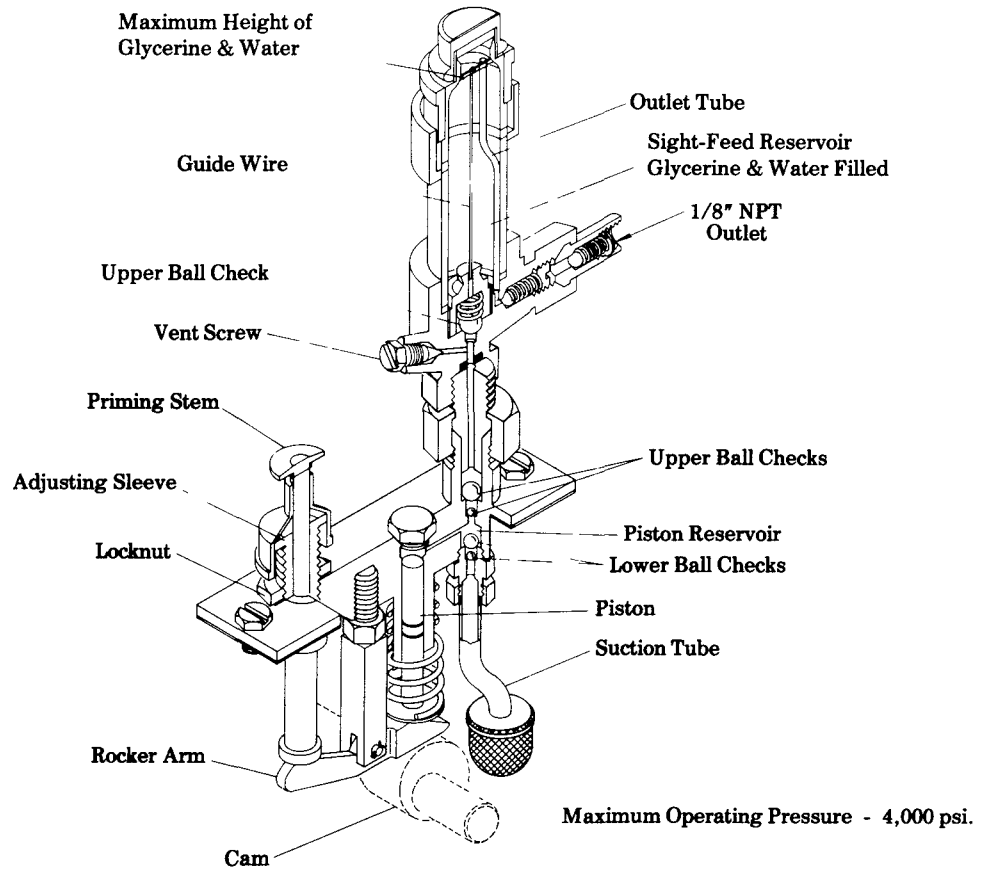


# MODEL S-F PUMP

FOR PETROLEUM BASE OR  
SYNTHETIC LUBRICANTS



Models 880030  
880031  
Series "A"



## OPERATION

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

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

As the piston moves downward, the upper ball checks seat and oil is drawn through the lower ball checks into the piston reservoir.

## DISCHARGE STROKE

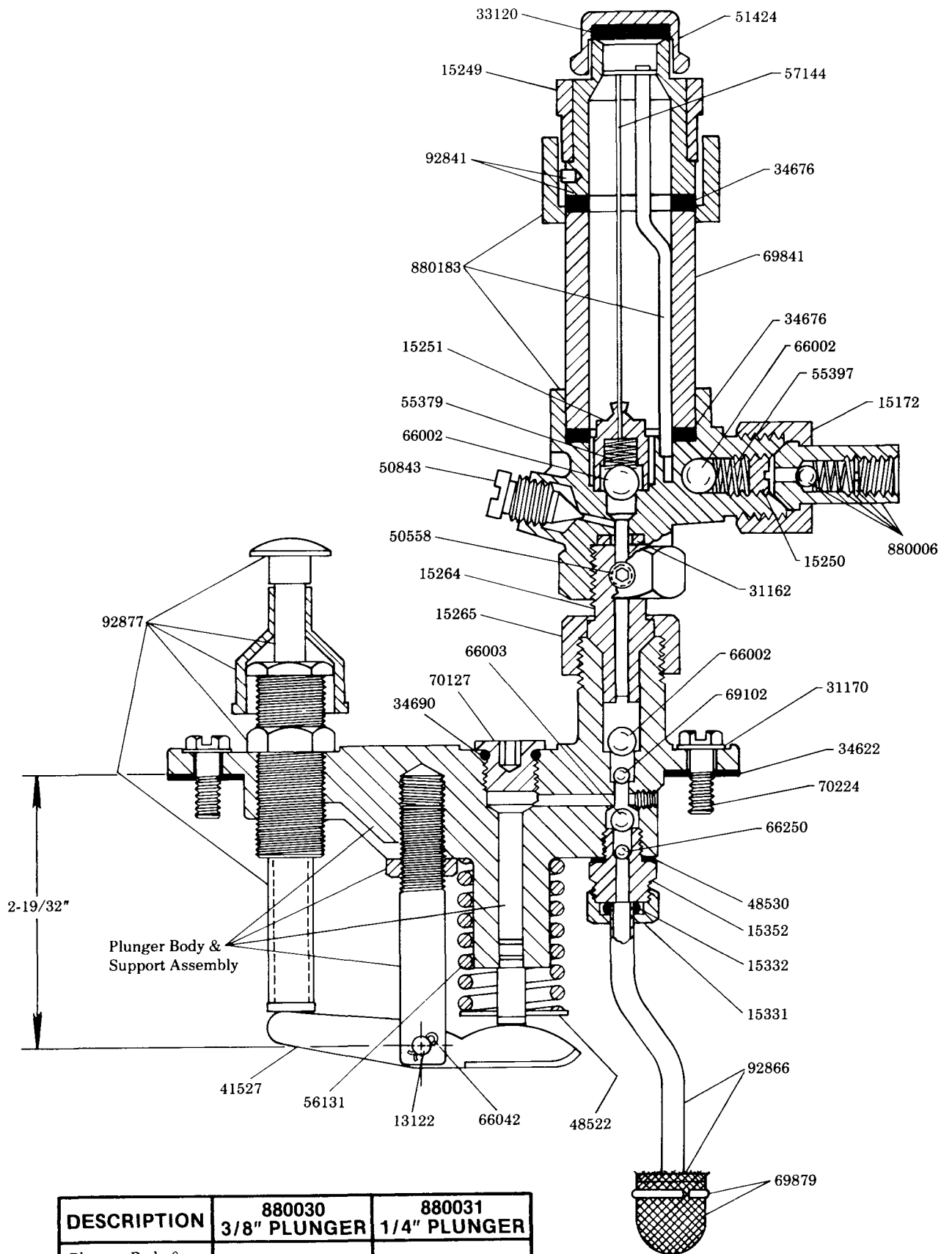
On the piston's upward stroke, the lower ball checks seat and oil is forced past the upper ball checks. The oil, in droplets, follows the guide wire upward through the heavier glycerine-water mixture contained in the sight-feed reservoir. As the sight-feed reservoir becomes filled to capacity, oil is forced through the outlet tube into the bearing feedline.

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DESCRIPTION	880030 3/8" PLUNGER	880031 1/4" PLUNGER
Plunger Body & Support Assembly	93061	93062

## STARTING INSTRUCTIONS

- 1) Loosen the vent screw and manually operate the pump with the priming stem until oil, without air bubbles, is expelled through vent opening. Tighten vent screw.
- 2) Again manually operate the pump with the priming stem until oil, without glycerine or water, 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) Refill the lubricator reservoir and adjust the pump output.

## SETTING PUMP OUTPUT

Count the number of drops following the guide wire 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.

## AIRLOCK

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

Airlocking is caused by air entering the pump when the oil level in the lubricator reservoir is lower than the suction tube inlet. 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 lubricator reservoir, loosening the feedline union at the pump outlet, and manually operating the pump with the priming stem until no glycerine-water mixture appears at the pump outlet.

## CLEANING

To clean the pump, it is not necessary to remove the pump from the lubricator or disconnect the feedline. Remove cap nut, connector nut, liquid sight-feed connector assembly and top half of sight-feed body with tube assembly from pump. Glass and rubber gaskets can be lifted out and cleaned in mineral spirits. Replace and refill with 50-50 mixture of glycerine and distilled water.

## DETERGENT OILS

Some types of detergent oils react unfavorably with the glycerine-water mixture, particularly those that are compounded with a dye that is soluble in the mixture. A small bobber is available for use with these types of oils. The bobber fits into the standard sight-feed and shows oil movement even when the pump is at a low flow rate.

When using the bobber indicator, no glycerine-water mixture is employed in the sight-feed. A pin on the end of the bobber fits into the nozzle opening. Oil movement causes the bobber to rise and fall with each pump plunger stroke.

Part numbers for bobbars are as follows: 92816 Brass Bobber for handling lubrication oils.  
92895 Aluminum Bobber for handling light fuel oils, etc.

## SERVICE PARTS

PART	QUAN.	DESCRIPTION	PART	QUAN.	DESCRIPTION
13122	1	Pin	50843	1	Vent screw
15172	1	Coupling nut	51424	1	Cap nut
15249	1	Connector nut	55379	1	Spring
15250	1	Valve stop	55397	1	Spring
15251	1	Nozzle	56131	1	Spring
15264	1	Union sleeve	57144	1	Guide wire
15265	1	Union nut	66002	3	Ball
15331	1	Nut	66003	1	Ball
15332	1	Sleeve	66042	1	Cotter pin
15352	1	Valve seat	66250	1	Ball
31170	2	Washer	69102	1	Ball
31162	1	Gasket	69841	1	Gauge glass
33120	1	Plug	69879	1	Strainer assembly
34622	1	Gasket	70127	1	Plug
34676	2	Dust seal	70224	2	Screw
34690	1	O-ring	92841	1	Liquid sight-feed connector assembly
41527	1	Rocker arm	92866	1	Suction tube assembly
48522	1	Spring retainer	92877	1	Flushing unit
48530	1	Washer	880006	1	Sleeve assembly
50558	1	Set screw	880183	1	Sight-feed body & tube assembly