



The Ricardo diesel engines was designed in advance of today's uncompromising demands within the power generation industry and includes superior performance and reliability. R series diesel engine is a four-stroke, vertical water-cooled, inline and direct injecting combustion chamber type, high-speed diesel engine.

Their premium design and specification features provide economic and durable operation as well as exceptional power to weight ratio, improved serviceability, low gaseous emissions, overall performance and reliability essential to the power generation market.

Introduction to Model Naming

R 6 100 Z D 1 - 2

⑦ ⑥ ⑤ ④ ③ ② ①

①: distinguish symbol, expressed with number sequence

②: version symbol, expressed with number sequence

③: uygulama özellik sembolü, alfabeyle ifade edilir

no alphabet: for common usage; T: for tractor; G: for

engineering machinery; Q: for

vehicle; D: for generating set; C: for marine usage; P: for

power take-off unit

④: construction feature symbol, expressed with alphabet; no

alphabet: for natural aspirated

model; Z: for turbocharged model.

⑤: cylinder bore (mm)

⑥: cylinder number

⑦: series symbol; stand for imported from RICARDO

General Data

1. Intake and Exhaust System

- Intake pipe - Aluminum single block type
- Exhaust pipe - A single block cast one
- Air filter - Single stage paper filter element style
- Double stages paper filter element style
- Silencer
- Turbocharger

2. Fuel System

- Fuel delivery pump
- Fuel filter - Brand: BALDWIN
- Model: Filter1-BF9853
Filter2-BF9821
- High pressure pump – type A
- Governor - Mechanics/Electronics
- Injector - Spring low installed and low inertia types
- J series and S series injector

3. Lubrication System

The engine is lubricated by pressure oil combined with splash oil.

- Oil pump - gear type oil pump
- Overload overflow valve
- Oil filter - JX0811A, J1012B type for engine
lubricating oil
- JO506 type for turbocharger lubricating oil
- Oil cooler - pipe & shell type oil cooler

4. Cooling System

Forced water cooling

- Radiator
- Water pump fan
- Thermostat
- Oil cooler

RICARDO-R4105AZLD

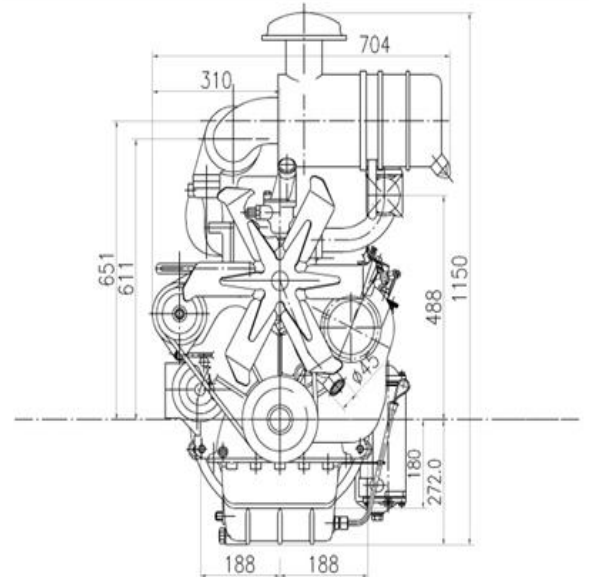
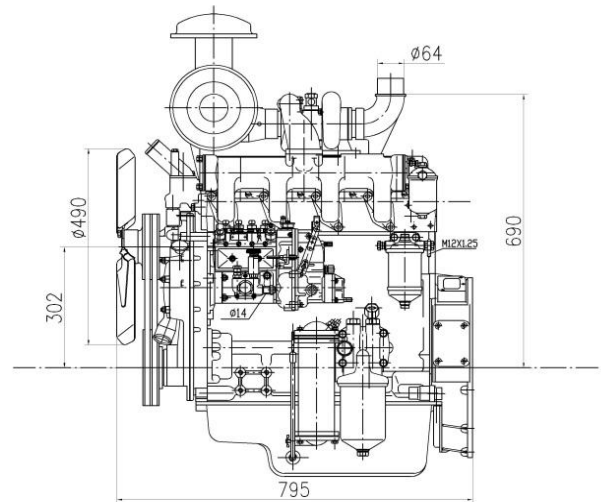
73kWm at 1500 rpm

5. Electrical System

Two types electrical system: 12 V and 24 V, all are single wire system with negative pole grounded.

- Battery – should be installed near the starting motor to avoid voltage drop
- Silicon rectified dynamo
- Voltage regulator – keep the voltage at the range of 13.5 – 14.5 V or 27 – 29 V.
- Starting Motor – full closed direct current series excitation motor

General Dimensions





RICARDO-R4105AZLD

73kWm at 1500 rpm

Technical Data

General

Power, Standby 1500 rpm 74 kWm
Power, Prime 1500 rpm 66 kWm
Cylinder Volume 4.5 liter
Number of Cylinders and Type 4 order
Cylinder Sequence 1-3-4-2
Aspiration and Cooling Turbocharged /Aftercooler
Engine RPM 1500rpm
Bore and Stroke 105x130 mm x mm

Intake and exhaust system

Intake Air Capacity 6.7 m³/min
Exhausted Gas Capacity 14 m³/min

Fuel system

Fuel Tank Capacity 150 liter
Governor Type Mechanics/Electronics

R4105IZLD (1500 rev/min) Fuel Consumption		
Power Rating	g/kWh	Litres/hr
At 100% of Prime Power Rating	231	17.4
At 75% of Prime Power Rating	229	12.9
At 50% of Prime Power Rating	232	8.7
At 25% of Prime Power Rating	235	4.4

Lubrication System

Oil Capacity 13 liter

Cooling System

Water Capacity
(Radiator and Engine) 68 liter

Weight

Weight 440 kg

