UNITED TECHNOLOGIES CARRIER	Commercial Division Carrier Corporation	BULLETIN: CA-SB-19-E-73-69 DATE: 7/20/73 PAGE: 1 OF: 2
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SUBJECT: ROBERTSHAW SENSOR RESISTANCE CHART		

PURPOSE

To provide troubleshooting information for 19EA bearing, discharge, and motor temperature sensors.

PROCEDURE

To check the resistance of the sensors while the machine is running, shut down the machine, remove the appropriate wires from the sensor terminals on the compressor or motor, and jumper the leads with a 75 to 80 ohm resistor to simulate the sensor. Run the machine and measure the resistance of the sensor in question at the compressor or motor sensor terminals. Do not take any measurements with the sensor connected to the module. If a reading is in question, take note that the ohmmeter scale of a standard multimeter is usually only accurate to within ± 10%.

Figure 1 shows the resistance-temperature relationship of the Robertshaw sensors in their operating region. The middle line is the nominal value and the band around this line is the expected tolerance zone.

The bearing and discharge module is set internally to trip at a bearing or discharge temperature of 201°F and the motor module is set to trip at 221°F. The accumulation of tolerances may lead to the necessity of changing the module and/or sensor in a "nuisance" situation.

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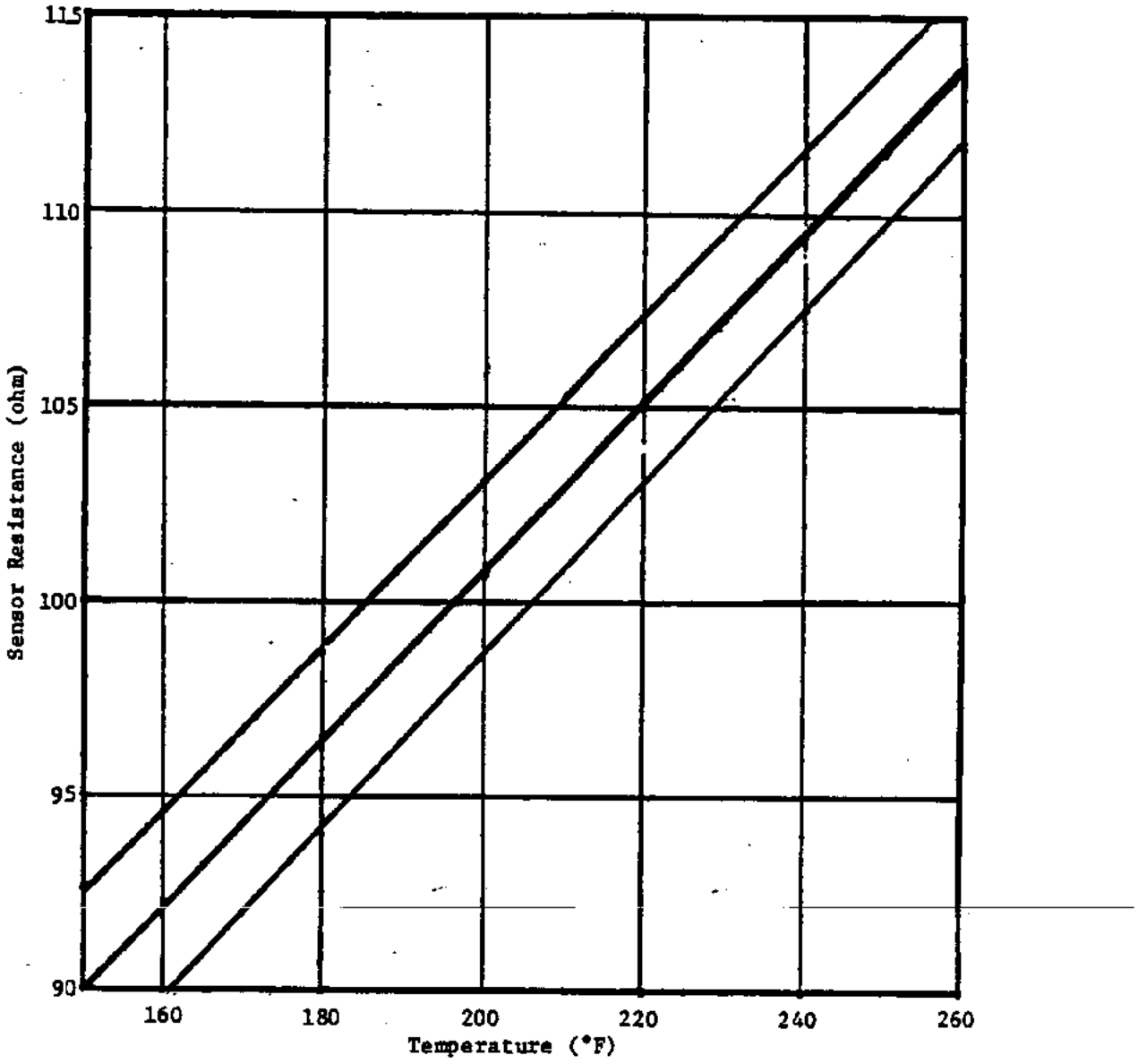

Fig. 1. Robertshaw Sensor: Temperature versus Resistance