YORK®

BY JOHNSON CONTROLS

YCAV SCREW CHILLER

AIR-COOLED LOG SHEET

...AN ENERGY-SAVING approach to your Service needs...

FORM 201.21-MR1 (714)
New Release

ISSUE DATE:
JULY 11, 2014

YORK
BY JOHNSON CONTROLS

MAINTENANCE REQUIREMENTS FOR YCAV CHILLERS

PROCEDURE	WEEKLY	QUARTERLY	SEMI-ANNUALLY	YEARLY	EVERY *__ HRS
Check the oil level in the compressor oil level sight glass.	X				
Check liquid line sight glass / moisture indicator.	X				
Record system operating pressures and temperatures.	X				
Check programmable operating setpoints and safety cutouts and assure they are correct for the particular application.		X			
Check condenser coils for dirt / debris and clean if necessary.	X				
Check compressor superheat on evaporator and condenser subcooling[1].			X		
Check compressor heaters for operation. (Also check evaporator heaters - YCAV only)		X			
Check stepper valve operation in service mode.	X				
Check level sensor accuracy.		X			
Sample compressor oil and replace if necessary[1].				X	
Leak check the chiller[1].				X	
Disconnect the power source and lock out; check tightness of power wiring connections[1].				X	
	Refer to manufacturer's recommendations				

* Reserved for customer use for any special site determined requirements.

[1] This procedure must be performed at the specified time interval by an Industry Certified Technician who has been trained and qualified to work on this type of JCI equipment. A record of this procedure being successfully carried out must be maintained on file by the equipment owner should proof of adequate maintenance be required at a later date for warranty validation purposes.

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YCAV
AIR-COOLED SCREW
LIQUID CHILLER OPERATING LOG

Unit Serial: _____
Compressor 1 Model/Serial # _____
Compressor 2 Model/Serial # _____
Compressor 3 Model/Serial # _____
Compressor 4 Model/Serial # _____
Refrigerant _____

Model Number: _ _ _ _ _ _ _ _ _ _ _ _ _ _
(14 Digits)
YORK Order Number: _____
Start Date: _____

Date											
Time											
Hour Meter Reading											
Outdoor Ambient Temperature °F											
System Run Time	System 1 (Days/Hours/Mins/Sec)										
	System 2 (Days/Hours/Mins/Sec)										
	System 3 (Days/Hours/Mins/Sec)										
	System 4 (Days/Hours/Mins/Sec)										
System Starts	System 1										
	System 2										
	System 3										
	System 4										
Programmed Values	**Chilled Liquid Setpoints**	Setpoint ___°F(°C)										
		Range +/- ___°F(°C)										
		Display Language										
		Chilled Liquid Mode										
		Local/Remote Mode										
		Display Units										
		Lead/Lag Control										
		Remote Temperature Reset										
		Remote Current Reset										
	Programmed Cutouts	Suction Pressure Cutout ___PSIG(kPa)										
		Low Ambient Cutout ___°F(°C)										
		Leaving Chilled Liquid Temperature Cutout ___°F(°C)										
		High Motor Current Unload ___%FLA										

Date													
Time													
Hour Meter Reading													
Outdoor Ambient Temperature °F													
Separator Oil Level[1]	Compressor #1	List Oil Present at Full Load After 1 Hr Operation[1]	Examples: Top, Btm	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯
	Compressor #2			◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯
	Compressor #3			◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯
	Compressor #4			◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯	◯ ◯
	Added (Removed) Oil Gallons												
Compressor Heater	System 1												
	System 2												
	System 3												
	System 4												
Economizer Solenoid Status	System 1												
	System 2												
	System 3												
	System 4												
Feed/Drain Valve % Open	**Feed Valve** System 1												
	Feed Valve System 2												
	Feed Valve System 3												
	Feed Valve System 4												
	Drain Valve System 1												
	Drain Valve System 2												
	Drain Valve System 3												
	Drain Valve System 4												
Flash Tank Level %	System 1			◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%
	System 2			◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%
	System 3			◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%
	System 4			◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%	◯ ___%

[1] Refer to IOM for system gallons required. Correct oil seperator level is at the bottom edge of the top sight glass after 1 hour operation at full load.

Date												
Time												
Hour Meter Reading												
Outdoor Ambient Temperature °F												
Evaporator	**Barrel**	Inlet Temperature, °F DB										
		Outlet Temperature, °F DB										
		Flow Rate (GPM using flow meter)										
		Evaporator Barrel PD (PSI)										
		Glycol Freeze Point, °F (°C)										
Condenser	**Air**	Air-On Temperature, °F DB										
		Air-Off Temperature, °F DB										
	Fan Stage (0-6)	Stage 1										
		Stage 2										
		Stage 3										
		Stage 4										
	Number of Fans Running											
	Condensing Head Pressure											
VSD Temperatures and Data	Frequency Actual											
	Frequency Command											
	Voltage BUS 1											
	Voltage BUS 2											
	Internal Ambient Temperature, °F (°C)											
	Cooling System Status On/Off											
	IGBT Baseplate Temperatures T1, °F (°C)											
	IGBT Baseplate Temperatures T2, °F (°C)											
VSD Review OK (or Offer Remarks)	Coolant Level and Pump Operation Rev.[2]											
	VSD Logic Board Pot Settings Reviewed											
	Door Seals Weather Tight											
	No Debris in Panel (Clean)											
	Display and Keypad Function Reviewed											
	No Unusual Compressor/System Noise											

Note: Temperature and pressure limits ambient temps and water flow in °F, PSIG & GPM respectively unless otherwise noted.

[2] Proper coolant level is 9-15 inches from top of fill tube (with system running).

Date												
Time												
Hour Meter Reading												
Outdoor Ambient Temperature °F												
System Operating Pressure, Temperature & Current Readings (Note: Cooler Ambients will produce higher sub-cooling)	**Suction Pressure Saturated PSIG (kPa)**	System 1										
		System 2										
		System 3										
		System 4										
	System Oil Pressure PSIG (kPa)	System 1										
		System 2										
		System 3										
		System 4										
	Suction Temperature °F(°C)	System 1										
		System 2										
		System 3										
		System 4										
	System Temperature Oil °F(°C)	System 1										
		System 2										
		System 3										
		System 4										
	System Temperature Superheat °F(°C)	System 1										
		System 2										
		System 3										
		System 4										
	System Temperature Sat Discharge °F(°C)	System 1										
		System 2										
		System 3										
		System 4										

Date													
Time													
Hour Meter Reading													
Outdoor Ambient Temperature °F													
System Operating Pressure, Temperature & Current Readings (Note: Cooler Ambients will produce higher sub-cooling)	**Motor Temperatures °F(°C)**	T1	System 1										
			System 2										
			System 3										
			System 4										
		T2	System 1										
			System 2										
			System 3										
			System 4										
		T3	System 1										
			System 2										
			System 3										
			System 4										
	Discharge Superheat	System 1											
		System 2											
		System 3											
		System 4											
	Discharge Pressure Saturated PSIG (kPa)	System 1											
		System 2											
		System 3											
		System 4											
	Discharge Line Temperature °F(°C)	System 1											
		System 2											
		System 3											
		System 4											

Date												
Time												
Hour Meter Reading												
Outdoor Ambient Temperature °F												
System Operating Pressure, Temperature & Current Readings (Note: Cooler Ambients will produce higher sub-cooling)	**Compressor Speed %**	System 1										
		System 2										
		System 3										
		System 4										
	System Current AMPS	System 1										
		System 2										
		System 3										
		System 4										
	System Current %FLA	System 1										
		System 2										
		System 3										
		System 4										
	Condensing Pressure, Saturated											
	Condensing Temperature											
	Subcooling at Condenser Outlet											

Remarks: