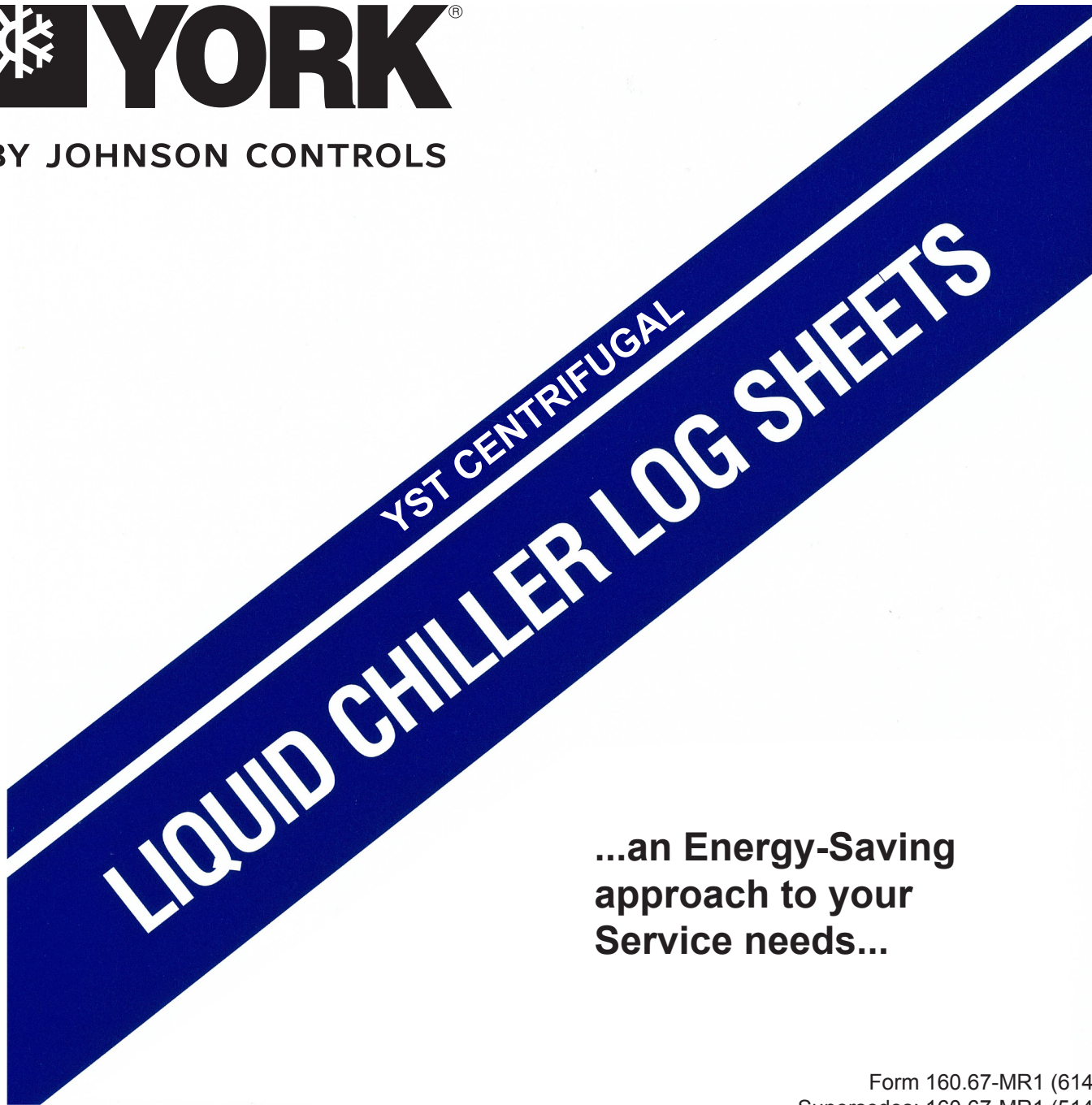




BY JOHNSON CONTROLS



**...an Energy-Saving  
approach to your  
Service needs...**

Issue Date:  
June 20, 2014

Form 160.67-MR1 (614)  
Supersedes: 160.67-MR1 (514)





BY JOHNSON CONTROLS

## MAINTENANCE REQUIREMENTS FOR YORK YST CHILLERS

PROCEDURE		DAILY	WEEKLY	MONTHLY	YEARLY
CHILLER	Record Operating Conditions (On Applicable Log Form)	X			
	Check Oil Levels	X			
	Check Refrigerant Levels		X		
	Check Oil Return System Operation			X	
	Check Sump Heater And Thermostat Operation			X	
	Check Three-Phase Voltage And Current Balance			X	
	Verify Proper Operation/Setting/Calibration Of Safety Controls <sup>1</sup>			X	
	Verify Condenser And Evaporator Water Flows			X	
	Leak Check And Repair Leaks As Needed <sup>1</sup>			X	
	Check And Tighten All Electrical Connections				X
	Replace Oil Filter And Oil Return Filter/Driers				X
	Clean Oil Cooler Heat Exchanger Tubes				X
	Perform Oil Analysis On Compressor Lube Oil <sup>1</sup>				X
	Perform Refrigeration Analysis <sup>1</sup>				X
	Perform Vibration Analysis				X
	Clean Heat Exchanger Tubes				X <sup>2</sup>
	Perform Eddy Current Testing And Inspect Tubes				2-5 Years
	Check Operation of all Shutdowns (History Print)			X	
Conduct Panel Overspeed Test			X		
Check Operation of Motor Contactors in Power Panel			X		
STEAM CONDENSER	Visually Inspect For Leaks / Abnormal Noise	X			
	Check Liquid Ring Seal On Relief Valve & Liquid Ring Vacuum Pumps		X		
	Check Conedsate Pump Operation / Seals			X	
	Check Hotwell Liquid Level / Pump			X	
	Lubricate The Hotwell Pump Bearing			6 Months	
	Check And Tighten All Electrical Connections				X
	Check Three-Phase Voltage And Current			X	
	Inspect / Clean Tubes With Chiller Heat Exchangers				X
Clean And Grease Vacuum Pump Bearings				3 Years	

PROCEDURE		DAILY	WEEKLY	MONTHLY	YEARLY
<b>TURBINE</b>	Visual Inspection (external damage, leaks)	X			
	Check Oil Level in Reservoir (and Governor If Applicable)	X			
	Check for Unusual Vibration / Noise	X			
	Check Oil Temperature and Pressure	X			
	Observe seal steam venting	X			
	Check Aux. Oil Pump Operation (KD Only)		X		
	Check Shafts (free of Oil and Grease)		X		
	Exercise Trip Valve Remote Knob Operation		X		
	Check Oil System Operation			X	
	Verify Operation / Setting / Calibration of Safety Controls <sup>1</sup>			X	
	Leak Check and Repair Leaks as Needed <sup>1</sup>			X	
	Check Oil and Filter			X	
	Remove / Clean Steam Strainer				X
	Check Thrust Bearing End Play				X
	Remove / Check Operation Sentinel Warning Valve				X
	Drain / Clean Oil Reservoir				X
	Drain / Clean Governor (If Applicable)				X
	Change Filter with Oil Change				X
	Check / Recalibrate Gauges				X
	Open / Inspect Turbine / Replace as Required				3 Years
	Rotor				3 Years
	Labyrinth Seals				3 Years
	Bearings				3 Years
Gland Seals				3 Years	

For operating and maintenance requirements listed above, refer to appropriate service literature, or contact your local Johnson Controls Service Office.

<sup>1</sup> 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 Johnson Controls 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.

<sup>2</sup> More frequent service may be required depending on local operating conditions.



BY JOHNSON CONTROLS

# CENTRIFUGAL LIQUID CHILLER LOG SHEET

Chiller Location \_\_\_\_\_  
System No. \_\_\_\_\_

<b>DATE</b>											
<b>TIME</b>											
<b>Hour Meter Reading</b>											
<b>O.A. Temperature Dry Bulb / Wet Bulb</b>		/	/	/	/	/	/	/	/	/	/
<b>Compressor</b>	Oil Level										
	Oil Pressure										
	Oil Temperature										
	Oil Pump/VSOP Output/Hz										
	Discharge Temperature										
	PRV % Open										
<b>Evaporator</b>	<b>Refrigerant</b>	Evaporator Pressure									
		Evaporator Saturation Temperature									
		Small Temperature Difference									
	<b>Liquid</b>	Supply Temperature									
		Supply Pressure									
		Return Temperature									
		Return Pressure									
		Flow Rate - GPM (If equipped)									
<b>Condenser</b>	<b>Refrigerant</b>	Condenser Pressure									
		Corresponding Temperature									
		Subcooler Liquid Temperature									
		Small Temperature Difference									
		Refrigerant Level %									
		Refrigerant Level Setpoint									
	<b>Liquid</b>	Supply Temperature									
		Supply Pressure									
		Return Temperature									
		Return Pressure									
		Flow Rate - GPM (If equipped)									

- CONTINUED ON REVERSE -



BY JOHNSON CONTROLS

## CENTRIFUGAL LIQUID CHILLER LOG SHEET

Chiller Location \_\_\_\_\_  
System No. \_\_\_\_\_

<b>DATE</b>										
<b>TIME</b>										
<b>Hour Meter Reading</b>										
<b>O.A. Temperature Dry Bulb / Wet Bulb</b>		/	/	/	/	/	/	/	/	/
<b>Turbine</b>	Oil Level									
	Oil Pressure *(KD Only)									
	Oil Temperature									
	Bearing Temp. DE & NDE									
	Inlet Steam Pressure									
	Inlet Steam Temperature									
	First Stage Pressure									
	Exhaust Pressure									
	Vibration Level DE & NDE									
	Gov. & Trip Valve Supply Air Press.									
<b>Steam Condenser</b>	Hotwell Level %									
	Hotwell Level Setpoint									
	Leaving Water Temperature									

**Remarks:** \_\_\_\_\_  
\_\_\_\_\_