



G E C A L S T H O M

RUSTON DIESELS



RK215 Diesel Engine

Features and benefits

The Newer 8000's compact engine used hydroformed high-strength cast-iron cylinder heads with a bore of 21.3 mm per cylinder at 80° crank. The six cylinders in the engine produce over 1,000 HP at 1,500 rpm. Though cylinders are four-stroke, production up to 1,000 HP, modified 12 cylinder two-stroke up to 1,600 HP.

These engines are suitable for marine propulsion, marine auxiliary, land-based power applications and oil motor drives.

Cost-effective

The 8000's construction design reduces the weight without the loss of vital capabilities.

Ease of maintenance

The modernized 8000's offer extended service intervals with easy access for servicing and efficient lubrication and fuel-injection systems to minimize costs to customers.

Fuel efficient

By utilizing the latest combustion chamber technology, coupled with wet fuel injection and optimized cylinder pressure, fuel consumption is reduced to achieve competitive fleet.



A cylinder head engine.

Features of standard accessories, such as alternator, fuel filter and cooling water pump, make the engine package ready to go. Standard package weight with a length of 2,000 mm, 40 mm diameter shaft and over 1,000 mm fuel tank length (1.2 m).



Reduced space requirements

The compact design of the RT22.3—the highest BHP cubic meter ratio in its class—reduces space requirements substantially, simplifies installation and allows more access for maintenance.



Explosion-free engine

Explosion-free components, such as the RT22.3 engine, can only be safely operating when there is absolutely no risk to avoid large RT22.3 engine explosion. The engine dimensions (100 cm x 100 cm x 100 cm) are 100% safe.

Minimized environmental impact

The design of the RT22.3 fuel delivery system and combustion chamber results in minimal exhaust smoke levels (less than 1.5 km/h).

High power-to-weight ratio

The RT22.3 weighs less than other medium speed engines and many high speed designs. This enables the advantages of medium speed engine durability, efficiency, low maintenance costs to be applied over much wider range of engine types. Low weight can also result in substantial savings in foundation and installation costs.

Ease of installation

The design of the RT22.3 incorporates "standard" components such as filters, lubrication and cooling water circuits, enables quick and simple installation.



Constructional features

Crankcase

The crankcase is cast in nodular iron and its construction is characterised generally steel reinforcements.

The main bearing caps are secured by lockbolts, lockwashers and in some versions integral with the crankshaft cap.

Individual cylinder legs are cast integrally, not to allow general cast iron cast parallel the shell flange design. Bearing surfaces are polished, honed and finished to improve the oil retaining ability under all ratings.

Crankshaft

The crankshaft crankshaft is machined from a single piece of steel. The crankpins are fully forged giving a high resistance to fatigue. Two balance weights are fixed to each crank. They are cast against the crank web and generally fabricated of the thickness incorporated in the bearing.



Superb cast aluminium made of an aluminium alloy composite which allows mechanical efficiency and stress.

Operational Flexibility

The versatile W113 range of engines is fitted to many configurations and for particular operational requirements of marine propulsion, marine electrical power generation, boat and outboard power generation, auxiliary marine drives.

Power output

The compact design and high power to weight ratio allow W113 engines to be ideal choice for marine propulsion, where availability, increased weight considerations and of particular importance.

Typical examples include the 12-cylinder W113 12-cylinder engine in North Atlantic generating 1000 kW (1350 hp), and up to 40 kW (54 hp) outboard.

W113 12-cylinder engine power from 1000 kW to 100 kW engine are the ideal choice.



400 horsepower W113 12-cylinder engine in 1000 kW (1350 hp) outboard for the W113 12.

Basic engine parameters

Power	4-cylinder: 1000 kW
	6-cylinder: 1400 kW
	12-cylinder: 1000 kW
Engine speed	1000 rpm/min
Bore and stroke	11.2 x 275 mm
Stroke	11.2 mm
Valve timing system	Single stage
Power ratio	1.0
Cylinder arrangement	6-cylinder
	8, 12, 16-cylinder
Engine volume per cylinder	10 liters
Weight/power ratio	4-cylinder: 1.1 kg/kW
	6-cylinder: 1.1 kg/kW
	12-cylinder: 1.1 kg/kW



12-cylinder W113 12-cylinder engine in 1000 kW (1350 hp) outboard for the W113 12.



Level based power

The low weight of the 4000 L, equipped with synchronous induction speed engine, offers excellent storage characteristics and installation ease. Its unique construction is particularly advantageous for level based power installations.

Self-priming 1000 standard volume control (4000 L) engine. Single bearing to control bearing clearance, and using experimental air intake pressure control.

Red power

The 4000 L is suitable for a range of low-voltage motor loads, both for new installations and for replacement engines where the speed and power match existing electrical equipment.

The 4000 L is suitable for starting medium freight passenger and rail car applications, using other methods in electrical installations.

Red and 4000 L are engine replacement alternatives for applications where the overall height of the generator has to be kept to a minimum and space is limited.

The compact design means optimal protection against dust, moisture and noise.



Close-up view of the 4000 L generator, showing the engine compartment and the air intake system.



Close-up view of the 4000 L generator, showing the engine compartment and the air intake system.

These are the main features of the 4000 L generator, which is a compact and efficient power source for many applications.



Kvaerner Steels Limited, Valley Works, Hunter in Millway, Newcastle, NE12 8BA, England.
Tel: (01632) 204430, Telex: 627 171 G, Fax: (01632) 228000.

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