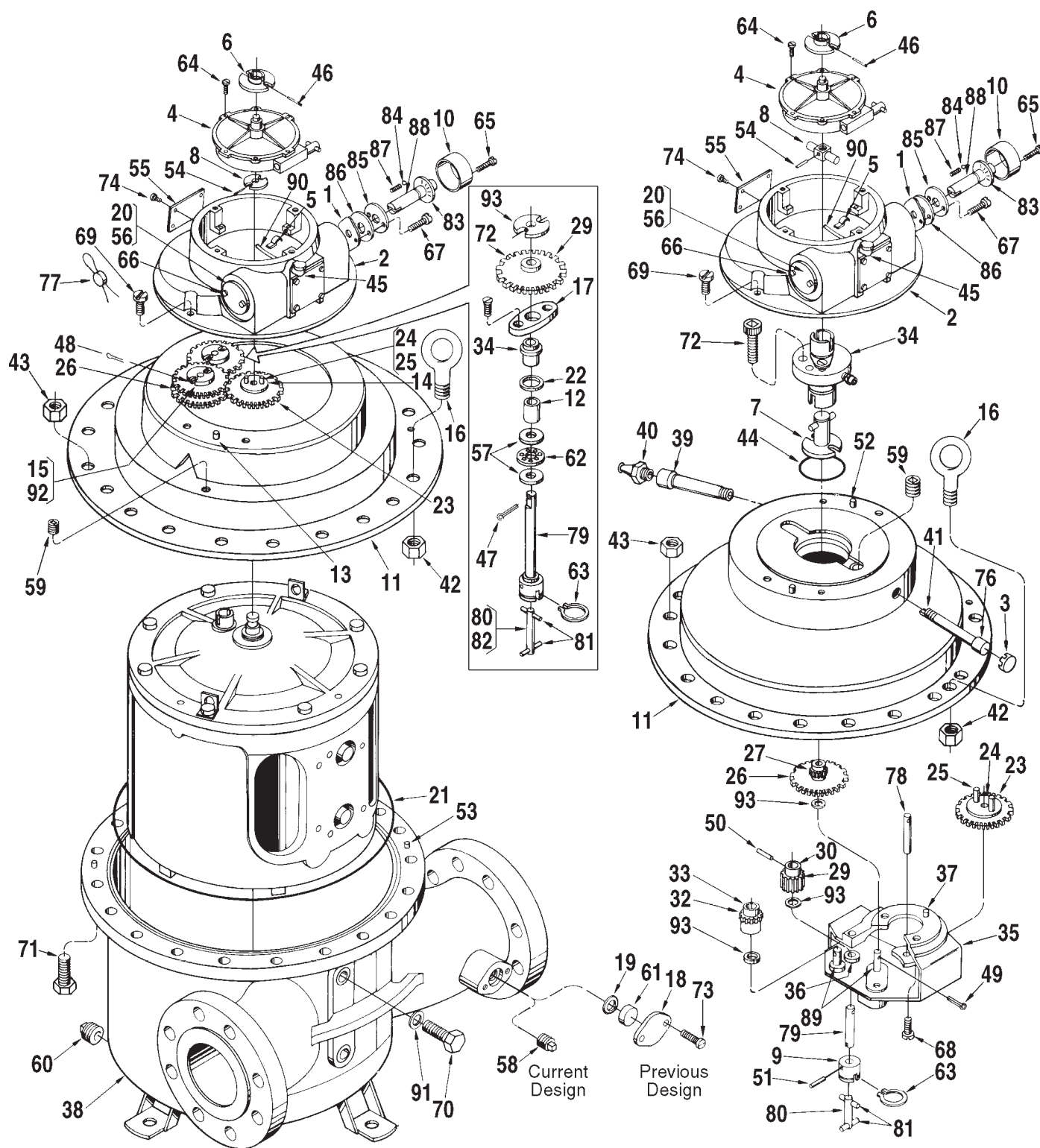
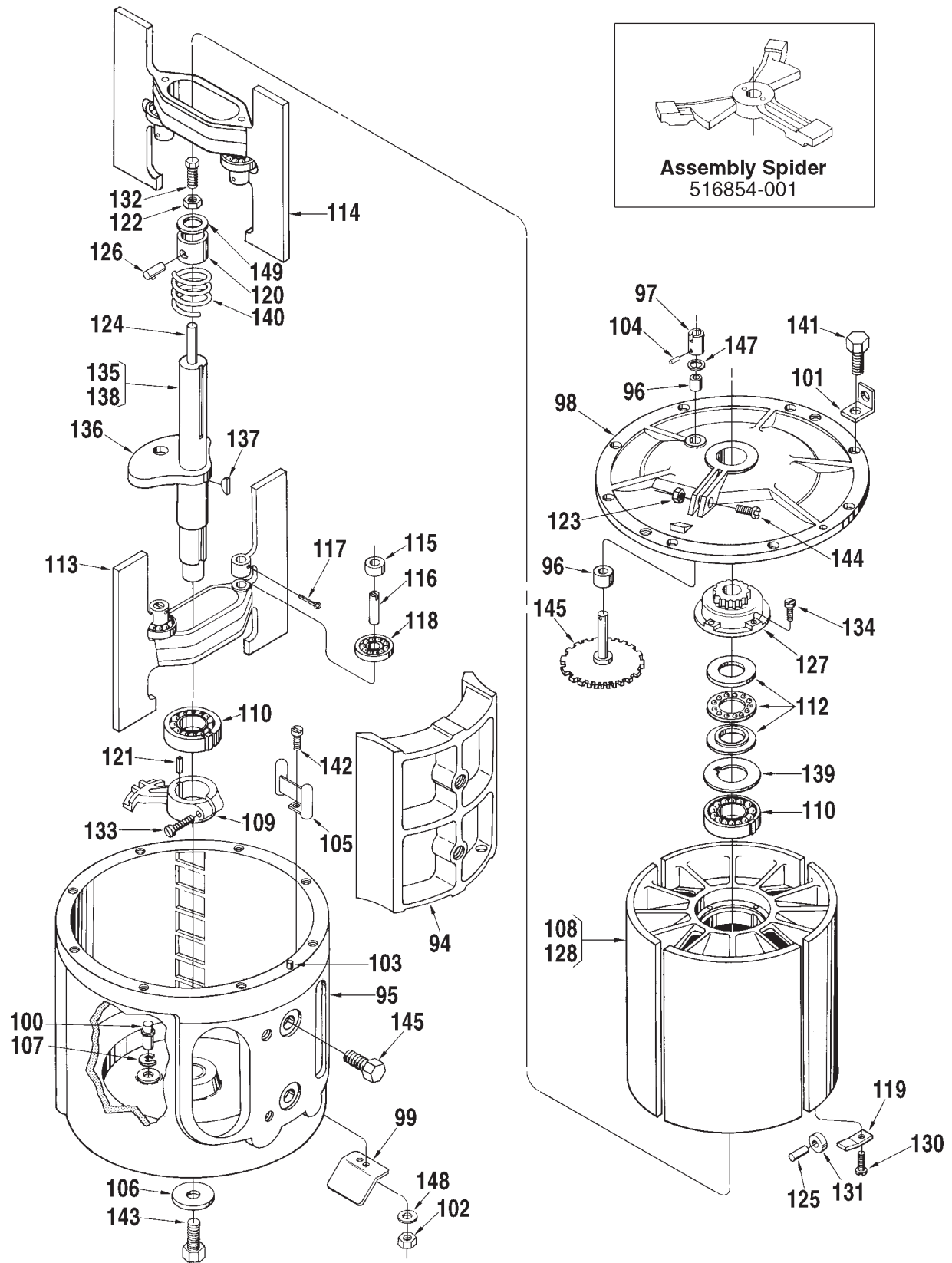




## Inner Mechanism



| Item | Description                              | Qty. | G6-A1, S1  | G6-A3<br>S3, S5 | G6-S6, S7, S8 |
|------|------------------------------------------|------|------------|-----------------|---------------|
| 1    | Adapter, Calibrator Adjusting Stem ..... | 1    | 512372-001 | 512732-001      | 512372-001    |
| 2    | Adapter, Counter .....                   | 1    | 511946-001 | 511946-001      | 515755-001    |
| 3    | Blank, Snap In .....                     | 1    | .....      | .....           | 015533-401    |
| 4    | @1+ Calibrator:                          |      |            |                 |               |
|      | Standard .....                           | 1    | 512059-001 | 512059-001      | 512059-001    |
|      | Temperature Corrected .....              | 1    | 512060-001 | 512060-001      | 512060-001    |
|      | @2 Temperature Corrected, Special        |      |            |                 |               |
|      | Temp. or API .....                       | 1    | 516130-    | 516130-         | 516130-       |
|      | Dummy Calibrator .....                   | 1    | 516105-001 | 516105-001      | 516105-001    |
| 5    | Clamp, Oil Tube .....                    | 1    | 003905-001 | 003905-001      | 003905-001    |
| 6    | + Coupling, Drive .....                  | 1    | 072103-001 | 072103-001      | 072103-001    |
| 7    | Coupling, Drive:                         |      |            |                 |               |
|      | S6 .....                                 | 1    | .....      | .....           | 518321-002    |
|      | S7 .....                                 | 1    | .....      | .....           | 518321-005    |
|      | S8 .....                                 | 1    | .....      | .....           | 518321-006    |
| 8    | Coupling, Input .....                    | 1    | 014356-001 | 003821-001      | 005969-001    |
| 9    | Coupling, Jackshaft .....                | 1    | .....      | 514633-001      | 514633-001    |
| 10   | Cover, Knob .....                        | 1    | 003553-001 | 003553-001      | 003553-001    |
| 11   | Cover, Outer Housing:                    |      |            |                 |               |
|      | S7 Standard .....                        | 1    | .....      | .....           | 515879-091    |
|      | S8 Standard .....                        | 1    | .....      | .....           | 553689-001    |
|      | All Others Standard .....                | 1    | 512308-091 | 513313-091      | 515878-001    |
|      | S1, S3, S7 Teflon .....                  | 1    | 512308-099 | 513313-099      | 515879-099    |
|      | S7 NACE .....                            | 1    | .....      | .....           | 515879-001    |
|      | All Others NACE .....                    | 1    | 551724-001 | 551475-001      | 515878-001    |
| 12   | Bushing .....                            | 1    | 519882-002 | .....           | .....         |
| 13   | Pin, Groove 3/16 x 3/8" .....            | 2    | 641007-401 | .....           | .....         |
| 14   | Shaft, Calibrator Drive Gear .....       | 1    | 003775-001 | .....           | .....         |
| 15   | Shaft, Idler Pinion:                     |      |            |                 |               |
|      | Barrel Gearing .....                     | 1    | 512324-001 | .....           | .....         |
|      | All Others .....                         | 1    | 512077-001 | .....           | .....         |
| 16   | Eyebolt .....                            | 2    | 644974-403 | 644974-401      | 643877-401    |
| 17   | Flange, Packing Gland .....              | 1    | 010171-001 | .....           | .....         |
| 18   | Flange, Temperature Well Plug .....      | 1    | 011941-001 | 011941-001      | 012026-001    |
| 19   | Gasket .....                             | 1    | 060341-001 | 060341-001      | 060341-001    |
| 20   | Gasket, Cover Plate .....                | 1    | 003834-001 | 003834-001      | 003834-001    |
| 21   | + Gasket, O-Ring:                        |      |            |                 |               |
|      | A1, S1, S3, S5, S6 Buna-N .....          | 1    | 512320-001 | 512320-001      | 515881-001    |
|      | S7 Buna-N .....                          | 1    | .....      | .....           | 515882-001    |
|      | A1, S1, A3, S3, S5, S6 Viton .....       | 1    | 512320-002 | 512320-002      | 515881-002    |
|      | S7 Viton .....                           | 1    | .....      | .....           | 515882-002    |
|      | S8 Viton .....                           | 1    | .....      | .....           | 515882-004    |
|      | EPR .....                                | 1    | 512320-003 | 512320-003      | .....         |
|      | Teflon .....                             | 1    | 645842-402 | 645842-402      | .....         |
| 22   | + Gasket, Packing Gland .....            | 1    | 010173-001 | .....           | .....         |
| 23   | @3 Gear, Calibrator Drive:               |      |            |                 |               |
|      | U.S. Barrels .....                       | 1    | 516538-001 | 514379-001      | 514379-001    |
|      | U.S. Barrels, LPG .....                  | 1    | .....      | 515110-001      | 515110-001    |
|      | U.S. Gallons .....                       | 1    | 008248-001 | 517539-001      | .....         |
|      | U.S. Gallons, LPG .....                  | 1    | 008248-001 | .....           | .....         |
|      | Imperial Gallons .....                   | 1    | 514778-001 | 514778-001      | 514778-001    |
|      | Imperial Gallons, LPG .....              | 1    | 514778-001 | 515115-001      | 515115-001    |
|      | Dekalitres .....                         | 1    | 514779-001 | 514779-001      | 514779-001    |
|      | Dekalitres, LPG .....                    | 1    | 514779-001 | 515117-001      | 515117-001    |
| 24   | Bushing:                                 |      |            |                 |               |
|      | Standard .....                           | 2    | 013372-001 | 013372-001      | 013372-001    |
|      | LPG .....                                | 1    | 504653-001 | 504653-001      | 504653-001    |
| 25   | Pin .....                                | 2    | 003325-001 | 003325-001      | 003325-001    |

| Item |     | Description                          | Qty. | G6-A1, S1  | G6-A3<br>S3, S5 | G6-S6, S7, S8 |
|------|-----|--------------------------------------|------|------------|-----------------|---------------|
| 26   | @3  | Gear, Intermediate Pinion:           |      |            |                 |               |
|      |     | U.S. Barrels .....                   | 1    | 516536-001 | 514373-001      | 514373-001    |
|      |     | U.S. Barrels, LPG .....              | 1    | .....      | 515109-001      | 515109-001    |
|      |     | U.S. Gallons .....                   | 1    | 512313-001 | 519596-001      | .....         |
|      |     | U.S. Gallons, LPG .....              | 1    | 512313-001 | .....           | .....         |
|      |     | Imperial Gallons .....               | 1    | 516503-001 | 514775-001      | 514775-001    |
|      |     | Imperial Gallons, LPG .....          | 1    | 516503-001 | 515114-001      | 515114-001    |
|      |     | Dekalitres .....                     | 1    | 516539-001 | 514776-001      | 514776-001    |
|      |     | Dekalitres, LPG .....                | 1    | 516539-001 | 515116-001      | 515116-001    |
| 27   |     | Bushing, LPG Gears Only .....        | 1    | .....      | 504653-001      | 504653-001    |
| 28   | *   | Pin .....                            | 2    | 001126-001 | .....           | .....         |
| 29   | @3  | Gear, Jackshaft Pinion:              |      |            |                 |               |
|      |     | U.S. Barrels .....                   | 1    | 516534-001 | 514374-001      | 514374-001    |
|      |     | U.S. Barrels, LPG .....              | 1    | .....      | 515107-001      | 515107-001    |
|      |     | U.S. Gallons, All .....              | 1    | 512314-001 | 514777-001      | .....         |
|      |     | Imperial Gallons .....               | 1    | 512314-001 | 514777-001      | 514777-001    |
|      |     | Imperial Gallons, LPG .....          | 1    | 512314-001 | 515111-001      | 515111-001    |
|      |     | Dekalitres .....                     | 1    | 512314-001 | 514777-001      | 514777-001    |
|      |     | Dekalitres, LPG .....                | 1    | 512314-001 | 515111-001      | 515111-001    |
| 30   |     | Bushing, LPG Gears Only .....        | 1    | .....      | 504653-001      | 504653-001    |
| 31   | *   | Pin .....                            | 2    | 001126-001 | .....           | .....         |
| 32   | @3  | Gear, Reversing Pinion:              |      |            |                 |               |
|      |     | U.S. Barrels .....                   | 1    | .....      | 514376-001      | 514376-001    |
|      |     | U.S. Barrels, LPG .....              | 1    | .....      | 515108-001      | 515108-001    |
| 33   |     | Bushing, LPG Gears Only .....        | 1    | .....      | 504653-001      | 504653-001    |
| 34   | +@4 | Gland, Packing:                      |      |            |                 |               |
|      | R   | Buna-N .....                         | 1    | 518630-001 | 513644-001      | 515849-001    |
|      | R   | Viton .....                          | 1    | 518630-002 | .....           | .....         |
|      |     | Teflon .....                         | 1    | 009535-001 | 513644-002      | 515849-002    |
|      |     | Brass, Viton for Non Ferrous Use ... | 1    | 008934-001 | 513644-001      | .....         |
|      |     | NACE, with Buna Elastomer .....      | 1    | 551728-001 | 551178-001      | 515849-001    |
|      |     | NACE, with Teflon Elastomer .....    | 1    | .....      | 513644-002      | 515849-002    |
| 35   |     | Housing, Gear:                       |      |            |                 |               |
|      |     | Standard and All Iron .....          | 1    | .....      | 514622-001      | 514622-001    |
|      |     | LPG .....                            | 1    | .....      | 514622-002      | 514622-002    |
| 36   |     | Bushing:                             |      |            |                 |               |
|      |     | Standard and All Iron .....          | 1    | .....      | 519882-001      | 519882-001    |
|      |     | LPG .....                            | 1    | .....      | 514835-001      | 514835-001    |
| 37   |     | Dowel .....                          | 1    | .....      | 003628-001      | 003628-001    |
| 38   |     | Housing, Outer:                      |      |            |                 |               |
|      |     | A1, A3, Standard .....               | 1    | 512242-001 | 512242-001      | .....         |
|      |     | S1, S3, S6 Standard .....            | 1    | 512646-001 | 512646-001      | 515874-001    |
|      |     | S5, S7 Standard .....                | 1    | .....      | 514214-001      | 515876-001    |
|      |     | S8 Standard .....                    | 1    | .....      | .....           | 553700-001    |
|      |     | S1, S3, S7 Teflon .....              | 1    | 512646-099 | 512646-099      | 553087-099    |
|      |     | S1, S3, S6 NACE .....                | 1    | 551466-001 | 551466-001      | 552757-001    |
|      |     | S5, S7 NACE .....                    | 1    | .....      | 551980-001      | 552731-001    |
| 39   |     | Lubrication Assembly .....           | 1    | .....      | 514659-001      | .....         |
| 40   |     | Fitting, Grease .....                | 1    | .....      | 006408-001      | .....         |
| 41   |     | Nipple:                              |      |            |                 |               |
|      |     | Standard .....                       | 1    | .....      | 641111-404      | .....         |
|      |     | NACE .....                           | 1    | .....      | 645185-401      | .....         |
| 42   |     | Nut, 1/2"-13 .....                   | 2    | 006399-002 | 006399-002      | .....         |
| 43   |     | Nut:                                 |      |            |                 |               |
|      |     | 5/8"-11 .....                        | 24   | 642138-405 | 642138-405      | .....         |
|      |     | (S6) 3/4"-10 .....                   | 24   | .....      | .....           | 642138-406    |
|      |     | (S7) 1-1/8"-7 .....                  | 24   | .....      | .....           | 642138-408    |
|      |     | (S8) 1-3/4"-8 .....                  | 44   | .....      | .....           | 642148-411    |



| Item | Description                                                           | Qty.   | G6-A1, S1           | G6-A3<br>S3, S5     | G6-S6, S7, S8            |
|------|-----------------------------------------------------------------------|--------|---------------------|---------------------|--------------------------|
| 73   | 7/16-14 x 1-1/2" .....<br>Screw, Cap, Temperature Well<br>Flange..... | 4<br>2 | .....<br>060133-002 | .....<br>009563-400 | 006410-002<br>006409-002 |
| 74   | Screw, Drive, #2 x 1/8" .....                                         | 8      | 009880-400          | 009880-400          | 009880-400               |
| 75   | * Screw, Set, Gear Housing .....                                      | 1      | .....               | 009469-400          | 009469-400               |
| 76   | Screw-On Cap:<br>Standard .....                                       | 1      | .....               | 641746-401          | .....                    |
|      | NACE .....                                                            | 1      | .....               | 645238-401          | .....                    |
| 77   | + Seal, Lead, and Wire .....                                          | 3      | 001627-400          | 001627-400          | 001627-400               |
| 78   | Shaft, Calibrator Drive Gear .....                                    | 1      | .....               | 515341-001          | 515341-001               |
| 79   | Shaft, Jack (Upper) .....                                             | 1      | 512116-001          | 514634-002          | 514634-002               |
| 80   | Shaft, Link Assembly:<br>S8 Only .....                                | 1      | .....               | .....               | 515866-003               |
|      | All Others .....                                                      | 1      | 512069-001          | 515346-001          | 515866-001               |
| 81   | Pin .....                                                             | 2      | 065217-402          | 065217-402          | 065217-402               |
| 82   | Shaft:<br>S8 Only .....                                               | 1      | .....               | .....               | 512068-008               |
|      | All Others .....                                                      | 1      | 512068-002          | 512068-004          | 512068-005               |
| 83   | Stem, Adjusting Assembly .....                                        | 1      | 009838-001          | 009838-001          | 009838-001               |
| 84   | Ball .....                                                            | 2      | 006427-001          | 006427-001          | 006427-001               |
| 85   | Plate, Base .....                                                     | 1      | 003552-001          | 003552-001          | 003552-001               |
| 86   | Plate, Retainer .....                                                 | 1      | 003556-001          | 003556-001          | 003556-001               |
| 87   | Spring, Knob .....                                                    | 2      | 003557-001          | 003557-001          | 003557-001               |
| 88   | Stem, Adjusting .....                                                 | 1      | 003551-001          | 003551-001          | 003551-001               |
| 89   | Stud, Gear Shaft .....                                                | 2      | .....               | 514370-001          | 514370-001               |
| 90   | Tube, Oil .....                                                       | 1      | 514658-001          | 514658-001          | 514658-001               |
| 91   | Washer .....                                                          | 4      | 065309-002          | 065309-002          | 533103-001               |
| 92   | Washer, Idler Pinion Shaft .....                                      | 1      | 003599-001          | .....               | .....                    |
| 93   | Washer, Jackshaft:<br>A1 and S1 .....                                 | 1      | 001125-001          | .....               | .....                    |
|      | All Others .....                                                      | 3      | .....               | 641985-402          | 641985-402               |

#### Inner Mechanism

| Item | Description                                                       | Qty. | Part Number |
|------|-------------------------------------------------------------------|------|-------------|
| 94   | @5 Block:<br>Current Style .....                                  | 1    | 516999-001  |
| 95   | Body .....                                                        | 1    | 512219-001  |
| 96   | + Bushing, Jackshaft:<br>Standard and All Iron .....              | 2    | 519882-001  |
|      | LPG .....                                                         | 2    | 512796-001  |
| 97   | Coupling, Drive .....                                             | 1    | 512064-002  |
| 98   | Cover, Inner (Includes Item 96):<br>Standard and All Iron .....   | 1    | 516457-001  |
|      | LPG .....                                                         | 1    | 516457-002  |
| 99   | Cover, Pitot .....                                                | 1    | 512719-001  |
| 100  | Dowel, Locating Arm .....                                         | 1    | 512115-001  |
| 101  | Lug, Lift .....                                                   | 2    | 512002-001  |
| 102  | Nut, Pitot Assembly, #10-32 Hex .....                             | 2    | 001723-400  |
| 103  | Pin, Groove, 3/16 x 3/4" .....                                    | 1    | 007900-400  |
| 104  | Pin, Groove, 5/64 x 5/8" .....                                    | 1    | 009593-400  |
| 105  | Pitot .....                                                       | 1    | 072186-001  |
| 106  | Plate .....                                                       | 1    | 512714-001  |
| 107  | Ring, Retaining .....                                             | 1    | 064150-001  |
| 108  | @5+ Rotor and Blade Assembly:<br>Current Style:<br>Standard ..... | 1    | 517232-001  |
|      | All Iron .....                                                    | 1    | 517232-002  |
|      | LPG .....                                                         | 1    | 517232-003  |

| Item |     | Description                                  | Qty. | Part Number |
|------|-----|----------------------------------------------|------|-------------|
|      |     | Previous Style:                              |      |             |
|      |     | Standard .....                               | 1    | 515707-001  |
|      |     | All Iron .....                               | 1    | 515707-002  |
|      |     | LPG .....                                    | 1    | 515707-003  |
| 109  |     | Arm, Locating .....                          | 1    | 511965-001  |
| 110  | +   | Bearing, Rotor:                              |      |             |
|      |     | Standard and All Iron .....                  | 2    | 516110-001  |
|      |     | LPG .....                                    | 2    | 516110-002  |
| 112  | +   | Bearing, Thrust:                             |      |             |
|      |     | Standard and All Iron .....                  | 1    | 006524-001  |
|      |     | LPG .....                                    | 1    | 505590-001  |
| 113  |     | Blade, Lower:                                |      |             |
|      |     | Standard .....                               | 1    | 008820-001  |
|      |     | All Iron .....                               | 1    | 009763-064  |
|      |     | LPG .....                                    | 1    | 505564-001  |
| 114  |     | Blade, Upper:                                |      |             |
|      |     | Standard .....                               | 1    | 008819-001  |
|      |     | All Iron .....                               | 1    | 009763-064  |
|      |     | LPG .....                                    | 1    | 505566-001  |
| 115  |     | Bushing, Blade .....                         | 2    | 003457-001  |
| 116  |     | Pin, Blade Roller .....                      | 2    | 003458-001  |
| 117  |     | Pin, Cotter, 3/32 x 1" .....                 | 2    | 006308-001  |
| 118  | +   | Bearing, Blade:                              |      |             |
|      |     | Standard and All Iron:                       |      |             |
|      | @6  | Current Design .....                         | 2    | 644888-401  |
|      |     | Previous Design .....                        | 2    | 006476-001  |
|      |     | LPG:                                         |      |             |
|      | @6  | Current Design .....                         | 2    | 644412-411  |
|      |     | Previous Design .....                        | 2    | 644412-404  |
| 119  |     | Clamp, Rotor Cover Roller .....              | 8    | 012502-001  |
| 120  |     | Collar, Thrust Bearing .....                 | 1    | 512268-001  |
| 121  |     | Key .....                                    | 1    | 512715-001  |
| 122  |     | Nut, Adjusting Screw .....                   | 1    | 003527-001  |
| 123  |     | Nut, 5/16"-18 .....                          | 1    | 009552-400  |
| 124  |     | Pin, Adjusting Screw Extension .....         | 1    | 512270-001  |
| 125  |     | Pin, Rotor Cover Roller .....                | 4    | 001939-001  |
| 126  |     | Pin, Thrust Bearing Collar .....             | 1    | 008121-001  |
| 127  |     | Plate, Rotor Gear .....                      | 1    | 512318-001  |
| 128  |     | Rotor:                                       |      |             |
|      |     | Standard .....                               | 1    | 008081-002  |
|      |     | LPG .....                                    | 1    | 008081-042  |
|      |     | Old Style With Drilled Holes .....           | 1    | 008081-191  |
| 129  | +   | Dowel .....                                  | 9    | 001938-001  |
| 130  |     | Screw, 5/16-18 x 1" .....                    | 8    | 060133-002  |
| 131  | +   | Roller, Rotor Cover:                         |      |             |
|      |     | Standard and All Iron .....                  | 4    | 012501-001  |
|      |     | LPG .....                                    | 4    | 514752-001  |
| 132  |     | Screw, Adjusting .....                       | 1    | 003526-002  |
| 133  |     | Screw, Locating Arm, 5/16-18 x 1-1/2" .....  | 1    | 640994-401  |
| 134  |     | Screw, Rotor Gear Plate, 1/4-20 x 3/4" ..... | 6    | 005061-400  |
| 135  | @5  | Shaft and Cam Assembly:                      |      |             |
|      |     | Current Style .....                          | 1    | 517001-001  |
| 136  | @5+ | Cam:                                         |      |             |
|      |     | Current Style .....                          | 1    | 517000-001  |
|      |     | Previous Style .....                         | 1    | 003543-001  |
| 137  |     | Key .....                                    | 1    | 006158-002  |
| 138  |     | Shaft .....                                  | 1    | 511966-001  |
| 139  |     | Spacer, Bearing .....                        | 1    | 512271-001  |

| Item |   | Description                              | Qty. | Part Number |
|------|---|------------------------------------------|------|-------------|
| 140  | + | Spring, Rotor .....                      | 1    | 003567-002  |
| 141  |   | Screw, 5/16-18 x 1" .....                | 8    | 006140-002  |
| 142  |   | Screw, #10-32 x 1-1/2" .....             | 2    | 009606-400  |
| 143  |   | Screw, 3/8-16 x 1-1/4" .....             | 1    | 641044-401  |
| 144  |   | Screw, 5/16-18 x 2" .....                | 1    | 006664-002  |
| 145  |   | Screw, Cap (Block) 1/2-13 x 1-1/4" ..... | 2    | 006117-002  |
| 146  |   | Shaft, Jack and Gear Assembly .....      | 1    | 512309-001  |
| 147  |   | Washer, .750 O.D. x .265 I.D. ....       | 1    | 643249-401  |
| 148  |   | Washer, #10 Shakeproof .....             | 2    | 642482-406  |
| 149  |   | Washer, Special .....                    | 1    | 065309-002  |

#### Inner Mechanism General Assembly Numbers

Standard ..... 517002-091

All Iron ..... 517002-092

LPG ..... 517002-093

+ Recommended spares.

\* Not illustrated.

R Indicates change since last revision.

@1 Note 1: See Form No. P0203.\*\* for component parts to the dummy calibrator or Form No. P0206.\*\* for component parts to standard and temperature-compensated calibrators.

@2 Note 2: When ordering, include product temperature range, specific or API gravity, API table used, and meter and gearing calibrator is to be used in conjunction with.

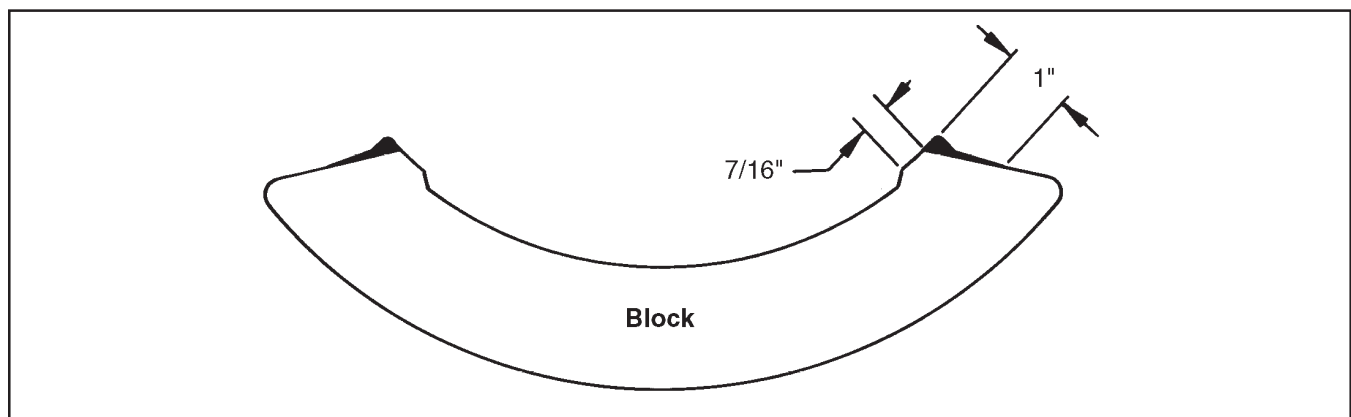
@3 Note 3: Only standard gearing is listed. For additional gearing combinations, see Gear Train Bulletin AB01023.

@4 Note 4: See Form No. P0605.\*\* for component parts.

@5 Note 5: In 1973, a change in design was made to the block and cam of the six-inch 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 previous style cam. The shaded area of the block outline below represents the dimensioning of the previous style.

@6 Note 6: Use of current design bearing eliminates the need to use bushing (Item 115) 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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