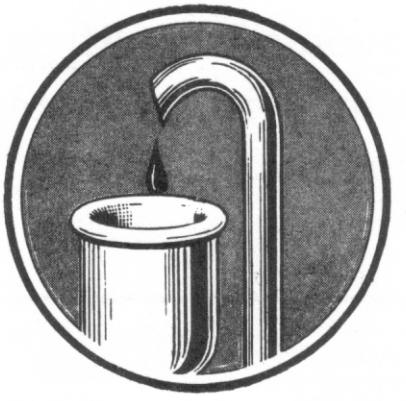
INSTRUCTION BOOK
and
REPAIR PARTS LIST



Model 50

MADISON-KIPP LUBRICATOR

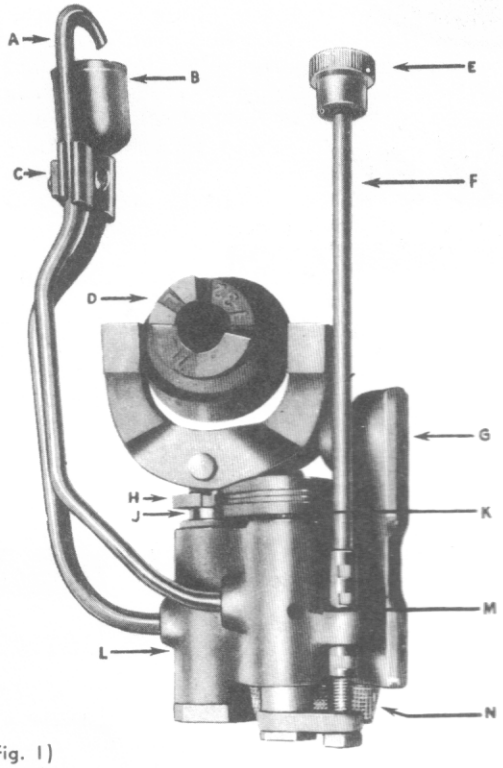
MADISON-KIPP CORPORATION

Madison, Wisconsin, U. S. A.

BULLETIN NO. L-3011 ISSUE FEB. 12, 1957

Model 50 MADISON-KIPP LUBRICATOR

The Model 50 pumping unit illustrated in Figure 1 embodies a mechanical motion so ingenious as to deserve your special attention. The driving eccentric imparts to both forcing and metering plungers a reciprocating movement for pumping and an oscillating movement for valving. The angle of the eccentric ring groove is 27°. When the eccentric makes a complete revolution, the plungers make a total swing of 54°. The reciprocating movement or lift is .212". Oil intake and outlet ports register with grooves in the plungers as they travel their cycle.



(Fig. 1)

A—Sight Feed Tube which shows the amount of oil in drops according to the oil delivery adjustment setting.

B—Sight Feed Oil Cup.

C—Tube Clamps tying the tubes "A" and "B" together.

D—Eccentric to impart the reciprocating and oscillating movement to the plungers (See first paragraph above).

E—Adjusting Button to regulate the amount of oil to be delivered per feed impulse.

F—Adjusting Spindle.

G—Oil Outlet from pumping unit.

H—Gear for oscillating and lifting metering plunger in unison with forcing plunger.

J—Plunger which forces the measured quantities of oil to the feed outlet.

K—Metering Plunger which delivers oil to the sight feed cup.

L—Body of pumping unit.

M—By-Pass Opening—oil not delivered to the sight feed cup is by-passed back to the reservoir.

N—Fine Strainer located at oil inlet of pumping unit.

INSTRUCTIONS *for Attaching, Operating and Care of Madison-Kipp Lubricator* MODEL 50

Madison-Kipp Model 50 Lubricators are built on one standard design, of any required size and number of feed outlets, and are applied universally to all types of steam, oil, and gas engines, steam pumps, air compressors, steam hammers, shovels, dredges and cranes, marine engines, steering engines, drilling engines, agricultural tractors, grain separators, machine tools, and special types of machinery.

The Sight Feed type is built with a visible feed and an individual fine adjustment for each pumping unit. The Blind Feed type is designed for service where fine adjustment and visible feed are not necessary. It can be adjusted, however, by means of employing different lengths on the ratchet arm.

Madison-Kipp Lubricators are built on the Kipp Valveless principle, which permits the pumping and forcing of oil without the use of ball and spring valves.

ATTACHING

Madison-Kipp Lubricators are built for either ratchet or rotary drive, and the location of the lubricator on the machine to be lubricated is dependent on the type of drive selected.

Lubricator should be located so as to be accessible for filling, for vision of the sight feed and oil level gauge glass, for feed regulation and for draining.

Ratchet Drive

If ratchet drive is provided, the lubricator should be placed in a location where a reciprocating motion can be obtained for driving the ratchet lever of the lubricator. This reciprocating motion can be taken, if attached to a steam engine, from the valve gear, locating the lubricator on the top or side of the steam chest. If attachment is made to some other machine not having a reciprocating motion, place a driving stud off center in the end of an exposed rotating shaft so as to provide an eccentric movement.

The various fittings necessary for making the connection between the lubricator and driving point may be supplied with the lubricator. A variety of standard driving devices to be had are illustrated on page 12.

The lubricator should be bolted down, using lock washers to prevent bolts from working loose. Try to avoid offset bends in the driving rod.

The driving arm should be clamped on the lubricator shaft so as to place the driving pawl located inside the lubricator in the center of the space available for the stroke. If possible turn machine over by hand to check stroke and clearance.

The standard lubricator is provided with a 44-tooth ratchet wheel and would require 44 strokes to complete one revolution of the lubricator if connected to engage with one tooth of the ratchet per stroke. The recommended speed varies from four to twenty revolutions per minute, depending on the type and size of machine to be lubricated.

Rotary Drive

Rotary Drive Lubricators should be placed so that the drive pulley of the lubricator is in direct line with some slow speed revolving shaft to which a driving pulley can be attached. The lubricator pulley may revolve in either direction. Avoid the use of a short belt. The recommended speed of the lubricator pulley varies from 150 to 500 R. P. M.

Oil Leads

Lubricators can be furnished with outlet connections for either ¼" O.D. copper or brass tubing, or for ⅛" or ¼" iron pipe. Where many turns and bends are necessary, the copper or brass tubing is preferable. The tubing or pipe should be clean, ends free from burrs and cut to a length which will allow the connections between the lubricator and point to be lubricated to be as direct as possible. Care should be taken when bending tubing to avoid flattening, which would restrict the flow of oil. All joints should be tight, and tubing or pipe should be anchored securely to machine to avoid vibration. Where possible, arrange tubing to prevent exposure to the extreme cold.

Connections and Checks

Terminal connections which may be obtained are for ¼" O.D. Tubing and are of the solderless compression type. In making the joint, let the tubing extend through the ferrule into the connection at least ⅛".

For steam or compressor service, a terminal check valve should always be used. If Valve C-900 is used, it is important that valve be installed in a vertical position, as shown on Page 13, Figure 32. The Arrow formed on the casting indicates the direction of oil flow.

OPERATION AND ADJUSTMENT

Fill the lubricator with **clean** oil and turn hand crank until each of the oil leads are filled with oil. At this time make an inspection of all the connections to see that no leaks occur.

Sight Feed Type

Adjustment or regulation of the quantity of oil to be delivered for each revolution of the unit is accomplished by turning the adjusting button, located on the cover (Part C-880-A). Turning to the right (clockwise) decreases, and to the left (counter-clockwise) increases the amount of oil being forced to the point to be lubricated. Observation can be made through the transparent hood to see the amount delivered by each feed. A very close adjustment may be had. Turning the lubricator by means of the hand crank when making adjustment is recommended. When lubricator is first applied, it is recommended as a safe practice to leave lubricator set for maximum delivery of oil, cutting it down gradually with care if an oversupply is noted at the points to be lubricated. The manufacturer usually attends to this in cases where the lubricator is supplied as standard equipment. His recommendation as to lubricator adjustment, if not given, should be sought.

Blind Feed Type

No adjustment for the pumping unit is provided for in the Blind Feed type. However, adjustment or regulation of the amount of oil being delivered may be had by increasing or decreasing the number of revolutions of the lubricator. On the rotary drive type this is accomplished by changing the pulley diameters. The standard ratchet driven lubricator is provided with a drive arm having four holes at different distances from the center. Usual practice is to connect the driving strap to the third hole from the center, having a stroke sufficient to engage two teeth in the ratchet wheel. Should it be necessary to decrease the feed, change the driving strap to the outer hole in the driving arm, or to increase to a hole nearer the center.

CARE OF LUBRICATOR

The Madison-Kipp pumping unit is made of very accurately machined parts which function coordinately, contains no troublesome check valves and springs and for this reason requires no attention after final feed adjustments have been made, other than the care necessary to keep dirt out of the lubricator.

Field operators, while perhaps not intentionally careless, often make no provision for keeping oil containers, funnels, etc., free from dust and dirt. As foreign matter so collected is likely to find its way into the lubricator tank, it is recommended as standard practice to drain the oil out of the lubricator and clean out the reservoir with kerosene every thirty to ninety days, depending on usage. The following are our suggestions for attention at regular intervals:

Use only clean oil.

Keep the lubricator full of oil.

See that all connections are tight.

See that the oil pipes are supported where excessive vibration is developed.

See that the lubricator is securely bolted down.

Inspect lubricator to see that filler cup strainer has not been removed. This part should be taken out for cleaning purposes only.

Keep the sight feed hood clean.

Cleaning

1. To clean out reservoir or repair lubricator, it is necessary to remove lubricator from the engine by unscrewing the oil tube connections, loosening the driving arm and unscrewing the bolts at the bolting brackets.
2. Remove cover by first unscrewing all cover screws and then lifting the cover off with the aid of a screw driver used as a pry.
3. Remove drain plug and drain oil from lubricator reservoir.

The lubricator can then be thoroughly washed out with kerosene. Do not operate the lubricator any more than necessary while washing and see that all kerosene is removed before filling with fresh oil.

DISASSEMBLING AND ASSEMBLING

If it is desired to disassemble the lubricator for any reason, proceed as follows after removing cover:

1. Drive out the split end taper pin which is driven through the shaft next to the ratchet wheel.
2. You can now remove the shaft as far as desired by pulling the hand crank.
3. Loosen bearings at each end of the reservoir by unscrewing the check nut on the inside of the reservoir.
4. To remove the pumping unit, remove the connector to which the oil pipe was attached and the cap screw below this connector, both of which are located on the outside of the reservoir. With these screws removed and the shaft pulled out beyond the unit to be removed, the pumping unit can be lifted out.

If the plunger is removed from pumping unit, be sure it is replaced in the same barrel from which it was taken, as these parts are ground to an individual selective fit and are not interchangeable.

To assemble, reverse the above operation, and put together, being sure that all screws are tight and check nuts in place.

The eccentric clutch jaws are so designed that they can be assembled only the correct way.

Assemble eccentric and strap so that the part marked "R" is to the right when facing the flat surface of the unit which is applied to the side of the reservoir.

When putting on the cover, it is necessary to see that the flats of the adjusting spindle are all in the same position as the flat depressions in the adjusting buttons. The cover can then be placed on very readily. Do not drive or force cover in place.

Before reattaching lubricator to machine, it would be well to fill the lubricator and check the quantity of oil being delivered, for during the cleaning and repairing operation it is possible that the adjustment was changed. Do this by noting the quantity of oil delivered through the sight feed tubes at one turn of the hand crank.

SHAFT BEARINGS

The shaft bearings are each provided with an adjustable stuffing box gland and check nut. Should a leakage develop at these points, unscrew the gland, put in a length of string packing, and replace gland, being careful to have check nut drawn up tight.

The pumping unit itself requires no packing.

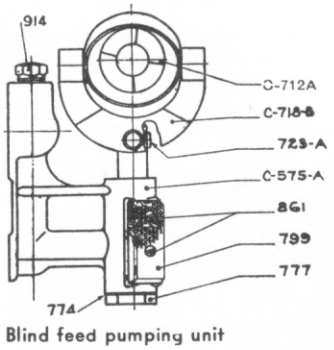
REPLACING GAUGE GLASS

To replace tubular gauge glass, after removing cover as instructed above, unscrew gauge glass plug screw, remove old gauge glass, and replace with new glass and new washers.

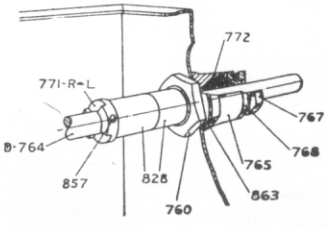
The bull's-eye design of gauge glass can be readily replaced from the outside without removing cover.

STEAM LINE CHECK VALVE

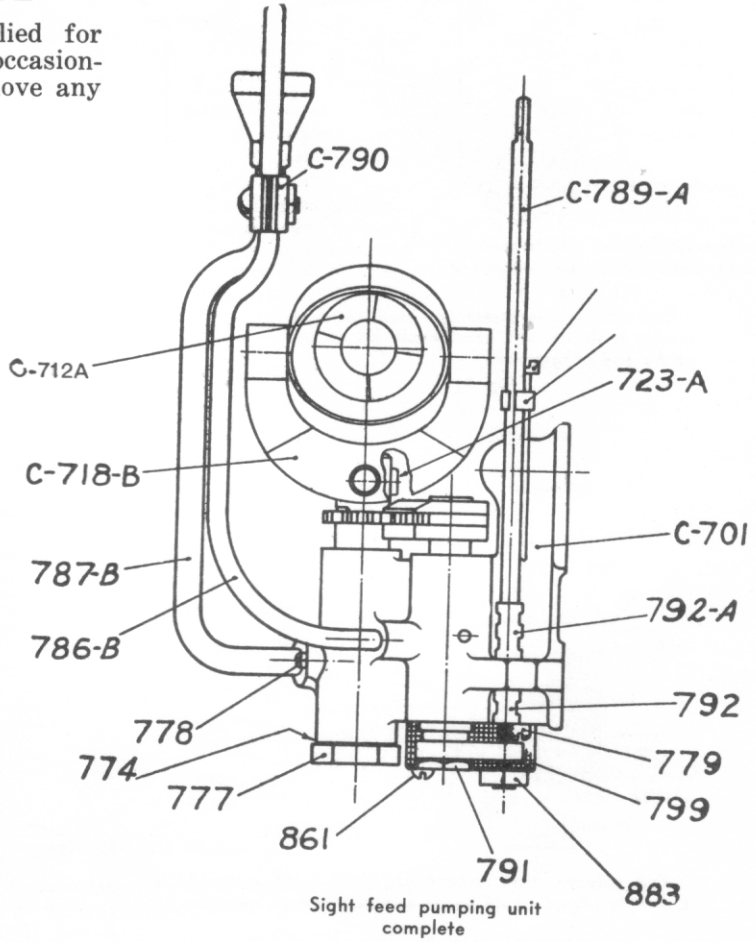
Check valve part No. C-900 supplied for steam service should be disassembled occasionally and cleaned with kerosene to remove any possible accumulations.



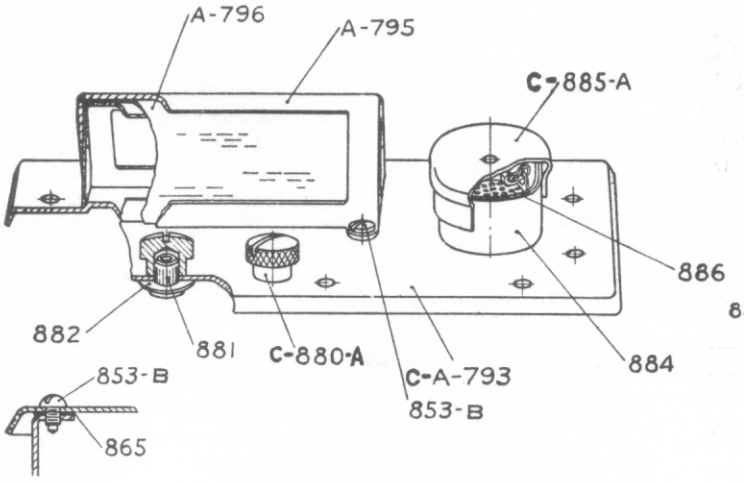
Blind feed pumping unit
(Fig. 4)



Drive end of plain drive assembly.
Right hand assembly as shown.
(Fig. 5)

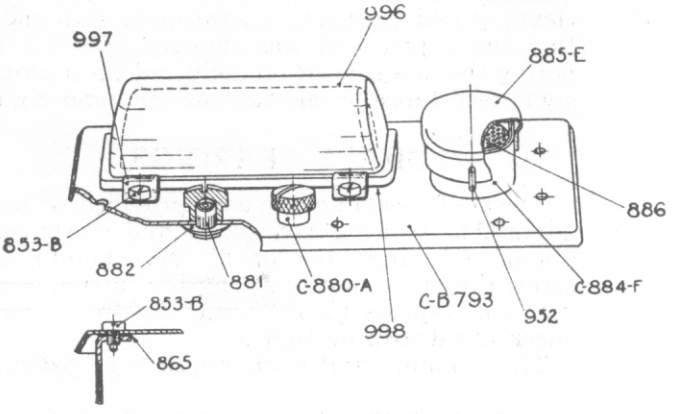


Sight feed pumping unit
complete
(Fig. 3)



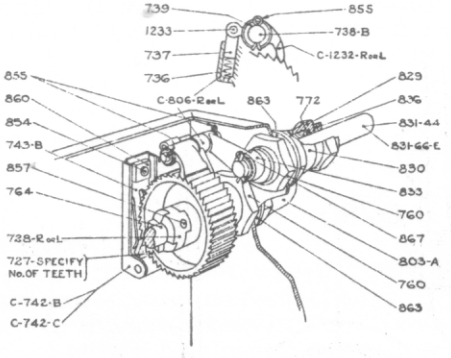
Sight feed lubricator cover, Symbol C—A793. Having metal hood left hand as illustrated.

(Fig. 6)



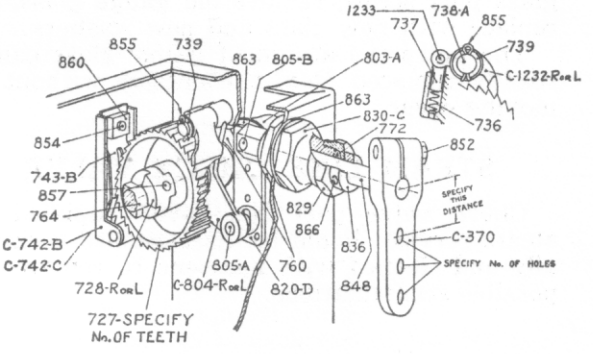
Sight feed lubricator cover. Symbol C—B793. Having glass hood left hand as illustrated.

(Fig. 7)



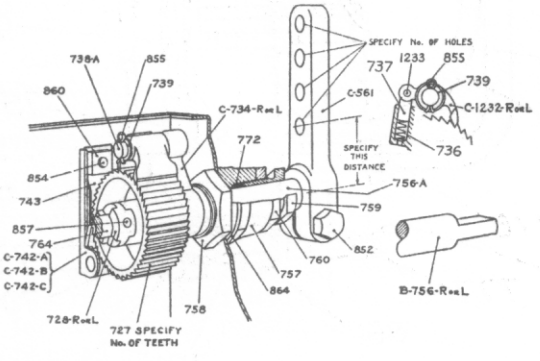
End rotary drive assembly. Right hand assembly is shown, left hand would be on opposite end of reservoir.

(Fig. 8)



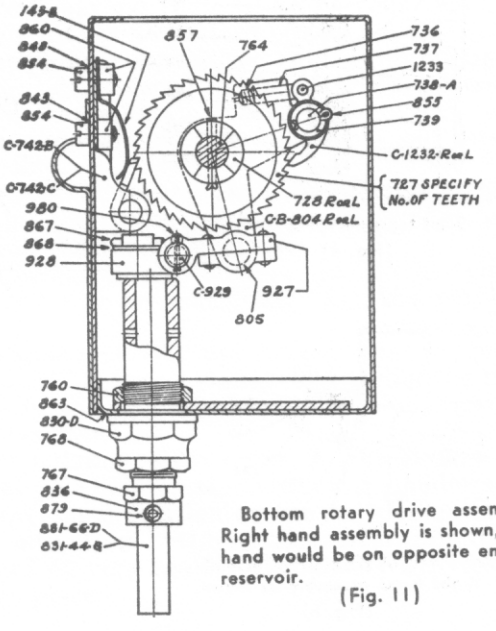
Front side ratchet drive assembly. Right hand assembly is shown, left hand would be on same side at opposite end of reservoir.

(Fig. 9)



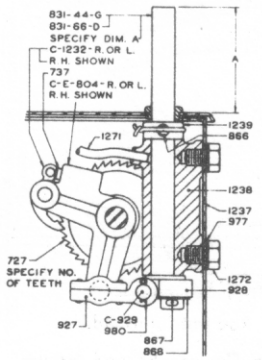
End ratchet drive assembly. Right hand assembly is shown, left hand would be on opposite end of reservoir.

(Fig. 10)



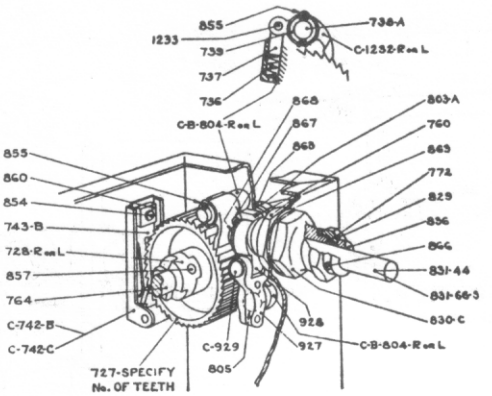
Bottom rotary drive assembly. Right hand assembly is shown, left hand would be on opposite end of reservoir.

(Fig. 11)



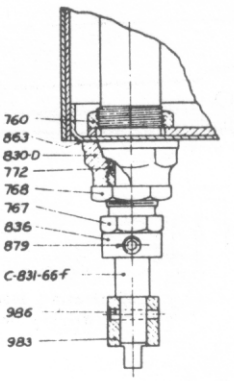
Top rotary drive assembly. Right hand drive as shown.

(Fig. 11A)



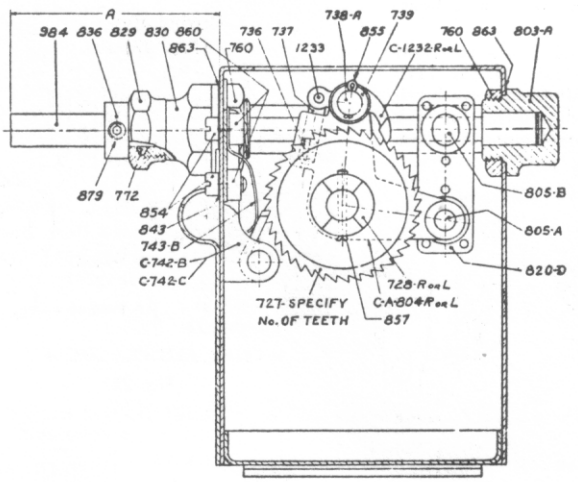
Front side rotary drive assembly. Right hand assembly is shown, left hand would be on same side at opposite end of reservoir.

(Fig. 12)



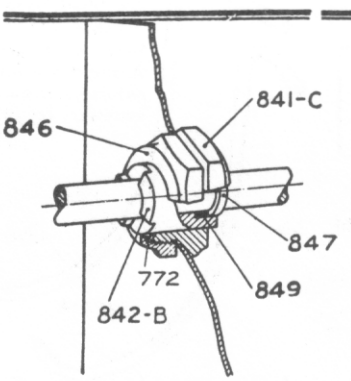
Bottom rotary drive assembly with drive clutch. See Fig. 11.

(Fig. 13)



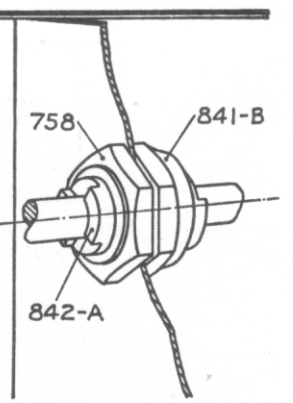
Back side ratchet drive assembly. Right hand assembly is shown, left hand would be on same side at opposite end of reservoir.

(Fig. 14)



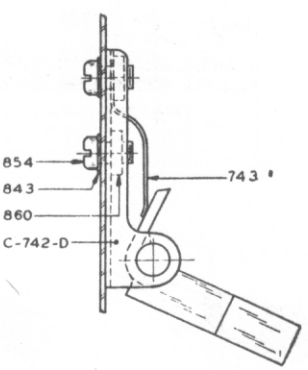
Double Compartment—Intermediate bearing assembly for partitions between compartments using different grades of oil.

(Fig. 15)



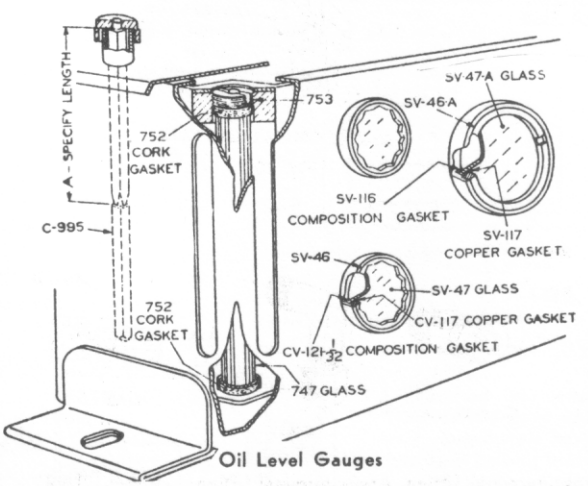
Intermediate bearing assembly for single compartment lubricators.

(Fig. 16)



Weighted retainer pawl assembly.

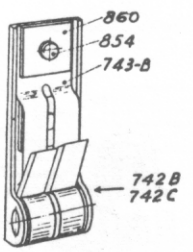
(Fig. 18)



Oil Level Gauges

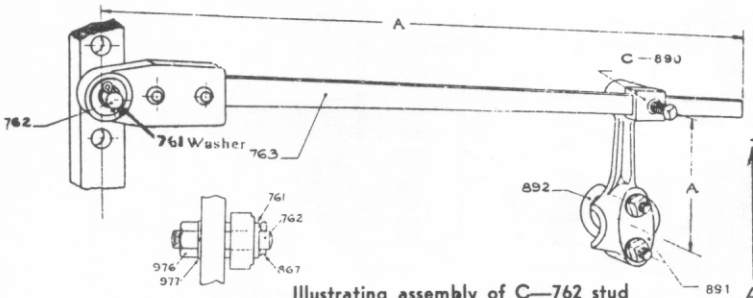
Illustration shows four different designs used on Model 50 Lubricator. When ordering specify symbol numbers of parts required.

(Fig. 19)

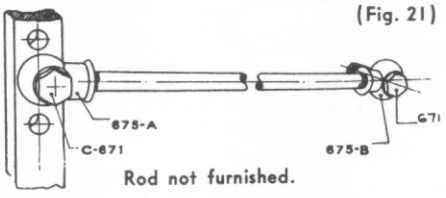


Retainer pawl assembly for double pawl.

(Fig. 20)

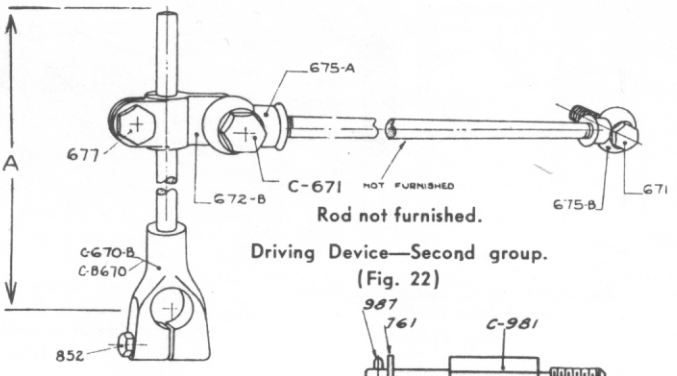


Illustrating assembly of C—762 stud driving device—first group.
(Fig. 21)



Rod not furnished.

Driving device—third group.
(Fig. 23)



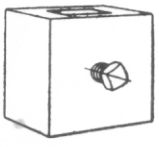
Rod not furnished.

Driving Device—Second group.
(Fig. 22)

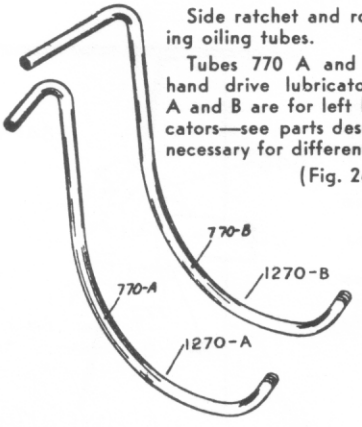
Driving Stud
(Fig. 27)

C-678

Connecting rod clamp
(Fig. 24)

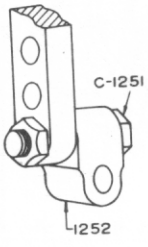


Drive arm weight
(Fig. 25)

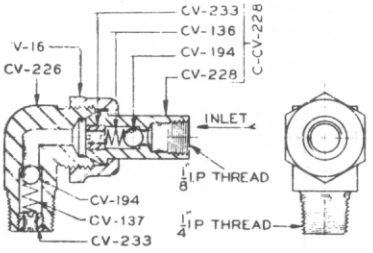


Side ratchet and rotary drive bearing oiling tubes.

Tubes 770 A and B are for right hand drive lubricators. Tubes 1270 A and B are for left hand drive lubricators—see parts description for tube necessary for different types of drives.
(Fig. 26)

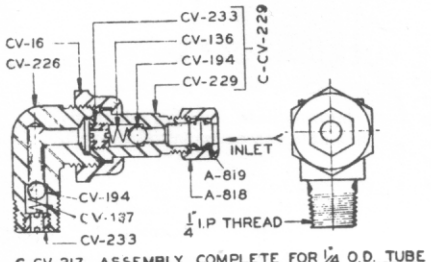


Drive Swivel assembly
(Fig. 27A)



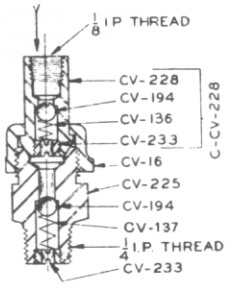
C-CV-216 ASSEMBLY COMPLETE

(Fig. 28)



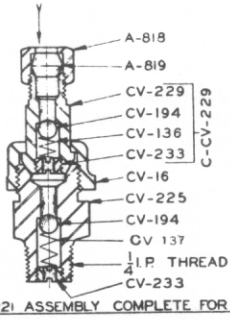
C-CV-217 ASSEMBLY COMPLETE FOR 1/4 O.D. TUBE
C-CV-218 ASSEMBLY COMPLETE FOR 3/16 O.D. TUBE

(Fig. 29)



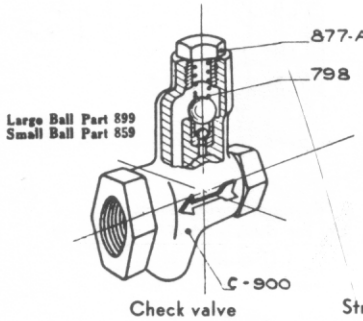
C-CV-220 ASSEMBLY COMPLETE

(Fig. 30)

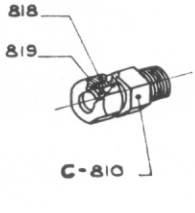


C-CV-221 ASSEMBLY COMPLETE FOR 1/4 O.D. TUBE
C-CV-222 ASSEMBLY COMPLETE FOR 3/16 O.D. TUBE

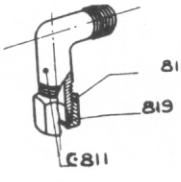
(Fig. 31)



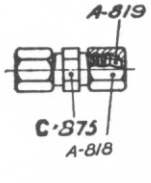
Check valve
(Fig. 32)



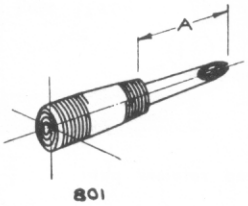
Straight terminal fitting
(Fig. 33)



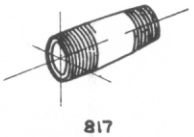
Angle terminal fitting
(Fig. 34)



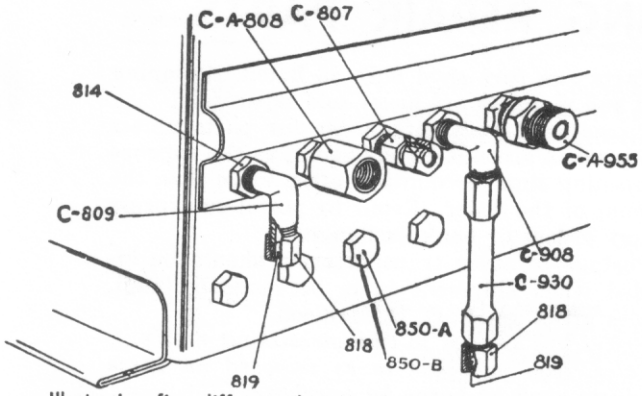
Union fitting
(Fig. 35)



801
Standard quill
(Fig. 36)

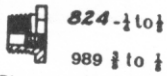


817
Nipple
(Fig. 37)



Illustrating five different designs of lubricator outlet connections. When ordering specify symbol number of part required.

(Fig. 38)

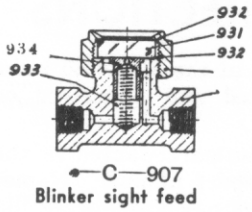


Pipe size bushing
(Fig. 39)

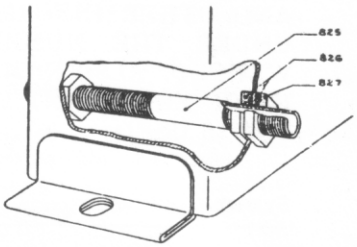
Compression nut
(Fig. 40)

Single cone ferrule
(Fig. 41)

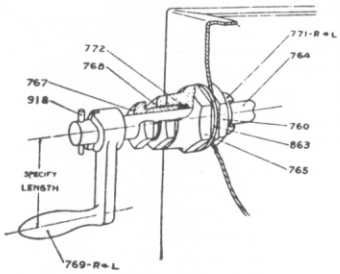
Double cone ferrule
(Fig. 42)



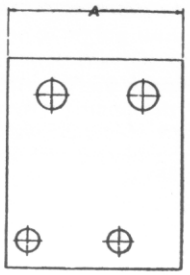
Blinker sight feed
(Fig. 43)



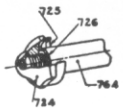
Warming chamber.
(Fig. 44)



Eccentric shaft bearing assembly.
Left hand as illustrated.
(Fig. 45)

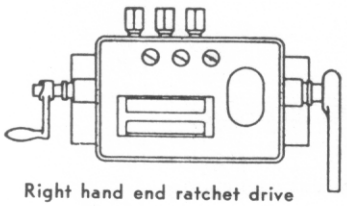


720
Unit gasket
(Fig. 46)

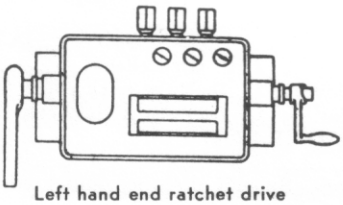


Hand crank shield.
(Fig. 47)

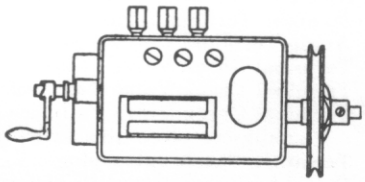
POPULAR DRIVES FOR RIGHT AND LEFT HAND DRIVE LUBRICATORS



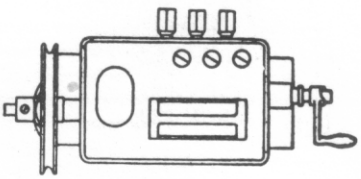
Right hand end ratchet drive



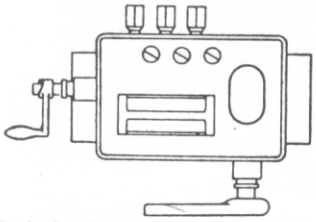
Left hand end ratchet drive



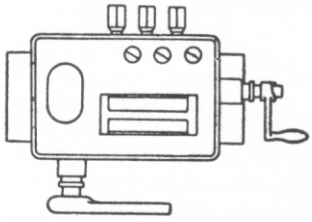
Right hand end rotary drive



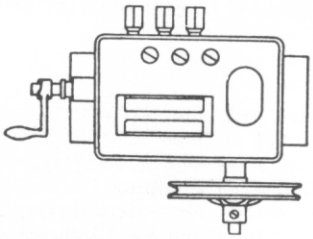
Left hand end rotary drive



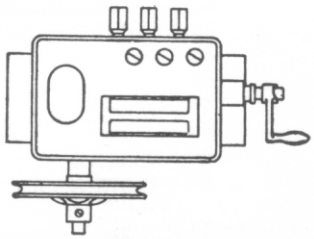
Right hand side ratchet drive



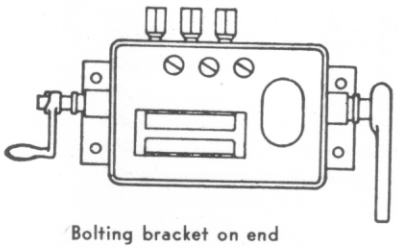
Left hand side ratchet drive



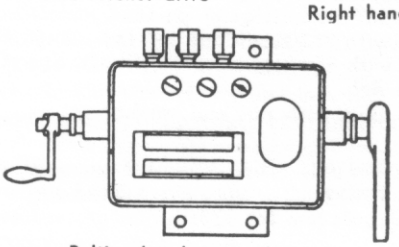
Right hand side rotary drive



Left hand side rotary drive



Bolting bracket on end



Bolting bracket on side

Standard lubricators up to and including twelve feed outlets have bolting brackets on end of reservoir. Lubricators having more than twelve feed outlets have bolting brackets placed on side of reservoir.

(Fig. 48)

DIRECTIONS FOR ORDERING REPAIR PARTS

All parts of the Model 50 Lubricator are clearly illustrated and numbered on the preceding pages.

Locate the part wanted in the illustrations to obtain the part number. Names and prices are given on the pages following illustrations.

BE SURE TO GIVE PART NUMBER, NAME AND OTHER INFORMATION ASKED FOR UNDER THE NUMBER OF THE PART WANTED. ALSO NAME OF MANUFACTURER OF EQUIPMENT ON WHICH LUBRICATOR IS USED.

Parts are furnished only as listed. Pumping unit and plungers are never sold separately.

Please send cash with order for parts unless you have an account on our books, as the expense of opening small accounts is often more than the amount of the order. Remit by postal or express money orders or bank exchange.

Postage to cover transportation should be included when shipment is to be made by mail. Prices given are F. O. B. Madison.

Prices are subject to change without notice.

Sales, use, or other taxes imposed on these products shall be borne by purchaser.

SYMBOL	NAME	PRICE
CV- 16	Union Nut	$ .30
SV- 46	Glass Clamp Screw for SV-47	.35
SV- 46-A	Glass Clamp Screw for SV-47-A	.60
SV- 47	Gauge Glass Disc 1 3/64" Diameter	.20
SV- 47-A	Gauge Glass Disc 1 21/32" Diameter	.40
SV- 47-B	Gauge Glass Disc 1 3/64 Dia. Pyrex Glass	.80
SV-116	Composition Gasket for SV-47-A	.10
SV-117	Copper Gasket for SV-47-A	.15
CV-117	Copper Gasket for SV-47	.10
CV-121 1/32	Composition Gasket for SV-47	.05
CV-136	Check Spring for terminal check valve	.10
CV-137	Check Spring for terminal check valve	.10
CV-194	7/32" Diameter Stainless steel ball	.05
C-CV-216	Angle Terminal Check Valve for 1/8" I. P. Complete (Replaced by C-CV-216A)	3.50
C-CV-217	Angle Terminal Check Valve for 1/4" O. D. Tube Complete (Replaced by C-CV-217A)	3.50
C-CV-218	Angle Terminal Check Valve for 5/16" O. D. Tube Complete (Replaced by C-CV-218A)	3.50
C-CV-220	Straight Terminal Check Valve for 1/8" I. P. Complete	3.00
C-CV-221	Straight Terminal Check Valve for 1/4" O. D. Tube Complete	3.00
C-CV-222	Straight Terminal Check Valve for 5/16" O. D. Tube Complete	3.00
CV-225	Straight Terminal Check Valve Body Only	1.25
CV-226	Angle Terminal Check Valve Body Only (Replaced by CV-226A)	1.50
C-CV-228	Terminal Check Valve Tailpiece for 1/8" I. P. with check	1.20
C-CV-229	Terminal Check Valve Tailpiece for 1/4" O. D. Tube with check	1.15
C-CV-230	Terminal Check Valve Tailpiece for 5/16" O. D. Tube with check (Not illustrated—similar to piece illustrated as C-CV-229)	1.15
CV-233	Terminal Check valve plug	.20
C-370	Drive Arm complete with 852 screw. Specify distance indicated on cut and number of holes	2.40
C-413	Pulley for 1" Flat Belt, complete with set screw.	4" Diameter 6.00 Net 6" Diameter 10.00 Net 8" Diameter 11.25 Net 10" Diameter 12.00 Net
C-561	Drive Arm complete with 852 screw. Specify distance as indicated on cut and number of holes	2.40
C-561-D	Drive Arm weight, complete with set screw	1.20
C-575-A	Blind Feed Pumping Unit complete as illustrated. Plunger and barrel never furnished separately	9.00
CA-588	Cover for Blind Feed Lubricator (Not illustrated) complete with parts 884, 885-E and 886	1 feed 5.25
CD-670	Adjustable Drive Arm with 852 screw for 1/2" Dia. shaft. Specify Dimension "A"	3.00
C-670-D	Adjustable Drive Arm with 852 screw for 3/4" Shaft. Specify Dimension "A"	3.00
671	Adjustable Drive Arm Bolt	.40
C-671	Adjustable Drive Arm Bolt with nut and washer	.60
C-672-B	Sliding Head	2.10
675-A	Adjustable Drive Arm Swivel	.90
675-B	Adjustable Drive Arm Swivel	.90
677	3/8" x 3/4" Hex Head Cap Screw for 672-B	.15

(See directions for ordering repair parts on page 10)

SYMBOL	NAME	PRICE
C-678	Connecting Rod Clamp complete with set screw	2.25
700	Sight and Blind Feed Lubricator Tanks (Not illustrated) See note before ordering:	
	1 and 2 feed sizes	12.00
	3 and 4 feed sizes	13.00
	5 and 6 feed sizes	14.00
	7 and 8 feed sizes	16.00
	9 and 10 feed sizes	18.00
	11 and 12 feed sizes	20.00
	Prices of larger sizes on application. NOTE: When ordering tanks for lubricators, specify whether Sight or Blind Feed and the type of drive as illustrated Figure 48, Page 9, also the number of feed outlets in lubricator, length of tank and location of bolting brackets.	
C-701	Pumping Unit for Sight Feed. Complete as illustrated (Replaced by 701-A)	12.00
C-A-701-R	Pumping Unit same as C-701 except has 770 Drive bearing oiling tube. For right hand drive lubricators	12.50
C-A-701-L	Pumping Unit same as C-701 except has 1270 Drive bearing oiling tube. For left hand drive lubricators	12.50
C-712-A	Eccentric for pumping unit (Replaced by C-712-C)	1.50
713B	Eccentric Thrust Washer (Not Illustrated)	.05
C-718-B	Eccentric Strap Yoke Assembly less C-712 eccentric	1.50
720	Gasket. Specify Dimension "A"	.15
723-A	Eccentric Yoke Knuckle Pin	.05
724	Hand Crank Pin Shield	.20
725	Hand Crank Pin for use with 724	.05
726	5/16" Lock washer for 724 (Replaced by R-70-5/16")	.05
727	Ratchet wheel. Specify number of teeth	1.50
728-R. or L.	Drive Collar. Specify whether lubricator has right or left hand drive. Right hand is illustrated (Replaced by A-728-R & B-728-L)	.50
C-734-R. or L.	Pawl Carrier Arm complete with 756-A and 738-A stud. Right hand is illustrated	1.50
736	Pawl Plunger Spring	.10
737	Pawl Plunger	.15
738-A	Stud. Furnished only with C-734 R. or L. and C-804 R. or L. Pawl carrier arms	
738-B	Stud. Furnished only with C-806 R. or L. Pawl carrier arm	
739	Pawl Stud Washer	.05
C-742-A	Retainer pawl assembly complete with stud and single pawl	1.00
C-742-B	Retainer Pawl Assembly complete with stud and two pawls for 44 and 88 tooth ratchet wheel	1.50
C-742-C	Retainer Pawl Assembly complete with stud and two pawls for 66 tooth ratchet wheel	1.50
C-742-D	Retainer Pawl Assembly with weighted pawl	2.25
743	Spring for single pawl retainer	.10
743-B	Spring for double pawl retainer	.10
747	Tubular Gauge Glass	.35
752	Gasket upper and lower for 747 gauge glass	.05
753	Plug screw for 747 gauge glass	.05
756-A	Drive Shaft, furnished only with C-734 R. or L.	
B-756	Drive Shaft with milled end furnished only with C-734 R. or L. (Specify milled end shaft if required)	
757	Drive Shaft Bearing (Replaced by 757A)	1.30
758	Bearing lock nut	.30
759	Bearing Gland	.25
760	Bearing and Gland Lock Nut	.20
761	Washer for 762 and C-981	.05
C-762	Stud for 763 with nut, washers and cotter key	.60
763	Strap and connection complete. Specify Dimension "A"	1.50
764	Eccentric Shaft. Specify length and if for hand crank shield	1.00
D-764	Eccentric Shaft for plain drive lubricator. Specify length and if for hand crank shield. Illustrated Figure 5	1.00
765	Hand Crank Bearing (Replaced by 765-A)	1.05
766	Spacing Washer 3/4" O. D. x 17/32" I. D. x 1/64" to 1/8" thick. (Not illustrated)	.05
767	Eccentric Shaft Bearing Gland	.25
768	Eccentric Shaft bearing gland lock nut	.15
769-R. or L.	Hand Crank. Specify length of crank and whether for right or left hand drive lubricators	.60
770-A	Drive Bearing Oiling Tube for side ratchet and side rotary drive lubricators. For right hand drive only	.35
770-B	Drive bearing oiling tube for end rotary drive lubricators. For right hand drive only	.35

(See directions for ordering repair parts on page 10)

SYMBOL	NAME	PRICE
771-R. or L.	Spacing Collar. (Replaced by 771C)	.45
771-A	Spacing collar for drive side of partition. Specify whether for right or left hand drive lubricators	.45
771-B	Spacing collar for crank side of partition. Specify whether for right or left hand drive lubricators	.45
772	Stuffing box packing	.05
774	Copper gasket for 777	.05
777	Plug for plunger hole	.15
778	No. 8 x 32 Brass Plug	.05
779	¼" x 32 Brass Plug	.05
786-B	Sight Feed Tube	.30
787-B	Oil Receiving tube complete with cup	.55
C-789-A	Adjusting Spindle with 792, 792-A and 883	.30
C-790	Tube Clamp for single unit, complete with bolt and nut	.10
C-790-A	Tube clamp for binding together more than one unit. Specify how many. Complete with nuts and bolts	.60
791	Plug for adjusting sleeve	.10
792	Adjusting spindle collar (Lower)	.05
792-A	Adjusting spindle collar (Upper)	.05
C-A-793-R. or L. C-B-793-R. or L.	Sight Feed lubricator covers complete as illustrated. Specify whether for right or left hand drive lubricator, length of lubricator tank, if for single or double compartment specify the number of feeds in each compartment. If single compartment of over six feeds specify number of intermediate bearings or number of sight feed hoods and also number of screw holes in cover. NOTE: The covers as illustrated show both old (C-A-793) and new (C-B-793) Covers. These covers are not interchangeable and therefore be sure to specify correct number of cover wanted as well as all information requested.	
	1 and 2 feed sizes	5.50
	3 and 4 feed sizes	6.50
	5 and 6 feed sizes	7.50
	7 and 8 feed sizes	9.00
	9 and 10 feed sizes	10.00
	11 and 12 feed sizes	11.00
	Prices of larger sizes on application	
A-796	Transparency (Old Style). Specify number of feeds covered by each transparency. 1 to 8 feeds	.50
798	Spring for C-900 check valve	.10
799	Oil Strainer for pumping unit	.20
801	Nipple complete with quill. Specify Dimension "A"	1.70
803-A	Blind Bearing (Replaced by 803B)	1.00
C-804-R. or L.	Pawl carrier arm for front side ratchet drive complete with parts 738-A, 805-A, 805-B, 820-D and 848 shaft. Specify whether right or left hand drive. See illustration Fig. 9	3.75
C-A-804-R. or L.	Pawl carrier arm for back side ratchet drive complete with 738-A, 805-A, 805-B, 820-D and 984 shaft. Specify Dimension "A" and whether right or left hand drive. See illustration Fig. 14	4.75
C-B-804-R. or L.	Pawl carrier arm for front side and bottom rotary drive complete with 738-A, 805, 927, 928 and C-929. If side rotary specify whether right or left hand drive. Side rotary illustration Fig. 12. Bottom rotary illustration Fig. 11	7.50
C-D-804-R. or L.	Pawl carrier arm for back side rotary drive complete with 738-A, 805 and link (not illustrated). Specify whether right or left hand drive	7.50
C-E-804-R. or L.	Pawl Carrier Arm for Top Rotary Drive complete with Pawl Stud, 821, 927, 928, and C-929. Fig. 11A. Specify whether right or left hand drive	7.50
805	Furnished only with C-B 804 R. or L.	
805-A	Furnished only with C-804 R. or L. and C-A 804 R. or L.	
805-B	Furnished only with C-804 R. or L. and C-A 804 R. or L.	
C-806-R. or L.	Pawl carrier arm for end belt drive complete with 738-B Stud. Specify if for right or left hand drive (Replaced by C-A-806 R. or L.)	1.65
C-807—¼"	Straight tube connector WITHOUT CHECK complete with 814, 818 and 819 for ¼" O. D. Tube	.50
C-A-807¼	Straight tube connector WITH CHECK complete with 814, 818 and 819 for ¼" O. D. Tube	.85
C-A-808	Straight barrel clamp connector WITH CHECK complete with 814. Specify diameter of female pipe thread	1.25
C-809¼	Angular barrel clamp connector WITHOUT CHECK. Complete with 814, 818 and 819 for ¼" O. D. Tubing	1.00

(See directions for ordering repair parts on page 10)

Symbol	Name	Price
C-A-809¼	Angular barrel clamp connector WITH CHECK. Complete with 814, 818 and 819 for ¼" O. D. Tubing	1.25
C-810	Straight terminal connection WITHOUT CHECK complete with 818 and 819 having ⅛ male pipe thread. Specify diameter of tubing	.70
C-A-810	Straight terminal connection WITH CHECK complete with 818 and 819 having ⅛ male pipe thread. Specify diameter of tubing	1.00
C-811	Angular terminal connection WITHOUT CHECK complete with 818 and 819 having ⅛ male pipe thread. Specify diameter of tubing	.70
C-A-811	Angular terminal connection WITH CHECK complete with 818 and 819 having ⅛ male pipe thread. Specify diameter of tubing	1.00
C-A-813-⅛ IPS	Straight tube connector WITH CHECK. Complete with 814, 818 and 819 for ⅛" I. P. size tubing. (Not illustrated)	1.05
814	Connector check nut	.10
817	Nipple for 900 check valve	.40
818	Cinch nut for single cone ferrule. Specify outside diameter of tubing	.05
A-818	Double cone cinch nut (Replaced by 818)	.05
819	Single cone ferrule. Specify diameter of tubing	.05
A-819	Double cone ferrule. Specify diameter of tubing (Replaced by 819)	.05
820-D	Furnished only with C-804 R. or L. and C-A-804 R. or L.	
824	¼" to ⅛" Standard pipe bushing	.15
825	⅜" Warming pipe	.45
826	⅜" Warming pipe nut	.10
827	⅜" Warming pipe cork washer	.05
828	Spacing collar ⅞" O. D. x ½" I. D. Specify length	.30
829	Stuffing box	.45
830	Bearing for end belt drive (Replaced by SV-30-C)	1.20
830-C	Bearing for side rotary and side ratchet drives (Replaced by 830-H)	1.15
830-D	Bearing for bottom rotary drive	1.75
831-44	Eccentric drive shaft for side and end belt drives, having 44 teeth in ratchet wheel	3.75
831-66-D	Eccentric drive shaft for bottom and top rotary drive, having 66 teeth in ratchet wheel	6.00
831-66-E	Eccentric drive shaft for end rotary drive, having 66 teeth in ratchet wheel	3.75
C-831-66-F	Eccentric drive shaft with 983 clutch, having 66 teeth in ratchet	7.00
831-44-G	Eccentric drive shaft for bottom, top and back side rotary drive, having 44 teeth in ratchet wheel	6.00
831-66-S	Eccentric drive shaft for side rotary drive having 66 teeth in ratchet wheel	3.75
832	¼-32 Thread plug screw for A-810 and A-811 (Not illustrated)	.10
833	Connecting link for end belt drive	.60
C-836	Set collar complete with set screw	.15
840-(F112)	Spring for A-810 and A-8—(Not illustrated)	.05
841-A	Intermediate bearing ½" bore	.90
841-B	Intermediate bearing 15/16" bore (Replaced by 841-D)	1.00
841-C	Partition bearing	.90
842-A	Spacing collar for 841-B intermediate bearing (Replaced by 842-D)	1.05
842-B	Spacing collar for two compartment partition bearing (Replaced by 842-D)	1.05
843	Gasket for 854	.05
C-844	Dish pulley for ⅜" round belt with set screw — 5" Diameter	$7.00 Net
C-845	Pulley for ⅜" round belt with set screw — 3" Diameter	3.25 Net
	4" Diameter	4.75 Net
	5" Diameter	5.50 Net
	6" Diameter	5.50 Net
	7" Diameter	6.00 Net
846	Nut for 841-C	1.05
847	Packing ring	.20
848	Eccentric driving shaft. Furnished only with 804 R. or L. for side ratchet drive	
849	Bearing packing	.05
850-A	5/16-18 x ⅜" Hex head cap screw	.05
850-B	5/16"-18 x 7/16" Hex head cap screw	.05
852	⅜ x 1⅜" Hex head cap screw	.10
853-B	Cover screw 3/16" Diameter	.05
854	¼ x ⅜ Round head cap screw	.05
855	3/32 x ½" Spring cotter (Replaced by R-90-3/32" x ½")	.05
857	No. 1 x 1¼" Split end taper pin	.10

(See directions for ordering repair parts on page 10)

SYMBOL	NAME	PRICE
858	No. 1 x ¾" taper pin (Not illustrated) (Replaced by R-85-No. 1 x ¾")	.05
859	3/16" Steel ball for A-807, A-809 and C-900	.05
860	¼-20 Standard square nut (Replaced by R-53-¼"-20)	.05
861	Screw for 799	.05
863	1-1/16" I. D. Composition gasket	.05
864	1-5/16" I. D. Composition gasket	.05
865-1	Feed Cover Gasket	.30
865-2	Feed Cover Gasket	.40
865-3	Feed Cover Gasket	.45
865-4	Feed Cover Gasket	.45
866	¼-20 Headless set screw	.05
867	⅛ x ¾" Spring cotter (Replaced by R-90-⅛" x ¾")	.05
868	¾" O. D. x ½" I. D. x 1/32" thick washer (Replaced by 766-1/32")	.05
C-A-874⅛ IPS	Terminal connector for ⅛ I. P. S. tubing, complete with cinch nut, ferrule and 814 nut. Body has ⅛" male pipe thread (Not illustrated)	1.25
C-875	Cinch union, complete as illustrated. Specify diameter of tubing	.60
877-A	Plug for C-900	.15
879	¼-20 Hollow head set screw (Replaced by R-5-¼"-20 x ¼")	.15
C-880-A	Adjusting spindle head, complete with 881 and 882 (Replaced by C-880-C)	.30
883	3/16"-32 nut for 789	.05
884	Oval filler cup	.40
C-884-F	Oval filler cup complete with 885-E and 952	.75
884-H	Round filler cup (Not illustrated)	.75
C-885-A	Filler cup cover complete with chain	.30
885-E	Oval filler cup cover	.20
885-F	Round filler cup plug (Not illustrated)	1.15
886	Oval filler cup strainer	.10
C-890	Swivel complete with washer, cotter and set screw	1.10
C-891	Attachment arm. Specify dimension "A" complete with C-892	2.20
C-892	U Bolt with nuts	.30
893	Instruction plate. Specify size of lubricator, whether right or left hand drive and the kind and size also serial number and the name of the manufacturer of the engine on which the lubricator is used. If possible send in old plates as samples. Price on application.	
899	5/16" Steel ball for C-900 valve	.05
C-900	Check valve, ¼ I. P. inlet x ⅜ I. P. outlet, complete as illustrated	3.00
C-A-900	Check valve, ⅛" I. P. S. both ends, complete	3.00
C-B-900	Check valve, ¼" I. P. both ends, complete	3.00
C-907	Blinker Sight feed, ⅛ I. P. thread, complete as illustrated Net	5.00
C-908	Angle barrel clamp connection complete with 814. Having ⅛" male pipe thread both ends	.75
914	⅛" I. P. Plug	.10
918	No. 1 x 1" Taper pin (Replaced by R-85-No. 1 x 1")	.05
C-927	Hinge Link with cap and rivets (Lower half)	2.70
928	Hinge Link (Upper half)	2.85
C-929	Hinge Link Pin, complete with spring cotters	1.00
C-930	Extension adapter complete with 818 and 819	1.30
931	Blinker Sight feed glass, ⅞ Dia. x ¼ thick	.60
932	Blinker sight feed gasket, ⅞ O. D. x ⅝ I. D. x 1/32 thick	.10
933	Plunger spring for blinker	.30
934	Sight feed blinker plunger	.75
952	Filler cup hinge ring	.05
C-A-955⅜	Straight barrel clamp connection ⅜" I. P. male thread complete with 814	2.30
976	⅜" Standard nut (Replaced by R-50-⅜")	.05
977	⅜" lock washer (Replaced by R-70-⅜")	.05
980	1/16" x ½" Cotter pin (Replaced by R-90-1/16" x ½")	.05
C-981	Drive stud with 761 and spring cotter No. 987	1.65
983	Clutch for bottom drive	1.50
984	Back side ratchet drive shaft. Furnished only with C-A-804 R. or L.	
986	No. 00 x ¾ Taper pin (Replaced by R-85-00 x ¾")	.05
987	Spring cotter (Replaced by R-90-3/32" x 1")	.05
989	⅜ to ⅛ Standard Pipe Bushing	.20
C-995	Oil Dagger gauge. Specify dimension "A"	1.20

(See directions for ordering repair parts on page 10)

SYMBOL	NAME		PRICE
996	Glass Hood	1...feed size	.60
		2...feed size	.75
		3...feed size	.75
		4...feed size	.90
		5...feed size	1.05
		6...feed size	1.25
		7...feed size	1.50
		8...feed size	1.75
997	Glass hood clamp		.10
998	Glass hood gasket	1...feed size	.15
		2...feed size	.20
		3...feed size	.20
		4...feed size	.20
		5...feed size	.20
		6...feed size	.25
		7...feed size	.25
		8...feed size	.25
1001	10 x 24 x ½ Long Rd. Hd. Screw (Replaced by R-20-No. 10-24 x ½")		.05
1002	10 x 24 Sq. Nut (Replaced by R-53-No. 10 x 24)		.05
1014	Eccentric Retainer Ring (Not Illustrated)		.10
C-1232-R. or L.	Drive pawl with stud for right or left hand drive. Specify which		1.35
1233	Pawl wing stud. Furnished only with C-1232 R. or L.		
1237	Gasket		.10
1238	Top Rotary Drive Bearing		9.00
1239	Set Collar		
C-1251	Drive Arm Bolt		.60
1252	Drive Arm Swivel		2.50
1270-A	Drive bearing oiling tube for side ratchet and side rotary drive lubricators. For left hand drive only		.35
1270-B	Drive bearing oiling tube for end rotary drive lubricators. For left hand drive only		.35
1271	Oiling Tube		.35
1272	⅜ x ½ Hex. Hd. Cap Screw (Replaced by R-10-⅜" x ½")		.10

(See directions for ordering repair parts on page 10)