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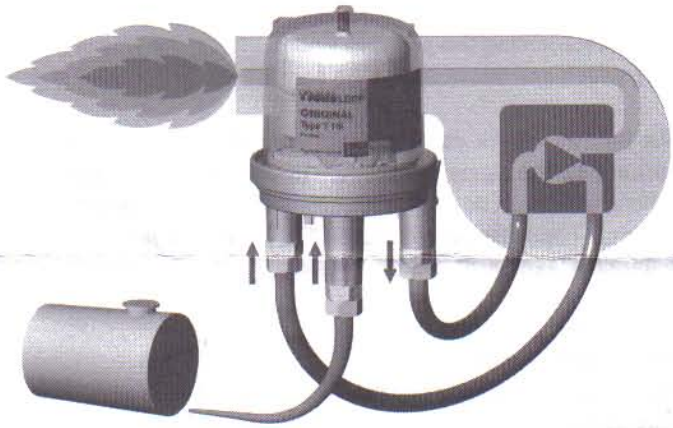
Before installing, check technical requirements and warnings carefully

TIGERLOOP FUEL OIL DE-AERATORS TYPE S60 I AND T60 I

One pipe system for all light oil burners

TIGERLOOP a highly unique product for the safest possible transport of oil between the oil tank and the oil burner incorporating the advantages of the two pipe system in only one oil line. Thousands of technicians have already installed TIGERLOOP OIL DE-AERATORS for cheaper, environmentally safe and reliable oil burning. Suits all sizes of light oil burners.



INSTALLATION

The TIGERLOOP should be fitted close to the burner. However, it should be noted, that the TIGERLOOP should not be exposed to temperatures in excess of 105°F (40°C). It should not, therefore, be installed on an uninsulated furnace or above the cover of a firebox or flue pipe. It must be fitted firmly in a straight upright position and oil resistant lines for connections to the oil pump must be used.

PLEASE OBSERVE AND COMPLY WITH LOCAL INSTALLATION INSTRUCTIONS, AND ALWAYS FIT THE PUMP'S BYPASS PLUG!

The appropriate dimension of the feed line depends on pipe resistance and suction head. The decisive elements for determining the pipe resistance are the length of the pipe and the capacity of the oil burner nozzle. This pipe resistance can be expressed as suction head. Add to this the suction head from the tank to the oil burner and you have the total suction head for your installation. Let's assume some figures, (see fig. 1 below). A pipe with a 1/4" outer diameter, a pipe length of 82 feet and a nozzle capacity of 1.5 gph corresponds to a suction head of 8.2 feet. Also assuming a height of 4.3 feet from the tank to the oil burner, gives a total suction head of 12.5 feet.

N.B. THE TOTAL SUCTION HEAD MUST NOT EXCEED THE SUCTION CAPACITY OF THE PUMP!

Fig. 1
1/4" PIPES (siphon effect ceases at an oil flow below 0.5 gph)

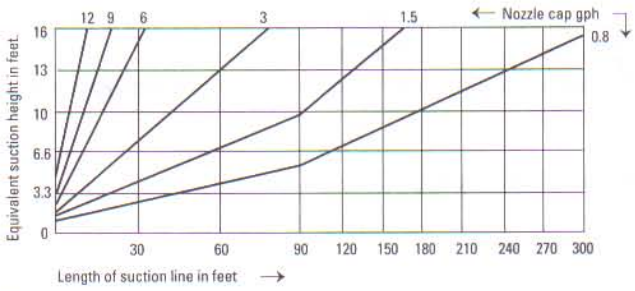


Fig. 2
5/16" PIPES (siphon effect ceases at an oil flow below 1.7 gph)

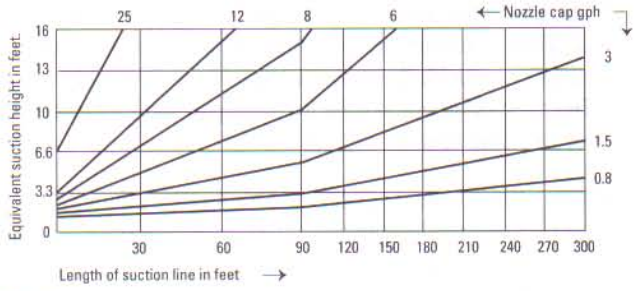


Fig. 3
3/8" PIPES (siphon effect ceases at an oil flow below 6.3 gph)

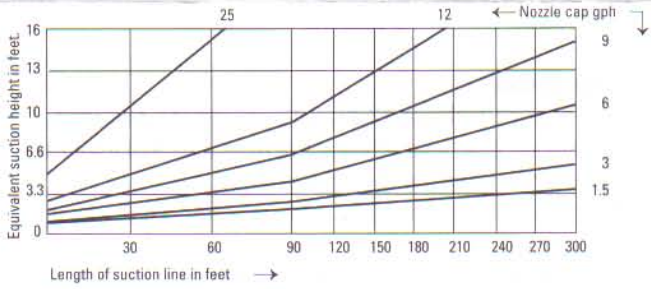
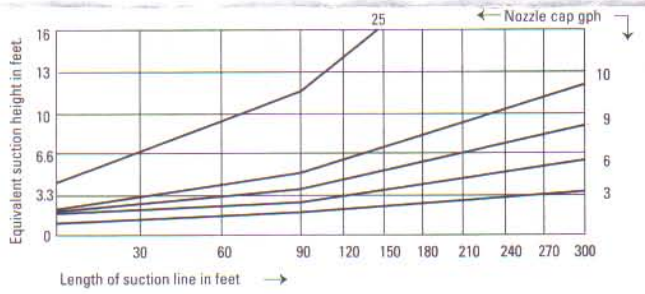


Fig. 4
1/2" PIPES (siphon effect ceases at an oil flow below 11 gph)



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Please note that the combination of coarse pipes and low oil flow should be avoided as too much air (and gas) is formed, with the result that there is no siphon effect and oil runs only in a thin stream along one side in the descending parts of the pipe. In such cases, it is not the height from the oil tank to the oil burner, which should be considered, but rather **all ascending** parts of the pipe (incl. any suction line in the tank, see fig. 5). When determining the possible siphon effect, the smallest oil flow, which can occur, should be considered.

The built-in check valve permits connection of several oil burners to the same feed line. In this case, the total oil consumption must be used when calculating the pipe resistance. For larger capacities, two or more TIGERLOOP can be connected in parallell (see fig. 6).

Technical data

Max. nozzle capacity:	19 gph
Max. return oil pumped into the Tigerloop:	31 gph
Max. oil flow:	50 gph
Max. operating temperature:	105°F (40°C)
Max. ambient temperature:	105°F (40°C)
Operating pressure in feed line:	Max. 10 psi
Pressure test of pipe system:	Max. 85 psi
Pump connections:	1/4" inner thread
Tank connection:	1/4" inner thread

CAUTION

1. Install the oil de-aerator in an upright position so it fits securely and cannot come loose.
2. Installation may only be performed by a professional expert. Law or building codes may require inspection by local or federal authorities.
3. **The UL-Listed unit must always be installed with a UL-Listed shut-off valve, which is threaded into the center port with the arrow facing towards the center. The shut-off valve should be equipped with a fusible-type handle which melts at 165°F.**
4. When the oil tank is positioned higher than the oil de-aerator, we strongly recommend the installation of a melt (fusible) valve or an OSV valve on the feed line from the tank. In case of fire, these valves will prevent oil from running out and intensifying the fire.
5. Never install a shut-off valve or other device, which can impede flow in the lines between the oil de-aerator and the oil pump.
6. The completed installation must be tested for correct function and fire security before starting.
7. Never use TIGERLOOP for other oils than No. 1 and No. 2. Maximum inlet pressure is 10 psi.
8. Only 1 (one) fuel unit per Tigerloop connection.
9. Faulty connected hoses between oil de-aerator and oil pump (=exchanged suction and return line) can cause damage to the oil de-aerator.

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Fig. 5

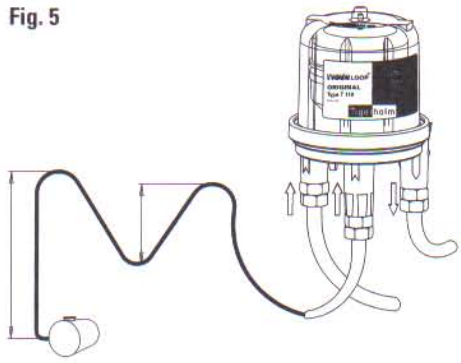
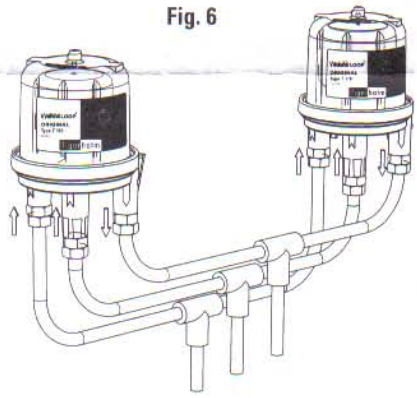


Fig. 6



TROUBLE SHOOTING

The oil de-aerator is foaming heavily causing oil mist to escape through air valve on top of the unit.

Possible causes:
1. Suction leakage. Check all connections and lines.
2. Lines can be empty. Start and run the burner a short time, stop it, wait a minute and repeat the sequence a couple of times.
3. Empty tank. Fill up tank.
4. Too high suction head. Please see diagrams and note limit values for siphoning effect especially.
5. Too large burner capacity. Connect two or more Tigerloop in parallell.

Noise from the oil pump

Possible causes:
1. Suction leakage. Check all connections and lines.
2. Too high suction head. Please see diagrams and note limit values for siphoning effect especially.

Oil is not sucked from the tank

Possible causes:
1. Large suction leakage. Check all connections and lines.
2. Too high suction head. Please see diagrams and note limit values for siphoning effect especially.
3. The bypass plug is not fitted in the oil pump. Fit the plug.

The oil chamber is completely filled with oil

This can happen when there is pressure in the feed line, but it will not affect the function of the pump. By installing an OSV valve on the feed line from the tank, the oil level will resume its "normal" level in the oil chamber.