

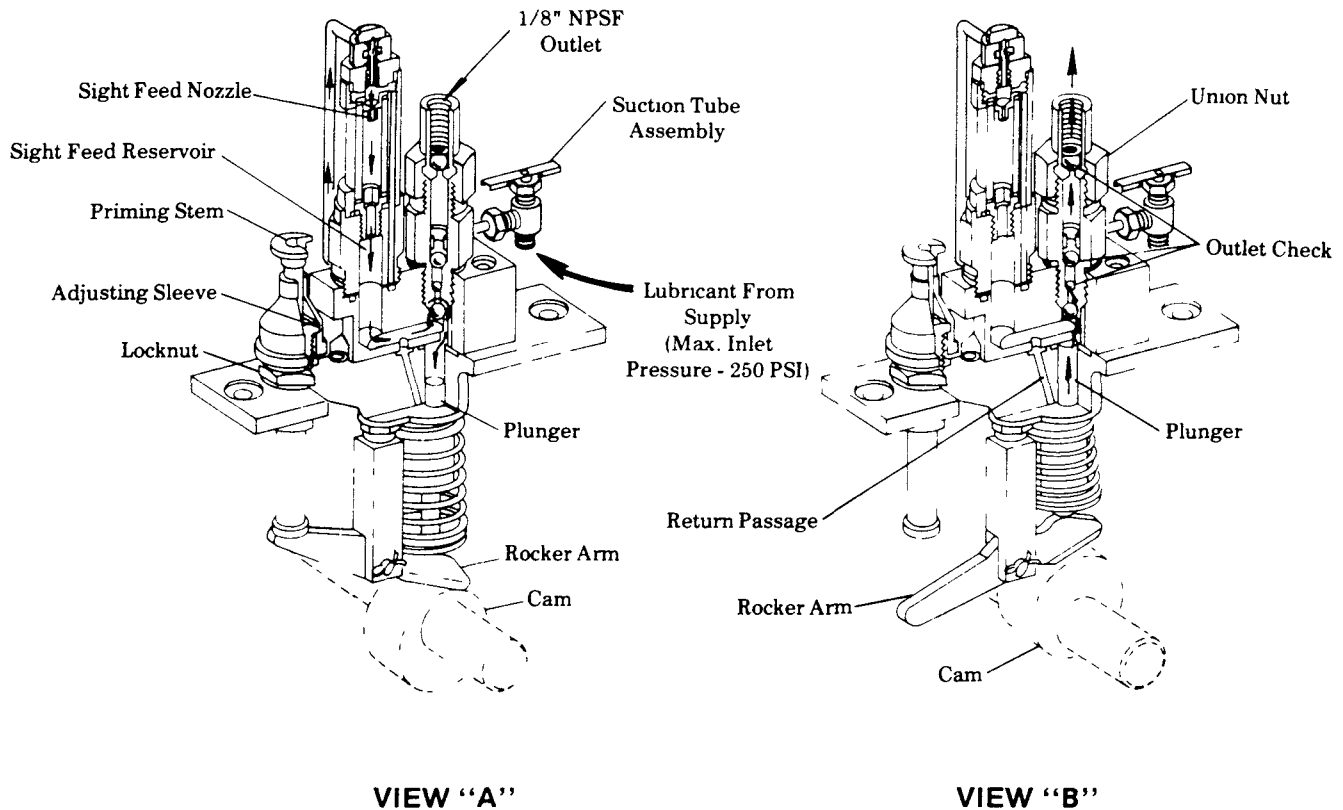
# MODEL 55 PUMP SUCTION TYPE

FOR PETROLEUM BASE OR  
SYNTHETIC LUBRICANTS



Models 880087, 880402  
880403, 880464

Series "E"



## OPERATION

The cam rotates and through the action of the rocker arm, causes the plunger to reciprocate within its bore in the pump body.

The pump stroke, and thus its output, can be changed by varying the adjusting sleeve position. Maximum output is obtained when the adjusting sleeve is fully extended from the pump body

## SUCTION STROKE; VIEW "A"

As the plunger moves downward, oil is drawn through the suction check and into the plunger bore from the small reservoir in the sight-feed base. Reducing the volume of oil in the sight-feed reservoir creates a vacuum which draws oil from the lubricant supply source, through the suction tube and into the passage in the sight-feed glass. Some quantity of oil will then enter the sight-feed nozzle and drip into the reservoir below. The quantity of lubricant can be determined by counting the drops as they fall

## DISCHARGE STROKE; VIEW "B"

As the plunger moves upward, oil is forced from the plunger bore through the outlet checks and into the bearing feedline

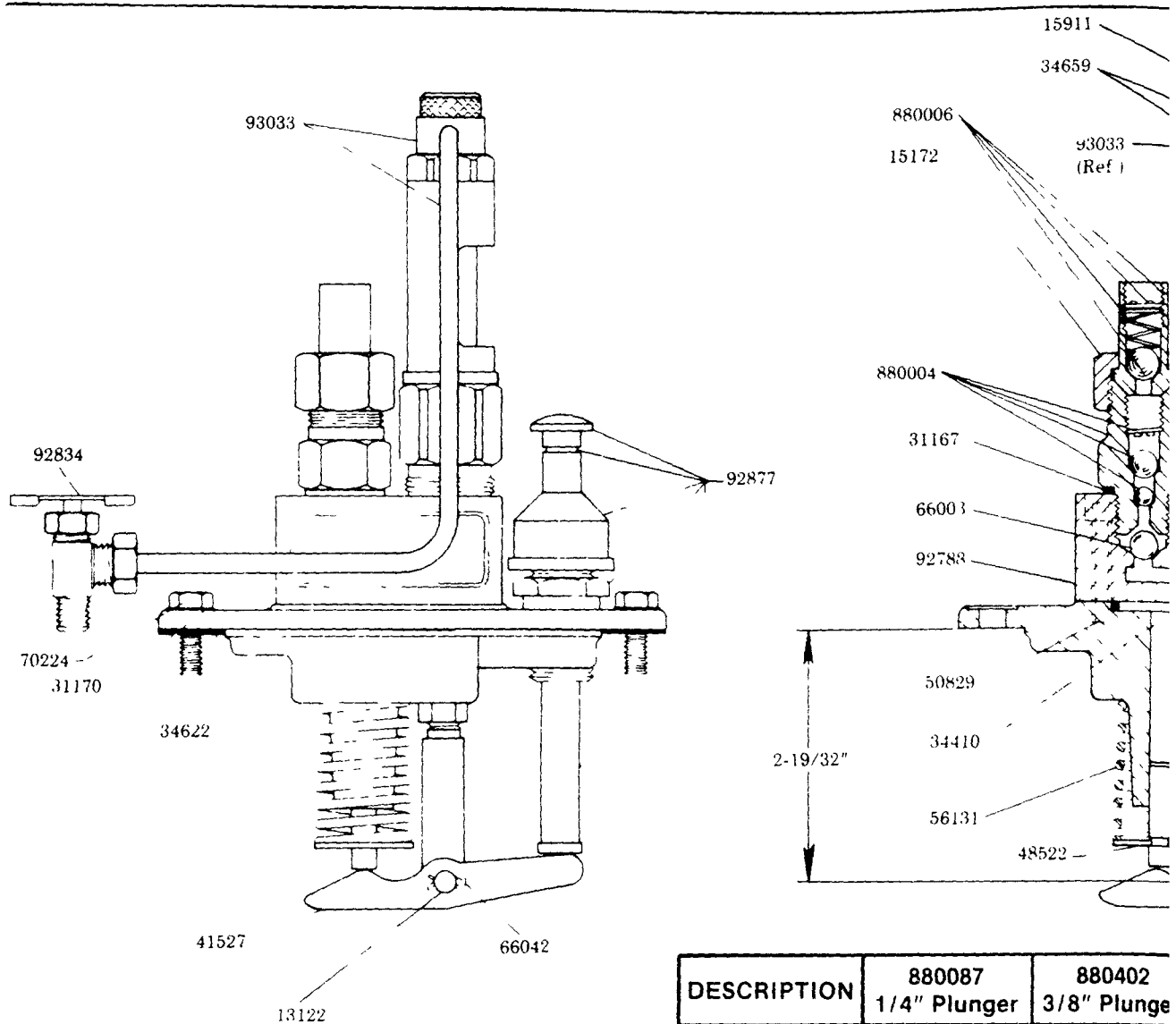
The suction check prevents backflow into the sight-feed assembly and allows residual vacuum to draw any oil which by-passes the plunger back into the sight-feed reservoir through the return passage

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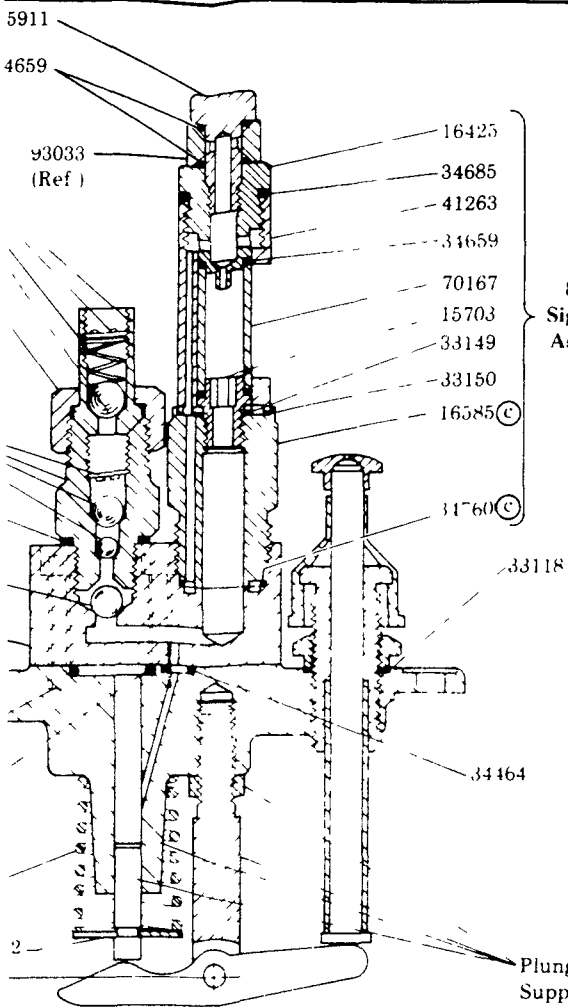
DESCRIPTION	880087 1/4" Plunger	880402 3/8" Plunge
Plunger Body & Support Assembly	93036	93017
Sight Feed Assembly	880365	880365

## STARTING INSTRUCTIONS

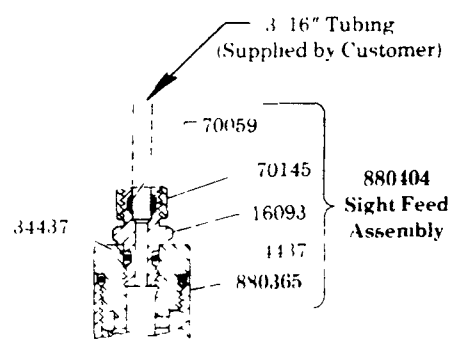
- 1) Connect the supply line (either gravity supply, pressurized supply, or pump suction from supply source) to lubricant inlet tube.
- 2) Manually operate the pump with the priming stem until oil, without air bubbles, flows from the pump outlet.
- 3) Connect the feedline to the pump outlet union and manually operate the pump with the priming stem until the feedline is filled.
- 4) Connect the feedline to the bearing point. A feedline check valve at the bearing point is recommended and is available as an accessory item.
- 5) Adjust the pump to the desired output.

## SETTING PUMP OUTPUT

Count the number of drops falling through the sight-feed glass in one minute. Set the adjusting sleeve to obtain the desired quantity and secure the setting with the locknut. Conversion factors: 1 drop = .002 cu. in.  
500 drops = 1 cu. in.



880365  
Sight Feed  
Assembly



880404  
Sight Feed  
Assembly

**Models 880403 & 880464**

(do not use 15911 Plug, 34659 O-ring,  
92834 Shut Off Valve & 93033  
Suction Tube & Collar Assembly)

Plunger Body &  
Support Assembly

**SERVICE PARTS**

PART	QUAN.	DESCRIPTION
13122	1	Head pin
15172	1	Coupling nut
15703	1	Gauge glass screw
15911	1	Plug
16093	1	Adapter
16425	1	Cap
16585	1	Extension
31167	1	Gasket
31170	2	Washer
33118	1	Washer
33149	1	Gasket
33150	1	Gasket
34410	1	O-ring
34437	1	O-ring
34464	1	O-ring
34622	1	Gasket
34659	4	O-ring
34685	1	O-ring
34760	1	Gasket
41263	1	Body
41527	1	Rocker arm
48522	1	Spring retainer
50829	4	Socket head screw
56131	1	Spring
66003	1	Check ball
66042	1	Cotter pin
70059	1	Sleeve
70145	1	Nut
70167	1	Gauge glass
70224	2	Screw
92788	1	Sight-feed block
92834	1	Shut off valve
92877	1	Flushing unit assembly
93033	1	Suction tube & collar assembly
880004	1	Connector assembly
880006	1	Sleeve assembly

880402 1/8" Plunger	880403 1/4" Plunger	880464 3/8" Plunger
93017	93036	93017
880365	880404	880404

(C) Indicates change

**AIRLOCK**

Airlocking occurs when air, instead of oil enters the plunger bore and can't be compressed to a high enough pressure to be forced out of the pump against the feedline backpressure

Airlocking can be caused by entrained air being separated from the oil by the vacuum in the sight-feed or by air entering the pump when the oil level is low (gravity supply), oil pressure drops or oil level is low (pressurized supply); or sufficient suction from pump cannot be obtained to draw oil from supply or oil level is low in supply (pump suction) An airlock can be easily detected since, when it occurs no oil will be visible in the sight-feed

An airlock can be eliminated by refilling the lubricant supply, readjusting pressure from pressure supply source, or by relocating lubricant supply to provide sufficient suction from pump Air must be removed from system by loosening the feedline union at pump outlet and manually operating the pump with the priming stem until no air bubbles appear at pump outlet

**OVERFILL**

Overfilling is caused by the oil absorbing the air in the sight-feed as it passes through the pump.

This condition doesn't affect the operation of the pump except that the oil can't be observed coming out the sight-feed nozzle due to the sight-feed glass being filled with oil

Normal sight-feed operation can be restored by momentarily loosening the nozzle plug assembly at the top of the sight-feed to break the vacuum within the sight-feed Do not leave the nozzle plug open for very long as this will allow air to enter supply tube and may later cause an airlock