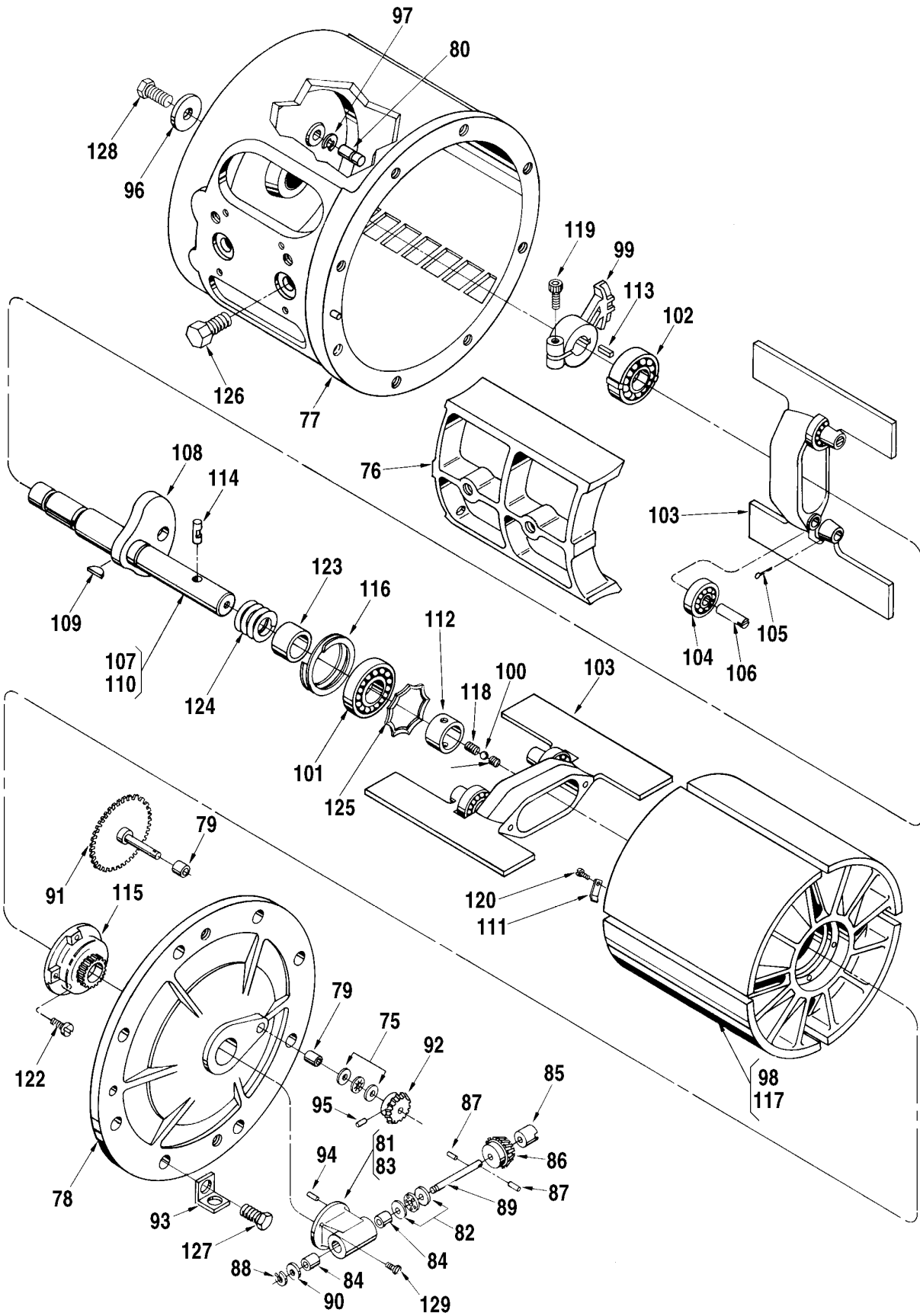


# Inner Mechanism



| Item | Description  | Qty. | Part Number |
|------|--|------|-------------|
| 1    | Adapter, Calibrator Adjusting Stem .....                 | 1    | 512372-001  |
| 2    | Adapter, Counter .....                                   | 1    | 517052-001  |
| 3    | + Calibrator:  |      |             |
|      | Standard .....   | 1    | 512059-001  |
|      | Temperature Corrected (Standard) .....                   | 1    | 512060-001  |
| @1   | Temperature Corrected (Special Temperature or API) ..... | 1    | 516130-xxx  |
|      | Dummy Calibrator .....                                   | 1    | 516105-001  |
| 4    | Clamp, Oil Tube .....                                    | 1    | 003905-001  |
| 5    | Coupling .....   | 1    | 517061-001  |
| 6    | Pin.....   | 1    | 641863-401  |
| 7    | + Coupling, Drive .....                                  | 1    | 072103-001  |
| 8    | Coupling, Input .....                                    | 1    | 014356-001  |
| 9    | Cover, Knob.....   | 1    | 003553-001  |
| 10   | Cover, Outer Housing.....                                | 1    | 517053-001  |
| 11   | Flange, Packing Gland .....                              | 1    | 010171-001  |
| 12   | Flange, Temperature Well Plug.....                       | 1    | 011941-001  |
| 13   | Gasket, Cover Plate .....                                | 1    | 003834-001  |
| 14   | + Gasket, Packing Gland.....                             | 1    | 010173-001  |
| 15   | + Gasket, Temperature Well .....                         | 1    | 060341-001  |
| 16   | + Gear, Calibrator Drive:                                |      |             |
|      | U.S. Gallons, F4-V1 and F4-VA1 .....                     | 1    | 008248-001  |
|      | Imperial Gallons, F4-V1 and F4-VA1 .....                 | 1    | 071007-001  |
|      | Dekalitres, F4-V1 and F4-VA1 .....                       | 1    | 070728-001  |
| 17   | + Gear, Jackshaft, F4-VA1 Only .....                     | 1    | 008250-001  |
| 18   | + Gear, Single:  |      |             |
|      | U.S. Gallons, F4-V1 Only .....                           | 1    | 008249-002  |
|      | U.S. Gallons, F4-VA1 Only.....                           | 1    | 008249-001  |
|      | Imperial Gallons, F4-V1 and F4-VA1 .....                 | 1    | 072076-002  |
|      | Dekalitres, F4-V1 and F4-VA1 .....                       | 1    | 072056-002  |
| 19   | + Gland, Packing:  |      |             |
|      | Buna-N.....  | 1    | 518630-001  |
|      | Viton.....   | 1    | 518630-002  |
|      | Teflon.....  | 1    | 009535-002  |
|      | Brass.....   | 1    | 008934-002  |
| 20   | Housing:   |      |             |
|      | F4-V1 .....  | 1    | 517056-001  |
|      | F4-VA1 .....   | 1    | 534266-001  |
| 21   | Nut, Cover, 9/16"-12 UNC-2B.....                         | 20   | 642138-401  |
| 22   | + O-Ring, Access Plate:                                  |      |             |
|      | Buna-N.....  | 1    | 009902-400  |
|      | Viton.....   | 1    | 640894-439  |
|      | Teflon .....   | 1    | 641754-438  |
|      | EPR .....  | 1    | 641560-438  |
| 23   | + O-Ring, Base Plate:                                    |      |             |
|      | Buna-N.....  | 1    | 640888-004  |
|      | Viton.....   | 1    | 640894-406  |
|      | Teflon .....   | 1    | 641754-403  |
|      | EPR .....  | 1    | 641560-404  |
| 24   | + O-Ring, Cover:   |      |             |
|      | Buna-N.....  | 1    | 512140-001  |
|      | Viton.....   | 1    | 512140-002  |
|      | Teflon .....   | 1    | 645842-401  |
|      | EPR .....  | 1    | 512140-003  |
| 25   | Oiler.....   | 1    | 006588-001  |
| 26   | Pin, Cotter, 1/16 x 1/2", F4-VA1 Only .....              | 1    | 001095-001  |
| 27   | Pin, Cotter, 1/16 x 5/8".....                            | 1    | 641042-401  |
| 28   | Pin .....  | 1    | 006054-002  |

| Item | Description  | Qty. | Part Number |
|------|--|------|-------------|
| 29   | Pin, Groove, 1/16 x 5/8".....                            | 1    | 006028-002  |
| 30   | Pin, Groove, 5/64 x 1/2".....                            | 1    | 006053-002  |
| 31   | Plate, Access.....                                       | 1    | 517051-001  |
| 32   | Plate, Base:   |      |             |
|      | F4-V1 .....  | 1    | 517054-001  |
|      | F4-VA1 .....   | 1    | 517054-003  |
| 33   | * Bushing .....  | 1    | 519882-002  |
| 34   | Shaft, Calibrator Drive Gear.....                        | 1    | 003775-001  |
| 35   | Shaft, Idle Gear, F4-VA1 Only.....                       | 1    | 512077-001  |
| 36   | * Plate, Caution.....                                    | 1    | 006571-001  |
| 37   | Plate, Cover.....  | 1    | 003440-001  |
| 38   | Plate, Thrust Bearing.....                               | 2    | 001111-001  |
| 39   | Plug, Pipe.....  | 2    | 006505-002  |
| 40   | Plug, Temperature Well.....                              | 1    | 012025-001  |
| 41   | Retainer and Balls .....                                 | 1    | 070360-001  |
| 42   | Ring, Retaining.....                                     | 1    | 009691-400  |
| 43   | Screw, Inner Mechanism, 1/2-13 x 1-3/4".....             | 2    | 006169-002  |
| 44   | Screw, Cover, 9/16-12 x 1-3/4".....                      | 20   | 640975-401  |
| 45   | Screw, Calibrator, #6-32 x 5/16".....                    | 2    | 006048-002  |
| 46   | Screw, Oil Tube Clamp, #8-32 x 3/16".....                | 2    | 006449-002  |
| 47   | Screw, Cover Plate, #10-32 x 3/8".....                   | 2    | 006045-002  |
| 48   | Screw, Packing Gland Flange, #10-32 x 1/2".....          | 2    | 006764-002  |
| 49   | Screw, Base Plate, #10-32 x 7/8".....                    | 2    | 640835-001  |
| 50   | Screw, Knob Cover, #10-24 x 3/4", Drilled.....           | 2    | 006481-003  |
| 51   | Screw, Base Plate, 5/16-18 x 3/4".....                   | 2    | 006409-002  |
| 52   | Screw, Access Plate, 5/16-18 x 7/8", Drilled.....        | 6    | 009563-401  |
| 53   | Screw, Temperature Well Plug Flange, 5/16-18 x 7/8"..... | 2    | 009563-400  |
| 54   | Screw, Base Plate:                                       |      |             |
|      | 5/16-18 x 1".....  | 1    | 060133-002  |
|      | 5/16-18 x 1", Drilled.....                               | 1    | 065075-003  |
| 55   | Screw, Counter Adapter, 5/16-18 x 2".....                | 1    | 642019-415  |
| 56   | + Seal, Lead and Wire.....                               | 2    | 001627-400  |
| 57   | Shaft, Link Assembly.....                                | 1    | 517063-001  |
| 58   | Pin.....   | 2    | 640780-001  |
| 59   | Ring, Snap.....  | 1    | 006076-400  |
| 60   | Spring.....  | 1    | 518113-001  |
| 61   | Shaft.....   | 1    | 517064-001  |
| 62   | Washer.....  | 1    | 517065-001  |
| 63   | Shaft, Upper Jack.....                                   | 1    | 512116-001  |
| 64   | Stem Assembly, Adjusting.....                            | 1    | 009838-001  |
| 65   | Ball.....  | 2    | 006427-001  |
| 66   | Plate, Base.....   | 1    | 003552-001  |
| 67   | Plate, Retainer.....                                     | 1    | 003556-001  |
| 68   | Spring, Knob.....  | 2    | 003557-001  |
| 69   | Stem, Adjusting.....                                     | 1    | 003551-001  |
| 70   | Tube, Oil.....   | 1    | 514658-001  |
| 71   | Washer, 1-1/16" O.D. x 17/32" I.D.....                   | 2    | 065309-002  |
| 72   | Washer, Jackshaft.....                                   | 1    | 001125-001  |
| 73   | Washer, Lock, 5/16".....                                 | 3    | 642482-407  |
| 74   | Washer, Pinion, F4-VA1 Only.....                         | 1    | 003599-001  |

**Inner Mechanism**

| <b>Item</b> | <b>Description</b>                               | <b>Qty.</b> | <b>Part Number</b> |
|-------------|--|-------------|--------------------|
| 75          | + Bearing, Thrust.....                           | 1           | 641920-401         |
| 76          | Block.....                                       | 1           | 517085-002         |
| 77          | Body .....                                       | 1           | 511997-001         |
| 78          | Cover, Inner Housing.....                        | 1           | 517081-001         |
| 79          | + Bushing:                                       |             |                    |
|             | Standard and All Iron .....                      | 2           | 519882-001         |
|             | LPG .....  | 2           | 512796-001         |
| 80          | Dowel, Locating Arm .....                        | 1           | 512115-001         |
| 81          | Gear and Bearing Block .....                     | 1           | 517083-001         |
| 82          | + Bearing, Thrust .....                          | 1           | 641920-401         |
| 83          | Block, Bearing.....                              | 1           | 517079-001         |
| 84          | Bushing .....                                    | 2           | 065312-001         |
| 85          | Coupling.....                                    | 1           | 512064-002         |
| 86          | Gear.....  | 1           | 517070-001         |
| 87          | Pin, Groove, 5/64 x 3/4" .....                   | 2           | 006320-002         |
| 88          | Ring, Snap .....                                 | 1           | 006076-400         |
| 89          | Shaft .....                                      | 1           | 517084-001         |
| 90          | Washer.....                                      | 1           | 517065-001         |
| 91          | Gear, Jackshaft.....                             | 1           | 517076-001         |
| 92          | Gear, Meter .....                                | 1           | 517070-001         |
| 93          | Lug, Lifting.....                                | 2           | 512002-001         |
| 94          | Pin, Groove, 3/16 x 3/4".....                    | 2           | 007900-400         |
| 95          | Pin, Groove, 5/64 x 3/4".....                    | 1           | 006320-002         |
| 96          | Plate .....                                      | 1           | 512714-001         |
| 97          | Ring, Retaining.....                             | 1           | 064150-001         |
| 98          | Rotor Assembly, Standard.....                    | 1           | 517769-001         |
| 99          | Arm, Locating.....                               | 1           | 511945-001         |
| 100         | Ball.....  | 1           | 006467-400         |
| 101         | + Bearing, Rotor:                                |             |                    |
|             | Standard and All Iron .....                      | 1           | 006523-001         |
|             | LPG .....  | 1           | 644412-407         |
| 102         | + Bearing, Rotor:                                |             |                    |
|             | Standard and All Iron .....                      | 1           | 516109-001         |
|             | LPG .....  | 1           | 516109-002         |
| 103         | Blade, Upper and Lower:                          |             |                    |
|             | Standard.....                                    | 2           | 517073-001         |
|             | LPG .....  | 2           | 517073-002         |
|             | All Iron .....                                   | 2           | 009441-042         |
| 104         | + Bearing, Blade:                                |             |                    |
|             | Standard and All Iron .....                      | 2           | 065109-001         |
|             | LPG .....  | 2           | 644412-402         |
| 105         | Pin, Cotter, 3/32 x 1".....                      | 2           | 006308-001         |
| 106         | Shaft, Blade Bearing.....                        | 2           | 003449-001         |
| 107         | Cam and Shaft Assembly .....                     | 1           | 517078-001         |
| 108         | Cam.....   | 1           | 517019-001         |
| 109         | Key .....  | 1           | 005535-800         |
| 110         | Shaft.....                                       | 1           | 517080-001         |
| 111         | Clamp, Roller .....                              | 8           | 011226-001         |
| 112         | Collar, Thrust.....                              | 1           | 517069-001         |
| 113         | Key.....   | 1           | 512715-001         |
| 114         | Pin, Thrust Collar .....                         | 1           | 008251-001         |
| 115         | Plate Assembly, Rotor Gear.....                  | 1           | 512112-002         |
| 116         | Ring, Spirolock.....                             | 1           | 643064-401         |
| 117         | Rotor .....                                      | 1           | 008253-091         |
| 118         | Screw, Set, 1/2-20 x 1" UNF-3A .....             | 1           | 644494-401         |
| 119         | Screw, Locating Arm, 5/16-18 x 1-1/4" .....      | 1           | 643764-402         |
| 120         | Screw, Roller Clamp, 1/4-20 x 7/8", Drilled..... | 8           | 006100-003         |

| Item |   | Description   | Qty. | Part Number |
|------|---|---|------|-------------|
| 121  | * | Screw, Rotor Gear Plate Assembly, 1/2-20 x 1/4" ..... | 1    | 641914-401  |
| 122  |   | Screw, Rotor Gear Plate Assembly, 1/4-20 x 1" .....   | 4    | 006004-002  |
| 123  |   | Spacer .....  | 1    | 517071-001  |
| 124  | + | Spring .....  | 1    | 002198-002  |
| 125  |   | Spring, Loading.....                                  | 1    | 641913-401  |
| 126  |   | Screw, Body, 1/2-13 x 1" .....                        | 2    | 010525-400  |
| 127  |   | Screw, Inner Housing Cover, 5/16-18 x 1" .....        | 8    | 006140-002  |
| 128  |   | Screw, Cam Assembly, 3/8-16 x 1-1/4" .....            | 1    | 641044-401  |
| 129  |   | Screw, Bearing Block, 1/4-20 x 7/8" .....             | 3    | 006100-002  |

Inner Mechanism General Assembly Number

|               |   |            |
|---------------|---|------------|
| Standard..... | 1 | 517067-091 |
|---------------|---|------------|

+ Recommended spares.

\* Not illustrated.

R Indicates change since last revision.

@1 Note 1: When ordering, be sure to include temperature range and specific API gravity.

Revisions included in P0547.04 Issue/Rev. 0.4 (11/10):

Total Revision: Renumbered drawing and adjusted item list.

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.

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