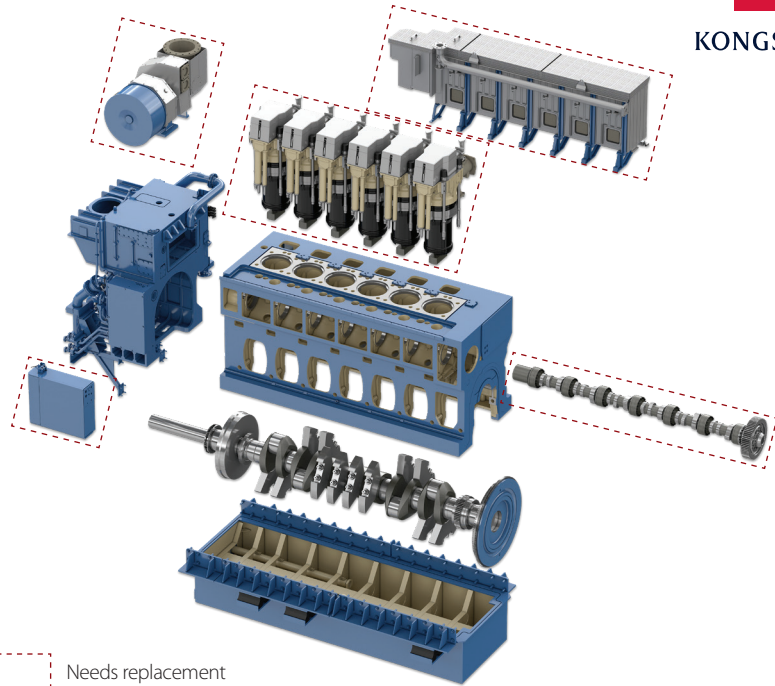


# BERGEN ENGINES

Kongsberg Maritime is the exclusive distributor of Bergen Engines medium speed engines for commercial marine applications.



KONGSBERG



 Needs replacement

## DIESEL AND GAS ENGINE

# Fuel flexibility without compromise

Bergen B33:45 – liquid fuel engine  
Bergen B36:45 – lean-burn gas engine

With the latest Bergen engine series, it is possible to convert from liquid fuel to gas, and vice versa, keeping the performance at its peak at all times – with no compromise.

The rapid changes towards a greener future makes it difficult to predict changes to emission regulations, fuel prices and fuel availability. LNG bunkering infrastructure is still variable across the world, and a vessel may change operational area during its service lifetime. So, which fuel type should you choose for your next project? With our modularized engine platform, you get the flexibility you need.

The latest Bergen engine series is based on a common platform for all fuel options and applications. The standardized modules have been optimized so that the major parts are common for liquid fuel and gas – in fact, engine block, crankshaft and foundation are identical.

This means that if the operational environment changes, a fuel conversion can be done onboard, with the replacement of some minor components. These are typically power pack, camshaft and exhaust manifold, so use of the existing maintenance area is sufficient. The connections to auxiliary equipment are standard for both fuel types, and the engine installation setup remains unchanged.

With the modularised concept, the engine can be rebuilt for a different fuel type in less than four weeks (depending on number of cylinders).

## BENEFITS

- Engine(s) can meet future changes to regulations and fuel availability
- The engine(s) can be rebuilt onboard
- No docking required
- Engine installation setup remains unchanged (except fuel system)
- No need for steel cutting to do the rebuild

The new Bergen engine series can be rebuilt for a different fuel with minimal downtime, and with savings on World Wide Exchange pool (WWEP) components.

The replacement components are quick to install, and many of the parts that are removed, can be sold back to the Bergen Engines WWEP. All owners of a Bergen engine can use the concept. With this program, overhauled components (covered by a OEM warranty) arrive on board ahead of the service/rebuild for fast installation, while components due for service can be returned to our exchange pool for overhaul, reducing downtime to a minimum.

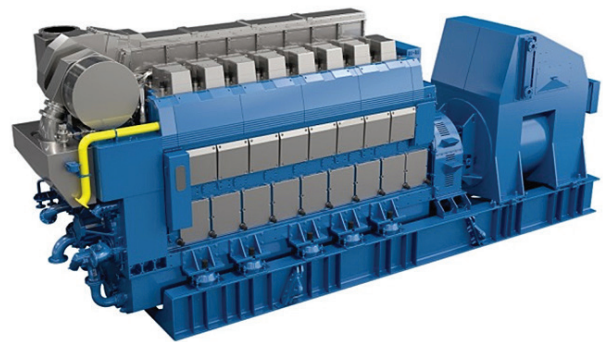
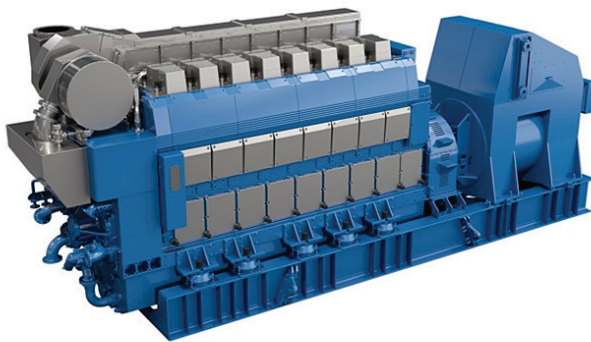
### Most typical applications

- Ferry
- RoPax
- Cruise
- Cargo



### Can you see the difference?

The gas and liquid fuel engine versions have so many components in common that the only visible difference is represented by the characteristic yellow gas pipes on the gas engine.



The Bergen B33:45 liquid fuel version is compliant to IMO Tier II, and IMO Tier III if an SCR system is applied

The Bergen B36:45 gas engine is compliant to IMO Tier III and EPA Tier 3, with no need of exhaust after treatment system.

The pictures show generator sets. Propulsion engines are included in the portfolio.

