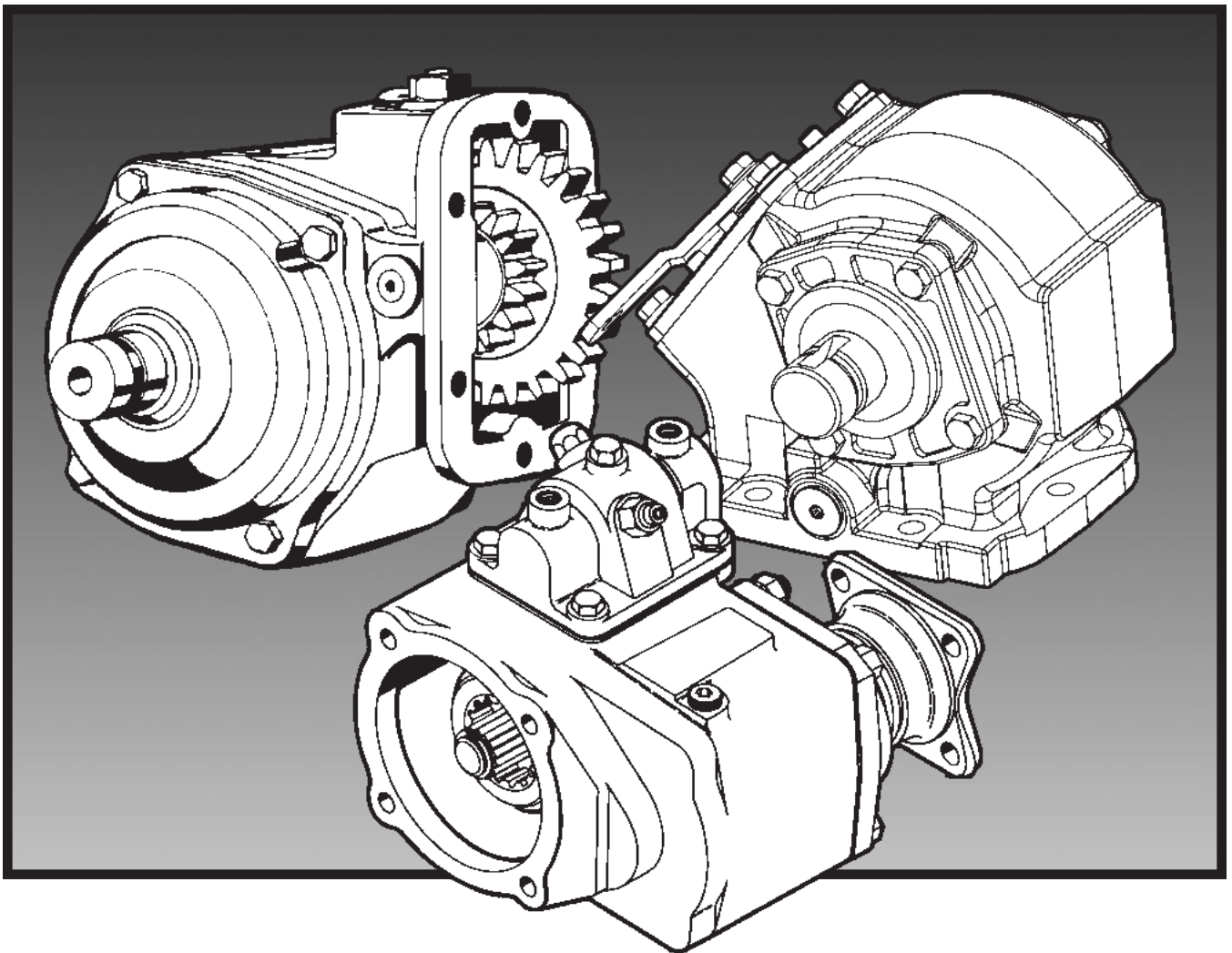


Parts List 442, 447 & 489 Series

Effective: November 15, 2010
Supersedes: HY25-2442-M1/US Dated June 2007





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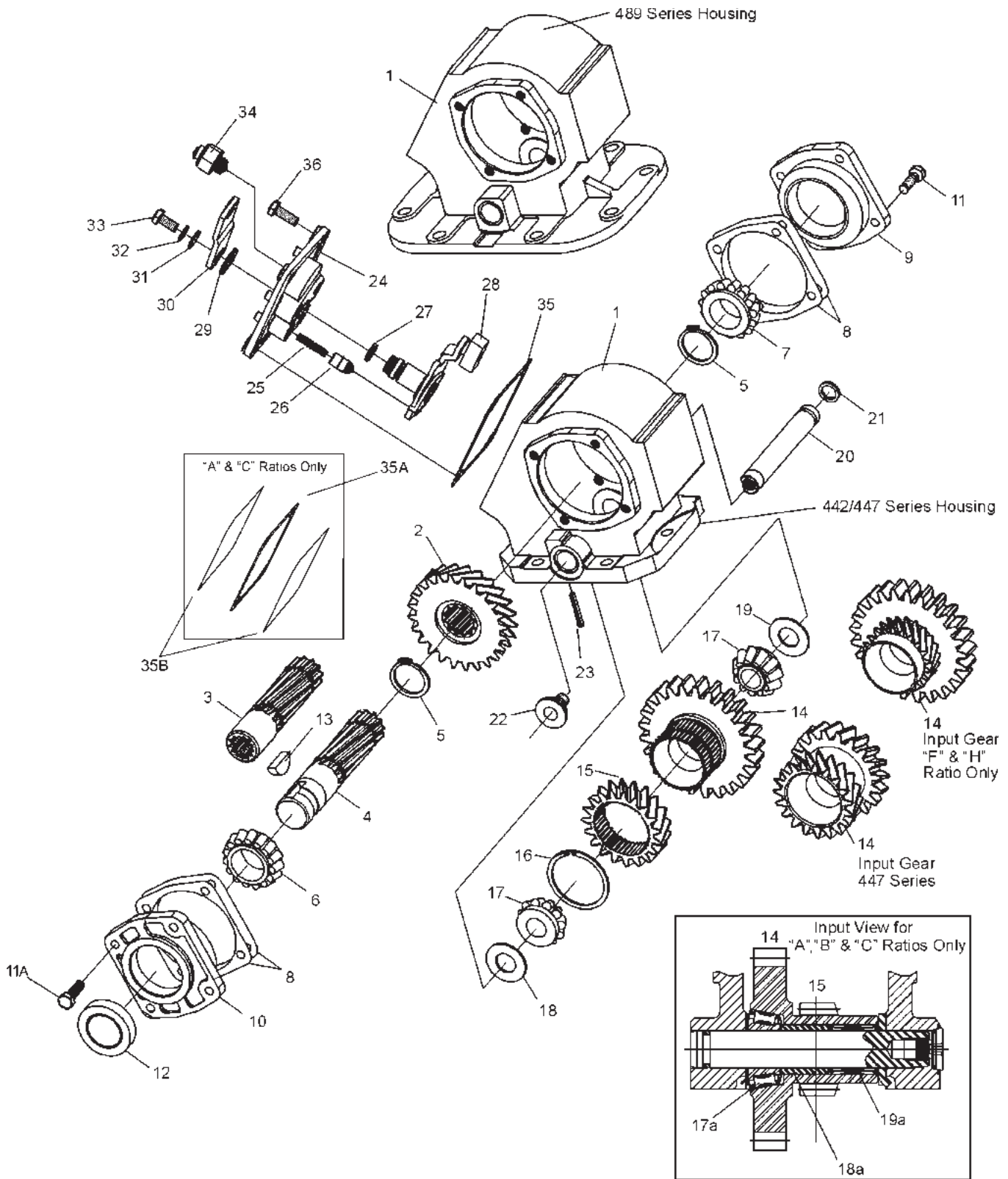
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Contents

| | |
|--|-------|
| Exploded View | 1 |
| Bill of Materials | 2-4 |
| Air Control Parts (“A” Designator) | 5 |
| Shifter Kits | 6 |
| Constant Mesh Parts (“M” Designator) | 7 |
| Self Lube Parts | 8 |
| Gear Charts — 442 Series | 9-11 |
| Gear Chart — 447 Series | 11 |
| Gear Charts — 489 Series | 12 |
| Direct Mount Pump Conversion Kits | 13-14 |
| Output Options Bills of Material | 15-18 |
| P.T.O. Housing Dimensions | 19 |
| Pump Flange & Shaft Dimensions | 20 |
| Model Number Designation | 21-23 |
| Kit Bill of Materials | 24-35 |
| Installation Sketch | 36 |
| Offer of Sale | 40 |



Bill of Materials

| Item | Part Number | Description | Quantity | | |
|------|--|---|----------------------|----------------------|----------------------|
| | | | 442 | 447 | 489 |
| 1 | 1-P-557X 1-P-558X 1-P-552X 1-P-562X | Housing, Standard Mount ("X", "G" & "K") (Includes Item 23) Housing, Deep Mount ("Z" & "L") (Includes Item 23) Housing, Standard Mount (Includes Item 23) Housing, Deep Mount (Includes Item 23) | 1 1 - - | 1 1 - - | - - 1 1 |
| 2 | See Charts, Pgs 9-12 | Gear, Output | 1 | 1 | 1 |
| 3 | See Charts, Pgs 15-18 | Shaft, Output Pump Mount | 1 | 1 | 1 |
| 4 | 3-P-202 3-P-978 | Shaft, Output ("XD") Standard 1.250" Rd .313" KW Shaft, Output ("XD" for "B" Ratio Only) Standard 1.250" Rd .313" KW | 1 1 | 1 - | 1 - |
| 5 | 378391 | Lockring (All other shifter types Except "M") | 2 | 2 | 2 |
| 6 | 550397 | Bearing Cone..... | 1 | 1 | 1 |
| 7 | 550532 | Bearing Cone..... | 1 | 1 | 1 |
| 8 | 22-P-24-1 22-P-24-2 22-P-24-3 | Gasket, Bearing Cap (.010")..... Gasket, Bearing Cap (.020")..... Gasket, Bearing Cap (.015")..... | A.R. A.R. A.R. | A.R. A.R. A.R. | A.R. A.R. A.R. |
| 9 | 328274X | Bearing Cap Assembly, Close End | 1 | 1 | 1 |
| N.S. | 550221 | Bearing Race | 1 | 1 | 1 |
| 10 | 328273X | Bearing Cap Assembly, Open End ("XD" Output) | 1 | 1 | 1 |
| N.S. | 550221 | Bearing Race | 1 | 1 | 1 |
| | See Charts, Pgs 15-18 | Bearing Cap Assembly, Pump Mounts | 1 | 1 | 1 |
| 11 | 378447-6 | Capscrew, Hex Head (.312" - 18 x 1.00") (Closed Cap Side) | 4 | 4 | 4 |
| 11A | 378447-8 | Capscrew, Hex Head (.312" - 18 x 1.00") ("XD" Output)..... | 4 | 4 | 4 |
| 12 | 28-P-216 | Oil Seal, "XD" Output | 1 | 1 | 1 |
| | See Charts, Pgs 15-18 | Oil Seal | 1 | 1 | 1 |
| 13 | 500007-29 | Key, Woodruff ("XD" Output) | 1 | 1 | 1 |
| 14 | See Charts, Pgs 9-12 | Gear, Input | 1 | 1 | 1 |
| 15 | See Charts, Pgs 9-12 | Gear, Input Ratio..... | 1 | 1 | 1 |
| 16 | 379522 | Lock Ring | 1 | 1 | 1 |
| 17 | 550439 | Bearing Cone..... | 2 | 2 | 2 |
| 17A | 561006 | Bearing Cone, Tapered ("A", "B" & "C" Only) | 1 | - | 1 |
| 18A | 14-P-75 | Spacer, Input Bearing ("A", "B" & "C" Only) | 1 | - | 1 |
| 19A | 550890 | Bearing, Needle Roller ("A", "B" & "C" Only) | 1 | - | 1 |
| 18 | 14-P-73-1 14-P-73-2 14-P-73-3 | Spacer, Idler Gear (.149" - .151")..... Spacer, Idler Gear (.152" - .154")..... Spacer, Idler Gear (.155" - .157")..... | A.R. A.R. A.R. | A.R. A.R. A.R. | A.R. A.R. A.R. |
| 19 | 31-P-102 | Thrust Washer, Bearing | 1 | 1 | 1 |
| 20 | 9-P-88 9-P-89 | Shaft, Idler Standard..... Shaft, Idler Pressure Lube ("P")..... | 1 1 | 1 1 | 1 1 |
| 21 | 28-P-191 | O-Ring..... | 1 | 1 | 1 |
| 22 | 379672 | Plug, O-Ring w/Socket Face (NWD Plug)..... | 1 | 1 | 1 |
| 23 | 500597-14 500597-16 | Roll Pin, Deep Mount (1" Long) Roll Pin, Standard Mount (1.125" Long) | 1 1 | 1 1 | 1 1 |
| | | Cable Control Cover Assemblies Ratios "Q", "W" & "X" | | | |
| | 329119-1X | Shifter Cover Ass'y, Wire Control (Ass'y 3 & 6)..... | 1 | - | 1 |
| | 329119-2X | Shifter Cover Ass'y, Wire Control (Ass'y 4 & 5)..... | 1 | - | 1 |
| | | Ratios "F", "H", "L", "R", "S" & "U" | | | |
| | 329121-1X | Shifter Cover Ass'y, Wire Control (Ass'y 3 & 6)..... | 1 | - | 1 |
| | 329121-2X | Shifter Cover Ass'y, Wire Control (Ass'y 4 & 5)..... | 1 | - | 1 |
| | | Ratios "A", "B" & "C" | | | |
| | 329271-1X | Shifter Cover Assembly, Wire Control (Ass'y 3 & 6)..... | 1 | - | 1 |
| | 329271-2X | Shifter Cover Assembly, Wire Control (Ass'y 4 & 5)..... | 1 | - | 1 |

N.S. — Not Shown A.R.—As Required
See Pages 24-35 for Kit Bill of Materials

Continued on Next Page

Bill of Materials

| Item | Part Number | Description | Quantity | | |
|------|--------------------|--|----------|-----|-----|
| | | | 442 | 447 | 489 |
| | 329151-1X | Ratios "Q" & "W" | | | |
| | 329151-2X | Shifter Cover Assembly, Wire Control (Ass'y 3 & 6)..... | - | 1 | - |
| | | Shifter Cover Assembly, Wire Control (Ass'y 4 & 5)..... | - | 1 | - |
| | 329152-1X | Ratios "R", "S" & "U" | | | |
| | 329152-2X | Shifter Cover Assembly, Wire Control (Ass'y 3 & 6)..... | - | 1 | - |
| | | Shifter Cover Assembly, Wire Control (Ass'y 4 & 5)..... | - | 1 | - |
| 24 | 34-P-39 | All the above shift cover assemblies include items 24 thru 35 | | | |
| | 34-P-74 | Cover Plate, Shifter - Constant Mesh..... | 1 | 1 | 1 |
| 25 | 37-P-19 | Cover Plate, Shifter..... | 1 | - | 1 |
| 26 | 63-P-16 | Spring..... | 1 | 1 | 1 |
| 27 | 28-P-191 | Poppet Pin..... | 1 | 1 | 1 |
| | | O-Ring..... | 1 | 1 | 1 |
| 28 | 329118-1X | Ratios "Q" & "W" & "X" | | | |
| | | Post and Plate Assembly, (Ass'y 3 & 6) | 1 | 1 | 1 |
| 28 | 329118-2X | Post and Plate Assembly, (Ass'y 4 & 5) | 1 | 1 | 1 |
| 28 | 329120-1X | Ratios "F", "H", "L", "R", "S" & "U" | | | |
| | | Post and Plate Assembly, (Ass'y 3 & 6) | 1 | 1 | 1 |
| 28 | 329120-2X | Post and Plate Assembly, (Ass'y 4 & 5) | 1 | 1 | 1 |
| 28 | 329265-1X | Ratios "A", "B" & "C" | | | |
| | | Post and Plate Assembly, (Ass'y 3 & 6) | 1 | - | 1 |
| 28 | 329265-2X | Post and Plate Assembly, (Ass'y 4 & 5) | 1 | - | 1 |
| 29 | 378004 | Flat Washer | 1 | 1 | 1 |
| 30 | 51-P-22 | Shifter Lever..... | 1 | 1 | 1 |
| 31 | 500365-22 | Flat Washer..... | 1 | 1 | 1 |
| 32 | 500356-10 | Lockwasher..... | 1 | 1 | 1 |
| 33 | 500409-6 | Capscrew, Hex Head (.312" - 24 x .625") | 1 | - | 1 |
| 34 | 379639 | Indicator Switch, Pin Style (Normally Off)..... | 1 | - | 1 |
| | 379652 | Indicator Switch, Pin Style (Normally On)..... | - | 1 | - |
| 35 | 35-P-8 | Gasket, Shifter Cover..... | 1 | 1 | 1 |
| 35A | 5-A-188 | Gasket, Shifter Cover ("A", "B" & "C" Ratio Only) | 1 | - | 1 |
| 35B | 35-P-8 | Gasket, Shifter Cover ("A", "B" & "C" Ratio Only) | 2 | - | 2 |
| 36 | 378430-9 | Capscrew, Hex Head (.312" - 18 x .875") (Wire, Electric & Air Shift).... | 4 | 4 | 4 |
| | 378447-6 | Capscrew, Hex Head (.312" - 18 x 1.000") (Wire Shift "A", "B" & "C" Ratio) | 4 | - | 4 |
| N.S. | 68-P-2 | Name Plate | 1 | 1 | 1 |
| N.S. | 378422 | Drive Screw, Name Plate | 2 | 2 | 2 |
| | | Loose Parts | | | |
| | | P.T.O. Mounting Kit | | | |
| | 328170-76X | Mounting Kit ("X" Mounting Type)..... | 1 | 1 | - |
| | 328170-77X | Mounting Kit ("Z" Mounting Type)..... | 1 | 1 | - |
| | 7170-72X | Mounting Kit ("G" Metric Mounting Type) | 1 | 1 | - |
| | 328170-201X | Mounting Kit ("G" Metric Mounting Type) | - | - | 1 |
| | 328170-200X | Mounting Kit ("X" & "Z" Mounting) | - | - | 1 |
| | 328346-10X | Cable, Wire Control ("W" Shifter) | 1 | 1 | 1 |
| | 328380X | Parts Bag, Wire Control ("W" Shifter)..... | 1 | 1 | 1 |
| | 329245X | Bracket Kit, Wire Control ("C" Shifter) | 1 | - | 1 |

N.S. — Not Shown A.R.—As Required
See [Pages 24-35](#) for Kit Bill of Materials

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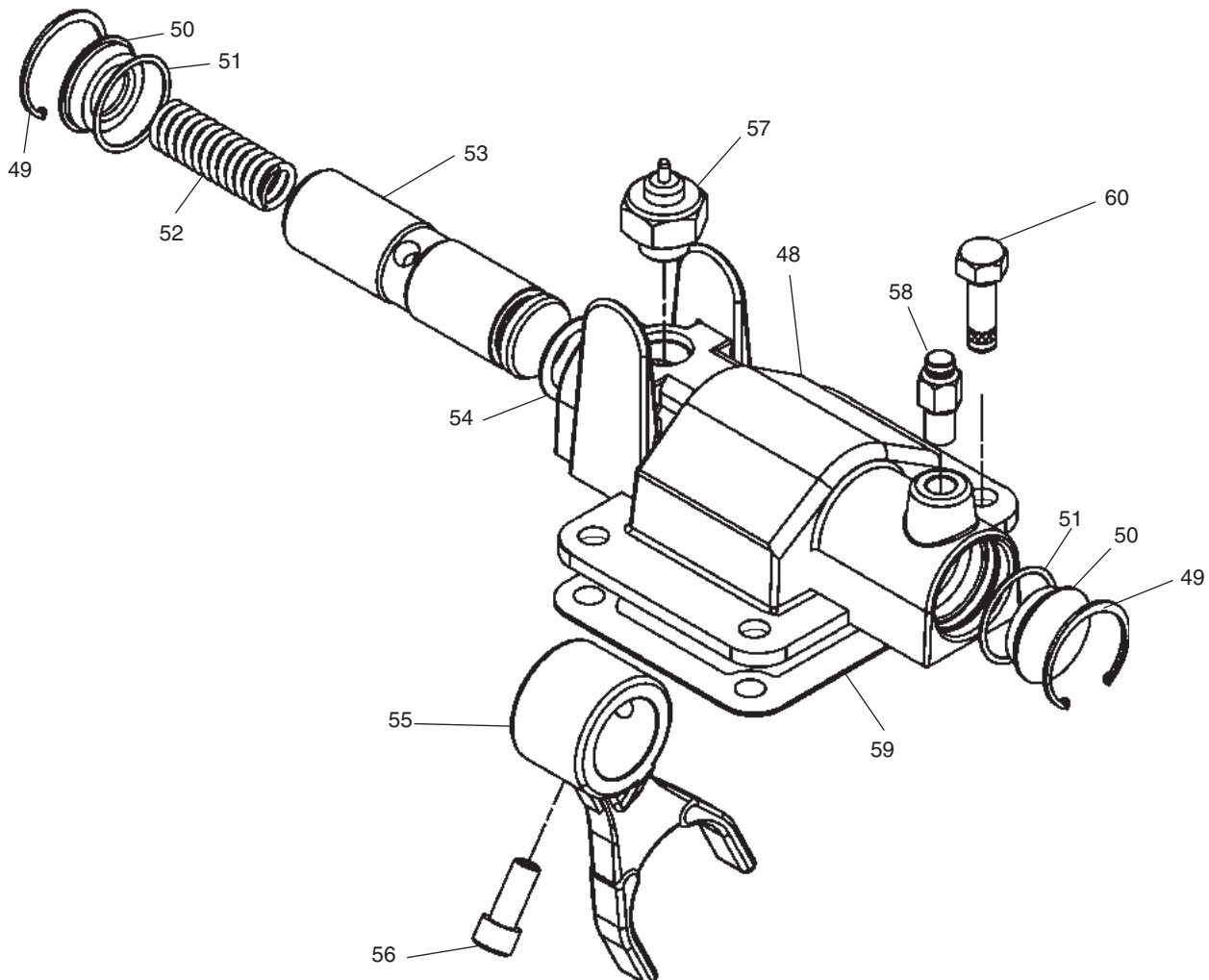
Bill of Materials

| Item | Part Number | Description | Quantity | | |
|------|---------------|---|----------|-----|-----|
| | | | 442 | 447 | 489 |
| | | Air Shift Installation Kit | | | |
| | 328388-37X | Air Shift Installation Kit ("A" Shifter) | 1 | 1 | 1 |
| | 328388-47X | Air Shift Installation Kit ("P" Shifter) | 1 | 1 | 1 |
| | 328388-48X | Air Shift Installation Kit ("Q" Shifter) | 1 | 1 | 1 |
| | 328388-65X | Air Shift Installation Kit ("S" Shifter) | 1 | 1 | 1 |
| | 328388-72X | Air Shift Installation Kit ("T" Shifter)..... | 1 | - | 1 |
| | 328751-1X | Installation Kit ("C", "H", "W", "X", "Y") | 1 | 1 | 1 |
| | 379319 | Indicator Switch Booth | 1 | 1 | 1 |
| | 328948-6X | Gasket and Installation Instructions | 1 | 1 | - |
| | 328948-8X | Gasket and Installation Instructions | - | - | 1 |
| | 329166-12X | Electric Shift Installation Kit | 1 | 1 | 1 |
| | 379640 | Booted Connector ("V" Shifter Option)..... | 1 | - | 1 |
| | 378414 | Pressure Protection Valve ("V" Shifter Option)..... | 1 | 1 | 1 |
| | 328075X | Pressure Lube Hose ("HVP" Input Gear Only)..... | 1 | - | - |
| | 328711X | Pump Mounting Kit ("XR" Output) | - | 1 | - |
| | | Service Kits | | | |
| | 329202X | Indicator Switch Connector Service Kit..... | 1 | - | 1 |
| | 329218X | Indicator Switch Service Kit | 1 | - | 1 |
| | 329304X | Bearing Cap and Seal Assembly (Pressure Lube) | 1 | - | 1 |
| | See Pgs 13-14 | Pump Field Conversion Kit | 1 | 1 | 1 |
| | 328356-67X | Gasket & Seal Kit | | | |
| | 378391 | Lockring | 2 | - | - |
| | 328356-13X | Gasket & Seal Kit..... | - | 1 | - |
| | 328356-50X | Gasket & Seal Kit..... | - | - | 1 |
| | 328356-15X | Shifter Cover Seal Kit (Wire Control) | 1 | 1 | 1 |
| | 328356-69X | Shifter Cover Seal Kit (Wire Control "A", "B" & "C" Ratio) | 1 | - | 1 |
| | 328356-71X | Shifter Cover Seal Kit (Air Shift)..... | 1 | 1 | 1 |
| | 329096-1X | Field Conversion Kit (Self Lube Replace 3-P-202) | - | 1 | - |
| | 329097-1X | Field Conversion Kit (Self Lube Replace 3-P-282) | - | 1 | - |
| | 328594-13X | Bearing and Spacer Kit (Non-Pressure Lube) | 1 | 1 | 1 |
| | 328594-14X | Bearing and Spacer Kit (Pressure Lube) | | | |
| | 328594-15X | Bearing and Spacer Kit (Non-Pressure Lube "A", "B" & "C" Ratio) | | | |
| | 328594-16X | Bearing and Spacer Kit (Pressure Lube "A", "B" & "C" Ratio) | 1 | - | 1 |
| | 329260X | Conversion Kit, 440 to 442 Series | 1 | - | - |
| | 329261X | Conversion Kit, 440 Deep Mount to 442 Deep Mount | 1 | - | - |
| | 329262X | Conversion Kit, 488 to 489 Series | - | - | 1 |
| | 329263X | Conversion Kit, 488 Deep Mount to 489 Deep Mount | - | - | 1 |

N.S. — Not Shown A.R.—As Required
See [Pages 24-35](#) for Kit Bill of Materials

Continued on Next Page

Air Control Parts ("A" Designator)



| Item | Part Number | Description | Quantity | | |
|------|--------------------|--|----------|-----|-----|
| | | | 442 | 447 | 489 |
| | 329361X | Shifter Cover Assembly, Air Shift (Includes Items 48-57) | 1 | - | 1 |
| | 329363X | Shifter Cover Assembly, Air Shift | - | 1 | - |
| 48 | 34-P-130 | Shifter Cover | 1 | 1 | 1 |
| 49 | 378316 | Snap Ring | 2 | 2 | 2 |
| 50 | 378315 | Cover Plug | 2 | 2 | 2 |
| 51 | 28-P-42 | O-Ring | 2 | 2 | 2 |
| 52 | 37-P-21 | Shifter Spring | 1 | 1 | 1 |
| 53 | 11-P-75 | Shaft, Shifter | 1 | 1 | 1 |
| 54 | 28-P-41 | O-Ring | 1 | 1 | 1 |
| 55 | 32-P-180 | Shifter Fork | 1 | 1 | 1 |
| 56 | 378447-4 | Capscrew, Socket Head w/lockpatch (.312" - 18 x .750") | 1 | 1 | 1 |
| 57 | 379639 | Indicator Switch (Normally OFF) | 1 | 1 | 1 |
| 58 | 379904 | Push Connect, for 1/4" tubing | 1 | 1 | 1 |
| 59 | 35-P-8 | Gasket, Shifter Cover | 1 | 1 | 1 |
| 60 | 378430-8 | Capscrew, Hex Head (.312" - 18 x .875") | 4 | 4 | 4 |
| | | Air Shift Conversion Kits | | | |
| | 328390-117X | Lever or Cable to Air | 1 | - | 1 |
| | 328390-119X | Lever or Cable to Electric/Air, 12V | 1 | - | 1 |
| | 328390-120X | Lever or Cable to Electric/Air, 24V | 1 | - | 1 |
| | 328390-125X | Wire to Air | - | 1 | - |
| | 328390-127X | Wire to Electric/Air 12V | - | 1 | - |
| | 328390-129X | Wire to Electric/Air 24V | - | 1 | - |

See [Pages 24-35](#) for Kit Bill of Materials

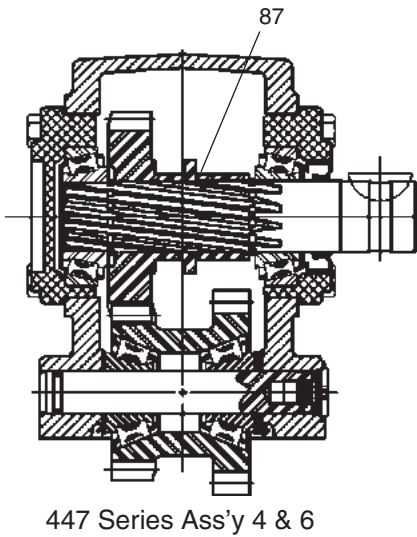
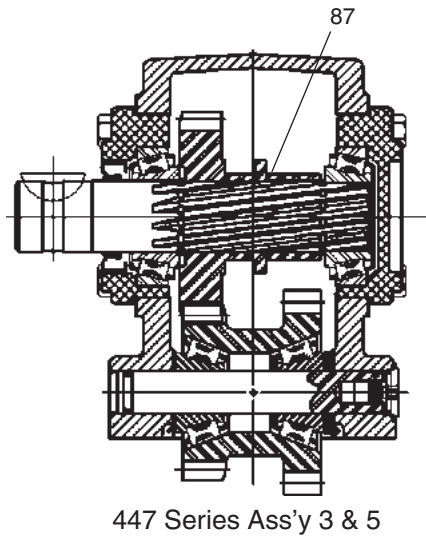
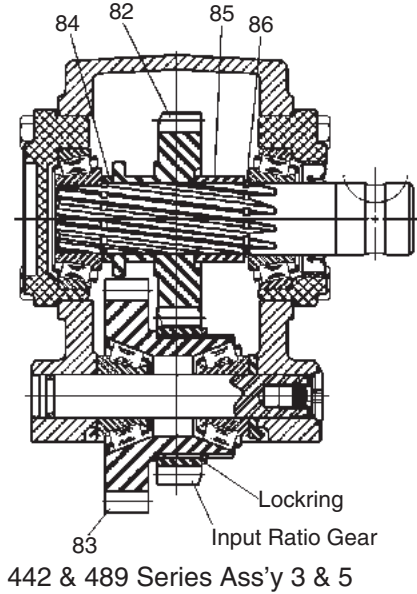
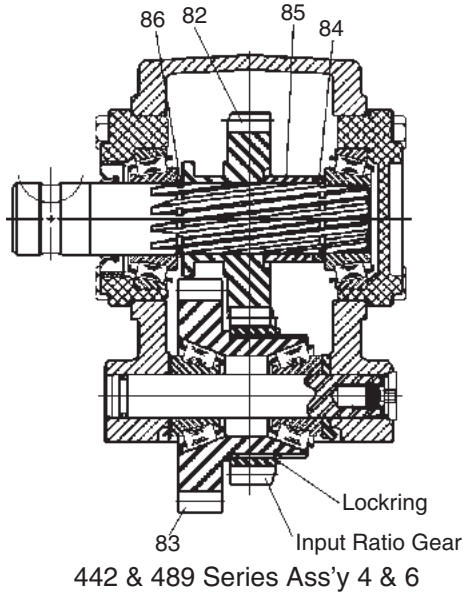
Shifter Kits

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

| Part Number | Description | Quantity | | |
|-------------|---|----------|-----|-----|
| | | 442 | 447 | 489 |
| 329106-39X | Shifter Kit (Air Shift, "A" Shift Option)..... | 1 | - | 1 |
| 329106-43X | Shifter Kit (Air Shift, "P" Shift Option)..... | 1 | - | 1 |
| 329106-45X | Shifter Kit (Air Shift, "Q" Shift Option) | 1 | - | 1 |
| 329106-71X | Shifter Kit (Air Shift, "A" Shift Option)..... | - | 1 | - |
| 329106-75X | Shifter Kit (Air Shift, "P" Shift Option)..... | - | 1 | - |
| 329106-77X | Shifter Kit (Air Shift, "Q" Shift Option) | - | 1 | - |
| 329106-105X | Shifter Kit (Wire Control 3 & 6, "Q", "W", "X" Ratio; "W" Shift Option)..... | 1 | - | 1 |
| 329106-106X | Shifter Kit (Wire Control 4 & 5, "Q", "W", "X" Ratio; "W" Shift Option)..... | 1 | - | 1 |
| 329106-107X | Shifter Kit (Wire Control 3 & 6, "Q", "W", "X" Ratio; "X" Shift Option)..... | 1 | - | 1 |
| 329106-108X | Shifter Kit (Wire Control 4 & 5, "Q", "W", "X" Ratio; "X" Shift Option)..... | 1 | - | 1 |
| 329106-109X | Shifter Kit (Wire Control 3 & 6, "F", "L", "R", "S", "U" Ratio; "W" Shift Option) .. | 1 | - | 1 |
| 329106-110X | Shifter Kit (Wire Control 4 & 5, "F", "L", "R", "S", "U" Ratio; "W" Shift Option) .. | 1 | - | 1 |
| 329106-111X | Shifter Kit (Wire Control 3 & 6, "F", "L", "R", "S", "U" Ratio; "X" Shift Option) ... | 1 | - | 1 |
| 329106-112X | Shifter Kit (Wire Control 4 & 5, "F", "L", "R", "S", "U" Ratio; "X" Shift Option) ... | 1 | - | 1 |
| 329106-113X | Shifter Kit (Wire Control 3 & 6, "Q" & "W" Ratio; "W" Shift Option)..... | - | 1 | - |
| 329106-114X | Shifter Kit (Wire Control 4 & 5, "Q" & "W" Ratio; "W" Shift Option)..... | - | 1 | - |
| 329106-117X | Shifter Kit (Wire Control 3 & 6, "Q" & "W" Ratio; "X" Shift Option)..... | - | 1 | - |
| 329106-118X | Shifter Kit (Wire Control 4 & 5, "Q" & "W" Ratio; "X" Shift Option)..... | - | 1 | - |
| 329106-135X | Constant Mesh Kit | 1 | - | 1 |
| 329106-143X | Shifter Kit (Wire Control 3 & 6, "A", "B" & "C" Ratio; "W" Shift Option) | 1 | - | 1 |
| 329106-144X | Shifter Kit (Wire Control 4 & 5, "A", "B" & "C" Ratio; "W" Shift Option) | 1 | - | 1 |
| 329106-145X | Shifter Kit (Wire Control 3 & 6, "A", "B" & "C" Ratio; "X" Shift Option) | 1 | - | 1 |
| 329106-146X | Shifter Kit (Wire Control 4 & 5, "A", "B" & "C" Ratio; "X" Shift Option) | 1 | - | 1 |
| 329106-151X | Shifter Kit ("V" Shift Option) | - | 1 | - |
| 329106-153X | Shifter Kit ("V" Shift Option) | 1 | - | 1 |
| 329143X | Field Conversion Kit (Shifter Shaft) | 1 | 1 | 1 |

See [Pages 24-35](#) for Kit Bill of Materials

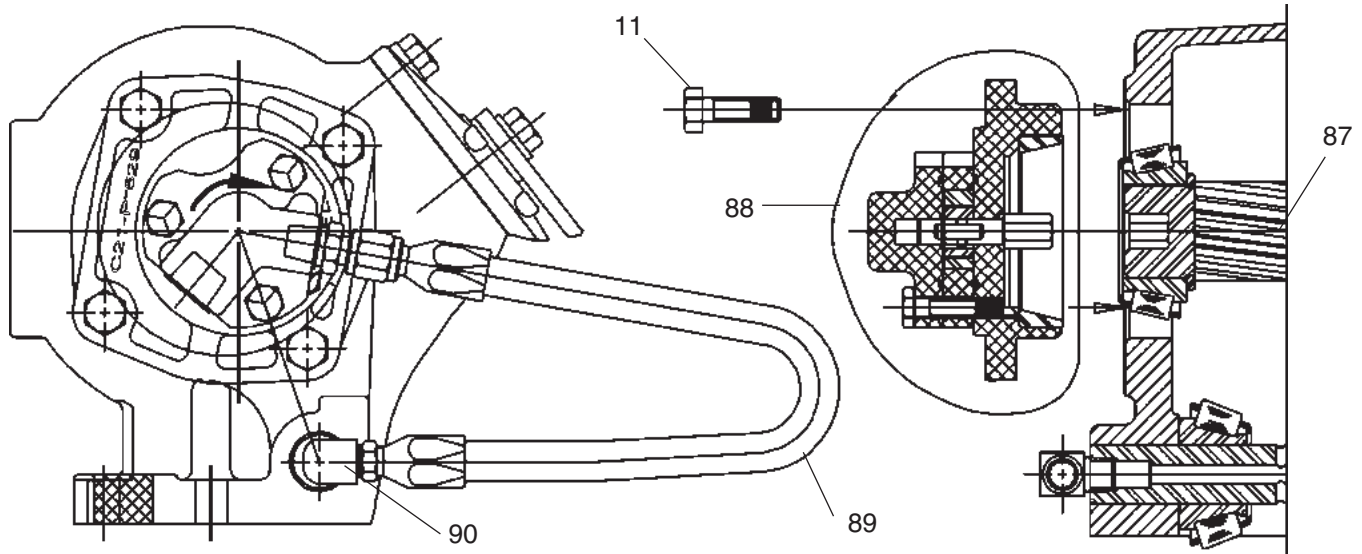
Constant Mesh Parts ("M" Designator)



| Item | Part Number | Description | Quantity | | |
|------|---------------------|--|----------|-----|-----|
| | | | 442 | 447 | 489 |
| 82 | See Charts, Pg 9-12 | Gear, Output..... | 1 | - | 1 |
| 83 | See Charts, Pg 9-12 | Gear, Input..... | 1 | - | 1 |
| 84 | 4-P-177 | Spacer, Drive Shaft | 1 | - | 1 |
| 85 | 4-P-178 | Spacer, Drive Shaft | 1 | - | 1 |
| 86 | 378391 | Lockring (Shifter Type "M") | 1 | - | 1 |
| 87 | 4-P-165 | Spacer, Drive Shaft | - | 1 | - |
| N.S. | 34-P-39 | Cover Plate, Shifter | 1 | 1 | 1 |
| N.S. | 35-P-8 | Gasket, Shifter Cover..... | 1 | 1 | 1 |
| N.S. | 378430-6 | Capscrew, Hex Head (.312" - 18 x .625")..... | 4 | 4 | 4 |

N.S.— Not Shown

NOTE: Pump must rotate in direction of arrow



NOTE: Install Street Elbow into idler shaft before installing idler shaft

Pump assembly as shown is for "Q", "W" and "X" Ratios.
 Rotate as needed for "A", "C", "F", "H", "L", "R", "S" and "U" Ratios.

| Item | Part Number | Description | Quantity | | |
|------|-------------|---|----------|-----|-----|
| | | | 442 | 447 | 489 |
| 11 | 378430-10 | Capscrew, Hex Head (.312" - 18 x 1.00")..... | 4 | 4 | 4 |
| 87 | 3-P-857 | Shaft, Output ("LD" Output) | 1 | 1 | 1 |
| | 3-P-858 | Shaft, Output ("LA", "LB", "LC", "LE", "LF" Output) | 1 | 1 | 1 |
| 88 | 329091X | Lube Pump & Bearing Cap Assembly..... | 1 | 1 | 1 |
| 89 | 329092X | Pressure Lube Hose Assembly..... | 1 | 1 | 1 |
| 90 | 500841-1 | Street Elbow, 90° | 1 | 1 | 1 |

See [Pages 24-35](#) for Kit Bill of Materials

Gear Chart — 442 Series

Input Gear Chart — 442 Series

| Model Number | Part Number | Gear Type | No. Teeth Input Gear | No. Teeth Ratio Gear |
|---------------|-------------|-------------|----------------------|----------------------|
| 442**AB | 5-P-1001 | SPUR | 19 | |
| 442**AC | 5-P-1002 | SPUR | 19 | |
| 442**AG | 5-P-1003 | SPUR | 22 | |
| 442**AH | 5-P-1004 | SPUR | 22 | |
| 442**AL (OBS) | 5-P-1005 | SPUR | 22 | |
| 442**AP | 5-P-1006 | Left Helix | 21 | |
| 442**AQ | 5-P-1007 | Left Helix | 21 | |
| 442**AR | 5-P-1008 | Left Helix | 21 | |
| 442**AW | 5-P-1009 | Left Helix | 22 | |
| 442**AX | 5-P-1010 | Left Helix | 22 | |
| 442**BA | 5-P-1011 | Left Helix | 23 | |
| 442**BC | 5-P-1012 | Left Helix | 18 | |
| 442**BE (OBS) | 5-P-1013 | SPUR | 27 | |
| 442**BG | 5-P-1015 | Left Helix | 23 | |
| 442**BH | 5-P-1016 | Right Helix | 25 | |
| 442**BJ | 5-P-1017 | Left Helix | 25 | |
| 442**BK | 5-P-1018 | Left Helix | 23 | |
| 442**BL | 5-P-1019 | Right Helix | 22 | |
| 442**BM | 5-P-1020 | Left Helix | 22 | |
| 442**BN | 5-P-1021 | Left Helix | 22 | |
| 442**BP | 5-P-1022 | Right Helix | 26 | |
| 442**BQ | 5-P-1023 | Left Helix | 25 | |
| 442**BR | 5-P-1024 | Right Helix | 26 | |
| 442**BS | 5-P-1025 | Left Helix | 26 | |
| 442**BU (OBS) | 5-P-1026 | SPUR | 33 | |
| 442**BY | 5-P-1027 | Right Helix | 26 | |
| 442**BZ | 5-P-1028 | Left Helix | 26 | |
| 442**CB | 5-P-1029 | Left Helix | 25 | |
| 442**CD | 5-P-1031 | Left Helix | 27 | |
| 442**CM (OBS) | 5-P-1035 | SPUR | 22 | |
| 442**CR | 5-P-1036 | Left Helix | 17 | |
| 442**DA | 5-P-1037 | SPUR | 23 | |
| 442**DB | 5-P-1038 | SPUR | 39 | |
| 442**DC | 5-P-1039 | SPUR | 19 | |
| 442**DD | 5-P-1040 | SPUR | 20 | |
| 442**DH | 5-P-1041 | Left Helix | 21 | |
| 442**DJ | 5-P-1042 | Left Helix | 28 | |
| 442**DK | 5-P-1043 | Left Helix | 26 | |
| 442**DM | 5-P-1045 | Left Helix | 17 | |
| 442**DN | 5-P-1046 | Left Helix | 19 | |
| 442**DP | 5-P-1047 | Left Helix | 27 | |
| 442**DQ | 5-P-1048 | Left Helix | 20 | |
| 442**DU | 5-P-1050 | Left Helix | 28 | |
| 442**DX | 5-P-1052 | Left Helix | 26 | |
| 442**DY (OBS) | 5-P-1053 | Left Helix | 16 | |
| 442**EA | 5-P-1054 | Left Helix | 26 | |
| 442**EC | 5-P-1055 | Left Helix | 36 | |
| 442**ED | 5-P-1056 | Left Helix | 34 | |
| 442**EL | 5-P-1075 | Right Helix | 30 | |
| 442**EP | 5-P-1057 | Right Helix | 35 | |
| 442**EQ | 5-P-1058 | Left Helix | 30 | |
| 442**ES | 5-P-1059 | Left Helix | 22 | |
| 442**EV | 5-P-1060 | SPUR | 40 | |

| Model Number | Part Number | Gear Type | No. Teeth Input Gear | No. Teeth Ratio Gear |
|-----------------------------------|------------------------------|------------|----------------------|----------------------|
| 442**EW | 5-P-1061 | Left Helix | 20 | |
| 442**FB (OBS) | 5-P-1063 | Left Helix | 25 | |
| 442**FC | 5-P-1064 | Left Helix | 26 | |
| 442**FE | 5-P-1065 | Left Helix | 29 | |
| 442**FF (OBS) | 5-P-1066 | Left Helix | 32 | |
| 442**FK | 5-P-1067 | Left Helix | 21 | |
| 442**FL | 5-P-1068 | Left Helix | 25 | |
| 442**FM | 5-P-1069 | SPUR | 28 | |
| 442**FN | 5-P-1070 | Left Helix | 26 | |
| 442**FP | 5-P-1071 | Left Helix | 23 | |
| 442**FQ (OBS) | 5-P-1072 | Left Helix | 21 | |
| 442**FW | 5-P-1098 | Left Helix | 28 | |
| 442**GQ | 5-P-1150 | Left Helix | 26 | |
| 442**GS | 5-P-1152 | Left Helix | 29 | |
| 442**GR (OBS) | 5-P-1157 | SPUR | 23 | |
| 442**HW | 5-P-1235 | SPUR | 35 | |
| 442**HX | 5-P-1236 | SPUR | 32 | |
| 442**HY | 5-P-1237 | Left Helix | 26 | |
| 442**JA | 5-P-1243 | Left Helix | 27 | |
| 442**IT | Assembled Without Input Gear | | | |
| 442**JD | 5-P-1248 | Left Helix | 20 | |
| 442**JG | 5-P-1256 | Left Helix | 28 | |
| 442**JH | 5-P-1257 | Left Helix | 29 | |
| 442**JK | 5-P-1261 | Left Helix | 24 | |
| 442**JM | 5-P-1263 | Left Helix | 22 | |
| 442**JP | 5-P-1268 | Left Helix | 33 | |
| 442**JS | 5-P-1310 | Left Helix | 20 | |
| 442**JT (OBS) | 5-P-1313 | Left Helix | 19 | |
| 442**JU | 5-P-1316 | Left Helix | 25 | |
| 442**JW | 5-P-1319 | Left Helix | 23 | |
| 442**KC | 5-P-1341 | Left Helix | 41 | |
| 442**KH | 5-P-1343 | Left Helix | 32 | |
| 442**KJ | 5-P-1405 | Left Helix | 33 | (C1) |
| 442**KL | 5-P-1407 | Left Helix | 29 | (C2) |
| 442**KN | 5-P-1383 | Left Helix | 27 | (D1) |
| 442**KX | 5-P-1411 | Left Helix | 26 | |
| Input Gears "A" Ratio Only | | | | |
| 442*AAB | 5-P-1279 | SPUR | 19 | 14 |
| 442*AAH | 5-P-1280 | SPUR | 22 | 14 |
| 442*AAP | 5-P-1282 | Left Helix | 21 | 14 |
| 442*AAR | 5-P-1283 | Left Helix | 21 | 14 |
| 442*ADA | 5-P-1284 | SPUR | 23 | 14 |
| 442*AES | 5-P-1285 | Left Helix | 22 | 14 |
| 442*AJA | 5-P-1366 | Left Helix | 27 | 14 |
| Input Gears "B" Ratio Only | | | | |
| 442*BHV | 5-P-1358 | SPUR | 24 | 14 |
| 442*BAH | 5-P-1418 | SPUR | 22 | 14 |
| Input Gears "C" Ratio Only | | | | |
| 442*CAB | 5-P-1286 | SPUR | 19 | 17 |
| 442*CAH | 5-P-1287 | SPUR | 22 | 17 |
| 442*CJA | 5-P-1368 | Left Helix | 27 | 17 |
| 442*CAP | 5-P-1289 | Left Helix | 21 | 17 |
| 442*CAR | 5-P-1290 | Left Helix | 21 | 17 |
| 442*CDA | 5-P-1291 | SPUR | 23 | 17 |
| 442*CES | 5-P-1292 | Left Helix | 22 | 17 |
| Input Gears "F" Ratio Only | | | | |
| 442*FAB | 5-P-1076 | SPUR | 19 | 21 |
| 442*FAH | 5-P-1077 | SPUR | 22 | 21 |
| 442*FAP | 5-P-1079 | Left Helix | 21 | 21 |

Continued on Next Page

Gear Chart — 442 Series

442, 447 & 489 Series

Input Gear Chart — 442 Series (Continued)

| Model Number | Part Number | Gear Type | No. Teeth Input Gear | No. Teeth Ratio Gear | Model Number | Part Number | Gear Type | No. Teeth Input Gear | No. Teeth Ratio Gear |
|--------------|-------------|-------------|----------------------|----------------------|-----------------------------------|-------------|------------|----------------------|----------------------|
| 442*FAR | 5-P-1080 | Left Helix | 21 | 21 | 442*FFE | 5-P-1096 | Left Helix | 29 | 21 |
| 442*FBC | 5-P-1081 | Left Helix | 18 | 21 | 442*FFN | 5-P-1097 | Left Helix | 26 | 21 |
| 442*FBG | 5-P-1082 | Left Helix | 23 | 21 | 442*FGQ | 5-P-1149 | Left Helix | 26 | 21 |
| 442*FBM | 5-P-1083 | Left Helix | 22 | 21 | 442*FGS | 5-P-1151 | Left Helix | 29 | 21 |
| 442*FBQ | 5-P-1084 | Left Helix | 25 | 21 | 442*FHV (H) | 5-P-1300 | SPUR | 24 | 21 |
| 442*FDA | 5-P-1085 | SPUR | 23 | 21 | 442*FJS | 5-P-1311 | Left Helix | 20 | 21 |
| 442*FDJ | 5-P-1086 | Left Helix | 28 | 21 | 442*FJT | 5-P-1314 | Left Helix | 19 | 21 |
| 442*FDN | 5-P-1087 | Left Helix | 19 | 21 | 442*FJU | 5-P-1317 | Left Helix | 25 | 21 |
| 442*FDU | 5-P-1088 | Left Helix | 28 | 21 | 442*FJW | 5-P-1320 | Left Helix | 23 | 21 |
| 442*FEC | 5-P-1089 | Left Helix | 36 | 21 | 442*FJA | 5-P-1340 | Left Helix | 27 | 21 |
| 442*FED | 5-P-1090 | Left Helix | 34 | 21 | Input Gears "H" Ratio Only | | | | |
| 442*FEP | 5-P-1091 | Right Helix | 35 | 21 | 442*HAH | 5-P-1364 | SPUR | 22 | 23 |
| 442*FES | 5-P-1092 | Left Helix | 22 | 21 | 442*HDA | 5-P-1365 | SPUR | 23 | 23 |
| 442*FET | 5-P-1093 | Left Helix | 19 | 21 | 442*HJA | 5-P-1342 | Left Helix | 27 | 23 |
| 442*FEV | 5-P-1094 | SPUR | 40 | 21 | | | | | |
| 442*FEW | 5-P-1095 | Left Helix | 20 | 21 | | | | | |

Input Ratio Gear Chart — 442 Series

| Ratio | Part Number | No. Teeth "B" |
|-------|-------------|---------------|
| 442*L | 5-P-964 | 25 |
| 442*Q | 5-P-965 | 19 |
| 442*R | 5-P-1214 | 22 |
| 442*S | 5-P-966 | 24 |
| 442*U | 5-P-967 | 26 |
| 442*W | 5-P-968 | 26 |
| 442*X | 5-P-969 | 38 |

Output Gear Chart — 442 Series

| Ratio | Part Number | No. Teeth "C" |
|-------|-------------|---------------|
| 442*A | 2-P-791 | 39 |
| 442*B | 2-P-833 | 39 |
| 442*C | 2-P-792 | 37 |
| 442*F | 2-P-726 | 37 |
| 442*H | 2-P-802 | 35 |
| 442*L | 2-P-727 | 34 |
| 442*Q | 2-P-559 | 24 |
| 442*R | 2-P-559 | 24 |
| 442*S | 2-P-637 | 22 |
| 442*U | 2-P-560 | 20 |
| 442*W | 2-P-561 | 17 |
| 442*X | 2-P-728 | 21 |

Geared Adapter Gears — 442 Series

| Model Number | Part Number | Gear Type | No. Teeth | Adapter Input Gear | Part Number | Gear Type | No. Teeth |
|--------------|-------------|-------------|-----------|--------------------|-------------|------------|-----------|
| 442**GX | 5-P-1183 | Right Helix | 21 | AP | 5-P-1006 | Left Helix | 21 |
| 442**GY | 5-P-1184 | Right Helix | 21 | AR | 5-P-1008 | Left Helix | 21 |
| 442**GZ | 5-P-1185 | Right Helix | 22 | AW | 5-P-1009 | Left Helix | 22 |
| 442**HA | 5-P-1186 | Left Helix | 22 | AX | 5-P-1010 | Right Hand | 22 |
| 442**HB | 5-P-1187 | Right Helix | 23 | BG | 5-P-1015 | Left Helix | 23 |
| 442**HC | 5-P-1188 | Right Helix | 22 | BM | 5-P-1020 | Left Helix | 22 |
| 442**HD | 5-P-1189 | Right Helix | 25 | CB | 5-P-1029 | Left Helix | 25 |
| 442**HE | 5-P-1190 | Right Helix | 27 | CD | 5-P-1031 | Left Helix | 27 |
| 442**HF | 5-P-1191 | Right Helix | 17 | DM | 5-P-1045 | Left Helix | 17 |
| 442**HG | 5-P-1192 | Right Helix | 19 | DN | 5-P-1046 | Left Helix | 19 |
| 442**HH | 5-P-1193 | Right Helix | 28 | DU | 5-P-1050 | Left Helix | 28 |
| 442**HJ | 5-P-1194 | Right Helix | 36 | EC | 5-P-1055 | Left Helix | 36 |
| 442**HK | 5-P-1195 | Right Helix | 34 | ED | 5-P-1056 | Left Helix | 34 |
| 442**HL | 5-P-1196 | Right Helix | 22 | ES | 5-P-1059 | Left Helix | 22 |
| 442**HM | 5-P-1197 | Right Helix | 20 | EW | 5-P-1061 | Left Helix | 20 |
| 442**HP | 5-P-1199 | Right Helix | 26 | FC | 5-P-1064 | Left Helix | 26 |
| 442**HQ | 5-P-1200 | Right Helix | 29 | FE | 5-P-1065 | Left Helix | 29 |
| 442**HR | 5-P-1201 | Right Helix | 26 | FN | 5-P-1070 | Left Helix | 26 |
| 442**JB | 5-P-1244 | Right Helix | 26 | HY | 5-P-1237 | Left Helix | 26 |
| 442**JC | 5-P-1247 | Right Helix | 27 | DJA | 5-P-1243 | Left Helix | 27 |
| 442**JE | 5-P-1249 | Right Helix | 20 | JD | 5-P-1248 | Left Helix | 20 |
| 442**JL | 5-P-1262 | Right Helix | 24 | JK | 5-P-1261 | Left Helix | 24 |
| 442**JN | 5-P-1264 | Right Helix | 22 | JM | 5-P-1263 | Left Helix | 22 |
| 442**JQ | 5-P-1269 | Right Helix | 33 | JP | 5-P-1268 | Left Helix | 33 |

Continued on Next Page

Gear Chart — 442 Sereis & 447Series**Geared Adapter Gears — 442 Series**

| Model Number | Part Number | Gear Type | No. Teeth | Adapter Input Gear | Part Number | Gear Type | No. Teeth |
|--------------|-------------|-------------|-----------|--------------------|-------------|------------|-----------|
| 442**JY | 5-P-1312 | Right Helix | 20 | JS | 5-P-1310 | Left Helix | 20 |
| 442**KA | 5-P-1318 | Right Helix | 25 | JU | 5-P-1316 | Left Helix | 25 |
| 442**KB | 5-P-1321 | Right Helix | 23 | JW | 5-P-1319 | Left Helix | 23 |
| 442**KK | 5-P-1406 | Right Helix | 33 | KJ | 5-P-1405 | Left Helix | 33 |
| 442**KM | 5-P-1408 | Right Helix | 29 | KL | 5-P-1407 | Left Helix | 29 |
| 442**KP | 5-P-1384 | Right Helix | 27 | KN | 5-P-1383 | Left Helix | 27 |

Gear Chart — 447 Series

| Model Number | Part No. Input Gear | Helix Angle | No. Teeth* Input Gear | No. Teeth** Ratio Gear | Part No. Output Gear | No. Teeth Output Gear |
|--------------|---------------------|-------------|-----------------------|------------------------|----------------------|-----------------------|
| 447*QET | 5-P-865 | Left Helix | 19 | 19 | 2-P-697 | 24 |
| 447*QES | 5-P-869 | Left Helix | 22 | 19 | 2-P-697 | 24 |
| 447*QFX | 5-P-979 | Left Helix | 24 | 19 | 2-P-697 | 24 |
| 447*QGP | 5-P-1145 | Spur | 23 | 19 | 2-P-697 | 24 |
| 447*QCD | 5-P-1178 | Left Helix | 27 | 19 | 2-P-697 | 24 |
| 447*QEV | 5-P-1205 | Spur | 40 | 19 | 2-P-697 | 24 |
| 447*SET | 5-P-866 | Left Helix | 19 | 24 | 2-P-698 | 22 |
| 447*SES | 5-P-870 | Left Helix | 22 | 24 | 2-P-698 | 22 |
| 447*SFF | 5-P-891 | Left Helix | 32 | 24 | 2-P-698 | 22 |
| 447*SEQ | 5-P-892 | Left Helix | 30 | 24 | 2-P-698 | 22 |
| 447*SCD | 5-P-1179 | Left Helix | 27 | 24 | 2-P-698 | 22 |
| 447*SEV | 5-P-1206 | Spur | 40 | 24 | 2-P-698 | 22 |
| 447*SJX | 5-P-1270 | Spur | 40 | 24 | 2-P-698 | 22 |
| 447*RET | 5-P-1215 | Left Helix | 19 | 22 | 2-P-697 | 24 |
| 447*RES | 5-P-1216 | Left Helix | 22 | 22 | 2-P-697 | 24 |
| 447*RGP | 5-P-1217 | Spur | 23 | 22 | 2-P-697 | 24 |
| 447*RCD | 5-P-1218 | Left Helix | 27 | 22 | 2-P-697 | 24 |
| 447*REV | 5-P-1219 | Spur | 40 | 22 | 2-P-697 | 24 |
| 447*UET | 5-P-867 | Left Helix | 19 | 26 | 2-P-699 | 20 |
| 447*UES | 5-P-871 | Left Helix | 22 | 26 | 2-P-699 | 20 |
| 447*UFE | 5-P-889 | Left Helix | 29 | 26 | 2-P-699 | 20 |
| 447*UGP | 5-P-1147 | Spur | 23 | 26 | 2-P-699 | 20 |
| 447*UCD | 5-P-1180 | Left Helix | 27 | 26 | 2-P-699 | 20 |
| 447*UEV | 5-P-1207 | Spur | 40 | 26 | 2-P-699 | 20 |
| 447*UJX | 5-P-1271 | Spur | 40 | 26 | 2-P-699 | 20 |
| 447*WET | 5-P-868 | Left Helix | 19 | 26 | 2-P-700 | 17 |
| 447*WES | 5-P-872 | Left Helix | 22 | 26 | 2-P-700 | 17 |
| 447*WFE | 5-P-890 | Left Helix | 29 | 26 | 2-P-700 | 17 |
| 447*WGFH | 5-P-900 | Right Helix | 20 | 26 | 2-P-700 | 17 |
| 447*WFG | 5-P-901 | Right Helix | 18 | 26 | 2-P-700 | 17 |
| 447*Wfy | 5-P-976 | Spur | 38 | 14 | 2-P-700 | 17 |
| 447*WGD | 5-P-988 | Right Helix | 19 | 26 | 2-P-700 | 17 |
| 447*WGP | 5-P-1148 | Spur | 23 | 26 | 2-P-700 | 17 |
| 447*WCD | 5-P-1181 | Left Helix | 27 | 26 | 2-P-700 | 17 |
| 447*WEV | 5-P-1208 | Spur | 40 | 26 | 2-P-700 | 17 |
| 447*WJX | 5-P-1272 | Spur | 40 | 26 | 2-P-700 | 17 |

* Input gear meshes with the transmission

** Ratio gear meshes with the P.T.O. Output Gear

NOTE: The unique design of the 447 Series input gear requires that the spacers used to shim the input bearings be placed opposite of the normal position found on the 442 and 489 series. For the 447 Series install the Input gear spacers (item # 18 on pg. 2) on the idler shaft between the Input Gear and P.T.O. housing.

Input Gear Chart — 489 Series

| Model Number | Part Number | Gear Type | No. Teeth Input Gear | No. Teeth Ratio Gear | Model Number | Part Number | Gear Type | No. Teeth Input Gear | No. Teeth Ratio Gear |
|--------------|-------------|------------|----------------------|----------------------|--------------|-------------|------------|----------------------|----------------------|
| 489**AB | 5-P-1001 | Spur | 19 | | 489*CAB | 5-P-1286 | Spur | 19 | 17 |
| 489**AH | 5-P-1004 | Spur | 22 | | 489*CAH | 5-P-1287 | Spur | 22 | 17 |
| 489**AR | 5-P-1008 | Left Helix | 21 | | 489*CAR | 5-P-1290 | Left Helix | 21 | 17 |
| 489**BG | 5-P-1015 | Left Helix | 23 | | 489*CDA | 5-P-1291 | Spur | 23 | 17 |
| 489**DA | 5-P-1037 | Spur | 23 | | | | | | |
| 489**DU | 5-P-1050 | Left Helix | 28 | | 489*FAB | 5-P-1076 | Spur | 19 | 21 |
| 489**EV | 5-P-1060 | Spur | 40 | | 489*FAH | 5-P-1077 | Spur | 22 | 21 |
| 489**DB | 5-P-1038 | Spur | 39 | | 489*FAR | 5-P-1080 | Left Helix | 21 | 21 |
| 489**CR | 5-P-1036 | Left Helix | 17 | | 489*FBG | 5-P-1082 | Left Helix | 23 | 21 |
| 489**HW | 5-P-1235 | Spur | 35 | | 489*FDA | 5-P-1085 | Spur | 23 | 21 |
| 489**HX | 5-P-1236 | Spur | 32 | | 489*FDU | 5-P-1088 | Left Helix | 28 | 21 |
| | | | | | 489*FEV | 5-P-1094 | Spur | 40 | 21 |
| 489*AAB | 5-P-1279 | Spur | 19 | 14 | 489*HAH | 5-P-1364 | Spur | 22 | 23 |
| 489*AAH | 5-P-1280 | Spur | 22 | 14 | 489*HDA | 5-P-1365 | Spur | 23 | 23 |
| 489*AAR | 5-P-1283 | Left Helix | 21 | 14 | | | | | |
| 489*ADA | 5-P-1284 | Spur | 23 | 14 | | | | | |

Ratio Gear Chart — 489 Series**Input Ratio Gear Chart — 489 Series**

| Ratio | Part Number | No. Teeth |
|-------|-----------------|-----------|
| 489*A | See Chart Above | |
| 489*C | See Chart Above | |
| 489*F | See Chart Above | |
| 449*H | See Chart Above | |
| 489*L | 5-P-964 | 25 |
| 489*Q | 5-P-965 | 19 |
| 489*R | 5-P-1214 | 22 |
| 489*S | 5-P-966 | 24 |
| 489*U | 5-P-967 | 26 |
| 489*W | 5-P-968 | 26 |
| 489*X | 5-P-969 | 38 |

Output Gear Chart — 489 Series

| Ratio | Part Number | No. Teeth |
|-------|-------------|-----------|
| 489*A | 2-P-791 | 39 |
| 489*C | 2-P-792 | 37 |
| 489*F | 2-P-726 | 37 |
| 449*H | 2-P-802 | 35 |
| 489*L | 2-P-727 | 34 |
| 489*Q | 2-P-559 | 24 |
| 489*R | 2-P-559 | 24 |
| 489*S | 2-P-637 | 22 |
| 489*U | 2-P-560 | 20 |
| 489*W | 2-P-561 | 17 |
| 489*X | 2-P-728 | 21 |

Direct Mount Pump Conversion Kits

| Flange Suffix | Flange Type | Shaft Type | Conversion Kit |
|---------------|------------------------------|--------------------------------------|--|
| AA | Special for England | .982" - 6 Spline | |
| AF | S.A.E. "B" 2 or 4-Bolt | 1.0" - 15 Spline | XD to AF 328591-30X |
| AK | S.A.E. "B" 2-Bolt | 7/8" - 13 Spline ("B" Ratio Only) | XD to AK 328591-28X XD to AK 329436-7X |
| AZ | Non-Standard | 1-1/4" - 14 Spline | XD to AZ 328591-70X |
| FF | S.A.E. "B" 2 or 4-Bolt | 7/8" Rd w/1/4" Key | XD to FF 328591-29X |
| GA | Rotatable S.A.E. "B" 2-Bolt | ● 7/8" - 13 Spline | XD to GA 328591-72X XR to GA 328591-73X RA to GA 328591-106X |
| GB | Rotatable S.A.E. "B" 4-Bolt | ● 7/8" - 13 Spline | XD to GB 328591-74X XR to GB 328591-75X RB to GB 328591-107X |
| GF | S.A.E. "BB" 2 or 4-Bolt | ● 1.0" - 15 Spline | XD to GF 328591-71X AF to GF 328591-108X |
| GH | Rotatable S.A.E. "BB" 2-Bolt | ● 1.0" - 15 Spline | XD to GH 328591-116X RF to GH 328591-114X |
| GJ | S.A.E. "B" 4-Bolt Rotatable | ● 1.0" - 15 Spline | XD to GJ 328591-138X RE to GJ 328591-114X |
| GK | S.A.E. "B" 2 or 4-Bolt | ● 7/8" - 13 Spline | XD to GK 328591-89X XK to GK 328591-86X |
| GP | S.A.E. "A" Pilot 2 or 4-Bolt | ● 7/8" - 13 Spline | XD to GP 328591-90X XP to GP 328591-86X |
| ■ GQ | S.A.E. "B" 2 or 4-Bolt | ● 7/8" - 13 Spline | XD to GQ 328591-91X XQ to GQ 328591-86X |
| GR | CHELSEA SPECIAL 4-Bolt | ● 7/8" - 13 Spline | XD to GR 328591-76X |
| GY | DIN 5462 Pump Mounting | ● 7/8" - 13 Spline | XD to GY 328591-92X XY to GY 328591-89X |
| GZ | Non-Standard 4-Bolt | ● 1-1/4" - 14 Spline | XD to GZ 328591-93X AZ to GZ 328591-88X |
| ▶▶ LA | S.A.E. "B" 2-Bolt | 7/8" - 13 Spline | AK to LA 328591-44X |
| ▶▶ LB | S.A.E. "A" Pilot 2-Bolt | 7/8" - 13 Spline | XP to LB 328591-45X |
| ▶▶ LC | S.A.E. "B" 2 or 4-Bolt | 7/8" - 13 Spline | XQ to LC 328591-46X |
| ▶▶ LD | Similar to "XD" | 1-1/4" Rd | XD to LD |
| ▶▶ LE | 6-Bolt Rd | 7/8" - 13 Spline | XN to LE 328591-47X |
| ▶▶ LF | S.A.E. "B" 2 or 4-Bolt | 7/8" - 13 Spline | XK to LF 328591-48X |

NOTE: Check Current Price Sheet for Availability of Output Options

Continued on Next Page

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

- Shaft with Grease Fitting
- Similar to Ass'y "XK" Flange Rotated 90°
- ▶▶ Lube Pump Option

Direct Mount Pump Conversion Kits (Cont'd) 442, 447 & 489 Series

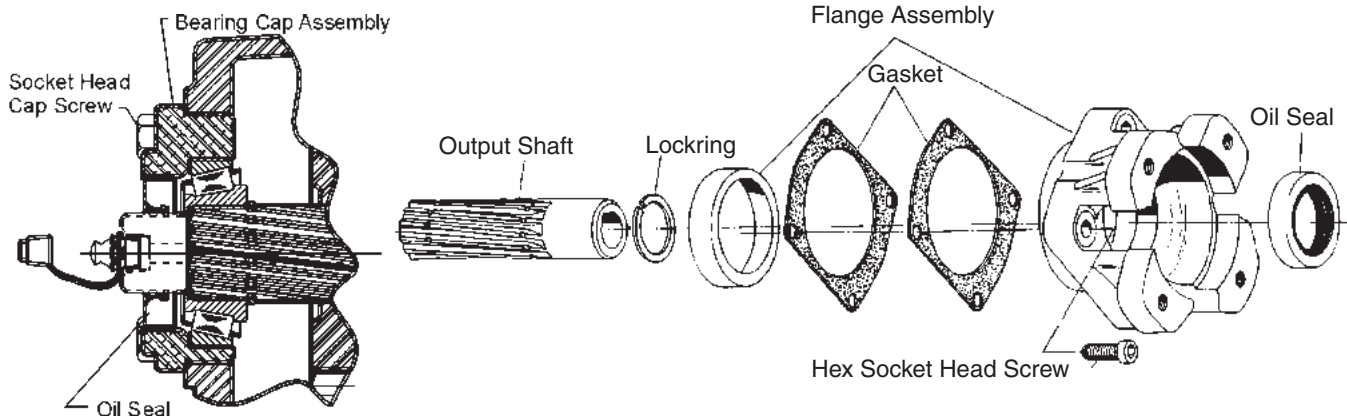
| Flange Suffix | Flange Type | Shaft Type | Conversion Kit |
|---------------|--------------------------------|---------------------|--|
| PA | Parker P2-060 Pump Mounting | 7/8" - 13 Spline | XD to PA 328591-143X |
| PF | Parker P2-060 Pump Mounting | 1.0" - 15 Spline | XD to PF 328591-142X |
| RA | Rotatable S.A.E. "B" 2-Bolt | 7/8" - 13 Spline | XD to RA 328591-55X XR to RA 328591-53X |
| | | ("B" Ratio Only) | XD to RA 329436-1X |
| RB | Rotatable S.A.E. "B" 4-Bolt | 7/8" - 13 Spline | XD to RB 328591-56X XR to RB 328591-54X |
| | | ("B" Ratio Only) | XR to RB 329436-2X |
| RC | Rotatable S.A.E. "A" 2-Bolt | 5/8" - 9 Spline | XD to RC 328591-112X |
| RD | Rotatable S.A.E. "A" 2-Bolt | 7/8" - 13 Spline | XD to RD 328591-113X |
| | | ("B" Ratio Only) | XD to RD 329436-8X |
| RE | S.A.E. "B" 4-Bolt Rotatable | 1.0" - 15 Spline | XD to RE 328591-134X |
| RF | Rotatable S.A.E. "B" 2-Bolt | 1.0" - 15 Spline | XD to RF 328591-78X |
| RY | Rotatable DIN 5462 | DIN 5462 | XD to RY 328591-131X |
| SQ | S.A.E. "B" 4-Bolt | 7/8" - 13 Spline | XD to SQ 328591-149X |
| | | ("B" Ratio Only) | XD to SQ 329436-9X |
| XE | S.A.E. "A" 2 or 4-Bolt | 5/8" - 9 Spline | XD to XE 328591-27X |
| XG | Non-Standard-S.A.E. "A" 2-Bolt | 3/4" Rd w/3/16" Key | XD to XG 328591-10X |
| XJ | Non-Standard 2-Bolt | 3/4" Rd | XD to XJ 328591-11X |
| XK | S.A.E. "B" 2 or 4-Bolt | 7/8" - 13 Spline | XD to XK 328591-16X |
| | | ("B" Ratio Only) | XD to XK 329436-3X |
| XL | Non-Standard 2-Bolt | 7/8" - 13 Spline | XD to XL 328591-18X |
| | | ("B" Ratio Only) | XD to XL 329436-4X |
| XO | S.A.E. "A" Pilot 2-Bolt | 3/4" Rd w/3/16" Key | XD to XO 328591-26X |
| XP | S.A.E. "A" Pilot 2-Bolt | 7/8" - 13 Spline | XD to XP 328591-23X |
| | | ("B" Ratio Only) | XD to XP 329436-5X |
| ■ XQ | S.A.E. "B" 2 or 4-Bolt | 7/8" - 13 Spline | XD to XQ 328591-17X |
| | | ("B" Ratio Only) | XD to XQ 329436-6X |
| XR | CHELSEA SPECIAL 4-Bolt | 7/8" - 13 Spline | XD to XR 328591-52X |
| XV | Rd Shaft | 1-1/4" w/Set Screw | XD to XV 328591-130X |
| XX | S.A.E Tapered Shaft | 1-1/4" w/5/16" Key | XD to XX 328591-122X |
| XY | DIN 5462 Pump Mounting | DIN 5462 | XD to XY 328591-121X |

NOTE: Check Current Price Sheet for Availability of Output Options

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

- Shaft with Grease Fitting
- Similar to Ass'y "XK" Flange Rotated 90°
- ▶▶ Lube Pump Option

Output Options Bill of Materials



| Output Flange | Part Number | Description | Qty |
|---------------|--|--|------|
| AA | 3-P-862 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 239102X | Bearing Cap Ass'y (21-P-532) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| AF | 3-P-854 | Output Shaft | 1 |
| | 28-P-219 | Oil Seal | 1 |
| | 329088X | Bearing Cap Ass'y (21-P-522) | 1 |
| | 378447-10 | Socket Head Capscrew (.312" - 18 x 2.0") | 4 |
| AK | 3-P-282 | Output Shaft | 1 |
| | 3-P-979 | Output Shaft ("B" Ratio Only) | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328989X | Bearing Cap Ass'y (21-P-472) | 1 |
| AZ | 3-P-844 | Output Shaft | 1 |
| | 28-P-275 | Oil Seal | 1 |
| | 329052X | Bearing Cap Ass'y (21-P-508) | 1 |
| | 378447-11 | Socket Head Capscrew (.312" - 18 x 2.5") | 4 |
| FF | 3-P-851 | Output Shaft | 1 |
| | 28-P-219 | Oil Seal | 1 |
| | 329088X | Bearing Cap Ass'y (21-P-522) | 1 |
| | 378447-10 | Socket Head Capscrew (.312" - 18 x 2.0") | 4 |
| (1) G* | 3-P-923X | "GA", "GB", "GR", Shaft Assemblies | 1 or |
| | 3-P-981X | "GE" Shaft Assembly | 1 or |
| | 3-P-921X | "GF" Shaft Assemblies | 1 or |
| | 3-P-933X | "GQ", "GK", "GP" Shaft Assemblies | 1 or |
| | 3-P-938X | "GY" Shaft Assemblies | 1 or |
| | 3-P-939X | "GZ" Shaft Assemblies | 1 or |
| | 3-P-941X | "GH", "GJ" Shaft Assemblies | 1 |
| | 500168-2 | Lube Fitting (Zerk) | 1 |
| | 379819 | Grease Fitting Cap | 1 |
| | 379688 | Coupling Lube Pack (5/8 fl.oz.) | 1 |
| | 28-P-268 | Rear Bearing Cap Shaft Oil Seal | 1 |
| 328273X | Rear Bearing Cap Assembly | 1 | |
| 378447-6 | Rear Bearing Cap Hex Head Capscrew (.312" - 18 x 1.0") | 4 | |
| L* | 3-P-857 | Output Shaft ("LD") | 1 |
| | 3-P-858 | Output Shaft ("LA", "LB", "LC", "LF") | 1 |
| | 329091X | Lube Pump & Bearing Cap Ass'y | 1 |
| | 329092X | Pressure Lube Hose Ass'y | 1 |
| | 500841-1 | Elbow 90° Street | 1 |
| | 378447-6 | Hex Capscrew (.312" - 18 x 1.0") | 4 |

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

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

Continued on following page

Output Options Bill of Materials

| Output Flange | Part Number | Description | Qty |
|---------------|-----------------|--|-----|
| PA | 3-P-283 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 329195X | Bearing Cap Ass'y (21-P-574) | 1 |
| | 21-P-661 | Pump Flange | 1 |
| | 378447-6 | Socket Head Capscrew (.312" - 18 x 1.0") | 4 |
| | 328170-207X | Capscrew Bag Kit | 1 |
| | 378447-6 | Socket Head Capscrew (.312" - 18 x 1.0") | 3 |
| PF | 3-P-924 | Output Shaft | 1 |
| | 28-P-219 | Oil Seal | 1 |
| | 329264X | Bearing Cap Ass'y (21-P-629) | 1 |
| | 21-P-661 | Pump Flange | 1 |
| | 378447-6 | Socket Head Capscrew (.312" - 18 x 1.0") | 4 |
| | 28-P-271 | O-Ring | 1 |
| RA | 3-P-283 | Output Shaft | 1 |
| | 3-P-980 | Output Shaft ("B" Ratio Only)..... | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 329195X | Bearing Cap Ass'y (21-P-574)..... | 1 |
| | 21-P-628 | Pump Flange (Ship Loose w/Unit)..... | 1 |
| | 378447-6 | Socket Head Capscrew | 4 |
| | 328170-207X | Capscrew Bag Kit | 1 |
| | 378170-6 | Socket Head Capscrew | 3 |
| RB | 3-P-283 | Output Shaft | 1 |
| | 3-P-980 | Output Shaft ("B" Ratio Only)..... | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 329195X | Bearing Cap Ass'y (21-P-574)..... | 1 |
| | 21-P-572 | Pump Flange (Ship Loose w/Unit)..... | 1 |
| | 378447-6 | Socket Head Capscrew | 4 |
| | 328170-207X | Capscrew Bag Kit | 1 |
| | 378170-6 | Socket Head Capscrew | 3 |
| RC | 3-P-800 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 329322X | Bearing Cap Ass'y (21-P-640)..... | 1 |
| | 21-P-638 | Pump Flange | 1 |
| | 378447-6 | Socket Head Capscrew (.312" - 18 x 1.0") | 4 |
| | 328170-210X | Capscrew Bag Kit | 1 |
| | 378447-4 | Socket Head Capscrew (.312" - 18 x .75") | 6 |
| RE | 3-P-924 | Output Shaft | 1 |
| | 28-P-219 | Oil Seal | 1 |
| | 329264X | Bearing Cap Ass'y (21-P-629) | 1 |
| | 21-P-654 | Pump Flange | 1 |
| | 378447-6 | Socket Head Capscrew (.312" - 18 x 1.0") | 4 |
| | 28-P-271 | O-Ring | 1 |
| RF | 3-P-924 | Output Shaft | 1 |
| | 28-P-219 | Oil Seal | 1 |
| | 329264X | Bearing Cap Ass'y (21-P-629) | 1 |
| | 21-P-626 | Pump Flange | 1 |
| | 378447-6 | Socket Head Capscrew (.312" - 18 x 1.0") | 7 |
| | 28-P-271 | O-Ring | 1 |
| RY | 3-P-768 | Output Shaft | 1 |
| | 21-P-625 | Pump Flange | 1 |
| | 329356X | Bearing Cap Ass'y (21-P-532)..... | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| | 329355-1X | Standard Loose Parts Kit..... | 1 |
| | 379740-6 | Socket Head Capscrew (M10 1.5" x .984") | 3 |
| | 22-P-100 | Gasket | 1 |
| | 22-P-84 | Gasket | 1 |
| 379231 | Pipe Plug | 2 | |

Continued on following page

Output Options Bill of Materials

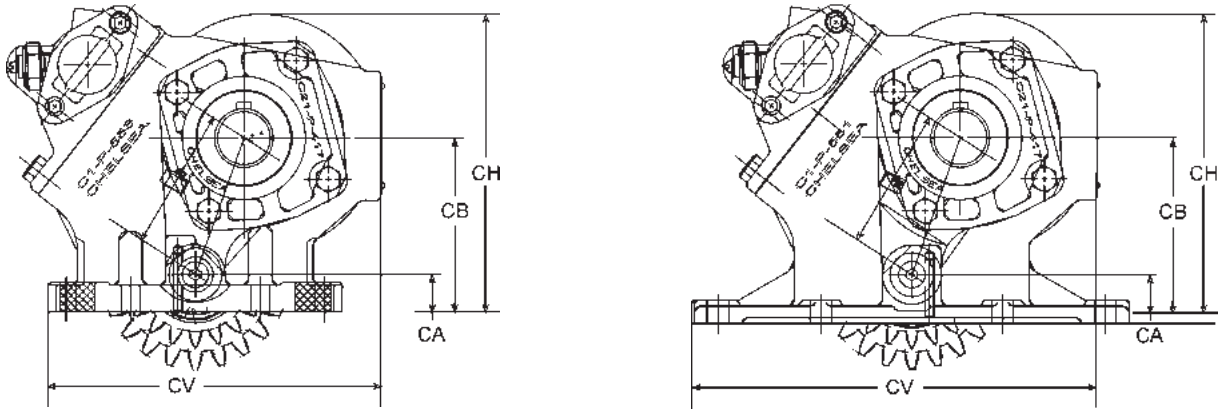
| Output Flange | Part Number | Description | Qty |
|---------------|---------------------------------|---|-----|
| XE | 3-P-800 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328328X | Bearing Cap Ass'y (21-P-161) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XG | 3-P-281 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328580X | Bearing Cap Ass'y (21-P-259) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XJ | 3-P-284 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328580X | Bearing Cap Ass'y (21-P-259) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XK | 3-P-282 | Output Shaft | 1 |
| | 3-P-979 | Output Shaft ("B" Ratio Only) | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328333X | Bearing Cap Ass'y (21-P-424) & (28-P-216) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XL | 3-P-283 | Output Shaft | 1 |
| | 3-P-980 | Output Shaft ("B" Ratio Only) | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328580X | Bearing Cap Ass'y (21-P-259) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XO | 3-P-284 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328328X | Bearing Cap Ass'y (21-P-161) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XP | 3-P-282 | Output Shaft | 1 |
| | 3-P-979 | Output Shaft ("B" Ratio Only) | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328328X | Bearing Cap Ass'y (21-P-161) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XQ | 3-P-282 | Output Shaft | 1 |
| | 3-P-979 | Output Shaft ("B" Ratio Only) | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 328589X | Bearing Cap Ass'y (21-P-269) | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |
| XR | 3-P-283 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 329194X | Bearing Cap Assembly (21-P-574) | 1 |
| | 379673 | Hex Shoulder Screw (.312" - 24) | 4 |
| | 379063 | Flat Washer | 4 |
| | 328711X | Pump Mounting Kit | 1 |
| | 378919 500963-1 | Washer | 4 |
| | Hex Lock Nut (.312" - 24) | 4 | |
| XV | 3-P-202 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 3-P-978 | Output Shaft ("B" Ratio Only) | 1 |
| | 328273X | Bearing Cap Ass'y (21-P-418) | 1 |
| | 378430-10 | Hex Capscrew (.312" - 18 x 1.0") | 4 |
| | 500007-29 | Woodruff Key | 1 |
| | 379828 | Companion Flange | 1 |
| | 378431-8 | Set Screw | 1 |

Continued on following page

Output Options Bill of Materials

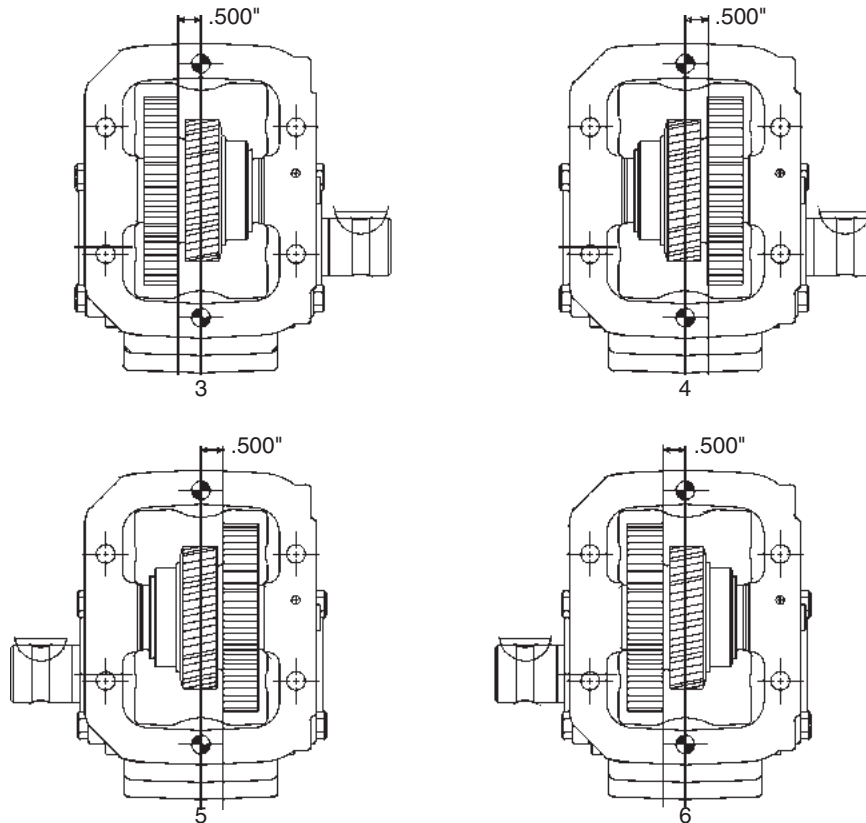
| Output Flange | Part Number | Description | Qty |
|---------------|-------------|--|-----|
| XX | 3-P-766 | Output Shaft | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 378430-10 | Hex Capscrew (.312" - 18 x 1.0") | 4 |
| | 379111 | Square Key | 1 |
| | 501181 | Hex Locknut (1.0" - 20) | 1 |
| XY | 3-P-768 | Output Shaft | 1 |
| | 28-P-275 | Oil Seal | 1 |
| | 328234X | Bearing Cap Ass'y (21-P-614)..... | 1 |
| | 378447-6 | Socket Head Capscrew (.312" - 18 x 1.0") | 4 |
| SQ | 3-P-282 | Output Shaft | 1 |
| | 3-P-979 | Output Shaft ("B" Ratio Only)..... | 1 |
| | 28-P-216 | Oil Seal | 1 |
| | 329449X | Bearing Cap Ass'y (21-P-692)..... | 1 |
| | 378447-8 | Socket Head Capscrew (.312" - 18 x 1.5") | 4 |

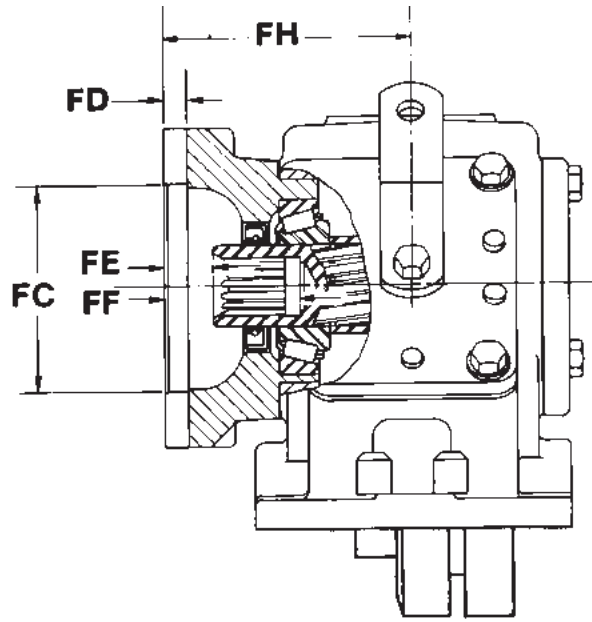
P.T.O. Housing Dimensions



| P.T.O. Series | Part Number | CA | CB | CD | CH | CV |
|--------------------|-------------|--------|--|--|--------|--------|
| 442/447 Standard | 1-P-557X | 0.793" | 3.800" ("F", "H", "L", "R", "S", "U") 3.701" ("Q", "W", "X") 3.568" ("A", "C") | 3.317" ("F", "H", "L", "R", "S", "U") 3.087" ("Q", "W", "X") 3.050" ("A", "C") | 6.428" | 7.000" |
| 442/447 Deep Mount | 1-P-558X | 0.573" | 3.580" ("F", "H", "L", "R", "S", "U") 3.481" ("Q", "W", "X") 3.348" ("A", "C") | 3.317" ("F", "H", "L", "R", "S", "U") 3.087" ("Q", "W", "X") 3.050" ("A", "C") | 6.207" | 7.000" |
| 489 Standard | 1-P-552X | 1.072" | 4.079" ("F", "H", "L", "R", "S", "U") 3.980" ("Q", "W", "X") 3.847" ("A", "C") | 3.317" ("F", "H", "L", "R", "S", "U") 3.087" ("Q", "W", "X") 3.050" ("A", "C") | 6.708" | 8.500" |
| 489 Deep Mount | 1-P-562X | 0.930" | 3.937" ("F", "H", "L", "R", "S", "U") 3.838" ("Q", "W", "X") 3.705" ("A", "C") | 3.317" ("F", "H", "L", "R", "S", "U") 3.087" ("Q", "W", "X") 3.050" ("A", "C") | 6.566" | 8.500" |

Assembly Arrangements



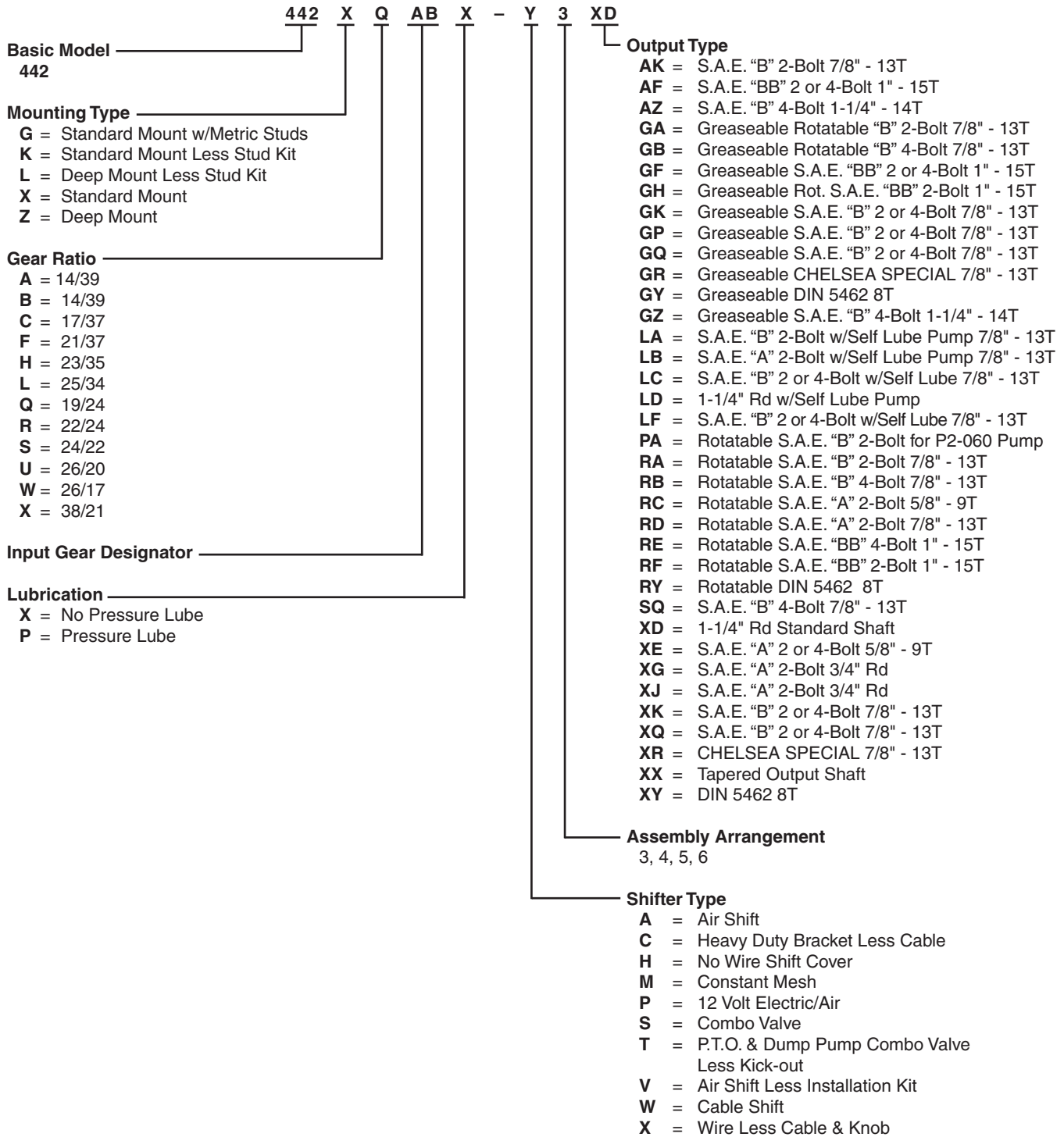


| Pump Flange Suffix | Bolt Circle Dia. | Bolt Holes | | FC | FD | FE | FF | FH | Output Shaft | Keyway Width |
|--------------------|------------------|-------------------|--------------------|-------------------|-------------|----------------------|----------------|--------------------------|----------------------|--------------|
| | | Tapped Hole | No. Equally Spaced | Female Pilot Dia. | Pilot Depth | Face to End of Shaft | Face thru Hole | Face to Center of P.T.O. | Hole Diameter | |
| AA | 2.834 | M10 - 1.5" | 6 | 2.05 | N/A | N/A | N/A | 3.447 | .982/.816 - 6 Spline | — |
| AF, GF | 5.750 | .500" - 13 | 2 | 4.003 | 0.406 | 0.516 | 1.984 | 4.322 | 1" - 15 Spline | — |
| | 5.000 | .500" - 13 | 4 | 4.003 | 0.406 | 0.516 | 1.984 | 4.322 | — | — |
| AK | 5.750 | .500" - 13 | 2 | 4.003 | 0.406 | 0.562 | 2.062 | 3.688 | 7/8" - 13 Spline | — |
| AZ, GZ | 5.000 | .500" - 13 | 4 | 4.003 | 0.406 | 0.695 | 2.392 | 4.985 | 1-1/4" - 14 Spline | — |
| FF | 5.750 | .500" - 13 | 2 | 4.003 | 0.406 | 0.516 | 1.984 | 4.322 | 7/8" Rd | 1/4" |
| | 5.000 | .500" - 13 | 4 | 4.003 | 0.406 | 0.516 | 1.984 | 4.322 | — | — |
| MY, GM | 3.15 x 3.15 | M12-1.75 | 12 | 3.152 | 0.393 | 0.594 | 2.508 | 4.697 | DIN 5462 | — |
| ● PA | 5.750 | 0.536 | 2 | 4.003 | 0.406 | 0.558 | 2.058 | 4.588 | 7/8" - 13 Spline | — |
| ● PF | 5.750 | 0.536 | 2 | 4.003 | 0.406 | 0.501 | 1.969 | 4.569 | 1" - 15 Spline | — |
| ● RA, GA | 5.750 | .500" - 13 | 2 ■ | 4.003 | 0.406 | 0.558 | 2.058 | 4.588 | 7/8" - 13 Spline | — |
| ● RB, GB | 5.000 | .500" - 13 | 4 | 4.003 | 0.406 | 0.558 | 2.058 | 4.588 | 7/8" - 13 Spline | — |
| ● RC | 4.188 | .375" - 16 | 2 ■ | 3.253 | 0.270 | 0.525 | 1.462 | 3.694 | 5/8" - 9 Spline | — |
| ● RD | 4.188 | .375" - 16 | 2 ■ | 3.253 | 0.270 | 0.525 | 1.462 | 3.694 | 7/8" - 13 Spline | — |
| ● RE, GJ | 3.53 x 3.53 | .500" - 13 | 4 | 4.003 | 0.406 | 0.501 | 1.969 | 4.569 | 1.0" - 15 Spline | — |
| ● RF, GH | 5.750 | .500" - 13 | 2 ■ | 4.003 | 0.406 | 0.501 | 1.969 | 4.569 | 1" - 15 Spline | — |
| ● RY | 3.150 | M12 - 1.75" | 4 | 3.152 | 0.394 | 0.360 | 2.274 | 4.790 | DIN 5462 | — |
| XE | 5.000 | .500" - 13 | 4 | 3.253 | 0.344 | 0.562 | 1.500 | 3.688 | 5/8" - 9 Spline | — |
| XG | 4.188 | .375" - 16 | 4 | 3.253 | 0.562 | 0.593 | 2.218 | 4.562 | 3/4" Rd | 3/16" |
| XJ | 4.188 | .375" - 16 | 4 | 3.253 | 0.562 | 1.406 | 2.906 | 4.562 | 3/4" Rd | 3/16" |
| XK, GK | 5.750 | .531" - 134 | 2 | 4.003 | 0.406 | 0.562 | 2.062 | 3.688 | 7/8" - 13 Spline | — |
| | 5.000 | .531" - 134 | 4 | 4.003 | 0.406 | 0.562 | 2.062 | 3.688 | — | — |
| XL | 4.188 | .375" - 16 | 4 | 3.253 | 0.562 | 0.562 | 2.062 | 4.562 | 7/8" - 13 Spline | — |
| XO | 5.000 | .500" - 13 | 4 | 3.253 | 0.344 | 0.562 | 2.062 | 3.688 | 3/4" Rd | 3/16" |
| | 4.188 | .375" - 16 | 2 | 3.253 | 0.344 | 0.562 | 2.062 | 3.688 | — | — |
| XP, GP | 5.000 | .500" - 13 | 4 | 3.253 | 0.344 | 0.562 | 2.062 | 3.688 | 7/8" - 13 Spline | — |
| | 4.188 | .375" - 16 | 2 | 3.253 | 0.344 | 0.562 | 2.062 | 3.688 | — | — |
| XY, GY | 4.454 | M12 - 1.75" | 4 | 3.152 | 0.393 | 0.594 | 2.508 | 4.697 | DIN 5462 | — |
| XQ, GQ, SQ | 5.750 | .500" - 13 | 2 | 4.003 | 0.406 | 0.562 | 2.062 | 3.688 | 7/8" - 13 Spline | — |
| | 5.000 | .500" - 13 | 4 | 4.003 | 0.406 | 0.562 | 2.062 | 3.688 | — | — |
| XR, GR | 3.710 | .312" - 24(Studs) | 4 | 2.752 | 0.281 | N/A | N/A | 2.809 | 7/8" - 13 Spline | — |

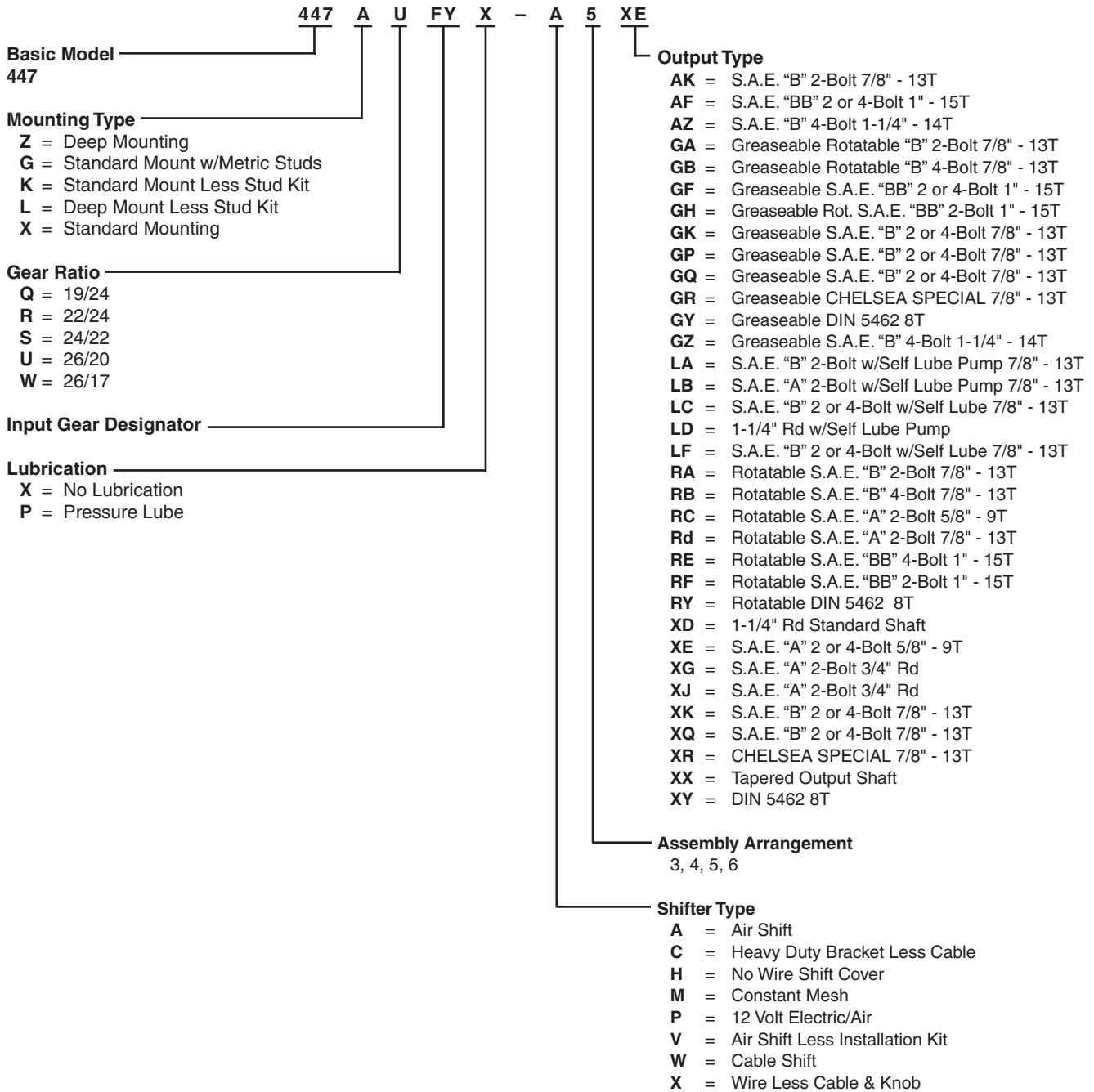
- Rotatable Flange Rotates in 30° Increments
- Two Set of Holes Spaced 14° Apart
- ▶ Not Tapped

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

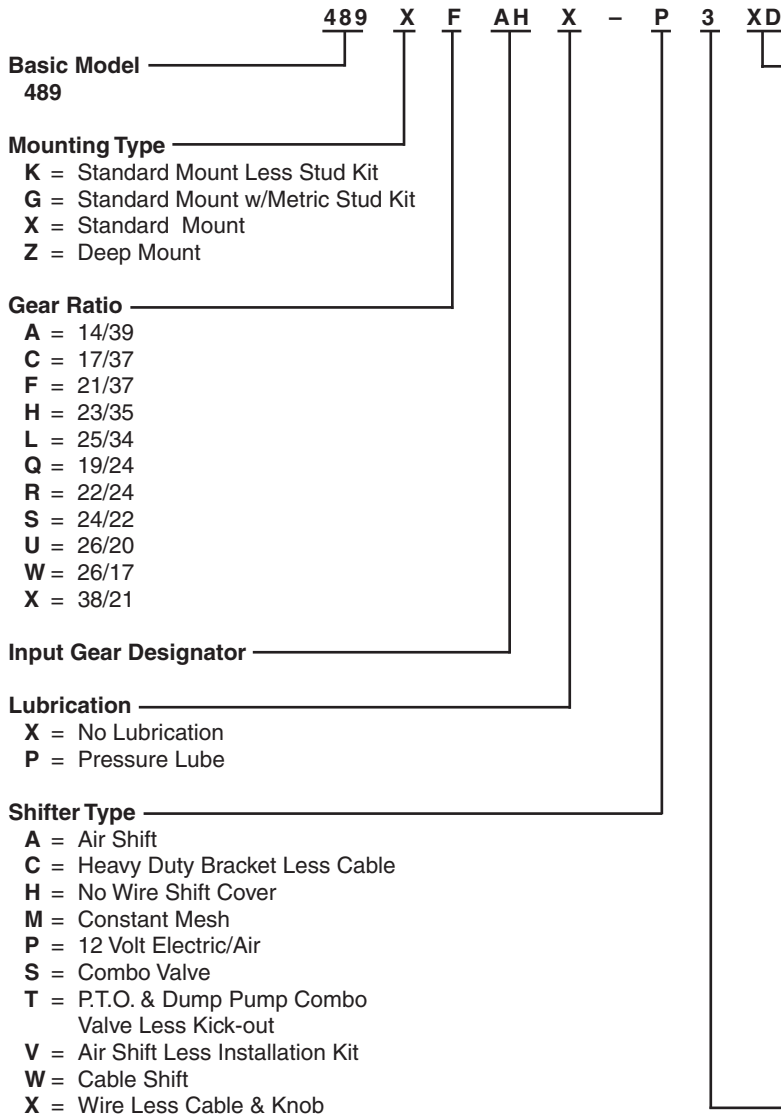
Model Number Designation



Model Number Designation



Model Number Designation



Output Type

- AK = S.A.E. "B" 2-Bolt 7/8" - 13T
- AF = S.A.E. "BB" 2 or 4-Bolt 1" - 15T
- AZ = S.A.E. "B" 4-Bolt 1-1/4" - 14T
- GA = Greaseable Rotatable "B" 2-Bolt 7/8" - 13T
- GB = Greaseable Rotatable "B" 4-Bolt 7/8" - 13T
- GF = Greaseable S.A.E. "BB" 2 or 4-Bolt 1" - 15T
- GH = Greaseable Rot. S.A.E. "BB" 2-Bolt 1" - 15T
- GK = Greaseable S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
- GP = Greaseable S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
- GQ = Greaseable S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
- GR = Greaseable CHELSEA SPECIAL 7/8" - 13T
- GY = Greaseable DIN 5462 8T
- GZ = Greaseable S.A.E. "B" 4-Bolt 1-1/4" - 14T
- LA = S.A.E. "B" 2-Bolt w/Self Lube Pump 7/8" - 13T
- LB = S.A.E. "A" 2-Bolt w/Self Lube Pump 7/8" - 13T
- LC = S.A.E. "B" 2 or 4-Bolt w/Self Lube 7/8" - 13T
- LD = 1-1/4" Rd w/Self Lube Pump
- LF = S.A.E. "B" 2 or 4-Bolt w/Self Lube 7/8" - 13T
- PA = Special S.A.E. "B" 2-Bolt 7/8" - 13 Spline
- PF = Special S.A.E. "B" 2-Bolt 1" - 15 Spline
- RA = Rotatable S.A.E. "B" 2-Bolt 7/8" - 13T
- RB = Rotatable S.A.E. "B" 4-Bolt 7/8" - 13T
- RC = Rotatable S.A.E. "A" 2-Bolt 5/8" - 9T
- RD = Rotatable S.A.E. "A" 2-Bolt 7/8" - 13T
- RE = Rotatable S.A.E. "BB" 4-Bolt 1" - 15T
- RF = Rotatable S.A.E. "BB" 2-Bolt 1" - 15T
- RY = Rotatable DIN 5462 8T
- SQ = S.A.E. "B" 4-Bolt 7/8" - 13T
- XD = 1-1/4" Rd Standard Shaft
- XE = S.A.E. "A" 2 or 4-Bolt 5/8" - 9T
- XG = S.A.E. "A" 2-Bolt 3/4" Rd
- XJ = S.A.E. "A" 2-Bolt 3/4" Rd
- XK = S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
- XQ = S.A.E. "B" 2 or 4-Bolt 7/8" - 13T
- XR = CHELSEA SPECIAL 7/8" - 13T
- XX = Tapered Output Shaft
- XY = DIN 5462 8T

Assembly Arrangement
3, 4, 5, 6

Kits Bill of Materials

Power Take-Offs

442, 447 & 489 Series

| | | | |
|-------------------|--|--------------------|--|
| 329091X | Lube Pump & Bearing Cap Assembly(442/447/489 Series) | 329106-45X | Electric/Air 24V (442/489 Series) |
| 28-P-249 | O-Ring | 328388-48X | 24V Electric Over Air |
| 3-P-881 | Gerotor Shaft | 329361X | Shifter Cover |
| 329093X | Pump Adapter | 378430-9 | Hex Capscrew |
| 21-P-530 | Pump Adapter | 35-P-8 | Shifter Cover |
| 550221 | Bearing Tab | 329106-71X | Air Shift (447 Series) |
| 378429-11 | Hex-Capscrew | 329363X | Shifter Cover |
| 379173 | Plate-Plump | 378430-9 | Hex Capscrew |
| 379175 | Retaining | 35-P-8 | Shifter Cover |
| 379176 | Pump-Gerotor | 328388-98X | Kit Installation |
| 379525 | Pump Cap | 329106-75X | Electric/Air 12V (447 Series) |
| 500037-7 | Dowel Pin | 328388-47X | 12V Electric |
| 500566-3 | Ball | 329363X | Shifter Cover |
| 500897-11 | Cap Plug | 378430-9 | Hex Capscrew |
| 500897-8 | Shipping Plug | 35-P-8 | Shifter Cover |
| 329092X | Pressure Lube Hose Assembly (442/447/489 Series) | 329106-77X | Electric/Air 24V (447 Series) |
| 379280 | Fitting Swivel | 328388-48X | 24V Electric Over Air |
| 385004 | Female JIC | 329363X | Shifter Cover |
| 385003 | Male NPTF | 378430-9 | Hex Capscrew |
| 385006 | Hose Bulk | 35-P-8 | Shifter Cover |
| 329096-1X | Field Conversion Kit (Self Lube Replace 3-P-202) | 329106-105X | Cable Shift ("Q", "W", & "X") (442/489 Series) |
| 28-P-216 | Oil Seal | 328380X | Mounting Parts Kit |
| 3-P-857 | Output Shaft | 329119-1X | Cable Control Cover |
| 329091X | Lube Pump | 35-P-8 | Shifter Cover |
| 329092X | Pressure Lever | 378430-9 | Hex Capscrew |
| 378391 | Lock/Retaining | 378441-10 | 10 Ft. Wire |
| 379534 | Inst Instruction | 378502 | Knob |
| 500841-1 | Elbow 90° | 328751-1X | Install Kitt |
| 28-P-190 | O-Ring .73 | 329106-106X | Cable Shift ("Q", "W", & "X") (442/489 Series) |
| 28-P-191 | O-Ring .54 | 328751-1X | Install Kit |
| 9-P-76 | Idler Shaft | 328380X | Mounting Parts Kit |
| 378422 | Drive Screw | 329119-2X | Cable Control Cover |
| 379646 | Installation | 35-P-8 | Shifter Cover |
| 22-P-127-1 | Bearing Cone | 378430-9 | Hex Capscrew |
| 22-P-127-2 | Bearing Cone | 378441-10 | Wire |
| 22-P-127-3 | Bearing Cone | 378502 | Knob |
| 68-P-2 | Name Plate | 329106-107X | Wire Shift Kit Less (442/489 Series) |
| 329097-1X | Field Conversion Kit (Self Lube Replace 3-P-282) | 328751-1X | Install Kit |
| 378391 | Lock/Retaining | 329119-1X | Cable Control Cover |
| 500841-1 | Elbow 90° | 35-P-8 | Shifter Cover |
| 379534 | Inst Instruction | 378430-9 | Hex Capscrew |
| 379646 | Installation | 329106-108X | Wire Shift Kit Less |
| 378422 | Drive Screw | 328751-1X | Install Kit |
| 329092X | Pressure Lever | 329119-2X | Cable Control Cover |
| 329091X | Lube Pump | 35-P-8 | Shifter Cover |
| 28-P-191 | O-Ring .54 | 378430-9 | Hex Capscrew |
| 28-P-190 | O-Ring .73 | 329106-109X | Shifter Kit ("F", "L", "R" "S" & "U") (442/489 Series) |
| 28-P-216 | Oil Seal | 328751-1X | Install Kit |
| 9-P-76 | Idler Shaft | 328380X | Mounting Parts Kit |
| 3-P-858 | Pump Shaft | 329121-1X | Cable Control Cover |
| 22-P-127-1 | Bearing Cone | 35-P-8 | Shifter Cover |
| 22-P-127-2 | Bearing Cone | 378430-9 | Hex Capscrew |
| 22-P-127-3 | Bearing Cone | 378441-10 | 10 Ft. Wire |
| 68-P-2 | Name Plate | 378502 | Knob |
| 329106-39X | Air Shift (Ass'y 3&6) (442/489 Series) | 329106-43X | Electric/Air 12V (442/489 Series) |
| 329361X | Shifter Cover | 328388-47X | 12V Electric |
| 378430-9 | Hex Capscrew | 329361X | Shifter Cover |
| 35-P-8 | Shifter Cover | 378430-9 | Hex Capscrew |
| 328388-98X | Kit Installation | 35-P-8 | Shifter Cover |
| 329106-43X | Electric/Air 12V (442/489 Series) | | |
| 328388-47X | 12V Electric | | |
| 329361X | Shifter Cover | | |
| 378430-9 | Hex Capscrew | | |
| 35-P-8 | Shifter Cover | | |

Continued on Next Page

| | | |
|--------------------|--|---|
| 329106-110X | Cable Shift ("F", "L", "R" "S" & "U") (442/489 Series) | |
| 328380X | Mounting Parts Kit..... | 1 |
| 329121-2X | Cable Control Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 378441-10 | 10 Ft. Wire..... | 1 |
| 378502 | Knob..... | 1 |
| 328751-1X | Install Kit..... | 1 |
| 329106-111X | Cable Shift, Less Cab (442/489 Series) | |
| 328751-1X | Install Kit..... | 1 |
| 329121-1X | Cable Control Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 329106-112X | Cable Shift, Less Cab (442/489 Series) | |
| 328751-1X | Install Kit..... | 1 |
| 329121-2X | Cable Control Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 329106-113X | Cable Shift ("Q" & "W") (447 Series) | |
| 328751-1X | Install Kit..... | 1 |
| 328380X | Mounting Parts Kit..... | 1 |
| 329151-1X | Cable Control Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 378441-10 | 10 Ft. Wire..... | 1 |
| 378502 | Knob..... | 1 |
| 329106-114X | Cable Shift ("Q" & "W") (447 Series) | |
| 328380X | Mounting Parts Kit..... | 1 |
| 329151-2X | Cable Control Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 378441-10 | 10 Ft. Wire..... | 1 |
| 378502 | Knob..... | 1 |
| 328751-1X | Install Kit..... | 1 |
| 329106-117X | Cable Shift ("S" & "U") (447 Series) | |
| 328380X | Mounting Parts Kit..... | 1 |
| 329152-1X | Cable Control Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 378441-10 | 10 Ft. Wire..... | 1 |
| 378502 | Knob..... | 1 |
| 328751-1X | Install Kit..... | 1 |
| 329106-118X | Cable Shift ("S" & "U") (447 Series) | |
| 328751-1X | Install Kit..... | 1 |
| 328380X | Mounting Parts Kit..... | 1 |
| 329152-2X | Cable Control Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 378441-10 | 10 Ft. Wire..... | 1 |
| 378502 | Knob..... | 1 |
| 329106-135X | Constant Mesh Kit (442/489 Series) | |
| 34-P-39 | Cover Plate..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-6 | Hex Capscrew..... | 4 |
| 4-P-178 | Spacer Drive Shaft..... | 1 |
| 4-P-177 | Spacer Drive Shaft..... | 1 |

| | | |
|------------------------|---|---|
| 329106-143X | Shifter Kit (442/489 Series) | |
| 378430-10 | Hex Capscrew..... | 4 |
| 378441-10 | 10 Ft. Wire..... | 1 |
| 5-A-188 | Use 5-A-18..... | 1 |
| 329271-1X | Cover Ass'y..... | 1 |
| 328380X | Mounting Parts Kit..... | 1 |
| 378502 | Knob..... | 1 |
| 328751-1X | Install Kit..... | 1 |
| 35-P-8 | Shifter Cover..... | 2 |
| 329106-144X | Shifter Kit (442/489 Series) | |
| 35-P-8 | Shifter Cover..... | 2 |
| 328751-1X | Install Kit..... | 1 |
| 329271-2X | Cover Ass'y..... | 1 |
| 378430-10 | Hex Capscrew..... | 4 |
| 5-A-188 | Use 5-A-18..... | 1 |
| 378441-10 | 10 Ft. Wire..... | 1 |
| 378502 | Knob..... | 1 |
| 328380X | Mounting Parts Kit..... | 1 |
| 329106-145X | (442/489 Series) | |
| 378430-10 | Hex Capscrew..... | 1 |
| 5-A-188 | Use 5-A-18..... | 1 |
| 329271-1X | Cover Ass'y..... | 1 |
| 328751-1X | Install Kit..... | 1 |
| 35-P-8 | Shifter Cover..... | 2 |
| 329106-146X | (442/489 Series) | |
| 35-P-8 | Shifter Cover..... | 2 |
| 329271-2X | Cover Ass'y..... | 1 |
| 5-A-188 | Use 5-A-18..... | 1 |
| 378430-10 | Hex Capscrew..... | 4 |
| 328751-1X | Install Kit..... | 1 |
| 329106-151X | Shifter Kit "V" Option (447 Series) | |
| 378414 | Pressure Protection Valve..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 379640 | Booted Con..... | 1 |
| 329363X | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| Owners Manual | HY25-1135-M1/US..... | 1 |
| 329106-153X | Shifter Kit "V" Option (442/489 Series) | |
| 379640 | Booted Connector..... | 1 |
| 378414 | Pressure Protection Valve..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 329361X | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| Owners Manual | HY25-1135-M1/US..... | 1 |
| Ratios "Q" & "W" & "X" | | |
| 329118-1X | Post and Plate Assembly, (Ass'y 3 & 6) | |
| 62-P-45 | Shifter Plate..... | 1 |
| 63-P-20 | Shifter Pin..... | 1 |
| 64-P-1 | Shifter Shoe..... | 1 |
| 378244 | Shifter Post..... | 1 |
| 378246 | Lockring..... | 1 |
| 378313 | Lifter Plate..... | 1 |
| 329118-2X | Post and Plate Assembly, (Ass'y 4 & 5) | |
| 62-P-46 | Shifter Plate..... | 1 |
| 63-P-20 | Shifter Pin..... | 1 |
| 64-P-1 | Shifter Shoe..... | 1 |
| 378244 | Shifter Post..... | 1 |
| 378246 | Lockring..... | 1 |
| 378313 | Lifter Plate..... | 1 |

Continued on Next Page

Kits Bill of Materials

Power Take-Offs

442, 447 & 489 Series

Ratios "Q", "W" & "X"

| | | |
|------------------|---|---|
| 329119-1X | Shifter Cover Ass'y, Wire Control (Ass'y 3 & 6) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329118-1X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379639 | Indicator Switch | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

| | | |
|------------------|---|---|
| 329119-2X | Shifter Cover Ass'y, Wire Control (Ass'y 4 & 5) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329118-2X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379639 | Indicator Switch | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

Ratios "F", "H", "L", "R", "S" & "U"

| | | |
|------------------|--|---|
| 329120-1X | Post and Plate Assembly, (Ass'y 3 & 6) | |
| 62-P-45 | Shifter Plate | 1 |
| 63-P-21 | Shifter Pin | 1 |
| 64-P-1 | Shifter Shoe | 1 |
| 378244 | Shifter Post | 1 |
| 378246 | Lockring | 1 |
| 378313 | Lifter Plate | 1 |

| | | |
|------------------|--|---|
| 329120-2X | Post and Plate Assembly, (Ass'y 4 & 5) | |
| 62-P-46 | Shifter Plate | 1 |
| 63-P-21 | Shifter Pin | 1 |
| 64-P-1 | Shifter Shoe | 1 |
| 378244 | Shifter Post | 1 |
| 378246 | Lockring | 1 |
| 378313 | Lifter Plate | 1 |

Ratios "F", "H", "L", "R", "S" & "U"

| | | |
|------------------|---|---|
| 329121-1X | Shifter Cover Ass'y, Wire Control (Ass'y 3 & 6) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329120-1X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379639 | Indicator Switch | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

| | | |
|------------------|---|---|
| 329121-2X | Shifter Cover Ass'y, Wire Control (Ass'y 4 & 5) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329120-2X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379639 | Indicator Switch | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

| | | |
|----------------|---|---|
| 329143X | Dust Cover Kit For (442/447/489 Series) | |
| 35-P-14 | Gasket | 1 |
| 378430-4 | Capscrew Hex Head | 2 |
| 65-P-23 | Cover Shift | 1 |

Ratios "Q" & "W"

| | | |
|------------------|--|---|
| 329151-1X | Shifter Cover Assembly, Wire Control (Ass'y 3 & 6) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329118-1X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379652 | Indicator Switch Norm. "On" | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

| | | |
|------------------|--|---|
| 329151-2X | Shifter Cover Assembly, Wire Control (Ass'y 4 & 5) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329118-2X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379652 | Indicator Switch Norm. "On" | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

Ratios "R", "S" & "U"

| | | |
|------------------|--|---|
| 329152-1X | Shifter Cover Assembly, Wire Control (Ass'y 3 & 6) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329120-1X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379652 | Indicator Switch Norm. "On" | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

| | | |
|------------------|--|---|
| 329152-2X | Shifter Cover Assembly, Wire Control (Ass'y 4 & 5) | |
| 28-P-191 | O-Ring | 1 |
| 34-P-74 | Shifter Cover | 1 |
| 37-P-19 | Spring | 1 |
| 51-P-22 | Shifter Lever | 1 |
| 63-P-16 | Poppet Pin | 1 |
| 329120-2X | Shifter Plate Ass'y | 1 |
| 378004 | Flat Washer | 1 |
| 379652 | Indicator Switch Norm. "On" | 1 |
| 500356-10 | Lock Washer | 1 |
| 500365-22 | Flat Washer | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625" | 1 |

Continued on Next Page

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|--|---|---|
| 329166-12X | Electric Shift Installation Kit (442/447/489 Series) | |
| 329158-12X | Electric Shift..... | 1 |
| 329163-10X | Electric Shift..... | 1 |
| 379247 | Fuse Holder..... | 1 |
| 379252 | Butt Connector..... | 2 |
| 379253 | Ring Connector..... | 1 |
| 379257 | Splice Connector..... | 1 |
| 379265 | Grommet..... | 1 |
| 379689 | Self Taping Screw..... | 4 |
| 500357-7 | Lockwasher..... | 4 |
| 500376-6 | Nut 10-24..... | 4 |
| 500457-6 | Slotted Screw..... | 4 |
| 379640 | Booted Connector..... | 1 |
| 379061X | Tie Wire..... | 1 |
| Owners Manual | HY25-1667-M1/US..... | 1 |
| 329202X | Indicator Switch Connector Service Kit (442/447/489 Series) | |
| 379252 | Butt Connector..... | 1 |
| 379639 | Switch Indicator..... | 1 |
| 379640 | Booted Connector..... | 1 |
| 329260X | Conversion Kit, 440 to 442 Series | |
| 1-P-557X | Housing, Standard Mount..... | 1 |
| 1-P-557 | P.T.O. Housing..... | 1 |
| 500597-16 | Roll Pin, Standard Mount (1.125" Long)..... | 1 |
| 328594-13X | Bearing Spacer Kit..... | 1 |
| 329261X | Conversion Kit, 440 Deep Mount to 442 Deep Mount | |
| 1-P-558X | Deep Mount w/Roll Pin..... | 1 |
| 1-P-558 | Housing Deep Mount..... | 1 |
| 500597-14 | Roll Pin, Deep Mount (1" Long)..... | 1 |
| 328594-13X | Bearing Spacer Kit..... | 1 |
| 329262X | Conversion Kit, 488 to 489 Series | |
| 1-P-552X | Housing Stanard w/Roll Pin..... | 1 |
| 1-P-552 | Housing..... | 1 |
| 500597-16 | Pin Roll..... | 1 |
| 328594-13X | Bearing Spacer Kit (Non Pressure Lube)..... | 1 |
| 329263X | Conversion Kit, 488 Deep Mount to 489 Deep Mount | |
| 1-P-562X | Deep Mount..... | 1 |
| 1-P-562 | Housing..... | 1 |
| 500597-16 | Pin Roller..... | 1 |
| 328594-13X | Bearing Spacer Kit..... | 1 |
| 31-P-102 | Thrust Washer..... | 1 |
| 379672 | Plug O-Ring..... | 1 |
| 9-P-88 | Idler Shaft..... | 1 |
| 550439 | Bearing Cone..... | 1 |
| 28-P-191 | O-Ring..... | 1 |
| 14-P-73-1 | Spacer Idler Gear (.149"-.151")..... | 1 |
| 14-P-73-2 | Spacer Idler Gear (.152"-.154")..... | 1 |
| 14-P-73-3 | Spacer Idler Gear (.155"-.157")..... | 1 |
| Ratios "A", "B" & "C" (442/489 Series) | | |
| 329265-1X | Post and Plate Assembly, (Ass'y 3 & 6)..... | 1 |
| 62-P-45 | Shifter Plate..... | 1 |
| 63-P-23 | Shifter Pin..... | 1 |
| 64-P-1 | Shifter Shoe..... | 1 |
| 378244 | Shifter Post..... | 1 |
| 378246 | Lockring..... | 1 |
| 378313 | Lifter Plate..... | 1 |
| 329265-2X | Post and Plate Assembly, (Ass'y 4 & 5) | |
| 62-P-46 | Shifter Plate..... | 1 |
| 63-P-23 | Shifter Pin..... | 1 |
| 64-P-1 | Shifter Shoe..... | 1 |
| 378244 | Shifter Post..... | 1 |
| 378246 | Lockring..... | 1 |
| 378313 | Lifter Plate..... | 1 |

| | | |
|--|--|---|
| Ratios "A", "B" & "C" (442/489 Series) | | |
| 329271-1X | Shifter Cover Assembly, Wire Control (Ass'y 3 & 6) | |
| 28-P-191 | O-Ring..... | 1 |
| 34-P-74 | Shifter Cover..... | 1 |
| 37-P-19 | Spring..... | 1 |
| 51-P-22 | Shifter Lever..... | 1 |
| 63-P-16 | Poppet Pin..... | 1 |
| 329265-1X | Shifter Plate Ass'y..... | 1 |
| 378004 | Flat Washer..... | 1 |
| 379639 | Indicator Switch Norm. "On"..... | 1 |
| 500356-10 | Lock Washer..... | 1 |
| 500365-22 | Flat Washer..... | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625"..... | 1 |
| 329271-2X | Shifter Cover Assembly, Wire Control (Ass'y 4 & 5) | |
| 28-P-191 | O-Ring..... | 1 |
| 34-P-74 | Shifter Cover..... | 1 |
| 37-P-19 | Spring..... | 1 |
| 51-P-22 | Shifter Lever..... | 1 |
| 63-P-16 | Poppet Pin..... | 1 |
| 329265-2X | Shifter Plate Ass'y..... | 1 |
| 378004 | Flat Washer..... | 1 |
| 379639 | Indicator Switch Norm. "On"..... | 1 |
| 500356-10 | Lock Washer..... | 1 |
| 500365-22 | Flat Washer..... | 1 |
| 500409-6 | Hex. HD. Capscrew .312"-24 X .625"..... | 1 |
| 329304X | Bearing Cap & Seal (442/489 Series) | |
| 21-P-641 | Bearing Cap..... | 1 |
| 28-P-224 | Oil Seal..... | 1 |
| 329361X | Shifter Cover Assembly, Air Shift (442/489 Series) | |
| 34-P-130 | Shifter Cover..... | 1 |
| 379639 | Indicator Switch (Normally OFF)..... | 1 |
| 21-P-572 | Flange Pump..... | 1 |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-980 | Output Shaft..... | 1 |
| 329195X | Bearing Cap Ass'y..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-6 | Socket Head..... | 7 |
| 379638 | P.T.O. Tag..... | 1 |
| 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 |
| 329436-1X | Pump Conv Kit "RA" "B" Ratio Only | |
| 21-P-628 | Pump Flange..... | 1 |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-980 | Output Shaft..... | 1 |
| 329195X | Bearing Cap Ass'y..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-6 | Socket Head..... | 7 |
| 379638 | P.T.O. Tag..... | 1 |
| 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 |
| 329436-3X | Pump Conv Kit "XK" "B" Ratio Only | |
| 3-P-979 | Output Shaft..... | 1 |
| 328333X | Flange Assembly..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 |
| 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 |

Continued on Next Page

Kits Bill of Materials

Power Take-Offs

442, 447 & 489 Series

| | | | | | |
|--------------------|--|---|-------------------|--|---|
| 329436-6X | Pump Conv Kit "XQ" "B" Ratio Only | | 328356-13X | Gasket & Seal Kit | |
| 28-P-216 | Oil Seal..... | 1 | 22-P-24-1 | Gasket, Bearing Cap..... | 4 |
| 3-P-979 | Output Shaft..... | 1 | 22-P-24-2 | Gasket, Bearing Cap..... | 4 |
| 328589X | Bearing Cap..... | 1 | 22-P-24-3 | Gasket, Bearing Cap..... | 2 |
| 378391 | Lock/Retaining..... | 2 | 28-P-190 | O-Ring..... | 1 |
| 378447-8 | Socket Head..... | 4 | 28-P-191 | O-Ring..... | 2 |
| 379688 | Lubricant-Spline..... | 1 | 28-P-216 | Oil Seal..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 | 35-P-8 | Gasket, Shifter Cover..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 | 35-P-9-1 | Gasket, Housing (.010")..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 35-P-9-2 | Gasket, Housing (.020")..... | 2 |
| | | | 378391 | Lockring..... | 2 |
| | | | 378774 | Lockwasher..... | 6 |
| 329436-7X | Pump Conv Kit "AK" "B" Ratio Only | | 328356-15X | Shifter Cover Seal Kit (Wire Control) | |
| 28-P-216 | Oil Seal..... | 1 | 22-P-69 | Gasket..... | 1 |
| 328989X | Flange Assembly..... | 1 | 28-P-191 | O-Ring..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 28-P-226 | Oil Seal..... | 1 |
| 378447-8 | Socket Head..... | 4 | 35-P-8 | Gasket, Shifter Cover..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 35-P-9-1 | Gasket, Housing..... | 2 |
| 3-P-979 | Output Shaft..... | 1 | 35-P-9-2 | Gasket, Housing..... | 2 |
| 22-P-127-1 | Bearing Cone..... | 2 | | | |
| 22-P-127-2 | Bearing Cone..... | 2 | 328356-50X | Gasket & Seal Kit | |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-24-1 | Gasket, Bearing Cap..... | 4 |
| | | | 22-P-24-2 | Gasket, Bearing Cap..... | 4 |
| 329436-8X | Pump Conv Kit "RD" B Ratio Only | | 22-P-24-3 | Gasket, Bearing Cap..... | 4 |
| 21-P-638 | Pump Flange..... | 1 | 28-P-190 | O-Ring..... | 1 |
| 329322X | Bearing Cap..... | 1 | 28-P-191 | O-Ring..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 28-P-216 | Oil Seal..... | 1 |
| 378447-6 | Socket Head..... | 4 | 35-P-8 | Gasket, Shifter Cover..... | 1 |
| 379638 | P.T.O. Tag..... | 1 | 35-P-15-1 | Gasket, Housing..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 35-P-15-2 | Gasket, Housing..... | 1 |
| 378446-4 | Screw, Socket..... | 6 | 378391 | Lockring..... | 2 |
| 28-P-216 | Oil Seal..... | 1 | | | |
| 3-P-979 | Output Shaft..... | 1 | 328356-67X | Gasket & Seal Kit | |
| 22-P-127-1 | Bearing Cone..... | 2 | 22-P-24-1 | Gasket, Bearing Cap..... | 4 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-24-2 | Gasket, Bearing Cap..... | 4 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-24-3 | Gasket, Bearing Cap..... | 4 |
| | | | 28-P-191 | O-Ring..... | 2 |
| 329436-9X | Pump Conv Kit "SQ" B Ratio Only | | 28-P-216 | Oil Seal..... | 1 |
| 28-P-216 | Oil Seal..... | 1 | 35-P-8 | Gasket, Shifter Cover..... | 1 |
| 3-P-979 | Output Shaft..... | 1 | 35-P-9-1 | Gasket, Housing..... | 2 |
| 329449X | Bearing Cap..... | 1 | 35-P-9-2 | Gasket, Housing..... | 2 |
| 378391 | Lock/Retaining..... | 2 | | | |
| 378447-8 | Socket Head..... | 4 | 328356-69X | Shifter Cover Seal Kit (Wire Control "A", "B" & "C" Ratio) | |
| 379688 | Lubricant-Spline..... | 1 | 22-P-69 | Gasket..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 | 28-P-191 | O-Ring..... | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 28-P-226 | Oil Seal..... | 1 |
| 22-P-127-3 | Bearing Cone..... | 1 | 5-A-188 | Spacer..... | 1 |
| | | | 35-P-9-1 | Gasket, Housing..... | 2 |
| 328170-76X | Stud Kit, Standard (442/447 Series) | | 35-P-9-2 | Gasket, Housing..... | 2 |
| 379423-15 | Stud .375"..... | 6 | | | |
| 379744 | Flange Nut..... | 6 | 328356-71X | Shifter Cover Seal Kit (Air Shift) | |
| | | | 28-P-41 | O-Ring..... | 1 |
| 328170-77X | Stud Kit, Deep Mount (442/447 Series) | | 28-P-42 | O-Ring..... | 2 |
| 379744 | Flange Nut..... | 3 | 378316 | Retainer..... | 2 |
| 378431-11 | Hex Capscrew..... | 3 | 35-P-8 | Gasket, Shifter Cover..... | 2 |
| 379423-12 | Stud .375"..... | 3 | 35-P-9-1 | Gasket, Housing..... | 1 |
| 378774 | Tablock Washer..... | 3 | 35-P-9-2 | Gasket, Housing..... | 1 |
| | | | | | |
| 328170-200X | Stud Kit, Standard & Deep Mount (489 Series) | | 328380X | Mounting Parts Kit (442/447/489 Series) | |
| 379224 | Tab Lockwasher..... | 6 | 378326 | Nut, Hex..... | 1 |
| 378432-12 | Capscrew..... | 6 | 50-P-17 | Bracket, Wire Control..... | 1 |
| 379424-18 | Stud..... | 2 | 50-P-19 | Swivel Bracket..... | 1 |
| 379745 | Flange Nut..... | 2 | 500396-8 | Screw, Hex..... | 1 |
| | | | 500568-4 | Set Screw..... | 1 |
| 328170-201X | Stud Kit, Metric (489 Series) | | 378019 | Pivot Pin..... | 1 |
| 379745 | Flange Nut..... | 8 | | | |
| 379429-19 | Stud Metric..... | 8 | | | |
| | | | | | |
| 328346-10X | Cable Control (442/447/489 Series) | | | | |
| 378441-10 | 10 Ft. Wire..... | 1 | | | |
| 378502 | Knob..... | 1 | | | |

Continued on Next Page

| | | |
|-------------------|--|---|
| 328388-37X | Air Shift Installation Kit ("A" Shifter) | |
| 328388-44X | Air Shift..... | 1 |
| 329090-1X | Valve Kit..... | 1 |
| 379044-7 | Nylon Tubing..... | 1 |
| 379130 | Support Bracket..... | 2 |
| 68-P-27 | Control Plate..... | 1 |
| 379640 | Booted Connector..... | 1 |
| 328388-44X | Air Shift Kit | |
| 378416 | Hex Nipple..... | 1 |
| 378978 | Indicator..... | 1 |
| 379042 | Male Connector..... | 2 |
| 379043 | Male Elbow..... | 1 |
| 379252 | Butt Connector..... | 2 |
| 500357-7 | Lockwasher..... | 8 |
| 500376-6 | Nut 10-24..... | 4 |
| 500448-9 | Screw Slot..... | 4 |
| 379900 | Ass'y Fuse..... | 1 |
| 379904 | Push Connect..... | 1 |
| 328388-46X | Inst Kit Parts Bag | |
| 379900 | Ass'y Fuse..... | 1 |
| 378416 | Hex Nipple..... | 1 |
| 379042 | Male Connector..... | 2 |
| 379043 | Male Elbow..... | 1 |
| 379253 | Ring Connector..... | 1 |
| 379257 | Splice Connect..... | 1 |
| 379306 | Fork Connector..... | 4 |
| 500357-7 | Lockwasher..... | 2 |
| 500457-6 | Slotted Screw..... | 2 |
| 379904 | Push Connect..... | 1 |
| 328388-47X | 12V Electric Over Air (442/447/489 Series) | |
| 328388-46X | Inst Kit P Shift Option..... | 1 |
| 378414 | Pressure Protection Valve..... | 1 |
| 378881 | Rocker Swivel..... | 1 |
| 378978 | Indicator..... | 1 |
| 379044-7 | Nylon Tubing..... | 1 |
| 379252 | Butt Connector..... | 2 |
| 379258 | Bracket..... | 1 |
| 379303-1 | Valve 12V..... | 1 |
| 379336 | Switch Bracket..... | 1 |
| 379254-3 | Wire, Green..... | 1 |
| 379106 | Breather Cap..... | 1 |
| 379640 | Booted Connector..... | 1 |
| 328388-48X | 24V Electric Over Air (442/447/489 Series) | |
| 379640 | Booted Connector..... | 1 |
| 328388-46X | Inst Kit P Shift Option..... | 1 |
| 378414 | Pressure Protection Valve..... | 1 |
| 378881 | Rocker Swivel..... | 1 |
| 379005 | Indicator..... | 1 |
| 379044-7 | Nylon Tubing..... | 1 |
| 379252 | Butt Connector..... | 1 |
| 379258 | Bracket..... | 1 |
| 379303-2 | Valve 24V..... | 1 |
| 379336 | Switch Bracket..... | 1 |
| 379106 | Breather-Cap..... | 1 |
| 379254-3 | Wire, Green..... | 1 |
| 328388-65X | Air-O-Matic Shift (442/447/489 Series) | |
| 329214X | ApSCO Valve..... | 1 |
| 378414 | Pressure Protection Valve..... | 1 |
| 328388-64X | Airshift Kit..... | 1 |
| 328388-72X | Air Shift (442/489 Series) | |
| 378414 | Pressure Protection Valve..... | 1 |
| 329316X | Valve Assembly..... | 1 |
| 328388-64X | Airshift Kit..... | 1 |

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| 328388-97X | Airshift | |
| 328931X | Kit Valve..... | 1 |
| 500357-7 | Lockwasher..... | 4 |
| 500376-6 | Nut 10-24..... | 4 |
| 500448-9 | Screw Slot..... | 4 |
| 378416 | Hex Nipple..... | 1 |
| 379042 | Male Connector..... | 1 |
| 379252 | Butt Connector..... | 2 |
| 379900 | Ass'y Fuse..... | 1 |
| 379904 | Push Connect..... | 1 |
| 75-P-13 | Light Indicator..... | 1 |
| 328388-98X | Kit Installation Air Shift | |
| 328388-97X | Air Shift..... | 1 |
| 329090-6X | Kit Valve..... | 1 |
| 379044-7 | Nylon Tubing..... | 1 |
| 379130 | Support Bracket..... | 2 |
| 379640 | Booted Connector..... | 1 |
| 328390-117X | Cable to Air (442/489 Series) | |
| 35-P-8 | Shifter Cover..... | 1 |
| 329361X | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 328388-98X | Kit Installation..... | 1 |
| Owners Manual | HY25-1135-M1/US..... | 1 |
| 328390-119X | Cable to Electric/Air (442/489 Series) | |
| 328388-47X | 12V Electric..... | 1 |
| 329361X | Shifter Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-11 | Hex Capscrew..... | 4 |
| Owners Manual | HY25-1135-M1/US..... | 1 |
| 328390-120X | Cable to Electric/Air (442/489 Series) | |
| 328388-48X | 24V Electric Over Air..... | 1 |
| 329361X | Shifter Cover..... | 1 |
| 35-P-8 | Shifter Cover..... | 1 |
| 378430-11 | Hex Capscrew..... | 4 |
| Owners Manual | HY25-1135-M1/US..... | 1 |
| 328390-125X | Cable to Air (447 Series) | |
| 329363X | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 35-P-8 | Shifter Cover..... | 1 |
| 328388-98X | Kit Installation..... | 1 |
| Owners Manual | HY25-1135-M1/US..... | 1 |
| 328390-127X | Wire to 12V Kit (447 Series) | |
| 328388-47X | 12V Electric..... | 1 |
| 329363X | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 35-P-8 | Shifter Cover..... | 1 |
| Owners Manual | HY25-1135-M1/US..... | 1 |
| 328390-129X | W/C to 24V Conv Kit (447 Series) | |
| 328388-48X | 24V Electric Over Air..... | 1 |
| 329363X | Shifter Cover..... | 1 |
| 378430-9 | Hex Capscrew..... | 4 |
| 35-P-8 | Shifter Cover..... | 1 |
| Owners Manual | HY25-1135-M1/US..... | 1 |

Continued on Next Page

Kits Bill of Materials

| | | | | | |
|-------------------|-----------------------|---|-------------------|-----------------------|---|
| 328591-10X | "XG" Pump Conversion | | 328591-26X | "XO" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 | 28-P-216 | Oil Seal..... | 1 |
| 3-P-281 | Pump Shaft..... | 1 | 3-P-284 | Pump Shaft..... | 1 |
| 328580X | Flange Assembly..... | 1 | 328328X | Flange Assembly..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 | 378447-8 | Socket Head..... | 4 |
| 22-P-127-1 | Bearing Cone..... | 2 | 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-11X | "XJ" Pump Conversion | | 328591-27X | "XE" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 | 28-P-216 | Oil Seal..... | 1 |
| 3-P-284 | Pump Shaft..... | 1 | 3-P-800 | Pump Shaft..... | 1 |
| 328580X | Flange Assembly..... | 1 | 328328X | Flange Assembly..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 | 378447-8 | Socket Head..... | 4 |
| 22-P-127-1 | Bearing Cone..... | 2 | 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-127-2 | Bearing Cone..... | 2 |
| | | | 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-16X | "XK" Pump Conversion | | 328591-28X | "AK" Pump Conversion | |
| 3-P-282 | Pump Shaft..... | 1 | 28-P-216 | Oil Seal..... | 1 |
| 328333X | Flange Assembly..... | 1 | 3-P-282 | Pump Shaft..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 328989X | Flange Assembly..... | 1 |
| 378447-8 | Socket Head..... | 4 | 378391 | Lock/Retaining..... | 2 |
| 379688 | Lubricant-Spline..... | 1 | 378447-8 | Socket Head..... | 4 |
| 22-P-127-1 | Bearing Cone..... | 2 | 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-127-2 | Bearing Cone..... | 2 |
| | | | 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-17X | "XQ" Pump Conversion | | 328591-29X | "FF" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 | 28-P-219 | Oil Seal..... | 1 |
| 3-P-282 | Pump Shaft..... | 1 | 3-P-851 | Pump Shaft..... | 1 |
| 328589X | Bearing Cap..... | 1 | 329088X | Flange Assembly..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 | 378447-10 | Capscrew..... | 4 |
| 379688 | Lubricant-Spline..... | 1 | 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 | 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-127-3 | Bearing Cone..... | 1 |
| | | | | | |
| 328591-18X | "XL" Pump Conversion | | 328591-30X | "AF" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 | 28-P-219 | Oil Seal..... | 1 |
| 3-P-283 | Pump Shaft..... | 1 | 3-P-854 | Pump Shaft..... | 1 |
| 328580X | Flange Assembly..... | 1 | 329088X | Flange Assembly..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 | 378447-10 | Capscrew..... | 4 |
| 379688 | Lubricant-Spline..... | 1 | 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 | 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-127-3 | Bearing Cone..... | 1 |
| | | | | | |
| 328591-23X | "XP" Pump Conversion | | 328591-44X | "LA" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 | 28-P-216 | Oil Seal..... | 1 |
| 3-P-282 | Pump Shaft..... | 1 | 3-P-858 | Pump Shaft..... | 1 |
| 328328X | Flange Assembly..... | 1 | 328989X | Flange Assembly..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 329091X | Lube Pump..... | 1 |
| 378447-8 | Socket Head..... | 4 | 329092X | Pressure Lube..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 378391 | Lock/Retaining..... | 2 |
| 22-P-127-1 | Bearing Cone..... | 2 | 378447-8 | Socket Head..... | 4 |
| 22-P-127-2 | Bearing Cone..... | 2 | 379533 | Installation..... | 1 |
| 22-P-127-3 | Bearing Cone..... | 1 | 379534 | Inst Instruction..... | 1 |
| | | | 500841-1 | Elbow 90°..... | 1 |
| | | | 500897-5 | Plug Shipping..... | 1 |
| | | | 9-P-76 | Idler Shaft..... | 1 |
| | | | 22-P-127-1 | Bearing Cone..... | 2 |
| | | | 22-P-127-2 | Bearing Cone..... | 2 |
| | | | 22-P-127-3 | Bearing Cone..... | 2 |

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| 328591-45X | "LB" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-858 | Pump Shaft..... | 1 |
| 328328X | Flange Assembly..... | 1 |
| 329091X | Lube Pump..... | 1 |
| 329092X | Pressure Lube..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 |
| 379533 | Installation..... | 1 |
| 379534 | Inst Instruction..... | 1 |
| 500841-1 | Elbow 90°..... | 1 |
| 500897-5 | Plug Shipp..... | 1 |
| 9-P-76 | Idler Shaft..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 2 |
| 328591-46X | "LC" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-858 | Pump Shaft..... | 1 |
| 328589X | Bearing Cap..... | 1 |
| 329091X | Lube Pump..... | 1 |
| 329092X | Pressure Lube..... | 1 |
| 378391 | Lock/Retaining..... | 1 |
| 378447-8 | Socket Head..... | 4 |
| 379533 | Installation..... | 1 |
| 379534 | Inst Instr..... | 1 |
| 500841-1 | Elbow 90°..... | 1 |
| 500897-5 | Plug Shipp..... | 1 |
| 9-P-76 | Idler Shaft..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 2 |
| 328591-47X | "LE" Pump Conversion | |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-858 | Pump Shaft..... | 1 |
| 328584X | Flange Assembly..... | 1 |
| 329091X | Lube Pump..... | 1 |
| 329092X | Pressure Lube..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 |
| 379533 | Installation..... | 1 |
| 379534 | Inst Instruction..... | 1 |
| 500841-1 | Elbow 90°..... | 1 |
| 500897-5 | Plug-Shipping..... | 1 |
| 9-P-76 | Idler Shaft..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 2 |
| 328591-48X | "LF" Pump Conversion | |
| 3-P-858 | Pump Shaft..... | 1 |
| 328333X | Flange Assembly..... | 1 |
| 329091X | Lube Pump..... | 1 |
| 329092X | Pressure Lube..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-8 | Socket Head..... | 4 |
| 379533 | Installation..... | 1 |
| 379534 | Inst Instruction..... | 1 |
| 500841-1 | Elbow 90°..... | 1 |
| 500897-5 | Plug Shipp..... | 1 |
| 9-P-76 | Idler Shaft..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 2 |

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| 328591-52X | Pump Conv. Kit "XD" | |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-283 | Pump Shaft..... | 1 |
| 328711X | Pump Mount..... | 1 |
| 329194X | Bearing Cap Ass'y..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 379063 | Flat Washer..... | 4 |
| 379673 | Stud..... | 4 |
| 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-53X | Pump Conv. Kit "R" | |
| 378447-6 | Socket Head..... | 7 |
| 379638 | P.T.O. Tag..... | 1 |
| 21-P-628 | Pump Flange..... | 1 |
| 328591-54X | Pump Conv. Kit "R" | |
| 21-P-572 | Flange Pump..... | 1 |
| 378447-6 | Socket Head..... | 7 |
| 379638 | P.T.O. Tag..... | 1 |
| 328591-55X | Pump Conv. Kit "XD" | |
| 21-P-628 | Pump Flange..... | 1 |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-283 | Pump Shaft..... | 1 |
| 329195X | Bearing Cap Ass'y..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-6 | Socket Head..... | 7 |
| 379638 | P.T.O. Tag..... | 1 |
| 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-56X | Pump Conv. Kit "XD" | |
| 21-P-572 | Flange Pump..... | 1 |
| 28-P-216 | Oil Seal..... | 1 |
| 3-P-283 | Pump Shaft..... | 1 |
| 329195X | Bearing Cap Ass'y..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 378447-6 | Socket Head..... | 7 |
| 379638 | P.T.O. Tag..... | 1 |
| 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-70X | "AZ" Pump Conversion | |
| 379688 | Lubricant-Spline..... | 1 |
| 378447-11 | Cap Screw..... | 4 |
| 3-P-844 | Output Shaft..... | 1 |
| 378391 | Lock/Retaining..... | 2 |
| 329052X | Bearing Cap..... | 1 |
| 28-P-275 | Oil Seal..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 |

Kits Bill of Materials**Power Take-Offs****442, 447 & 489 Series**

| | | | | | |
|-------------------|------------------------|---|-------------------|------------------------|---|
| 328591-71X | Pump Conversion Kit | | 328591-75X | Pump Conversion Kit | |
| 28-P-219 | Oil Seal..... | 1 | 21-P-572 | Flange Pump..... | 1 |
| 329088X | Flange Assembly..... | 1 | 378447-6 | Socket Head..... | 7 |
| 378391 | Lock/Retaining..... | 2 | 379638 | P.T.O. Tag..... | 1 |
| 378447-10 | Capscrew..... | 4 | 3-P-923X | Drive Shaft Ass'y..... | 1 |
| 28-P-268 | Oil Seal..... | 1 | 3-P-923 | Drive Shaft..... | 1 |
| 328273X | Bearing Cap..... | 1 | 379688 | Lubricant-Spline..... | 1 |
| 3-P-921X | Drive Shaft Ass'y..... | 1 | 500168-2 | Fitting..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 379819 | Grease Fit..... | 1 |
| 3-P-921 | Drive Shaft..... | 1 | 328273X | Bearing Cap..... | 1 |
| 500168-2 | Fitting..... | 1 | 28-P-268 | Oil Seal..... | 1 |
| 379819 | Grease Fit..... | 1 | 378391 | Lock/Retaining..... | 2 |
| 22-P-127-1 | Bearing Cone..... | 2 | 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-72X | Pump Conversion Kit | | 328591-76X | Pump Conversion Kit | |
| 378447-6 | Socket Head..... | 7 | 3-P-923X | Drive Shaft Ass'y..... | 1 |
| 329195X | Bearing Cap Ass'y..... | 1 | 3-P-923 | Drive Shaft..... | 1 |
| 379638 | P.T.O. Tag..... | 1 | 379688 | Lubricant-Spline..... | 1 |
| 328273X | Bearing Cap..... | 1 | 500168-2 | Fitting..... | 1 |
| 28-P-268 | Oil Seal..... | 1 | 379819 | Grease Fit..... | 1 |
| 3-P-923X | Drive Shaft Ass'y..... | 1 | 328273X | Bearing Cap..... | 1 |
| 3-P-923 | Drive Shaft..... | 1 | 28-P-268 | Oil Seal..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 28-P-216 | Oil Seal..... | 1 |
| 500168-2 | Fitting..... | 1 | 328711X | Pump Mount..... | 1 |
| 379819 | Grease Fit..... | 1 | 329194X | Bearing Cap Ass'y..... | 1 |
| 28-P-216 | Oil Seal..... | 1 | 378391 | Lock/Retaining..... | 2 |
| 378391 | Lock/Retaining..... | 2 | 379063 | Flat Washer..... | 4 |
| 21-P-628 | Pump Flange..... | 1 | 379673 | Stud..... | 4 |
| 22-P-127-1 | Bearing Cone..... | 2 | 22-P-127-1 | Bearing Cone..... | 2 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-73X | Pump Conversion Kit | | 328591-78X | Pump Conversion Kit | |
| 378391 | Lock/Retaining..... | 2 | 21-P-626 | Pump Flange..... | 1 |
| 379638 | P.T.O. Tag..... | 1 | 28-P-219 | Oil Seal..... | 1 |
| 3-P-923X | Drive Shaft Ass'y..... | 1 | 3-P-924 | Output Shaft..... | 1 |
| 3-P-923 | Drive Shaft..... | 1 | 329264X | Bearing Cap Ass'y..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 378391 | Lock/Retaining..... | 2 |
| 500168-2 | Fitting..... | 1 | 378447-6 | Socket Head..... | 7 |
| 379819 | Grease Fit..... | 1 | 379688 | Lubricant-Spline..... | 1 |
| 328273X | Bearing Cap..... | 1 | 379638 | P.T.O. Tag..... | 1 |
| 28-P-268 | Oil Seal..... | 1 | 28-P-271 | O-Ring..... | 1 |
| 21-P-628 | Pump Flange..... | 1 | 22-P-127-1 | Bearing Cone..... | 2 |
| 378447-6 | Socket Head..... | 7 | 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-1 | Bearing Cone..... | 2 | 22-P-127-3 | Bearing Cone..... | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 328591-86X | Conversion Kit To "GK" | |
| 22-P-127-3 | Bearing Cone..... | 1 | 378447-8 | Socket Head..... | 4 |
| 328591-74X | Pump Conversion Kit | | 28-P-216 | Oil Seal..... | 1 |
| 3-P-923X | Drive Shaft Ass'y..... | 1 | 378391 | Lock/Retaining..... | 2 |
| 3-P-923 | Drive Shaft..... | 1 | 328273X | Bearing Cap..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 28-P-268 | Oil Seal..... | 1 |
| 500168-2 | Fitting..... | 1 | 3-P-933X | Output Shaft..... | 1 |
| 379819 | Grease Fit..... | 1 | 379819 | Grease Fit..... | 1 |
| 328273X | Bearing Cap..... | 1 | 500168-2 | Fitting..... | 1 |
| 28-P-268 | Oil Seal..... | 1 | 3-P-933 | Output Shaft..... | 1 |
| 28-P-216 | Oil Seal..... | 1 | 379688 | Lubricant-Spline..... | 1 |
| 329195X | Bearing Cap Ass'y..... | 1 | 22-P-127-1 | Bearing Cone..... | 2 |
| 378391 | Lock/Retaining..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 378447-6 | Socket Head..... | 7 | 22-P-127-3 | Bearing Cone..... | 1 |
| 379638 | P.T.O. Tag..... | 1 | | | |
| 21-P-572 | Flange Pump..... | 1 | | | |
| 22-P-127-1 | Bearing Cone..... | 2 | | | |
| 22-P-127-2 | Bearing Cone..... | 2 | | | |
| 22-P-127-3 | Bearing Cone..... | 1 | | | |

| | | |
|-------------------|-----------------------------|---|
| 328591-88X | Conversion Kit "AZ" To "GZ" | |
| 378391 | Lock/Retaining | 2 |
| 328273X | Bearing Cap | 1 |
| 28-P-268 | Oil Seal | 1 |
| 378447-8 | Socket Head | 4 |
| 3-P-939X | Output Shaft | 1 |
| 379688 | Lubricant-Spline | 1 |
| 3-P-939 | Output Shaft | 1 |
| 379819 | Grease Fit | 1 |
| 500168-2 | Fitting | 1 |
| 28-P-275 | Oil Seal | 1 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |
| 328591-89X | Conversion Kit "XD" To "GK" | |
| 328273X | Bearing Cap | 1 |
| 3-P-933X | Output Shaft | 1 |
| 379819 | Grease Fit | 1 |
| 500168-2 | Fitting | 1 |
| 3-P-933 | Output Shaft | 1 |
| 379688 | Lubricant-Spline | 1 |
| 28-P-268 | Oil Seal | 1 |
| 378391 | Lock/Retaining | 2 |
| 328333X | Flange Assembly | 1 |
| 378447-8 | Socket Head | 4 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |
| 328591-90X | Conversion Kit "XD" To "GP" | |
| 378447-8 | Socket Head | 4 |
| 28-P-268 | Oil Seal | 1 |
| 28-P-216 | Oil Seal | 1 |
| 378391 | Lock/Retaining | 2 |
| 328328X | Flange Assembly | 1 |
| 328273X | Bearing Cap | 1 |
| 3-P-933X | Output Shaft | 1 |
| 379819 | Grease Fit | 1 |
| 500168-2 | Fitting | 1 |
| 3-P-933 | Output Shaft | 1 |
| 379688 | Lubricant-Spline | 1 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |
| 328591-91X | Conversion Kit "XD" To "GQ" | |
| 378391 | Lock/Retaining | 2 |
| 328589X | Bearing Cap | 1 |
| 28-P-216 | Oil Seal | 1 |
| 28-P-268 | Oil Seal | 1 |
| 328273X | Bearing Cap | 1 |
| 378447-8 | Socket Head | 4 |
| 3-P-933X | Output Shaft | 1 |
| 379819 | Grease Fit | 1 |
| 500168-2 | Fitting | 1 |
| 3-P-933 | Output Shaft | 1 |
| 379688 | Lubricant-Spline | 1 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |

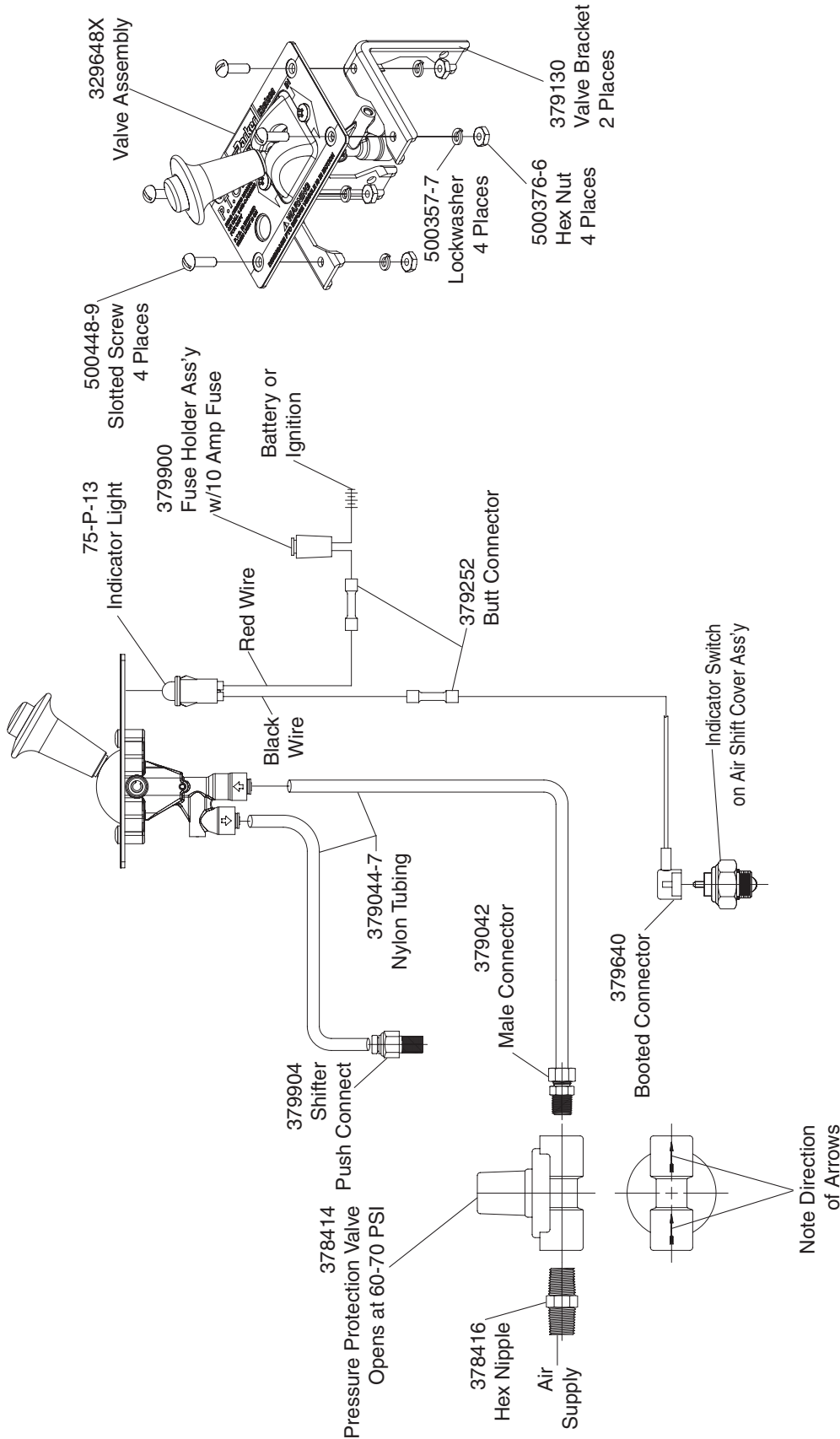
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|--------------------|-----------------------------|---|
| 328591-92X | Conversion Kit "XD" To "GY" | |
| 28-P-275 | Oil Seal | 1 |
| 378391 | Lock/Retaining | 2 |
| 329234X | Bearing Cap | 1 |
| 378447-6 | Socket Head | 4 |
| 328273X | Bearing Cap | 1 |
| 28-P-268 | Oil Seal | 1 |
| 3-P-938X | Output Shaft | 1 |
| 500168-2 | Fitting | 1 |
| 379688 | Lubricant-Spline | 1 |
| 3-P-938 | Output Shaft | 1 |
| 379819 | Grease Fit | 1 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |
| 328591-93X | Conversion Kit "XD" To "GZ" | |
| 378391 | Lock/Retaining | 2 |
| 329052X | Bearing Cap | 1 |
| 328273X | Bearing Cap | 1 |
| 28-P-268 | Oil Seal | 1 |
| 378447-11 | Cap Screw | 4 |
| 3-P-939X | Output Shaft | 1 |
| 379688 | Lubricant-Spline | 1 |
| 3-P-939 | Output Shaft | 1 |
| 379819 | Grease Fit | 1 |
| 500168-2 | Fitting | 1 |
| 28-P-275 | Oil Seal | 1 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |
| 328591-106X | Conversion Kit "RA" To "GA" | |
| 28-P-268 | Oil Seal | 1 |
| 328273X | Bearing Cap | 1 |
| 378391 | Lock/Retaining | 2 |
| 28-P-216 | Oil Seal-2 | 1 |
| 3-P-923X | Drive Shaft Ass'y | 1 |
| 3-P-923 | Drive Shaft | 1 |
| 379688 | Lubricant-Spline | 1 |
| 500168-2 | Fitting | 1 |
| 379819 | Grease Fit | 1 |
| 378447-6 | Socket Head | 7 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |
| 328591-107X | Conversion Kit "RB" To "GB" | |
| 3-P-923X | Drive Shaft Ass'y | 1 |
| 3-P-923 | Drive Shaft | 1 |
| 379688 | Lubricant-Spline | 1 |
| 500168-2 | Fitting | 1 |
| 379819 | Grease Fit | 1 |
| 378447-6 | Socket Head | 7 |
| 28-P-268 | Oil Seal | 1 |
| 28-P-216 | Oil Seal | 1 |
| 328273X | Bearing Cap | 1 |
| 378391 | Lock/Retaining | 2 |
| 22-P-127-1 | Bearing Cone | 2 |
| 22-P-127-2 | Bearing Cone | 2 |
| 22-P-127-3 | Bearing Cone | 1 |

Kits Bill of Materials**Power Take-Offs****442, 447 & 489 Series**

| | | | | | |
|--------------------|-----------------------------|---|--------------------|-----------------------------|---|
| 328591-108X | Conversion Kit "AF" To "GF" | | 328591-116X | Conversion Kit "XD" To "GH" | |
| 28-P-268 | Oil Seal..... | 1 | 28-P-219 | Oil Seal..... | 1 |
| 28-P-219 | Oil Seal..... | 1 | 378447-6 | Socket Head..... | 7 |
| 328273X | Bearing Cap..... | 1 | 378391 | Lock/Retaining..... | 2 |
| 378391 | Lock/Retaining..... | 2 | 21-P-626 | Pump Flange..... | 1 |
| 378447-10 | Capscrew..... | 4 | 329264X | Bearing Cap Ass'y..... | 1 |
| 3-P-921X | Drive Shaft Ass'y..... | 1 | 328273X | Bearing Cap..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 28-P-268 | Oil Seal..... | 1 |
| 3-P-921 | Drive Shaft..... | 1 | 28-P-271 | O-Ring..... | 1 |
| 500168-2 | Fitting..... | 1 | 3-P-941X | Drive Shaft..... | 1 |
| 379819 | Grease Fit..... | 1 | 3-P-941 | Drive Shaft..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 | 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 379819 | Grease Fit..... | 1 |
| 22-P-127-3 | Bearing Cone..... | 1 | 500168-2 | Fitting..... | 1 |
| | | | 22-P-127-1 | Bearing Cone..... | 2 |
| | | | 22-P-127-2 | Bearing Cone..... | 2 |
| | | | 22-P-127-3 | Bearing Cone..... | 1 |
| 328591-112X | Conversion Kit "XD" To "RC" | | | | |
| 329322X | Bearing Cap..... | 1 | 328591-121X | Conversion Kit "XD" To "XY" | |
| 28-P-216 | Oil Seal..... | 1 | 28-P-275 | Oil Seal..... | 1 |
| 3-P-800 | Pump Shaft..... | 1 | 3-P-768 | Shaft Output ("XY")..... | 1 |
| 378391 | Lock/Retaining..... | 2 | 329234X | Bearing Cap..... | 1 |
| 379638 | P.T.O. Tag..... | 1 | 378447-6 | Socket Head..... | 4 |
| 378447-6 | Socket Head..... | 4 | 378391 | Lock/Retaining..... | 2 |
| 379688 | Lubricant-Spline..... | 1 | 22-P-127-1 | Bearing Cone..... | 2 |
| 378446-4 | Screw, Socket..... | 6 | 22-P-127-2 | Bearing Cone..... | 2 |
| 21-P-638 | Pump Flange..... | 1 | 22-P-127-3 | Bearing Cone..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 | | | |
| 22-P-127-2 | Bearing Cone..... | 2 | 328591-122X | Conversion Kit "XD" To "XX" | |
| 22-P-127-3 | Bearing Cone..... | 1 | 501181 | Hex Nut..... | 1 |
| | | | 3-P-766 | Shaft Earby..... | 1 |
| 328591-113X | Conversion Kit "XD" To "RD" | | 28-P-216 | Oil Seal..... | 1 |
| 21-P-638 | Pump Flange..... | 1 | 379111 | SQ. Key 50..... | 1 |
| 329322X | Bearing Cap..... | 1 | 378447-6 | Socket Head..... | 4 |
| 378391 | Lock/Retaining..... | 2 | | | |
| 378447-6 | Socket Head..... | 4 | 328591-130X | Conversion Kit "XD" To "XV" | |
| 379638 | P.T.O. Tag..... | 1 | 379828 | Companion..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 378454-7 | Setscrew..... | 1 |
| 378446-4 | Screw, Socket..... | 6 | | | |
| 28-P-216 | Oil Seal..... | 1 | 328591-131X | Conversion Kit "XD" To "RY" | |
| 3-P-282 | Pump Shaft..... | 1 | 378447-8 | Socket Head..... | 4 |
| 22-P-127-1 | Bearing Cone..... | 2 | 21-P-625 | Output Cover..... | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 3-P-768 | Shaft Output ("XY")..... | 1 |
| 22-P-127-3 | Bearing Cone..... | 1 | 378391 | Lock/Retaining..... | 1 |
| | | | 329356X | Bearing Cap Ass'y..... | 1 |
| 328591-114X | Conversion Kit "RF" To "GH" | | 329355-1X | Loose Part..... | 1 |
| 378447-6 | Socket Head..... | 7 | 22-P-127-1 | Bearing Cone..... | 2 |
| 378391 | Lock/Retaining..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 28-P-219 | Oil Seal..... | 1 | 22-P-127-3 | Bearing Cone..... | 1 |
| 28-P-268 | Oil Seal..... | 1 | | | |
| 328273X | Bearing Cap..... | 1 | 328591-134X | Pump Conv Kit "XD" To "RE" | |
| 3-P-941X | Drive Shaft..... | 1 | 21-P-654 | Pump Flange..... | 1 |
| 3-P-941 | Drive Shaft..... | 1 | 329264X | Bearing Cap Ass'y..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 378391 | Lock/Retaining..... | 1 |
| 379819 | Grease Fit..... | 1 | 378447-6 | Socket Head..... | 7 |
| 500168-2 | Fitting..... | 1 | 379638 | P.T.O. Tag..... | 1 |
| 22-P-127-1 | Bearing Cone..... | 2 | 379688 | Lubricant-Spline..... | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 22-P-127-2 | Bearing Cone..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 28-P-219 | Oil Seal..... | 1 |
| | | | 28-P-271 | O-Ring..... | 1 |
| | | | 3-P-924 | Output Shaft..... | 1 |
| | | | 22-P-127-1 | Bearing Cone..... | 2 |
| | | | 22-P-127-2 | Bearing Cone..... | 2 |
| | | | 22-P-127-3 | Bearing Cone..... | 1 |

| | | | | | |
|--------------------|--|---|-------------------|---|---|
| 328591-138X | Conversion Kit "XD" To "GJ" | | 328594-14X | Bearing and Spacer Kit (Pressure Lube) | |
| 28-P-271 | O-Ring | 1 | 14-P-73-1 | Spacer, Idler Gear (.149" - .151") | 1 |
| 328273X | Bearing Cap..... | 1 | 14-P-73-2 | Spacer, Idler Gear (.152" - .154") | 1 |
| 378447-6 | Socket Head..... | 7 | 14-P-73-3 | Spacer, Idler Gear (.155" - .157") | 1 |
| 378391 | Lock/Retaining | 2 | 28-P-191 | O-Ring | 1 |
| 329264X | Bearing Cap Ass'y | 1 | 31-P-102 | Thrust Washer | 1 |
| 28-P-219 | Oil Seal..... | 1 | 379672 | NWD Plug | 1 |
| 21-P-654 | Pump Flange | 1 | 500841-1 | Street Elbow 90° | 1 |
| 28-P-268 | Oil Seal..... | 1 | 500897-5 | Shipping Plug | 1 |
| 3-P-941X | Drive Shaft | 1 | 550439 | Bearing..... | 2 |
| 3-P-941 | Drive Shaft..... | 1 | 9-P-89 | Shaft, Idler | 1 |
| 379688 | Lubricant-Spline..... | 1 | | | |
| 379819 | Grease Fit..... | 1 | 328594-15X | Bearing and Spacer Kit (Non-Pressure Lube "A", "B" & "C" Ratio) | |
| 500168-2 | Fitting..... | 1 | 14-P-73-1 | Spacer, Idler Gear (.149" - .151") | 1 |
| | | | 14-P-73-2 | Spacer, Idler Gear (.152" - .154") | 1 |
| 328591-142X | Pump Conversion Kit "XD" To "PF" | | 14-P-73-3 | Spacer, Idler Gear (.155" - .157") | 1 |
| 28-P-219 | Oil Seal..... | 1 | 14-P-75 | Spacer, Input Bearing | 1 |
| 3-P-924 | Output Shaft..... | 1 | 28-P-191 | O-Ring | 1 |
| 329264X | Bearing Cap Ass'y | 1 | 31-P-102 | Thrust Washer | 1 |
| 378391 | Lock/Retaining | 1 | 379672 | Plug, NWD | 1 |
| 378447-6 | Socket Head | 7 | 550890 | Needle Bearing..... | 1 |
| 379688 | Lubricant-Spline..... | 1 | 561006 | Bearing..... | 1 |
| 379638 | P.T.O. Tag | 1 | 9-P-88 | Shaft, Idler | 1 |
| 28-P-271 | O-Ring | 1 | | | |
| 21-P-661 | Pump Flange | 1 | 328594-16X | Bearing and Spacer Kit (Pressure Lube "A", "B" & "C" Ratio) | |
| 22-P-127-1 | Bearing Cone..... | 2 | 14-P-73-1 | Spacer, Idler Gear (.149" - .151") | 1 |
| 22-P-127-2 | Bearing Cone..... | 2 | 14-P-73-2 | Spacer, Idler Gear (.152" - .154") | 1 |
| 22-P-127-3 | Bearing Cone..... | 1 | 14-P-73-3 | Spacer, Idler Gear (.155" - .157") | 1 |
| | | | 14-P-75 | Spacer, Input Bearing | 1 |
| 328591-143X | Pump Conversion Kit "XD" To "PA" | | 28-P-191 | O-Ring | 1 |
| 378447-6 | Socket Head | 7 | 31-P-102 | Thrust Washer | 1 |
| 378391 | Lock/Retaining | 2 | 379672 | Plug, NWD | 1 |
| 21-P-661 | Pump Flange | 1 | 500841-1 | Street Elbow 90° | 1 |
| 28-P-216 | Oil Seal..... | 1 | 500897-5 | Plug, Shipping | 1 |
| 329195X | Bearing Cap Ass'y | 1 | 550890 | Needle Bearing..... | 1 |
| 3-P-283 | Pump Shaft..... | 1 | 561006 | Bearing..... | 1 |
| 379638 | P.T.O. Tag | 1 | 9-P-89 | Shaft, Idler | 1 |
| 379688 | Lubricant-Spline..... | 1 | | | |
| 22-P-127-1 | Bearing Cone..... | 2 | 328711X | Pump Mounting Kit (447 Series) | |
| 22-P-127-2 | Bearing Cone..... | 2 | 378919 | Washer..... | 4 |
| 22-P-127-3 | Bearing Cone..... | 1 | 500963-1 | Hex Lock Nut | 4 |
| | | | | | |
| 328591-149X | "SQ" Pump Conversion | | 328751-1X | Installation Kit ("C", "H", "W", "X", "Y") | |
| 28-P-216 | Oil Seal..... | 1 | 68-P-18 | Name Plate..... | 1 |
| 3-P-282 | Pump Shaft..... | 1 | 378978 | Indicator Light, 12V | 1 |
| 329449X | Bearing Cap..... | 1 | 379900 | Fuse Holder, 10-Amp | 1 |
| 378391 | Lock/Retaining | 2 | 379252 | Butt Connector..... | 2 |
| 378447-8 | Socket Head | 4 | 379640 | Booted Connector ("V" Shifter Option) | |
| 379688 | Lubricant-Spline..... | 1 | | | |
| 22-P-127-1 | Bearing Cone..... | 2 | 328948-6X | (442/447 Series) | |
| 22-P-127-2 | Bearing Cone..... | 2 | 35-P-9-1 | Mounting Gasket .010"..... | 2 |
| 22-P-127-3 | Bearing Cone..... | 1 | 35-P-9-2 | Mounting Gasket .020"..... | 2 |
| | | | 379085-1 | P.T.O. Instruction Decal | 1 |
| 328594-13X | Bearing and Spacer Kit (Non-Pressure Lube) | | 328946X | Caution Label Kit..... | 1 |
| 14-P-73-1 | Spacer, Idler Gear (.149" - .151") | 1 | 379624 | Product Warranty Card | 1 |
| 14-P-73-2 | Spacer, Idler Gear (.152" - .154") | 1 | Owners Manual | HY25-1135-M1/US | 1 |
| 14-P-73-3 | Spacer, Idler Gear (.155" - .157") | 1 | Safety Guide | HY25-1002-M1/US | 1 |
| 28-P-191 | O-Ring | 1 | | | |
| 31-P-102 | Thrust Washer, Bearing | 1 | 328948-8X | (489 Series) | |
| 379672 | NWD Plug | 1 | 328946X | Caution Label Kit..... | 1 |
| 550439 | Bearing..... | 2 | 35-P-15-1 | Gasket, Housing .010"..... | 2 |
| 9-P-88 | Shaft, Idler | 1 | 35-P-15-2 | Gasket, Housing .020"..... | 2 |
| | | | 379085-1 | P.T.O. Instructions Decal | 1 |
| | | | 379624 | Product Warranty Card | 1 |
| | | | Owners Manual | HY25-1135-M1/US | 1 |
| | | | Safety Guide | HY25-1002-M1/US | 1 |
| | | | 7170-72X | Stud Kit, Metric (442/447 Series) | |
| | | | 379428-14 | Stud M10 | 6 |
| | | | 379744 | Flange Nut..... | 6 |

Air Shift Installation Sketch for 442, 447 & 489 Series Using: Williams Valve (SK-462 Rev A)



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

NOTE: When this installation is used on vehicles with automatic transmissions the P.T.O .drive must be stopped before shifting.
CAUTION: When installing nylon tubing avoid sharp angles, exhaust and manifold systems.

Offer of Sale

The items described in this document and other documents or descriptions provided by Parker Hannifin Corporation, its subsidiaries and its authorized distributors are hereby offered for sale at prices to be established by Parker Hannifin Corporation, its subsidiaries and its authorized distributors. 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 such items, when communicated to Parker Hannifin Corporation, its subsidiary or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate long and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that certain Products, namely PTOs, SEMs, and Wet Line Kits sold hereunder shall be free from defects in material or workmanship for a period of twenty four months from the date of delivery to Buyer. Seller warrants that certain Products namely Pumps, and Hydraulic Accessories shall be free from defects in material or workmanship for a period of eighteen months from the date of delivery to the Buyer. 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 MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

5. Limitation Of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANYWAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. 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 items sold hereunder, 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.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

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

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of 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, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

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