Brainerd Compressor Start Up Sheet

Date of Start Up _____

Contractor / Dealer Company Name and Address:

Owner / Customer Name and Address:

New Model #:

New Serial #:

Old Model #:

Old Serial #:

Acid Test Done? Yes _____ No _____

Results

Recommended method of taking superheat: Strap a good electronic temperature probe to a clean suction line within twelve inches of the suction service valve. Replace the Armaflex and add two layers of one-inch fiberglass insulation (or equivalent) over the Armaflex, extending six inches in both directions from the temperature probe. Take suction pressure, line temperature, and ambient temperature.

Oil Level (Not Operating)

Oil Level After Operating Fully Loaded for 20 Min.

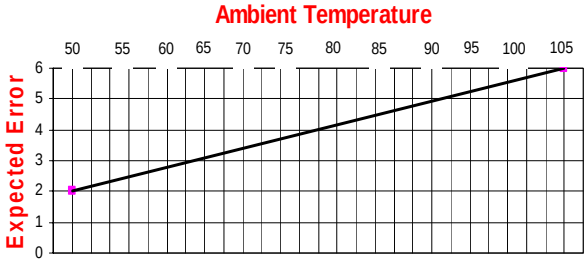

Figure 1

Start-Up Temperatures

	Ambient Outdoor Temperature
	Evaporator Return Air/Water Temperature
	Conditioned Air Temperature
	Suction Line Temperature @ Compressor
	Discharge Gas Temperature: (6" from Service Valve)
	Liquid Line Temperature
	Crankcase Temperature (Below Oil Level)

Pre-Start Check

	Crankcase Heater(s) Operating?
	New Dryers/Filters Installed?
	Moisture Indicator Dry?
	Expansion Valve Bulbs Tight?
	Evaporator Coil Clean?
	Contactor Replaced?
	Unit Fuse Size:

Start-Up Pressures

	Suction Pressure @ Compressor
	Discharge Pressure
	Liquid Line Pressure
	Net Oil Pressure (Suction Pressure - Oil Pump Pressure)
	Capacity Control Set Point
	Capacity Control Differential

Sub-Cooling Calculations

	Liquid Line Pressure Converted to Temperature (SCT)
	Minus Liquid Line Temperature
	= Subcooling

Superheat Calculations

	Suction Line Temperature @ Compressor
	Minus Suction Pressure Converted to Temperature (SST)
	Minus Expected Error: (See Figure 1)
	= System Superheat

Calculate % of Voltage and Current Imbalance

Amps	Volts	
		Line 1
		Line 2
		Line 3

Sum of Volts (L1 + L2 + L3) =	
Average Voltage (Sum ÷ 3) =	
Voltage Difference (Average - Worst leg) =	
% Imbalance (Difference ÷ Average x 100) =	

Example

Sum of Voltage Readings (222 + 227 + 215) =	664
Average Voltage (664 ÷ 3) =	221
Voltage Difference (227 - 221) =	6
% Imbalance (6 ÷ 221 x 100) =	2.71

Calculate Current Imbalance in the same way as Voltage Imbalance.
Maximum allowable Voltage Imbalance is 2%
Maximum allowable Current Imbalance is 10%

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