

**PARTS MANUAL**

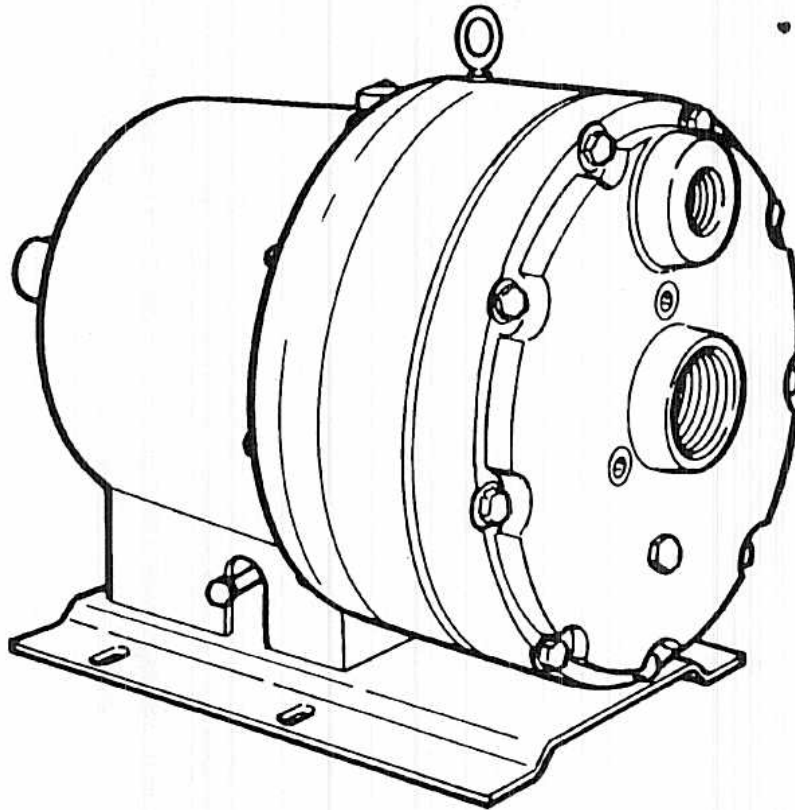
**MODEL D-40**

**SIMPLY BUILT TO LAST**

**Hydra-Cell**

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**INDUSTRIAL PUMPS**



**WANNER ENGINEERING, INC.**

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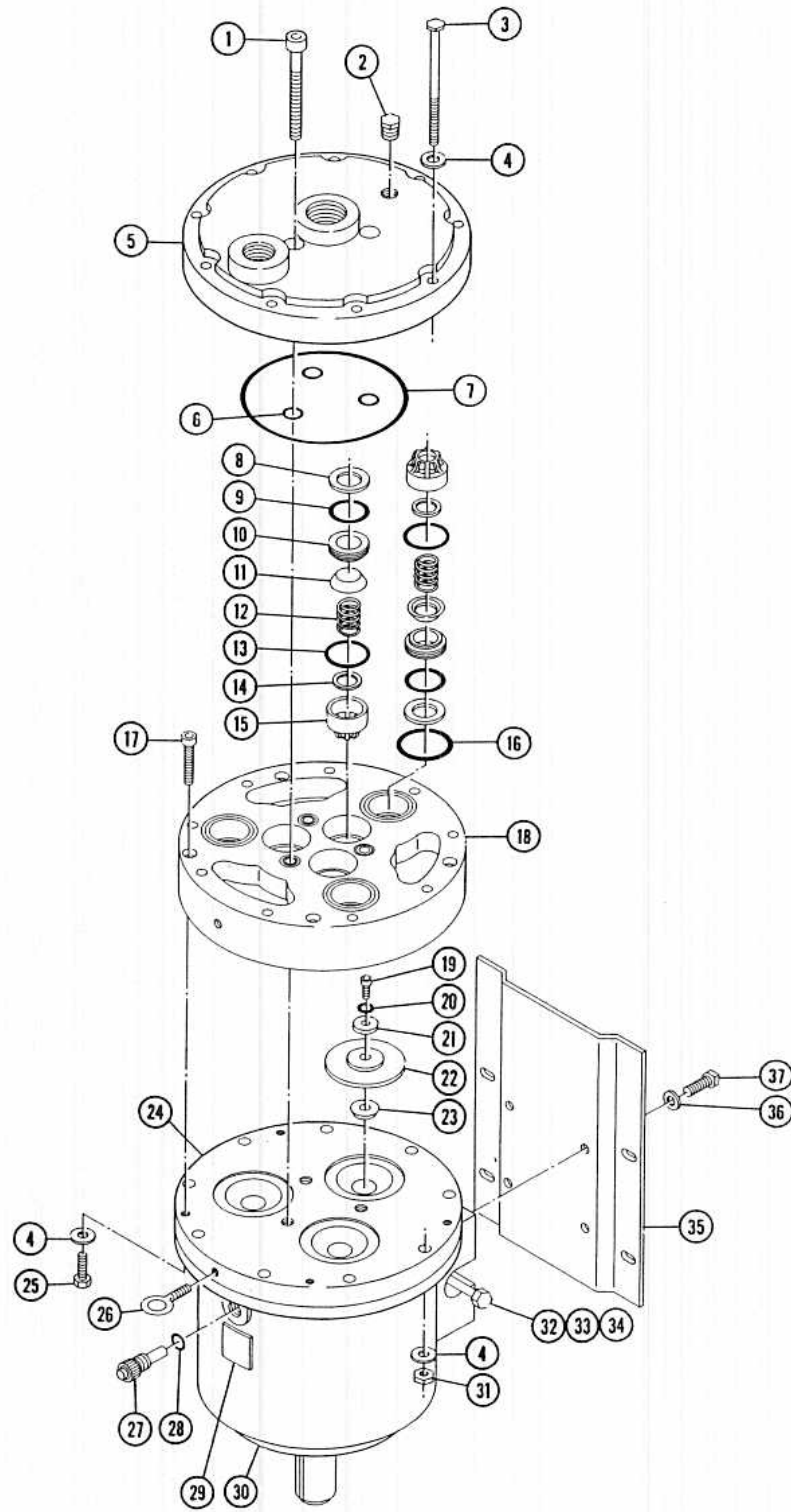
# Parts (Fluid End)

REF. NO.	PART NO.	DESCRIPTION	QTY. PER PUMP
1	D40-081-2010	Cap Screw, socket head, 5-1/2" . . . . .	3
2	D25-038-2210 D25-038-2211	Plug, brass . . . . . Plug, SST . . . . .	1 1
3	D40-024-2011	Cap Screw, hardened, 7" . . . . .	9
4	D40-048-2010	Washer, hardened, 1/2" . . . . .	21
5	D40-004-1002 D40-004-1007	Manifold, SST . . . . . Manifold, nickel-plated ductile iron . . . . .	1 1
6	D10-080-2110 D10-080-2111 D10-080-2112 D10-080-2113	O-ring, centerbolt, Buna . . . . . O-ring, centerbolt, Viton . . . . . O-ring, centerbolt, Neoprene . . . . . O-ring, centerbolt, EPDM . . . . .	3 3 3 3
7	D40-073-2110 D40-073-2111 D40-073-2112 D40-073-2113	O-ring, manifold, Buna . . . . . O-ring, manifold, Viton . . . . . O-ring, manifold, Neoprene . . . . . O-ring, manifold, EPDM . . . . .	1 1 1 1
8	D40-125-2310 D40-125-2316 D40-125-2317	Washer, dampening [*], Celcon . . . . . Washer, dampening [*], Zytel (Nylon) . . . . . Washer, dampening [*], polypropylene . . . . .	6 6 6
9	D40-035-2110 D40-035-2111 D40-035-2112 D40-035-2113	O-ring, valve seat, Buna . . . . . O-ring, valve seat, Viton . . . . . O-ring, valve seat, Neoprene . . . . . O-ring, valve seat, EPDM . . . . .	6 6 6 6
10	D40-020-1010 D40-020-1011 D40-020-1200	Valve Seat, 17-4 HT . . . . . Valve Seat, Nitronic 50 . . . . . Valve Seat, ceramic . . . . .	6 6 6
11	D40-021-1010 D40-021-1011 D40-021-3300	Valve, 17-4 HT . . . . . Valve, Nitronic 50 . . . . . Valve, ceramic . . . . .	6 6 6
12	D40-022-3110 D40-022-3115	Valve Spring, 17-7 HT . . . . . Valve Spring, Nitronic 50 . . . . .	6 6
13	D40-092-2110 D40-092-2111 D40-092-2112 D40-092-2113	O-ring, Buna . . . . . O-ring, Viton . . . . . O-ring, Neoprene . . . . . O-ring, EPDM . . . . .	6 6 6 6
14	D40-123-1010	Washer, 316 SST . . . . .	6
15	D40-023-2310 D40-023-2316 D40-023-2317	Retainer, valve spring, Celcon . . . . . Retainer, valve spring, Zytel (Nylon) . . . . . Retainer, valve spring, polypropylene . . . . .	6 6 6
16	D40-074-2110 D40-074-2111 D40-074-2112 D40-074-2113	O-ring, outlet, Buna . . . . . O-ring, outlet, Viton . . . . . O-ring, outlet, Neoprene . . . . . O-ring, outlet, EPDM . . . . .	3 3 3 3
17	D40-101-2010	Cap Screw, socket-head, 2-1/2" . . . . .	4
18	D40-003-1002 D40-003-1017	Valve Plate, SST . . . . . Valve Plate, nickel-plated ductile iron . . . . .	1 1
19	D40-030-2010	Screw, flat-head machine, SST, 3/8" . . . . .	3

REF. NO.	PART NO.	DESCRIPTION	QTY. PER PUMP
20	D40-047-2110 D40-047-2111 D40-047-2112 D40-047-2113	O-ring, follower, Buna . . . . . O-ring, follower, Viton . . . . . O-ring, follower, Neoprene . . . . . O-ring, follower, EPDM . . . . .	3 3 3 3
21	D40-017-1010	Follower, SST . . . . .	3
22	D40-018-2310 D40-018-2312 D40-018-2313 D40-018-2315 D40-018-2320	Diaphragm, Buna . . . . . Diaphragm, Neoprene . . . . . Diaphragm, EPDM . . . . . Diaphragm, Viton-Xt . . . . . Diaphragm, Buna-N-XS . . . . .	3 3 3 3 3
23	D40-016-1010	Plunger . . . . .	3
24	D40-002-1010 D40-002-1210	Cylinder Casting . . . . . Cylinder Casting Assembly [+]. . . . .	1 -
25	D40-029-2010	Cap Screw, hex-head, 1-1/2" . . . . .	4
26	D40-102-2010	I-Bolt, 7/16" . . . . .	1
27	D10-039-1210	Cap, oil fill (includes breather) . . . . .	1
28	D10-080-2110 D10-080-2111	O-ring, oil fill, Buna . . . . . O-ring, oil fill, Viton . . . . .	1 1
29	D40-040-2410	Name Plate . . . . .	1
30	G40-001-1010 G40-001-1210	Pump Housing . . . . . Pump Housing Assembly [§] . . . . .	1 -
31	D40-028-2010	Nut, hardened, hex, 1/2" . . . . .	8
32	D25-076-2210	Elbow, 3/8" . . . . .	1
33	D25-077-2210	Pipe, 3/8" . . . . .	1
34	D25-078-2210	Cap, 3/8" . . . . .	1
35	D40-025-1010	Base . . . . .	1
36	D40-054-2010	Washer, shakeproof, 5/8" . . . . .	4
37	D40-087-2010	Cap Screw, hex-head, 5/8" . . . . .	4

- \* Used in all SST and ductile iron pump heads after Ser. No. 1293.
- + Cylinder Casting Assembly includes cylinder casting (24), bearing cup, adjusting plate (61), disc springs (60), and retaining ring (59).
- § Pump Housing Assembly includes housing (30), drain (32,33,34), and bearing cup.

# Parts (Fluid End)



# Parts (Hydraulic End)

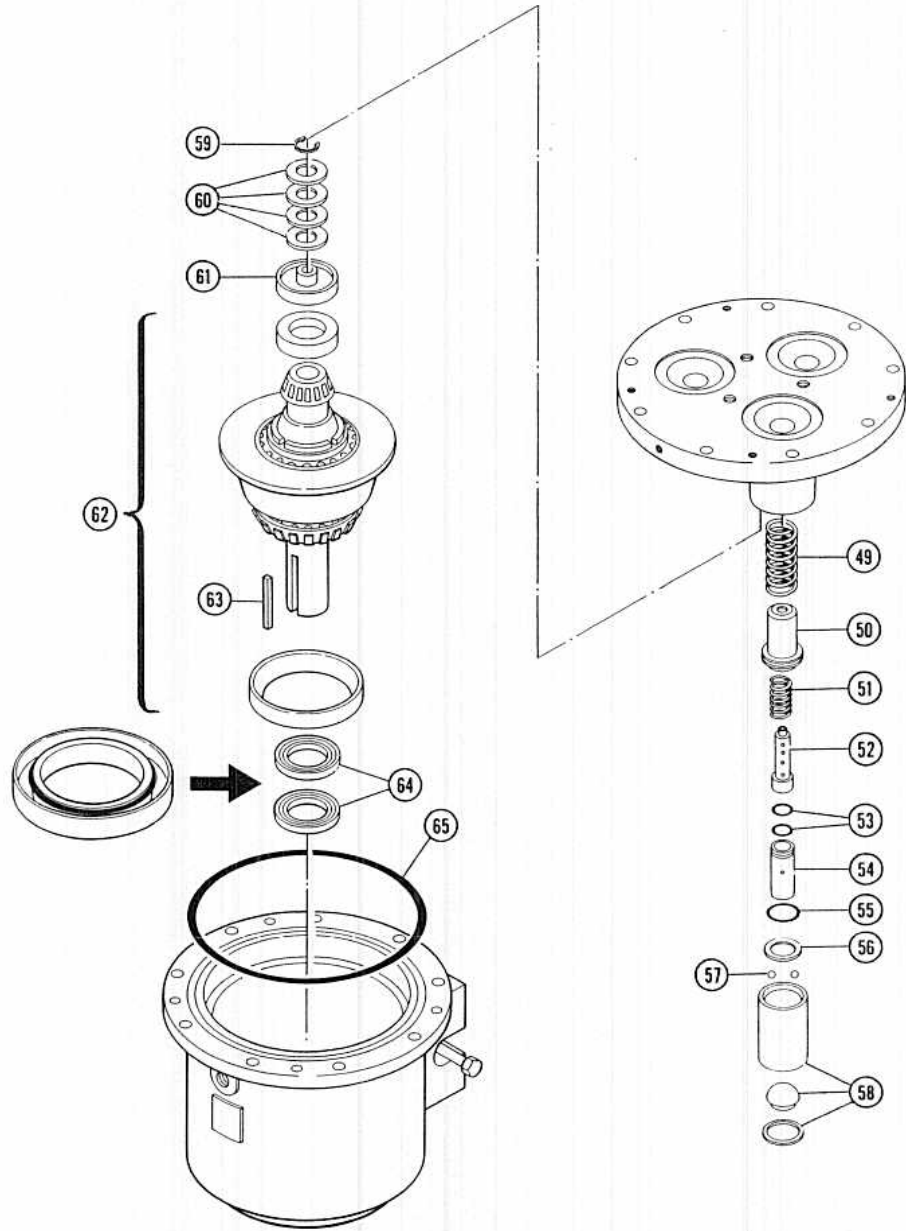
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REF. NO.	PART NO.	DESCRIPTION	QTY. PER PUMP
49	D40-019-3112	Spring, piston return, 17-4	3
50	D40-042-1010	Retainer, return spring	3
51	D40-045-3110	Spring, sleeve valve	3
52	D40-044-1010	Valve Plunger	3
53	D10-034-2110	O-ring, valve cylinder, Buna	6
54	D40-043-1010	Cylinder, valve	3
55	D40-034-2110	O-ring, piston, Buna	3
56	D40-041-1010	Washer, ball retainer	3
57	D10-015-3010	Ball, 3/16"	6
58	D40-014-1209	Piston, with foot and retainer	3
	D40-014-1210	Piston Assembly, Buna [#]	-
59	D40-124-2210	Retaining Ring	1
60	D40-075-3110	Disc spring, adjustment plate	4
61	D40-012-1011	Bearing Adjusting Plate, with snapping groove	1
62	D40-007-1210	Cam Assembly [§]	1
63	D40-085-2210	Key, shaft	1
64	D40-031-2110	Seal, Buna	2
65	D40-037-2110	O-ring, pump housing, Buna	1
—	D40-111-2400	Label, caution	1

# Piston Assembly includes cylinder, foot, valve plunger, O-rings, spring retainer, and springs (49 - 58).

§ Cam Assembly includes cam, shaft, wobble plate, and bearings. This is only available as an assembly.

# Parts (Hydraulic End)



# Parts (Repair Kits)

## D-40 REPAIR KIT NUMBERING SYSTEM

The Model Number always contains 11 digits: for example, D40K52NHFHC, D40D52NXXXX, or D40V52NHFHC.

D	4	0								
1	2	3	4	5	6	7	8	9	10	11
PUMP MODEL NO.			KIT DESIGNATOR	TYPE OF FLUID END		MATERIAL USED IN KEY COMPONENTS				

### PUMP MODEL NO. (Digits 1 – 3)

D40 = Model D-40

### KIT DESIGNATOR [\*] (Digit 4)

- K = Complete fluid-end kit
- D = Diaphragm kit
- V = Valve kit [§]

### TYPE OF FLUID END (Digits 5 – 6)

52 = Version A

### MATERIAL — FLUID-END ELASTOMERS (Digit 7)

- E = EPDM
- G = Viton-XT
- N = Buna-N
- P = Neoprene
- T = Buna-N-XS

### MATERIAL — VALVE SEAT (Digit 8)

- C = Ceramic
- H = SST, Type 17-4
- N = Nitronic 50
- X = Not included in "D" kit

### MATERIAL — VALVE (Digit 9)

- C = Ceramic
- F = SST, Type 17-4, machined
- N = Nitronic 50
- X = Not included in "D" kit

### MATERIAL — VALVE SPRING (Digit 10)

- H = SST, Type 17-7
- N = Nitronic 50
- X = Not included in "D" kit

### MATERIAL — VALVE SPRING RETAINER (Digit 11)

- C = Celcon
- P = Polypropylene
- Y = Zytel (Nylon)
- X = Not included in "D" kit

[\*] See "Kit Contents" below.

[§] Diaphragms and follower O-rings are **not** included in Valve Kits.

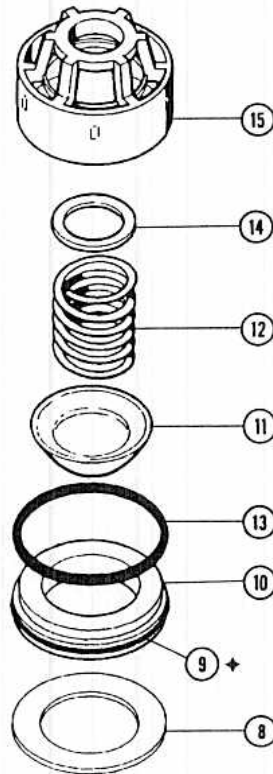
Consult the factory for pumps with letters and characters not listed above.

## KIT CONTENTS

REF. NO.	PART NO.	DESCRIPTION	QTY.	KIT DESIGNATOR		
				"K"	"D"	"V"
22	D40-018	Diaphragm .....	3	I	I	—
20	D40-047	O-ring, follower .....	3	I	I	—
16	D40-074	O-ring, outlet .....	3	I	I	I
7	D40-073	O-ring, manifold .....	1	I	I	I
6	D10-080	O-ring, centerbolt .....	3	I	I	I
9	D40-035	O-ring, valve seat .....	6	I	—	I
10	D40-020	Valve seat .....	6	I	—	I
11	D40-021	Valve .....	6	I	—	I
12	D40-022	Valve spring .....	6	I	—	I
13	D40-092	O-ring .....	6	I	—	I
8	D40-125	Washer, dampening .....	6	I	—	I
14	D40-123	Washer, stainless .....	6	I	—	I
15	D40-023	Retainer, valve spring .....	6	I	—	I
—	A01-113-3400	Threadlocker .....	1	I	I	—

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**MODEL D-40 VALVE ASSEMBLY**



♦ O-ring (9) is shown installed on valve seat (10).

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**IMPORTANT**

Record your Pump Model No. and Serial No. here for easy reference:

MODEL NO. D-40

SERIAL NO. \_\_\_\_\_

DATE OF PURCHASE \_\_\_\_\_

When ordering parts or making inquiries about this pump, please mention the Model and Serial Numbers.