



# CENTRIFUGAL AIR CONDITIONING AND REFRIGERATION LOG

The Hartford Steam Boiler Inspection and Insurance Company, One State Street, P.O. Box 5024, Hartford, CT 06102-5024.

Think Ahead™

MANUFACTURER				NUMBER				SIZE				LOCATION				REFRIGERANT "R"																																																
DATE OR TIME	OUT-SIDE TEMP.	COMPRESSOR							MOTOR		GEAR OIL		CHILLER			CONDENSER				PURGE		INITIAL																																										
		Bearing		Level	Oil		Press.	Amps	Volts	Press.	Temp.	Refrigerant			Water Temp.		Refrigerant		Water Temp.		Frequency of Operation		Anti-Water Removed																																									
Position Cap. Indicator	Temp.	Temp.	Temp. Reser-voir		Temp. Leaving Cooler	Level						Press.	Level	Press.	Temp.	In	Out	Press.	Temp.	In		Out		Press.	Temp.	In	Out																																					
LOG THIS INFORMATION HOURLY/DAILY																					TUBES		DATE CLEANED		DATE OF EDDY CURRENT TEST		<i>Operating &amp; Safety Control Tests</i>		<b>OIL PRESSURE SAFETY CONTROL</b>		SETTING		CONDITION		DATE TESTED & INITIALS		<b>LOW REFRIG. PRES./TEMP. SAFETY CONTROL</b>		SETTING		CONDITION		DATE TESTED & INITIALS		<b>LOW CHILLED WATER TEMPERATURE CONTROL</b>		SETTING		CONDITION		DATE TESTED & INITIALS		<b>FLOW PRESSURE DIFFERENTIAL CONTROL</b>		Chilled Water		CONDITION		Condenser Water		CONDITION		DATE TESTED & INITIALS	
																					PERFORM THESE TESTS ANNUALLY																																											

IMPORTANT

For reliable and uninterrupted service, the following maintenance items should be given attention as indicated.

**Compressor:**

After 40,000 operating hours or 5 years, whichever comes first, the compressor should be disassembled. Impeller(s) should be examined for rubbing, grooves and cracks – cleaned, non destructively tested and balanced. Guide vanes, linkage and bushings examined for lost motion, wear, sticking stems and nondestructively tested. The main shaft, pinion, and gears should be nondestructively tested.

**Tubes:**

1. The water side surfaces should be cleaned **annually**
2. Eddy current analysis should be performed on condenser tubes within 3 to 5 years of service, and on evaporator tubes within 5 to 7 years of service. The detection of any wear, corrosion, or deterioration of tubes will determine when subsequent testing of the tubes should be performed.

**Controls:**

All safety and operating controls should be tested annually, calibrated to design conditions and their set points recorded. Defective safety devices and controls should be replaced.

**Oil/Refrigerant:**

When oil or refrigerant is added, record date and amount. Also indicate leak tests, repairs and adjustments. Oil samples should be taken and tested for physical and chemical properties.

**Purge Unit:**

When provided, should be overhauled at least once a year with interim service checks performed as recommended by the manufacturer.

Use reverse side to record all service calls including:

1. Service Company/Name & Tel. No.
2. Date of service call
3. Work performed
4. Date and time machine shut down on safety control