Wärtsilä offers a re-designed connecting rod for the S20(U) engine types to improve engine operation reliability. Although connecting rods in general are expected to have a lifetime up to 100,000 running hours depending on the operational profile, the previous generation of Sulzer S20(U) connecting rods had in some cases a lifetime of 25,000 running hours.

The materials and re-design of the new generation connecting rod will enhance its durability and extend its lifetime to live up to the lifetime generally expected from connecting rods.

PREVENTING THE UNEXPECTED
Field experience has shown premature deformation of the previous generation connecting rod before the expected end of component lifetime. Deformation of the big end bore can cause excessive crankshaft wear. With the new Wärtsilä connecting rod design this premature deformation has been addressed, resulting in higher operational reliability and minimized downtime.

Extended component lifetime also reduces the costs of scheduled overhauls, while higher operational reliability reduces the costs from unscheduled repairs.

A FUNCTIONAL SOLUTION FOR ALL SULZER S20(U) ENGINES
The re-designed Sulzer S20(U) connecting rod is applicable to all Sulzer S20(U) engines, regardless of engine make. It has class approval and is fully interchangeable with the former design connecting rod. Mixed use of the old and new design connecting rods is allowed without any restrictions. Existing connecting rod tools and tightening procedures remain applicable for the re-designed connecting rod. You can order the re-designed connecting rod by using the existing spare part code 3301/A102, from your Sulzer S20(U) code book.
Improved Reliability Through Root Cause Analysis

Although the previous generation Sulzer S20(U) connecting rod was found suitable for its intended purposes, for certain operational profiles, Sulzer S20(U) connecting rods could have the tendency to develop rapid deformation of the big end bore. Limited contact surface area of serrations, resulting in increased material stresses and residual material stresses after forging, contribute to permanent deformation of the big end bore.

Root cause analysis of this problem has lead to the following improvements:

• Forging of connecting rod according to the latest standard Wärtsilä forging specification
• The shank and cap for the previous generation connecting rod were forged separately. The re-designed connecting rod is forged from one piece, resulting in homogeneous material and improved distribution of forces.
• Optimised serrations contact surface area, resulting in decreased material stresses

The re-designed connecting rods will reduce the operational costs of your installation by:

• Extended lifetime of the component
• Preventing the unexpected by improved engine reliability
• Decreased costs of both scheduled and unscheduled repairs