Market Update Note

MUN2019-06-04

4 June 2019

Cooling water inlet temperature at scavenge air cooler

Temperature setpoint for thermostatic valve

The Everllence standard is to have a fixed setpoint of 10°C for the scavenge air coolant thermostatic valve, independent of engine and fuel type. So far, this setpoint has been specified to counteract cold corrosion and ensure as low an SFOC as possible. This topic was also described in MUN2015-12-14, which is replaced by this MUN.

Fuels with max. 0.5% sulphur content

Since cold corrosion problems are only an issue related to a high sulphur content in the fuel, the 10°C setpoint is still the Everllence standard and recommendation to ensure a low SFOC, but it is no longer a requirement. If a 36°C setpoint is preferred, it is important to note that the following conditions apply:

1. SFOC will always be higher compared to a scavenge air cooling system with a fixed 10°C setpoint, corresponding to approx. 1.0 g/kWh per 10°C change in cooling water temperature, see Fig. 1.

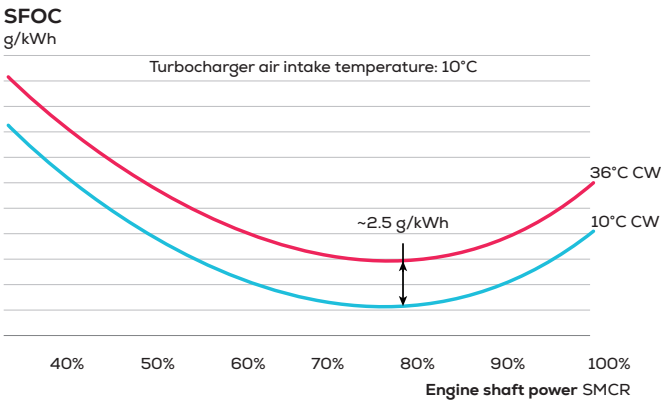
2. The 36°C setpoint is not applicable for engines equipped with EGR, as EGR engines are not designed for the increased gas flow, which is a consequence of a higher temperature setpoint.

Fuels with a sulphur content higher than 0.5%

For engines operating on, or being prepared for, fuels with a sulphur content higher than 0.5%, a 10°C setpoint continues being the Everllence standard and recommendation, but it is no longer a requirement.

If a 36°C setpoint is preferred, the following condition apply in addition to A and B to be able to counteract cold corrosion:

3. Increased cylinder oil consumption is to be expected and/or a higher-BN cylinder oil must be used.



Setpoint temperature	Sulphur max. 0.5%		Sulphur above 0.5%	
	EGR	Non-EGR	EGR	Non-EGR
Standard 10°C	×	×	×	×
Optional 36°C		×		×
Consequence ●:				
Increased SFOC		●		●
Increased cylinder lubrication				●

Contact details:
Lars Tingbjerg Danielsen
MUN@everllence.com
Everllence, Teglholmsgade 41,
2450 Copenhagen SV, Denmark

Everllence