

**Parts Manual**  
**D03-991-2402A1**

# Hydra-Cell<sup>®</sup>

## INDUSTRIAL PUMPS

**Models: D-03, G-03, G-13, M-03 and M-23**  
**Kel-Cell and Standard Versions**

**IMPORTANT**

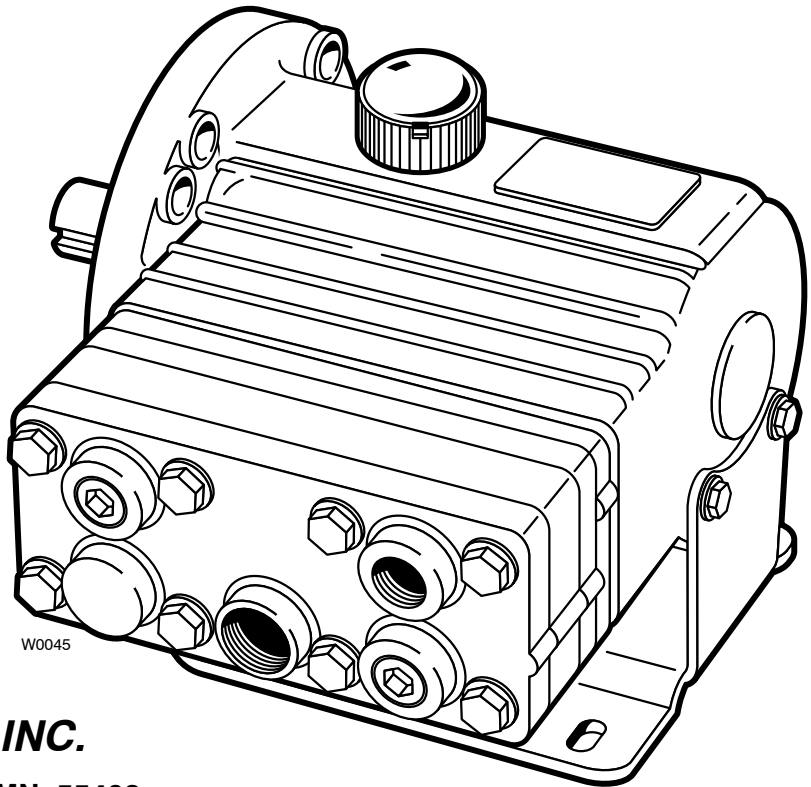
Record your pump model number and serial number here for easy reference:

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.**

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](http://www.hydra-cell.com)

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

# D/G-03 Fluid End Parts

Pump with Non-Metallic Head  
(Kel-Cell version shown)

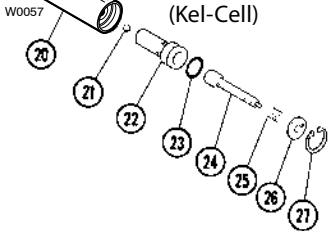
Pump with Metallic Head  
(Kel-Cell version shown)

See Hydraulic End for  
pump housings

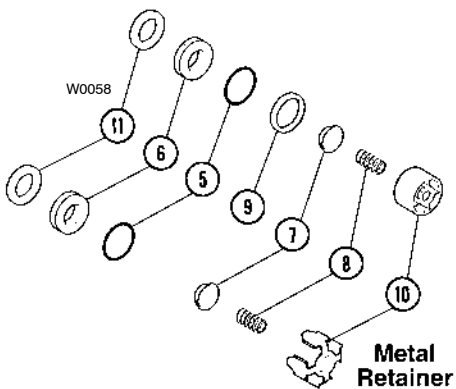
Piston Assembly  
(see Detail "A")

Valve Assemblies  
(see Detail "B")

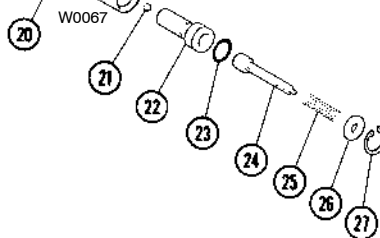
DETAIL "A"  
(Piston Assembly)  
(Kel-Cell)



DETAIL "B"  
(Valve Assemblies)



DETAIL "A"  
(Piston Assembly)  
(non Kel-Cell)



## Bolt Torque Specifications

Ref. No.	Assembly Torque
1	15 ft-lbs/20 Nm
14	Hand tight

# D/G-03 Fluid End Parts

Ref. No.	Part Number	Description	Quantity/ Pump	Ref. No.	Part Number	Description	Quantity/ Pump
1	D03-024-2010	Bolt, hex-head, 3" (for use with metallic head models) .....	8	10	D03-023-1010	Retainer, valve spring, 17-7 SST.....	6
	D03-024-2017	Bolt, hex-head, 4" (for use with non-metallic head models).....	8		D03-023-1017	Retainer, valve spring, Hastelloy C.....	6
	G03-024-2010	Cap Screw, socket head, M8 x 1.25 x 80 mm (for metallic head models) .....	8		D03-023-2310	Retainer, valve spring, Celcon.....	6
	G03-024-2011	Cap Screw, socket head, M8 x 1.25 x 90 mm (for non-metallic head models)	8		D03-023-2316	Retainer, valve spring, Nylon.....	6
2	C22-014-2000	Washer, 5/16" (metallic head only) .....	8		D03-023-2317	Retainer, valve spring, polypropylene	6
3	D03-004-1010	Manifold, brass.....	1		D03-023-2318	Retainer, valve spring, Kynar.....	6
	D03-004-1012	Manifold, 316 SST.....	1	11	D03-125-1011	Washer, dampening, 316 SST .....	6
	D03-004-1017	Manifold, nickel alloy (Hastelloy CW12MW).....	1		D03-125-2310	Washer, dampening, Celcon.....	6
	D03-004-1050	Manifold, polypropylene.....	1		D03-125-2316	Washer, dampening, Nylon.....	6
	D03-004-1053	Manifold, Kynar .....	1		D03-125-2317	Washer, dampening, polypropylene ...	6
	G13-004-1010	Manifold, brass.....	1		D03-125-2318	Washer, dampening, Kynar.....	6
	G13-004-1012	Manifold, 316 SST.....	1	12	D03-003-1010	Valve Plate, brass .....	1
	G13-004-1017	Manifold, nickel alloy (Hastelloy CW12MW).....	1		D03-003-1012	Valve Plate, 316 SST .....	1
	G13-004-1050	Manifold, polypropylene.....	1		D03-003-1017	Valve Plate, nickel alloy (Hastelloy CW12MW).....	1
	G13-004-1053	Manifold, Kynar .....	1		D03-003-1050	Valve Plate, polypropylene .....	1
4	D25-073-2110	O-ring, manifold, Buna.....	2		D03-003-1053	Valve Plate, Kynar .....	1
	D25-073-2111	O-ring, manifold, Viton .....	2		K03-003-1022	Valve Plate, brass, Kel-Cell .....	1
	D25-073-2112	O-ring, manifold, Neoprene .....	2		K03-003-1021	Valve Plate, 316 SST, Kel-Cell.....	1
	D25-073-2113	O-ring, manifold, EPDM.....	2		K03-003-1023	Valve Plate, Hastelloy C, Kel-Cell.....	1
	D25-073-2118	O-ring, manifold, PTFE.....	2		K03-003-1050	Valve Plate, polypropylene, Kel-Cell ..	1
5	D25-046-2110	O-ring, valve seat, Buna .....	6		K03-003-1053	Valve Plate, Kynar PVDF, Kel-Cell .....	1
	D25-046-2111	O-ring, valve seat, Viton .....	6	14	D03-029-2010	Cap Screw, socket-head, 1".....	2
	D03-035-2112	O-ring, valve seat Neoprene.....	6		G03-029-2010	Cap Screw, socket-head, M6 x 1 x 25 mm .....	2
	D03-035-2113	O-ring, valve seat, EPDM .....	6	16	D03-088-2010	Cap Screw, socket-head, 3/4".....	2
	D03-035-2118	O-ring, valve seat, PTFE .....	6		G03-088-2010	Cap Screw, socket-head, M6 x 1 x 20 mm.....	2
6*	D03-020-1001	Valve Seat, 316 SST .....	6	17	D03-018-1212	Diaphragm, Neoprene.....	3
	D03-020-1002	Valve Seat, 17-4 SST.....	6		D03-018-1213	Diaphragm, EPDM .....	3
	D03-020-1017	Valve Seat, Hastelloy C .....	6		D03-018-1215	Diaphragm, Viton-XT .....	3
	D03-020-3300	Valve Seat, ceramic .....	6		D03-018-1220	Diaphragm, Buna-N-XS .....	3
	D15-020-2016	Valve Seat, tungsten carbide* .....	6		D03-018-1218	Diaphragm, PTFE .....	3
7	D03-021-1001	Valve, 316 SST, stamped.....	6		D03-018-1240	Diaphragm, Buna-N-XS, Kel-Cell .....	3
	D03-021-1002	Valve, 17-7 SST, stamped.....	6		D03-018-1242	Diaphragm, Neoprene, Kel-Cell.....	3
	D03-021-1011	Valve, Nitronic 50.....	6		D03-018-1243	Diaphragm, EPDM, Kel-Cell .....	3
	D03-021-1015	Valve, 17-4 SST, machined.....	6		D03-018-1245	Diaphragm, Viton-XT, Kel-Cell.....	3
	D03-021-1016	Valve, tungsten carbide .....	6	18	D03-002-1000	Diaphragm Plate .....	1
	D03-021-1017	Valve, Hastelloy C.....	6		K03-002-1022	Diaphragm Plate, Kel-Cell .....	1
	D03-021-3300	Valve, ceramic.....	6	19	D03-075-2110	O-ring, diaphragm plate, Buna.....	3
8	D03-022-3113	Valve Spring, Hastelloy C .....	6	20	D03-014-1004	Piston .....	3
	D03-022-3114	Valve Spring, Elgiloy .....	6		K03-014-1004	Piston, Kel-Cell .....	3
	D03-022-3118	Valve Spring, 17-7 SST .....	6	21	D10-015-3010	Ball .....	3
9	D03-092-2110	Tetra Seal, Buna .....	6	22	D03-043-1000	Valve Cylinder .....	3
	D03-092-2111	Tetra Seal, Viton.....	6		K03-043-1010	Valve Cylinder, Kel-Cell .....	3
	D03-092-2112	Tetra Seal, Neoprene.....	6	23	D03-034-2110	O-ring, valve cylinder, Buna.....	3
	D03-092-2113	Tetra Seal, EPDM .....	6		C23-009-2110	O-ring, valve cylinder, Buna, Kel-Cell.	3
	D03-035-2118	O-ring, PTFE.....	6	24	D03-044-1000	Valve Plunger .....	3
					K03-044-1010	Valve Plunger, Kel-Cell .....	3

\* Tungsten carbide seat valve (6) does not require dampening washers.

# D/G-03 Fluid End Parts

---

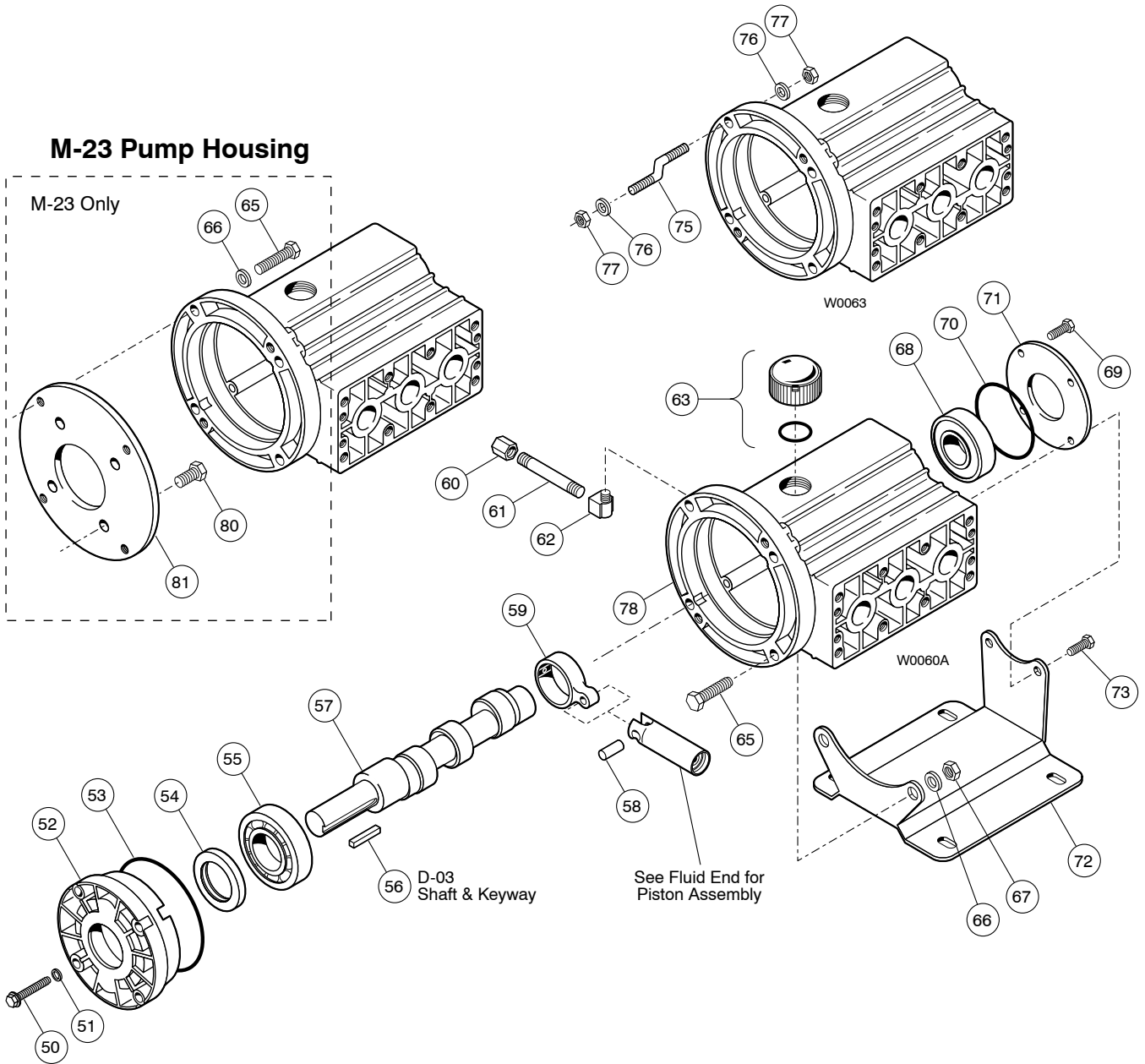
Ref. No.	Part Number	Description	Quantity/ Pump
25	D03-045-3110	Spring, sleeve valve .....	3
	D03-045-3111	Spring, sleeve valve for PTFE diaphragms .....	3
	K03-045-3110	Spring, sleeve valve, Kel-Cell .....	3
26	D03-049-1000	Washer .....	3
	K03-049-1000	Washer, Kel-Cell .....	3
27	D03-048-2210	Snap Ring.....	3
28	D03-014-1210	Piston Assembly .....	3
	K03-014-1210	Piston Assembly, Kel-Cell.....	3
29	D03-100-1010	Manifold Support Plate .....	1
	D03-100-1011	Manifold Support Plate, painted .....	1
30	102-210	O-ring, Viton.....	3
	D10-047-2110	O-ring, Buna N .....	3
31	D10-030-2010	Screw, Flat-head, SST .....	3
73*	D03-087-2011	Screw, Mach, HH slf tp (D-03 only) ....	2
79	D10-040-2400	Nameplate.....	1
82	D10-112-2200	Rivet .....	4

\* As of April 2005 (Serial No. 177400 and up), pump housing (78) no longer uses front cover assembly parts (69,70,71, and 74). Subsequent housings use self tapping screw (73).

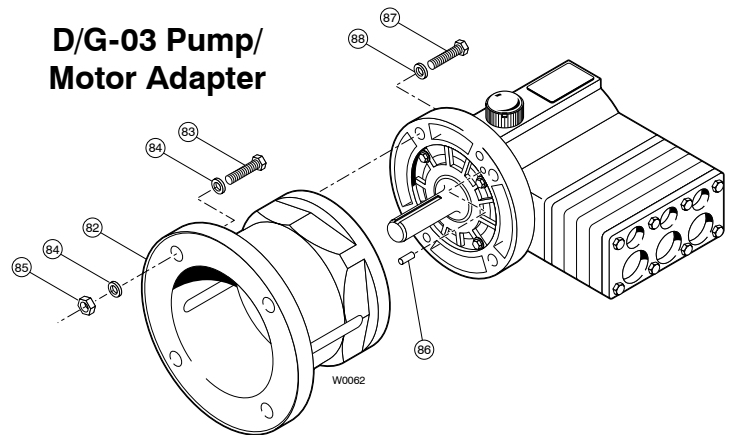
# D/G-03 Hydraulic End Parts

## G-13 Pump Housing

## M-23 Pump Housing



## D/G-03 Pump/ Motor Adapter



# D/G-03 Hydraulic End Parts

Ref. No.	Part Number	Description	Quantity/ Pump
50	D03-086-2010	Cap Screw, hex-head, with washer	4
	G03-086-2010	Cap Screw, hex-head, with washer	4
51	D25-047-2110	O-ring, back cover screws, Buna	4
52	D03-131-1000	Back Cover	1
53	D03-037-2110	O-ring, back cover, Buna	1
54	D03-031-2110	Seal, Buna	1
55	D03-011-2910	Back Bearing	1
56	D10-085-2210	Key, shaft	1
57	D03-009-1002	(E) Crank Shaft, shaft-driven, 7/8" O.D., 2.2 GPM @ 1750 RPM	1
	D03-009-1003	(X) Crank Shaft, shaft-driven, 7/8" O.D., 3.0 GPM @ 1750 RPM	1
	D03-009-1011	(B) Crank Shaft, shaft-driven, 7/8" O.D., 1.1 GPM @ 1750 RPM	1
	D03-009-1018	(S) Crank Shaft, shaft-driven, 7/8" O.D., 1.8 GPM @ 1750 RPM	1
	D03-009-1067	(G) Crank Shaft, shaft-driven, 7/8" O.D., 0.5 GPM @ 1750 RPM	1
	M03-009-1002	(E) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 2.2 GPM @1750 RPM	1
	M03-009-1003	(X) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 3.0 GPM @1750 RPM	1
	M03-009-1011	(B) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 1.1 GPM @1750 RPM	1
	M03-009-1018	(S) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 1.8 GPM @1750 RPM	1
	M13-009-1002	(E) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 7.1 l/min @1450 RPM	1
	M13-009-1003	(X) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 9.9 l/min @1450 RPM	1
	M13-009-1011	(B) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 3.5 l/min @1450 RPM	1
	M13-009-1018	(S) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 5.6 l/min @1450 RPM	1
	M13-009-1067	(G) Hollow Shaft, IEC 90 direct drive, .. 24 mm I.D. (closed-coupled), 1.6 l/min @1450 RPM	1
	M23-009-1004	(X) Hollow Shaft, 20 mm I.D. (for Honda Engine), 3.0 GPM @ 1750 RPM	1

Ref. No.	Part Number	Description	Quantity/ Pump
58	D03-133-1000	Pin	3
59	D03-132-1000	Connecting Rod	3
60	D10-078-2210	Cap, brass, 1/8"	1
61	D10-077-2210	Pipe, brass, 1/8"	1
62	D10-076-2210	Elbow, brass, 1/8"	1
63	D03-039-1030	Cap with O-ring, oil fill	1
64	D10-080-2111	O-ring, oil fill, Buna	1
65	*D03-068-2010	Cap Screw, socket-head, 1-1/2"	4
	G03-068-2010	Cap Screw, socket-head, M10 x 1.5 x .. 40 mm (G-03 only)	2
66*	D10-048-2010	Washer, 38"	4
	G25-048-2010	Washer, M10 (G-03 only)	2
67	D10-028-2010	Nut, hex, 3/8" (for D-03 models only)	2
	G10-028-2010	Nut, hex, M10 (G-03 only)	2
68	D03-010-2910	Front Bearing	1
69*	D03-087-2010	Cap Screw, hex-head, 1/2"	4
70	D40-074-2110	O-ring, front cover, Buna	1
71	D03-130-1000	Front Cover	1
72	D03-025-1010	Base Plate (D-03/G-03/K-03 only)	1
73	D03-089-2010	Cap Screw, hex-head, 3/4" (D-03/K-03 models only)	2
75	M13-151-1000	Offset Bolt (G-13 only)	4
76	G25-048-2010	Washer, lock, 10 mm (G-13 only)	8
77	G10-028-2010	Nut, hex, 10 mm (G-13 only)	8
78	D03-001-1001	Pump Housing	1
	G13-001-1001	Pump Housing	1
80	M23-085-2010	Cap Screw, hex-head, M8 x 16 mm	4
81	M23-025-1010	Plate, adapter	1

\* Quantity 2 on Model D-03.

# D/G-03 Pump/Motor Adapter Kits

---

## D-03 Pump/Motor Adapter Kits

56C-145TC NEMA C-Face Motors (Kit No. A04-001-1202)

182-215TC NEMA C-Face Motors (Kit No. A04-002-1202)

## G-03 Pump/Motor Adapter Kits

IEC 80-90 B5 Flange Motors (Part No. A04-003-1202)

IEC 100-112 B5 Flange Motors (Part No. A04-004-1202)

Ref No.	Description	For D-03 A04-001-1202 Part Number	For D-03 A04-002-1202 Part Number	For G-03 A04-003-1202 Part Number	For G-03 A04-004-1202 Part Number	Qty/ Kit
82	Pump/Motor Adapter	A04-032-1000	A04-033-1002	A04-032-1001	A04-033-1003	1
83	Cap Screw, socket-head	D10-087-2010	M10-110-2000	G03-068-2010	A04-043-2010	4
84	Lockwasher	D10-048-2010	M10-111-2000	A04-044-2010	M10-111-2000	8
85	Nut	N/A	N/A	A04-047-2010	A04-045-2010	4
86	Pin	D03-026-2211	D03-026-2211	D03-026-2211	D03-026-2211	2
87	Cap Screw, socket-head	G03-068-2010	G03-068-2010	G03-068-2010	G03-068-2010	4
88	Lockwasher	G25-048-2010	G25-048-2010	G25-048-2010	G25-048-2010	4

# D/G-03 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
---	---	---	---	---	---	---	---	---	----	----

Digit	Order Code	Description
1-3		<b>Pump Configuration</b>
	<b>D03</b>	For all D-03, M-03 and M-23 pumps (5th digit "A")
	<b>G03</b>	For all G-03 and G13 pumps (5th digit "D")
	<b>K03</b>	For all D-03, G-03, M-03, G13, and M-23 pumps with 5th digit "K" in pump model number
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>Pump Head Version</b>
	<b>51</b>	All Versions
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
	<b>N</b>	Nitronic 50
	<b>S</b>	316 Stainless Steel
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
10		<b>Valve Springs</b>
	<b>E</b>	Elgiloy®
	<b>S</b>	316 Stainless Steel
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit

Digit	Order Code	Description
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
	<b>X</b>	Not included in Diaphragm Kit

## Kit Contents

Part Number*	Description	Qty	Kit Designator		
			K	D	V
<b>D03-018-___</b>	Diaphragm	3	•	•	
<b>K03-018-___</b>	Diaphragm	3	•	•	
<b>D25-073-___</b>	O-ring, manifold	2	•	•	•
<b>D03-035-___</b>	or				
<b>D25-046-___</b>	O-ring, valve seat**	6	•		•
<b>D03-020-___</b>	Valve seat	6	•		•
<b>D03-021-___</b>	Valve	6	•		•
<b>D03-022-___</b>	Valve spring	6	•		•
<b>D03-092-___</b>	Tetra seal***	6	•		•
<b>D03-023-___</b>	Retainer, valve spring	6	•		•
<b>D03-125-___</b>	Washer, dampening	6	•		•
<b>A01-113-3400</b>	Threadlocker	1	•		•

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

\*\* D03-035 is provided for EPDM, PTFE or Neoprene Diaphragm and O-rings; D25-046 is provided for Viton-XT or Buna-N-XS Diaphragm and O-rings.

\*\*\*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](http://www.hydra-cell.com)

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