

## PARTS MANUAL

# Hydra-Cell<sup>®</sup>

## INDUSTRIAL PUMPS

### IMPORTANT

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

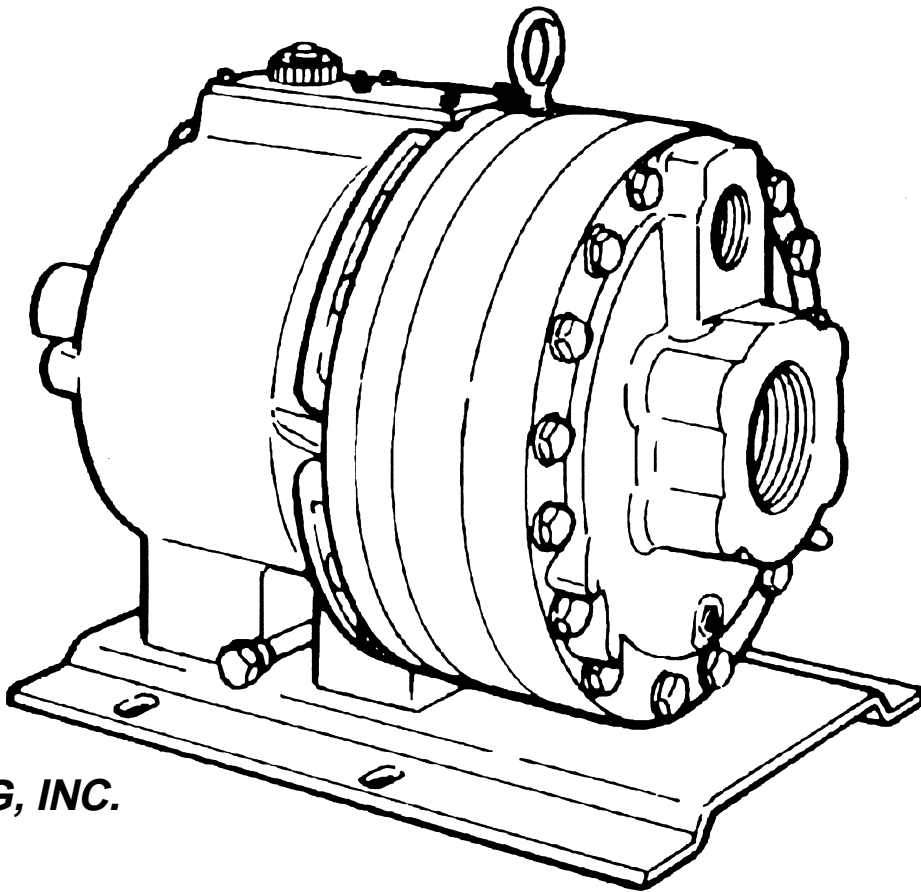
Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date of Purchase \_\_\_\_\_

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

### MODEL: D-35



**WANNER ENGINEERING, INC.**

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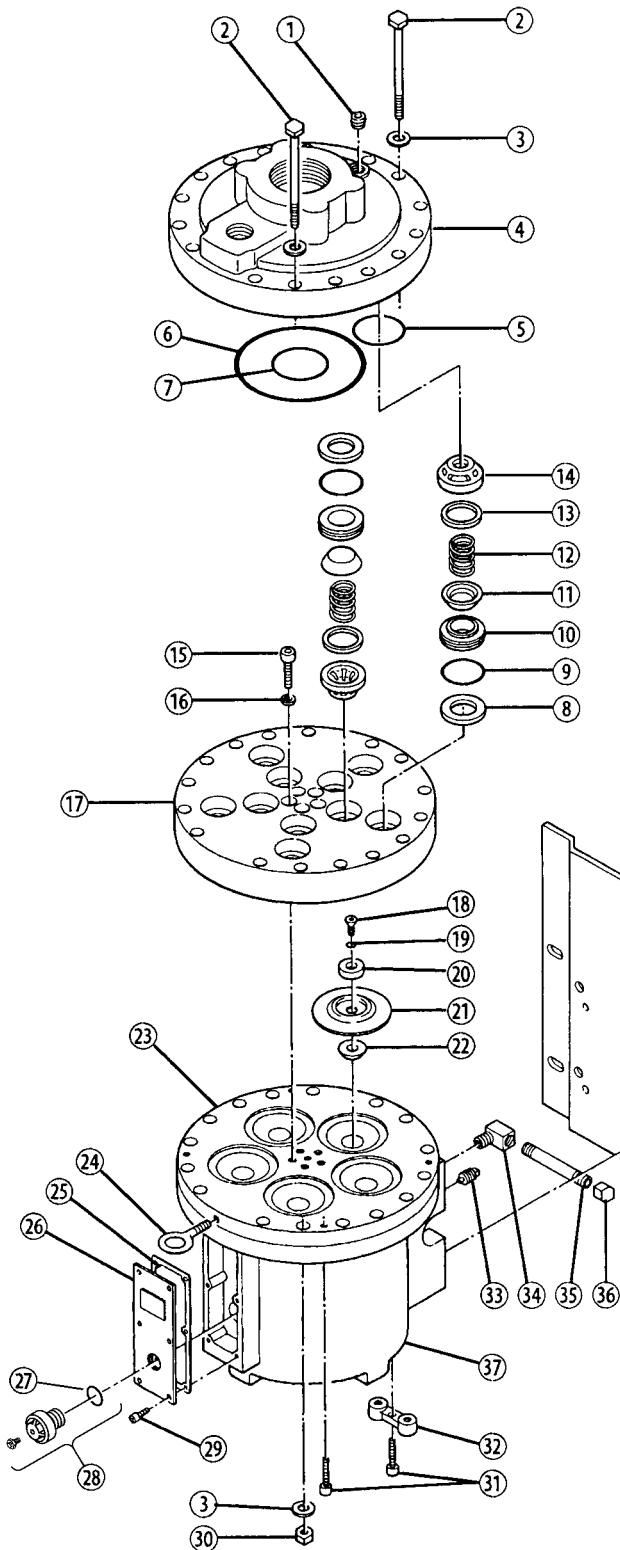
email: [sales@wannereng.com](mailto:sales@wannereng.com)

Document Fax Back System: (510) 745-0440

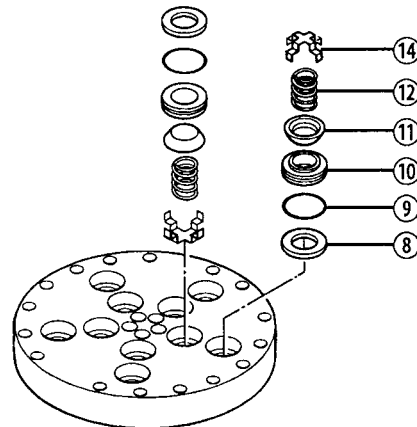
# D-35 Fluid End

Ref #	Part Number	Description	Quantity/ Pump
1	D25-038-2017	Plug, Hastelloy C .....	1
	D25-038-2210	Plug, Brass .....	1
	D25-038-2211	Plug, 316 SST .....	1

Ref #	Part Number	Description	Quantity/ Pump
2	G35-024-2010	Screw, hex-head cap, M12 x 1.75 x 140 mm .....	16
3	D40-048-2010	Washer, flat, special .....	30
4	D35-004-1002	Manifold, 316L SST, NPT .....	1
	D35-004-1007	Manifold, ductile iron, NPT .....	1
	D35-004-1010	Manifold, magn/bronze, NPT .....	1
	D35-004-1018	Manifold, nickel alloy C series, NPT ..	1
	D35-004-1030	Manifold, magn/bronze, SAE flange ..	1
	D35-004-1032	Manifold, 316L SST, SAE flange .....	1
	D35-004-1037	Manifold D.I., SAE flange .....	1
	D35-004-1038	Manifold, nickel alloy C series, SAE flange .....	1
5	D25-074-2110	O-ring, Buna .....	5
	D25-074-2111	O-ring, Viton .....	5
	D25-074-2112	O-ring, Neoprene .....	5
	D25-074-2113	O-ring, EPDM .....	5
	D25-074-2118	O-ring, Teflon .....	5



## Valve Assemblies with metal spring retainers



## Bolt Torque Specifications

Ref. No.	Assembly Torque
2	65 ft-lbs (88 N-m)
15	65 ft-lbs (88 N-m)
29	9 ft-lbs (12 N-m)
31	25 ft-lbs (34 N-m)
40	45 ft-lbs (60 N-m)

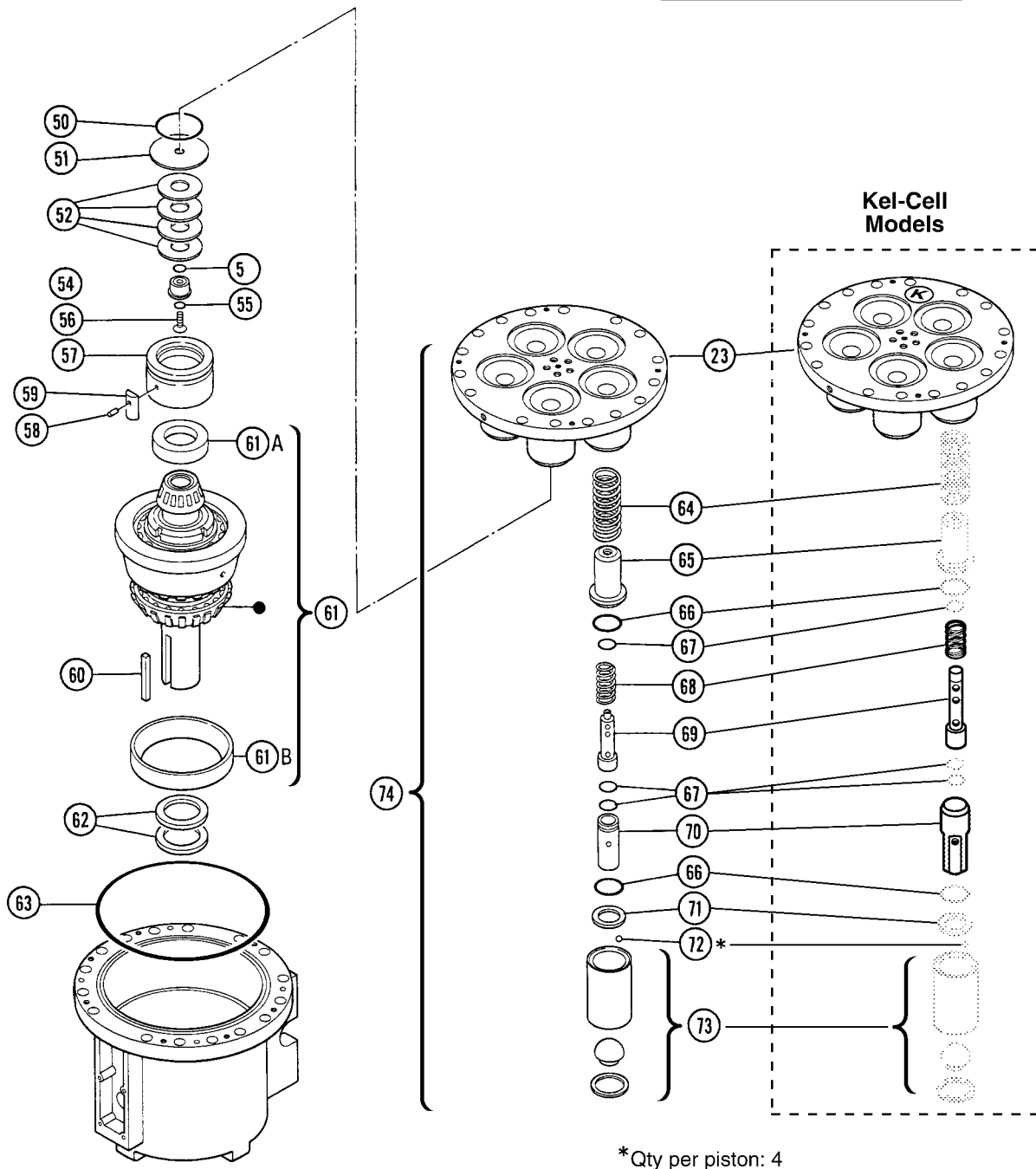
# D-35 Fluid End

Ref #	Part Number	Description	Quantity/ Pump	Ref #	Part Number	Description	Quantity/ Pump	
6	D35-073-2110	O-ring, Buna .....	1	18	D25-030-2010	Screw, flat-head, 316 SST .....	5	
	D35-073-2111	O-ring, Viton .....	1		D25-030-2011	Screw, flat-head, Hastelloy C .....	5	
	D35-073-2112	O-ring, Neoprene .....	1	19	D25-047-2110	O-ring, Buna .....	5	
	D35-073-2113	O-ring, EPDM .....	1		D25-047-2111	O-ring, Viton .....	5	
	D35-073-2118	O-ring, Teflon .....	1		D25-047-2112	O-ring, Neoprene .....	5	
7	D35-080-2110	O-ring, Buna .....	1		D25-047-2113	O-ring, EPDM .....	5	
	D35-080-2111	O-ring, Viton .....	1		D25-047-2118	O-ring, Teflon .....	5	
	D35-080-2112	O-ring, Neoprene .....	1	20	D25-017-1010	Follower, 316 SST .....	5	
	D35-080-2113	O-ring, EPDM .....	1		D25-017-1011	Follower, Hastelloy C .....	5	
	D35-080-2118	O-ring, Teflon .....	1	21	D25-018-2312	Diaphragm, Neoprene .....	5	
8	D25-125-1011	Washer, dampening, 316 SST .....	10		D25-018-2313	Diaphragm, EPDM .....	5	
	D25-125-1017	Washer, dampening, Hastelloy C ....	10		D25-018-2315	Diaphragm, Viton-XT .....	5	
	D25-125-2310	Washer, dampening, Celcon (Delrin)	10		D25-018-2318	Diaphragm, Teflon .....	5	
	D25-125-2316	Washer, dampening, Nylon .....	10		D25-018-2320	Diaphragm, Buna-N-XS .....	5	
	D25-125-2317	Washer, dampening, polypropylene	10		22	D25-016-1010	Plunger .....	5
D25-125-2318	Washer, dampening, Kynar .....	10	23	G35-002-1010		Cylinder Housing .....	1	
9	D25-035-2110	O-ring, Buna .....		10	G35-002-1210	Cylinder Housing Assembly <sup>1</sup> .....	1	
	D25-035-2111	O-ring, Viton .....		10	K35-002-1010	Cylinder Housing, Kel-Cell .....	1	
	D25-035-2112	O-ring, Neoprene .....		10	K35-002-1210	Cylinder Housing Assembly, Kel-Cell <sup>1</sup> .....	1	
	D25-035-2113	O-ring, EPDM .....	10	24	D40-102-2010	Eyebolt .....	1	
	D25-035-2118	O-ring, Teflon .....	10		D35-106-2310	Gasket, cover .....	1	
10	D25-020-1010	Valve Seat, 17-4 HT SST .....	10	26	D35-105-1010	Cover, housing .....	1	
	D25-020-1012	Valve Seat, Nitronic 50 .....	10	27	D10-080-2110	O-ring, Buna, 118 .....	1	
	D25-020-1016	Valve Seat, tungsten carbide .....	10	28	D03-039-1210	Cap oil fill (includes breather & O-ring) .....	1	
	D25-020-1017	Valve Seat, Hastelloy C .....	10		29	G35-088-2010	Screw, socket-head cap, M6 x 1 x 20 mm .....	6
	D25-020-3300	Valve Seat, ceramic .....	10	30	G35-028-2010	Nut, hex, M12 x 1.75 .....	14	
11	D25-021-1011	Valve, Nitronic 50 .....	10		31	G35-029-2010	Screw, socket-head cap, M10 x 1.5 x 35 mm .....	5
	D25-021-1015	Valve, 17-4 HT SST, machined .....	10	32	G35-140-1000	Bolting Bar, double .....	1	
	D25-021-1016	Valve, tungsten carbide .....	10		33	D35-111-2010	Plug, magnetic .....	1
	D25-021-1017	Valve, Hastelloy C .....	10	34	D25-076-2210	Elbow, 90°, brass .....	1	
	D25-021-3300	Valve, ceramic .....	10		35	D25-077-2210	Pipe, brass .....	1
12	D25-022-3110	Valve Spring, 17-7 HT SST .....	10	36	D25-078-2210	Pipe Cap, brass .....	1	
	D25-022-3114	Valve Spring, Elgiloy .....	10	37	G35-001-1210	Pump Housing Assembly, aluminum <sup>2</sup> ...	1	
	D25-022-3115	Valve Spring, Hastelloy C .....	10		G35-001-1215	Pump Housing Assembly, ductile iron <sup>2</sup> ...	1	
13	D25-092-2110	Tetra Seal, Buna .....	10	38	D40-025-1010	Baseplate .....	1	
	D25-092-2111	Tetra Seal, Viton .....	10		39	G35-054-2010	Washer, int. tooth, M12 .....	4
	D25-092-2112	Tetra Seal, Neoprene .....	10	40	G35-087-2010	Screw, hex-head cap, M12 x 1.75 x 35 mm .....	4	
	D25-092-2113	Tetra Seal, EPDM .....	10		17	D35-003-1002	Valve Plate, 316 SST .....	1
	D25-092-2118	O-ring, Teflon .....	10			D35-003-1003	Valve Plate, brass .....	1
14	D25-023-1010	Retainer, valve spring, 17-7 HT SST	10	D35-003-1007		Valve Plate, ductile iron .....	1	
	D25-023-1017	Retainer, valve spring, Hastelloy C .	10	D35-003-1018		Valve Plate, nickel alloy C series .....	1	
	D25-023-2310	Retainer, valve spring, Celcon .....	10					
	D25-023-2316	Retainer, valve spring, Nylon .....	10					
	D25-023-2317	Retainer, valve spring, polypropylene .....	10					
D25-023-2318	Retainer, valve spring, Kynar .....	10						
15	G35-081-2010	Screw, socket-head cap, M12 x 1.75 x 40mm .....	5					
16	G35-084-2010	Washer, high collar, M12 .....	5					

<sup>1</sup> Cylinder Housing Assembly includes casting (25), bearing cup, adjusting plate (61), O-ring (60), and set screws (24).  
<sup>2</sup> Pump Housing Assembly includes housing, gasket (25), cover (26), and screws (29).

# D-35 Hydraulic End

Ref #      Assembly Torque



# D-35 Hydraulic End

Ref #	Part Number	Description	Quantity/ Pump
50	D35-080-2110	O-ring, Buna .....	1
51	D35-116-1010	Washer, backup .....	1
52	D40-075-3110	Spring, disc .....	4
53	D10-083-2110	O-ring, Buna .....	1
54	D35-112-1011	Guide, disc spring .....	1
55	D40-047-2110	O-ring, Buna .....	1
56	G35-115-2011	Screw, flat socket cap, M10 x 1.5 x 25 mm .....	1
57	D35-012-1010	Plate, bearing adjustment .....	1
58	D35-110-2010	Pin, dowel .....	1
59	D35-113-1010	Key .....	1
60	D40-085-1010	Key, shaft .....	1
61	D35-007-1210	Cam Assembly (X), 37 GPM @ 1050 RPM <sup>1</sup> .....	1
	D35-007-1212	Cam Assembly (E), 35 GPM @ 1160 RPM <sup>1</sup> .....	1
62	D40-031-2110	Seal, shaft .....	2
63	D35-037-2110	O-ring, Buna .....	1
64	D25-019-3111	Spring, piston return .....	5
65	D25-042-1010	Retainer, spring .....	5
66	D25-034-2110	O-ring, Buna .....	10
67	D25-046-2110	O-ring, Buna .....	15
68	D25-045-3110	Spring, sleeve valve .....	5
	H25-045-3111	Spring, sleeve valve for Teflon diaphragm .....	5
	K25-045-3110	Spring, sleeve valve, Kel-Cell .....	5
69	D25-044-1010	Plunger, valve .....	5
	K25-044-1010	Plunger, valve, Kel-Cell .....	5
70	D25-043-1010	Cylinder, valve .....	5
	K25-043-1010	Cylinder, valve, Kel-Cell .....	5
71	D25-041-1010	Washer, retaining .....	5
72	D25-015-3010	Ball, steel .....	20
73	D25-014-1209	Piston, with foot and retainer .....	5
74	D25-014-1210	Piston Assembly <sup>2</sup> .....	5
	K25-014-1210	Piston Assembly, Kel-Cell <sup>2</sup> .....	5

<sup>1</sup> Cam Assembly includes cam, shaft, wobble plate, bearings, and cups. It is only available as an assembly.

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

# D-35 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
<b>1-3</b>		<b>Pump Configuration</b>
	<b>D35</b>	For all D-35 Pumps
<b>4</b>		<b>Kit Designator</b>
	<b>K</b>	Complete Fluid End Kit
	<b>D</b>	Diaphragm Kit
	<b>V</b>	Valve Kit (diaphragm not included)
<b>5-6</b>		<b>Pump Head Version</b>
	<b>52</b>	Pump Head Version
<b>7</b>		<b>Diaphragm &amp; O-ring Material</b>
	<b>E</b>	EPDM
	<b>G</b>	Viton®-XT
	<b>J</b>	Teflon®
	<b>P</b>	Neoprene
	<b>T</b>	Buna-N-XS
<b>8</b>		<b>Valve Seat Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>H</b>	17-4 PH Stainless Steel
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
<b>9</b>		<b>Valve Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>F</b>	17-4 PH Stainless Steel – Machined
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
<b>10</b>		<b>Valve Springs</b>
	<b>E</b>	Elgiloy®
	<b>H</b>	17-7 PH Stainless Steel
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
<b>11</b>		<b>Valve Spring Retainers</b>
	<b>C</b>	Celcon
	<b>H</b>	17-7 PH Stainless Steel
	<b>M</b>	Kynar®
	<b>P</b>	Polypropylene
	<b>T</b>	Hastelloy® C
	<b>Y</b>	Nylon (Zytel)
	<b>X</b>	Not included in Diaphragm Kit

## Kit Contents

Part Number*	Description	Qty	Kit Designator		
			K	D	V
<b>D25-018-</b> ___	Diaphragm	5	•	•	
<b>D25-047-</b> ___	O-ring, follower	5	•	•	
<b>D25-074-</b> ___	O-ring, outlet valve	5	•	•	•
<b>D35-073-</b> ___	O-ring, outer manifold	1	•	•	•
<b>D35-080-</b> ___	O-ring, center manifold	1	•	•	•
<b>D25-035-</b> ___	O-ring, valve seat	10	•		•
<b>D25-020-</b> ___	Valve seat	10	•		•
<b>D25-021-</b> ___	Valve	10	•		•
<b>D25-022-</b> ___	Valve spring	10	•		•
<b>D25-092-</b> ___	Tetra seal <sup>1</sup>	10	•		•
<b>D25-023-</b> ___	Retainer, valve spring	10	•		•
<b>D25-125-</b> ___	Washer, dampening	10	•		•
<b>A01-113-3400</b>	Threadlocker	1	•	•	

\* Last four digits of part numbers with \_\_\_ refer to specific material of construction.

<sup>1</sup> Tetra seal is provided with non-metallic spring retainers only.



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