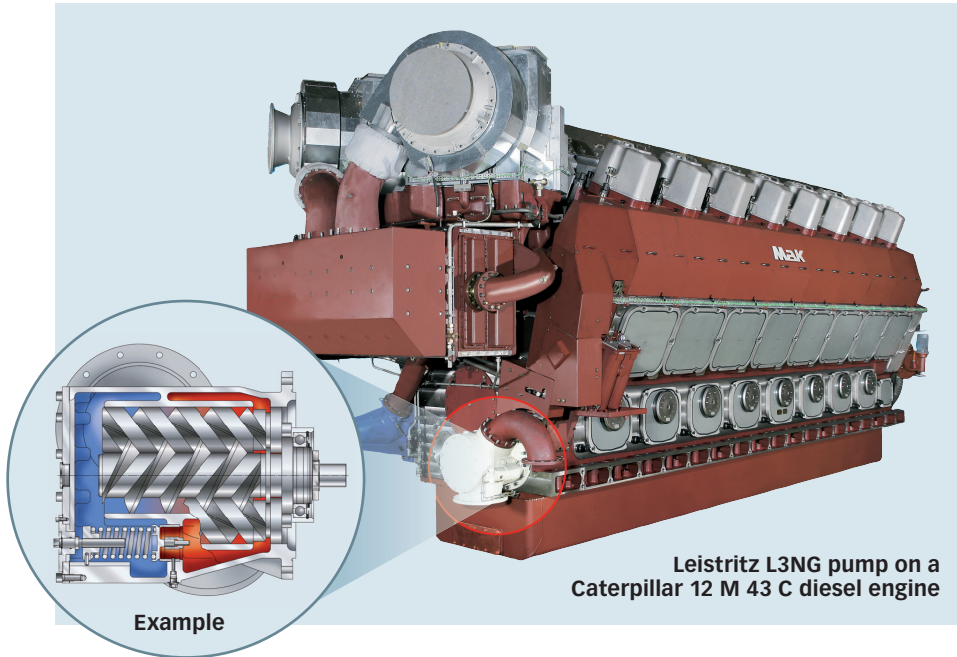


Direct-driven screw pump for diesel engines



Leistriz L3NG pump on a Caterpillar 12 M 43 C diesel engine

Example

LEISTRITZ PUMPEN | The lube oil supply to a vessel's main diesel engines requires pumps that must simultaneously guarantee appropriate flow and pressure, reliable operation in rough seas, small installation space, high robustness and a long service life.

Leistriz Pumpen GmbH, located in Nuremberg, Germany, produces a special type of screw pump for the lube oil supply to diesel engines from well-known, market-leading manufacturers. The pump is designed to be directly coupled to the diesel engine. As a result, the pump connections

and flanges are adapted to particular diesel engines' configuration.

Leistriz pumps are designed for a service life of 45,000 operating hours and are mostly equipped with an integrated safety relief valve as standard. They can be used on ferries, cruise liners, container vessels, tankers or any other seagoing or specialised ships. The high robustness, reliability and operational safety of the direct-driven pumps continue to be successfully put to the test daily in long-term ship service.

When compared with other main lube oil pumps that are also used, for example,

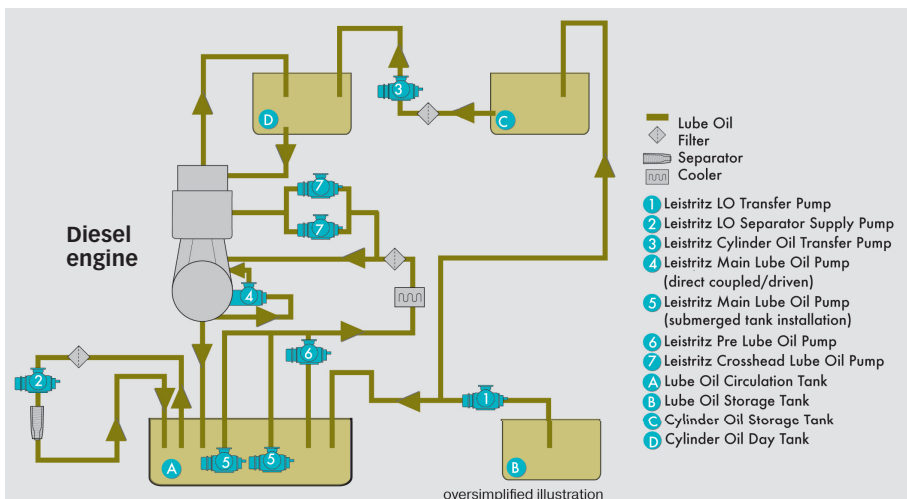
in tank-submerged installations, direct-driven pumps have numerous advantages. They include their small size, structure and required installation space. The pumps are also easy to handle for dismantling and maintenance and have few parts. Inherent in the pumps' design is that they do not require any electrical drive or supply since they are directly coupled to the diesel engine. Furthermore, the pumps do not require any shaft sealing. Lubrication of the pump internals is done by the lube oil itself as pumped fluid, so replacement of mechanical seals is unnecessary.

In connection with the directly coupled, lube oil screw pump, the diesel engine provides an adequate supply of lube oil in direct proportion to the rotational speed of the screws. The screw pump has reliable suction capability to lift the lube oil from the engine's internal oil sump. If prefilling of the system after longer stops of the diesel engine becomes necessary, an additional pre-lube oil pump of the same type – L3NG – should be used, e.g. as a standby vertical pedestal pump variation (including an e-motor in this case).

About Leistriz:

Established in 1905 and headquartered in Nuremberg, Germany, Leistriz is one of the largest global manufacturers of screw pumps. Its product portfolio includes single- and double-volute twin-screw pumps, triple-screw pumps and five-screw pumps.

www.leistriz.com



P&ID lube oil supply system for marine applications

▶ EXAMPLE OPERATING DATA

Direct-driven Leistriz screw pump

Pump series	L3NG-225/195-IFOGVA-O
Operating temperature	lube oil SAE 40 from ca. +10° to +100°C
Rated temperature	+20°C to +80°C
Capacity	370m ³ /h @ 10 bar, 80°C, 26 cSt and 1,500 rpm
Power demand (pump)	134 kW