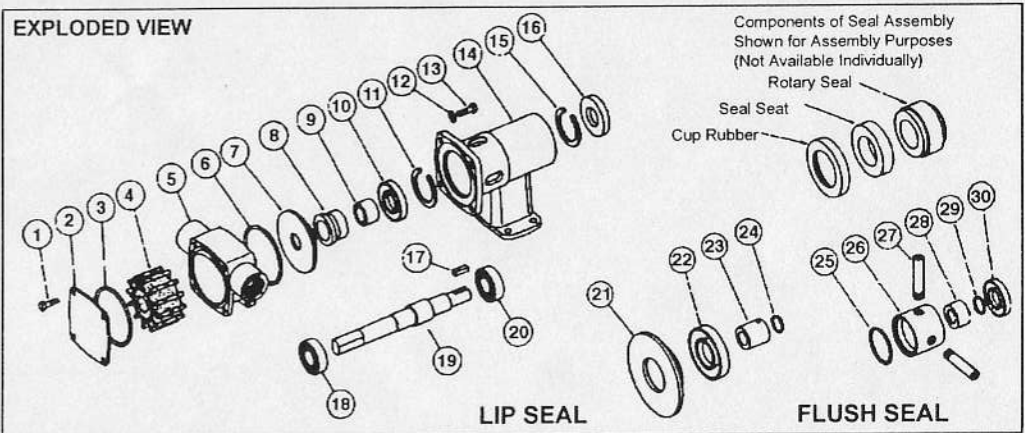


Key	PARTS LIST Description	Qty	STANDARD PRESSURE IMPELLER			HIGH PRESSURE IMPELLER			
			Neoprene Elast:	Nitrile Elast:	Viton Elast:	Neoprene Elast:	Nitrile Elast:	Viton Elast:	
			28230-2101	28230-2103	28230-2104	28230-2121	28230-2123	28230-2124	
1	Screw	4	X3001-147F	X3001-147F	X3001-147F	X3001-147F	X3001-147F	X3001-147F	
2	Endcover	1	28205-0010	28205-0010	28205-0010	28205-0010	28205-0010	28205-0010	
3	"O" Ring*	1	X4020-259A	X4020-159A	X4020-259B	X4020-259A	X4020-259A	X4020-259B	
4	Impeller*	1	14281-0001B	14281-0003B	14281-0004B	8980-0021B	8980-0023B	8980-0024B	
5	Body	1	28234-2000	28234-2000	28234-2000	28234-2000	28234-2000	28234-2000	
6	"O" Ring*	1	X4020-259A	X4020-259A	X4020-259B	X4020-259A	X4020-259A	X4020-259B	
7	Wearplate (2)	1	28236-0000	28236-0000	28236-0000	28236-0000	28236-0000	28236-0000	
8	Seal Assy*(2)	1	28231-0103B	28231-0103B	28231-0104B	28231-0103B	28231-0103B	28231-0104B	
9	Seal Spacer (1)	1	28217-0000	28217-0000	28217-0000	28217-0000	28217-0000	28217-0000	
10	Lip Seal	1	SP2700-39	SP2700-39	SP2700-39	SP2700-39	SP2700-39	SP2700-39	
11	Retaining Ring	1	SP1701-4435	SP1701-4435	SP1701-4435	SP1701-4435	SP1701-4435	SP1701-4435	
12	Washer	4	X3080-081F	X3080-081F	X3080-081F	X3080-081F	X3080-081F	X3080-081F	
13	Screw	4	X3001-153F	X3001-153F	X3001-153F	X3001-153F	X3001-153F	X3001-153F	
14	Bearing Housing	1	28203-0000	28203-0000	28203-0000	28203-0000	28203-0000	28203-0000	
15	Retaining Ring	1	SP1701-4435	SP1701-4435	SP1701-4434	SP1701-4435	SP1701-4435	SP1701-4435	
16	Lip Seal	1	SP2700-39	SP2700-39	SP2700-39	SP2700-39	SP2700-39	SP2700-39	
17	Key	1	X4000-109A	X4000-109A	X4000-109A	X4000-109A	X4000-109A	X4000-109A	
18	Bearing	1	SP2600-01	SP2600-01	SP2600-01	SP2600-01	SP2600-01	SP2600-01	
19	Shaft	1	28207-0000	28207-0000	28207-0000	28207-0000	28207-0000	28207-0000	
20	Bearing	1	SP2600-01	SP2600-01	SP2600-01	SP2600-01	SP2600-01	SP2600-01	
Service Kit Contains*			SK376-0101	SK376-0103	SK376-0104	SK376-0121	SK376-0123	SK376-0124	
Other Seal Options									
Model No. With H/F Seal			28230-2201	28230-2203	28230-2204	28230-2221	28230-2223	28230-2224	
Model no. With Lip Seal			28230-2401	28230-2403	Not Available	28230-2421	28230-2423	Not Available	
Model No. With H/F Seal Flushed			28230-2701	28230-2703	28230-2704	28230-2721	28230-2723	28230-2724	
Model No. With Standard Seal Flushed			28230-2901	28230-2903	28230-2904	28230-2921	28230-2923	28230-2924	
Parts For Appropriate Seal Conversion									
8 H/F Seal Assy			1	28231-0203B	28231-0203B	28231-0204B	28231-0203B	28231-0203B	28231-0204B
Lip Seal Kit No. & Contains			28231-0403B	28231-0403B	Not Available	28231-0403B	28231-0403B	Not Available	
21 Wearplate			1	28266-0000	28266-0000	Not Available	28266-0000	28266-0000	Not Available
22 Lip Seal			1	SP2701-0913	SP2701-0913	Not Available	SP2701-0913	SP2701-0913	Not Available
23 Seal Spacer			1	28265-0011	28265-0011	Not Available	28265-0011	28265-0011	Not Available
24 "O" Ring			1	X4020-215A	X4020-215A	Not Available	X4020-215A	X4020-215A	Not Available
Flush Seal Kit No. & Contains			28232-0000B	28232-0000B	28232-0000B	28232-0000B	28232-0000B	28232-0000B	28232-0000B
25 "O" Ring			1	X4020-237A	X4020-237A	X4020-237A	X4020-237A	X4020-237A	X4020-237A
26 Seal Housing			1	28212-0000	28212-0000	28212-0000	28212-0000	28212-0000	28212-0000
27 Tube			2	21844	21844	21844	21844	21844	21844
28 Seal Spacer			1	28217-0001	28217-0001	28217-0001	28217-0001	28217-0001	28217-0001
29 "O" Ring			1	X4020-215A	X4020-215A	X4020-215A	X4020-215A	X4020-215A	X4020-215A
30 Seal			1	SP2701-0913	SP2701-0913	SP2701-0913	SP2701-0913	SP2701-0913	SP2701-0913
*Key 9 Not Required For Models With Lip Seal And Flush Seal. (2) Key 7 & 8 Not Required For Lip Seal Models									
Optional 23470-0065B High Temperature Impeller Available									



SERVICE INSTRUCTIONS

Dis-Assembly

- Remove screws (1), endcover and "O" ring.
- Remove screws (13). Slide off body complete with impeller and wearplate.
- Remove seal seat, cup rubber from the wearplate and push out impeller and "O" ring from body.
- Gently lever the seal spacer and seal (8) off the shaft.
- Prise out seal (16). Remove retaining ring (15) and carefully withdraw shaft and bearing assembly. Remove retaining ring (11) and push out seal (10).
- To remove bearings from shaft an arbor press is required alternatively a bearing extractor may be used. Support inner race of bearing then apply a steady pressure on shaft until bearing is free. Repeat this procedure to remove other bearing.

PUMPS WITH LIP SEAL:- Push out lip seal (22) from wearplate (21). Loosen set screw to remove seal spacer (23). Prise out "O" (24) from seal spacer.

PUMPS WITH FLUSH SEAL:- After pulling out rotary seal, unscrew tubes (27) and pull out seal housing (26). Remove seal spacer (28) and prise out "O" ring (29). Remove "O" ring (25) and lip seal (30) from seal housing.

Assembly

- To fit bearings onto shaft- Support inner race of bearing and press the shaft until bearing locates against the shoulder. Repeat procedure for other bearing.
- Fit retaining ring (11) and lip seal (10) ensuring that spring on seal is facing outwards.
- Fit the bearings with grease, and the space between bearings two thirds full. Smear grease on the shaft where lip seal locates. Push shaft and bearing assembly into bearing housing. Fit retaining ring (15) and seal (16) with spring facing outwards.
- To fit seal- Smear shaft with lubricating oil and slide seal spacer (19) up to the shoulder on shaft. Push rotary seal gently until it touches the spacer. Fit cup rubber and seal seat into wearplate (7).
- Slide wearplate assembly over the shaft.
- Fit impeller into lubricated body with twisting motion in the same rotation as motor. Fit "O" ring (6) into body and slide over shaft.
- Align wearplate and body into bearing housing and secure with screws (13) and washers (12). Do not over tighten, a gap between bearing housing and body is normal. These screws and endcover screws should be tightened to a torque of 2.2 Nm.
- Fit "O" ring (3) into body and place endcover over body and secure with screws (1). **PUMPS WITH LIP SEAL:-** Ensure "O" ring (24) is fitted under seal spacer (23). Smear seal spacer and shaft with lubricating oil. Slide spacer over shaft and secure with set screw to dimension shown. Press lip seal (22) into wearplate (21) and follow on from step 5 above. **PUMPS WITH FLUSH SEAL:-** Ensure "O" ring (29) is fitted under seal spacer (28). Smear seal spacer and shaft with lubricating oil. Slide spacer over shaft up to shoulder. Press lip seal (30) into seal housing (26) and slide into position over shaft. Fit tubes (27) sealing with PTFE tape. Rotary seal and "O" ring (25) can now be fitted. Follow on from step (5) above.

Inspect all parts for wear or damage and replace if necessary

INSTALLATION DRAWING

