

Leistritz Screw Pumps for Low Sulphur Fuel Oil (LSFO)

- New Environmental Regulations for fuel oil since 1st January 2015
- Sulfur content in marine fuel further decreased to 0.1%
in the SECA areas
- In 2020 a global restriction of max. 0.5% will come into effect

Reducing the sulfur content reduces viscosity and additionally generates poor lubricity of the fuel, especially when operating with Low Sulfur Diesel Fuels (MDO/MGO). The combination of these two as-

pects has negative impact on the correct functioning of 3-spindle screw pumps in a fuel system. At a too low viscosity the lubricating fluid film between the spindles and the pump housing becomes inadequate. The danger of metallic contact between spindles and housing, with jamming of the pump as a result, is highly increasing.

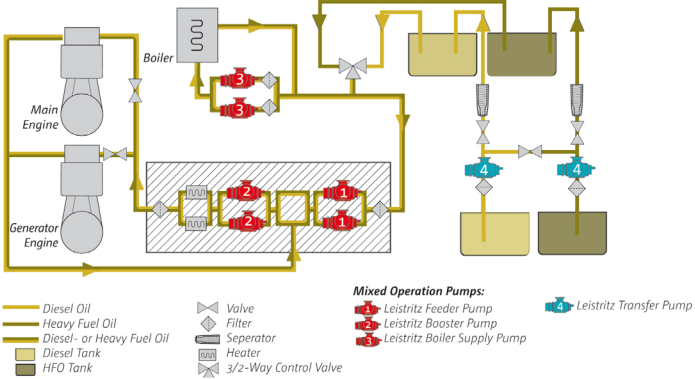


Fig. 1: Fuel Oil Supply System

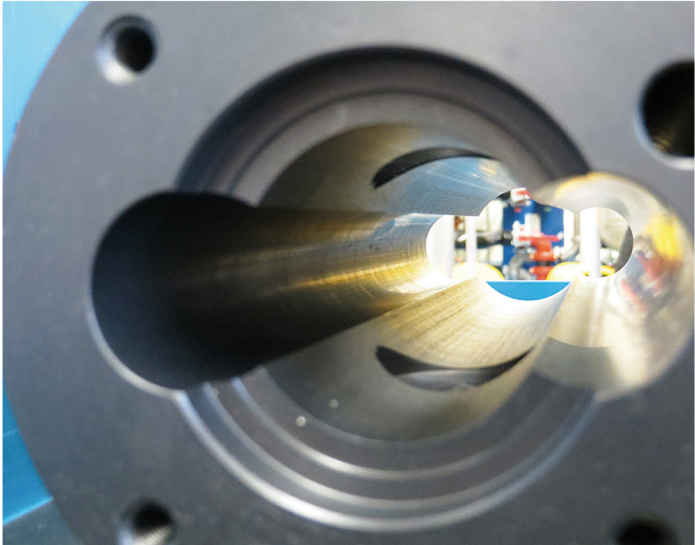


Fig. 2: View into pump housing/liner

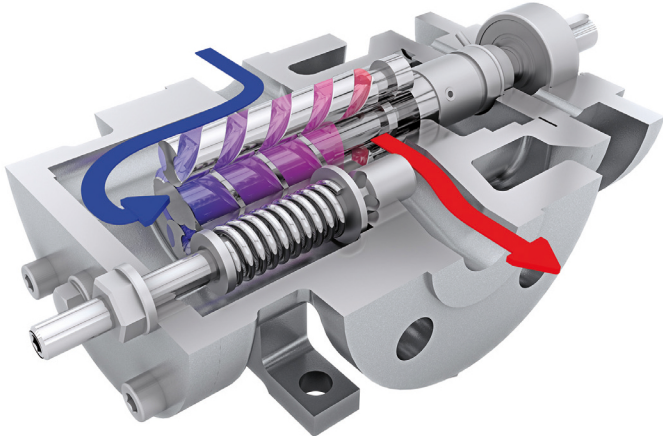


Fig. 3: Example L3NG pump

Leistriz has developed and tested an adequate surface treatment for pump housings and a custom finish of the spindles for her 3-spindle screw pump series to deal with above challenges. The wetted parts with this special treatment are able to handle both fuels as Heavy Fuel Oil (HFO) and Low Sulphur Diesel Fuels (MDO/MGO), also in dual-fuel applications.

- Application: Fuel supply pump for diesel engines and boilers
- Fluid: Low Sulfur Diesel Fuel Oil (LSFO/MDO/MGO) and Heavy Fuel Oil (HFO)
- Viscosity: Down to 1,5 mm²/s
- Pressure: Up to 30 bar
- Pump Type: L3NG/L3MF/L3MG acc. manufacturers selection
- Materials: EN-GJS-400-15 (0.7040) pump housing/liner with special surface treatment 16MnCr5 (1.7139) spindles, nitrided with special finish

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