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Emission standard for NO_x certification updated to Tier III for combustion stability mode

All WinGD engines with X-DF2.0 technology

1 Introduction

WinGD presents an update to the Combustion Stability Mode (CSM) emission standard of X-DF2.0 technology. CSM is a back-up mode for when the iCER system is not available. CSM now allows IMO MARPOL ANNEX VI NO_x Tier III compliance up to 100% engine load. This means that CSM is now exclusively available as Tier III compliant.

Newly contracted projects with X-DF2.0 technology will only come with Tier III compliance. Already-contracted projects will be handled on a case-by-case basis and delivered with either CSM Tier II or Tier III compliance as agreed.

2 Combustion stability mode

CSM technology is specific to engines with X-DF2.0 technology and can be selected as an operating mode across the same engine power range as gas mode. When CSM is selected, the engine will run mainly on gas fuel, however without iCER. CSM can be active at as low as approximately 10% Contracted Maximum Continuous Rating (CMCR) power. From 10% and up to less than 26% CMCR power, only gas fuel is applied. Starting from 26% CMCR power, a part of the gas fuel is replaced with liquid fuel to ensure stable combustion. Depending on the engine rating, it is possible that the 26% CMCR power limit may vary slightly by a few percentage points.

CSM injects liquid fuel by the main injectors, in addition to the gas fuel. The amount (or ratio) of the diesel injected is predominantly a function of the engine power and is controlled by the engine control system.

While CSM is active, the engine is NO_x Tier III compliant.