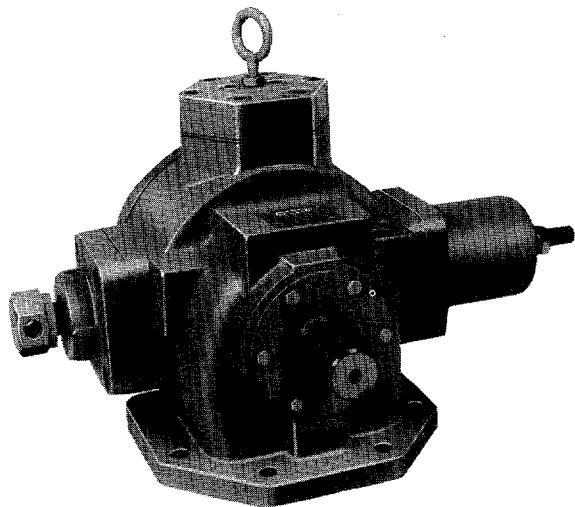




BOSCH

REPAIR PARTS



VARIABLE VOLUME

MODEL RA

VANE PUMP

1000 PSI

40 GPM

MANIFOLD MOUNTED

WHEN ORDERING PARTS, FURNISH:

1. COMPLETE CODE NUMBER
2. PARTS REQUIRED
3. SHIPPING INSTRUCTIONS

WRITE FACTORY FOR NEAREST AUTHORIZED
PARTS AND SERVICE CENTER.

PUMP CODING

PVR-PSSO-40ER-01

P--PRESSURE COMPENSATOR (STANDARD)

B--PRESSURE COMPENSATOR (TYPE B)

C--PRESSURE COMPENSATOR (TYPE C)

E--HANDWHEEL PRESSURE COMPENSATOR

H--HYDRAULIC TWO PRESSURE (INTERNAL)

J--HYDRAULIC TWO PRESSURE (EXTERNAL)

S--SOLENOID CONTROLLED TWO PRESSURE

O--BUNA N SEALS

F--VITON SEALS

W-- JOURNAL BEARINGS DX & BUNA N SEALS

* 30--30 GPM

40--40 GPM

C--500 PSI

E--1000 PSI

R--RIGHT HAND ROTATION

L--LEFT HAND ROTATION

D--DOUBLE ENDED SHAFT,
RIGHT HAND ROTATION

* NO LONGER AVAILABLE

NOTE: 30 GPM can be obtained
with the 40 GPM pump. Use a
volume control to set the pump
at 30 GPM.

PVR-PSS0-30** - 01

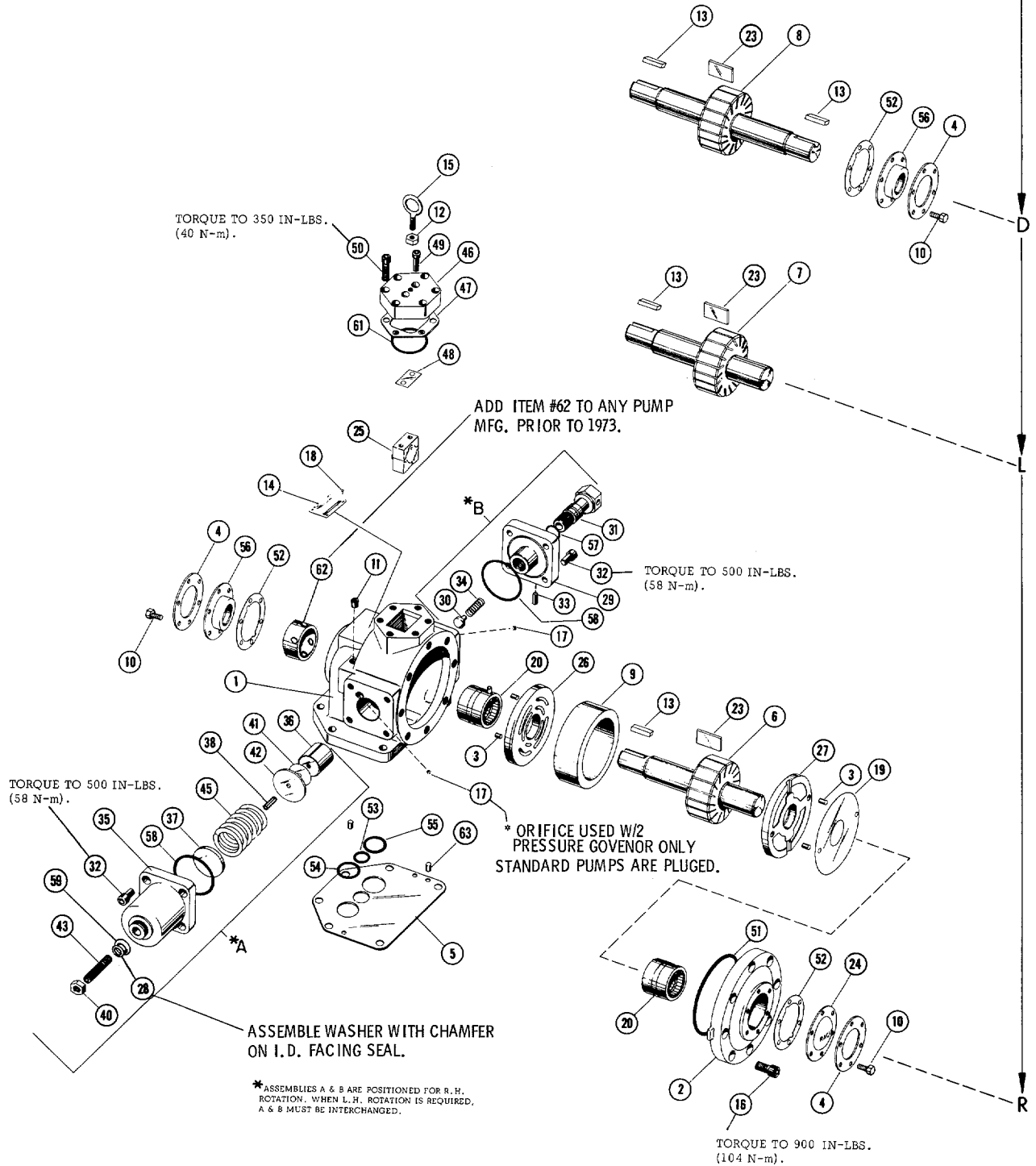
40

STANDARD COMPENSATOR
APPEARS ON THIS PAGE, FOR
ADDITIONAL COMPENSATORS SEE
OPTION PAGE.

SEE MAIN PARTS LIST
FOR AVAILABLE SPRINGS.

SELECT LETTER BELOW
WHICH CORRESPONDS
TO THE LETTER APPEARING
IN YOUR PUMP CODE.

NOTE: 30 GPM PUMP
NOT MANUFACTURED
AFTER 1975



Ref. No.	Part No.	Description	Qty.
1	221551	Body	1
2	260050	Cover	1
3	301142	Pin	4
4	403743	Washer	2
5	305531	Plate	1
6	305782	Rotor Shaft – R.H. Needle Bearings	1
6	308915	Rotor Shaft – R.H. Journal Bearings	1
7	305801	Rotor Shaft – L.H. Needle Bearings	1
7	308916	Rotor Shaft – L.H. Journal Bearings	1
8	305838	Rotor Shaft – Double End Needle Bearings	1
8	308917	Rotor Shaft – Double End Journal Bearings	1
9	305788	Ring	1
**9	308138	Special 50 GPM Ring	1
10	400682	Screw 1/4 x 5/8	12
11	400928	Plug 1/4 N.P.T.F.	1
12	401024	Nut	1
13	405916	Key (2 Req'd on Double Ended Pump)	2/1
14	406778	Nameplate	1
15	401873	Bolt	1
16	402672	Screw 5/8-11 x 1	8
17	400925	Plug 1/16 N.P.T.F.	2
17	405420	Orifice Plug .040	1
18	401296	Screw, Self Tapping	4
19	403596	Shim .001"	As Req'd
19	403597	Shim .0015"	As Req'd
19	403598	Shim .002"	As Req'd
19	403599	Shim .003"	As Req'd
20	777994	Bearing	2
20	778406	Journal Bearing DX	2
23	778274	Vanes (Set of 17)	1
24	405987	Cap	1
25	723039	Thrust Block	1
26	777170	Port Plate – R.H.	1
26	777171	Port Plate – L.H.	1

**Consult Factory for use.

Ref. No.	Part No.	Description	Qty.
27	777172	Cover Plate	1
29	221215	Cap	1
30	305549	Button	1
31	306353	Screw	1
32	400826	Screw 1/2 x 1	8
33	400866	Set Screw 5/16-18 x 3/4	1
34	401524	Spring	1
35	220748	Housing	1
36	306358	Piston 40 GPM	1
36	306734	Piston 30 GPM	1
37	400578	Washer	1
38	401724	Roll Pin	1
40	401015	Nut	1
41	404073	Shim .002"	As Req'd
41	404074	Shim .003"	As Req'd
41	405379	Shim .005"	As Req'd
42	404786	Stop	1
43	404908	Screw 5/8-18 x 3	1
45	405579	Spring – 1000 PSI	1
45	405578	Spring – 500 PSI	1
45	401590	Spring – Type B	1
45	401589	Spring – Type C	1
46	221562	Cap	1
46	222712	Cap with 1/2" NPT Dr. Port	1
47	306307	Plate	1
48	401819	Shim .003"	As Req'd
48	401820	Shim .005"	As Req'd
48	401821	Shim .010"	As Req'd
48	405468	Shim .015"	As Req'd
49	400804	Screws 3/8-16 x 1-1/4	2
50	400821	Screws 7/16-14 x 1-1/2	6
62	308621	Bearing Spacer	1
63	403308	Roll Pin	2

Pump Shim Kit #794283
Thrust Block Shim Kit #794281

SEAL KITS

VITON SEAL KIT 722394

Ref. No.	Part No.	Description	Qty.
28	491405	Washer	1
51	406517	O-ring 1/8 x 6 x 6-1/4	1
52	401846	Gasket	2
53	406191	O-ring 3/32 x 1 x 1-3/16	1
54	406514	O-ring 3/32 x 1-13/16 x 2	1
55	406513	O-ring 3/32 x 1-9/16 x 1-3/4	1
56	404227	Seal	1
57	406267	O-ring 1/8 x 1 x 1-1/4	1
58	406510	O-ring 1/8 x 3-1/4 x 3-1/2	2
59	491404	Thread seal	1
61	406512	O-ring 1/8 x 3 x 3-1/4	1
--	401074	Gasket (Not Shown)	1

REPAIR KITS

Description	Needle Bearing	Journal Bearing DX
SINGLE END SHAFT - RIGHT HAND ROTATION - VITON SEALS	722489	723400
SINGLE END SHAFT - LEFT HAND ROTATION - VITON SEALS	722486	723401
DOUBLE ENDED SHAFT - VITON SEALS	722763	723403

NOTE: PHOSPHATE ESTER AND HALOGENATED SYNTHETIC FLUID SYSTEMS SHOULD USE REPAIR KITS WITH VITON SEALS & NEEDLE BEARINGS.

Each kit contains the following parts:

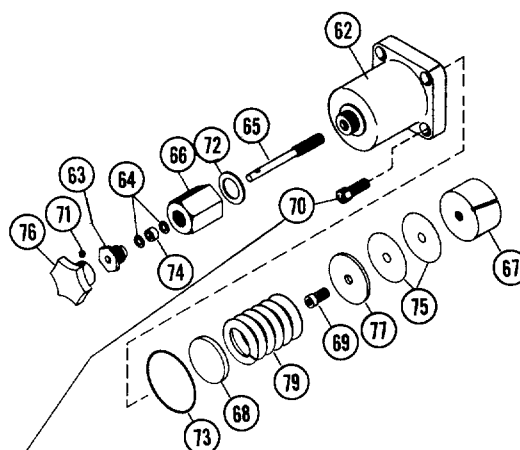
One pressure ring, one set vanes, all shims, one port plate, one cover plate, two bearings, one thrust block assembly, one shaft and rotor, and one seal kit.

OPTIONS

HANDWHEEL PRESSURE COMPENSATOR

Ref. No.	Part No.	Description	Qty.
62	220748	Housing	1
63	301166	Nut	1
64	301350	Washer	2
65	305091	Screw	1
66	305092	Box	1
67	306358	Piston	1
68	400578	Washer	1
69	405857	Screw, 5/16-18 UNC x 5/8	1
70	400826	Screw, 1/2-13 UNC x 1	4
71	400854	Screw, 1/4-20 UNC x 1/8	1
72	401074	Washer	1
73	406510	O-ring, 1/8 x 3-1/4 x 3-1/2 (Viton)	1
74	404746	Stop	2
75	404073	Shim, .002"	As Req'd.
75	404074	Shim, .003"	As Req'd.
75	405379	Shim, .005"	As Req'd.
76	404784	Handwheel	1
77	404786	Stop	1
*79	405579	Spring	1

*See Main Parts List for available Springs (Ref. #45)

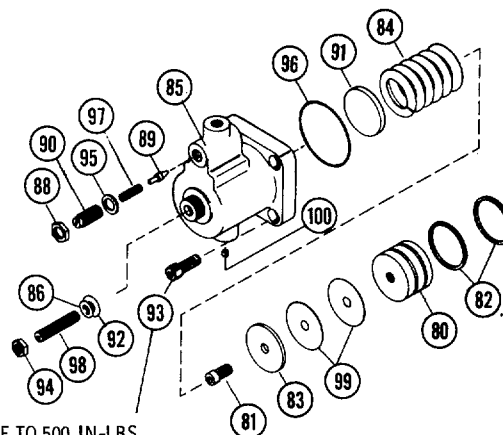


TORQUE TO 500 IN-LBS.
(58 N-m).

HYDRAULIC DUAL PRESSURE COMPENSATOR

Ref. No.	Part No.	Description	Qty.
80	306736	Piston - 40 GPM	1
80	306735	Piston - 30 GPM	1
81	405857	Screw, 5/16-18 UNC x 5/8	1
82	401105	Ring	2
83	404786	Stop	1
84	405578	Spring	1
85	220031	Housing	1
*86	491500	Washer	1
88	401015	Nut	1
89	305873	Poppet	1
90	305963	Screw	1
91	400578	Seat	1
92	491498	Thread Seal	1
93	400826	Screw, Socket Hd., 1/2-13 UNC x 1	4
94	401013	Nut, 1/2-20 UNF	1
95	401083	Gasket	1
96	406510	O-ring, 1/8 x 3-1/4 x 3-1/2 (Viton)	1
97	401489	Spring	1
98	403476	Screw, 1/2-20 UNF x 2-1/2	1
99	404073	Shim, .002"	As Req'd.
99	404074	Shim, .003"	As Req'd.
100	405420	Orifice Plug, .040	1

*Assemble Washer with Chamfer Facing Seal.



TORQUE TO 500 IN-LBS.
(58 N-m).

Complete Assembly
40 GPM Viton 956043

SEAL KIT - 723665 (VITON ONLY)

SOLENOID CONTROLLED DUAL PRESSURE COMPENSATOR

Complete Assembly
40 GPM Viton 956008

SEAL KIT - 723664 (VITON ONLY)

Ref. No.	Part No.	Description	Qty.
101	306736	Piston, 40 GPM	1
101	306735	Piston, 30 GPM	1
102	400578	Seat	1
103	405857	Screw, 5/16-18 UNC x 5/8	1
104	400826	Screw, 1/2-13 UNC x 1/2	4
105	401105	Ring	2
106	406510	O-ring, 1/8 x 3-1/4 x 3-1/2 (Viton)	1
107	404073	Shim, .002"	As Req'd.
107	404074	Shim, .003"	As Req'd.
109	404786	Stop	1
110	405578	Spring	1
*111	491500	Washer	1
112	220718	Housing	1
113	302310	Seat	1
114	302431	Screw	1
115	304439	Piston	1
116	305873	Poppet	1
117	400247	Gasket	1
118	491499	Thread Seal	1
121	400925	Plug, 1/16 N. P. T. F.	1
122	400928	Plug, 1/4 N. P. T. F.	2
123	401013	Nut, 1/2-20 UNF	1
124	406518	O-ring, 3/32 x 9/16 x 3/4 (Viton)	1
126	401485	Spring	1
127	401800	Cover	1
128	402208	Screw, #10-32 UNF x 1/2	4
129	405445	Spring	1
130	402663	Base	1
131	See Tables	Solenoid	1
132	See Tables	Coil	1
133	403476	Screw, 1/2-20 UNF x 2-1/2	1
134	304639	Guide	1
135	304640	Retainer	1
136	304641	Push Pin	1
137	406478	O-ring, 3/32 x 1/2 x 11/16 (Viton)	1
138	406092	Seal (Viton)	1
139	405420	Orifice Plug, .040	1

*Assemble Washer with Chamfer Facing Seal.

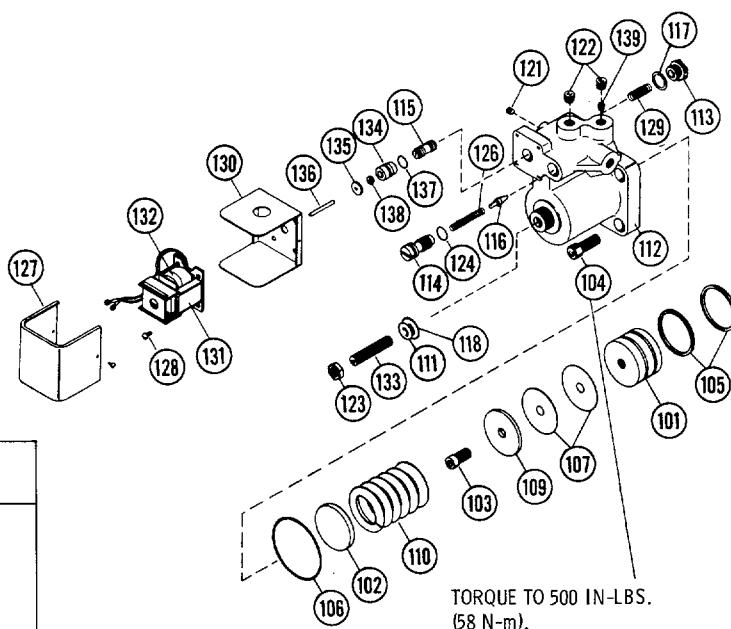


TABLE #1

A. C. SOLENOIDS			
Complete Solenoid	Coil Only	Voltage	Hertz
400991	401662	115	60
403158	403772	115	50
*491650	490698	120/110	60 / 50
400992	401663	230	60
402953	403975	220	50
400993	401664	440	60
406030	404711	440	50

*Dual Voltage

TABLE #2

D. C. SOLENOIDS		
Complete Solenoid	Coil Only	Voltage
403233	404044	12
402570	405671	24
403006	—	125
402448	403479	250

9 535 233 257
HPUS RSB 003/31 US (4.95)

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