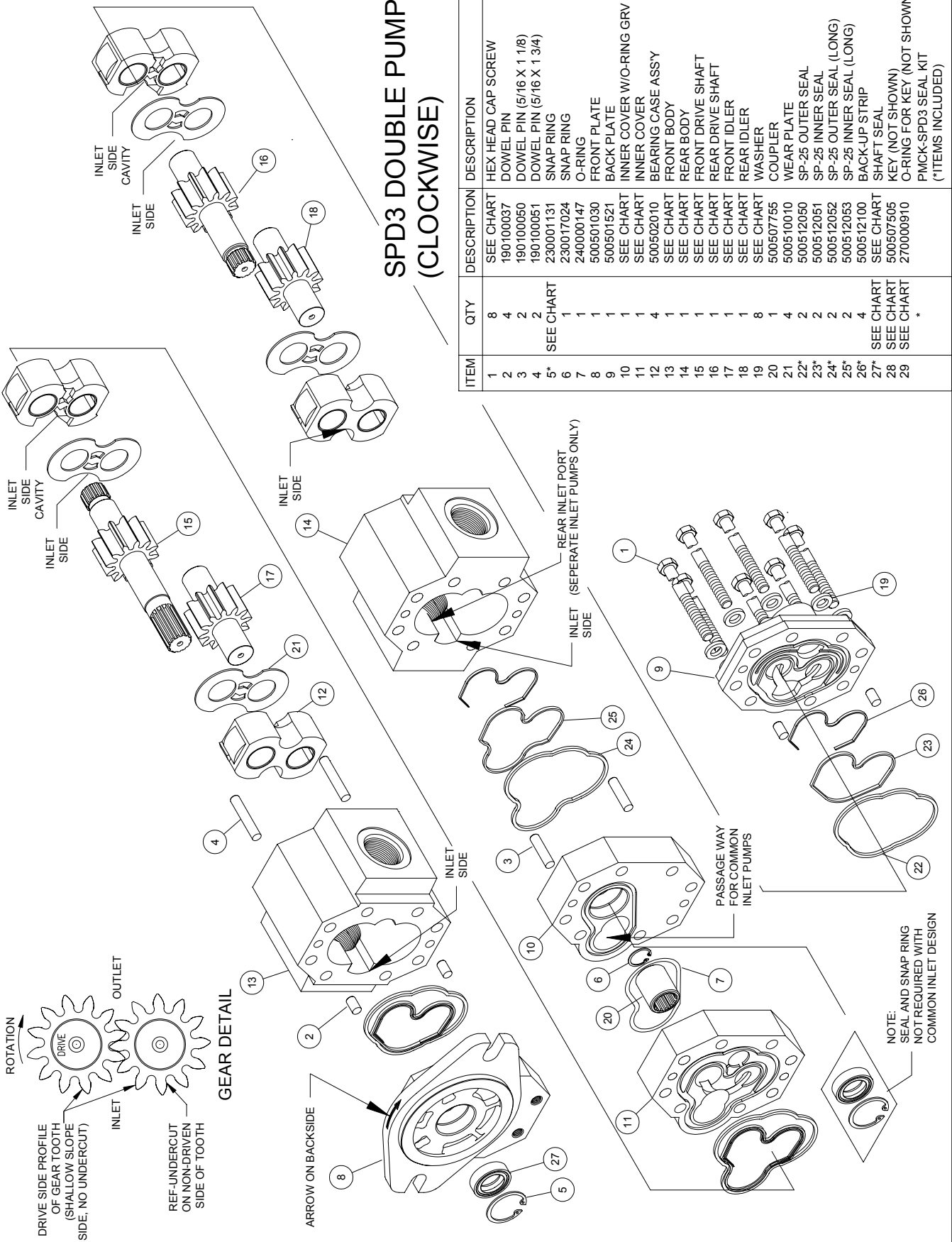
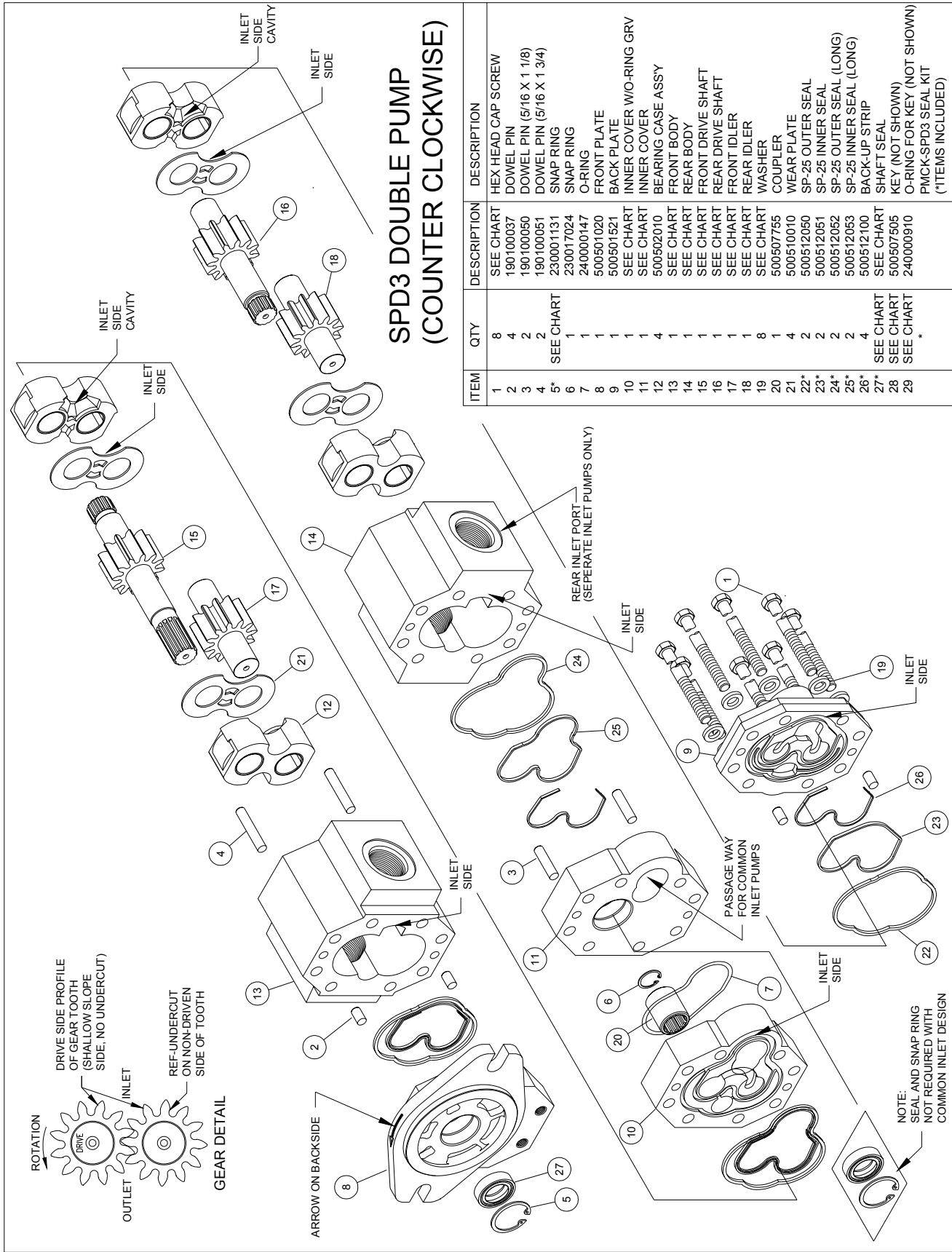


# SPD3 DOUBLE PUMP (CLOCKWISE)



ITEM	QTY	DESCRIPTION	DESCRIPTION
1	8	SEE CHART	HEX HEAD CAP SCREW
2	4	190100037	DOWEL PIN
3	2	190100050	DOWEL PIN (5/16 X 1 1/8)
4	2	190100051	DOWEL PIN (5/16 X 1 3/4)
5*	SEE CHART	230001131	SNAP RING
6	1	230017024	SNAP RING
7	1	240000147	O-RING
8	1	500501030	FRONT PLATE
9	1	500501521	BACK PLATE
10	1	SEE CHART	INNER COVER W/O-RING GRV
11	1	SEE CHART	INNER COVER
12	4	500502010	BEARING CASE ASSY
13	1	SEE CHART	FRONT BODY
14	1	SEE CHART	REAR BODY
15	1	SEE CHART	FRONT DRIVE SHAFT
16	1	SEE CHART	REAR DRIVE SHAFT
17	1	SEE CHART	FRONT IDLER
18	1	SEE CHART	REAR IDLER
19	8	SEE CHART	WASHER
20	1	500507755	COUPLER
21	4	500510010	WEAR PLATE
22*	2	500512050	SP-25 OUTER SEAL
23*	2	500512051	SP-25 INNER SEAL
24*	2	500512052	SP-25 OUTER SEAL (LONG)
25*	2	500512053	SP-25 INNER SEAL (LONG)
26*	4	500512100	BACK-UP STRIP
27*	SEE CHART	SEE CHART	SHAFT SEAL
28	SEE CHART	500507505	KEY (NOT SHOWN)
29	SEE CHART	270000910	O-RING FOR KEY (NOT SHOWN)
	*		PMCK-SPD3 SEAL KIT (*ITEMS INCLUDED)



ITEM #29 O-RING (QUANTITY)	ITEM #28 KEY (QUANTITY)	ITEM #27 SHAFT SEAL (QUANTITY)
NOT USED	NOT USED	NOT USED
1	1	1

ITEM #27 SHAFT SEAL (QUANTITY)	ITEM #26 SHAFT SEAL (QUANTITY)
500512501	500512501
500512505	500512505

**SEPARATE INLET INLET CODE=2**

PUMP MODEL/ DISPLACEMENT	FRONT DRIVE GEAR (ITEM #15)		REAR DRIVE GEAR (ITEM #16)		FRONT IDLER GEAR (ITEM #17)	REAR IDLER GEAR (ITEM #18)	FRONT BODY STD PORTS SEPARATE INLETS (ITEM #13)		REAR BODY STD PORTS SEPARATE INLETS (ITEM #14)		SEPARATE INLET INNER COVER (ITEM #11)	SEPARATE INLET WO-RING GRV (ITEM #10)	HEX HEAD CAP SCREW (ITEM #1)	MACHINED WASHER (ITEM #19)	SNAP RING (ITEM #5) AND SHAFT SEAL (ITEM #27) (QUANTITY)
	LEFT HAND SHAFT CODE 1 (KEYED)	RIGHT HAND SHAFT CODE 2 (KEYED)	LEFT HAND ROTATION	RIGHT HAND ROTATION			SEPARATE INLET (ITEM #13)	SEPARATE INLET (ITEM #14)	SEPARATE INLET (ITEM #11)	SEPARATE INLET (ITEM #10)					
SPD3 19 19	500505220	500504320	500505230	500504230	500506200	500506200	500503300	500503300	500503300	500503300	500501703	500501702	170002092 (10.00")	500507506 (.240")	2 EA
SPD3 22 19	500505221	500504321	500505231	500504231	500506201	500506201	500503301	500503301	500503301	500503301	500501703	500501702	170002092 (10.00")	500507500 (.060")	2 EA
SPD3 22 22	500505221	500504321	500505231	500504231	500506201	500506201	500503301	500503301	500503301	500503301	500501703	500501702	170002093 (10.50")	500507503 (.450")	2 EA
SPD3 27 19	500505222	500504322	500505232	500504232	500506202	500506202	500503302	500503302	500503302	500503302	500501703	500501702	170002093 (10.50")	500507503 (.450")	2 EA
SPD3 27 27	500505222	500504322	500505232	500504232	500506202	500506202	500503302	500503302	500503302	500503302	500501703	500501702	170002093 (10.50")	500507501 (.120")	2 EA
SPD3 32 19	500505223	500504323	500505233	500504233	500506203	500506203	500503303	500503303	500503303	500503303	500501703	500501702	170002093 (10.50")	500507506 (.240")	2 EA
SPD3 32 22	500505223	500504323	500505233	500504233	500506203	500506203	500503303	500503303	500503303	500503303	500501703	500501702	170002093 (10.50")	500507500 (.060")	2 EA
SPD3 32 27	500505223	500504323	500505233	500504233	500506203	500506203	500503303	500503303	500503303	500503303	500501703	500501702	170002094 (11.00")	500507503 (.450")	2 EA
SPD3 38 19	500505224	500504324	500505234	500504234	500506204	500506204	500503304	500503304	500503304	500503304	500501703	500501702	170002093 (10.50")	500507500 (.060")	2 EA
SPD3 38 22	500505224	500504324	500505234	500504234	500506204	500506204	500503304	500503304	500503304	500503304	500501703	500501702	170002093 (10.50")	500507500 (.060")	2 EA
SPD3 38 27	500505224	500504324	500505234	500504234	500506204	500506204	500503304	500503304	500503304	500503304	500501703	500501702	170002094 (11.00")	500507506 (.240")	2 EA
SPD3 38 32	500505224	500504324	500505234	500504234	500506204	500506204	500503304	500503304	500503304	500503304	500501703	500501702	170002094 (11.00")	500507500 (.060")	2 EA
SPD3 38 38	500505224	500504324	500505234	500504234	500506204	500506204	500503304	500503304	500503304	500503304	500501703	500501702	170002095 (11.50")	500507502 (.350")	2 EA
SPD3 44 19	500505225	500504325	500505235	500504235	500506205	500506205	500503305	500503305	500503305	500503305	500501703	500501702	170002094 (11.00")	500507502 (.350")	2 EA
SPD3 44 22	500505225	500504325	500505235	500504235	500506205	500506205	500503305	500503305	500503305	500503305	500501703	500501702	170002094 (11.00")	500507506 (.240")	2 EA
SPD3 44 27	500505225	500504325	500505235	500504235	500506205	500506205	500503305	500503305	500503305	500503305	500501703	500501702	170002094 (11.00")	500507500 (.060")	2 EA
SPD3 44 32	500505225	500504325	500505235	500504235	500506205	500506205	500503305	500503305	500503305	500503305	500501703	500501702	170002094 (11.00")	500507500 (.060")	2 EA
SPD3 44 38	500505225	500504325	500505235	500504235	500506205	500506205	500503305	500503305	500503305	500503305	500501703	500501702	170002095 (11.50")	500507501 (.120")	2 EA
SPD3 44 44	500505225	500504325	500505235	500504235	500506205	500506205	500503305	500503305	500503305	500503305	500501703	500501702	170002096 (12.00")	500507503 (.450")	2 EA
SPD3 52 19	500505226	500504326	500505236	500504236	500506206	500506206	500503306	500503306	500503306	500503306	500501703	500501702	170002094 (11.00")	500507500 (.060")	2 EA
SPD3 52 22	500505226	500504326	500505236	500504236	500506206	500506206	500503306	500503306	500503306	500503306	500501703	500501702	170002095 (11.50")	500507503 (.450")	2 EA
SPD3 52 27	500505226	500504326	500505236	500504236	500506206	500506206	500503306	500503306	500503306	500503306	500501703	500501702	170002095 (11.50")	500507506 (.240")	2 EA
SPD3 52 32	500505226	500504326	500505236	500504236	500506206	500506206	500503306	500503306	500503306	500503306	500501703	500501702	170002095 (11.50")	500507500 (.060")	2 EA
SPD3 52 38	500505226	500504326	500505236	500504236	500506206	500506206	500503306	500503306	500503306	500503306	500501703	500501702	170002096 (12.00")	500507502 (.350")	2 EA
SPD3 52 44	500505226	500504326	500505236	500504236	500506206	500506206	500503306	500503306	500503306	500503306	500501703	500501702	170002096 (12.00")	500507501 (.120")	2 EA
SPD3 52 52	500505226	500504326	500505236	500504236	500506206	500506206	500503306	500503306	500503306	500503306	500501703	500501702	170002097 (12.50")	500507502 (.350")	2 EA
SPD3 63 19	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002095 (11.50")	500507501 (.120")	2 EA
SPD3 63 22	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002096 (12.00")	500507500 (.060")	2 EA
SPD3 63 27	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002096 (12.00")	500507503 (.450")	2 EA
SPD3 63 32	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002097 (12.50")	500507501 (.120")	2 EA
SPD3 63 38	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002097 (12.50")	500507502 (.350")	2 EA
SPD3 63 44	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002097 (12.50")	500507506 (.240")	2 EA
SPD3 63 52	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002098 (13.00")	500507503 (.450")	2 EA
SPD3 63 63	500505227	500504327	500505237	500504237	500506207	500506207	500503307	500503307	500503307	500503307	500501703	500501702	170002098 (13.00")	500507500 (.060")	2 EA

- NOTES:
- ASSEMBLE WITH INLET SIDE OF BEARING CASE AND INLET SIDE OF SIDE PLATE TO THE INLET SIDE OF BODY. SIDE PLATE IS TO BE SET TO THE INLET SIDE OF THE BEARING CASE AND ITS BRONZE SIDE AGAINST THE INTERNAL FACE OF THE SHAFT. ROTATION DIRECTION IS DETERMINED BY VIEWING THE PUMP FROM THE DRIVE SHAFT END. THE 23° PRESSURE ANGLE SIDE OF THE DRIVE GEAR AND IDLER GEAR ARE IN CONTACT. (THE LIKE PROFILES ARE TOUCHING)
  - THE TEETH ARE COMING OUT OF MESH ON THE INLET SIDE OF THE PUMP.
  - FRONT, BACK AND INNER COVERS MUST ALSO BE ORIENTATED SO THAT THE INLET SIDE IS ADJACENT TO THE INLET SIDE OF THE PUMP BODY.
  - FRONT FACE OF BODIES ARE INDICATED BY MILLED RELIEFS OR DRILL POINT INDENTATION ON FACE.
  - BOLT TORQUE (LUBRICATED THREADS) 24 FT.LBS 1/2 FT.LBS.
  - COUPLER SNAP RING MUST BE SEATED IN COUPLER GROOVE.
  - REAR PUMP SHAFT SEAL AND SNAP RING ARE ONLY REQUIRED IN PUMPS WITH SEPARATE INLETS AND WHEN REQUIRED ARE ALWAYS IN THE REAR MOST COVER.

- ONE EACH OF ITEMS 10 AND 11 ARE ALWAYS REQUIRED ON RIGHT HAND ROTATION PUMPS ITEM 11 GOES TO THE FRONT. ON LEFT HAND ROTATION PUMPS ITEM 10 GOES TO THE FRONT.
- THE EXCEPTION OF TORQUE, HORSE POWER AND EFFICIENCY.
9. PUMP REAR AND FRONT INLETS ARE THE SAME AS THE REAR SERIES.
10. PUMP ARLE TO BE "BROKEN IN" BY UTILIZING A SELECTOR VALVE CONNECTED TO THE PUMP OUTLETS.
- A) THE PUMP STAND IS TO BE SET FOR THE EQUIVALENT SP2A DISPLACEMENT AND ROTATION FOR THE FRONT PUMP. THE SELECTOR VALVE IS TO BE SET TO DIVERT THE FRONT PUMP FLOW THROUGH THE TEST STAND AND THE REAR PUMP FLOW TO THE REAR PUMP. THE PUMP STAND IS THEN TO BE SET FOR THE EQUIVALENT SP25A DISPLACEMENT AND ROTATION FOR THE REAR PUMP. THE SELECTOR VALVE IS TO BE SET TO DIVERT THE REAR PUMP FLOW THROUGH THE TEST STAND AND THE FRONT PUMP FLOW TO THE REAR PUMP.
11. TAKE PUMP CYCLE BREAK IN IS THEN PERFORMED.
- C) THEIR TEST.

ITEM #29 O-RING (QUANTITY)	ITEM #28 KEY (QUANTITY)
NOT USED	NOT USED
1	1

ITEM #27 SHAFT SEAL
500512501
500512505

**COMMON INLET (INLET CODE=1)**

PUMP MODEL/ DISPLACEMENT	FRONT DRIVE GEAR (ITEM #15)		REAR DRIVE GEAR (ITEM #16)		FRONT IDLER GEAR (ITEM #17)	REAR IDLER GEAR (ITEM #18)	FRONT BODY STD PORTS COMMON INLETS (ITEM #13)	REAR BODY STD PORTS COMMON INLETS (ITEM #14)	COMMON INNER COVER W/O-RING GRV (ITEM #10)	COMMON INLET (ITEM #11)	HEX HEAD CAP SCREW (ITEM #1)	MACHINED WASHER (ITEM #19)	SNAP RING (ITEM #8) AND SHAFT SEAL (ITEM #27) (QUANTITY)
	LEFT HAND ROTATION SHAFT CODE 1	RIGHT HAND ROTATION SHAFT CODE 2	LEFT HAND ROTATION	RIGHT HAND ROTATION									
SPD3 19 19	500505220	500504220	500505230	500504230	500506200	500506200	500503350	500503360	500501700	500501701	170002092 (10.00")	500507506 (.240")	1 EA
SPD3 22 19	500505221	500504221	500505231	500504231	500506201	500506201	500503351	500503360	500501700	500501701	170002092 (10.00")	500507506 (.240")	1 EA
SPD3 27 19	500505222	500504222	500505232	500504232	500506202	500506202	500503352	500503361	500501700	500501701	170002093 (10.50")	500507503 (.450")	1 EA
SPD3 27 22	500505222	500504222	500505232	500504232	500506202	500506202	500503352	500503361	500501700	500501701	170002093 (10.50")	500507503 (.450")	1 EA
SPD3 27 27	500505222	500504222	500505232	500504232	500506202	500506202	500503352	500503362	500501700	500501701	170002093 (10.50")	500507502 (.350")	1 EA
SPD3 32 19	500505223	500504223	500505233	500504233	500506203	500506203	500503353	500503362	500501700	500501701	170002093 (10.50")	500507501 (.120")	1 EA
SPD3 32 22	500505223	500504223	500505233	500504233	500506203	500506203	500503353	500503362	500501700	500501701	170002093 (10.50")	500507506 (.240")	1 EA
SPD3 32 27	500505223	500504223	500505233	500504233	500506203	500506203	500503353	500503362	500501700	500501701	170002094 (11.00")	500507500 (.060")	1 EA
SPD3 32 32	500505223	500504223	500505233	500504233	500506203	500506203	500503353	500503362	500501700	500501701	170002094 (11.00")	500507503 (.450")	1 EA
SPD3 38 19	500505224	500504224	500505234	500504234	500506204	500506204	500503354	500503363	500501700	500501701	170002094 (11.00")	500507506 (.240")	1 EA
SPD3 38 22	500505224	500504224	500505234	500504234	500506204	500506204	500503354	500503363	500501700	500501701	170002094 (11.00")	500507500 (.060")	1 EA
SPD3 38 27	500505224	500504224	500505234	500504234	500506204	500506204	500503354	500503362	500501700	500501701	170002094 (11.00")	500507506 (.240")	1 EA
SPD3 38 32	500505224	500504224	500505234	500504234	500506204	500506204	500503354	500503363	500501700	500501701	170002094 (11.00")	500507500 (.060")	1 EA
SPD3 38 38	500505224	500504224	500505234	500504234	500506204	500506204	500503354	500503364	500501700	500501701	170002095 (11.50")	500507502 (.350")	1 EA
SPD3 44 19	500505225	500504225	500505235	500504235	500506205	500506205	500503355	500503364	500501700	500501701	170002094 (11.00")	500507502 (.350")	1 EA
SPD3 44 22	500505225	500504225	500505235	500504235	500506205	500506205	500503355	500503364	500501700	500501701	170002094 (11.00")	500507506 (.240")	1 EA
SPD3 44 27	500505225	500504225	500505235	500504235	500506205	500506205	500503355	500503362	500501700	500501701	170002094 (11.00")	500507500 (.060")	1 EA
SPD3 44 32	500505225	500504225	500505235	500504235	500506205	500506205	500503355	500503363	500501700	500501701	170002095 (11.50")	500507502 (.350")	1 EA
SPD3 44 38	500505225	500504225	500505235	500504235	500506205	500506205	500503355	500503364	500501700	500501701	170002095 (11.50")	500507502 (.350")	1 EA
SPD3 44 44	500505225	500504225	500505235	500504235	500506205	500506205	500503355	500503365	500501700	500501701	170002096 (12.00")	500507503 (.450")	1 EA
SPD3 52 19	500505226	500504226	500505236	500504236	500506206	500506206	500503356	500503365	500501700	500501701	170002094 (11.00")	500507500 (.060")	1 EA
SPD3 52 22	500505226	500504226	500505236	500504236	500506206	500506206	500503356	500503361	500501700	500501701	170002095 (11.50")	500507503 (.450")	1 EA
SPD3 52 27	500505226	500504226	500505236	500504236	500506206	500506206	500503356	500503362	500501700	500501701	170002095 (11.50")	500507506 (.240")	1 EA
SPD3 52 32	500505226	500504226	500505236	500504236	500506206	500506206	500503356	500503363	500501700	500501701	170002095 (11.50")	500507500 (.060")	1 EA
SPD3 52 38	500505226	500504226	500505236	500504236	500506206	500506206	500503356	500503364	500501700	500501701	170002096 (12.00")	500507502 (.350")	1 EA
SPD3 52 44	500505226	500504226	500505236	500504236	500506206	500506206	500503356	500503365	500501700	500501701	170002096 (12.00")	500507501 (.120")	1 EA
SPD3 52 52	500505226	500504226	500505236	500504236	500506206	500506206	500503356	500503366	500501700	500501701	170002097 (12.50")	500507502 (.350")	1 EA
SPD3 63 19	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503366	500501700	500501701	170002097 (12.50")	500507502 (.350")	1 EA
SPD3 63 22	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503367	500501700	500501701	170002095 (11.50")	500507501 (.120")	1 EA
SPD3 63 27	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503362	500501700	500501701	170002096 (12.00")	500507502 (.350")	1 EA
SPD3 63 32	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503363	500501700	500501701	170002096 (12.00")	500507501 (.120")	1 EA
SPD3 63 38	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503364	500501700	500501701	170002097 (12.50")	500507503 (.450")	1 EA
SPD3 63 44	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503365	500501700	500501701	170002097 (12.50")	500507506 (.240")	1 EA
SPD3 63 52	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503366	500501700	500501701	170002098 (13.00")	500507503 (.450")	1 EA
SPD3 63 63	500505227	500504227	500505237	500504237	500506207	500506207	500503357	500503367	500501700	500501701	170002098 (13.00")	500507500 (.060")	1 EA

- NOTES:
- ASSEMBLE WITH INLET SIDE OF BEARING CASE AND INLET SIDE OF SIDE PLATE ADJACENT TO INLET SIDE OF BODY. SIDE PLATE MUST HAVE ITS STEEL SIDE AGAINST THE BEARING CASE AND ITS BRONZE SIDE AGAINST THE LATERAL FACE OF THE GEAR.
  - ROTATION DIRECTION IS DETERMINED BY VIEWING THE PUMP FROM THE DRIVE SHAFT END. TO INSURE CORRECT PARTS ORIENTATION OF PARTS, OBSERVE THE FOLLOWING WHEN ROTATING THE DRIVE GEAR IN THE DESIRED DIRECTION:
    - THE 23° PRESSURE ANGLE SIDE OF THE DRIVE GEAR AND IDLER GEAR ARE IN CONTACT. (THE LIKE PROFILES ARE TOUCHING)
    - THE TEETH ARE COMING OUT OF MESH ON THE INLET SIDE OF THE PUMP.
  - FRONT, BACK AND INNER COVERS MUST ALSO BE ORIENTATED SO THAT THE INLET SIDE IS ADJACENT TO THE INLET SIDE OF THE PUMP BODY.
  - FRONT FACE OF BODIES ARE INDICATED BY MILLED RELIEFS OR DRILL POINT INDENTATION ON FACE.
  - BOLT TORQUE (LUBRICATED THREADS) 24 FT-LBS 42 FT-LBS.
  - COUPLER SNAP RING MUST BE SEATED IN COUPLER GROOVE.
  - REAR PUMP, SHAFT SEAL AND SNAP RING ARE ONLY REQUIRED IN PUMPS WITH SEPARATE INLETS AND WHEN REQUIRED ARE ALWAYS IN THE REAR MOST COVER.

- ONE EACH OF ITEMS 10 AND 11 ARE ALWAYS REQUIRED, ON RIGHT HAND ROTATION PUMPS ITEM 11 GOES TO THE FRONT. ON LEFT HAND ROTATION PUMPS ITEM 10 GOES TO THE FRONT.
- WITH THE EXCEPTION OF TORQUE, HORSE POWER AND EFFICIENCY, PUMP PERFORMANCE STANDARDS ARE THE SAME AS THE SP25A SERIES.
- PUMP ARE TO BE "BROKEN IN" BY UTILIZING A SELECTOR VALVE CONNECTED TO THE PUMP OUTLETS.
  - THE PUMP STAND IS TO BE SET FOR THE EQUIVALENT SP25A DISPLACEMENT AND ROTATION FOR THE FRONT PUMP. THE SELECTOR VALVE IS TO BE SET TO DIVERT FLOW TO THE FRONT PUMP. THE CYCLIC BREAK IN IS THEN PERFORMED.
  - THE PUMP STAND IS THEN TO BE SET FOR THE EQUIVALENT SP25A DISPLACEMENT AND ROTATION FOR THE REAR PUMP. THE SELECTOR VALVE IS TO BE SET TO DIVERT THE REAR PUMP FLOW THROUGH THE TEST STAND AND THE FRONT PUMP FLOW TO THE REAR PUMP. THE CYCLIC BREAK IN IS THEN PERFORMED.
  - THE PUMP CYCLIC BREAK IN TEST IS TO BE PERFORMED IN BOTH OF THE INDIVIDUAL SECTIONS PASS THEIR TEST.