



MADE IN CHINA  
TYPE 88-1/2000  
TECHNICAL SPECIFICATIONS



## C8M BR 1-2000 Engine

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### Construction Features

- W type configuration with 48° angle
- Pre-chamber fuel injection
- Closed-circuit, fresh-water cooling
- Pressure-pulse supercharging
- Supercharging-air cooling by sea water

### Main features

- Compact construction
- Very high power/mass ratio
- Optimized diameter for the highest mechanical and thermal coefficients
- Modular construction



## Description

The fully-machined main of this engine is the outcome of using the best materials with the best advanced, accurate machining techniques especially conceived for their most relevant applications.

The following components in cast-iron can be used:

- Cast light alloy and heavily treated crankcase and cylinder heads, suited to the limited 2D-dimensional members so that the material can be used to the full while maintaining strength at critical points within alloy limits.
- Pressed steel cylinders with integral combustion chambers.
- Pressed, nitrided steel crankshaft, with specially designed coupling areas for the large side and high valve coefficients on both static and dynamic stresses.
- Built-in torsion-spring damping for the joint dynamically balanced together with the crankshaft.
- Heavy cast and reinforcing cast in high-strength steel alloy machined for precise balancing with minimum variation on the load chain.
- Monorail and connecting rod head and foot bearings designed to contain vapour phenomena.
- Pressed light-alloy pistons capable of withstanding considerable thermal loads, uniform-coated inside and reduced vapour driven by both combustion gas heat.
- Cast-iron head for gas confining, offset limited compression gearing with ballrocks: 88% = 50/50.



## Design features

Arrangement		VF
No. of cylinders		16
Angle between cylinder banks		45°
Bores/stroke	m	500/610
Overall water displacement	m <sup>3</sup>	200,000
Individual piston displacement	m <sup>3</sup>	12,500
Compressor ratio		14
Supercharging ratio		1.5
Direction of rotation		Clockwise (CCW)
Cooling water		Feed and hot water
Supercharging system		pressure ratio
Boiling control		electric pilot type
No. of valves per cylinder		4
Camshaft		5
Valves		ground high speed
Cylinders		ground and hardened steel
Camshaft		ground and hardened steel
No. of crankshaft bearings		7
Crank pin diameter	mm	167
Main journal diameter	mm	167
Injection pump		5000 cc
Flow governor		variable speed mechanical type variable flow for bypass
Capacity/boiler water pump-delivery	m <sup>3</sup> /h	60
Capacity sea water pump-delivery	m <sup>3</sup> /h	60
Full flow rate type air cooling seawater pump-delivery	m <sup>3</sup> /h	20
Capacity of pump-delivery	m <sup>3</sup> /h	15
Lubricating system		dry sump
Dry sump with standby compressor (cc/h) and compressed air starting	kg	1000
kg	kg/cm <sup>2</sup>	1.05

## Non-magnetic features

production type for below the model

Standard construction	of	20
Special construction	of	10
10% antistatic treatment	of	3

# Performance

Below 1000 rpm (optional)

for 1000-1500 rpm  
for 1500-2000 rpm

for 1000-1500 rpm  
for 1500-2000 rpm

ISO 9001 standard

Continuous rating	1000
rpm	2000
Max rating	1000
rpm	2000

ISO 9001 standard

Continuous rating	1000
rpm	2000
Max rating	1000
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ISO 9001  
1000-1500

Below 1000 rpm  
optional

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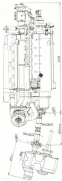
for 1000-1500 rpm  
for 1500-2000 rpm

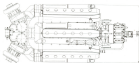
ISO 9001  
1000-1500

Below 1000 rpm  
optional

for 1000-1500 rpm  
for 1500-2000 rpm

# 16-VP300 V-DEISEL configuration







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