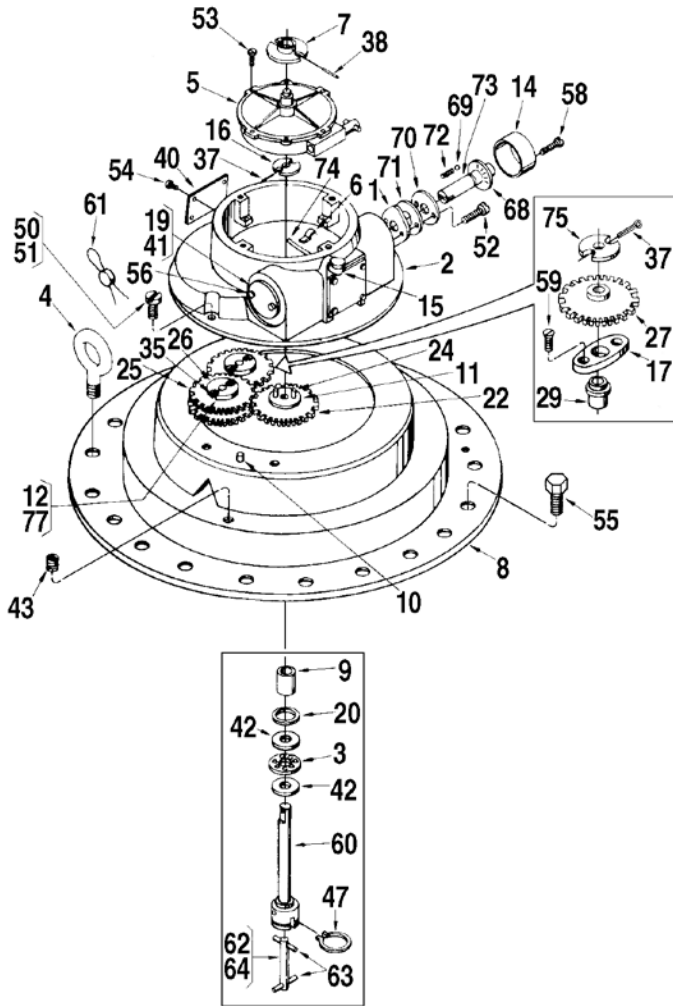


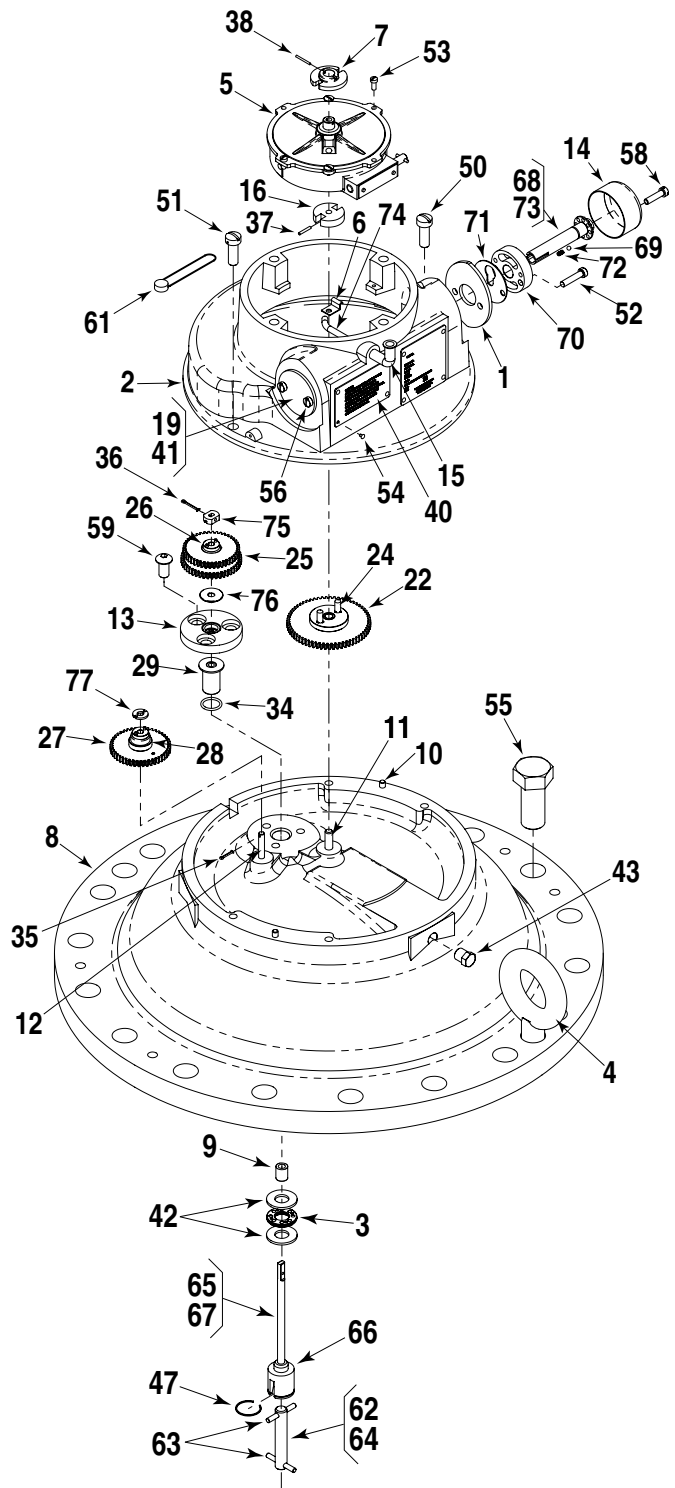
Note: Angled housing not shown.

Pre – 1994
S1

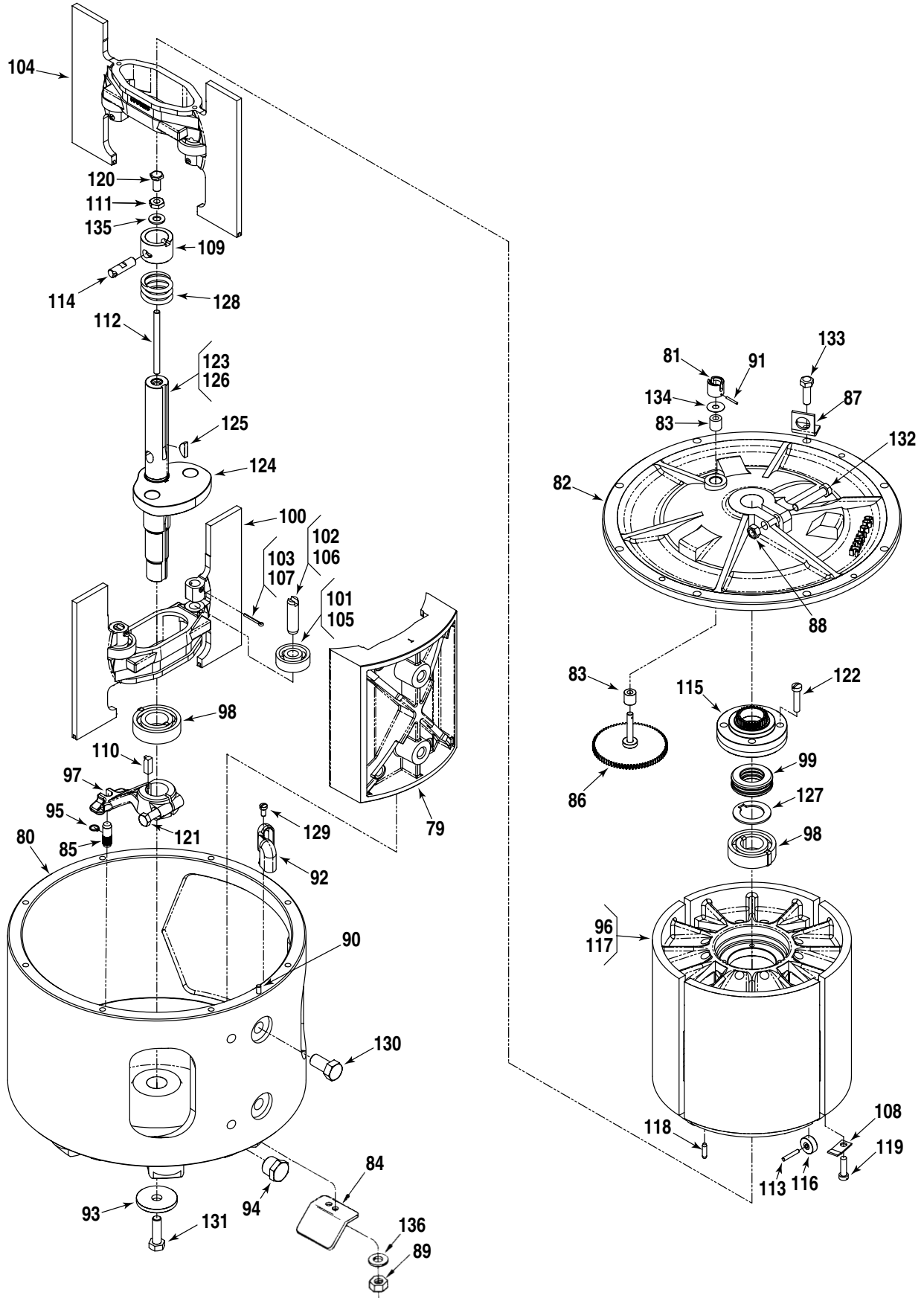
All
A1



1994 – 2005
S1



Inner Mechanism – All Models



Item	Description	Qty.	Pre – 1994	1994 – 2005
1	Adapter, Calibrator Adjusting Stem:			
	Standard	1	511946-001	154869-009
	Without Adjusting Stem Hole	1	512372-002	512372-002
2	Adapter	1	511946-001	154869-009
3	+ Bearing, Thrust:			
	Standard	1	070360-002	.....
	All Iron.....	1	070360-001	070360-001
4	Bolt, Eye	2	644974-402	065433-005
5	+ Calibrator:			
	Standard	1	512059-001	512059-001
	W/ ATC (Standard).....	1	512060-001	512060-001
@1	W/ ATC (Special Temp. or API)	1	516130-xxx	516130-xxx
	Dummy Calibrator	1	516105-001	516105-001
6	Clamp, Oil Tube	1	003905-001	003905-001
7	+ Coupling, Drive.....	1	072103-001	072103-001
8	Cover, Assembly:			
	E3 – A1:			
	Standard	1	512225-091	512225-091
	PTFE ¹	1	512225-099	512225-091
	E3, E4 – S1:			
	Standard	1	512225-091	552781-001
	PTFE ¹	1	512225-099	552781-099
9	Bearing, Packing Gland.....	1	519882-002	646178-401
10	Pin, Groove, .19 x .38.....	2	641007-401	641007-401
11	Shaft, Gear	1	003775-001	003775-001
12	Shaft, Idler Pinion	1	512077-001	512077-001
13	Cover, Assembly, Packing Gland (S1 only)	1	.....	553723-001
14	Cover, Knob.....	1	003553-001	003553-001
15	Cup, Oil	1	006588-001	006588-001
16	Disc, Coupling	1	014356-001	014356-001
17	@5 Flange, Packing Gland	1	010171-001	010171-001
18	Flange, Temperature Well Plug.....	1	001941-001	.....
19	@5 Gasket, Cover Plate	1	003834-001	003834-001
20	+@5 Gasket, Packing Gland.....	1	010173-001	010173-001
21	Gasket, Temperature Well	1	060341-001	.....
22	@2 Gear, Calibrator Drive:			
	U.S. Gallons	1	514632-001	514632-001
	U.S. Gallons, LPG	1	515045-001	515045-001
	Imperial Gallons	1	514773-001	514773-001
	Dekalitres	1	514774-001	514774-001
	Dekalitres, LPG	1	515049-001	515049-001
23	* Bushing:			
	LPG	1	504653-001	504653-001
	Standard and All Iron.....	1	013372-001	013372-001
24	Pin:			
	LPG	2	003325-001	003325-001
	Standard and All Iron.....	2	003325-002	003325-002
25	@2 Gear, Jack Shaft Idler Assembly:			
	U.S. Gallons, All	1	072477-001	072477-001
	Imperial Gallons, All	1	072491-001	072491-001
	Dekalitres, All	1	072485-001	072485-001
26	Pin.....	2	001126-001	001126-001
27	@2 Gear, Shaft	1	072478-001	072478-001
28	Pin.....	2	.....	001126-001

1 Polytetrafluoroethylene (PTFE).

Item	Description	Qty.	Pre – 1994	1994 – 2005
29	+@3 Gland, Packing:			
	A1 – Buna-N.....	1	518630-001	518630-001
	A1 – PTFE ¹	1	009535-001	009535-001
	A1 – Viton.....	1	518630-002	518630-002
	S1 – Buna-N	1	518630-001	.....
	S1 – PTFE ¹	1	009535-001	553722-001
	S1 – Viton.....	1	518630-002	.....
30	Housing, Outer:			
	E3-A1	1	512198-001	512198-001
	E3-S1	1	552778-001	552781-001
	E4-S1	1	553720-011	553720-011
31	@5 Nut, 9/16-12.....	20	642138-401	642138-401
32	Nut, Eyebolt, 1/2"-13	2	006399-002	.....
33	+ O-Ring, Cover:			
	Buna-N.....	1	512278-001	512278-001
	Viton.....	1	512278-002	512278-002
34	+ O-Ring, Packing Gland:			
	PTFE ¹	1	.....	645904-402
	All others	1	.....	642586-406
35	Pin, Cotter, 1/16 Dia x 1/2 Long, S.S.....	1	001095-401	001095-401
36	Pin, Cotter, Jackshaft, 1/16 Dia x 5/8"	1	.....	641042-401
37	Pin, Groove, Coupling Disc, .08 x .50":			
	Pre 1994	2	006132-001	.....
	1994-2005.....	1	.....	006053-002
38	Pin, Groove, Drive Coupling, 1/16 x 5/8"	1	006028-002	006028-002
39	Pin, Groove, Outer Housing, 5/16 x 3/4"	2	640985-401	640985-401
40	Plate, Caution, Calibrator	1	006571-001	006571-001
41	Plate, Cover.....	1	003440-001	003440-001
42	+ Plate, Thrust Bearing.....	2	001111-001	001111-001
43	Plug, Pipe, 1/8 NPT 1010 Thru 101.....	1	006073-002	006073-002
44	Plug, Pipe, .75 NPT	1	006878-002	006878-002
45	Plug, Temp. Well (Slug).....	1	012025-001	.....
46	Plug, Temp. Well, .50 NPT	1	006505-002	006505-002
47	Ring, Snap.....	1	512066-001	512066-001
48	Screw, 5/16-18 x 1"	2	060133-002	.....
49	* Screw, 10-32 x 1/2"	2	006764-002	.....
50	Screw, Adapter, 5/16-18 x 7/8"	1	009563-400	009563-400
51	Screw, Adapter, 5/16-18 x 7/8" (Drilled, Security Function)	1	009563-401	009563-401
52	Screw, Base Plate, 10-32 x 7/8"	2	640835-001	640835-001
53	Screw, Calibrator, 6-32 x 5/16"	2	006048-002	006048-002
54	Screw, Caution Plate, 1/8" Self Tapping	8	009880-400	009880-400
55	Screw, Cover:			
	A1 – 9/16-12 x 1"	20	640975-406	640975-406
	S1 – 9/16-12 x 1-3/4"	20	640975-401	.....
	S1 – 3/4-10 x 1-3/4"	18	.....	646186-401
56	Screw, Cover Plate, 10-32 x 3/8"	2	006045-002	006045-002
57	Screw, Housing to Inner Mechanism, 1/2-13 x 2.00"	2	646134-401	646134-401
58	Screw, Knob Cover, 10-24 x 3/4"	2	006481-003	006481-003
59	Screw, Packing Gland:			
	A1 – #10-32 x 1/2"	2	006764-002	006764-002
	S1 – #10-32 x 1/2"	2	006764-002	.....
	S1 – .312-18 x .62"	3	.....	646181-401
60	+@5 Shaft, Jack (Upper).....	1	512116-001	512116-001
61	Seal, Lead and Wire	3	001627-400	001627-400
62	+ Shaft, Link Assembly	1	512069-001	512069-001
63	Pin, Groove, 1/8 x 1"	2	640780-001	640780-001

¹ Polytetrafluoroethylene (PTFE).

Item	Description	Qty.	Pre – 1994	1994 – 2005
64	Shaft, Link	1	512068-002	512068-002
65	Shaft Assembly, Packing Gland (S1 only)	1	.....	553716-001
66	Coupling, Drive.....	1	.....	512065-001
67	Shaft	1	.....	553715-001
68	Stem, Adjusting	1	009838-001	009838-001
69	Ball, 1/8 Dia.....	2	006427-001	006427-001
70	Plate, Base.....	1	003552-001	003552-001
71	Plate, Retainer	1	003556-001	003556-001
72	Spring, Knob	2	003557-001	003557-001
73	Stem, Adjusting.....	1	003551-001	003551-001
74	Tube, Oil	1	514658-001	514658-001
75	Washer, Jack Shaft.....	1	001125-001	001125-001
76	Washer, 7/32 ID x 3/4" OD (S1 only).....	1	.....	553712-001
77	Washer, Pinion	1	003599-001	003599-001
78	Washer, Flat, 17/32 ID x 1-1/16" OD	2	065309-002	065309-002

Inner Mechanism

Item	Description	Qty.	Part Number
79	@4 Block	1	538361-001
80	Body	1	512071-001
81	+ Coupling, Drive.....	1	512064-002
82	Cover, Inner: Standard and All Iron	1	516455-001
	LPG.....	1	516455-002
83	+ Bushing, Jack Shaft: Standard and All Iron.....	2	519882-001
	LPG	2	512796-001
84	Cover, Pitot.....	2	512723-001
85	Dowel, Locating Arm	1	512115-001
86	Gear, Jack Shaft.....	1	512282-001
87	Lug, Lift	2	512002-001
88	Nut, 5/16-18.....	1	009552-400
89	Nut, #10-32.....	2	001723-400
90	Pin, Groove, 3/16" x 3/4"	1	007900-400
91	Pin, Groove, 1.08 x .63	1	009593-400
92	Pitot Assembly.....	1	072186-001
93	Plate	1	512714-001
94	Plug, Pipe, Hex Head, .50 NPT	1	006505-002
95	Ring, Retaining	1	064150-001
96	@4 Rotor and Blade Assembly: Standard	1	515705-001
	All Iron.....	1	515705-002
	LPG.....	1	515705-003
97	Arm, Rotor Shaft Locating.....	1	512192-001
98	+ Bearing and Clamp: Standard and All Iron.....	2	516108-001
	LPG	2	516108-002
99	+ Bearing, Rotor Thrust: Standard and All Iron.....	1	009589-001
	LPG	1	504819-001
100	+ Blade, Lower: Standard.....	1	008899-001
	All Iron	1	009453-054
	LPG	1	504807-001
	High Viscosity.....	1	008899-041

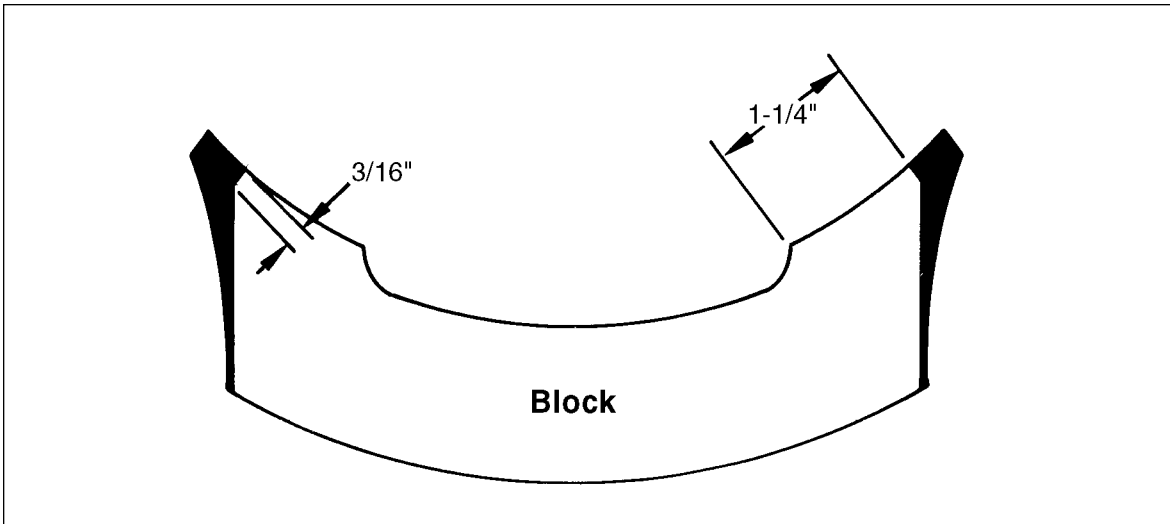
Item	Description	Qty.	Part Number
	High Temperature	1	008899-042
	High Viscosity/High Temperature.....	1	008899-043
101	Bearing, Blade:		
	Standard and All Iron.....	2	065109-001
	LPG	2	644412-402
102	Pin, Blade Bearing	2	003449-001
103	Pin, Cotter, 3/32 x 1"	2	006308-001
104	+ Blade, Upper:		
	Standard.....	1	008898-001
	All Iron	1	009453-054
	LPG	1	504806-001
	High Viscosity.....	1	008898-041
	High Temperature	1	008898-042
	High Viscosity/ High Temperature.....	1	008898-043
105	Bearing, Blade:		
	Standard and All Iron.....	2	065109-001
	LPG	2	644412-402
106	Pin, Blade Bearing	2	003449-001
107	Pin, Cotter, 3/32 x 1"	2	006308-001
108	Clamp, Roller	8	011226-001
109	Collar, Thrust Bearing	1	512047-001
110	Key	1	512722-001
111	Nut, 5/16-24	1	006835-002
112	Pin, Extension	1	512279-001
113	Pin, Roller	4	002034-001
114	Pin, Collar Thrust Bearing.....	1	008166-001
115	Plate, Rotor Gear	1	512049-001
116	Roller, Cover:		
	LPG	4	514750-001
	All others	4	011227-001
117	Rotor, Sub Assembly:		
	Standard.....	1	008096-002
	High Viscosity.....	1	008096-041
	LPG	1	008096-042
118	Dowel, Rotor.....	9	001636-001
119	Screw, 1/4-20 x 7/8":		
	All Iron (Drilled).....	8	006100-003
	All Others.....	8	006100-002
120	Screw, Adjusting.....	1	002351-001
121	Screw, 5/16-18 x 1-1/4"	1	006511-002
122	Screw, M-1/4-20 x 1-1/8" LG.....	4	640992-400
123	@4 Shaft and Cam Assembly:		
	Current Style	1	538426-001
	Previous Style	1	512285-001
124	@4 Cam:		
	Current Style.....	1	538360-001
	Previous Style.....	1	003524-001
125	Key, Woodruff	1	005535-800
126	Shaft	1	512042-001
127	Spacer, Rotor Bearing.....	1	512144-001
128	+ Spring, Rotor.....	1	003525-002
129	Screw, Pitot:		
	#10-32 x 1-1/4" (Pre-1994)	2	642010-402
	#10-32 x 1-3/8" (1994-2005).....	2	006045-002
130	Screw, 1/2-13 x 1" Hex HD.....	2	010525-400
131	Screw, 3/8-16 x 1-1/4" Hex HD.....	1	641044-401

Item	Description	Qty.	Part Number
132	Screw, 5/16-18 x 1-3/4" Hex HD.....	1	006325-002
133	Screw, 5/16-18 x 1" Hex HD.....	8	006140-002
134	Washer, Flat, .75 OD, .265 ID, .010 Thick.....	1	643249-401
135	Washer, Flat, 11/16 OD 11/32 ID.....	1	642495-406
136	Washer, Lock.....	2	642482-406

Inner Mechanism General Assembly Numbers

Standard.....	538476-091
All Iron.....	538476-092
LPG.....	538476-093

- * Not illustrated.
- + Recommended stock.
- R Indicates change since last revision.
- @1 When ordering, include temperature range, specific or API gravity, API table used, and meter gearing.
- @2 Only standard gearing is listed. For additional gearing combinations, see Gear Train Bulletin AB01023.
- @3 See Form No. PO01042 for component parts.
- @4 In 1976, a change in design was made to the block and cam of the 3" meter. To ensure proper operation, a current style block must be used with a current style cam. Either current or previous style block can be used with the previous style cam. The shaded area below represents the dimensions of the previous style.
- @5 Excludes 1994 to 2005 S1.



Revisions included in publication PO01001 rev 0.0 (2/13):
 PO01001 replaces publications P0537.20 and P0545.52, both of which have been made obsolete.
 Total Revision.

Editorial Change: 11/13: Items 8, 29, 34 - material reference changed to PTFE.

Headquarters:
 500 North Sam Houston Parkway West,
 Suite 100, Houston, TX 77067 USA
 Phone: +1 (281) 260 2190
 Fax: +1 (281) 260 2191

Operations:
Measurement Products and Equipment:
 Ellerbek, Germany +49 (4101) 3040
 Erie, PA USA +1 (814) 898 5000

Integrated Measurement Systems:
 Corpus Christi, TX USA +1 (361) 289 3400
 Kongsberg, Norway +47 (32) 286700

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

Contact information is subject to change. For the most current contact information, visit our website at www.fmctechnologies.com/measurementsolutions and click on the "Contact Us" link in the left-hand column.

www.fmctechnologies.com/measurementsolutions