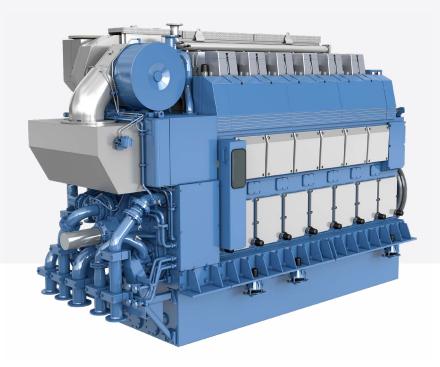


# **B33:45L**

**Direct Propulsion** Liquid Fuel 3,600 - 5,400 kW





## **Cost Effective Operation & Design**

Developed through consultations with operators, designers, and shipbuilders, Bergen's B33:45L offers cost-effective operation through modular design, delivering the efficiency and dependability we're known for with the servicefriendly design our customers appreciate.

The engine provides proven reliability with extended service intervals of up to 25,000 hours, minimizing downtime and maintenance costs. It meets IMO Tier II compliance without the need for Selective Catalytic Reduction (SCR) and achieves Tier III compliance with SCR, ensuring adherence to stringent environmental regulations. Additionally, its fast load response, low vibration, and structural noise levels ensure smooth and efficient operation in any application.

The B33:45 engine features full equipment health monitoring with 24/7 global service support, including emergency assistance and a comprehensive network of trained service engineers and workshops. The modular, low-weight construction allows for ease of installation and maintenance, with adaptable exhaust routing and aligned piping for straightforward connections. Our flexible design includes the capability to convert between liquid and gas operation via Bergen's B3X Engine Platform, providing versatility in a future proof solution for any future fuel type. Furthermore, its compact size and high power per cylinder make it ideal for small engine rooms, requiring fewer units to maintain.

Capable of operating on inclines up to 25 degrees, Bergen's engines reduce the need for additional emergency generators, saving space, weight, and costs for our customers. The Bergen B-series is Europeanmade with high-quality components, ensuring longterm reliability and efficiency. Its high power per cylinder and fewer units required for maintenance make it a trusted choice for ship owners globally, backed by Bergen's commitment to excellence and sustainability.

#### **Key Benefits for** Shipyards

- Easy Installation
- In-House TVC Expertise for Complex Applications (e.g. Research vessels, seismic, fishing, etc.)
- **Pre-Commissioning** Support to Minimize Idle Time
- **Dedicated Bergen Engines** Service Engineers for Commissioning and Troubleshooting

# **Product Range**





#### **Weight & Dimensions**

|            | Weight<br>(kg, dry) | Length of<br>Foundation<br>(mm) | Length of<br>Engine<br>(mm) | Width<br>(mm) | Height<br>(mm) |
|------------|---------------------|---------------------------------|-----------------------------|---------------|----------------|
| B33:45L6 P | 42,360              | 4,510                           | 5,760                       | 2,375         | 3,890          |
| B33:45L8 P | 53,345              | 5,550                           | 6,800                       | 2,665         | 4,160          |
| B33:45L9 P | 56,405              | 6,070                           | 7,320                       | 2,665         | 4,170          |



#### **Technical Data**

|  | B33:45L6 P | B33:45L8 P | B33:45L9 P |
|--|------------|------------|------------|
| Number of Cylinders                    | 6          | 8          | 9          |
| Engine Speed (r/min)                   | 750        | 750        | 750        |
| Mean Piston Speed (m/s)                | 11.2       | 11.2       | 11.2       |
| Max. Cont Rating (MCR, kW)             | 3,600      | 4,800      | 5,400      |
| Max. Cont Rating (BHP metric)          | 4,895      | 6,525      | 7,340      |
| Mean Effective Pressure (BMEP, bar)    | 24.94      | 24.94      | 24.94      |
| Specific Lub Oil Consumption (g/kWh)   | 0.5        | 0.5        | 0.5        |
| Specific Fuel Consumption (g/kWh)      | 175        | 174        | 173        |
| Cooling Water Temp. Engine Outlet (*C) | 90         | 90         | 90         |









#### Stroke Ratio

|                        | B33:45L |
|------------------------|---------|
| Cylinder Diameter (mm) | 330     |
| Piston Stroke (mm)     | 450     |
| Ratio                  | 0.73    |

#### GENERAL CONDITIONS

- · All technical data is valid for 100% load.
- Engine power definition is according to ISO 3046-1
- Specific fuel consumption is measured on testbed according to iso 3046-1, using diesel-oil with a net heating value of 42.7 MJ/kg and no engine driven pumps.
- · Specific lub. Oil consumption is for guidance only.

#### DISCLAIMER

 Due to continuous development, some data may change. The information does not carry any contractual value.

## **Sustainability**

#### **Future Fuels**

Our customers are making long-term investments when planning their next project, yet uncertainties loom regarding future fuel availability, costs, and regulatory landscapes, including potential CO2 taxes. That's why Bergen Engines' modular design prioritizes fuel flexibility, enabling customers to navigate these uncertainties with confidence.

This flexibility ensures reliability and top efficiency ratings for our engines, regardless of the fuel type you choose to operate with today, providing peace of mind and longevity to your investments.

Learn more about our ongoing research with Hydrogen, Methanol, Biofuels and Ammonia.

