

**Parts Manual**  
**D10-991-2402B**

# Hydra-Cell<sup>®</sup>

## INDUSTRIAL PUMPS

**Model: D-10**  
**with metallic pump head**

**IMPORTANT**

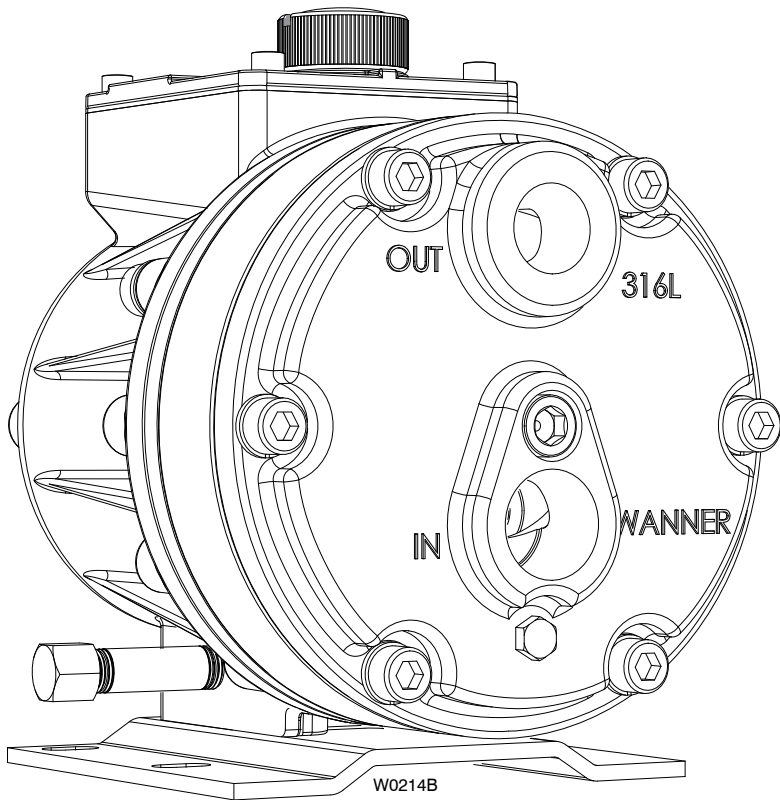
Record your pump model number and serial number here for easy reference:

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

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

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

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

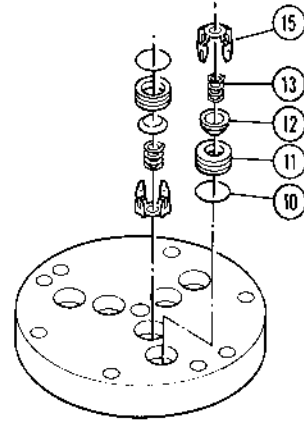


**WANNER ENGINEERING, INC.**

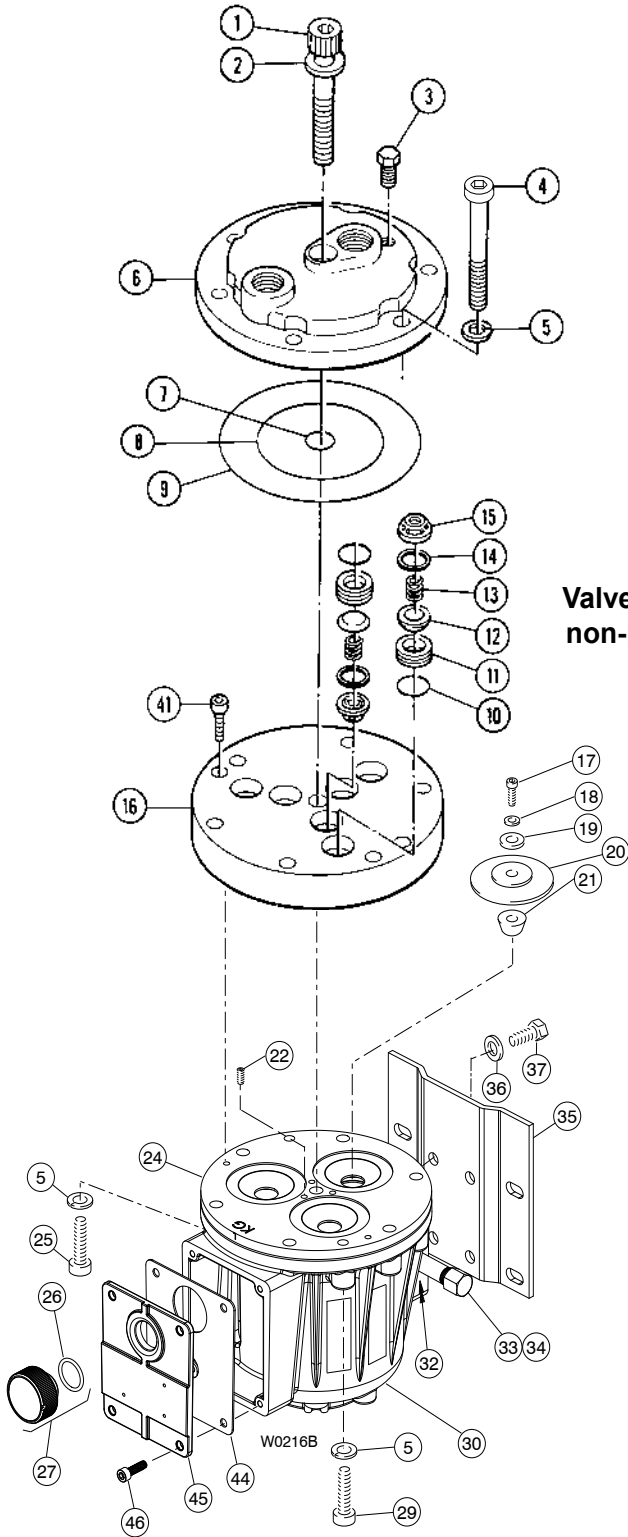
CALL 908.362.9981 OR VISIT  
<http://www.innovativepumps.com>  
for pricing and availability of spare  
parts and replacement pumps

# D-10 Fluid End (with metallic pump head)

Valve Assemblies with Metal Retainers



Valve Assemblies with non-Metallic Retainers



# D-10 Fluid End (with metallic pump head)

Ref. No.	Part Number	Description	Quantity/ Pump
1	D10-081-2012	Screw, Cap, soc-hd, 2-3/4 in. <sup>1</sup>	1
	G10-081-2010	Screw, Cap, soc-hd, 70 mm <sup>2</sup>	1
2	D10-084-2010	Washer, Flat <sup>1</sup>	1
	G10-084-1010	Washer, Flat <sup>2</sup>	1
3	D10-038-2017	Plug, Hastelloy C	1
	D10-038-2210	Plug, Brass	1
	D10-038-2211	Plug, 316 sst	1
4	D10-024-2010	Bolt, Hex-hd, 3-1/2 in. <sup>1</sup>	6
	G10-024-2011	Screw, Cap, soc-hd, 80 mm <sup>2</sup>	6
5	D10-048-2010	Washer, Split lock <sup>1</sup>	8
	G25-048-2010	Washer, Split lock <sup>2</sup>	8
6	D10-004-1002	Manifold, 316 sst, NPT	1
	D10-004-1008	Manifold, Brass, NPT	1
	D10-004-1017	Manifold, Nickel alloy, Hastelloy CW12MW, NPT	1
	D10-004-1034	Manifold, Cast iron, NPT	1
7	D10-083-2110	O-ring, Center bolt, Buna	1
	D10-083-2111	O-ring, Center bolt, Viton	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	D10-073-2110	O-ring, Inner manifold, Buna
D10-073-2111		O-ring, Inner manifold, Viton	1
D10-073-2112		O-ring, Inner manifold, Neoprene	1
D10-073-2113		O-ring, Inner manifold, EPDM	1
D10-073-2118		O-ring, Inner manifold, PTFE	1
9	D10-074-2110	O-ring, Outer manifold, Buna	1
	D10-074-2111	O-ring, Outer manifold, Viton	1
	D10-074-2112	O-ring, Outer manifold Neoprene	1
	D10-074-2113	O-ring, Outer manifold EPDM	1
	D10-074-2118	O-ring, Outer manifold, PTFE	1
10	D10-035-2110	O-ring, Valve seat, Buna	6
	D10-035-2111	O-ring, Valve seat, Viton	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
	D10-020-1016	Valve seat, Tungsten carbide	6
	D10-020-1017	Valve seat, Hastelloy C	6
	D10-020-3300	Valve seat, Ceramic	6

Ref. No.	Part Number	Description	Quantity/ Pump
12	D10-021-1010	Valve, 17-7 sst, stamped, HT	6
	D10-021-1011	Valve, Nitronic	6
	D10-021-1015	Valve, 17-4 sst, machined, HT	6
	D10-021-1016	Valve, Tungsten carbide	6
	D10-021-1017	Valve, Hastelloy C	6
	D10-021-3300	Valve, Ceramic	6
13	D10-022-3116	Valve Spring, 17-7 sst, HT	6
	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, Viton	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, HT	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
16	D10-003-1011	Valve Plate, Brass	1
	D10-003-1012	Valve Plate, 316 sst	1
	D10-003-1019	Valve Plate, Cast iron	1
	D10-003-1027	Valve Plate, Nickel alloy, Hastelloy CW12MW	1
17	D10-030-2010	Screw, Flat-hd, sst, 3/8 in.	3
	D10-030-2011	Screw, Flat-hd, Hastelloy C, 3/8 in.	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, PTFE	3
19	D10-017-1010	Follower, 316 sst	3
	D10-017-1011	Follower, Hastelloy C	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, PTFE	3
	D10-018-2320	Diaphragm, Buna-N-XS	3
21	D10-016-1010	Plunger	3
22	G10-082-2010	Set Screw, 10 mm	3

<sup>1</sup> Used on D10 models prior to S/N 216283.

<sup>2</sup> Used on D10 models S/N 216283 and above.

# D-10 Fluid End (with metallic pump head)

Ref. No.	Part Number	Description	Quantity/ Pump	Ref. No.	Part Number	Description	Quantity/ Pump
24	K10-002-1010	Cylinder Housing <sup>1</sup> .....	1	29	D10-087-2010	Screw, Cap, hex-hd, 1-1/4 in. <sup>1</sup> .....	1
	K10-002-1020	Cylinder Housing, Metric <sup>2</sup> .....			G10-087-2011	Screw, Cap, hex-hd, 45 mm <sup>2</sup> .....	1
	K10-002-1210	Cylinder Housing Assembly <sup>1,3</sup> .....		30	G10-001-1050	Pump Housing, Metric <sup>4</sup> .....	1
	K10-002-1220	Cylinder Housing Assembly, Metric <sup>2,3</sup> .....			G10-001-1215	Pump Housing Assembly, Metric <sup>5</sup> .....	—
	K10-002-1232	Loaded Cylinder Housing, UNC, Neoprene <sup>1,6</sup> .....		31	D10-028-2010	Nut, Hex, 3/8 in. <sup>1</sup> .....	6
	K10-002-1233	Loaded Cylinder Housing, UNC, EPDM <sup>1,6</sup> .....		32	D10-076-2210	Elbow, Brass, 1/8 in. <sup>1</sup> .....	1
	K10-002-1234	Loaded Cylinder Housing, UNC, Buna N-XS <sup>1,6</sup> .....			D10-076-2250	Plug, Soc-hd, 1/4 in. <sup>2</sup> .....	2
	K10-002-1235	Loaded Cylinder Housing, UNC, Viton XT <sup>1,6</sup> .....		33	D10-077-2210	Nipple, Brass, 3/8 in. <sup>1</sup> .....	1
	K10-002-1236	Loaded Cylinder Housing, UNC, PTFE <sup>1,6</sup> .....			D10-077-2250	Nipple, Brass, 1/4 in. <sup>2</sup> .....	1
	K10-002-1242	Loaded Cylinder Housing, Metric, Neoprene <sup>2,6</sup> .....		34	D10-078-2210	Cap, Brass, 1/8 in. <sup>1</sup> .....	1
	K10-002-1243	Loaded Cylinder Housing, Metric, EPDM <sup>2,6</sup> .....			D10-078-2250	Cap, Brass, 1/4 in. <sup>2</sup> .....	1
	K10-002-1244	Loaded Cylinder Housing, Metric, Buna N-XS <sup>2,6</sup> .....		35	D10-025-1010	Base .....	1
	K10-002-1245	Loaded Cylinder Housing, Metric, Viton XT <sup>2,6</sup> .....		36	D10-054-2010	Washer, Shakeproof <sup>1</sup> .....	4
	K10-002-1246	Loaded Cylinder Housing, Metric, PTFE <sup>2,6</sup> .....		37	D10-029-2010	Screw, Cap, hex-hd, 1 in. <sup>1</sup> .....	4
					G10-029-2010	Screw, Cap, hex-hd, 25 mm <sup>2</sup> .....	4
25	D10-029-2010	Screw, Cap, hex-hd, 1 in. <sup>1</sup> .....	1	41	D10-088-2010	Screw, Cap, soc-hd <sup>1</sup> .....	2
	G10-089-2011	Screw, Cap, hex-hd, 38 mm <sup>2</sup> .....	1		G10-088-2010	Screw, Cap, soc-hd, 30 mm <sup>2</sup> .....	2
26	D10-080-2110	O-ring, Oil fill, Buna .....	1	44	G10-106-2350	Gasket, Cover <sup>2</sup> .....	1
27	D03-039-1030	Cap with O-ring, Oil fill .....	1	45	G10-105-1050	Cover/Nameplate <sup>2</sup> .....	1
				46	G03-088-2010	Screw, 20 mm <sup>2</sup> .....	4

<sup>1</sup> Used on D10 models prior to S/N 216283.

<sup>2</sup> Used on D10 models S/N 216283 and above.

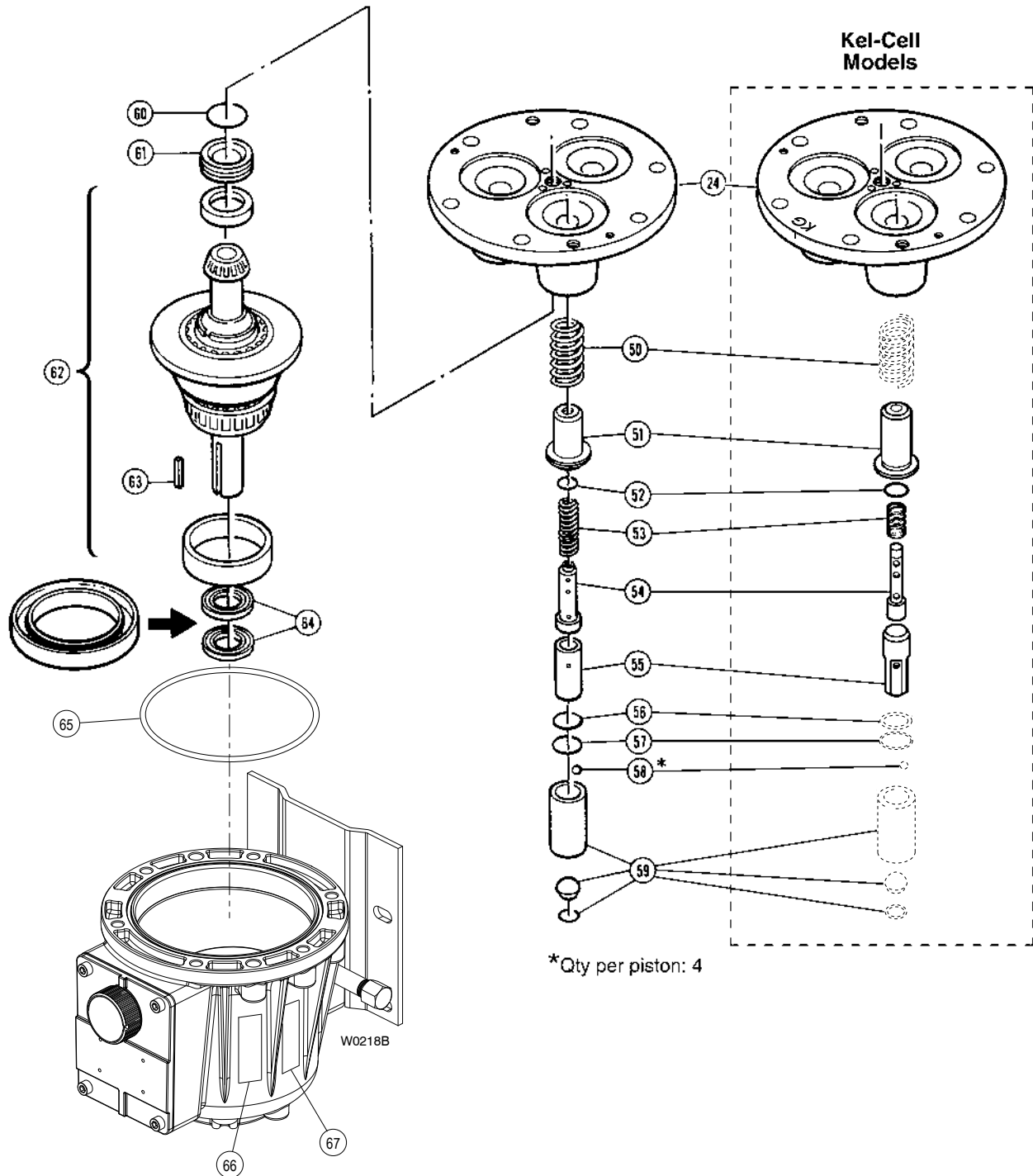
<sup>3</sup> Cylinder Housing Assembly includes casting (24), bearing, adjusting plate (61), O-ring (60), and set screws (22).

<sup>4</sup> Pump housing (metric) includes housing (30), cover (45), gasket (44), and screws (46). Requires new screws (4), washers (5), screws (25), and screw (29).

<sup>5</sup> Pump Housing Assembly includes housing (30), oil drain/plugs (32, 33, 34), cover (45), gasket (44), and screws (46). Requires new screws (4), washers (5), screws (25), and screw (29).

<sup>6</sup> Loaded Cylinder Housing includes Fluid End parts (17 - 22) and Hydraulic End parts (50 - 61).

# D-10 Hydraulic End (with metallic pump head)



# D-10 Hydraulic End (with metallic pump head)

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 <sup>6</sup> .....	3
52	D10-046-2110	O-ring, Valve cylinder, Buna .....	3
	C23-009-2110	O-ring, Valve cylinder, Buna, Kel-Cell <sup>6</sup> .....	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 <sup>6</sup> .....	3
54	D10-044-1010	Valve Plunger .....	3
	K10-044-1010	Valve Plunger, Kel-Cell <sup>6</sup> .....	3
55	D10-043-1010	Cylinder, Valve .....	3
	K10-043-1010	Cylinder, Valve, Kel-Cell <sup>6</sup> .....	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 <sup>7</sup> .....	—
	K10-014-1210	Piston Assembly, Kel-Cell <sup>6,7</sup> .....	—
60	D10-075-2110	O-ring, Bearing adjusting plate, Buna	1
61	D10-012-1010	Bearing Adjusting Plate.....	1
62	D10-007-1210	(X) Cam Assembly, 8 gpm @ 1450 rpm <sup>8</sup> .....	—
	D10-007-1211	(I) Cam Assembly, 4 gpm @ 1750 rpm <sup>8</sup> .....	—
	D10-007-1212	(S) Cam Assembly, 6 gpm @ 1750 rpm <sup>8</sup> .....	—
	D10-007-1214	(E) Cam Assembly, 8 gpm @ 1750 rpm <sup>8</sup> .....	—
63	D10-085-2210	Key, Shaft.....	1
64	D10-031-2110	Seal , Buna.....	2
65	D10-037-2110	O-ring, Pump housing, Buna .....	1
66	D10-111-2401	Label, Caution, freezing.....	1
67	D10-111-2402	Label, Caution, check oil.....	1

<sup>6</sup> Parts used in Kel-Cell version pumps (Kel-Cell version pumps are indicated by a in.K in. in the 5th digit of the pump model number).

<sup>7</sup> Piston Assembly includes cylinder, foot, valve plunger, O-rings, spring retainer, and springs (50-59).

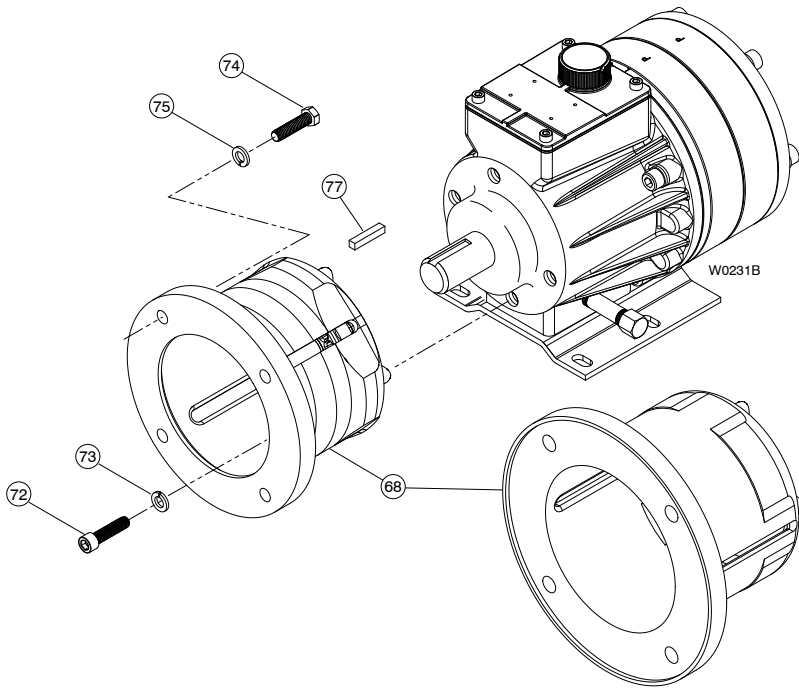
<sup>8</sup> Cam Assembly includes cam, shaft, wobble plate, cups and bearings. It is only available as an assembly.

# D-10 Adapter Kit (with metallic pump head)

## D-10 Pump/Motor Adapter Kit

For 56C-145TC NEMA C-Face Motors (Complete Kit Part No. A04-001-1200)

For 182-215TC NEMA C-Face Motors (Complete Kit Part No. A04-002-1200)



Ref No.	Description	A04-001-1200	A04-002-1200	Qty/Kit
68	Pump/Motor Adapter	A04-031-1000 <sup>1</sup>	A04-030-1000 <sup>1</sup>	1
		A04-032-1050 <sup>2</sup>	A04-033-1050 <sup>2</sup>	1
69*	Adapter Baseplate	A04-025-1010 <sup>1</sup>	—	1
70*	Screw, Cap, Hex-hd	D10-029-2010 <sup>1</sup>	—	4
71*	Lockwasher, Internal tooth	D10-054-2010 <sup>1</sup>	—	4
72	Screw, Cap, Soc-hd	A04-041-2010 <sup>1</sup>	A04-041-2010 <sup>1</sup>	4
		G10-089-2010 <sup>2</sup>	G10-089-2010 <sup>2</sup>	4
73	Lockwasher, Split	D10-048-2010 <sup>1</sup>	D10-048-2010 <sup>1</sup>	4
		G25-048-2011 <sup>2</sup>	G25-048-2011 <sup>2</sup>	4
74	Screw, Cap, Hex-hd	D03-068-2010 3/8 in.	M10-110-2000 1/2 in.	4
75	Lockwasher, Split	D10-048-2010 3/8 in.	M10-111-2000 1/2 in.	4
77	Key, Short	A04-085-2210	A04-085-2210	1

<sup>1</sup> Used on D10 models prior to S/N 216283.

<sup>2</sup> Used on D10 models S/N 216283 and above.

\* Not shown.

# D-10 Series Replacement Parts Kits (with metallic pump head)

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	Code	Order Description
1-3	<b>D10</b>	<b>Pump Configuration</b> For all D-10 Pumps
4		<b>Kit Designator</b>
	<b>K</b>	Complete Fluid End Kit
	<b>D</b>	Diaphragm Kit
	<b>V</b>	Valve Kit (diaphragm not included)
5-6	<b>52</b>	<b>Pump Head Version</b> Metallic Pump Head Version
7		<b>Diaphragm &amp; O-ring Material</b>
	<b>E</b>	EPDM
	<b>G</b>	Viton®-XT
	<b>J</b>	PTFE
	<b>P</b>	Neoprene
	<b>T</b>	Buna-N-XS
8		<b>Valve Seat Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>H</b>	17-4 PH Stainless Steel
	<b>S</b>	316 Stainless Steel
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
9		<b>Valve Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>F</b>	17-4 PH Stainless Steel – Machined
	<b>H</b>	17-7 PH Stainless Steel – Stamped
	<b>N</b>	Nitronic 50
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
10		<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
11		<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>D10-018-___</b>	Diaphragm	3	•	•	
<b>D10-047-___</b>	O-ring, follower	3	•	•	
<b>D10-074-___</b>	O-ring, outer manifold	1	•	•	•
<b>D10-073-___</b>	O-ring, inner manifold	1	•	•	•
<b>D10-083-___</b>	O-ring, center bolt	1	•	•	•
<b>D10-035-___</b>	O-ring, valve seat	6	•		•
<b>D10-020-___</b>	Valve seat	6	•		•
<b>D10-021-___</b>	Valve	6	•		•
<b>D10-022-___</b>	Valve spring	6	•		•
<b>D10-092-___</b>	Tetra seal **	6	•		•
<b>D10-023-___</b>	Retainer, valve spring	6	•		•
<b>A01-113-3400</b>	Threadlocker	1	•	•	

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

\*\* Not included with metallic spring retainers.