

Klinge Corporation

PTI form for ALLTCR-110 Dual System models

RECORD DATE	TIME	JOB
UNIT MODEL NUMBER	CONTAINER NUMBER	
UNIT SERIAL NUMBER	LOCATION	
CONTROL BOX SERIAL NUMBER	TECHNICIAN NAME	
<p>NOTE: AT ANY POINT IN THE PROCEDURE, SHOULD THERE BE A FAILURE OF THE UNIT TO OPERATE PROPERLY, PLEASE REFER TO THE MANUAL.</p> <p>NOTE: START BOTH UNITS TO CONDUCT OPERATIONAL TESTING. TEST SYSTEM 1 FIRST, THEN AT SWITCHOVER TO SYSTEM 2 CONDUCT ANY NECESSARY OPERATION TESTING FOR THAT SYSTEM.</p>		

General Inspection of Container System and Each Unit:	Check if OK
Check Unit and Control Box hold-down bolts as well as pipe connections to ensure that they are not loose.	<input type="checkbox"/>
Inspect power cable and component cables for signs of damage.	<input type="checkbox"/>
Visually inspect the unit for physical damage. Remove covers for internal viewing.	<input type="checkbox"/>
Check condenser coils and clean if required.	<input type="checkbox"/>
Check for signs of glycol and refrigerant leaks.	<input type="checkbox"/>
Check the glycol sight glass (PVC inlet hose) at the unit to ensure that the glycol can be easily seen. If the tubes are cloudy or not able to easily see through the tube should be replaced.	<input type="checkbox"/>
For Non-Pressurized systems, check the glycol level in the expansion reservoir, it should be 1/2 - 3/4 full at ambient temperature. For Pressurized systems refer to manual for glycol level checking.	<input type="checkbox"/>
Connect main power plug to power source.	<input type="checkbox"/>
Record voltage and frequency of power source.	Volts: <input style="width: 50px;" type="text"/> Hertz: <input style="width: 50px;" type="text"/>

System 1 Operational Check:	Check if OK
Open the electrical control box and inspect to ensure that all connections are tight and the electrical components are properly secured.	<input type="checkbox"/>
Check that circuit breaker (CB-1) is set to the appropriate setting based on unit configuration.	Standard or with 6 kW Heater Module = 13 Amps With 12 kW Heater Module = 25 Amps
Start Unit and Perform Function Test as per manual.	<input type="checkbox"/>
Confirm function test completed properly without error and unit continues to normal operation.	<input type="checkbox"/>
Set the set point 5 degrees colder than current tank temperature.	<input type="checkbox"/>
Record current Cargo Temperature	<input type="checkbox"/>
Record current Glycol Temperature	<input type="checkbox"/>
Measure and record, compressor current draw	Normal amperage: 4.0 – 7.0 Amps L1: <input style="width: 40px;" type="text"/> L2: <input style="width: 40px;" type="text"/> L3: <input style="width: 40px;" type="text"/>
Measure and record, condenser motor current draw	Normal amperage: 1.0 – 3.0 Amps L1: <input style="width: 40px;" type="text"/> L2: <input style="width: 40px;" type="text"/> L3: <input style="width: 40px;" type="text"/>
Measure and record, glycol pump current draw	Normal amperage: 0.5 – 2.0 Amps L1: <input style="width: 40px;" type="text"/> L2: <input style="width: 40px;" type="text"/> L3: <input style="width: 40px;" type="text"/>
Measure and record, heater current draw (If equipped)	Normal amperage 6 kW: 6.0 – 8.0 Amps Normal amperage 12 kW: 13.0 – 16.0 Amps L1: <input style="width: 40px;" type="text"/> L2: <input style="width: 40px;" type="text"/> L3: <input style="width: 40px;" type="text"/>
Check oil level in the compressor sight glass after 20 minutes of running time. The level should be 1/2 to 3/4.	<input type="checkbox"/>
Check the refrigerant level in the coil receiver sight glass, it should be between the upper and lower sight glasses.	<input type="checkbox"/>
Check moisture indicator on the coil receiver for Dry indication.	<input type="checkbox"/>
Check the flow in the glycol sight glass at the pump inlet for bubbles. (Vent the glycol system if necessary)	<input type="checkbox"/>
Check the current Cargo Temperature and Glycol Temperature against the previously recorded temperatures to ensure proper cooling. Please note that since the tank is empty or has a large product mass the Cargo Temperature may not have reduced much.	<input type="checkbox"/>

System 2 Operational Check:					Check if OK
Open the electrical control box and inspect to ensure that all connections are tight and the electrical components are properly secured.					
Check that circuit breaker (CB-1) is set to the appropriate setting based on unit configuration.		Standard or with 6 kW Heater Module = 13 Amps With 12 kW Heater Module = 25 Amps			
Start Unit and Perform Function Test as per manual.					
Confirm function test completed properly without error and unit continues to normal operation.					
Set the set point 5 degrees colder than current tank temperature.					
Record current Cargo Temperature					
Record current Glycol Temperature					
Measure and record, compressor current draw	Normal amperage: 4.0 – 7.0 Amps	L1:	L2:	L3:	
Measure and record, condenser motor current draw	Normal amperage: 1.0 – 3.0 Amps	L1:	L2:	L3:	
Measure and record, glycol pump current draw	Normal amperage: 0.5 – 2.0 Amps	L1:	L2:	L3:	
Measure and record, heater current draw (If equipped)	Normal amperage 6 kW: 6.0 – 8.0 Amps Normal amperage 12 kW: 13.0 – 16.0 Amps	L1:	L2:	L3:	
Check oil level in the compressor sight glass after 20 minutes of running time. The level should be ½ to ¾.					
Check the refrigerant level in the coil receiver sight glass, it should be between the upper and lower sight glasses.					
Check moisture indicator on the coil receiver for Dry indication.					
Check the flow in the glycol sight glass at the pump inlet for bubbles. (Vent the glycol system if necessary)					
Check the current Cargo Temperature and Glycol Temperature against the previously recorded temperatures to ensure proper cooling. Please note that since the tank is empty or has a large product mass the Cargo Temperature may not have reduced much.					

System Switch Over Testing and General Shut Down:					Check if OK
At the conclusion of the Operation Testing of both System 1 and System 2, cycle the power to both systems and ensure that System 1 is turned on first and assumes the Primary Role.					
Once System 1 is in normal operation with System 2 in Standby Mode, turn the power to System 1 off.					
After approx. 3 minutes System 2 will begin operation as the Primary System.					
At this time leave System 2 running and turn the power to System 1 back on.					
After approx. 4 minutes turn the power to System 2 off.					
After approx. 3 minutes System 1 will begin operation as the Primary System.					
Turn off power to both units and disconnect power plug. Secure power cable and refasten any covers that have been removed.					
Check that the electrical box door gaskets are in proper order.					
If the system is an ATEX System, ensure that the Control Box Bolts are torqued to the proper setting as per the Operations Manual.					
If equipped with Data Logger, check for accurate temperature reading, printer operation, and supply of printer tape.					

NOTES: (Additional pages should be used for notes if required):

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