## CLEGHORN WARING

# Installation, Operating, Maintenance and Safety Instructions for

### CW184 - PRESSURE RELIEF VALVE

For use with

# CLEGHORN WARING'S WATER STORAGE HEATERS in PRESSURISED WATER SYSTEMS



#### **IMPORTANT**

Pressure relief valve CW184 is intended solely for use with Cleghorn Waring marine water storage heaters (calorifiers) in marine pressurised fresh water systems. It is not intended for use with any other make or type of marine or domestic water storage heater or for any other purpose whatsoever, and we take no responsibility for its use with such equipment or for such purposes.



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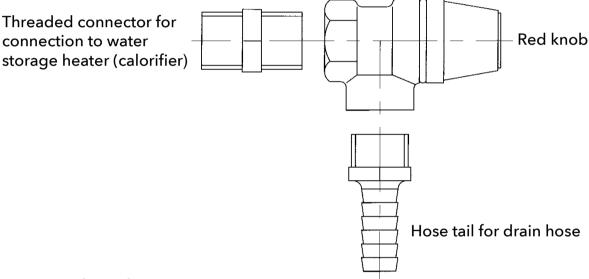
#### **WARNING**



This valve will protect your Cleghorn Waring water storage heater from excessive internal pressure in the event of overheating due to failure of electric immersion heater thermostat(s). In such an event, it will <u>NOT</u> protect against the risk of personal injury from scalding water and steam under pressure.



For full protection, a combined temperature-and-pressure relief valve (TPRV) must be used. A TPRV is effective only when fitted in the top of the water storage heater. For many years now, Cleghorn Waring's water storage heaters have been designed for, and supplied with, a TPRV. We recommend that you consider fitting a modern Cleghorn Waring water storage heater, fully protected with a TPRV. Xylem Water Solutions UK will be glad to advise you.



#### 1. Fitting the valve

This valve is supplied as a replacement for a valve of the same type. Unscrew the old valve, check the threads in the fitting for damage or deterioration, and clean them with a brush if necessary.

If the water storage heater appears to be damaged or corroded, it should be replaced. Contact Xylem Water Solutions UK Ltd (Cleghorn Waring) for details.

Wind a few turns of PTFE tape around the threads of the new valve, and screw it into place. If necessary, remove the hose connector from the discharge port. Tighten the valve, leaving the discharge port pointing downwards. Replace the hose connector.

Attach a suitable length of flexible pipe to the hose connector and secure it with a hose clip. Use sufficient hose to reach the bilge, so that any discharge of steam or scalding water will be vented to a safe area. The hose must be able to drain completely, so that a plug of ice cannot form in freezing weather, preventing the valve from fulfilling its safety function.

#### 2. Checking the operation of the valve

Switch on the pressurised water system and bleed any air from the system. To check that the valve lifts freely, turn the red knob one full turn anti-clockwise. *The valve should lift and water should flow out of it.* The valve should then snap shut with an audible click. Test the valve not less than once a month; to make sure it is in working order.

If the valve is stiff to turn, or does not click when turned, replace it.

Check there are no leaks from the threads. If there are, turn off the water pressure system, drain the tank, remove valve and connector and refit as paragraph 1.

#### 3. Pre-set pressure

The valve is non-adjustable and is pre-set to lift at a nominal **2.5 bar (37 p.s.i.)** Pressurised water pumps supplied by Cleghorn Waring normally cut out at pre-set pressures below 2 bar (29 p.s.i.). Pressure switch failure, or the use of a pump with a pressure switch cut-out limit above 2.4 bar, could lead to continuous discharge of water from the valve.

#### DO NOT IN ANY CIRCUMSTANCES

- ATTEMPT TO ADJUST THE PRE-SET OPENING PRESSURE OF THE VALVE
- BLOCK THE DISCHARGE FROM THE VALVE.

Interference with the pressure setting of this valve, or blocking its discharge, will invalidate its warranty. Such actions could lead to serious personal injury or death in the event of overheating.

#### 4. If the pressure relief valve leaks...

.... when the water is heating up, this may well be normal and necessary. Water expands as its temperature rises.

- If there is no accumulator tank in your pressurised system
  - the pressure in the accumulator tank is incorrectly set
  - the accumulator tank is damaged or defective
  - there is a non-return valve in the cold water supply branch to the water storage heater

....then the expansion of the stored water, as it heats up, will lift the pressure relief valve. Some hot water will escape. This leakage is undesirable: check the existing accumulator tank, or if necessary fit an extra one in the system. If you are in doubt or difficulty, contact Xylem Water Solutions UK Ltd (Cleghorn Waring) for advice.

