

Parts Manual
D12-991-2402 Rev E

Hydra-Cell[®]

Seal-less Pumps

Models: D-12, G-12

IMPORTANT

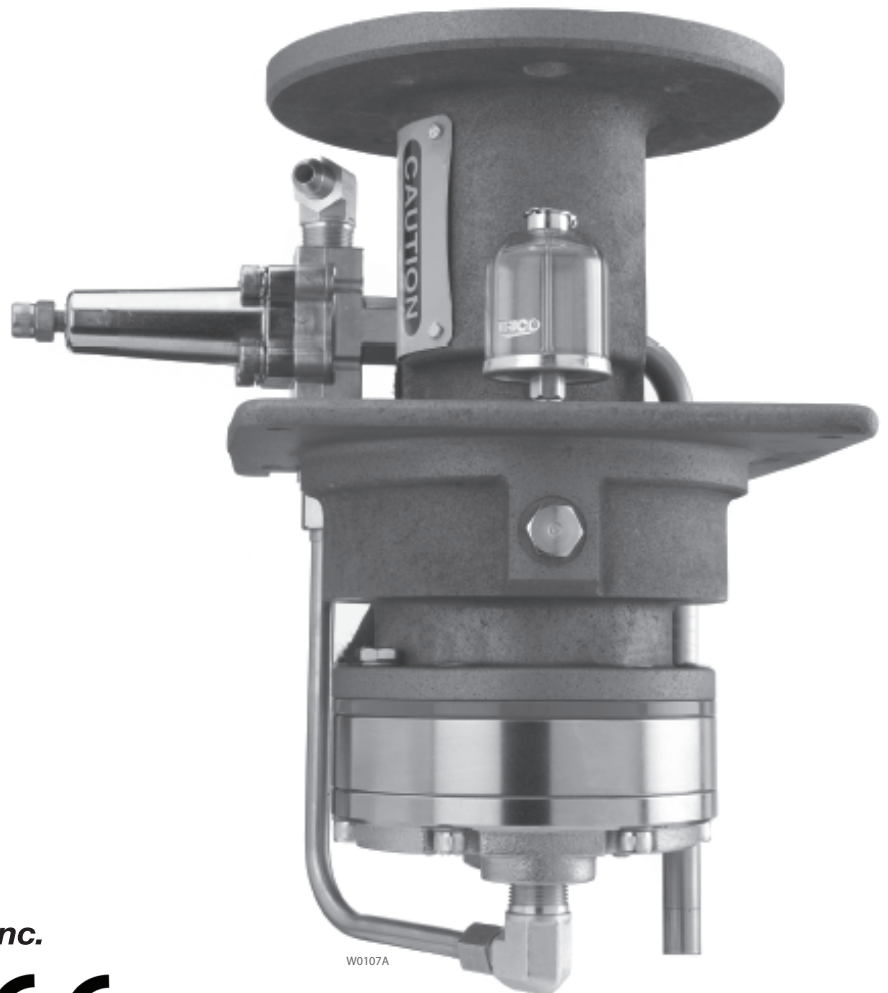
Record your pump model number and serial number here for easy reference:

Model No. _____

Serial No. _____

Date of Purchase _____

When ordering parts or making inquiries about this pump, please mention the model and serial numbers.



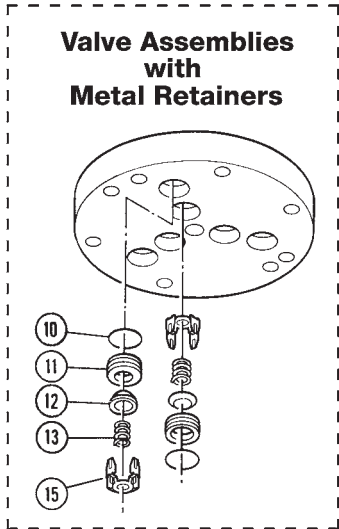
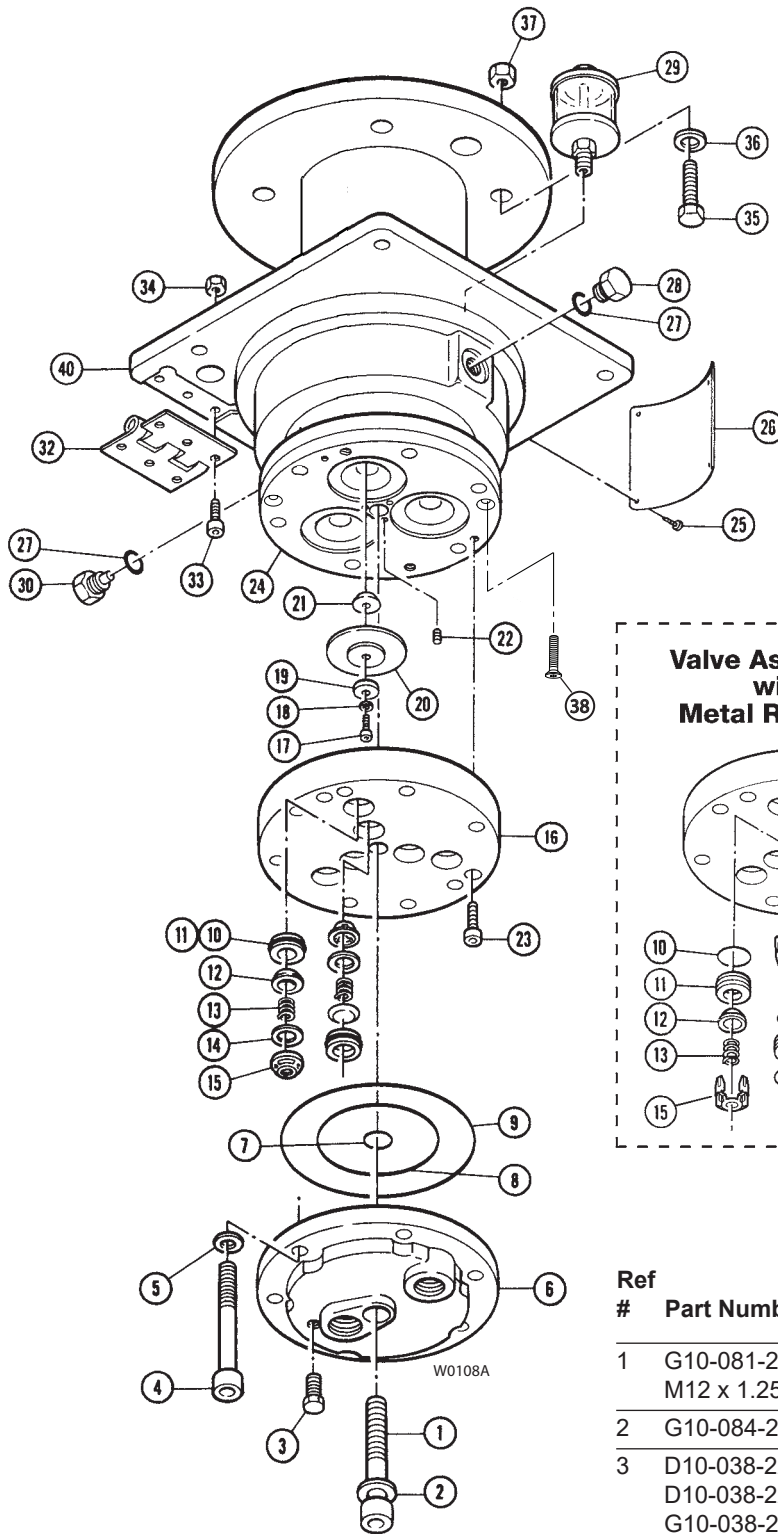
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 **Wanner Engineering, Inc.**

1204 Chestnut Avenue, Minneapolis, MN 55403
Tel: (612) 332-5681 Fax: (612) 332-6937
Toll-free fax [US only]: (800) 332-6812
www.hydra-cell.com
email: sales@wannereng.com



D/G-12 Fluid End



Ref #	Part Number	Description	Quantity/ Pump
1	G10-081-2010	Cap Screw, socket-head, M12 x 1.25 x 70 mm.....	1
2	G10-084-2010	Washer, flat.....	1
3	D10-038-2210	Plug, brass, NPT	1
	D10-038-2211	Plug, SST, NPT.....	1
	G10-038-2211	Plug, SST, BSPT	1
4	G10-024-2011	Cap Screw, socket-head, M10 x 1.5 x 90 mm	6
5	G25-048-2010	Washer, split-lock	6

D/G-12 Fluid End

Ref. No.	Part Number	Description	Quantity/ Pump
6	D10-004-1002	Manifold, 316 SST, NPT	1
	D10-004-1008	Manifold, brass NPT	1
	D10-004-1034	Manifold, cast iron, NPT	1
	G10-004-1002	Manifold, 316 SST, BSPT	1
	G10-004-1008	Manifold, brass, BSPT	1
	G10-004-1034	Manifold, cast iron, BSPT	1
7	D10-083-2110	O-ring, center bolt, Buna	1
	D10-083-2111	O-ring, center bolt, FKM	1
	D10-083-2112	O-ring, center bolt, Neoprene	1
	D10-083-2113	O-ring, center bolt, EPDM	1
	D10-083-2118	O-ring, center bolt, PTFE.....	1
8	D10-073-2118	O-ring, inner manifold, PTFE.....	1
	D11-073-2120	O-ring, inner manifold, Buna.....	1
	D11-073-2121	O-ring, inner manifold, FKM	1
	D11-073-2122	O-ring, inner manifold, Neoprene	1
	D11-073-2123	O-ring, inner manifold, EPDM.....	1
9	D10-074-2118	O-ring, outer manifold, PTFE.....	1
	D11-074-2120	O-ring, outer manifold, Buna	1
	D11-074-2121	O-ring, outer manifold, FKM	1
	D11-074-2122	O-ring, outer manifold, Neoprene	1
	D11-074-2123	O-ring, outer manifold, EPDM	1
10	D10-035-2110	O-ring, valve seat, Buna	6
	D10-035-2111	O-ring, valve seat, FKM.....	6
	D10-035-2112	O-ring, valve seat, Neoprene.....	6
	D10-035-2113	O-ring, valve seat, EPDM.....	6
	D10-035-2118	O-ring, valve seat, PTFE	6
11	D10-020-1010	Valve Seat, 17-4 SST, HT	6
	D10-020-1011	Valve Seat, 316 SST	6
	D10-020-1017	Valve Seat, Hastelloy C	6
	D10-020-3300	Valve Seat, ceramic.....	6
12	D10-021-1011	Valve, Nitronic.....	6
	D10-021-1015	Valve, 17-4 SST, machined, HT.....	6
	D10-021-1017	Valve, Hastelloy C	6
	D10-021-3300	Valve, ceramic	6
13	D10-022-3117	Valve Spring, Elgiloy	6
	D10-022-3123	Valve Spring, Hastelloy C	6
14	D10-092-2110	Tetra Seal, Buna	6
	D10-092-2111	Tetra Seal, FKM.....	6
	D10-092-2112	Tetra Seal, Neoprene.....	6
	D10-092-2113	Tetra Seal, EPDM.....	6
	D10-092-2118	Tetra Seal, PTFE	6
15	D10-023-1010	Retainer, valve spring, 17-7 SST.....	6
	D10-023-1017	Retainer, valve spring, Hastelloy C.....	6
	D10-023-2310	Retainer, valve spring, Celcon.....	6
	D10-023-2326	Retainer, valve spring, nylon	6
	D10-023-2327	Retainer, valve spring, polypropylene	6
	D10-023-2328	Retainer, valve spring, Kynar	6

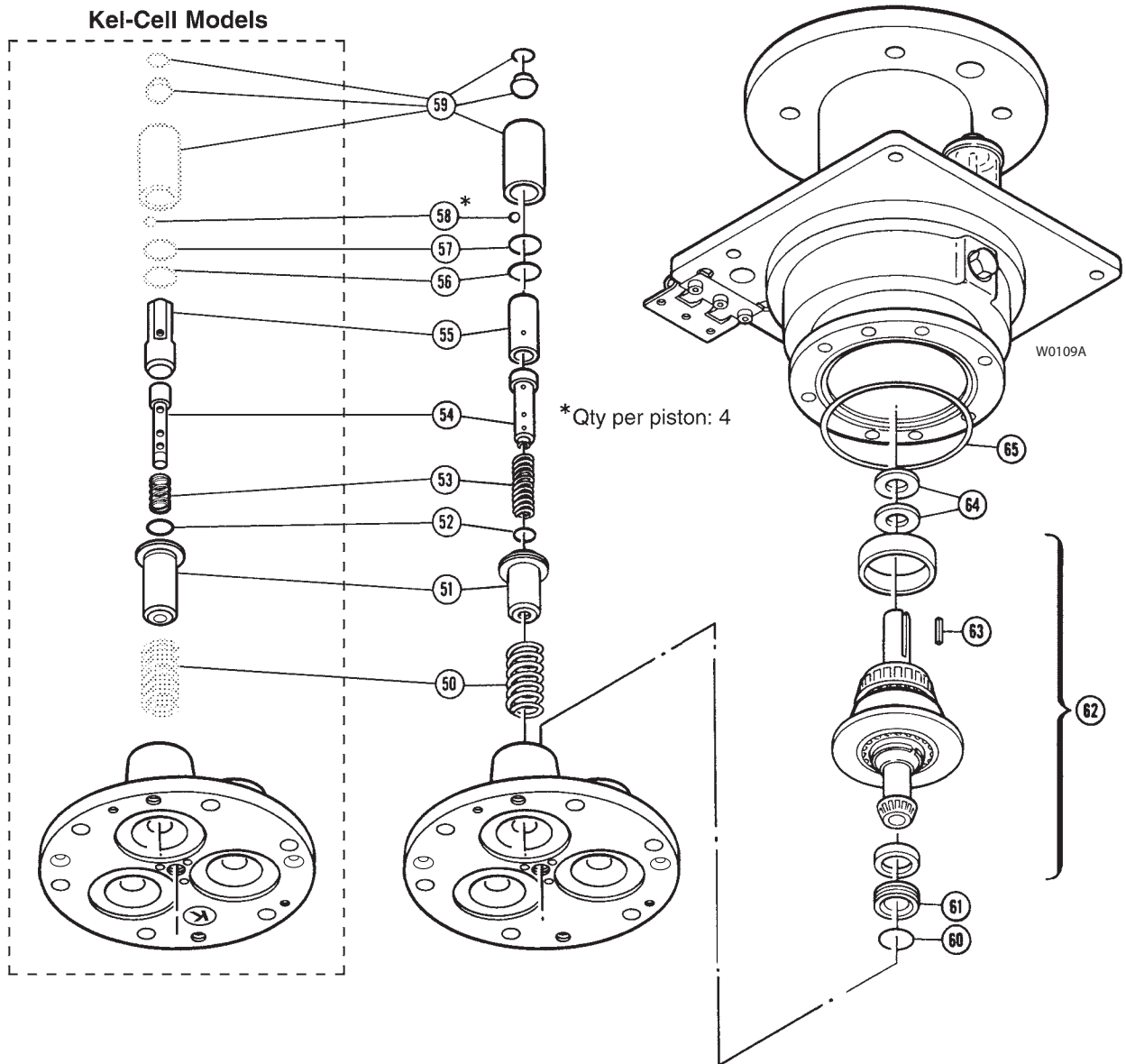
Ref. No.	Part Number	Description	Quantity/ Pump
16	D10-003-1011	Valve Plate, brass.....	1
	D10-003-1012	Valve Plate, 316 SST.....	1
	D10-003-1019	Valve Plate, cast iron	1
	D10-003-1032	Valve Plate, brass RP.....	1
	D10-003-1033	Valve Plate, 316 RP.....	1
	D10-003-1036	Valve Plate, Cast iron, RP	1
17	D10-030-2010	Screw, flat-head, 316 SST.....	3
18	D10-047-2110	O-ring, follower, Buna-N	3
	D10-047-2111	O-ring, follower, FKM.....	3
	D10-047-2112	O-ring, follower, Neoprene.....	3
	D10-047-2113	O-ring, follower, EPDM	3
	D10-047-2118	O-ring, follower, PTFE	3
19	D10-017-1010	Follower, 316 SST	3
20	D10-018-2312	Diaphragm, Neoprene	3
	D10-018-2313	Diaphragm, EPDM.....	3
	D10-018-2315	Diaphragm, FKM	3
	D10-018-2318	Diaphragm, PTFE.....	3
21	D10-018-2320	Diaphragm, Buna-N-XS.....	3
	D10-016-1010	Plunger	3
22	G10-082-2010	Set Screw, M6 x 1 x 10mm.....	3
23	G10-088-2010	Cap Screw, socket-head, M6 x 1 x 30 mm	2
24	G10-002-1010	Cylinder Housing	1
	G10-002-1210	Cylinder Housing Assembly, Buna ¹ ...	—
	K10-002-1020	Cylinder Housing, Kel-Cell.....	1
	K10-002-1220	Cylinder Housing Assembly, Kel-Cell ¹ –	—
25	G20-090-2010	Screw, M4 x 10 mm	4
26	D12-140-2410	Cover, caution.....	1
27	D12-121-2111	O-ring, FKM.....	2
28	D12-111-2211	Plug	1
29	D12-116-2210	Reservoir, oil.....	1
30	D12-111-2210	Plug, magnetic.....	1
31	G10-028-2010	Nut, hex, M10	6
32	D12-115-2210	Hinge	2
33	G03-088-2010	Bolt, M6 x 20 mm.....	6
34	G12-108-2010	Nut, lock, M6.....	6
35	M10-110-2000	Bolt, 1/2" x 1-1/2"	4
	A04-043-2010	Bolt, M12 x 40 mm ²	4
36	M10-111-2000	Washer, lock, 1/2"	4
37	A04-045-2010	Nut, M12 ²	4
38	G10-088-2020	Screw, Flathead, M10 x 30 mm.....	2
40	D12-001-1011	Pump Housing	1
	D12-001-1211	Pump Housing Assembly ³	—
	G12-001-1012	Pump Housing ²	1
	G12-001-1212	Pump Housing Assembly ^{2,3}	—

¹ Cylinder Housing Assembly includes casting (24), bearing cup, adjusting plate (61), O-ring (60), and set screws (22).

² For metric motors.

³ Pump Housing Assembly includes housing (40) and bearing cup.

D/G-12 Hydraulic End



D/G-12 Hydraulic End

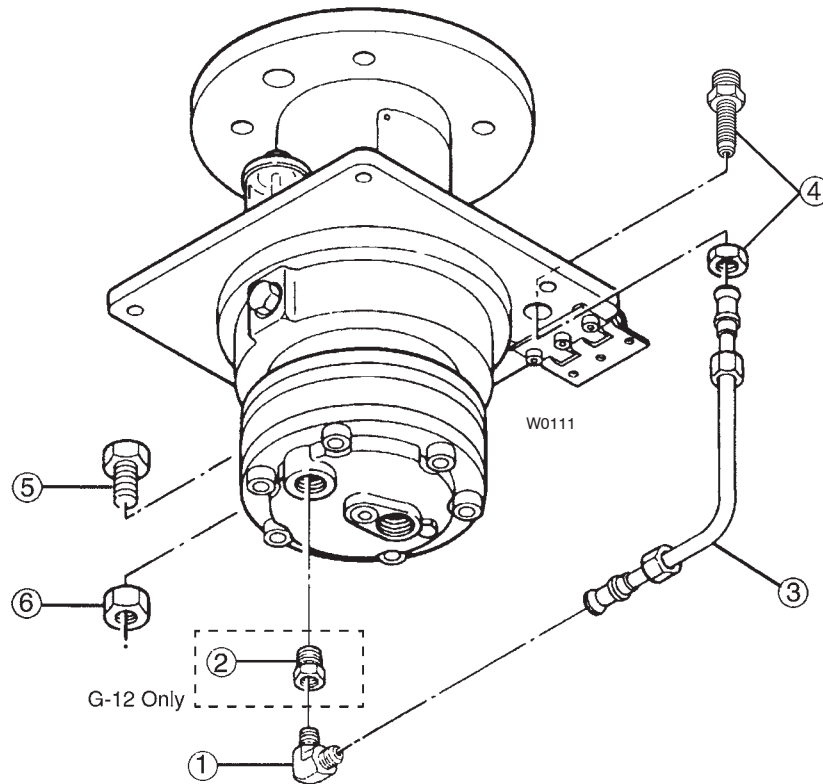
Ref. No.	Part Number	Description	Quantity/ Pump
50	D10-019-3110	Spring, piston return	3
51	D10-042-1010	Retainer, spring	3
	K10-042-1010	Retainer, spring, Kel-Cell ¹	3
52	D10-046-2110	O-ring, valve cylinder, Buna.....	3
	C23-009-2110	O-ring, valve cylinder, Buna, Kel-Cell ¹	3
53	D10-045-3110	Spring, sleeve valve	3
	D10-045-3111	Spring, sleeve valve (PTFE diaphragm).....	3
	K10-045-3110	Spring, sleeve valve, Kel-Cell ¹	3
54	D10-044-1010	Valve Plunger	3
	K10-044-1010	Valve Plunger, Kel-Cell ¹	3
55	D10-043-1010	Cylinder, valve	3
	K10-043-1010	Cylinder, valve, Kel-Cell ¹	3
56	D10-034-2110	O-ring, Buna	3
57	D10-041-1010	Washer, ball retainer.....	3
58	D10-015-3010	Ball.....	12
59	D10-014-1209	Piston, with foot and retainer.....	3
	D10-014-1210	Piston Assembly, Buna ²	—
	K10-014-1210	Piston Assembly, Kel-Cell ^{1,2}	—
60	D10-075-2110	O-ring, bearing adjusting plate, Buna..	1
61	D10-012-1010	Bearing Adjusting Plate	1
62	D10-007-1210	Cam Assembly (X) ³ , 8 gpm (30.3 lpm) @ 1450 rpm	—
	D10-007-1211	Cam Assembly (I) ³ , 4 gpm (15.1 lpm) @ 1750 rpm	—
	D10-007-1212	Cam Assembly (S) ³ , 6 gpm (22.7 lpm) @ 1750 rpm	—
	D10-007-1214	Cam Assembly (E) ³ , 8 gpm (30.3 lpm) @ 1750 rpm	—
63	D10-085-2210	Key, shaft.....	1
64	D10-031-2120	Seal, Buna	2
65	D10-037-2110	O-ring, pump housing, Buna.....	1
—	D10-111-2401	Label, caution	1
	D10-111-2402	Label, caution	1

¹ Parts used in Kel-Cell version pumps (Kel-Cell version pumps are indicated by a “K” in the 5th digit of the pump model number).

² Piston Assembly includes cylinder, foot, valve plunger, O-rings, spring retainer, and springs (50-59).

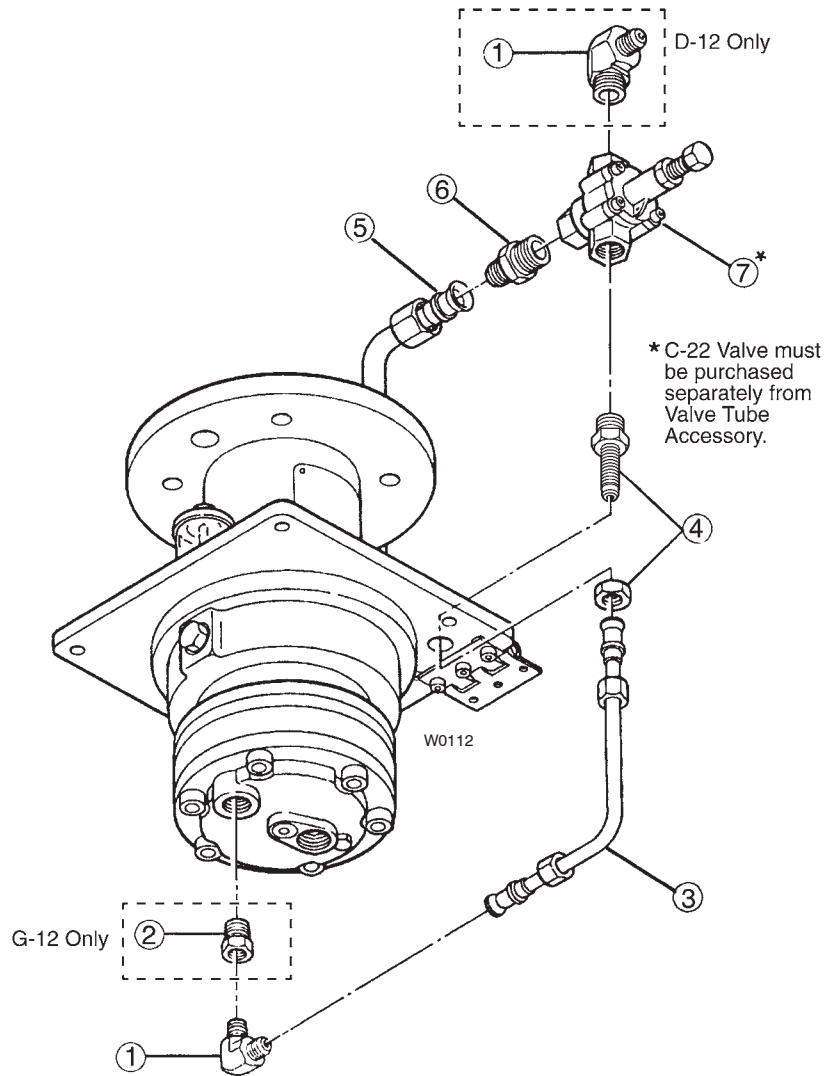
³ Cam Assembly includes can, shaft, wobble plate, cups and bearings. It is only available as an assembly.

D/G-12 Tube Accessory



Ref. No.	Part Number	Description	Quantity/ Pump
1	D12-112-2210	Elbow, 90°, flare, 3/4" NPT	1
	G12-112-2210	Elbow, 90°, flare, 1/2" BSPT	1
2	G12-122-2210	Bushing, reducer, 1/2" to 3/4" BSPT	1
3	D12-113-1210	Tube Assembly, pressure	1
4	D12-120-2210	Union, bulkhead, NPT, with nut	1
	G12-120-2210	Union, bulkhead, BSPT, with nut	1
5	D12-107-2010	Bolt, hex, 3/4" x 1-1/4"	1
6	D12-106-2010	Nut, hex, 3/4"	1

D/G-12 Valve-Tube Accessory



Ref. No.	Part Number	Description	Quantity/ Pump
1	D12-112-2210	Elbow, 90°, flare, 3/4" NPT	2
	G12-112-2210	Elbow, 90°, flare, 1/2" BSPT	1
2	G12-122-2210	Bushing, reducer, 1/2" to 3/4" BSPT....	1
3	D12-113-1210	Tube Assembly, pressure	1
4	D12-120-2210	Union, bulkhead, NPT, with nut	1
	G12-120-2210	Union, bulkhead, BSPT, with nut	1
5	D12-114-1210	Tube Assembly, bypass	1
6	D12-117-2210	Connector, male, flare, 3/4" NPT	1
	G12-117-2210	Connector, male flare, 3/4" BSPT	1
7	C-22 Valve	[Refer to Valve Parts List for breakdown]	-

D/G-12 Series Replacement Parts Kits

TO ORDER REPLACEMENT PARTS KIT: A Replacement Parts Kit contains 11 digits corresponding to customer-specified design options.

1	2	3	4	5	6	7	8	9	10	11
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Digit	Order Code	Description
1-3		Pump Configuration
	D12	For all D-12 Pumps
	G12	For all G-12 Pumps
4		Kit Designator
	K	Complete Fluid End Kit
	D	Diaphragm Kit
	V	Valve Kit (diaphragm not included)
5-6		Pump Head Version
	52	Metallic Pump Head Version
7		Diaphragm & O-ring Material
	E	EPDM
	G	FKM
	J	PTFE
	P	Neoprene
	T	Buna-N-XS
8		Valve Seat Material
	C	Ceramic
	D	Tungsten Carbide
	H	17-4 PH Stainless Steel
	S	316 Stainless Steel
	T	Hastelloy® C
9		Valve Material
	C	Ceramic
	D	Tungsten Carbide
	F	17-4 PH Stainless Steel – Machined
	N	Nitronic 50
	T	Hastelloy® C
10		Valve Springs
	E	Elgiloy®
	T	Hastelloy® C
	X	Not included in Diaphragm Kit
11		Valve Spring Retainers
	C	Celcon
	H	17-7 PH Stainless Steel
	M	PVDF
	P	Polypropylene
	T	Hastelloy® C
	Y	Nylon (Zytel)
X	Not included in Diaphragm Kit	

Kit Contents

Part Number*Description	Qty	Kit Designator		
		K	D	V
D10-018-___ Diaphragm	3	•	•	
D10-047-___ O-ring, follower	3	•	•	
D10-074-___ O-ring, outer manifold	1	•	•	•
D10-073-___ O-ring, inner manifold	1	•	•	•
D10-083-___ O-ring, center bolt	1	•	•	•
D10-035-___ O-ring, valve seat	6	•		•
D10-020-___ Valve seat	6	•		•
D10-021-___ Valve	6	•		•
D10-022-___ Valve spring	6	•		•
D10-092-___ Tetra seal ¹	6	•		•
D10-023-___ Retainer, valve spring	6	•		•
A01-113-3400 Threadlocker	1	•	•	

* Last four digits of part numbers with -___ refer to specific material of construction.

¹ Not included with metal spring retainers.



WANNER ENGINEERING, INC.

1204 Chestnut Avenue, Minneapolis, MN 55403
 TEL: (612) 332-5681 FAX: (612) 332-6937
 TOLL-FREE FAX [US only]: (800) 332-6812

www.hydra-cell.com

email: sales@wannereng.com

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