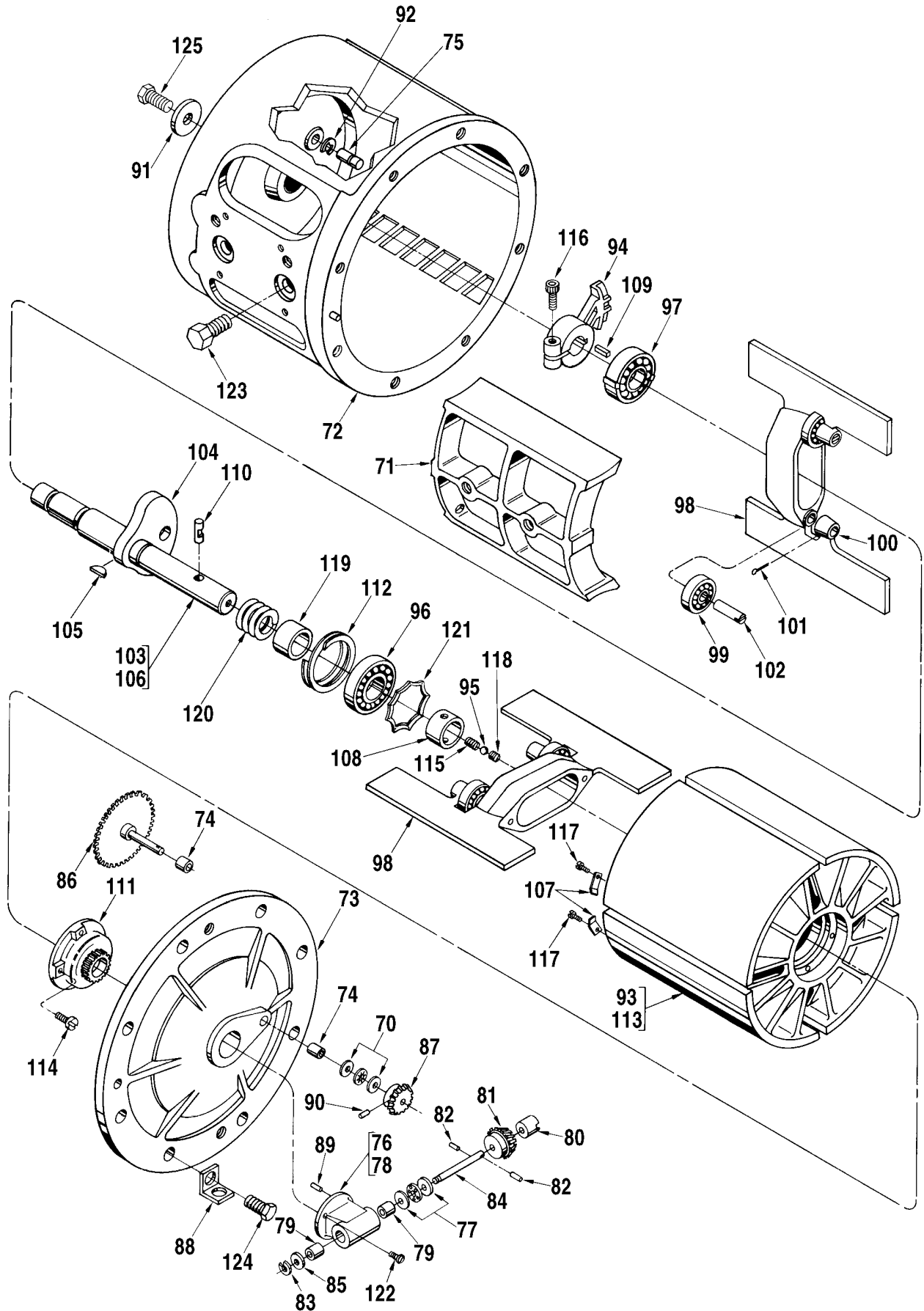


# Inner Mechanism



| Item | Description  | Qty. | Part Number |
|------|--|------|-------------|
| 1    | Adapter, Calibrator Adjusting Stem .....             | 1    | 512372-001  |
| 2    | Adapter, Counter .....                               | 1    | 517052-001  |
| 3    | +@1 Calibrator:                                      |      |             |
|      | Standard .....                                       | 1    | 512059-001  |
|      | Temperature Corrected .....                          | 1    | 512060-001  |
|      | @2 Temperature Corrected, Special Temp. or API ..... | 1    | 516130-     |
|      | Dummy Calibrator .....                               | 1    | 516105-001  |
| 4    | Clamp, Oil Tube .....                                | 1    | 003905-001  |
| 5    | Coupling .....                                       | 1    | 517061-001  |
| 6    | Pin, Spirol, 1/8 x 7/8" .....                        | 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    | 517164-001  |
| 11   | Flange, Packing Gland .....                          | 1    | 010171-001  |
| 12   | Flange, Temperature Well .....                       | 1    | 011941-001  |
| 13   | Gasket, Cover Plate .....                            | 1    | 003834-001  |
| 14   | Gasket, Packing Gland .....                          | 1    | 010173-001  |
| 15   | Gasket, Temperature Well Plug .....                  | 1    | 060341-001  |
| 16   | +@3 Gear, Calibrator Drive:                          |      |             |
|      | U.S. Gallons .....                                   | 1    | 517165-001  |
|      | Imperial Gallons .....                               | 1    | 517872-001  |
|      | Dekalitres .....                                     | 1    | 533339-001  |
| 17   | +@3 Gear, Idler Pinion:                              |      |             |
|      | U.S. Gallons .....                                   | 1    | 517166-001  |
|      | Imperial Gallons .....                               | 1    | 534567-001  |
|      | Dekalitres .....                                     | 1    | 533337-001  |
| 18   | + Gland, Packing:                                    |      |             |
|      | R Buna-N .....                                       | 1    | 518630-001  |
|      | R Viton .....  | 1    | 518630-002  |
|      | Teflon .....   | 1    | 009535-001  |
|      | Brass, Viton - For Non-Ferrous Use .....             | 1    | 008934-001  |
| 19   | Housing .....  | 1    | 517168-001  |
| 20   | Nut, Cover, 5/8"-11 UNC-2B .....                     | 24   | 642138-405  |
| 21   | + O-Ring, Access Plate .....                         | 1    | 009902-400  |
| 22   | + O-Ring, Cover:                                     |      |             |
|      | Buna-N .....   | 1    | 512320-001  |
|      | Viton .....  | 1    | 512320-002  |
|      | EPR .....  | 1    | 512320-003  |
|      | Teflon .....   | 1    | 643828-402  |
| 23   | + O-Ring, Packing Gland .....                        | 1    | 640888-004  |
| 24   | Oiler .....  | 1    | 006588-001  |
| 25   | Pin, Cotter, 1/16 x 5/8" .....                       | 1    | 641042-401  |
| 26   | Pin, Groove, 1/16 x 5/8" .....                       | 1    | 006028-002  |
| 27   | Pin, Groove, 5/64 x 1/2" .....                       | 1    | 006053-002  |
| 28   | Plate, Access .....                                  | 1    | 517051-001  |
| 29   | Plate, Base .....                                    | 1    | 517054-001  |
| 30   | Bushing .....  | 1    | 519882-002  |
| 31   | Shaft, Calibrator Drive Gear .....                   | 1    | 003775-001  |
| 32   | Plate, Caution .....                                 | 1    | 006571-001  |
| 33   | Plate, Cover .....                                   | 1    | 003440-001  |
| 34   | + Plate, Thrust Bearing .....                        | 2    | 001111-001  |
| 35   | Plug, Pipe, 1/2" NPT .....                           | 2    | 006505-002  |
| 36   | Plug, Temperature Well .....                         | 1    | 012025-001  |
| 37   | + Retainer and Balls:                                |      |             |
|      | Standard .....                                       | 1    | 070360-002  |
|      | All Iron .....                                       | 1    | 070360-001  |
| 38   | Ring, Retaining .....                                | 1    | 009691-400  |

| Item | Description                         | Qty. | Part Number |
|------|-------------------------------------|------|-------------|
| 39   | Screw, 1/2-13 x 1-3/4" .....        | 4    | 006169-002  |
| 40   | Screw, 5/8-11 x 1-3/4" .....        | 24   | 006156-002  |
| 41   | Screw, #6-32 x 5/16" .....          | 2    | 006048-002  |
| 42   | Screw, #8-32 x 3/16" .....          | 2    | 006449-002  |
| 43   | Screw, #10-32 x 3/8" .....          | 2    | 006045-002  |
| 44   | Screw, #10-32 x 1/2" .....          | 2    | 006764-002  |
| 45   | Screw, #10-32 x 7/8" .....          | 2    | 640835-001  |
| 46   | Screw, #10-24 x 3/4", Drilled ..... | 2    | 006481-003  |
| 47   | Screw, 5/16-18 x 3/4" .....         | 2    | 006409-002  |
| 48   | Screw, 5/16-18 x 7/8" .....         | 6    | 009563-401  |
| 49   | Screw, 5/16 x 18 x 1", Drilled..... | 1    | 060133-002  |
| 50   | Screw, 5/16-18 x 2" .....           | 1    | 642019-415  |
| 51   | + Seal, Lead, and Wire .....        | 2    | 001627-400  |
| 52   | Shaft Assembly, Link .....          | 1    | 517172-001  |
| 53   | Pin.....                            | 2    | 640780-001  |
| 54   | Ring, Snap .....                    | 1    | 006067-400  |
| 55   | Shaft .....                         | 1    | 517064-002  |
| 56   | Spring .....                        | 1    | 518129-001  |
| 57   | Washer.....                         | 1    | 517065-001  |
| 58   | Shaft, Upper, Jack .....            | 1    | 512116-001  |
| 59   | Stem Assembly, Adjusting .....      | 1    | 009838-001  |
| 60   | Ball.....                           | 2    | 006427-001  |
| 61   | Plate, Base .....                   | 1    | 003552-001  |
| 62   | Plate, Retainer .....               | 1    | 003556-001  |
| 63   | Spring, Knob.....                   | 2    | 003557-001  |
| 64   | Stem, Adjusting.....                | 1    | 003551-001  |
| 65   | Tube, Oil .....                     | 1    | 514658-001  |
| 66   | Washer, 5/16" .....                 | 3    | 642482-407  |
| 67   | Washer, 17/32" .....                | 4    | 065309-002  |
| 68   | Washer, Jackshaft .....             | 1    | 001125-001  |
| 69   | + Seal, Lead, and Wire .....        | 1    | 001627-403  |

**Inner Mechanism**

|    |                                 |   |            |
|----|---------------------------------|---|------------|
| 70 | + Bearing, Thrust .....         | 1 | 641920-401 |
| 71 | Block.....                      | 1 | 516999-002 |
| 72 | Body, Inner .....               | 1 | 512219-001 |
| 73 | Cover, Inner.....               | 1 | 517182-001 |
| 74 | Bushing.....                    | 2 | 519882-001 |
| 75 | Dowel, Locating Arm .....       | 1 | 512115-001 |
| 76 | Gear and Bearing Block .....    | 1 | 517184-001 |
| 77 | + Bearing, Thrust .....         | 1 | 641920-401 |
| 78 | Block, Bearing.....             | 1 | 517185-001 |
| 79 | Bushing .....                   | 2 | 519882-001 |
| 80 | Coupling.....                   | 1 | 512064-002 |
| 81 | Gear, Meter.....                | 1 | 517070-001 |
| 82 | Pin, Groove.....                | 2 | 006320-002 |
| 83 | Ring, Snap .....                | 1 | 006076-400 |
| 84 | Shaft .....                     | 1 | 517084-001 |
| 85 | Washer.....                     | 1 | 517065-001 |
| 86 | Gear, Jackshaft.....            | 1 | 517179-001 |
| 87 | Gear, Meter .....               | 1 | 517070-001 |
| 88 | Lug, Lifting.....               | 2 | 512002-001 |
| 89 | Pin, Groove, 3/16 x 3/4".....   | 2 | 007900-400 |
| 90 | Pin, Groove, 5/64 x 3/4".....   | 1 | 006320-002 |
| 91 | Plate .....                     | 1 | 512714-001 |
| 92 | Ring, Retaining.....            | 1 | 064150-001 |
| 93 | Rotor Assembly (Standard) ..... | 1 | 517770-001 |
| 94 | Arm, Locating.....              | 1 | 511965-001 |

| Item | Description                        | Qty. | Part Number |
|------|------------------------------------|------|-------------|
| 95   | Ball.....                          | 1    | 006467-400  |
| 96   | + Bearing, Rotor.....              | 1    | 006864-001  |
| 97   | + Bearing, Rotor.....              | 1    | 516110-001  |
| 98   | + Blade, Upper and Lower:          |      |             |
|      | Standard .....                     | 2    | 517177-001  |
|      | All Iron.....                      | 2    | 009763-064  |
| 99   | Bearing, Blade:                    |      |             |
|      | @4 Current Style.....              | 2    | 644888-401  |
|      | Previous Style.....                | 2    | 006476-001  |
| 100  | Bushing .....                      | 2    | 003457-001  |
| 101  | Pin, Cotter, 3/32 x 1" .....       | 2    | 006308-001  |
| 102  | Shaft, Blade Bearing .....         | 2    | 003458-001  |
| 103  | Cam and Shaft Assembly .....       | 1    | 517180-001  |
| 104  | Cam.....                           | 1    | 517000-001  |
| 105  | Key .....                          | 1    | 006158-002  |
| 106  | Shaft.....                         | 1    | 517181-001  |
| 107  | Clamp, Roller .....                | 8    | 012502-001  |
| 108  | Collar, Thrust.....                | 1    | 517175-001  |
| 109  | Key.....                           | 1    | 512715-001  |
| 110  | Pin, Thrust Collar .....           | 1    | 008121-001  |
| 111  | Plate Assembly, Rotor Gear.....    | 1    | 512318-002  |
| 112  | Ring, Retaining .....              | 1    | 643064-402  |
| 113  | Rotor .....                        | 1    | 008081-002  |
| 114  | Screw, 1/4-20 x 7/8".....          | 6    | 006100-002  |
| 115  | Screw, Adjusting .....             | 1    | 644494-401  |
| 116  | Screw, Cap, 5/16-18 x 1-1/2" ..... | 1    | 640994-401  |
| 117  | Screw, Clamp.....                  | 8    | 006025-002  |
| 118  | Screw, Jam .....                   | 1    | 641914-401  |
| 119  | Spacer .....                       | 1    | 517176-001  |
| 120  | + Spring .....                     | 1    | 003567-002  |
| 121  | Spring, Loading.....               | 1    | 641913-402  |
| 122  | Screw, 1/4-20 x 7/8" .....         | 3    | 006100-002  |
| 123  | Screw, Block, 1/2-13 x 1-1/4"..... | 2    | 006117-002  |
| 124  | Screw, Cap, 5/16-18 x 1":          |      |             |
|      | Standard and All Iron.....         | 8    | 006140-002  |
| 125  | Screw, Cap, 3/8-16 x 1-1/4".....   | 1    | 641044-401  |

**Inner Mechanism General Assembly Numbers**

|                |            |
|----------------|------------|
| Standard.....  | 517174-091 |
| All Iron ..... | 517174-092 |

R Indicates change since last revision.

+ Recommended stock.

@1 Note 1: For component parts to manual and temperature compensated calibrators, see Form No. P0206.\*. For dummy calibrator, see Form No. P0203.\*.

@2 Note 2: When ordering, include meter, gearing used, temperature range, specific or API gravity, and API table used.

@3 Note 3: Only standard gearing is shown. For special gearing options, see Gear Train Bulletin AB01023.

@4 Note 4: Use of current design bearing eliminates the need to use bushing (Item 99) which was required with previous design bearing.

\* The latest edition is indicated by a 2-digit postscript (e.g., .01, .02, etc.).

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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