

PARTS MANUAL

Hydra-Cell[®] INDUSTRIAL PUMPS

MODELS: D-12
G-12

IMPORTANT

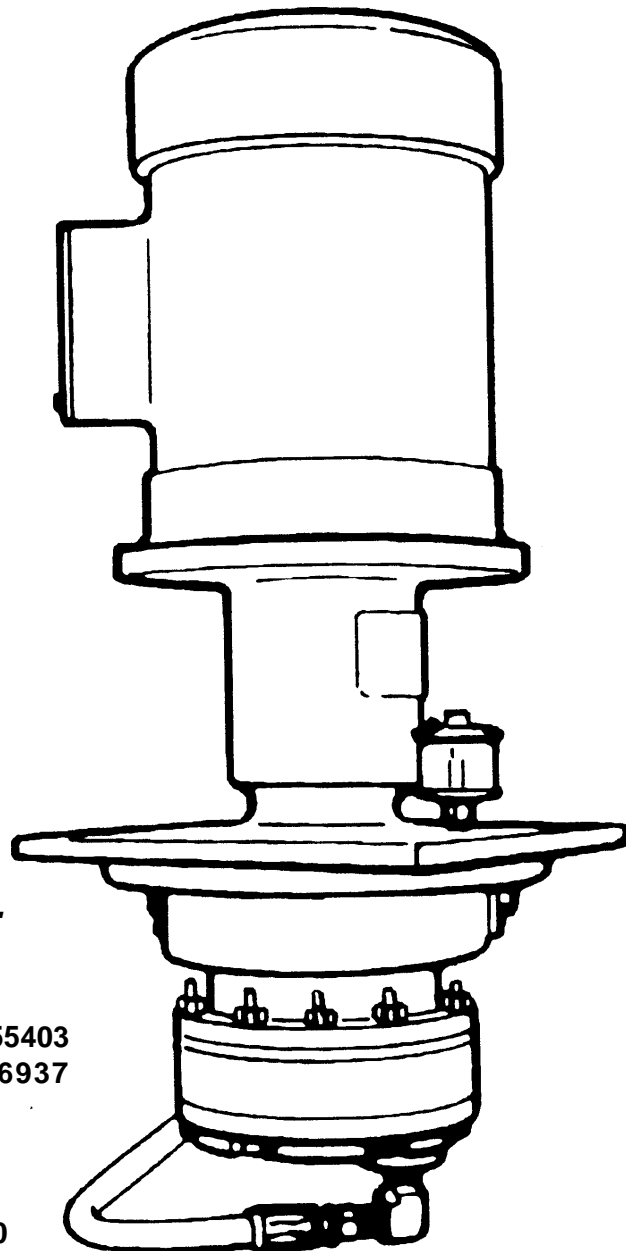
Record your pump model number and serial number here for easy reference:

Model No. _____

Serial No. _____

Date of Purchase _____

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



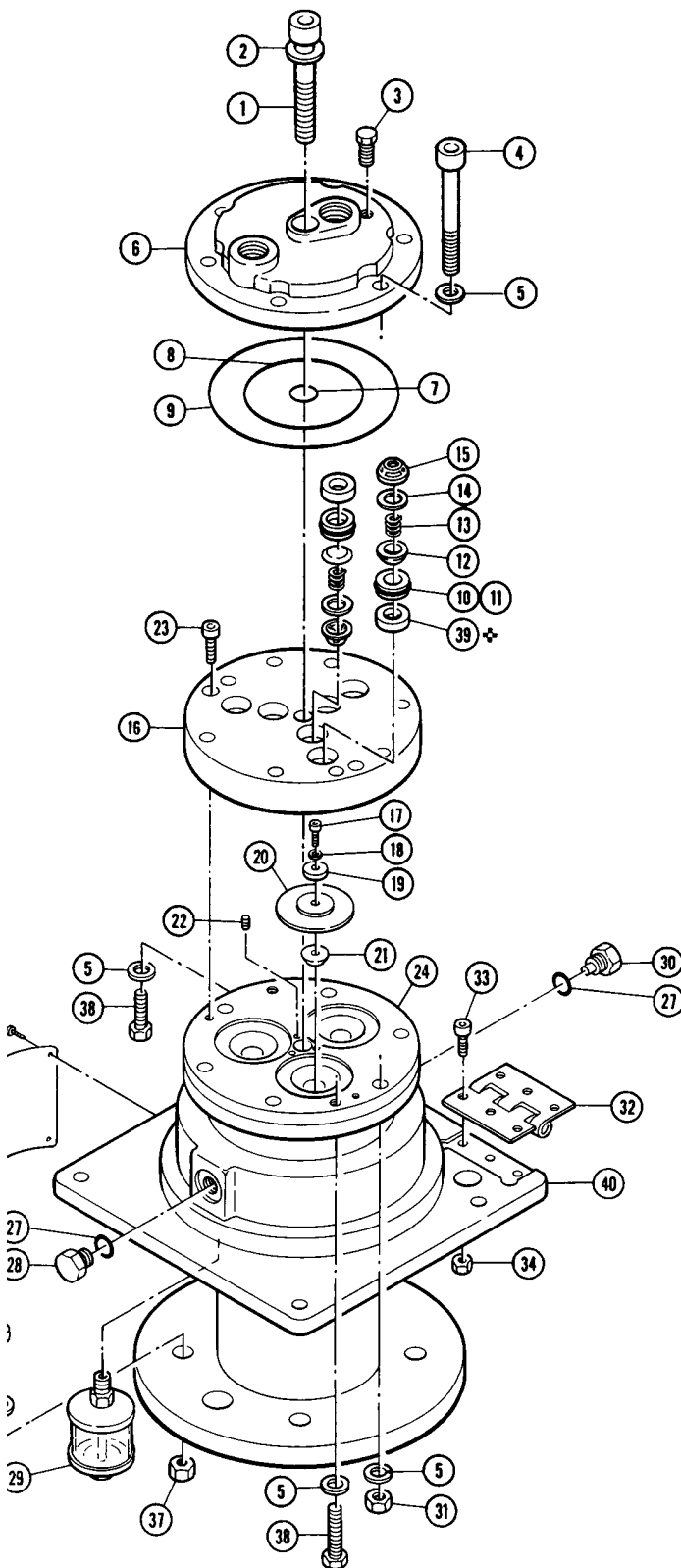
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Fluid End

MODELS D-12/G-12 WITH STANDARD VALVE ASSEMBLIES



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 D10-038-2211 G10-038-2211	Plug, brass, NPT	1 1 1
4	G10-024-2010	Cap Screw, socket-head, M10 x 1.5 x 90 mm	6
5	G10-048-2010	Washer, split-lock	14
6	D10-004-1002 D10-004-1008 D10-004-1034 G10-004-1002 G10-004-1008 G10-004-1034	Manifold, 316 SST, NPT	1 1 1 1 1 1
7	D10-083-2110 D10-083-2111 D10-083-2112 D10-083-2113 D10-083-2118	O-ring, center bolt, Buna	1 1 1 1 1
8	D10-073-2118 D11-073-2120 D11-073-2121 D11-073-2122 D11-073-2123	O-ring, inner manifold, Teflon	1 1 1 1 1
9	D10-074-2118 D11-074-2120 D11-074-2121 D11-074-2122 D11-074-2123	O-ring, outer manifold, Teflon	1 1 1 1 1
10	D10-035-2118 D11-035-2120 D11-035-2121 D11-035-2122 D11-035-2123	O-ring, valve seat, Teflon	6 6 6 6 6
11	D10-020-1010 D10-020-1011 D10-020-3300	Valve Seat, 17-4 SST, HT	6 6 6
12	D10-021-1011 D10-021-1015 D10-021-3300	Valve, Nitronic	6 6 6
13	D10-022-3114 D10-022-3117	Valve Spring, Elgiloy (abr. duty)	6 6
14	D10-092-2110 D10-092-2111 D10-092-2112 D10-092-2113 D10-092-2118	Tetra Seal, Buna	6 6 6 6 6

Fluid End

Ref #	Part Number	Description	Quantity/ Pump
15	D10-023-2310	Retainer, valve spring, Celcon	6
	D10-023-2314	Retainer, valve spring, Celcon (abr. duty)	6
	D10-023-2317	Retainer, valve spring, polypropylene (abr. duty)	6
	D10-023-2319	Retainer, valve spring, Kynar (abr. duty)	6
	D10-023-2327	Retainer, valve spring, polypropylene	6
	D10-023-2328	Retainer, valve spring, Kynar	6
16	D10-003-1011	Valve Plate, brass	1
	D10-003-1012	Valve Plate, 316 SST	1
	D10-003-1019	Valve Plate, cast iron	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, Viton	3
	D10-047-2112	O-ring, follower, Neoprene	3
	D10-047-2113	O-ring, follower, EPDM	3
	D10-047-2118	O-ring, follower, Teflon	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, Viton-XT	3
	D10-018-2318	Diaphragm, Teflon	3
	D10-018-2320	Diaphragm, Buna-N-XS	3
21	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 Casting	1
	G10-002-1210	Cylinder Casting Assembly, Buna ¹	–
25	G20-090-2010	Screw, M4 x 10 mm	4
26	D12-140-2410	Cover, caution	1
27	D12-121-2111	O-ring, Viton	2
28	D12-111-2211	Plug	1
29	D12-116-2210	Reservoir, oil	1

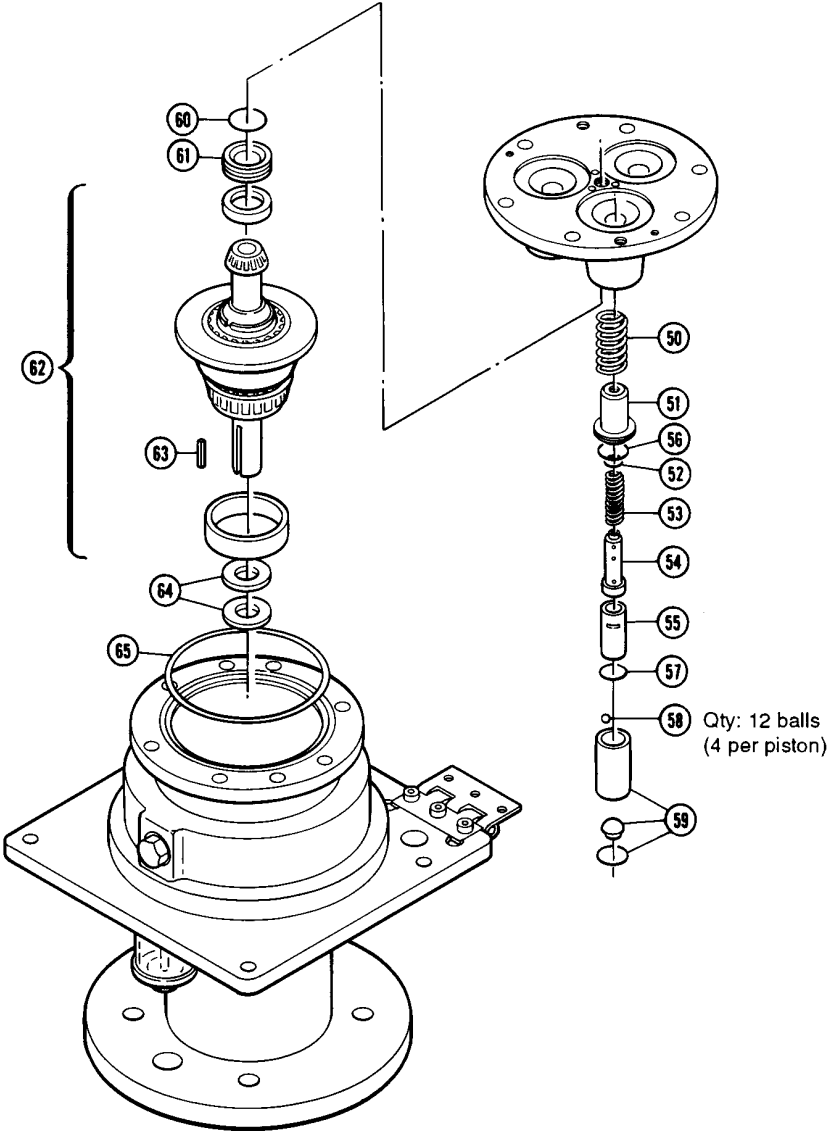
Ref #	Part Number	Description	Quantity/ Pump
30	D12-111-2210	Plug, magnetic	1
31	G10-028-2010	Nut, hex, M10	6
32	D12-115-2210	Hinge	2
33	G03-088-2010	Bolt, M6 x 20 mm	6
34	G12-108-2010	Nut, lock, M6	6
35	M10-110-2000	Bolt, 1/2" x 1-1/2"	4
	A04-043-2010	Bolt, M12 x 40 mm ²	4
36	M10-111-2000	Washer, lock, 1/2"	4
37	A04-045-2010	Nut, M12 ²	4
39	D10-125-2310	Washer, dampening, Celcon (abr. duty)	6
	D10-125-2316	Washer, dampening, Nylon (abr. duty)	6
	D10-125-2317	Washer, dampening, polypropylene (abr. duty)	6
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 Casting Assembly includes casting (24), bearing, adjusting plate (61), O-ring (60), and set screws (22).

² For metric motors.

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

Hydraulic End



Hydraulic End

Ref #	Part Number	Description	Quantity/ Pump
50	D10-019-3110	Spring, piston return	3
51	D10-042-1010	Retainer, spring	3
52	D10-046-2110	O-ring, valve cylinder, Buna	3
53	D10-045-3110	Spring, sleeve valve	3
	D10-045-3111	Spring, sleeve valve (Teflon diaphragm)	3
54	D10-044-1010	Valve Plunger	3
55	D10-043-1010	Cylinder, valve	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 ¹	–
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) ¹	–
	D10-007-1211	Cam Assembly (E) ¹	–
	D10-007-1212	Cam Assembly (S) ¹	–
	D10-007-1214	Cam Assembly (I) ¹	–
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 Piston Assembly includes cylinder, foot, valve plunger, O-rings, spring reatiner, and springs (50-59).

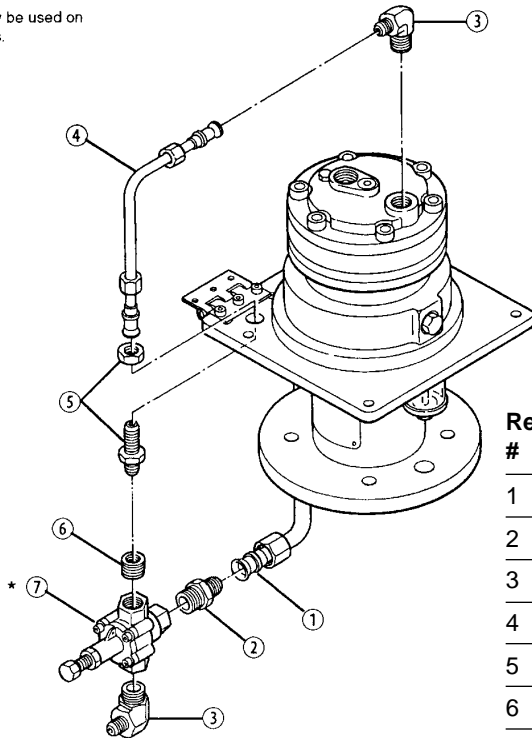
² Cam Assembly includes can, shaft, wobble plate, and bearings. It is only available as an assembly.

Accessories

D-12 VALVE TUBE ACCESSORY (Part No. A04-008-1200)

NOTE: Accessory can be assembled on either right or left side of pump housing.

NOTE: Accessory can only be used on manifolds with NPT threads.



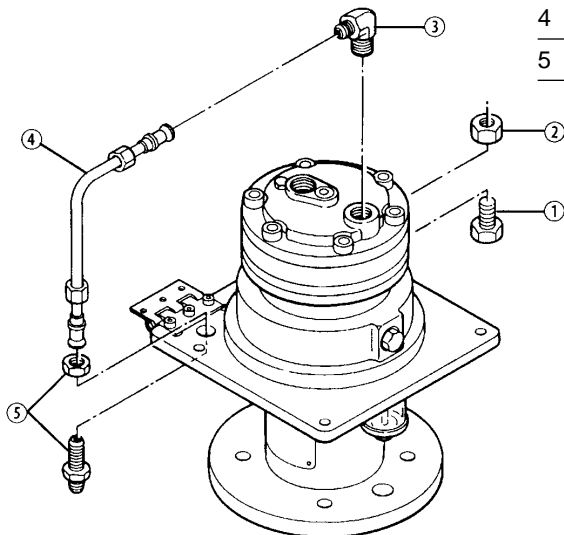
* C-22 Valve must be purchased separately from Valve Tube Accessory.

Ref #	Part Number	Description	Quantity/ Pump
1	D12-114-1210	Tube Assembly, bypass	1
2	D12-117-2210	Connector, male, flare /3/4" NPT	1
3	D12-112-2210	Elbow, 90°, flare/3/4" NPT	2
4	D12-113-1210	Tube Assembly, pressure	1
5	D12-120-2210	Union, bulkhead, with nut	1
6	D12-110-2210	Adapter, 3/4" NPT /37° flare	1
7	C-22 Valve	[Refer to Valve Parts List for breakdown]	—

D-12 TUBE ACCESSORY (Part No. A04-007-1200)

NOTE: Accessory can be assembled on either right or left side of pump housing.

NOTE: Accessory can only be used on manifolds with NPT threads.



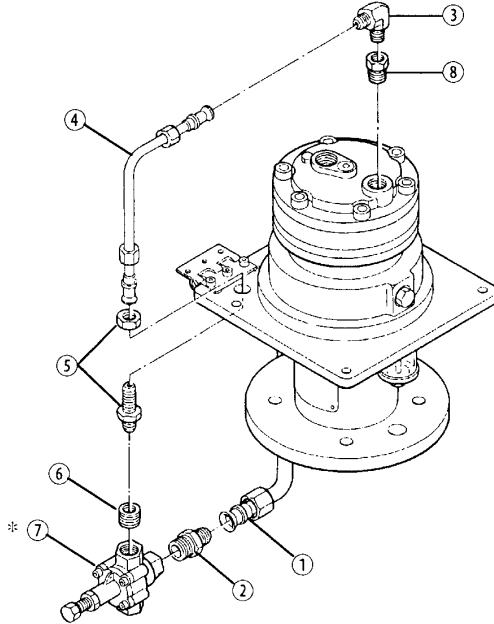
Ref #	Part Number	Description	Quantity/ Pump
1	D12-107-2010	Bolt, hex, 3/4" x 1-1-1/4"	1
2	D12-106-2010	Nut, hex, 3/4"	1
3	D12-112-2210	Elbow, 90°, flare/3/4" NPT	1
4	D12-113-1210	Tube Assembly, pressure	1
5	D12-120-2210	Union bulkhead, with nut	1

Accessories

G-12 VALVE TUBE ACCESSORY (Part No. A04-010-1200)

NOTE: Accessory can be assembled on either right or left side of pump housing.

NOTE: Accessory can only be used on manifolds with BSPT threads.



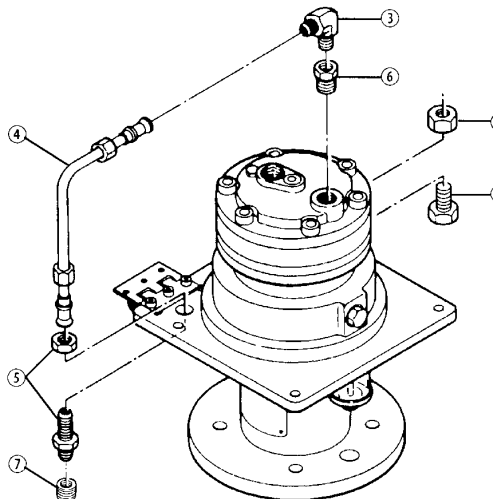
* C-22 Valve must be purchased separately from Valve Tube Accessory.

Ref #	Part Number	Description	Quantity/ Pump
1	D12-114-1210	Tube Assembly, bypass	1
2	G12-117-2210	Connector, male flare /3/4" BSPT	1
3	G12-112-2210	Elbow, 90°, flare/1/2" BSPT	1
4	D12-113-1210	Tube Assembly, pressure	1
5	D12-120-2210	Union, bulkhead, with nut	1
6	G12-110-2210	Adapter, 3/4" BSPT/37°flare	1
7	C-22 Valve	[Refer to Valve Parts List for breakdown]	—
8	G12-122-2210	Bushing, reducer, 1/2" to 3/4" BSPT .	1

G-12 TUBE ACCESSORY (Part No. A04-009-1200)

NOTE: Accessory can be assembled on either right or left side of pump housing.

NOTE: Accessory can only be used on manifolds with BSPT threads.



Ref #	Part Number	Description	Quantity/ Pump
1	D12-107-2010	Bolt, hex, 3/4" x 1-1/4"	1
2	D12-106-2010	Nut, hex, 3/4	1
3	G12-112-2210	Elbow, 90°, flare/1/2" BSPT	1
4	D12-113-1210	Tube Assembly, pressure	1
5	D12-120-2210	Union, bulkhead, with nut	1
6	G12-122-2210	Bushing, reducer, 1/2" to 3/4" BSPT .	1
7	G12-110-2210	Adapter, 37° flare/3/4" BSPT	1

D-12 Series Replacement Parts Kits

Ordering Information

A complete D-12 Replacement Parts Kit contains 11 digits including 7 customer-specified material options: for example D12K52GHHEP



4 Kit Designator

- K** Complete Fluid End Kit
- D** Diaphragm Kit
- V** Valve Kit (diaphragm not included)

6 Pump Head Type

- 2** Metallic
- 5** Non-metallic

7 Diaphragm & O-ring Material

- E** EPDM
- G** Viton®-XT
- J** Teflon® (used with metallic heads only)
- N** Buna-N
- P** Neoprene
- T** Buna-N-XS
- V** Viton®

8 Valve Seat Material

- C** Ceramic
- H** 17-4 PH Stainless Steel
- S** 316 Stainless Steel
- T** Hastelloy® C
- X** Not included in Diaphragm Kit

9 Valve Material

- C** Ceramic
- F** 17-4 PH Stainless Steel (machined)
- H** 17-7 PH Stainless Steel (stamped)
- N** Nitronic 50
- T** Hastelloy® C
- X** Not included in Diaphragm Kit

10 Valve Springs

- E** Elgiloy®
- H** 17-7 PH Stainless Steel
- T** Hastelloy® C
- X** Not included in Diaphragm Kit

11 Valve Spring Retainers

- C** Celcon
- H** 17-7 PH Stainless Steel (used with metallic heads only)
- M** Kynar®
- P** Polypropylene
- T** Hastelloy® C (used with metallic heads only)
- 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- ___ or					
D10-109- ___	O-ring, outer manifold ¹	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 ²	6	•		•
D10-023- ___	Retainer, valve spring	6	•		•
D10-125- ___	Washer, dampening ³	6	•		•
D10-129- ___	Spacer ⁴	6	•		•
A01-113-3400	Threadlocker	1	•	•	

* Last four digits of part numbers with ___ refer to specific material of construction.
¹ D10-074 is provided for metallic heads; D10-109 is provided for non-metallic heads.

² Tetra seal is provided with non-metallic spring retainers only.

³ Dampening washer is provided for non-metallic heads only.

⁴ Spacer is provided with metallic spring retainers only.



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