

# Update to Minimum Gas Supply Inlet Pressure Requirement

Date: 2020-07-15

Reference No.: 22589/CTU101/TIN019

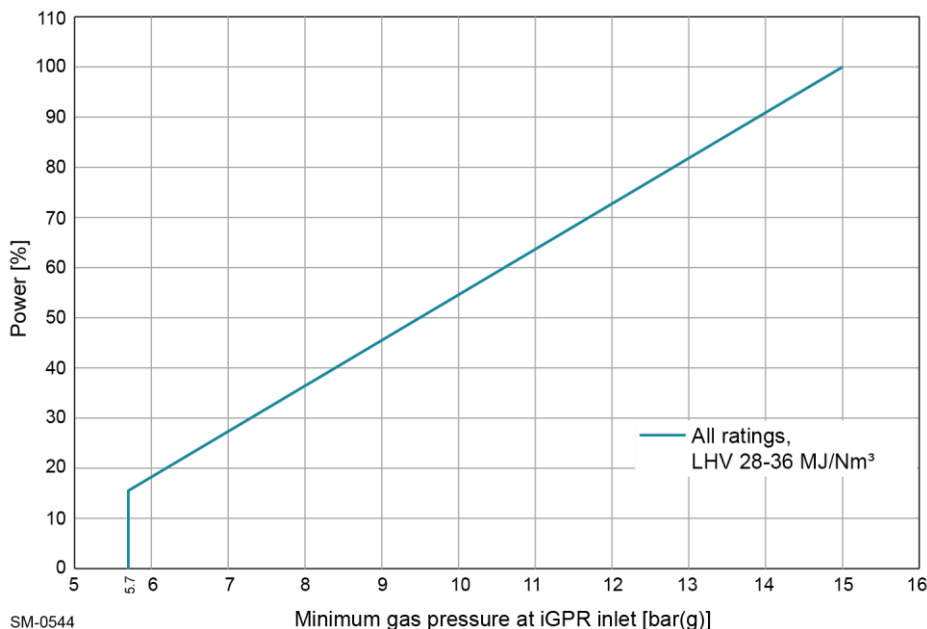
WinGD Engines: X82DF-1.0 and X92DF

## Information

During recent tests on large bore X-DF engines, improved mixing of the gas fuel with combustion air in the cylinder was achieved when using the minimum 15 bar(g) gas supply pressure at the engine inlet and at 100% Contracted Maximum Continuous Rating (CMCR). The improved mixing enables a lowering of firing pressure, which in turn shifts the activation of Dynamic Combustion Control (DCC) under adverse ambient conditions to a higher power.

The minimum gas supply inlet pressure of 15 bar(g) had previously been defined only in connection with Lower Heat Value (LHV) 28 MJ/Nm<sup>3</sup> and R1-R3 rated engines. Based on the recent test results, however, the minimum gas supply inlet pressure at 100% CMCR power output for the X82DF-1.0 and X92DF is no longer related to LHV nor the engine rating in the new installation guidelines. The minimum gas supply inlet pressure can be adapted according to the actual engine power output in the range from 5.7 bar(g) to 15 bar(g) as shown in Figure 1.

The changes in the minimum gas supply inlet pressure will be implemented in the next MIM and GTD release.



SM-0544

Figure 1: Minimum gas supply pressure at engine inlet (iGPR)