



SERVICE BULLETIN

Title: 19XL Oil Heater Replacement
Models Affected: 19XL

Number: C9731
Date: 10/27/97
Supersedes: New

PURPOSE:

To inform of a new oil heater design for 19XL centrifugal chillers.

FILE: Compressor-Motor-Drive-Gears

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GENERAL INFORMATION:

The 19XL oil heater has been redesigned to reduce the temperature stratification during off cycle oil heating. The original oil heater was a 1200 watt heater whose element was configured such that it lie in a plane. The oil heater effectively heated the oil from the bottom plane of the heater to the top of the sump. The oil temperature sensor which controls the heater is located more toward the top of the sump. Because of natural convection of heat and not much conduction occurring the oil that was located below the oil heater was significantly cooler than the oil above it. This leaves the oil located at the bottom of the sump susceptible to being more saturated with refrigerant. This condition could lead to a reduction of lubrication.

The new oil heater is a 1200 watt heater and is configured so that the heater element follows the contour of the sump. This allows part of the heater element to be located in the bottom of the sump (see Figure 1), reducing the temperature stratification of the oil in the sump.

APPLICATION:

The new oil heater part number 02XB05003201 is available in RCD as a replacement part.

There are several recommended applications in which the new oil heater should be used.

- 1) As a replacement for any burned out or broken heaters.
- 2) Whenever a thrust bearing is being replaced and loss of lubrication is the suspected cause for the failure.
- 3) In applications where the chiller is susceptible to prolonged operation at low load conditions.
- 4) Whenever frequent power outages can be expected to occur.

Installation: Installation and wiring of the heater is identical to that of the existing heater (see Figure 1 for schematic). The oil pump must be removed to allow removal and installation of the new heater.

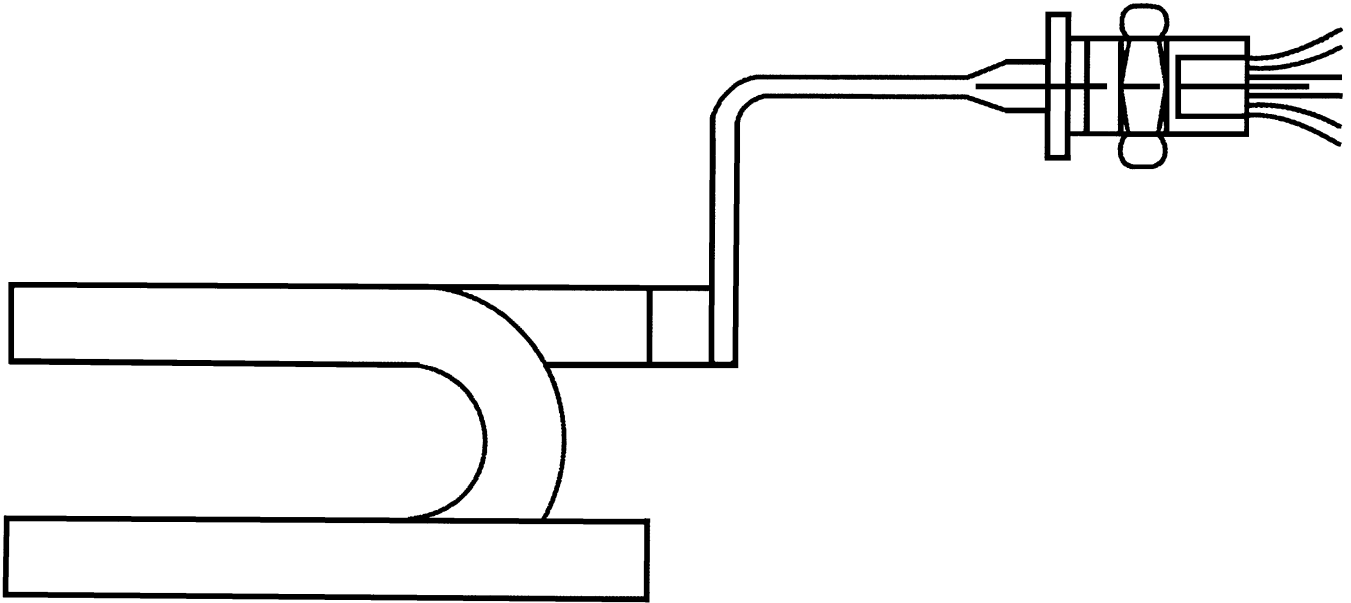


Figure 1
Oil Heater and Schematic

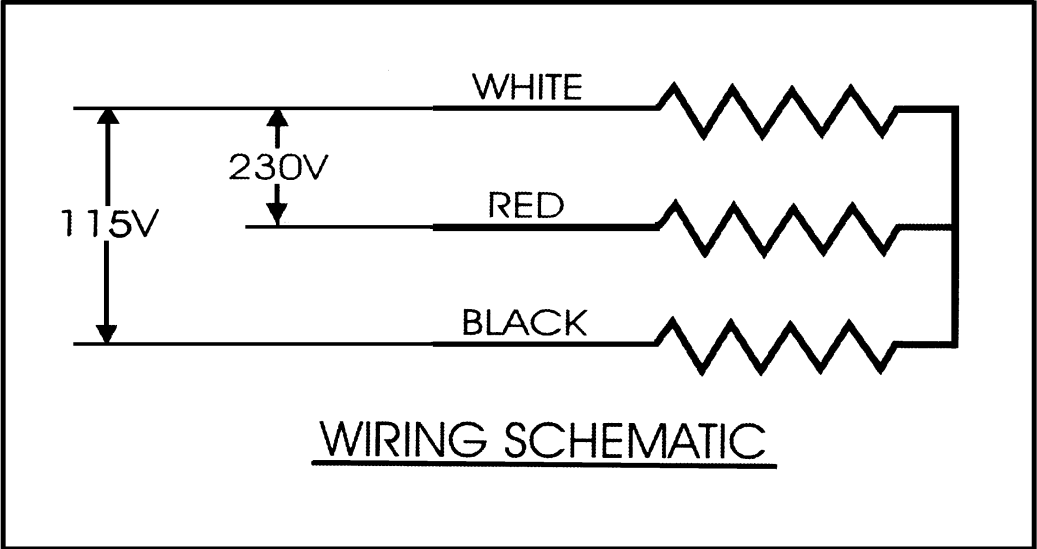


Figure 1
Oil Heater and Schematic (continued)