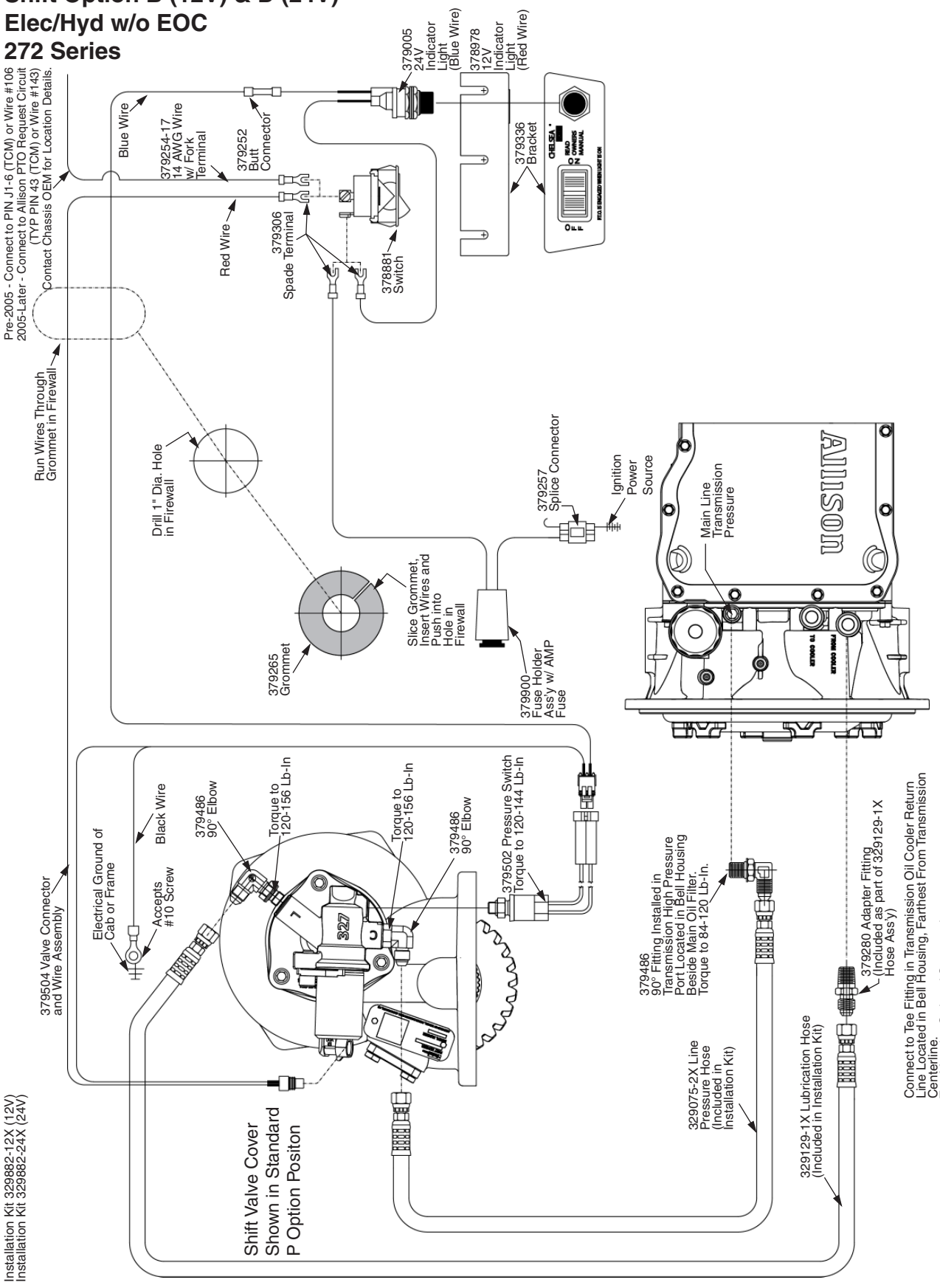
NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

CAUTION: Torque values must be maintained 120-144 In-lb

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

Transmission Models 1000, 2000, 2500
Shift Option B (12V) & D (24V)
Elec/Hyd w/o EOC
272 Series

(SK-574)

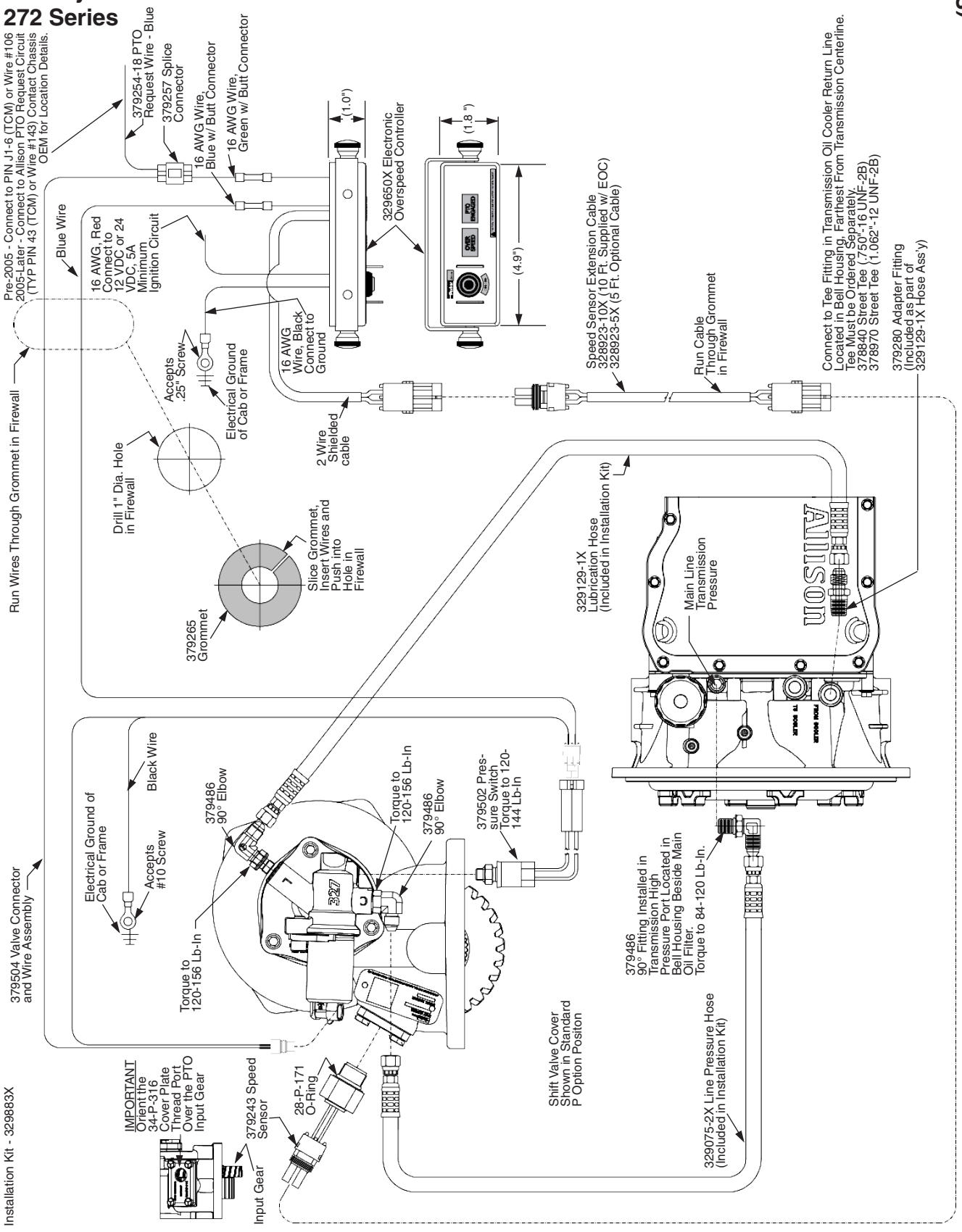


NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

Transmission Models 1000, 2000, 2500
Shift Option K (12V) & L (24V)
Elec/Hyd w/ EOC
272 Series

(SK-575)



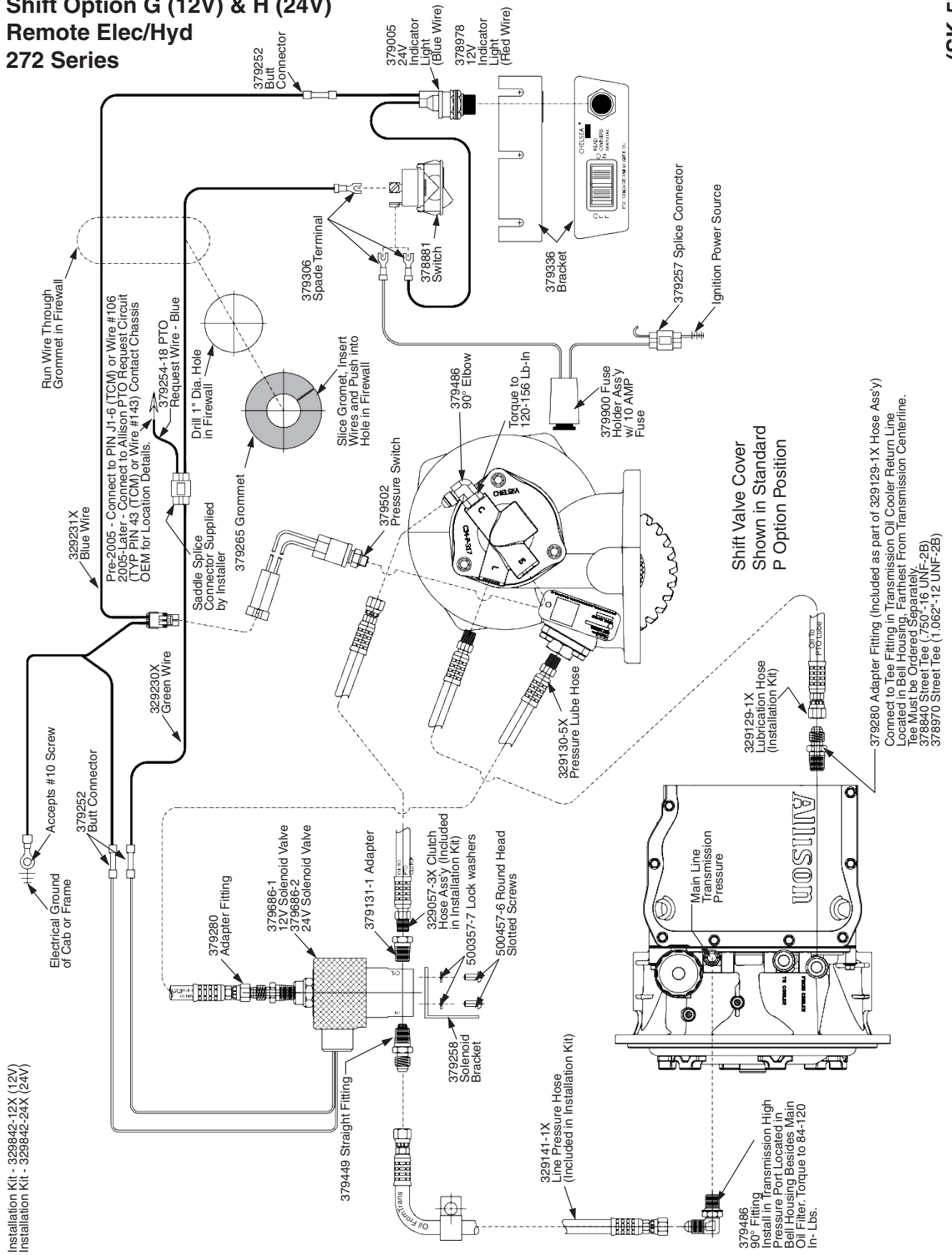
NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

Parker Chelsea

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

Transmission Models 1000, 2000, 2500
Shift Option G (12V) & H (24V)
Remote Elec/Hyd
272 Series

(SK-579)

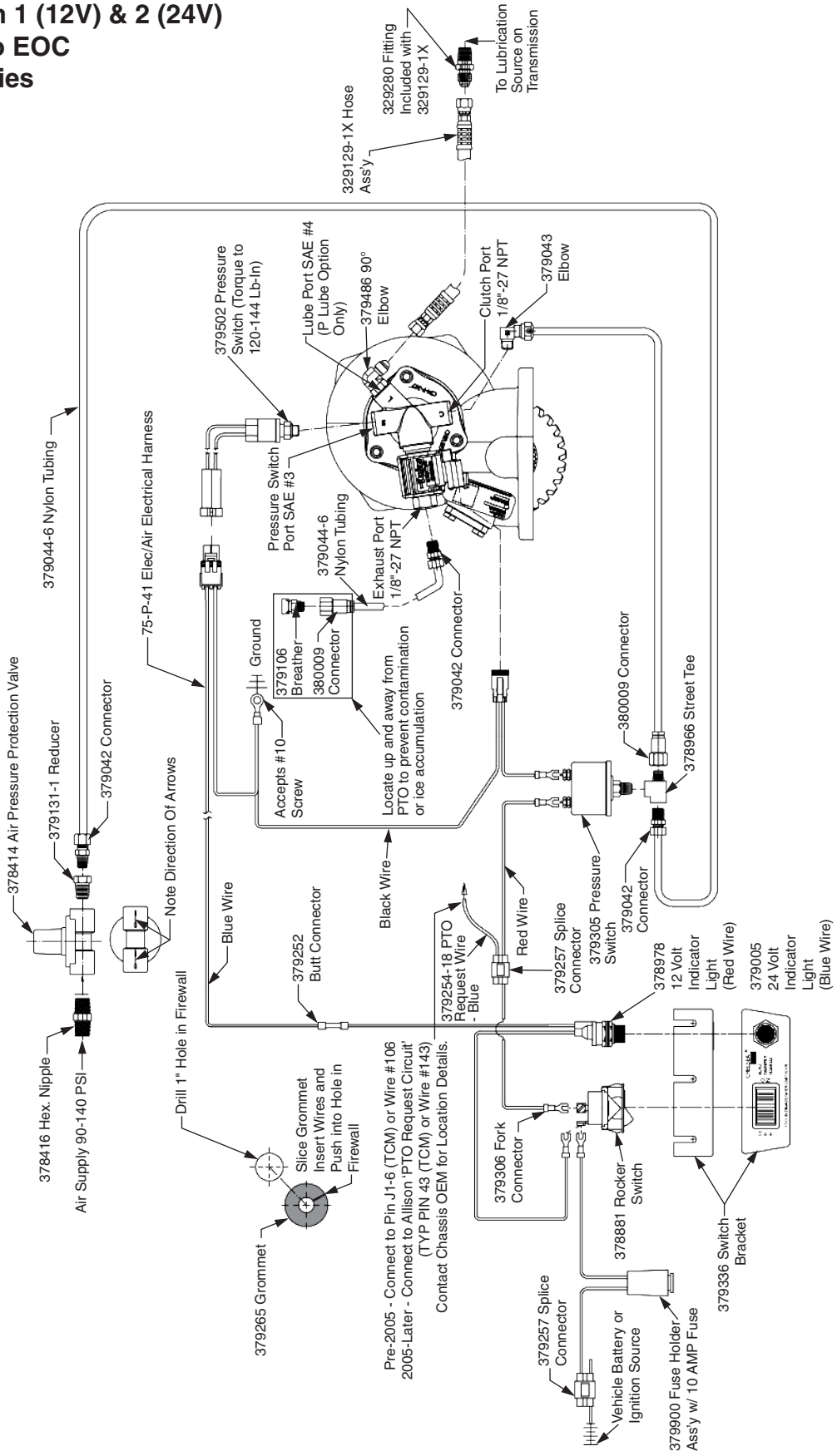


CAUTION: Torque Values Must be Maintained 120-144 Lb-In.

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

Transmission Models 1000, 2000, 2500
Shift Option 1 (12V) & 2 (24V)
Elec/Air w/o EOC
272/282 Series

(SK-605)



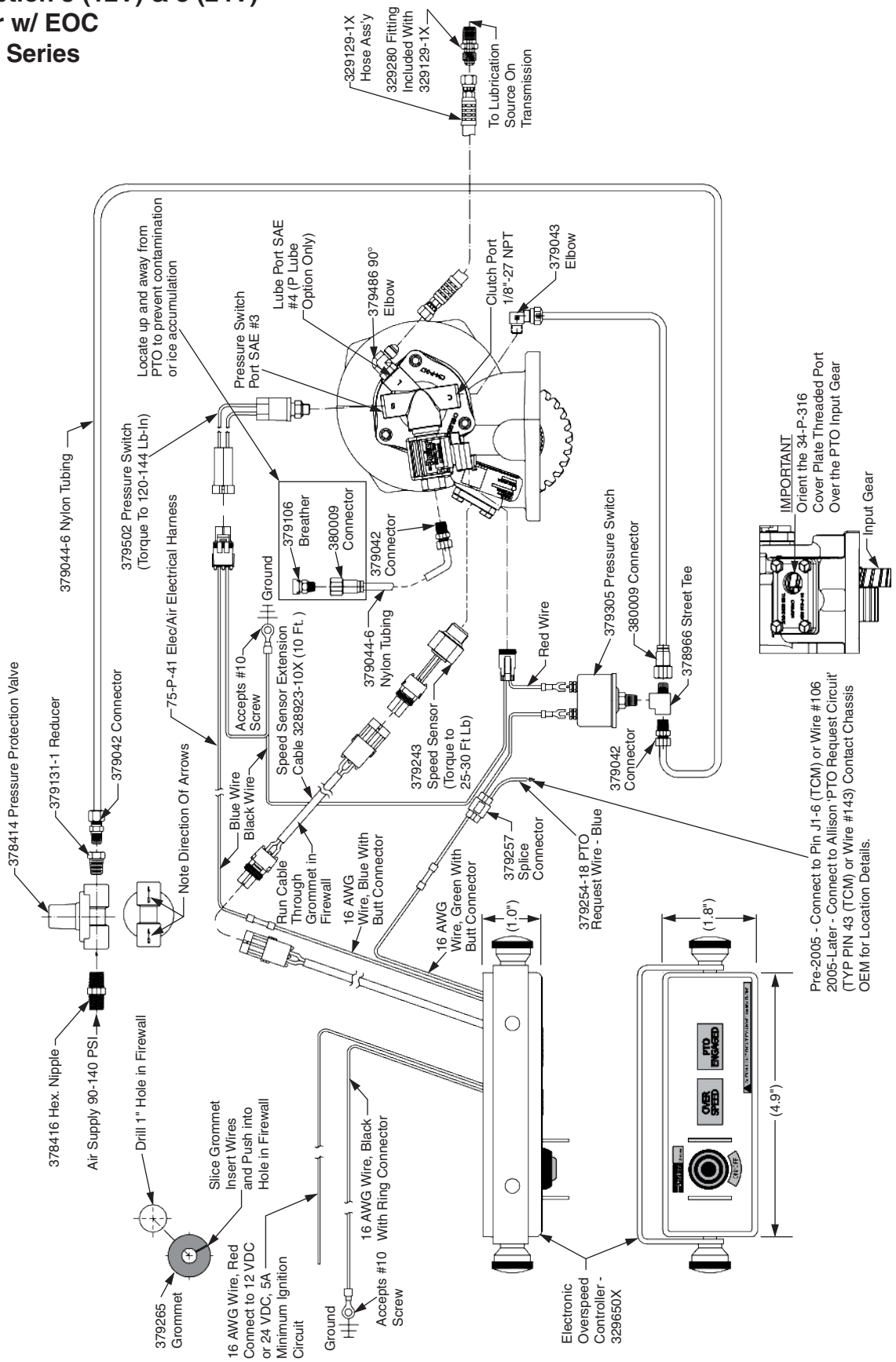
NOTE: Strip Wire Ends .25" Prior to Installing Fork and Butt Connectors

Installation Kit 329909-12X (12V)
Installation Kit 329909-24X (24V)

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

Transmission Models 1000, 2000, 2500
Shift Option J (12V) & 3 (24V)
Elec/Air w/ EOC
272/282 Series

(SK-606)



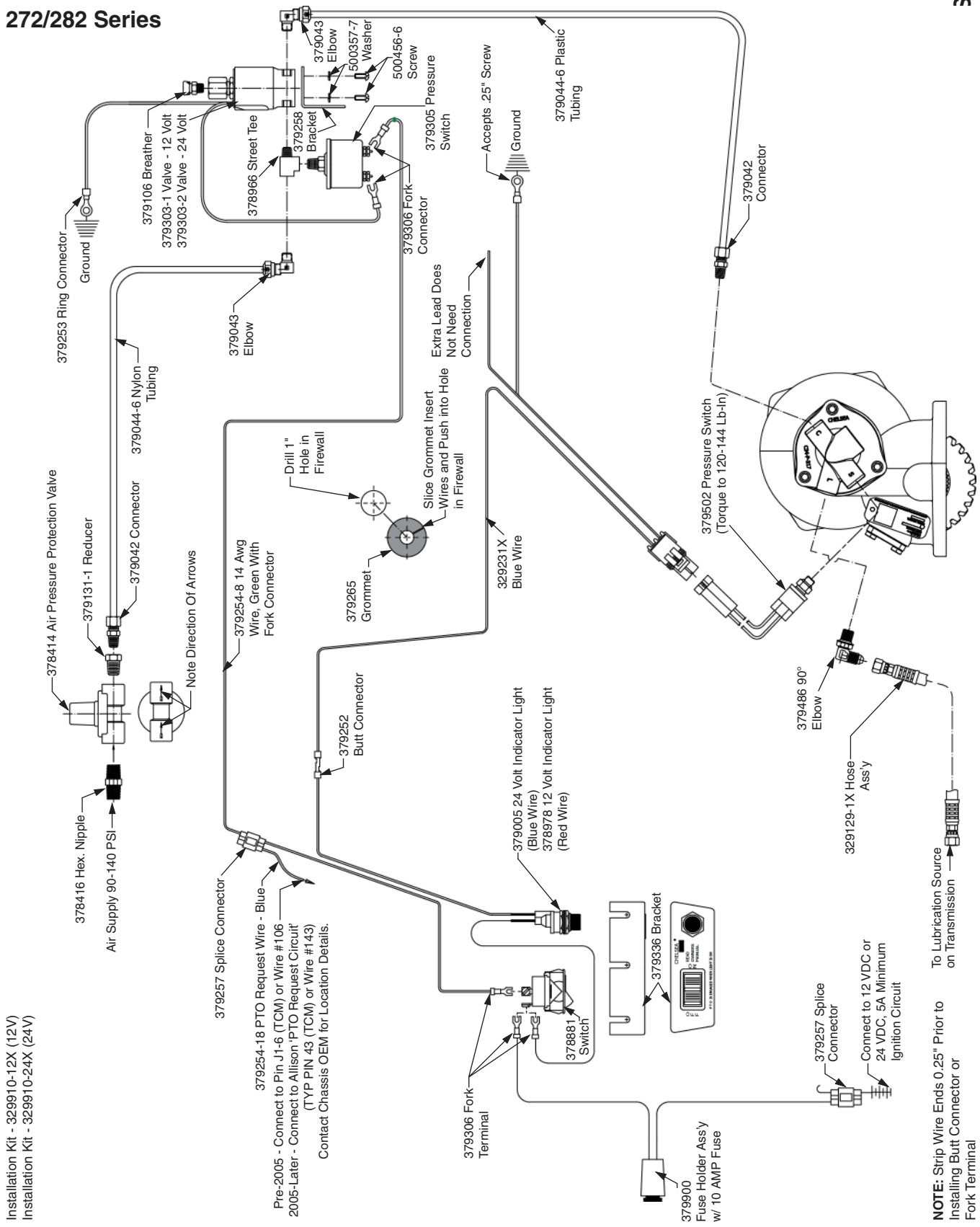
NOTE: Strip Wire Ends .25" Prior to Installing Fork and Butt Connectors

Installation Kit - 329911X (12/24V)

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

Transmission Models 1000, 2000, 2500
Shift Option P (12V) & Q (24V)
Remote Elec/Air w/o EOC
272/282 Series

3K-607)

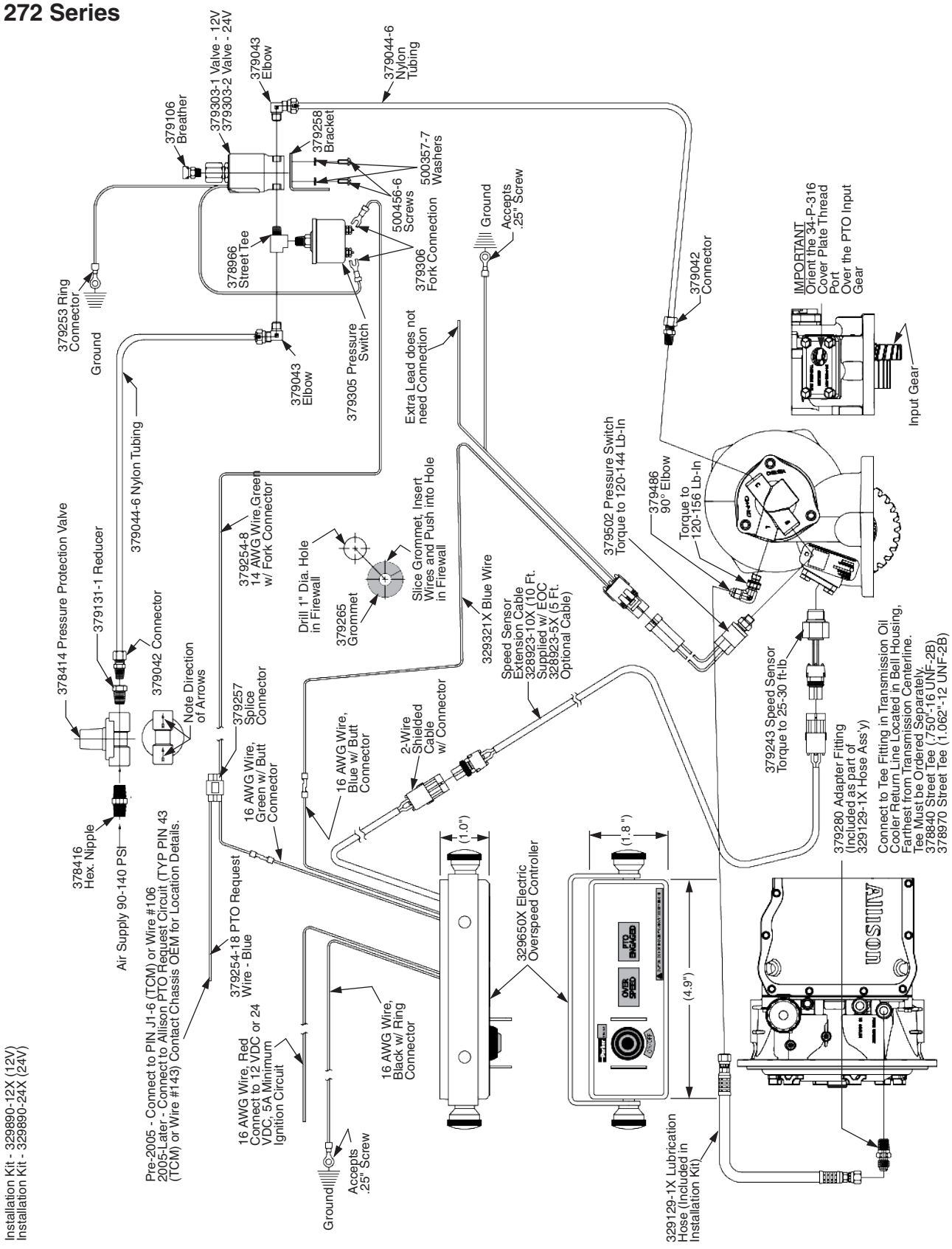


Installation Kit - 329910-12X (12V)
Installation Kit - 329910-24X (24V)

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

Transmission Models 1000, 2000, 2500
Shift Option R (12V), 4 (24V)
Remote Elec/Air w/ EOC
272 Series

(SK-584)



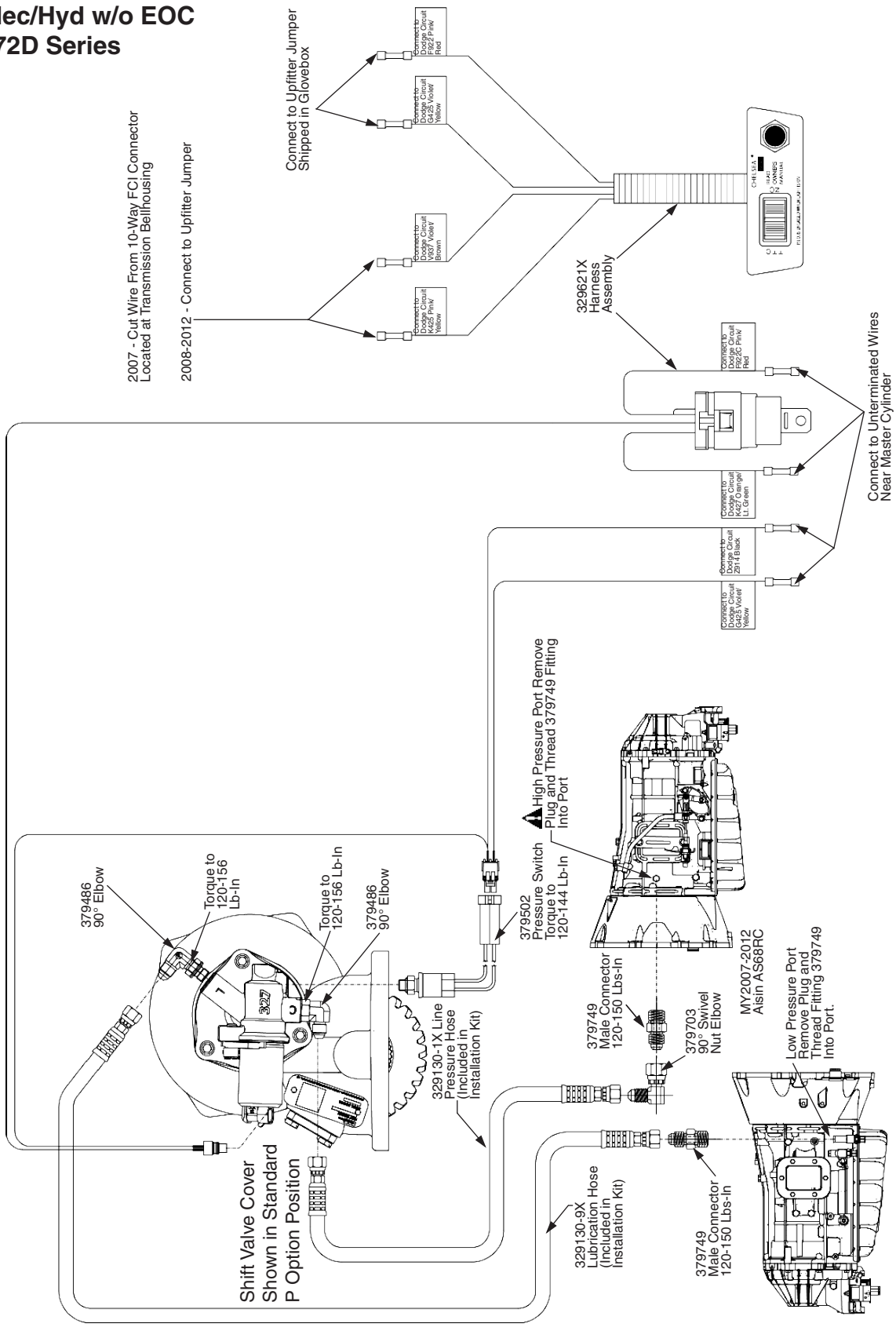
NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

Parker Chelsea

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

Dodge Cab/Chassis MY2007-2012
AISIN (AS68RC) Transmission
Shift Option B (12V)
Elec/Hyd w/o EOC
272D Series

(SK-577)



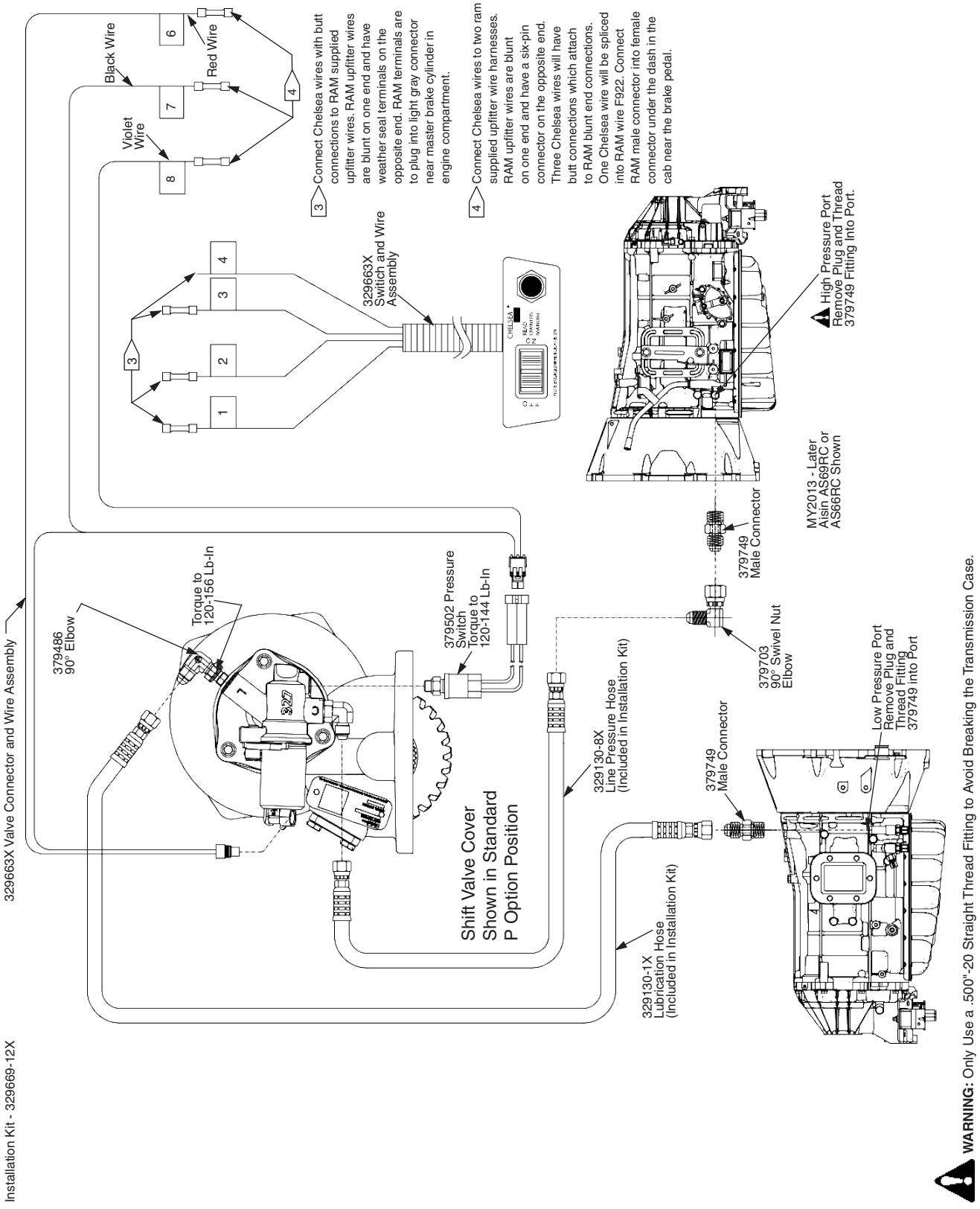
WARNING: Only Use a .500"-20 Straight Thread Fitting to Avoid Breaking the Transmission Case.

NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).

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

RAM Cab/Chassis MY2013-Later
AISIN (AS69RC/AS66RC) Transmission
Shift Option B (12V)
Remote Elec/Hyd w/o EOC
272R Series

(SK-581)



Installation Kit - 329669-12X

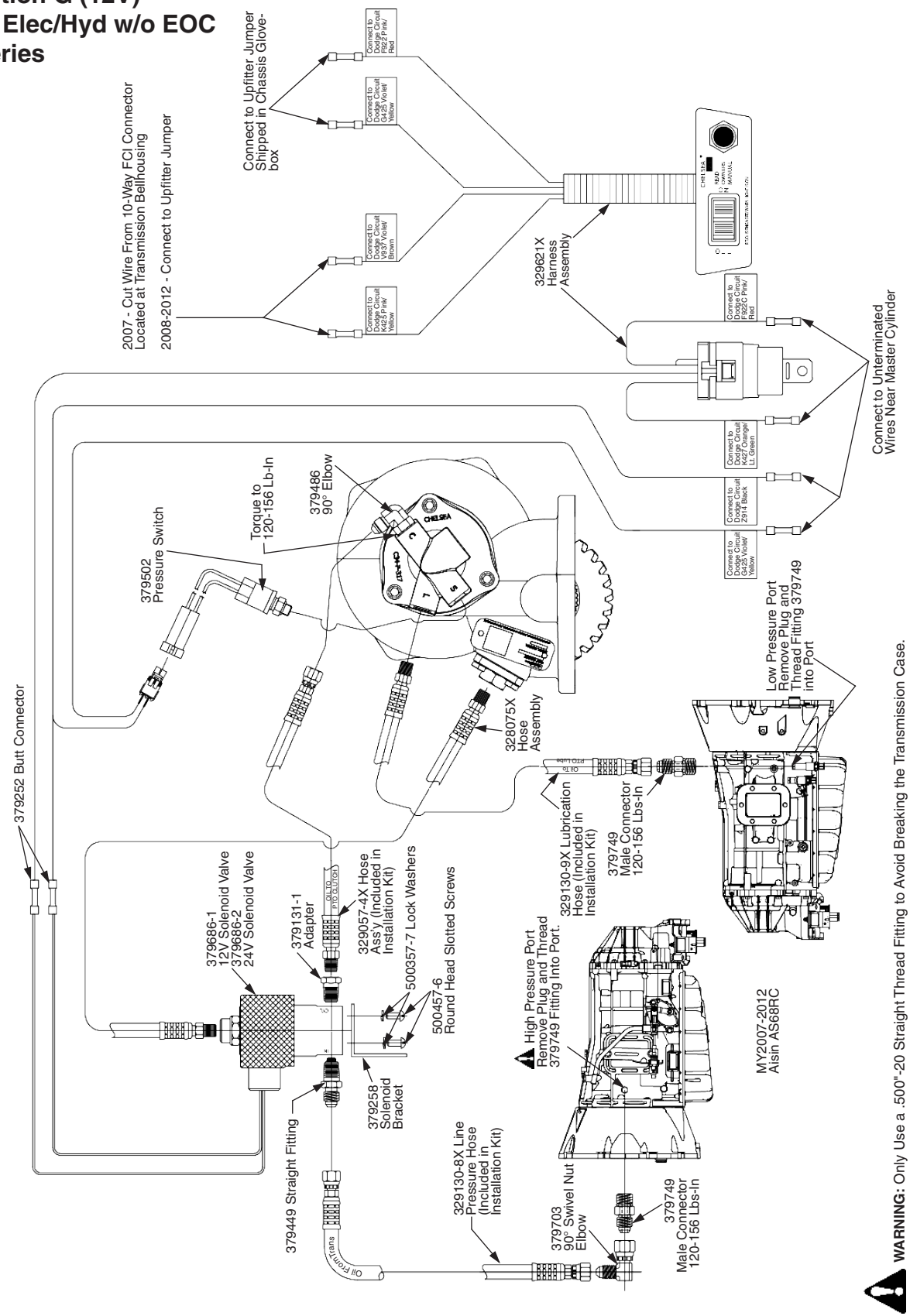
WARNING: Only Use a .500"-20 Straight Thread Fitting to Avoid Breaking the Transmission Case.

NOTE: Transmission Shown, Used as Representation of Aisin AS69RC, May Vary Slightly.

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

Dodge Cab/Chassis MY2007-2012
AISIN (AS68RC) Transmission
Shift Option G (12V)
Remote Elec/Hyd w/o EOC
272D Series

(SK-580)



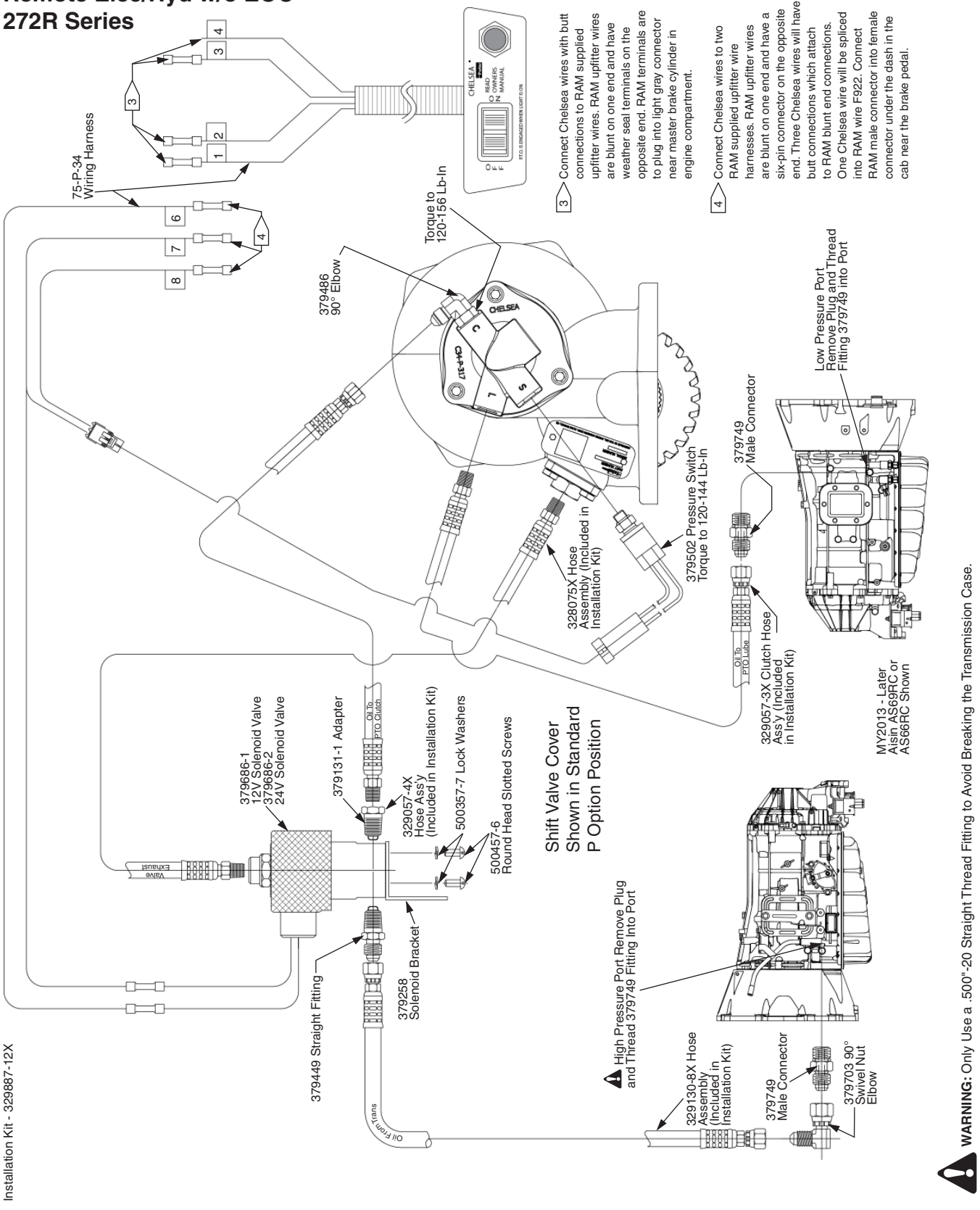
WARNING: Only Use a .500"-20 Straight Thread Fitting to Avoid Breaking the Transmission Case.
NOTE: Strip Wire Ends .25" Prior to Installing in Spade Terminal or Butt Connector (As Necessary).
CAUTION: Torque Values Must be Maintained at 120-144 Lb-In.

Installation Kit - 329888-12X (12V)

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

RAM Cab/Chassis MY2013-Later
AISIN (AS69RC/AS66RC) Transmission
Shift Option G (12V)
Remote Elec/Hyd w/o EOC
272R Series

(SK-582)



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

Part Number	Description	Qty.
	SERVICE KITS	
329071-62X	**Gasket & Seal Kit**	
22-P-112	Gasket	1
22-P-101	Gasket	1
28-P-191	O-Ring .549" x .103"	1
28-P-119	Oil Seal 1.379" x .875" x .250"	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
28-P-178	O-Ring 4.359" x .138"	1
28-P-198	O-Ring .798" x .103"	1
35-P-101	Bearing Cap Gasket - Wet Spline	1
35-P-9-1	Mounting Gasket .010" 6-Bolt	2
35-P-9-2	Mounting Gasket .020" 6-Bolt	2
35-P-15-1	Mounting Gasket .010" 8-Bolt	2
35-P-15-2	Mounting Gasket .020" 8-Bolt	2
35-P-41	Mounting Gasket .030" 6-Bolt	1
35-P-69	Mounting Gasket	1
35-P-84	Mounting Gasket (Long)	1
329071-63X	**Bearing Kit AB, AC, XD, XV, RF, RK, RS, RY, RZ, XR (All Outputs Except BV)**	
379746	Lock ring	1
378263	Internal Lock ring	1
379555	Lock ring	1
560972	Needle Roller Bearing Ass'y 1.500" x 1.875" x 1.000"	2
550311	Ball Bearing 1.77" x 3.346" x .748"	1
550439	Tapered Cone Bearing .750"x .8598"	2
31-P-102	Thrust Washer .754" x .440" x .030"	1
14-P-73-1	Spacer .762" x 1.500" x .150"	1
14-P-73-2	Spacer .762" x 1.500" x .153"	1
14-P-73-3	Spacer .762" x 1.500" x .156"	1
329071-64X	**Bearing Kit (BV & BD Outputs)**	
379746	Lock ring	1
378263	Internal Lock ring	1
379555	Lock ring	1
378895	Lock ring	1
378576	Lock ring	1
550010	Ball Bearing 1.378" x 2.8346" x .6693"	1
560972	Needle Roller Bearing Ass'y 1.500" x 1.875" x 1.000"	2
550439	Tapered Cone Bearing .750"x .8598"	2
31-P-102	Thrust Washer .754" x .440" x .030"	1
14-P-73-1	Spacer .762" x 1.500" x .150"	1
14-P-73-2	Spacer .762" x 1.500" x .153"	1
14-P-73-3	Spacer .762" x 1.500" x .156"	1
329071-83X	**Hydraulic Solenoid Valve O-Ring Kit**	
2016V-7	O-Ring .614" x .070"	1
2017V-7	O-Ring .676" x .070"	1
2020V-7	O-Ring .864" x .070"	2
329678X	**Gear & Clutch Plates Kit (All)**	
2-P-858	Inner Hub Gear	1
379485	Friction Disc	11
380065	Clutch Plate	10

BOMs in each kit group are listed in order based on part number.

Part Number	Description	Qty.
	STUD KITS	
7170-72X	**Metric Stud Kit (272G Except KU Gear)**	
379428-14	Stud M10	6
379744	Flange Nut .375"-24	6
7170-127X	**Standard Stud Kit (272M)**	
378431-12	Hex Head Capscrew .375"-16 x 1.250"	2
378431-15	Hex Head Capscrew .375"-16 x 1.625"	3
379433-6	Socket Head Capscrew .375"-16 x 1.00"	3
7170-128X	**Metric Stud Kit (272G*KU)**	
379745	Flange Nut .438"-20	6
379908	Metric Stud M10 x 1.25" x 1.750"	4
379908-1	Metric Stud M10 x 1.25" x 1.625"	2
7170-129X	**Standard Stud Kit (272X, E)**	
379423-12	Standard Stud	2
379423-15	Standard Stud	4
379745	Flange Nut .375"-24	6
7170-130X	**Metric Stud Kit (272N)**	
378431-12	Hex Head Capscrew .375"-16 x 1.250"	2
379428-22	Metric Stud	3
379744	Flange Nut .375"-24	3
379433-6	Socket Head Capscrew .375"-16 x 1.00"	3
7170-131X	**Standard Stud Kit (272Z)**	
379744	Flange Nut .375"-24	6
379423-9	Standard Stud	6
328170-200X	**Standard Stud Kit (282X)**	
379224	Lockwasher	6
378432-12	Capscrew	6
379424-18	Stud	2
379745	Flange Nut .438"-20	2
328170-201X	**Metric Stud Kit (282G)**	
379745	Flange Nut .438"-20	8
379429-19	Metric Stud	8

Continued on Next Page

Part Number	Description	Qty.
INSTALLATION INSTRUCTIONS KITS		
328948-5X	**Gasket & Installation Instructions Kit (All 272 M & N Mounting)**	
35-P-69	Mounting Gasket	1
35-P-84	Mounting Gasket (Long)	1
328946X	Caution Label Kit	1
379085-2	Instructions Label	1
379624	Product Warranty Card	1
Owners Manual	HY25-1240-M1/US	1
Safety Guide	HY25-1002-M1/US	1
328950-6X	**Gasket & Installation Instructions Kit (All 272 Except M & N Mounting)**	
35-P-9-1	Mounting Gasket .010" 6-Bolt	2
35-P-9-2	Mounting Gasket .020" 6-Bolt	2
35-P-41	Mounting Gasket .030" 6-Bolt	1
328946X	Caution Label Kit	1
379085-2	Instructions Label	1
379624	Product Warranty Card	1
Owners Manual	HY25-1240-M1/US	1
Safety Guide	HY25-1002-M1/US	1
328951-8X	**Gasket & Installation Instructions Kit (All 282)**	
35-P-15-1	Mounting Gasket .010" 8-Bolt	2
35-P-15-2	Mounting Gasket .020" 8-Bolt	2
328946X	Caution Label Kit	1
379085-2	Instructions Label	1
379624	Product Warranty Card	1
Owners Manual	HY25-1240-M1/US	1
Safety Guide	HY25-1002-M1/US	1

Part Number	Description	Qty.
HYDRAULIC INSTALLATION KITS		
329841-12X	**12V Hyd Valve Installation Kit (B Shift, KU Gear, R Mount)**	
329663X	Wiring Harness Ass'y	1
379502	Pressure Switch	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
379486	90° Elbow .438"-20	1
329130-8X	Transmission Main Line Pressure Hose Assembly	1
329130-1X	Hose Assembly, 16.25"	1
329842-12X	**12V Remote Hyd Valve Installation Kit (G Shift, HV Gear)**	
329230X	Green Wire 120.25" with Butt Connector	1
329231X	Electrical Wiring Harness	1
378881	Rocker Switch	1
378978	12V Indicator Light	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	2
379254-18	PTO Request Wire - Blue	1
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379306	Electrical Fork Terminal	3
379336	Switch Bracket	1
379449	Screen Adapter	1
379502	Pressure Switch	1
379686-1	12V Hydraulic Solenoid Valve	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
379486	90° Elbow .438"-20	1
329057-3X	Clutch Hose Ass'y	1
329129-1X	Hose Assembly with Fitting 16"	1
329130-5X	Pressure Lube Hose	1
329141-1X	Transmission Main Line Pressure Hose Assembly	1

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

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

Part Number	Description	Qty.
HYDRAULIC INSTALLATION KITS (Cont'd)		
329842-24X	**24V Remote Hyd Valve Installation Kit (H Shift, HV Gear)**	
329230X	Green Wire 120.25" with Butt Connector	1
329231X	Electrical Wiring Harness	1
378881	Rocker Switch	1
379005	24V Indicator Light	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	2
379254-18	PTO Request Wire - Blue	1
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379306	Electrical Fork Terminal	3
379336	Switch Bracket	1
379449	Screen Adapter	1
379502	Pressure Switch	1
379686-2	24V Hydraulic Solenoid Valve	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
379486	90° Elbow .438"-20	1
329057-3X	Clutch Hose Ass'y	1
329129-1X	Hose Assembly with Fitting 16"	1
329130-5X	Pressure Lube Hose	1
329141-1X	Transmission Main Line Pressure Hose Assembly	1
329882-12X	**12V Hyd Valve Installation Kit (B Shift, HV Gear)**	
329024-12X	12V Installation Kit	1
379486	90° Elbow .438"-20	1
329075-2X	Transmission Main Line Pressure Hose Assembly	1
329129-1X	Hose Assembly with Fitting 16"	1
329882-24X	**24V Hyd Valve Installation Kit (D Shift, HV Gear)**	
329024-24X	24V Installation Kit	1
379486	90° Elbow .438"-20	1
329075-2X	Transmission Main Line Pressure Hose Assembly	1
329129-1X	Hose Assembly with Fitting 16"	1
329883X	**12V & 24V Hyd w/ EOC Installation Kit (K Shift & L Shift Except HV Gear)**	
329076X	24V Installation Kit	1
379486	90° Elbow .438"-20	1
329075-2X	Transmission Main Line Pressure Hose Assembly	1
329129-1X	Hose Assembly with Fitting 16"	1

BOMs in each kit group are listed in order based on part number.

Part Number	Description	Qty.
HYDRAULIC INSTALLATION KITS (Cont'd)		
329884-12V	**12V Hyd Valve Installation Kit (B Shift, KU Gear, D Mount)**	
329621X	Non EOC Dodge Wiring Harness Ass'y	1
379502	Pressure Switch	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
379486	90° Elbow .438"-20	1
329130-1X	Hose Assembly, 16.25"	1
329130-9X	Lubrication Hose Ass'y	1
329885-12X	**12V Remote Hyd Valve Installation Kit (G Shift, Except HV Gear)**	
329230X	Green Wire 120.25" with Butt Connector	1
329231X	Electrical Wiring Harness	1
378881	Rocker Switch	1
378978	12V Indicator Light	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	2
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379306	Electrical Fork Terminal	3
379336	Switch Bracket	1
379449	Screen Adapter	1
379502	Pressure Switch	1
379686-1	12V Hydraulic Solenoid Valve	1
379700	Swivel Nut Run Tee .438"-20	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
329057-3X	Clutch Hose Ass'y	2
329130-5X	Pressure Lube Hose	1
329057X	Hose Assembly, 48"	1
SK-576	Remote Hyd Valve Installation Sketch	1
329885-24X	**24V Remote Hyd Valve Installation Kit (H Shift, Except HV Gear)**	
329230X	Green Wire 120.25" with Butt Connector	1
329231X	Electrical Wiring Harness	1
378881	Rocker Switch	1
379005	24V Indicator Light	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	2
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379306	Electrical Fork Terminal	3
379336	Switch Bracket	1
379449	Screen Adapter	1
379502	Pressure Switch	1
379686-2	24V Hydraulic Solenoid Valve	1
379700	Swivel Nut Run Tee .438"-20	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
329057-3X	Clutch Hose Ass'y	2
329130-5X	Pressure Lube Hose	1
329057X	Hose Assembly, 48"	1
SK-576	Remote Hyd Valve Installation Sketch	1

Continued on Next Page

Parker Chelsea

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

Part Number	Description	Qty.
HYDRAULIC INSTALLATION KITS (Cont'd)		
329886X	**12V & 24V Hyd w/ EOC Installation Kit (K Shift & L Shift, KU Gear, R & D Mount)**	
329076	12V & 24V w/ EOC Installation Kit	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
329130-1X	Hose Assembly, 16.25"	1
329130-9X	Lubrication Hose Ass'y	1
329887-12X	**12V Hyd Valve Installation Kit (G Shift, KU Gear, R Mount)**	
75-P-34	Electrical Harness	1
379131-1	Pipe Reducer Bushing	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379449	Screen Adapter	1
379502	Pressure Switch	1
379686-1	12V Hydraulic Solenoid Valve	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
329057-4X	Hose Assembly 16.75"	1
329057-3X	Clutch Hose Ass'y	1
329075X	Valve Exhaust Hose Ass'y	1
329130-8X	Transmission Main Line Pressure Hose Assembly	1
329888-12X	**12V Hyd Valve Installation Kit (G Shift, KU Gear, D Mount)**	
329621X	Non EOC Dodge Wiring Harness Ass'y	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379449	Screen Adapter	1
379502	Pressure Switch	1
379686-1	12V Hydraulic Solenoid Valve	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
329057-4X	Hose Assembly 16.75"	1
329130-9X	Lubrication Hose Ass'y	1
329075X	Valve Exhaust Hose Ass'y	1
329130-8X	Transmission Main Line Pressure Hose Assembly	1
329892-12X	**12V Hyd Valve Installation Kit (B Shift, Except HV Gear)**	
329024-12X	12V Installation Kit	1
379486	90° Elbow .438"-20	1
329057X	Hose Assembly, 48"	1
329130-1X	Hose Assembly, 16.25"	1

Part Number	Description	Qty.
HYDRAULIC INSTALLATION KITS (Cont'd)		
329892-24X	**24V Hyd Valve Installation Kit (D Shift, Except HV Gear)**	
329024-24X	24V Installation Kit	1
379486	90° Elbow .438"-20	1
329057X	Hose Assembly, 48"	1
329130-1X	Hose Assembly, 16.25"	1
329900X	**12V & 24V Hyd w/ EOC Installation Kit (K Shift & L Shift Except HV, KU Gear)**	
329076X	12V & 24V w/EOC Installation Kit	1
379486	90° Elbow .438"-20	1
329057X	Hose Assembly, 48"	1
329130-1X	Hose Assembly, 16.25"	1
329907-12X	**12V Hyd Valve Installation Kit (B Shift, KU Gear, Except D, R Mount)**	
329504	Electrical Wiring Harness	1
379502	Pressure Switch	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
379486	90° Elbow .438"-20	1
329130-5X	Pressure Lube Hose	2
379252	Butt Connector	1
379265	Grommet	1
378881	Rocker Switch	1
378978	12V Indicator Light	1
379257	Splice Connector	1
379306	Electrical Fork Terminal	4
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
SK-603	Hyd Shift Installation Kit	1
329907-24X	**24V Hyd Valve Installation Kit (D Shift, KU Gear, Except D, R Mount)**	
329504	Electrical Wiring Harness	1
379502	Pressure Switch	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
379486	90° Elbow .438"-20	1
329130-5X	Pressure Lube Hose	2
379252	Butt Connector	1
379265	Grommet	1
378881	Rocker Switch	1
379005	24V Indicator Light	1
379257	Splice Connector	1
379306	Electrical Fork Terminal	4
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
SK-603	Hyd Shift Installation Kit	1

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

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

Part Number	Description	Qty.
HYDRAULIC INSTALLATION KITS (Cont'd)		
329908-12X	**12V Remote Hyd Valve Installation Kit (G Shift, KU Gear Except D, R Mount)**	
329231X	Electrical Wiring Harness	1
379502	Pressure Switch	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
379486	90° Elbow .438"-20	1
329130-5X	Pressure Lube Hose	3
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	3
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379449	Screen Adapter	1
329057-3X	Clutch Hose Ass'y	1
379686-1	12V Hydraulic Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
378881	Rocker Switch	1
378978	12V Indicator Light	1
379257	Splice Connector	1
379306	Electrical Fork Terminal	4
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
329230X	Green Wire 120.25" with Butt Connector	1
SK-604	Remote Hyd Valve Installation Kit	1
329908-24X	**24V Remote Hyd Valve Installation Kit (H Shift, KU Gear Except D, R Mount)**	
329231X	Electrical Wiring Harness	1
379502	Pressure Switch	1
379703	Swivel Nut 90° Elbow .438"-20	1
379749	Connector .438"-20 x .500"-20	2
379486	90° Elbow .438"-20	1
329130-5X	Pressure Lube Hose	3
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	3
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379449	Screen Adaptor	1
329057-3X	Clutch Hose Ass'y	1
379686-2	24V Hydraulic Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
378881	Rocker Switch	1
379005	24V Indicator Light	1
379257	Splice Connector	1
379306	Electrical Fork Terminal	4
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
329230X	Green Wire 120.25" with Butt Connector	1
SK-604	Remote Hyd Valve Installation Sketch	1

Part Number	Description	Qty.
AIR INSTALLATION KITS		
328388-113X	**Air Shift Installation Kit (A Shift)**	
328931X	Valve Mounting Kit	1
329090-6X	Valve Kit	1
378416	Hex Nipple .25"-18	1
379042	Male Connector .250" Tubex .125"-27	5
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379130	Air Shifter Support Bracket	2
379131-1	Pipe Reducer Bushing	3
379253	Ring Connector	1
75-P-40	Press Switch Electrical Wiring Harness	1
379257	Splice Connector	1
379497	Relay Valve	1
379502	Pressure Switch	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
380097	Union Tee .250" Tube	1
379252	Butt Connector	2
75-P-13	LED Indicator Light	1
329889-12X	**12V Elec/Air w/ EOC Installation Kit (R Shift, Except HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378966	Street Tee .125"-27	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379253	Ring Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	1
379502	Pressure Switch	1
329231X	Electrical Wiring Harness	1
329650X	EOC Controller	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
379303-1	12V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

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

Part Number	Description	Qty.
	AIR INSTALLATION KITS (Cont'd)	
329889-24X	**24V Remote Elec/Air w/ EOC Installation Kit (4 Shift, Except HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378966	Street Tee .125"-27	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379253	Ring Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	1
379502	Pressure Switch	1
329231X	Electrical Wiring Harness	1
329650X	EOC Controller	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
379303-2	24V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"..	2
329890-12X	**12V Elec/Air w/ EOC Installation Kit (R Shift, HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378966	Street Tee .125"-27	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379253	Ring Connector	1
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	1
379486	90° Elbow .438"-20	1
379502	Pressure Switch	1
329231X	Electrical Wiring Harness	1
329650X	EOC Controller	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
379254-18	PTO Request Wire - Blue	1
379303-1	12V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"..	2
329129-1X	Hose Assembly with Fitting 16"	1

Part Number	Description	Qty.
	AIR INSTALLATION KITS (Cont'd)	
329890-24X	**24V Remote Elec/Air w/ EOC Installation Kit (4 Shift, HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378966	Street Tee .125"-27	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379253	Ring Connector	1
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	1
379486	90° Elbow .438"-20	1
379502	Pressure Switch	1
329231X	Electrical Wiring Harness	1
329650X	EOC Controller	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
379254-18	PTO Request Wire - Blue	1
379303-2	24V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"..	2
329129-1X	Hose Assembly with Fitting 16"	1
329891-12X	**12V Elec/Air Installation Kit (P Shift, Except HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
378978	12V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379253	Ring Connector	1
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	4
379336	Switch Bracket	1
379502	Pressure Switch	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
329231X	Electrical Wiring Harness	1
329650X	EOC Controller	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
379303-1	12V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"..	2

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

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

Part Number	Description	Qty.
	AIR INSTALLATION KITS (Cont'd)	
329891-24X	**24V Remote Elec/Air Installation Kit (Q Shift Except HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
379005	12V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379253	Ring Connector	1
379257	Splice Connector	1
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	4
379336	Switch Bracket	1
379502	Pressure Switch	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
329231X	Electrical Wiring Harness	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
379303-2	24V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
329893-12X	**12V Elec/Air Installation Kit (1 Shift, Except HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
378978	12V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379252	Butt Connector	1
379257	Splice Connector	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	4
379336	Switch Bracket	1
379502	Pressure Switch	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
75-P-41	Elec/Air Electrical Harness	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
380009	Female Connector .125" NPT x .125" Tube PTC	2

Part Number	Description	Qty.
	AIR INSTALLATION KITS (Cont'd)	
329893-24X	**24V Elec/Air w/ EOC Installation Kit (2 Shift, Except HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
379005	24V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379252	Butt Connector	1
379257	Splice Connector	1
379265	Grommet	1
379305	Pressure Switch	1
379306	Electrical Terminal Fork	4
379336	Switch Bracket	1
379502	Pressure Switch	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
75-P-41	Elec/Air Electrical Harness	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1
379254-8	Green Wire 125" with Fork Connector	1
380009	Female Connector .125" NPT x .125" Tube PTC	2
329894X	**12V Elec/Air w/ EOC Installation Kit (J Shift & 3 Shift, Except HV Gear)**	
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378966	Street Tee .125"-27	1
379042	Male Connector .250" Tubex. 125"-27	3
379043	90° Male Elbow .250" Tubex .125"-27	1
379106	Breather .125"-27	1
379265	Grommet	1
379305	Pressure Switch	1
379502	Pressure Switch	1
380009	Female Connector .125" NPT x .125" Tube PTC	**1**
75-P-41	Elec/Air Electrical Harness	1
329650X	EOC Controller	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
379131-1	Pipe Reducer Bushing	1

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

Part Number	Description	Qty.
	AIR INSTALLATION KITS (Cont'd)	
329909-12X	**12V Elec/Air Valve Installation Kit (1 Shift, HV Gear)**	
75-P-41	Elec/Air Electrical Harness	1
379502	Pressure Switch	1
379486	90° Elbow .438"-20	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	1
379265	Grommet	1
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
378978	12V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	3
379043	90° Male Elbow .250" Tubex .125"-27	1
379106	Breather .125"-27	1
379257	Splice Connector	2
379305	Pressure Switch	1
379306	Electrical Fork Terminal	3
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
380009	Female Connector .125" NPT x .125" Tube PTC	2
329129-1X	Hose Assembly with Fitting 16"	1
379254-18	PTO Request Wire - Blue	1
329909-24X	**24V Elec/Air Valve Installation Kit (2 Shift, HV Gear)**	
75-P-41	Elec/Air Electrical Harness	1
379502	Pressure Switch	1
379486	90° Elbow .438"-20	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	1
379265	Grommet	1
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
379005	24V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	3
379043	90° Male Elbow .250" Tubex .125"-27	1
379106	Breather .125"-27	1
379257	Splice Connector	2
379305	Pressure Switch	1
379306	Electrical Fork Terminal	3
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
380009	Female Connector .125" NPT x .125" Tube PTC	2
329129-1X	Hose Assembly with Fitting 16"	1
379254-18	PTO Request Wire - Blue	1
SK-605	Elec/Air Shift w/o EOC Installation Sketch	1

Part Number	Description	Qty.
	AIR INSTALLATION KITS (Cont'd)	
329910-12X	**12V Remote Elec/Air Valve Installation Kit (P Shift, HV Gear)**	
329231X	Electrical Wiring Harness	1
379502	Pressure Switch	1
379486	90° Elbow .438"-20	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	2
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379303-1	12V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
378978	12V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379257	Splice Connector	2
379305	Pressure Switch	1
379306	Electrical Fork Terminal	4
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
329129-1X	Hose Assembly with Fitting 16"	1
379254-18	PTO Request Wire - Blue	1
379254-8	Green Wire 125" with Fork Connector	1
379253	Ring Connector	1
SK-607	Elec/Air Shift w/o EOC Installation Sketch	1

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

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

Part Number	Description	Qty.
AIR INSTALLATION KITS (Cont'd)		
329910-24X	**24V Remote Elec/Air Valve Installation Kit (Q Shift, HV Gear)**	
329231X	Electrical Wiring Harness	1
379502	Pressure Switch	1
379486	90° Elbow .438"-20	1
379131-1	Pipe Reducer Bushing	1
379252	Butt Connector	2
379258	Solenoid Valve Mounting Bracket	1
379265	Grommet	1
379303-2	24V Solenoid Valve	1
500357-7	Lock washer .194" x .337" x .047"	2
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378881	Rocker Switch	1
378966	Street Tee .125"-27	1
379005	24V Indicator Light	1
379042	Male Connector .250" Tubex .125"-27	2
379043	90° Male Elbow .250" Tubex .125"-27	2
379106	Breather .125"-27	1
379257	Splice Connector	2
379305	Pressure Switch	1
379306	Electrical Fork Terminal	4
379336	Switch Bracket	1
379900	Fuse Holder Ass'y w/ 10 AMP Fuse	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
329129-1X	Hose Assembly with Fitting 16"	1
379254-18	PTO Request Wire - Blue	1
379254-8	Green Wire 125" with Fork Connector	1
379253	Ring Connector	1
SK-607	Elec/Air Shift w/o EOC Installation Sketch	1
329911X	**12V/24V Elec/Air Valve w/ EOC Installation Kit (J Shift & 3 Shift, HV Gear)**	
329231X	Electrical Wiring Harness	1
379502	Pressure Switch	1
379486	90° Elbow .438"-20	1
379131-1	Pipe Reducer Bushing	1
379265	Grommet	1
378414	Air Pressure Protection Valve	1
378416	Hex Nipple .25"-18	1
378966	Street Tee .125"-27	1
379042	Male Connector .250" Tubex .125"-27	3
379043	90° Male Elbow .250" Tubex .125"-27	1
379106	Breather .125"-27	1
379257	Splice Connector	2
379305	Pressure Switch	1
379306	Electrical Fork Terminal	1
379044-6	Nylon Tubing .253" x .179" x 30 ft	1
380009	Female Connector .125" NPT x .125" Tube PTC	2
329129-1X	Hose Assembly with Fitting 16"	1
379254-18	PTO Request Wire - Blue	1
329650X	EOC Controller	1
SK-606	Elec/Air Shift w/ EOC Installation Sketch	1

Part Number	Description	Qty.
SHIFTER CONVERSION KITS		
329175-12X	**12V EOC Conversion Kit (All)**	
28-P-171	O-Ring .644" x .087"	1
329650X	EOC Controller	1
329076X	12V & 24V Installation Kit w/ EOC	1
379243	Speed Sensor	1
329175-24X	**24V EOC Conversion Kit (All)**	
28-P-171	O-Ring .644" x .087"	1
329650X	EOC Controller	1
329076X	12V & 24V Installation Kit w/ EOC	1
379243	Speed Sensor	1
329354-12X	**12V Remote Hyd Valve Conversion Kit (All)**	
22-P-112	Gasket	1
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
500357-7	Lock washer .194" x .337" x .047"	2
379686-1	12V Hydraulic Solenoid Valve	1
379449	Screen Adapter	1
379258	Solenoid Valve Mounting Bracket	1
379564-2	Cap Thread	2
329231X	Electrical Wiring Harness	1
329230X	Green Wire 120.25" with Butt Connector	1
328075X	Hose Assembly	1
379700	Swivel Nut Run Tee .438"-20	1
380010	Union Female	1
379486	90° Elbow .438"-20	1
329403X	Assembly Seal	1
379711	Female Bracket	1
379131-1	Pipe Reducer Bushing	1
SK-432	Installation	1
329354-24X	**24V Remote Hyd Valve Conversion Kit (All)**	
500457-6	Round Head Slotted Screw .191"-32 x .438"	2
500357-7	Lock washer .194" x .337" x .047"	2
379686-2	24V Hydraulic Solenoid Valve	1
379449	Screen Adapter	1
379258	Solenoid Valve Mounting Bracket	1
379564-2	Cap Thread	2
329231X	Electrical Wiring Harness	1
329230X	Green Wire 120.25" with Butt Connector	1
328075X	Hose Assembly	1
22-P-112	Gasket	1
379700	Swivel Nut Run Tee .438"-20	1
380010	Union Female	1
379486	90° Elbow .438"-20	1
329403X	Assembly Seal	1
379711	Female Bracket	1
379131-1	Pipe Reducer Bushing	1
SK-432	Installation	1
329057-4X	Hose Assembly 16.75"	2

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

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

Part Number	Description	Qty.
	OUTPUT CONVERSION KITS	
329160-102X	**Conversion Kit (XD to BV)**	
378576	Lockring	2
378895	Lockring	1
379746	Lockring	1
379977	Spring Pin .187" x .625"	1
380069	Lockring	1
380081	1410 Series Companion Flange	1
550010	Ball Bearing 1.378" x 2.8346" x .6693"	1
21-P-884	Bearing Cap	1
22-P-151	Gasket	2
23-P-73	Bearing Cap Spacer - Drag Brake	1
28-P-212	Oil Seal 2.506" x 1.750" x .315"	1
28-P-244	O-Ring 1.174" x .103"	4
31-P-113	Thrust Washer 1.385" x 3.125" x .125"	1
329410X	Brake Ass'y	1
378435-7	Hex Head Capscrew .625"-11 x 1.250"	1
37-P-60	Spring 2.531" x 2.13" x.172"	1
380563-28	Hex Flange Head Capscrew .375-16 x 3.500"	4
3-P-1139	Output Shaft BV	1
4-P-130	Spacer .640" x 1.620" x .188"	1
4-P-186	Spacer 1.385" x 1.750" x .365"	1
329160-103X	**Conversion Kit (XD to BD)**	
378576	Lockring	2
378895	Lockring	1
379746	Lockring	1
379977	Spring Pin .187" x .625"	1
380069	Lockring	1
550010	Ball Bearing 1.378" x 2.8346" x .6693"	1
21-P-888	Bearing Cap - Drag Brake	1
22-P-151	Gasket	2
23-P-73	Bearing Cap Spacer - Drag Brake	1
28-P-225	Oil Seal 2.004" x 1.375" x .315"	1
28-P-244	O-Ring 1.174" x .103"	4
31-P-113	Thrust Washer 1.385" x 3.125" x .125"	1
329410X	Brake Ass'y	1
37-P-60	Spring 2.531" x 2.13" x .172"	1
380563-28	Hex Flange Head Capscrew .375-16 x 3.500"	4
3-P-1142	Output Shaft BD	1
4-P-186	Spacer 1.385" x 1.750" x .365"	1
329160-116X	**Conversion Kit (XD to XV)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
380486	Lock Nut - Nylon, Thin .875"-14	1
380503	1410 Series Companion Flange	1
22-P-151	Gasket	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
28-P-285	O-Ring 1.597" x .103"	2
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
3-P-1134	Output Shaft XV	1

Part Number	Description	Qty.
	OUTPUT CONVERSION KITS (Cont'd)	
329160-100X	**Conversion Kit (XD to RK DRY)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-731	Pump Flange	1
21-P-885	Bearing Cap (DRY)	1
22-P-151	Gasket	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1135	Output Shaft RK	1
329160-101X	**Conversion Kit (XD to RK WET)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
21-P-731	Pump Flange	1
21-P-887	Bearing Cap (WET)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
329658X	Cover Kit	1
329699-1X	Overall Hose Ass'y	1
329700X	Wet Spline Parts Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1135	Output Shaft RK	1
329160-104X	**Conversion Kit (XD to RF DRY)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
21-P-731	Pump Flange	1
21-P-885	Bearing Cap (DRY)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1136	Output Shaft RF	1

Continued on Next Page

BOMs in each kit group are listed in order based on part number.

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

Part Number	Description	Qty.
OUTPUT CONVERSION KITS (Cont'd)		
329160-105X	**Conversion Kit (XD to RF WET)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
21-P-731	Pump Flange	1
21-P-887	Bearing Cap (WET)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
329658X	Cover Kit	1
329699-1X	Overall Hose Ass'y	1
329700X	Wet Spline Parts Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1136	Output Shaft RF	1
329160-106X	**Conversion Kit (XD to RS DRY)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
21-P-769	Pump Flange RS	1
21-P-885	Bearing Cap (DRY)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1137	Output Shaft RS	1
329160-107X	**Conversion Kit (XD to RS WET)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
21-P-769	Pump Flange RS	1
21-P-887	Bearing Cap (WET)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
329654X	Cover Kit XS	1
329699-1X	Overall Hose Ass'y	1
329744X	Wet Spline Parts Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1137	Output Shaft RS	1

BOMs in each kit group are listed in order based on part number.

Part Number	Description	Qty.
OUTPUT CONVERSION KITS (Cont'd)		
329160-108X	**Conversion Kit (XD to RY DRY)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
21-P-771	Pump Flange RY	1
21-P-885	Bearing Cap (DRY)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1138	Output Shaft RY	1
329160-109X	**Conversion Kit (XD to RY WET)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
21-P-771	Pump Flange RY	1
21-P-887	Bearing Cap (WET)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
329659X	Cover Kit	1
329699-1X	Overall Hose Ass'y	1
329742X	Wet Spline Loose Parts Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1138	Output Shaft RY	1
329160-110X	**Conversion Kit (XV to RZ DRY)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
21-P-731	Pump Flange	1
21-P-885	Bearing Cap (DRY)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1137	Output Shaft RZ	1
329160-111X	**Conversion Kit (XV to RZ WET)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
21-P-731	Pump Flange	1
21-P-887	Bearing Cap (WET)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
329658X	Cover Kit	1
329699-1X	Overall Hose Ass'y	1
329700X	Wet Spline Parts Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1137	Output Shaft RZ	1

Continued on Next Page

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

Part Number	Description	Qty.
OUTPUT CONVERSION KITS (Cont'd)		
329160-112X	**Conversion Kit (XD to AB)**	
379555	Lockring	1
379558	DIN 120	1
379746	Lockring	1
380069	Lockring	1
380486	Lock Nut - Nylon, Thin .875"-14	1
22-P-151	Gasket	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
28-P-285	O-Ring 1.597" x .103"	2
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
3-P-1134	Output Shaft AB	1
329160-113X	**Conversion Kit (XD to AC)**	
379555	Lockring	1
379742	DIN 100	1
379746	Lockring	1
380069	Lockring	1
380486	Lock Nut - Nylon, Thin .875"-14	1
22-P-151	Gasket	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
28-P-285	O-Ring 1.597" x .103"	2
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
3-P-1134	Output Shaft AC	1
329160-118X	**Conversion Kit (XD to RE DRY)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
21-P-880	Bearing Cap RE (DRY)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1170	Output Shaft RE	1
329160-142X	**Conversion Kit (XD to SD)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
22-P-151	Bearing Cap Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1168	Output Shaft	1
500007-29	Woodruff Key	1

Part Number	Description	Qty.
OUTPUT CONVERSION KITS (Cont'd)		
329160-143X	**Conversion Kit (XD to XR)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
329906X	Pump Kit XR	1
21-P-885	Bearing Cap (DRY)	1
22-P-151	Bearing Cap Gasket	1
28-P-285	O-Ring 1.597" x .103"	2
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1135	Output Shaft XR	1
329160-144X	**Conversion Kit (XD to SV)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
380486	Lock Nut - Nylon, Thin .875"-14	1
380503	1410 Series Companion Flange	1
22-P-151	Bearing Cap Gasket	1
28-P-211	Oil Seal 3.001" x 2.00" x .375"	1
28-P-285	O-Ring 1.597" x .103"	2
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
380076-13	Flat Washer - Hardened .950" x 1.762" x .157"	1
3-P-1169	Output Shaft	1
329160-145X	**Conversion Kit (XD to RB DRY)**	
379555	Lockring	1
379688	Spline Lubricant	1
379746	Lockring	1
380069	Lockring	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
21-P-894	Pump Flange	1
21-P-885	Bearing Cap (DRY)	1
22-P-151	Gasket	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1135	Output Shaft RB	1
329160-146X	**Conversion Kit (XD to RB WET)**	
379555	Lockring	1
379746	Lockring	1
380069	Lockring	1
21-P-894	Pump Flange	1
21-P-887	Bearing Cap (WET)	1
22-P-151	Gasket	1
28-P-267	Oil Seal 2.627" x 1.750" x .312"	1
28-P-285	O-Ring 1.597" x .103"	2
328170-216X	Capscrew Kit	1
329658X	Cover Kit	1
329699-1X	Overall Hose Ass'y	1
329700X	Wet Spline Parts Kit	1
380563-14	Hex Flange Head Capscrew .375"-16 x 1.5"	4
3-P-1135	Output Shaft RB	1

BOMs in each kit group are listed in order based on part number.

Notes

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

Notes

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

Notes

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

Offer of Sale

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

1. Terms and Conditions. Seller's willingness to offer Products, or accept an order for Products, to or from Buyer is subject to these Terms and Conditions or any newer version of the terms and conditions found on-line at www.parker.com/saleterms/. Seller objects to any contrary or additional terms or conditions of Buyer's order or any other document issued by Buyer.

2. Price Adjustments; Payments. Prices stated on Seller's quote or other documentation offered by Seller are valid for 30 days, and do not include any sales, use, or other taxes unless specifically stated. Unless otherwise specified by Seller, all prices are F.C.A. Seller's facility (INCOTERMS 2010). Payment is subject to credit approval and is due 30 days from the date of invoice or such other term as required by Seller's Credit Department, after which Buyer shall pay interest on any unpaid invoices at the rate of 1.5% per month or the maximum allowable rate under applicable law.

3. Delivery Dates; Title and Risk; Shipment. All delivery dates are approximate and Seller shall not be responsible for any damages resulting from any delay. Regardless of the manner of shipment, title to any products and risk of loss or damage shall pass to Buyer upon placement of the products with the shipment carrier at Seller's facility. Unless otherwise stated, Seller may exercise its judgment in choosing the carrier and means of delivery. No deferment of shipment at Buyers' request beyond the respective dates indicated will be made except on terms that will indemnify, defend and hold Seller harmless against all loss and additional expense. Buyer shall be responsible for any additional shipping charges incurred by Seller due to Buyer's acts or omissions.

4. Warranty. Seller warrants that all products sold, other than the 590 Series, conform to the applicable Parker Chelsea standard specification for the lesser period of 2 years (24 Months) from date of service or 2-1/2 years (30 Months) from date of build (as marked on the product name plate). Seller warrants that the 590 Series will conform to the applicable Seller standard specification for the lesser period of 2 years (24 Months) from date of service or 2000 hours of usage. The prices charged for Seller's products are based upon the exclusive limited warranty stated above, and upon the following disclaimer: **DISCLAIMER OF WARRANTY: THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO PRODUCTS PROVIDED HEREUNDER. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, INCLUDING DESIGN, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

5. Claims; Commencement of Actions. Buyer shall promptly inspect all Products upon delivery. No claims for shortages will be allowed unless reported to the Seller within 10 days of delivery. No other claims against Seller will be allowed unless asserted in writing within 30 days after delivery. Buyer shall notify Seller of any alleged breach of warranty within 30 days after the date the defect is or should have been discovered by Buyer. Any action based upon breach of this agreement or upon any other claim arising out of this sale (other than an action by Seller for an amount due on any invoice) must be commenced within 12 months from the date of the breach without regard to the date breach is discovered.

6. LIMITATION OF LIABILITY. UPON NOTIFICATION, SELLER WILL, AT ITS OPTION, REPAIR OR REPLACE A DEFECTIVE PRODUCT, OR REFUND THE PURCHASE PRICE. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR AS THE RESULT OF, THE SALE, DELIVERY, NON-DELIVERY, SERVICING, USE OR LOSS OF USE OF THE PRODUCTS OR ANY PART THEREOF, OR FOR ANY CHARGES OR EXPENSES OF ANY NATURE INCURRED WITHOUT SELLER'S WRITTEN CONSENT, EVEN IF SELLER HAS BEEN NEGLIGENT, WHETHER IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL SELLER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE OF THE PRODUCTS.

7. User Responsibility. The user, through its own analysis and testing, is solely responsible for making the final selection of the system and Product and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application and follow applicable industry standards and Product information. If Seller provides Product or system options, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the Products or systems.

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

9. Special Tooling. A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture Products. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the Products, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

10. Buyer's Obligation; Rights of Seller. To secure payment of all sums due or otherwise, Seller shall retain a security interest in the goods delivered and this agreement shall be deemed a Security Agreement under the Uniform Commercial Code. Buyer authorizes Seller as its attorney to execute and file on Buyer's behalf all documents Seller deems necessary to perfect its security interest.

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

12. Cancellations and Changes. Orders shall not be subject to cancellation or change by Buyer for any reason, except with Seller's written consent and upon terms that will indemnify, defend and hold Seller harmless against all direct, incidental and consequential loss or damage. Seller may change product features, specifications, designs and availability with notice to Buyer.

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

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

15. Waiver and Severability. Failure to enforce any provision of this agreement will not waive that provision nor will any such failure prejudice Seller's right to enforce that provision in the future. Invalidation of any provision of this agreement by legislation or other rule of law shall not invalidate any other provision herein. The remaining provisions of this agreement will remain in full force and effect.

16. Termination. Seller may terminate this agreement for any reason and at any time by giving Buyer thirty (30) days written notice of termination. Seller may immediately terminate this agreement, in writing, if Buyer: (a) commits a breach of any provision of this agreement (b) appointments a trustee, receiver or custodian for all or any part of Buyer's property (c) files a petition for relief in bankruptcy on its own behalf, or by a third party (d) makes an assignment for the benefit of creditors, or (e) dissolves or liquidates all or a majority of its assets.

17. Governing Law. This agreement and the sale and delivery of all Products hereunder shall be deemed to have taken place in and shall be governed and construed in accordance with the laws of the State of Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio with respect to any dispute, controversy or claim arising out of or relating to this agreement.

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

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

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

07/14

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

Parker Hannifin Corporation
Chelsea Products Division
8225 Hacks Cross Road
Olive Branch, Mississippi 38654 USA
Tel: (662) 895-1011
Fax: (662) 895-1069
www.parker.com/chelsea

BLI 01/17 22