

Customer Notification

B-CN-008-EN Rev A

December 4, 2014

SUBJECT: Updated Solenoid Cooling Valve Assemblies

Purpose

This document describes changes to the solenoid cooling valve assemblies which are relevant to the TT300 compressor and to changes in the availability of spare parts which is relevant to all TT and TG series compressors.

Summary

Background

Danfoss Turbocor uses two separate solenoid valves to control the temperature by way of metered flow through refrigerant circuits on the compressor motor cavity and power inverter. These solenoids allow liquid to flow from the 3/8 or 1/2 inch dedicated liquid refrigerant supply line through a fixed orifice within the solenoid seat that has been sized to allow the proper amount of refrigerant expansion for both circuits. The size of the fixed orifice varies depending on the compressor model and design revision. The size of the fixed orifice used on the compressor motor cavity circuit is not necessarily the same as the size of the fixed orifice used on the power inverter circuit.

Standardization of Cooling Valve Assemblies

The plungers and coils used on TT300 compressors were unique compared to the other TT and TG series compressors. The TT300 has been updated to so that the solenoid plungers and coils are now common with all the other models. This change has been made effective for all compressors with serial number 142035030 and higher.

TT300 Replacement Parts

The previous solenoid plunger (DTC p/n 901963) and previous solenoid coil (DTC P/N 100063-2) have been made obsolete and are no longer carried by DTC. The new cooling solenoid valve assembly which is applicable to the TT300 is DTC p/n 100150.

Spare Part	Previous P/N	New P/N
TT300 Cooling Valve Kit	100150-2	100150

In the event that a TT300 compressor manufactured using the previous style plunger needs to be replaced, the entire cooling valve assembly will need to be replaced. If a solenoid coil on a TT300 with the previous style plunger needs to be replaced, then the current coil assembly (DTC p/n 100063-1) is fully interchangeable with both the old and new style cooling valves.

A decision flow chart at the end of this document is available to assist in the proper selection of the necessary TT300 replacement part(s).

Cooling Valve Assembly and Component Parts Available

DTC has also updated the availability of spare parts to allow customers to replace only the specific part that is needed. Currently, a customer has to purchase the entire kit contents which contained all the

parts associated with both cooling circuits including coil assembly, orifices, plungers, o-rings, etc. These kit assembly part numbers are listed in the table below.

Models	Design Series	Cooling Valve Kit
TT300	R22 Serial Cooling	100150
	R22 Split Cooling	100150-1
	R-134a	100150
TT350	380V	100150-7
	400V / 460V	100150-3
TT400	-P Models	100150-1
	-C 380V / 400V / 460V Models	100150-4
	-C 575V Models	100150-5
TT500	All Models	100150-3
TG310	All Models	100150-6

The kits will continue to be made available; however, customers now have the ability to purchase the plunger, orifice, or O-rings separately. The table below describes the appropriate replacement parts depending on the compressor model and series needing replacement.

Models	Design Series	Plunger Assy ^{***}	Orifice [*] (Motor Cavity)	Orifice [*] (Power Inverter)	O-Ring Kit ^{***}
TT300	R22 Serial Cooling	100233	100236	100236	100241
	R22 Split Cooling	100233	100237	100237	100241
	R-134a ^{**}	100233	100236	100236	100241
TT350	380V	100233	100238	100239	100241
	400V / 460V	100233	100238	100240	100241
TT400	-P Models	100233	100237	100237	100241
	-C 380V / 400V / 460V Models	100233	100240	100240	100241
	-C 575V Models	100233	100239	100240	100241
TT500	All Models	100233	100238	100240	100241
TG310	All Models	100235	100239	100240	100242

* Orifice kits do not include O-Rings. O-Rings must be ordered separately.

** This table is only applicable for TT300 compressors using R134a which have a serial number 142035030 and higher. For Serial numbers earlier than this, the entire cooling valve assembly must be replaced. Use DTC p/n 100150.

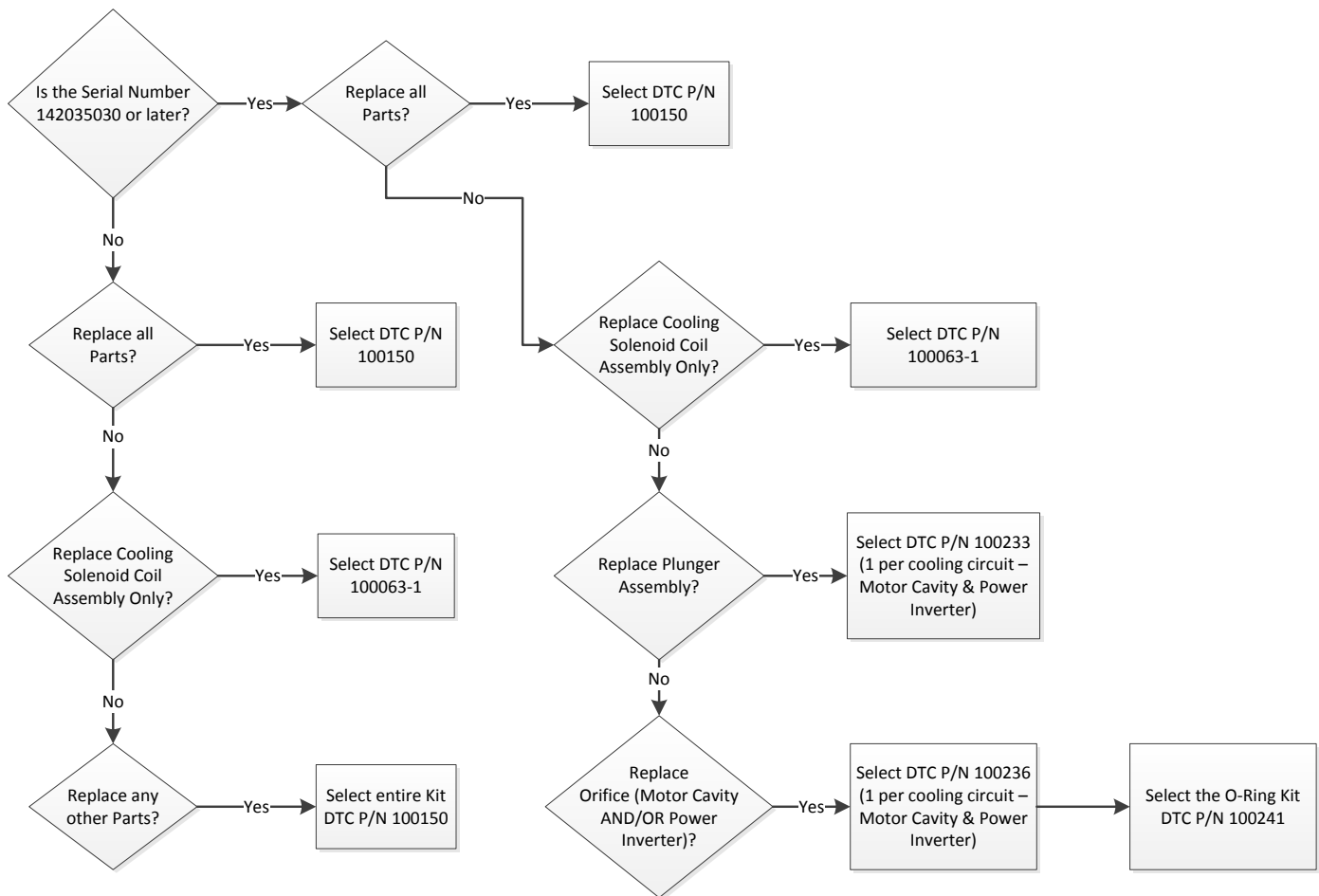
*** O-Rings for plunger assemblies are not available and are only available by purchase of the Plunger Assy.

Action Required

No Action is required by customers at this time. For pricing information related to the new spare part numbers created for the Plunger Assy, Orifices, and O-Ring Kits, please contact your Key Account Manager.

TT300 R-134a Replacement Parts Decision Flow Chart

In the event that a replacement part is needed for a TT300 R-134a compressor, the following decision flow chart is provided to assist in ensuring the right spare part is selected.



For any additional information regarding this change, please contact your Key Account Manager.