

Installation and Instructions for Use of

Nautic-therm S



1. Nautic-therm is a hot water boiler which has especially been designed for motor yachts, campers, caravans and solar collectors. Nautic-therm can also be operated via a heat exchanger, i.e. hot water is produced free of charge by means of the engine cooling system while the vehicle is moving. When the vehicle is at a standstill, Nautic-therm can be connected to 220 V.

Nautic-therm model E = with electric connection
Nautic-therm model M = with heat exchanger
Nautic-therm model ME = with heat exchanger and electric connection

Installation

Choose a place which is as close as possible to the places where you want to tap hot water in order to avoid unnecessary loss of heat caused by a long water supply line. Install the boiler in a vertical position (not in a horizontal position), use the straps (9) included in the delivery.

2. Water Connection

According to the regulations, pressurized hot water boilers have to be equipped with a safety valve to protect the unit from excess pressure. Excess pressure may build up and must be allowed to escape via a safety valve. Install the safety valve 2.5 bars (10) and the drain valve (11) at the drain outlet of the boiler. You can connect an additional hose to the safety valve leading to the outside or to a tank to make sure that the excess pressure water can run out. If the pressure of the water pipe exceeds 2.5 bars, a pressure reducer has to be installed between water pipe and boiler.

- (5) cold water supply
- (6) hot water supply

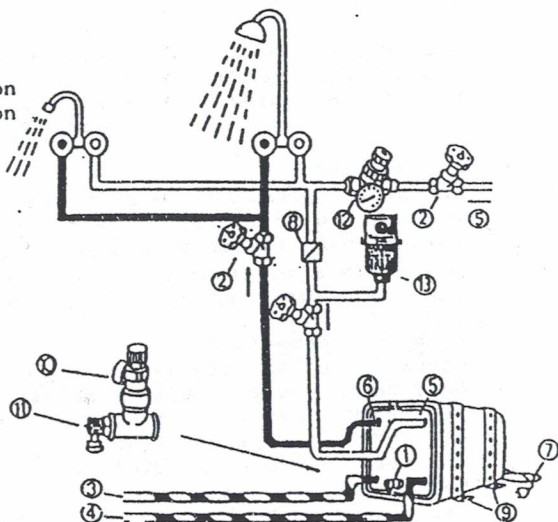
The correct water connection is very important for the proper functioning of this boiler. Use pressure-resistant and non-toxic water hoses (10 mm) and attach them with stainless steel clamps. To avoid a possible return of the hot water into the cold water pipe, you can install a back pressure valve (8) in the cold water supply, but this is not always necessary. By insulating the hot water supply you can avoid unnecessary loss of heat.

3. Heat Exchanger Connection:

The heat exchanger (3) and (4) can be connected to any kind of source of heat. The diameter of the connection is 18mm. The supply and the outlet sides can be exchanged. Use heat-resistant pressure hoses and stainless steel clamps. When connecting the heat exchanger to the engine cooling system, it has to be connected where the cooling water reaches its highest operating temperature. Various engines have already been equipped with special fittings for this purpose. Contact your engine service station for help, your serviceman will connect the heat exchanger for you.

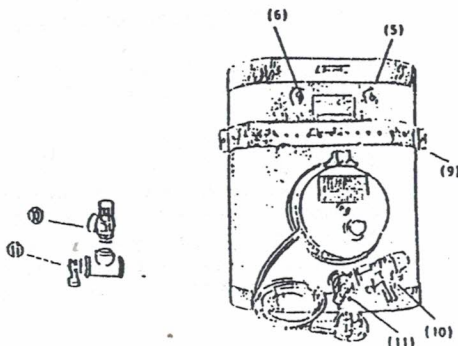
4. Connecting Examples

- (1) Drain outlet
- (2) Shut-off valve
- (3) Heat exchanger connection
- (4) Heat exchanger connection
- (5) Cold water supply
- (6) Hot water supply
- (7) Electric connection
- (8) Back pressure valve
- (9) Installation strap
- (10) Safety valve
- (11) Drain valve
- (12) Pressure reducer
- (13) Surge tank



Attention!

Because of possible sediments in the water, the safety valve (10) has to be installed in a vertical or oblique position pointing up, see drawing. The safety valve must not be blocked at the drain outlet.



5. Operation:

After having installed all water connections open your water supply and your hot water tap to fill the boiler with water. Once the boiler is completely full, water will run out of the hot water tap. Thanks to its safety design, the boiler cannot inadvertently drain off itself. You can only empty the boiler completely via the drain valve (11), (see emptying for the winter season).

6. Electric Connection:

First fill the boiler with water before connecting it to the electric mains. Use the thermostat to set the temperature. The set temperature is controlled automatically, the signal lamp indicates the heating up of the boiler. The temperature is continuously adjustable: 0-F = frost guard, I = approx. 35°C, II = approx. 50°C, III = approx. 80°C.

Caution! Do not operate the boiler without water

If the boiler is operated electrically without water, the temperature safety device installed in the heating element will come into action as soon as the excess heating temperature of 110°C is reached and will switch the boiler off electrically. The temperature safety device is located in the probe tube of the heating element. Once it has come into action, it has to be replaced by a certified serviceman. Temperature safety devices are available at your distributor or from ELGENA München.

7. Frost Protection and Emptying the Boiler for the Winter Season

You have two possibilities to protect your boiler from frost:

- a) You keep the boiler connected to the mains and set the thermostat to frost guard (F). Thus, the water temperature is kept above the freezing point. The electricity consumption for this method is very low.
- b) You empty the boiler via the drain valve (11). If the water does not run out, open the water taps to allow air to enter the supply lines.

Caution:

Models E and ME have to be disconnected from the electric mains first before draining off the water. (Pull plug out of socket). Otherwise you risk that the boiler be heated without water and the temperature safety device be blown by excess heat.

First fill the boiler with water before any renewed operation, see point 5 + 6 of this Instruction for Use.