

MAN B&W ME-LGIP Propulsion

Meet regulations and take advantage of global fuel prices with the world's first dual-fuel LPG marine engine.

Benefits at a glance

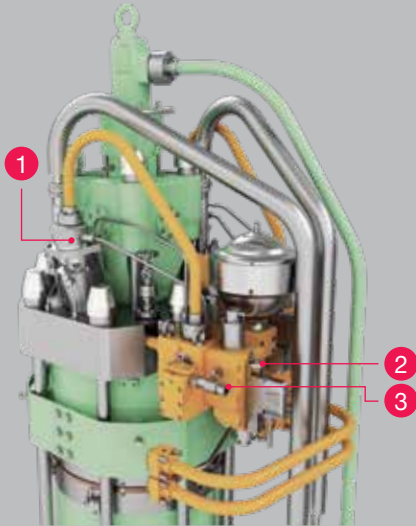
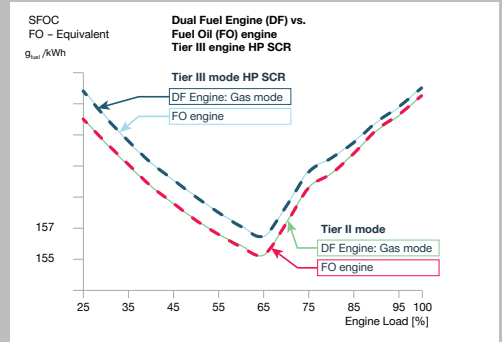
- Meet current and future SO_x regulations
- Lower total cost of operation
- Switch between VLSFO, MGO or LPG with no performance loss
- Efficient and reliable low speed, two-stroke engine
- Simple retrofit solution
- Lower CO₂ emissions by 13-18%



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Propulsion

Comparison of fuel consumption



Cylinder cover with LPG injection valve and gas block

- 1 LPG injection valve
- 2 ELGI valve (injection timing)
- 3 ELWI valve (fuel pressurization)

General

- Engine cycle: two-stroke
- Number of cylinders: 5 to 8 depending on bore size
- Bore: 350, 500, 600 and 700 mm
- Stroke/bore ratio: 4.0 to 4.65

Fuel consumption at part load optimization

- Same heat rate on fuel oil and LPG
- 80% MEP derated engine at 65% load:
 - G60ME-LGIP: 155 g/kWh
 - G50ME-LGIP: 154 g/kWh

MEP and speed derating

- Large layout area
- G60ME-LGIP: 56% power derating possible
- Multiple choice of engine size and number of cylinders to match optimum propeller design and power

Compliance with emission regulations

- IMO Tier II
- IMO Tier III (with SCR, EGR or EcoEGR*)
*for improved efficiency when operating in Tier II mode

Main features

- **Turbocharging system**
High efficiency constant pressure turbocharging systems with MAN, ABB or MHI turbochargers as standard
- **Engine automation and control**
In-house developed gas safety and control system
- **Fuel oil system**
Common injection system for pilot oil and for main injection
- **Gas system**
LPG injection by fuel booster injection valves (FBIV)

- Tolerant to many different LPG compositions

Auxiliary systems

- Gas supply conditions: circulation with supply at 50 +/- 2 bar and 25-55 deg. C

MCR = Maximum Continuous Rating
SCR = Selective Catalytic Reduction
SFOC = Specific Fuel Oil Consumption

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