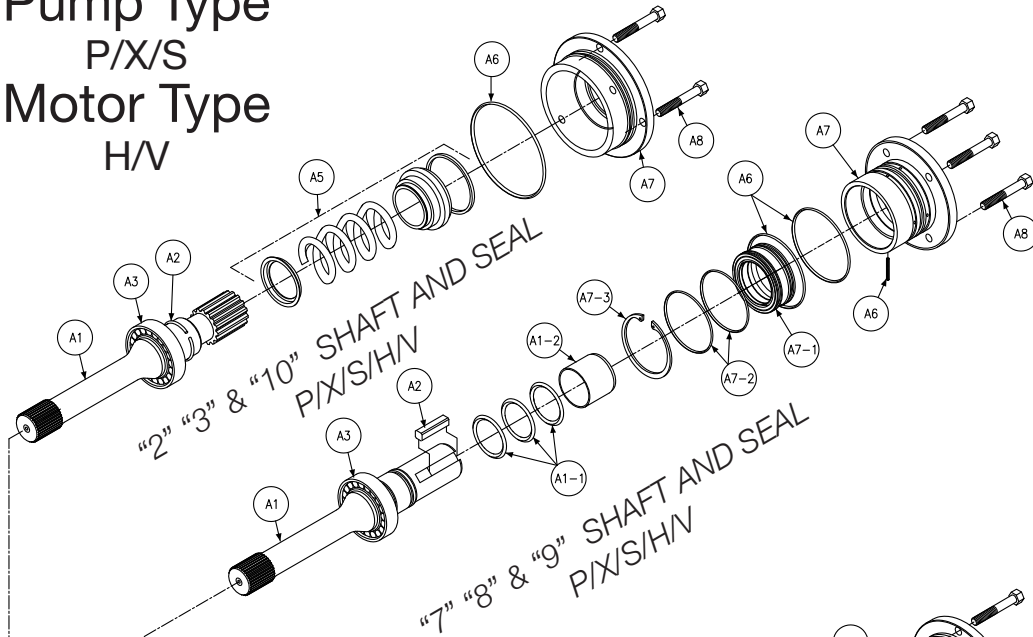
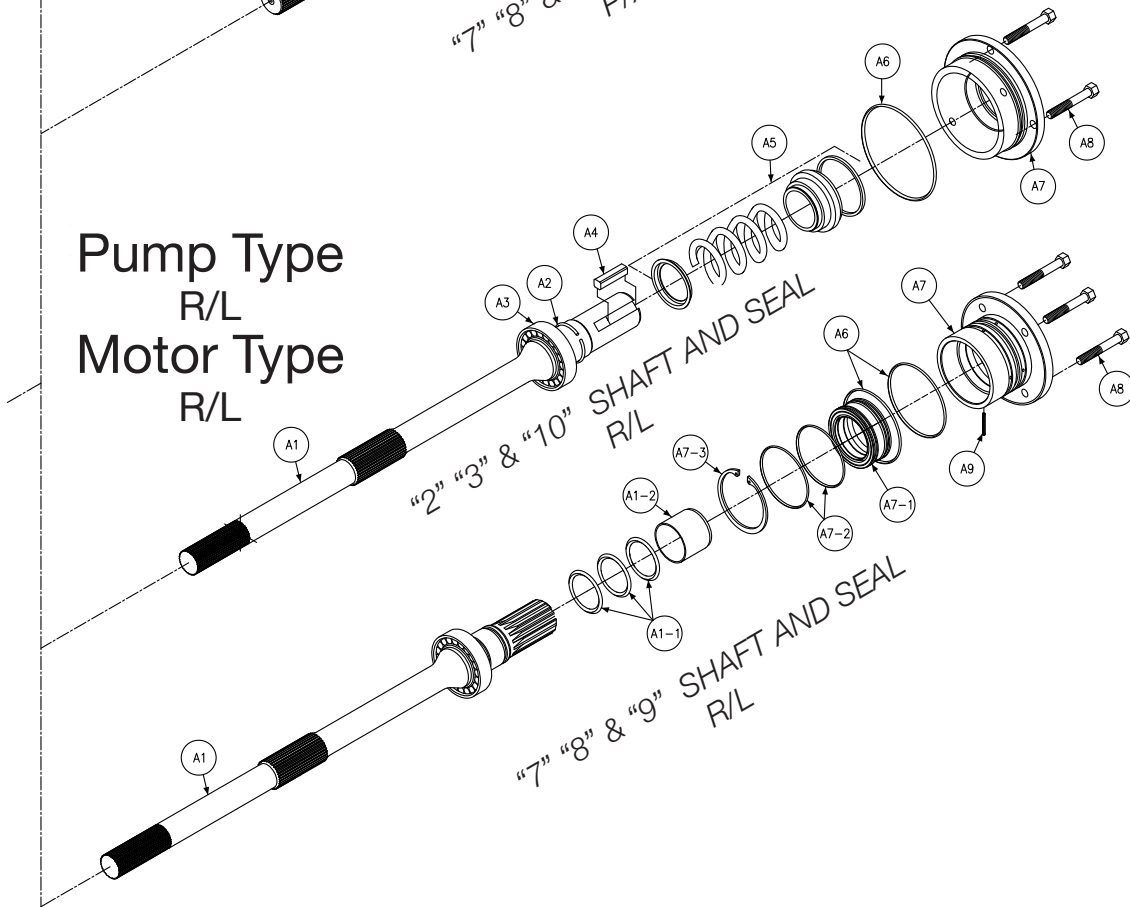


Pump Type
P/X/S
Motor Type
H/V



Pump Type
R/L
Motor Type
R/L



Section View - A - Input Shaft & Retainer Assembly

| Balloon # | Pump/Motor | Type | Shaft Code | Seal Code | Item # | Description | Qty |
|-----------|------------|-------------------|------------------|-------------|---|---|-----|
| A1 | P | P/X/S | 2 | ** | 033-91140-0 | Shaft, Keyed SAE-F, Mech Shaft Seal, No Rear Drive | 1 |
| | M | H/V | | | | | |
| | P | P/X/S | 3 | ** | 033-91139-0 | Shaft, Spline SAE-F, With Neck, Mech Shaft Seal, No Rear Drive | |
| | M | H/V | | | | | |
| | P | P/X/S | 7 | ** | *033-94118-0 | Shaft, Keyed SAE-F, Double Lip Seal, No Rear Drive | |
| | M | H/V | | | | | |
| | P | P/X/S | 8 | ** | *033-94177-0 | Shaft, Spline SAE-F, With Neck, Double Lip Seal, No Rear Drive | |
| | M | H/V | | | | | |
| | P | P/X/S | 9 | ** | *033-94192-0 | Shaft, Keyed SAE-F, Double Lip Seal, No Rear Drive, Ext. Lg. Keyway | |
| | M | H/V | | | | | |
| | P | P/X/S | 10 | ** | 033-93610-0 | Shaft, Keyed SAE-F, Mech Shaft Seal, No Rear Drive, Ext. Lg. Keyway | |
| | M | H/V | | | | | |
| | P/M | R/L | 2 | ** | 033-92843-0 | Shaft, Keyed SAE-F, Mech Shaft Seal, With Rear Drive | |
| | P/M | R/L | 3 | ** | 033-92729-0 | Shaft, Spline SAE-F, No Neck, Mech Shaft Seal, With Rear Drive | |
| | P/M | R/L | 7 | ** | *033-94178-0 | Shaft, Keyed SAE-F, Double Lip Seal, With Rear Drive | |
| | P/M | R/L | 8 | ** | *033-94179-0 | Shaft, Spline SAE-F, No Neck, Double Lip Seal, With Rear Drive | |
| P/M | R/L | 9 | ** | 033-93615-0 | Shaft, Keyed SAE-F, Double Lip Seal, With Rear Drive, Ext. Lg. Keyway | | |
| P/M | R/L | 10 | ** | 033-93616-0 | Shaft, Keyed SAE-F, Mech Shaft Seal, With Rear Drive, Ext. Lg. Keyway | | |
| a1-1 | P/M | P/X/S/ R/L/H/V | 7/8/9 | 1 | 671-00133-0 | O RING | 3 |
| | | | | 4 | 674-00133-0 | | |
| | | | | 5 | 675-00133-0 | | |
| a1-2 | P/M | P/X/S/ R/L/H/V | 7/8/9 | ** | 033-94117-0 | SLEEVE SHAFT | 1 |
| A2 | P/M | P/X/S/ R/L/H/V | 2/3/ 9/10 | ** | 033-71712-0 | RETAINING RING | 2 |
| | P/M | P/X/S/ R/L/H/V | 7/8/9 | ** | NOT USED | | 1 |
| A3 | P/M | P/X/S/ R/L/H/V | 2/3/7/ 8/9/10 | ** | 230-82213-0 | SHAFT BEARING | 1 |
| A4 | P/M | P/X/S/ R/L/H/V | 2/7 | ** | 033-71910-0 | KEY | 1 |
| | | | 9/10 | ** | 033-93619-0 | | |

Continued on next page.



Section View - A - Input Shaft & Retainer Assembly

| Balloon # | Pump/Motor | Type | Shaft Code | Seal Code | Item # | Description | Qty |
|---|------------|-------------------|------------------|-----------|-------------|--------------------------------|-----|
| A5 | P/M | P/X/S/ R/L/H/V | 2/3/10 | 4 | 623-00015-4 | SHAFT SEAL | 1 |
| | | | | 5 | 623-00015-5 | | |
| A6 | P/M | P/X/S/ R/L/H/V | 2/3/10 | 1 | 671-00246-0 | O RING | 1 |
| | | | | 4 | 674-00246-0 | | |
| | | | | 5 | 675-00246-0 | | |
| | | | 7/8/9 | 1 | 671-00246-0 | O RING | 2 |
| | | | | 4 | 674-00246-0 | | |
| | | | | 5 | 675-00246-0 | | |
| A7 | P/M | P/X/S/ R/L/H/V | 2/3/10 | ** | 033-57472-0 | MECH SEAL RETAINER | 1 |
| | | | 7/8/9 | ** | 033-95951-0 | DOUBLE LIP RETAINER | |
| a7-1 | P/M | P/X/S/ R/L/H/V | 7/8/9 | ** | 620-82126-0 | SEAL SHAFT LIP BI-DIRECTIONAL | 4 |
| a7-2 | P/M | P/X/S/ R/L/H/V | 7/8/9 | 1 | 671-00149-0 | O RING | 2 |
| | | | | 4 | 674-00149-0 | | |
| | | | | 5 | 675-00149-0 | | |
| a7-3 | P/M | P/X/S/ R/L/H/V | 7/8/9 | ** | 356-65160-0 | RETAINING RING | 1 |
| A8 | P/M | P/X/S/ R/L/H/V | 2/3/7/ 8/9/10 | ** | 306-40123-0 | SCREW HHC 3/8-16UNC x 1 1/4 IG | 4 |
| A9 | P/M | P/X/S/ R/L/H/V | 7/8/9 | ** | 325-08160-0 | ROLL PIN | 1 |
| <p>Note: Shaft part numbers marked * are not usable without assembled with items a1-1 & a1-2 (o'rings & sleeve) Using special tools P/N 213-0-004202 – See Page 11 for details</p> | | | | | | | |

| Seal Kits Contain All Seals for the Following: NOTE: Seal kits for "M" mod pumps and for aux. pumps require part verification with HPD factory representatives. Standard Seal Kits below contain seals for the Following: 1. Main Pump 2. Valve Block 3. Input/Output Controls 4. Shaft Seal | | | | | |
|---|------|------------|----------|-----------|--------------|
| Pump/ Motor | Type | Shaft Code | Rotation | Seal Code | Part Number |
| P | P | 2/3 | ** | 4 | S23-18006-4 |
| | | | | 5 | S23-18006-5 |
| P | R | 2/3 | ** | 5 | S23-18016-5 |
| P | X | 2/3 | ** | 4 | S23-11514-4 |
| | | | | 5 | S23-11514-5 |
| P | P | 7/8/9 | CW | 4 | S23-17038-4 |
| | | | | 5 | S23-17038-5 |
| P | P | 7/8/9 | CCW | 4 | S23-17039-4 |
| | | | | 5 | S23-17039-5 |
| P | R | 7/8/9 | CW | 1 | S23-17017-0 |
| P | X | 7/8/9 | CW | 5 | S23-18022-5 |
| P | X | 7/8/9 | CCW | 5 | S23-18023-5 |
| P | S | 2/3 | ** | 4 | S23-17040-4 |
| | | | | 5 | S23-17040-5 |
| P | L | 2/3 | ** | 5 | S23-18019-5 |
| P | S | 7/8/9 | CW | 4 | S23-17041-4 |
| | | | | 5 | S23-17041-5 |
| P | S | 7/8/9 | CCW | 4 | S23-17042-4 |
| | | | | 5 | S23-17042-5 |
| P | L | 7/8/9 | CW | 5 | S23-18020-5 |
| P | L | 7/8/9 | CCW | 5 | S23-18021-5 |
| *P | S | 2/3 | ** | 4 | S23-11600-4K |
| | | | | 5 | S23-11600-5K |
| *P | S | 7/8/9 | CW | 4 | S23-15696-4K |
| | | | | 5 | S23-15696-5K |
| *P | S | 7/8/9 | CCW | 4 | S23-15697-4K |
| | | | | 5 | S23-15697-5K |

*Contains seals for T6C auxiliary Pump

| 24/30 Seal Retainer Assembly Kits Composed of Items: A6, A7, A7-1, A7-2, A7-3 and A9 | | | | | |
|---|------------|---------------|----------------|-----------|--------------|
| Type | Pump/Motor | Type | Rotation | Seal Code | Part Number |
| 7/8/9 | P/M | P/X/S/H/V/R/L | Bi-Directional | 1 | S23-19757 -0 |
| 7/8/9 | P/M | P/X/S/H/V/R/L | Bi-Directional | 5 | S23-19757-5 |

| Seal Kits Contain All Seals for the Following: 1. Main Motor Less Shuttle 2. Input/Output Controls 3. Shaft Seal (Mechanical) | | | | |
|--|------------|------|-----------|--------------|
| Type | Pump/Motor | Type | Seal Code | Part Number |
| 2/3/10 | M | H/V | 1 | S23-17747-0K |
| 2/3/10 | M | H/V | 4 | S23-17747-4K |
| 2/3/10 | M | H/V | 5 | S23-17747-5K |

| P/M24/30 Shaft and Bearing Assembly Kits Composed of Items: A1, a1-1, a1-2, A2, A3 and A4 as applicable | | |
|---|---------------|-------------|
| Type | Shaft Code | Part Number |
| P/S/X/H/V | 2 | S23-12475-0 |
| P/S/X/H/V | 3 | S23-12474-0 |
| P/S/X/H/V | 7 | S23-18233-0 |
| P/S/X/H/V | 8 | S23-18234-0 |
| P/S/X/H/V | 9 | S23-18235-0 |
| P/S/X/H/V | 10 | S23-17491-0 |
| R/L | 2 | S23-16362-0 |
| R/L | 3 | S23-16364-0 |
| R/L | 7 | S23-16473-0 |
| R/L | 8 | S23-16475-0 |
| R/L | 9 | S23-17496-0 |
| R/L | 10 | S23-17167-0 |

Replacement shaft sleeves & o'rings are available for Type P/S/X/H/V/R/L with 7/8/9 shafts. However special tool P/N 213-0-004202 is required to remove and install the sleeve.
Note: See Page 12 for tool details.