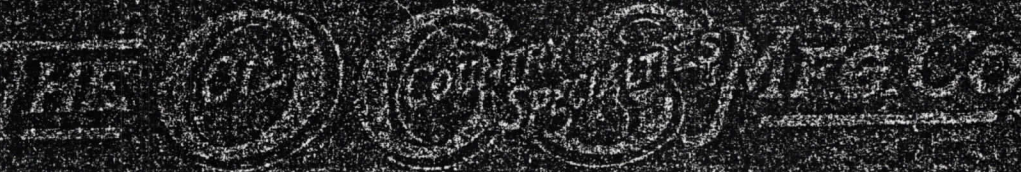


# DRILLING and PUMPING EQUIPMENT



CATALOG  
No. 42



COTTEYVILLE, KANSAS



The Oil Country Specialties Mfg. Co.



WEIGHT OF WELLS

POLISHED ROD LOAD IN POUNDS TO BE BALANCED FOR WELLS FROM 700 TO 5000 FEET DEEP

TABLE SHOWS HALF THE WEIGHT OF FLUID AND WEIGHT OF RODS

Table with 14 columns: Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"), and Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"). Rows range from 700 to 2800 feet depth.

Table with 14 columns: Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"), and Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"). Rows range from 700 to 2800 feet depth.

Table with 14 columns: Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"), and Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"). Rows range from 700 to 2800 feet depth.

Table with 14 columns: Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"), and Depth of Well in Feet, Working Barrel (1", 1-1/4", 1-1/2", 1-3/4", 2-1/4", 2-3/4"). Rows range from 700 to 2800 feet depth.

For each 100 ft. that the fluid stands above working barrel, subtract from table for 1" barrel 17 lbs.; for 1 1/4" barrel 26 lbs.; for 1 1/2" barrel 38 lbs.; for 1 3/4" barrel 52 lbs.; for 2 1/4" barrel 86 lbs.; for 2 3/4" barrel 124 lbs.



**SADDLE, TAILBOARD AND HANGER BEARINGS**

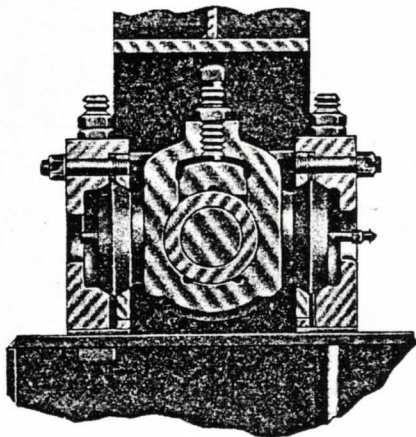


FIG. 106-3  
Cross Section of Tailboard Bearing viewed from walkside.

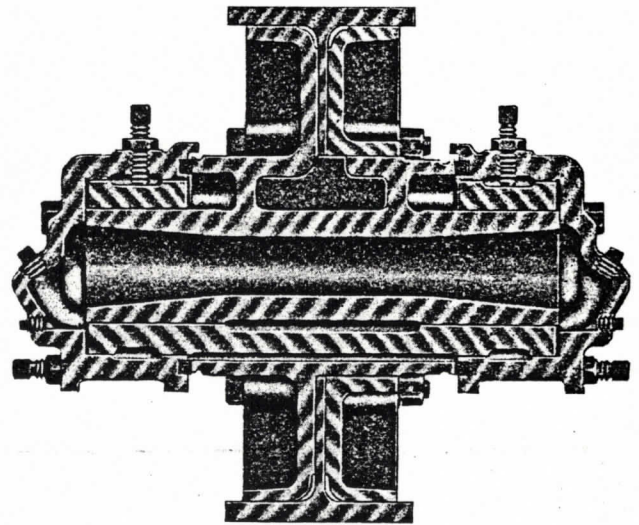


FIG. 106-6  
Cross Section of Saddle Bearing Assembly.

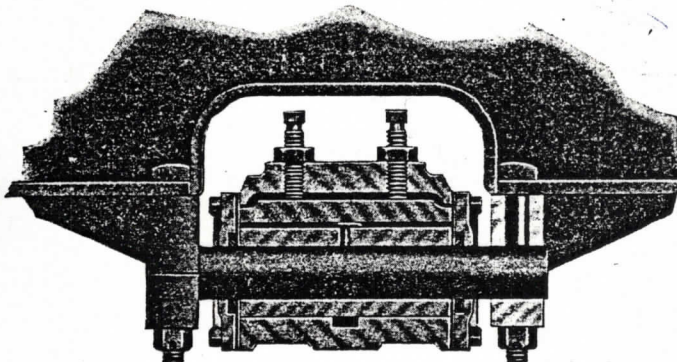


FIG. 106-1  
Cross Section of Tailboard Bearing Assembly.

**O C S CRANK TYPE EQUALIZERS**

Figure 139 at the right shows the O C S 8" crank type equalizer and 7" yoke assembly attached to a 4-hole standard A.P.I. crank. Figure 362 on the left illustrates an O C S split hub 6-hole steel crank, designed to fit the O C S equalizer without using the yoke assembly. By using either the O C S split hub iron or steel crank, or the O C S yoke assembly an O C S equalizer can be used on any standard rig or pumping unit crankshaft. O C S equalizers have been used on more wells than any other centrifugal type balance. These illustrations show how O C S equalizers can be applied either to special cranks or to standard cranks by the use of the yoke assembly. The balance can be put on or taken off in five minutes for well servicing. Special bulletin on Weights of Wells on request.

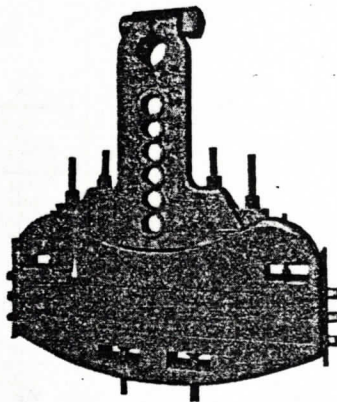


FIG. 362  
O C S Crank with 8" Equalizer.

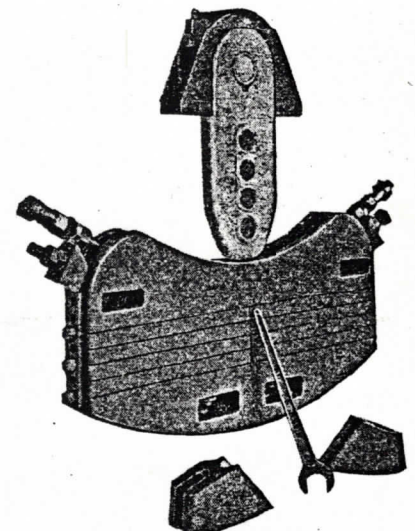


FIG. 139

**PRICES**

|  | Price Item No. | App. Weight, Lbs., Each |  | Price Item No. | App. Weight, Lbs., Each |
|--|----------------|-------------------------|--|----------------|-------------------------|
| 8" Equalizer less extra weights.....         | E-1            | 2,500                   | 7" Equalizer less extra weights.....         | E-6            | 1,900                   |
| <b>Add for:</b>                              |                |                         | <b>Add for:</b>                              |                |                         |
| Extra 150 lbs. cast iron weights (each)..... | E-2            | 150                     | Extra 125 lbs. cast iron weights (each)..... | E-7            | 125                     |
| Extra 210 lbs. lead weights (per cwt.).....  | E-3            | 210                     | Extra 190 lbs. lead weights (per cwt.).....  | E-8            | 190                     |
| 8" Yoke Assembly.....                        | E-4            | 480                     | 7" Yoke Assembly.....                        | E-8            | 400                     |
| or   |                |                         |  |                |                         |
| 7" Yoke Assembly.....                        | E-5            | 400                     |  |                |                         |

OCS BALANCE CRANKS AND BANDWHEEL SHAFTS

OCS Balance Cranks are made in different sizes and of iron or steel with solid or split hub for various sizes of shafts. The Wrist Pin holes are tapered for tapered wrist pins and the cranks are all arranged for attaching the OCS Crank Type Equalizer.

OCS Bandwheel Shafts are made of SAE 1045 steel, turned and ground to a tolerance of plus 0, minus .003. These accurate shafts speed up field assembly where bandwheels are used.



FIG. 179  
O C S Split Hub Crank.

PRICES

| IRON CRANKS  |   | Size Equal. Used | Maximum Dia. Wrist Pin Hole | Taper Wrist Pin Hole | Stock Bore            | Maximum Bore | Price Item No. | Weight Lbs. Each |
|--------------|---|------------------|-----------------------------|----------------------|-----------------------|--------------|----------------|------------------|
| 96326        | 2-Hole 34" Stroke w/Split Hub                         | None             | 2"                          | 3/4" in 12"          | 3"                    | 3 1/2"       | E-9            | 330              |
| 37432        | 3-Hole 34" Stroke w/Split Hub                         | 6"               | 2 1/2"                      | 3/4" in 12"          | 3 1/2" - 4 1/2"       | 4 1/2"       | E-10           | 280              |
| 37149B or C  | 3-Hole 44" Stroke w/Split Hub                         | 6"               | 2,929"                      | 3/4" in 12"          | 3 1/2" - 4 1/2"       | 4 1/2"       | E-11           | 350              |
| 371618       | 3-Hole 54" Stroke w/Split Hub                         | 6"               | 2 1/2"                      | 3/4" in 12"          | 4 1/2"                | 4 1/2"       | E-44           | 400              |
| 37174 or B   | 3-Hole 44" Stroke w/Split Hub                         | 8" Spec.         | 2,929"                      | 3/4" in 12"          | 4 1/2"                | 4 1/2"       | E-12           | 560              |
| 371312       | 3-Hole 44" Stroke w/Split Hub                         | 8" Spec.         | 2,929"                      | 3/4" in 12"          | 5"                    | 5 1/2"       | E-13           | 610              |
| 37958 or A   | 3-Hole 54" Stroke w/Split Hub                         | 8" Spec.         | 2,929"                      | 3/4" in 12"          | 4 1/2" - 5"           | 5 1/2"       | E-14           | 660              |
| 37374B       | 4-Hole 54" Stroke w/Split Hub                         | 7"               | 3 1/2"                      | 3/4" in 12"          | 5 1/2" - 6"           | 6 1/2"       | E-15           | 680              |
| 37222        | 4-Hole 54" Stroke w/Split Hub                         | 8"               | 3 1/2"                      | 3/4" in 12"          | 6"                    | 6 1/2"       | E-16           | 720              |
| 85244        | 4-Hole 54" Stroke w/Split Hub (for Portable Front)    | 8"               | 3 1/2"                      | 3/4" in 12"          | 6"                    | 6 1/2"       | E-17           | 900              |
| 8527H        | 4-Hole 54" Stroke w/Split Hub                         | 8"               | 4"                          | 3/4" in 12"          | 6" - 6 1/4"           | 7"           | E-18           | 935              |
| 37806A or C  | 4-Hole 64" Stroke w/Split Hub                         | 7"               | 3 1/2"                      | 3/4" in 12"          | 6"                    | 6 1/2"       | E-19           | 840              |
| 85143D       | Backside Equalizer Crank                              | 8"               | 3 1/2"                      | 3/4" in 12"          | 6"                    | 6 1/2"       | E-20           | 890              |
| 85273        | 2-Hole 34" Stroke w/Split Hub for Backside            | None             | 3 1/2"                      | 3/4" in 12"          | 5 1/2"                | 6 1/2"       | E-21           | 420              |
| 37438        | 3-Hole 44" Stroke w/Split Hub for Backside            | None             | 3 1/2"                      | 3/4" in 12"          | 5 1/2" - 6"           | 6 1/2"       | E-22           | 480              |
| STEEL CRANKS |   |                  |                             |                      |                       |              |                |                  |
| 37374A       | 4-Hole 54" Stroke w/Split Hub (for 7" Equalizer only) | 7"               | 3 1/2"                      | 3/4" in 12"          | 5 1/2" - 6"           | 6 1/2"       | E-23           | 695              |
| L-151        | 4-Hole 54" Stroke w/Split Hub                         | 8"               | 4"                          | 3/4" in 12"          | 5" - 6" - 6 1/2"      | 6 1/2"       | E-24           | 670              |
| 95204B or L  | 6-Hole 6"-7 1/4" Stroke w/Split Hub                   | 8"               | 4"                          | 3/4" in 12"          | 6"                    | 7"           | E-25           | 900              |
| 9573K or M   | 6-Hole 6" or 7" 7 1/4" Stroke w/Split Hub             | 8"               | 4"                          | 3/4" in 12"          | 6" - 6 1/4" - 7"      | 7"           | E-43           | 1200             |
| 85272        | 3-Hole 42" Stroke w/Split Hub (for Backside Pumping)  | None             | 3 1/2"                      | 3/4" in 12"          | 5" - 5 1/2" - 6" - 7" | 7"           | E-26           | 435              |
| 37438D       | 3-Hole 44" Stroke w/Split Hub (for Backside Pumping)  | None             | 3 1/2"                      | 3/4" in 12"          | 6"                    | 6 1/2"       | E-27           | 465              |

BANDWHEEL SHAFTS

|  |  | Price Item No. | Weight, Lbs., Each |
|--|--|----------------|--------------------|
| (O C S Shafts are 2" longer than API length) |  |                |                    |
| 8524W  | 6" A.P.I. x 93" long, turned and ground (shorter shaft optional) | E-28           | 740                |
| 8524F  | 6" A.P.I. x 99" long, turned and ground (shorter shaft optional) | E-29           | 790                |
| 8524AB                                       | 7" Special x 96" long (shorter shaft optional)                   | E-30           | 1,040              |

SET COLLARS

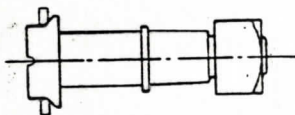
|       |                 |      |    |
|-------|-----------------|------|----|
| 8552  | 6" A.P.I. Plain | E-31 | 25 |
| 8598  | 6" A.P.I. Split | E-32 | 40 |
| 85282 | 7" Split        | E-33 | 50 |

WRIST PINS & PULLERS

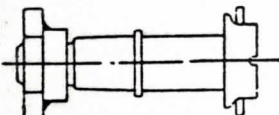
OCS Wrist Pins are tapered to assure a tight fit in every OCS crank. They are made to accommodate standard A. P. I. pitman bearing sizes or are made special for roller bearings. Special OCS Wrist Pins have a thread on each end so the wrist pin nut may be removed and used in connection with a wrist pin puller to quickly pull the pin. This convenient puller eliminates hours of sledging to change wrist pin holes.

PRICES

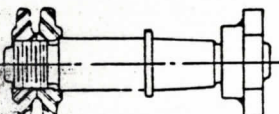
| WRIST PINS   | Price Item No. | Weight, Lbs., Each |
|--|----------------|--------------------|
| 8541T Regular 4" Tapered, w/Nut and Washer   | E-34           | 85                 |
| 8541F California Type 6" Flange 4" Tapered w/Wing Nut and Washer                     | E-35           | 95                 |
| 8541G 3 1/2" Tapered w/Nut and Washer for Backside Crank                             | E-36           | 75                 |
| 95180D Puller Type 4" Tapered w/Wing Nut and Collar Nuts                             | E-37           | 95                 |
| 95231A Puller Type 3 1/2" Tapered w/Wing Nut and Collar Nuts                         | E-38           | 70                 |
| 5570A, 4" Tapered Roller Bearing Wrist Pin Complete w/Bearing and Self-aligning Bowl | E-39           | 180                |
| WRIST PIN PULLERS  |                |                    |
| 95185 for 95180D Wrist Pin   | E-40           | 16                 |
| 95326 for 95231A Wrist Pin   | E-41           | 16                 |
| 5569 for 5570A Timken Bearing Wrist Pin  | E-42           | 40                 |



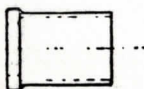
8541T  
8541G



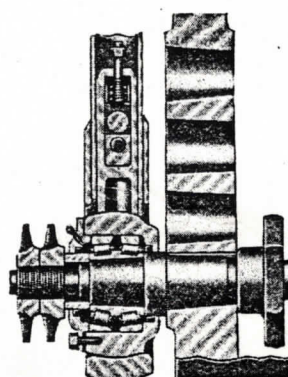
8541F



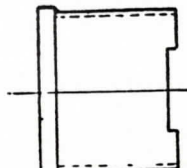
95180D  
95231A



95185



5570A



5569



OCS POLLY PUMPERS  
DOUBLE REDUCTION  
SPECIFICATIONS

|  | No. 22½ Polly Figure 3 or 5 | No. 22½ Polly Figure 2A | No. 32½ Polly Figure 2 | No. 40 Polly Figure 2 | No. 40 Polly Figure 2 | No. 65 Polly Figure 2 | No. 100 Polly  |
|--|-----------------------------|-------------------------|------------------------|-----------------------|-----------------------|-----------------------|----------------|
| <b>*Pumper Reducer Specifications:</b>             |                             |                         |                        |                       |                       |                       |                |
| Peak Torque, Inch Pounds.....                      | 142,100                     | 142,100                 | 218,000                | 254,000               | 254,000               | 445,108               | 667,800        |
| Peak Torque Converted to H. P. @ 20 R. P. M.....   | 28.7                        | 28.7                    | 44                     | 51.3                  | 51.3                  | 90                    | 135            |
| Ratio in Reducer.....                              | 27.12:1                     | 27.12:1                 | 25.3:1                 | 19.1:1                | 19.1:1                | 21.7:1                | 21.7:1         |
| Primary Shaft Diameter at Bearing.....             | 2½"                         | 2½"                     | 3"                     | 3¾"                   | 3¾"                   | 4"                    | 4"             |
| Intermediate Shaft Diameter at Bearing.....        | 2½"                         | 2½"                     | 3"                     | 3¾"                   | 3¾"                   | 4"                    | 4"             |
| Crank Shaft Diameter at Bearing.....               | 5"                          | 5"                      | 5½"                    | 6"                    | 6"                    | 7"                    | 8"             |
| <b>Sheave Data:</b>                                |                             |                         |                        |                       |                       |                       |                |
| Standard Pitch Dia. and No. of Grooves.....        | 22" 4C                      | 22" 4C                  | 24" 6C                 | 38" 5D                | 38" 6D                | 49½" 7D               | 49½" 8D        |
| Maximum Pitch Diameter.....                        | 52"                         | 52"                     | 52"                    | 60"                   | 60"                   | 72"                   | 72"            |
| Maximum No. of Grooves with Belt Cover.....        | 5C                          | 5C                      | 6C                     | 6D                    | 6D                    | 9D                    | 9D             |
| Maximum No. of Grooves without Belt Cover.....     | 6C                          | 6C                      | 7C                     | 7D                    | 7D                    | 10D                   | 10D            |
| <b>Pumper Structure Specifications:</b>            |                             |                         |                        |                       |                       |                       |                |
| Polish Rod Stroke, Standard.....                   | 24", 34", 44"               | 24", 34", 44"           | 24", 34", 44"          | 24", 34", 44"         | 24", 34", 44"         | 34", 44", 54"         | 44", 67", 88"  |
| Crank Part No. used to obtain Standard Stroke..... | 371312                      | 371312                  | 37374-B                | 37374-B               | 95204-B               | 9573-M                | 108"           |
| Polish Rod Stroke, Maximum.....                    | 54"                         | 54"                     | 64"                    | 64"                   | 74"                   | 74"                   | 108"           |
| Crank Part No. used to obtain Maximum Stroke.....  | 37958-A                     | 37958-A                 | 37806-C                | 37806-A               | 95204-B               | 9573-M                | 108"           |
| Walking Beam, Size and Weight.....                 | 16" x 8½"                   | 18" x 8½"               | 24" x 9"               | 27" x 10"             | 30" x 10½"            | 33" x 11½"            | Two 33" x 11½" |
| Walking Beam, Working Centers.....                 | 71 lb                       | 85 lb                   | 94 lb                  | 106 lb                | 132 lb                | 152 lb                | 152 lb         |
| Walking Beam, O C S Rating.....                    | 12'-4"                      | 16'-0"                  | 20'-0"                 | 23'-0"                | 25'-0"                | 25'-0"                | 25'-0"         |
| Walking Beam, A.I.S.C. Rating.....                 | 17,000 lb                   | 17,000 lb               | 20,000 lb              | 25,000 lb             | 25,000 lb             | 35,000 lb             | 50,000 lb      |
| Hanger Bearing, Self-Oiling, Size.....             | 27,260 lb                   | 26,100 lb               | 27,160 lb              | 29,136 lb             | 36,000 lb             | 48,450 lb             | 74,000 lb      |
| Wrist Pin, Diameter at Crank.....                  | Horsehead                   | 4" x 6½"                | 4½" x 8½"              | 5" x 9½"              | 5" x 9½"              | 5" x 9½"              | Horsehead      |
| Saddle Bearing, Self-Oiling, Size.....             | 2,929"                      | 2,929"                  | 3½"                    | 3½"                   | 4"                    | 4"                    | 4"             |
| Saddle Bearing, Self-Oiling, Projected Area.....   | 6" x 10"                    | 5" x 11½"               | 5½" x 14½"             | 6" x 14½"             | 6" x 14½"             | 7" x 17"              | Two 7" x 17"   |
| Tailboard Bearing, Size.....                       | 60 Sq. In.                  | 57½ Sq. In.             | 79½ Sq. In.            | 87 Sq. In.            | 87 Sq. In.            | 119 Sq. In.           | 238 Sq. In.    |
| Tailboard Bearing, Projected Area.....             | 4" x 6½"                    | 4" x 6½"                | 4½" x 8½"              | 5" x 9½"              | 5" x 9½"              | 5" x 9½"              | Two 5" x 9½"   |
| Samson Post, Height to C.L. Bearing.....           | 27 Sq. In.                  | 27 Sq. In.              | 37½ Sq. In.            | 47½ Sq. In.           | 47½ Sq. In.           | 47½ Sq. In.           | 5½" x 11½"     |
| Samson Post, 4 Legs, Size of Legs.....             | 9'-1"                       | 12'-2"                  | 15'-2"                 | 15'-2"                | 18'-4"                | 18'-4"                | 132½ Sq. In.   |
| Steel Base, Standard Section, Size and Weight..... | ½" x 5" x 5"                | ½" x 5" x 5"            | ¾" x 6" x 6"           | ¾" x 6" x 6"          | ¾" x 8" x 8"          | ¾" x 8" x 8"          | Two 17'-2¾"    |
| Overall Height of Pumper.....                      | 10" x 5½"                   | 10" x 5½"               | 14" x 6¾"              | 14" x 6¾"             | 14" x 6¾"             | 14" x 10"             | Concrete       |
| Overall Length from Center of Well.....            | 23 lb                       | 23 lb                   | 30 lb                  | 30 lb                 | 30 lb                 | 61 lb                 | .....          |
| Polish Rod Clamp.....                              | 12'-3½"                     | 14'-4½"                 | 16'-9"                 | 17'-1"                | 20'-2"                | 20'-4½"               | .....          |
| Counterbalance Specifications:                     | 23'-1"                      | 26'-6½"                 | 37'-1½"                | 35'-10"               | 38'-10"               | 40'-11"               | .....          |
| Cranktype Equalizers, Size.....                    | 2 Bolt                      | 2 Bolt                  | 3 Bolt                 | 3 Bolt                | 3 Bolt                | 4 Bolt                | 6 Bolt         |
| Cranktype Equalizer, Light, Weight each.....       | 2-8" Special                | 2-8" Special            | 2-7"                   | 2-7"                  | 2-8"                  | 2-8"                  | 2-10"          |
| Cranktype Equalizer, Heavy, Weight each.....       | 1200 lb                     | 1200 lb                 | 1400 lb                | 1400 lb               | 1900 lb               | 1900 lb               | 5000 lb        |
| Scale Type Adjustable Balance.....                 | 1675 lb                     | 1675 lb                 | 1900 lb                | 1900 lb               | 2500 lb               | 2500 lb               | .....          |
| Scale Type Adjustable Balance.....                 | 1000 lb                     | .....                   | .....                  | .....                 | .....                 | .....                 | .....          |
| Scale Type Adjustable Balance.....                 | 3500 lb                     | .....                   | .....                  | .....                 | .....                 | .....                 | .....          |
| Scale Type Adjustable Balance.....                 | 5000 lb                     | .....                   | .....                  | .....                 | .....                 | .....                 | .....          |

\* Detail Specifications of Pumper Reducers on Page 1803.

CAPACITY AND PRICE REFERENCE

|   | No. 22½ Polly Figure 3 or 5 |              | No. 22½ Polly Figure 2A |              | No. 32½ Polly Figure 2 |              | No. 40 Polly Figure 2 |              | No. 40 Polly Figure 2 |              | No. 65 Polly Figure 2 |              | No. 100 Polly  |              |
|---|-----------------------------|--------------|-------------------------|--------------|------------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|----------------|--------------|
| Peak Torque, Inch Pounds.....   | 142,100                     | 142,100      | 142,100                 | 142,100      | 218,000                | 218,000      | 254,000               | 254,000      | 254,000               | 254,000      | 445,108               | 445,108      | 667,800        | 667,800      |
| Peak Torque, Converted to H.P. @ 20 R.P.M.....  | 28.7                        | 28.7         | 28.7                    | 28.7         | 44                     | 44           | 51.3                  | 51.3         | 51.3                  | 51.3         | 90                    | 90           | 135            | 135          |
| Polish Rod Load.....  | 17,000 lb                   | 17,000 lb    | 17,000 lb               | 17,000 lb    | 20,000 lb              | 20,000 lb    | 25,000 lb             | 25,000 lb    | 25,000 lb             | 25,000 lb    | 35,000 lb             | 35,000 lb    | 50,000 lb      | 50,000 lb    |
|   | Price Item No.              | Ap. Wt. Lbs. | Price Item No.          | Ap. Wt. Lbs. | Price Item No.         | Ap. Wt. Lbs. | Price Item No.        | Ap. Wt. Lbs. | Price Item No.        | Ap. Wt. Lbs. | Price Item No.        | Ap. Wt. Lbs. | Price Item No. | Ap. Wt. Lbs. |
| Pumper Complete with Base Extension and Slide Rails for Multi-Cylinder Engine or Electric Motor.....  | R-127                       | 9,400        | R-155                   | 10,200       | R-179                  | 16,750       | R-203                 | 19,250       | R-227                 | 23,250       | R-250                 | 38,500       | R-273          | 41,000       |
| Pumper Complete, Less Complete Base.....  | .....                       | .....        | .....                   | .....        | .....                  | .....        | .....                 | .....        | .....                 | .....        | .....                 | .....        | .....          | .....        |
| Outboard Support for Engine, needed only when Engine overhangs Main Base and Support is needed.....   | R-128                       | 125          | R-156                   | 125          | R-180                  | 250          | R-204                 | 300          | R-228                 | 300          | R-251                 | 500          | .....          | .....        |
| Extra for Base Extension for Horizontal or Vertical Engine Subbase between Reducer and Main Base..... | R-129                       | 300          | R-157                   | 300          | R-181                  | 750          | R-205                 | 950          | R-229                 | 1,050        | R-252                 | 1,650        | .....          | .....        |
| Extra Weight for Beam.....  | R-130                       | 600          | R-158                   | 700          | R-182                  | 1,500        | R-206                 | 1,700        | R-230                 | 2,800        | R-253                 | 2,800        | .....          | .....        |
| Cranktype Equalizers, Light, per pair.....  | R-131                       | 400          | R-159                   | 400          | R-183                  | 2,800        | R-207                 | 2,800        | R-231                 | 3,800        | R-254                 | 3,800        | .....          | .....        |
| Cranktype Equalizers, Heavy, per pair.....  | R-132                       | 2,400        | R-160                   | 2,400        | R-184                  | 3,800        | R-208                 | 3,800        | R-232                 | 5,000        | R-255                 | 5,000        | R-274          | 10,000       |
| Extra Weights for Cranktype Equalizers.....   | R-133                       | 3,350        | R-161                   | 3,350        | R-185                  | 125          | R-209                 | 125          | R-233                 | 150          | R-256                 | 150          | R-275          | 250          |
| Scale Type Adjustable Balance.....  | R-134                       | 110          | R-162                   | 110          | .....                  | .....        | .....                 | .....        | .....                 | .....        | .....                 | .....        | .....          | .....        |
| Scale Type Adjustable Balance.....  | R-135                       | 1,000        | .....                   | .....        | .....                  | .....        | .....                 | .....        | .....                 | .....        | .....                 | .....        | .....          | .....        |
| Scale Type Adjustable Balance.....  | R-136                       | 3,500        | .....                   | .....        | .....                  | .....        | .....                 | .....        | .....                 | .....        | .....                 | .....        | .....          | .....        |
| Adjustable Balance, not Scale Type.....   | R-137                       | 5,000        | .....                   | .....        | .....                  | .....        | .....                 | .....        | .....                 | .....        | .....                 | .....        | .....          | .....        |
| V-Belt Cover to Engine House.....   | R-138                       | 500          | .....                   | .....        | .....                  | .....        | .....                 | .....        | .....                 | .....        | .....                 | .....        | .....          | .....        |
| V-Belt Cover for Entire Drive when Belt Idler is not used.....  | R-139                       | 225          | R-163                   | 225          | R-186                  | 240          | R-210                 | 290          | R-234                 | 400          | R-257                 | 450          | R-276          | 500          |
| Headache Post.....  | R-140                       | 275          | R-164                   | 275          | R-187                  | 400          | R-211                 | 560          | R-235                 | 750          | R-258                 | 800          | R-277          | 900          |
| Beam Catcher.....   | R-141                       | 225          | R-165                   | 225          | R-188                  | 250          | R-212                 | 275          | R-236                 | 350          | R-259                 | 350          | Two R-278      | 425          |
| Belt Idler.....   | R-142                       | 100          | R-166                   | 100          | R-189                  | 100          | R-213                 | 125          | R-237                 | 150          | R-260                 | 150          | Two R-279      | 150          |
| Belt Crank with Double Bearing and Double Pull Rod.....   | R-143                       | 2,000        | R-167                   | 2,000        | R-190                  | 530          | R-214                 | 600          | R-238                 | 600          | R-261                 | 800          | R-280          | 850          |
| Belt Crank with Double Bearings and Single Pull Rod.....  | R-144                       | 1,900        | R-168                   | 1,900        | R-191                  | 2,500        | R-215                 | 2,500        | R-239                 | 2,500        | R-262                 | 2,700        | .....          | .....        |
| Belt Crank with Single Bearing and Single Pull Rod.....   | R-145                       | 1,850        | R-169                   | 1,850        | R-192                  | 2,300        | R-216                 | 2,300        | R-240                 | 2,300        | R-263                 | 2,500        | .....          | .....        |
| Samson Post Ladder with Safety Ring.....  | R-146                       | 100          | R-170                   | 100          | R-193                  | 2,200        | R-217                 | 2,200        | R-241                 | 2,200        | R-264                 | 2,400        | .....          | .....        |
| Samson Post Inspection Platform with Ladder.....  | R-147                       | 235          | R-171                   | 235          | R-195                  | 250          | R-219                 | 275          | R-243                 | 330          | R-266                 | 330          | R-281          | 200          |
| Lubricating System for Tailboard and Hanger Bearing, ea.....  | R-148                       | 8            | R-172                   | 8            | R-196                  | 10           | R-220                 | 10           | R-244                 | 15           | R-267                 | 15           | R-282          | 350          |
| Equalizer Guard Rails (Angle Iron Type).....  | R-149                       | 280          | R-173                   | 280          | R-197                  | 300          | R-221                 | 300          | R-245                 | 300          | R-268                 | 300          | R-283          | 15           |
| Equalizer Guard Rails (Pipe Type).....  | R-150                       | 420          | R-174                   | 420          | R-198                  | 450          | R-222                 | 450          | R-246                 | 450          | R-269                 | 450          | R-284          | 400          |
| Complete Set Foundation Bolts and Grouting Tubes.....   | R-151                       | 200          | R-175                   | 200          | R-199                  | 240          | R-223                 | 260          | R-247                 | 280          | R-270                 | 850          | R-285          | 600          |
| Polish Rod Clamp.....   | R-152                       | 25           | R-176                   | 25           | R-200                  | 34           | R-224                 | 34           | R-248                 | 34           | R-271                 | 43           | R-286          | 1,200        |
| Extra for Cranks to obtain Maximum Stroke.....  | R-153                       | 100          | R-177                   | 100          | R-201                  | 320          | R-225                 | 320          | .....                 | .....        | .....                 | .....        | R-287          | 64           |
| Wrist Pin Puller.....   | R-154                       | 45           | R-178                   | 45           | R-202                  | 75           | R-226                 | 75           | R-249                 | 75           | R-272                 | 85           | R-288          | 100          |

Current Prices

OCS BAT PUMPER REDUCERS  
SINGLE REDUCTION

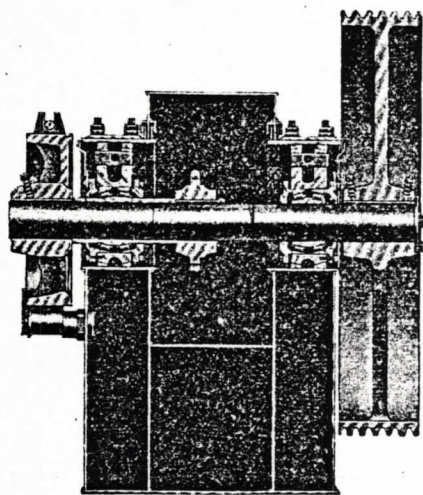


FIG. 106-4

Cross section of Primary Shaft Assembly viewed from well end.

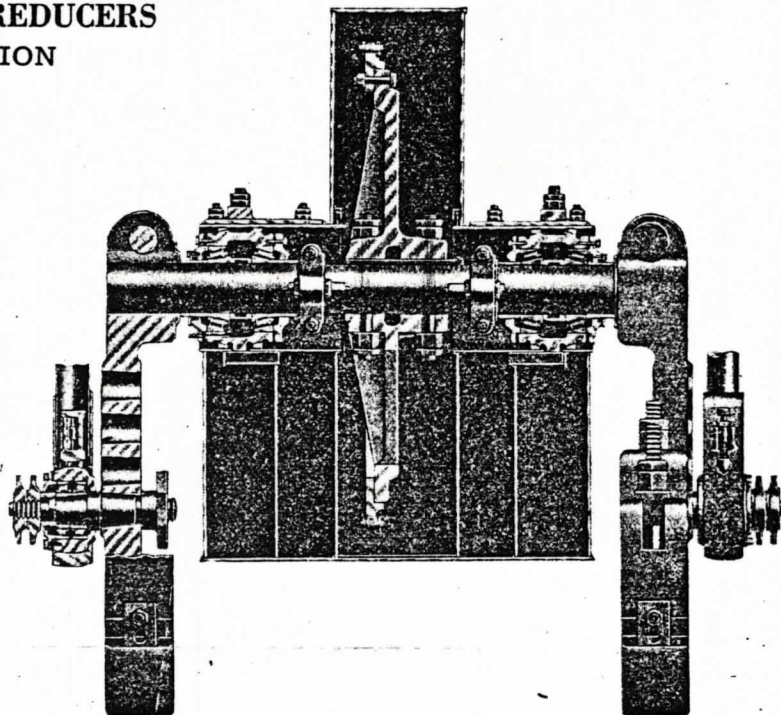


FIG. 106-5

Cross Section of Crank Shaft Assembly viewed from well end.

The OCS Single Reduction Pumper Reducers are designed particularly for oil well application and will provide proper well speeds when 200 to 700 r.p.m. prime movers are used with the proper primary drive. The slow speed shaft is extended at each end to provide single or twin crank use and the high speed shaft is likewise extended for right or left hand drive as well as to provide a place for a spacing

brake. Both shafts are mounted on Tapered Roller Bearings in self-aligning housings. The bearing bowls in the primary shaft are eccentric so proper chain adjustment may be maintained for maximum efficiency. The electrically welded steel case provides the supports for the machinery as well as the inclosure for lubrication. Lubrication and rolling contacts of roller chain and roller bearings make this a most efficient, simple and rugged machine.

BAT PUMPER REDUCERS—SINGLE REDUCTION  
SPECIFICATIONS

|  | No. 10 Bat   | No. 15 Bat   | No. 22½ Bat  | No. 32½ Bat  | No. 40 Bat   | No. 50 Bat   | No. 75 Bat   | No. 100 Bat  |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Peak Torque, Inch Pounds.....                      | 120,600      | 108,600      | 163,000      | 262,700      | 329,958      | 521,623      | 656,700      | 656,700      |
| Peak Torque Converted to H.P. @ 20 R.P.M.....      | 24.3         | 22           | 33           | 53           | 66.65        | 105.37       | 132.7        | 132.7        |
| Ratio in Reducer.....                              | 7.46:1       | 6:1          | 6:1          | 6.3:1        | 6.44:1       | 6.65:1       | 6:1          | 6:1          |
| Sheave Diameter and No. of Grooves, Standard.....  | 44" 3C       | 42" 3D       | 42" 4D       | 52" 5D       | 49" 6D       | 56" 7D       | 72" 8D       | 60" M72"-9E  |
| Sprockets, No. of Teeth.....                       | 13-97        | 13-78        | 13-78        | 13-82        | 16-103       | 17-113       | 15-90        | 15-90        |
| Chain, Size.....                                   | 1½" Triple   | 1½" Double   | 1½" Triple   | 1½" Triple   | 1½" Triple   | 2" Triple    | 2½" Double   | 2½" Double   |
| Crankshaft, Timken Bearings, Diameter.....         | 3¾"          | 4½"          | 5"           | 5½"          | 6"           | 6"           | 7"           | 7"           |
| Countershaft Shaft, Timken Bearings, Diameter..... | 2½"          | 3½"          | 3½"          | 4"           | 4½"          | 4½"          | 4½"          | 5"           |
| Diameter Countershaft Extension, Inches.....       | +1.000       | +1.000       | +1.000       | +1.000       | +1.000       | +1.000       | +1.000       | +1.000       |
| Keyway Countershaft Shaft.....                     | 2.500 - .001 | 3.250 - .001 | 3.250 - .001 | 4.000 - .001 | 4.500 - .001 | 4.500 - .001 | 4.500 - .001 | 5.000 - .001 |
| Case Size, Overall.....                            | 26" x 70"    | 29½" x 72"   | 29½" x 72"   | 33½" x 81½"  | 46½" x 100½" | 53½" x 125½" | 53½" x 125½" | 68½" x 120"  |
| Foundation Bolts, No. and Size.....                | 10-1½"       | 8-1½"        | 8-1½"        | 4-1½", 4-1½" | 10-1½"       | 10-1½"       | 6-1½", 4-2"  | 10-2"        |

† Narrow Spacing.

Note: All chains are Extra Heavy.

PRICES

|                          | No. 10 Bat     |               | No. 15 Bat     |               | No. 22½ Bat    |               | No. 32½ Bat    |               | No. 40 Bat     |               | No. 50 Bat     |               | No. 75 Bat     |               | No. 100 Bat    |               |
|--------------------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
|                          | Price Item No. | Wt. Lbs. Each | Price Item No. | Wt. Lbs. Each | Price Item No. | Wt. Lbs. Each | Price Item No. | Wt. Lbs. Each | Price Item No. | Wt. Lbs. Each | Price Item No. | Wt. Lbs. Each | Price Item No. | Wt. Lbs. Each | Price Item No. | Wt. Lbs. Each |
| Pumper Reducer only..... | M-1            | 2,100         | M-3            | 2,800         | M-5            | 3,300         | M-7            | 4,200         | M-9            | 6,500         | M-11           | 9,400         | M-13           | 10,000        | M-15           | 13,800        |
| Add for following:       |                |               |                |               |                |               |                |               |                |               |                |               |                |               |                |               |
| Brake.....               | M-2            | 185           | M-4            | 290           | M-6            | 290           | M-8            | 325           | M-10           | 450           | M-12           | 550           | M-14           | 550           | M-16           | 625           |

Cranks and Equalizers, see pages 1805 and 1807.  
Driven Sheaves, current prices.  
Beam, Samson Post and Hanger, see pages 1806 and 1807.  
Pitmans, Stirrups, Wrist Pins, see page 1806.



OCS BAT PUMPERS  
SINGLE REDUCTION

SPECIFICATIONS

|   | No. 32 1/2 Bat<br>Figure 2 | No. 40 Bat<br>Figure 2 | No. 50 Bat<br>Figure 2       | No. 75 Bat<br>Figure 2  | No. 100 Bat                 |
|---|----------------------------|------------------------|------------------------------|-------------------------|-----------------------------|
| <b>*Pumper Reducer Specifications:</b>        |                            |                        |                              |                         |                             |
| Peak Torque, Inch Pounds                      | 262,700                    | 329,958                | 521,623                      | 656,700                 | 656,700                     |
| Peak Torque Converted to H.P. @ 20 R.P.M.     | 53                         | 66.65                  | 105.37                       | 132.7                   | 132.7                       |
| Ratio in Reducer, Standard                    | 6.3:1                      | 6.44:1                 | 6.65:1                       | 6:1                     | 6:1                         |
| Ratio in Reducer, Maximum                     | 7.45:1                     | 6.86:1                 | 7.53:1                       | 6.92:1                  | 6.92:1                      |
| Primary Shaft Diameter at Bearing             | 4"                         | 4 1/2"                 | 4 1/2"                       | 5"                      | 5"                          |
| Crankshaft Diameter at Bearing                | 5 1/2"                     | 6"                     | 6"                           | 7"                      | 7"                          |
| <b>Sheave Data:</b>                           |                            |                        |                              |                         |                             |
| Standard Pitch Dia. and No. of Grooves        | 52" 5D                     | 49" 6D                 | 56" 7D                       | **72" 8D                | 60" 9E                      |
| Maximum Pitch Dia.                            | 52"                        | 56"                    | 72"                          | 72"                     | 72"                         |
| Maximum No. of Grooves with Belt Cover        | 5D                         | 6D                     | 7D                           | **8D                    | 10E                         |
| Maximum No. of Grooves without Belt Cover     | 5D                         | 7D                     | 8D                           | **8D                    | 10E                         |
| <b>Pumper Structure Specifications:</b>       |                            |                        |                              |                         |                             |
| Polish Rod Stroke, Standard                   | 24", 34", 44", 54"         | 24", 34", 44", 54"     | 24", 34", 44", 54", 64", 74" | 34", 44", 54", 64", 74" | 34", 44", 54", 64", 74"     |
| Crank Part No. used to obtain Standard Stroke | 37374B                     | 37374B                 | 95204B                       | 9573M                   | 9573M                       |
| Polish Rod Stroke, Maximum                    | 64"                        | 74"                    | .....                        | .....                   | .....                       |
| Crank Part No. used to obtain Max. Stroke     | 37806C                     | 95204L                 | .....                        | .....                   | .....                       |
| Walking Beam, Size and Weight                 | 24" x 9" - 94 lb.          | 27" x 10" - 106 lb.    | 30" x 10 1/2" - 132 lb.      | 33" x 11 1/2" - 152 lb. | Two 30" x 10 1/2" - 132 lb. |
| Walking Beam, Working Centers                 | 20'-0"                     | 23'-0"                 | 25'-0"                       | 25'-0"                  | 25'-0"                      |
| Walking Beam, OCS Rating                      | 20,000 lb.                 | 25,000 lb.             | 30,000 lb.                   | 35,000 lb.              | 50,000 lb.                  |
| Walking Beam, A.I.S.C. Rating                 | 27,160 lb.                 | 29,136 lb.             | 36,000 lb.                   | 48,450 lb.              | 72,000 lb.                  |
| Hanger Bearing, Self-Oiling, Size             | 4 1/2" x 8 3/4"            | 5" x 9 1/2"            | 5" x 9 1/2"                  | 5" x 9 1/2"             | Two 5" x 9 1/2"             |
| Wrist Pin, Dia. at Crank                      | 3 3/8"                     | 3 1/2"                 | 4"                           | 4"                      | 4"                          |
| Saddle Bearing, Self-Oiling, Size             | 5 1/2" x 14 1/2"           | 6" x 14 1/2"           | 6" x 14 1/2"                 | 7" x 17"                | Two 6" x 14 1/2"            |
| Saddle Bearing, Self-Oiling, Projected Area   | 79 3/4 Sq. In.             | 87 Sq. In.             | 87 Sq. In.                   | 119 Sq. In.             | 174 Sq. In.                 |
| Tailboard Bearing, Size                       | 4 1/2" x 8 3/4"            | 5" x 9 1/2"            | 5" x 9 1/2"                  | 5" x 9 1/2"             | Two 5" x 9 1/2"             |
| Tailboard Bearing, Projected Area             | 37 1/4 Sq. In.             | 47 1/2 Sq. In.         | 47 1/2 Sq. In.               | 47 1/2 Sq. In.          | 95 Sq. In.                  |
| Samson Post, Height to C. L. Bearing          | 15'-2"                     | 15'-2"                 | 18'-4"                       | 18'-4"                  | Two 17'-2 3/4"              |
| Samson Post, 4 Legs, Size of Legs             | 1 1/2" x 6" x 6"           | 1 1/2" x 6" x 6"       | 1 1/2" x 8" x 8"             | 1 1/2" x 8" x 8"        | 1 1/2" x 8" x 8"            |
| Steel Base, Stand, Section, Size and Weight   | 14" x 6 1/2" - 30 lb       | 14" x 6 1/2" - 30 lb   | 14" x 10" - 61 lb            | 14" x 10" - 61 lb       | Concrete                    |
| Overall Height of Pumper                      | 16'-9"                     | 17'-1"                 | 20'-2"                       | 20'-4 1/2"              | .....                       |
| Overall Length from Center of Well            | 33'-8"                     | 37'-9 1/2"             | 42'-5"                       | 42'-5"                  | .....                       |
| Polish Rod Clamp                              | 3-Bolt                     | 4-Bolt                 | 4-Bolt                       | 4-Bolt                  | 6-Bolt                      |
| <b>Counterbalance Specifications:</b>         |                            |                        |                              |                         |                             |
| Crank Type Equalizer, Size                    | 2-7"                       | 2-7"                   | 2-8"                         | 2-8"                    | 2-8"                        |
| Cranktype Equalizer, Light, Weight Each       | 1400 lb                    | 1400 lb                | 1900 lb                      | 1900 lb                 | 1900 lb                     |
| Cranktype Equalizer, Heavy, Weight Each       | 1900 lb                    | 1900 lb                | 2500 lb                      | 2500 lb                 | 2500 lb                     |

\* Detail specifications of pumper reducers on page 1799.  
\*\* Narrow Spacing.

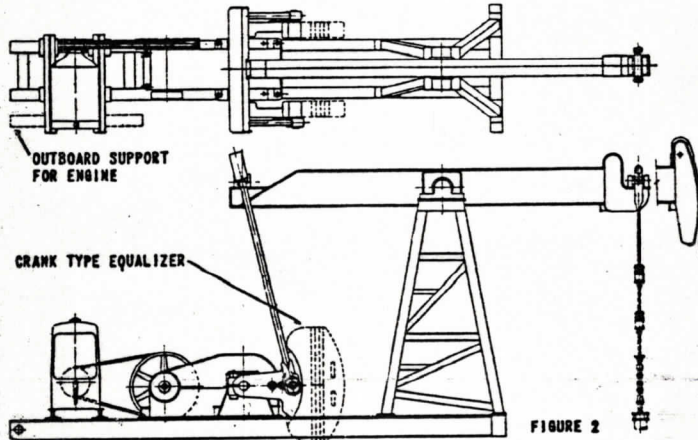
CAPACITY AND PRICE REFERENCE

|   | No. 32 1/2 Bat<br>Figure 2 |                     | No. 40 Bat<br>Figure 2 |                     | No. 50 Bat<br>Figure 2 |                     | No. 75 Bat<br>Figure 2 |                     | No. 100 Bat       |                     |
|---|----------------------------|---------------------|------------------------|---------------------|------------------------|---------------------|------------------------|---------------------|-------------------|---------------------|
| Peak Torque, Inch Pounds  | 262,700                    |                     | 329,958                |                     | 521,623                |                     | 656,700                |                     | 656,700           |                     |
| Peak Torque, Converted to H.P. @ 20 R.P.M.  | 53                         |                     | 66.65                  |                     | 105.37                 |                     | 132.7                  |                     | 132.7             |                     |
| Polish Rod Load   | 20,000 lb                  |                     | 25,000 lb              |                     | 25,000 lb              |                     | 35,000 lb              |                     | 50,000 lb         |                     |
|   | Price<br>Item No.          | Approx.<br>Wt. Lbs. | Price<br>Item No.      | Approx.<br>Wt. Lbs. | Price<br>Item No.      | Approx.<br>Wt. Lbs. | Price<br>Item No.      | Approx.<br>Wt. Lbs. | Price<br>Item No. | Approx.<br>Wt. Lbs. |
| Pumper Complete with Base Extension for Multi-Cylinder Engine or Electric Motor, Includes Slide Rails                           | L-126                      | 16,300              | L-152                  | 21,000              | L-178                  | 30,000              | L-203                  | 35,000              | L-225             | 40,500              |
| Pumper Complete, Less Complete Base   | .....                      | .....               | .....                  | .....               | .....                  | .....               | .....                  | .....               | .....             | .....               |
| Add for the Following:  |                            |                     |                        |                     |                        |                     |                        |                     |                   |                     |
| Extra for Base Extension for Horizontal or Vertical Engine, when Belt Idler is Furnished  | L-127                      | 1,500               | L-153                  | 2,100               | L-179                  | 3,400               | L-204                  | 3,400               | .....             | .....               |
| Extra for Base Extension for Horizontal or Vertical Engine when Belt Idler is not Furnished. Base Slotted for V-Belt Adjustment | L-128                      | 700                 | L-154                  | 1,100               | L-180                  | 2,200               | L-205                  | 2,200               | .....             | .....               |
| Outboard Support for Engine, needed only when Engine overhangs Main Base and Support is needed                                  | L-129                      | 250                 | L-155                  | 300                 | L-181                  | 300                 | L-206                  | 300                 | .....             | .....               |
| Subbase between Reducer and Main Base   | L-130                      | 600                 | L-156                  | 800                 | L-182                  | 1,000               | L-207                  | 1,000               | .....             | .....               |
| Cranktype Equalizers, Light, per pair   | L-131                      | 2,800               | L-157                  | 2,800               | L-183                  | 3,800               | L-208                  | 3,800               | L-226             | 3,800               |
| Cranktype Equalizers, Heavy, per pair   | L-132                      | 3,800               | L-158                  | 3,800               | L-184                  | 5,000               | L-209                  | 5,000               | L-227             | 5,000               |
| Extra Wts. for Cranktype Equalizers, ea.  | L-133                      | 125                 | L-159                  | 125                 | L-185                  | 150                 | L-210                  | 150                 | L-228             | 150                 |
| Headache Post   | L-134                      | 270                 | L-160                  | 280                 | L-186                  | 350                 | L-211                  | 380                 | Two L-229         | 440                 |
| Beam Catcher  | L-135                      | 125                 | L-161                  | 175                 | L-187                  | 295                 | L-212                  | 295                 | Two L-230         | 295                 |
| V-Belt Cover for Entire Drive when Belt Idler is not used   | L-136                      | 500                 | L-162                  | 570                 | L-188                  | 700                 | L-213                  | 840                 | L-231             | 900                 |
| V-Belt Cover to Engine House  | L-137                      | 275                 | L-163                  | 300                 | L-189                  | 315                 | L-214                  | 400                 | L-232             | 450                 |
| V-Belt Idler with Flat Pulley   | L-138                      | 450                 | L-164                  | 580                 | L-190                  | 600                 | L-215                  | 850                 | L-233             | 850                 |
| V-Belt Idler with Grooved Sheave  | L-139                      | 470                 | L-165                  | 600                 | L-191                  | 625                 | L-216                  | 890                 | L-234             | 890                 |
| Equalizer Guard Rails (Angle Iron Type)   | L-140                      | 275                 | L-166                  | 300                 | L-192                  | 300                 | L-217                  | 325                 | L-235             | 350                 |
| Equalizer Guard Rails (Pipe Type)   | L-141                      | 410                 | L-167                  | 450                 | L-193                  | 450                 | L-218                  | 475                 | L-236             | 525                 |
| Bell Crank with Double Brgs. and Double Pull Rods   | L-142                      | 2,500               | L-168                  | 2,500               | L-194                  | 2,700               | .....                  | .....               | .....             | .....               |
| Bell Crank with Double Brgs. and Single Pull Rods   | L-143                      | 2,300               | L-169                  | 2,300               | L-195                  | 2,500               | .....                  | .....               | .....             | .....               |
| Bell Crank with Single Brgs. and Single Pull Rods   | L-144                      | 2,200               | L-170                  | 2,200               | L-196                  | 2,400               | .....                  | .....               | .....             | .....               |
| Samson Post Ladder with Safety Ring   | L-145                      | 125                 | L-171                  | 170                 | L-197                  | 200                 | L-219                  | 200                 | L-237             | 250                 |
| Samson Post Insp. Platform w/Ladder   | L-146                      | 250                 | L-172                  | 275                 | L-198                  | 330                 | L-220                  | 330                 | L-238             | 470                 |
| Lubricating System for Hanger and Tailboard Bearings, each  | L-147                      | 10                  | L-173                  | 10                  | L-199                  | 10                  | L-221                  | 10                  | Two L-239         | 10                  |
| Wrist Pin Puller  | L-148                      | 75                  | L-174                  | 75                  | L-200                  | 75                  | L-222                  | 75                  | L-240             | 75                  |
| Complete Set Foundation Bolts w/GRTubes   | L-149                      | 300                 | L-175                  | 325                 | L-201                  | 350                 | L-223                  | 350                 | L-241             | 1,175               |
| Polish Rod Clamp  | L-150                      | 34                  | L-176                  | 43                  | L-202                  | 43                  | L-224                  | 43                  | L-242             | 65                  |
| Extra for Maximum Stroke Cranks   | L-151                      | 320                 | L-177                  | 440                 | .....                  | .....               | .....                  | .....               | .....             | .....               |
| Motors, Engines, Drive Sheaves and V-Belts  | .....                      | .....               | .....                  | .....               | .....                  | .....               | .....                  | .....               | .....             | .....               |

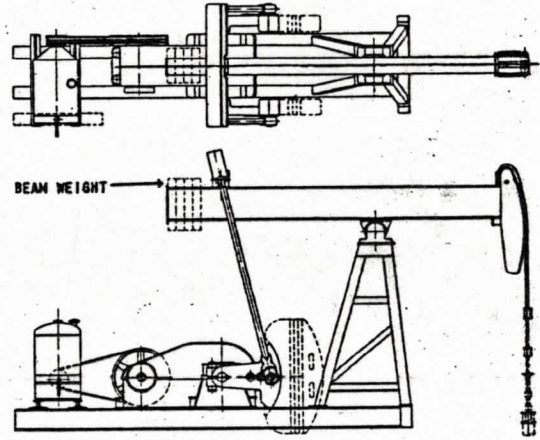
Current Prices

O C S PUMPS

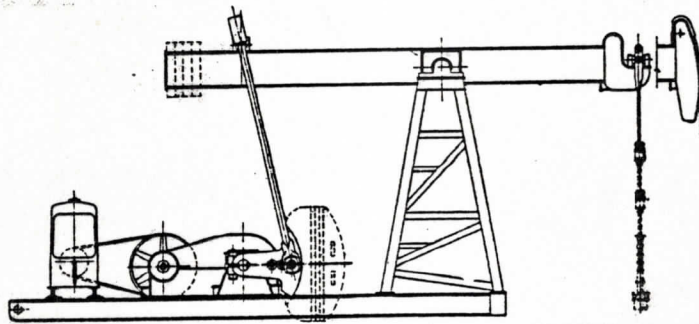
Bat Single Reduction Pumps, Pages 1796, 1797, 1798, 1799  
Polly Double Reduction Pumps, Pages 1800, 1801, 1802, 1803  
Portable Double Reduction Pumps, Page 1804



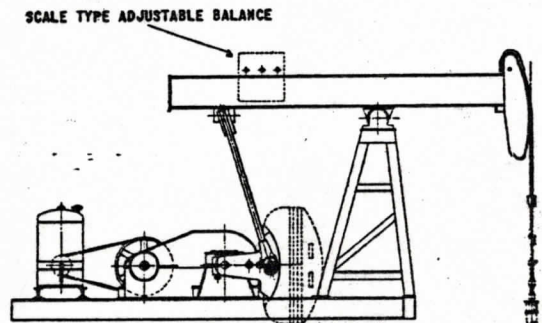
THIS STYLE FURNISHED IN THE FOLLOWING SIZES:  
No. 32½, No. 40, No. 50, No. 75 BATS AND No. 32½, No. 40, No. 65 POLLYS



THIS STYLE FURNISHED IN THE FOLLOWING SIZES:  
No. 10 BAT AND No. 5, No. 10, No. 22½ POLLYS



THIS STYLE FURNISHED IN THE FOLLOWING SIZES:  
No. 10, No. 15, No. 22½ BATS; No. 10, No. 15, No. 22½ POLLYS



THIS STYLE FURNISHED IN THE FOLLOWING SIZES:  
No. 10 BAT AND No. 10, No. 22½ POLLYS

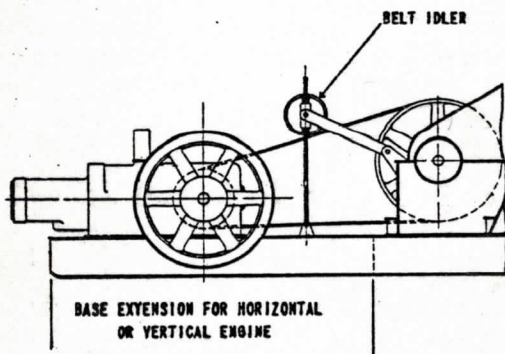
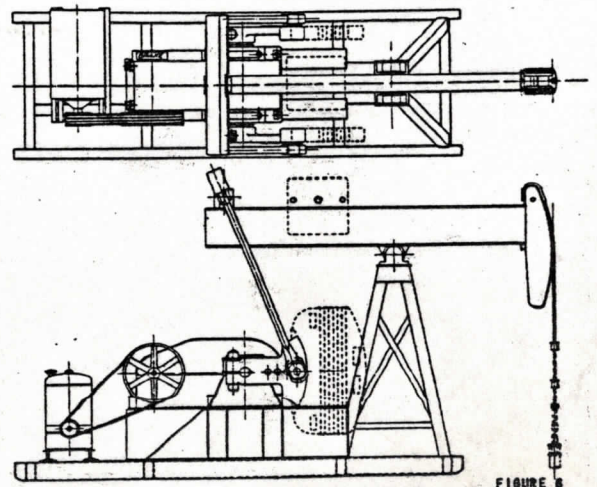


FIGURE 12



THIS STYLE FURNISHED IN THE FOLLOWING SIZES:  
No. 10 GOSLIN, No. 22½ DUCK AND No. 32½ DRAKE