



SIMPLIFIED FIELD SERVICE

FOR A-70 SINGLE STAGE AND B-82 TWO STAGE FUEL UNITS

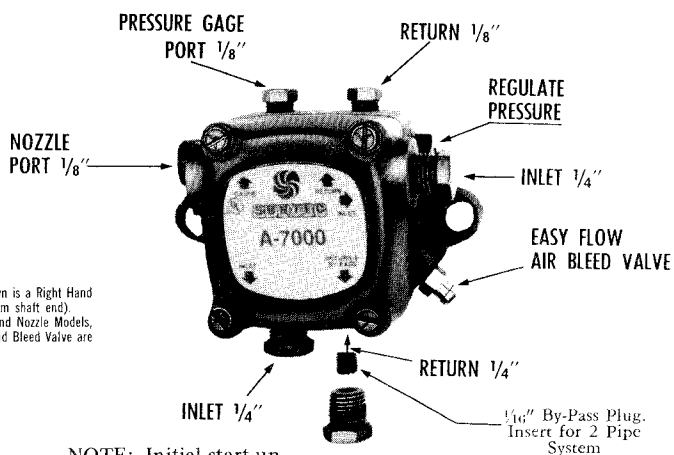
Model A-70 Single-Stage Pump

Model A-70 is recommended for single-pipe or two-pipe installations, either lift or gravity feed. On gravity feed installations the inlet pressure is not to exceed 10 p.s.i. On one pipe lift installations, the lift is not to exceed 8 feet. It may be mounted in any position. (See installation information form No. 440100 for specifications.)

Model B-82 Two-Stage Pump

The Model B-82 is recommended for two-pipe lift installations where the inlet vacuum does not exceed 15" Hg. vacuum. It may be mounted in all positions except upside down, ($\frac{1}{8}$ " ports pointed down.) The porting arrangement of the B-82 Two-Stage Pump is the same as on the Model A-70 Single-Stage Pump. (See Figure 1.)

Note:—Model shown is a Right Hand Nozzle (From shaft end). On Left Hand Nozzle Models, all Ports and Bleed Valve are reversed.



NOTE: Initial start-up prime fuel unit with lubricating oil.

FIG. 1

CAUTION: Do not insert By-Pass Plug if Single Pipe

Air Bleed Procedure with Easy Flow Air Bleed Valve

ONE-PIPE SYSTEM

Start burner: Arrange primary burner control for continuous pump operation during purging operation. Loosen Easy Flow Air Bleed Valve CCW just $\frac{1}{2}$ turn for fast purging.

For clean bleed in restricted spaces, an easily attached hose may be used to direct bleed oil into a container. A $\frac{1}{4}$ " ID hose may be slipped over end of valve, or bleeding may be direct into a container.

BLEED FUEL UNIT FOR 15 SECONDS AFTER LAST AIR BUBBLE IS SEEN—HURRIED BLEEDING WILL IMPAIR EFFICIENT OPERATION OF UNIT.

To stop bleeding, turn Easy Flow Air Bleed Valve CW until tight.

Long or oversized inlet lines will take longer to bleed, therefore prime the fuel unit.

In such cases, the priming may be assisted by injecting fuel oil into the pump gear set through the cover inlet port.

TWO-PIPE SYSTEM

Air bleeding is automatic. Opening Easy Flow Air Bleed Valve will allow a faster bleed if desired.

Routine Performance Check

Even though the operation of the pump is satisfactory, a routine check of the line filter and the pump strainer may save time and effort.

Remove the pump cover and clean the strainer using a brush and clean fuel oil or kerosene. Replace or clean the cartridge in the line filter if necessary.

A vacuum check of the entire system should be a part of a routine check.

TROUBLE SHOOTING GUIDE

	Cause	Remedy
NO OIL FLOW AT NOZZLE	Oil level below intake line in supply tank.....	Fill tank with oil.
	Clogged strainer or filter.....	Remove and clean strainer. Replace filter element.
	Clogged nozzle.....	Replace nozzle.
	Air leak in intake line.....	Tighten all fittings in intake line. Tighten unused intake port plug. Check filter cover and gasket.
	Restricted intake line..... (High vacuum reading)	Replace any kinked tubing and check any valves in intake line. Check Form 440100 for line sizes.
	A two-pipe system that becomes airbound.....	Check for and insert by-pass plug. Make sure return line is below oil level in tank.
	A single-pipe system that becomes airbound.....	Loosen gage port plug or easy flow valve and bleed oil for 15 seconds after foam is gone in bleed hose. Check intake line fittings for tightness. Check all pump plugs for tightness.
	Slipping or broken coupling.....	Tighten or replace coupling.
	Rotation of motor and fuel unit is not the same as indicated by arrow on pad at top of unit.....	Install fuel unit with correct rotation. See Form No. 440100.
	Frozen pump shaft.....	Return unit to approved service station or Suntec factory for repair. Check for water and dirt in tank.
OIL LEAK	Loose plugs or fittings.....	Dope with good quality thread sealer. Retighten.
	Leak at pressure adj. screw or nozzle plug.....	Washer may be damaged. Replace the washer or O-Ring.
	Blown seal (single-pipe system).....	Check to see if by-pass plug has been left in unit. Replace fuel unit.
	Blown seal (two-pipe system).....	Check for kinked tubing or other obstructions in return line. Replace fuel unit.
	Seal leaking..... Cover.....	Replace fuel unit. Tighten cover screws or replace damaged gasket.
NOISY OPERATION	Bad coupling alignment.....	Loosen fuel unit mounting screws slightly and shift fuel unit in different positions until noise is eliminated. Retighten mounting screws.
	Air in inlet line.....	Check all connections. Use only good flare fittings.
	Tank hum on two-pipe system and inside tank.....	Install return line hum eliminator, in return line.
PULSATING PRESSURE	Partially clogged strainer or filter.....	Remove and clean strainer. Replace filter element.
	Air leak in intake line.....	Tighten all fittings.
	Air leaking around cover.....	Be sure strainer cover screws are tightened securely. Check for damaged cover gasket.
LOW OIL PRESSURE	Defective gage.....	Check gage against master gage, or other gage.
	Nozzle capacity is greater than fuel unit capacity.....	Replace fuel unit with unit of correct capacity. See Form No. 440100 for GPH, P.S.I., and R.P.M.
IMPROPER NOZZLE CUT-OFF	To determine the cause of improper cut-off, insert a pressure gage in the nozzle port of the fuel unit. After a minute of operation shut burner down. If the pressure drops from normal operating pressure and stabilizes, the fuel unit is operating properly and air is the cause of improper cut-off. If, however, the pressure drops to 0 P.S.I., fuel unit should be replaced.	
	NOTE: The A-70 pump circuitry is designed to give a high cut-off of superb quality. Never use the amount of pressure drop as an indication of the quality or speed of cut-off.	
	Filter leaks.....	Check face of cover and gasket for damage.
	Strainer cover loose.....	Tighten 4 screws on cover.
	Air pocket between cut-off valve and nozzle.....	Run burner, stopping and starting unit, until smoke and after-fire disappears.
	Air leak in intake line.....	Tighten intake fittings. Tighten unused intake port and return plug.
	Partially clogged nozzle strainer.....	Clean strainer or change nozzle.
	Leak at nozzle adaptor.....	Change nozzle and adaptor.