

Cummins KTA38-M5 Marine Diesel Engine – Technical Specification

CPL (Arrangement): L4157 Engine Serial No.: 25356375 Block Casting No.: 3640900

1. General Specifications

Engine type	12-cylinder, 60° Vee configuration, 4-stroke diesel
Aspiration	Twin turbocharged and aftercooled
Cooling system	Heat exchanger or keel cooling
Bore x Stroke	159 mm × 159 mm (6.25 in × 6.25 in)
Displacement	37.7 litres (2,300 cu in)
Compression ratio	13.9:1
Rated speed	1,950 rpm
Governor type	Mechanical PTG variable-speed
Fuel system	Cummins PT (Pressure-Time), mechanical injectors
Lubrication capacity	135 L (35.7 US gal)
Cooling capacity	160 L (42.3 US gal)

2. Performance Data

Rated power	1,400–1,500 bhp (1,044–1,119 kW)
Duty rating	Medium Duty – 80% load factor, 1 hr at full load in 8 hrs
Torque	4,200 N·m @ 1,500 rpm
Fuel consumption	200–210 g/kWh ($\approx$ 0.335 lb/bhp·hr)
Fuel flow	275 L/hr (72.7 US gal/hr)
Exhaust temperature	480–520 °C
Turbo boost pressure	1.4–1.6 bar (20–23 psi)

3. Dimensions and Weight

Overall length	2,130 mm
Overall width	1,524 mm
Overall height	1,840 mm
Dry weight	4,130 kg
Flywheel housing	SAE No. 0
Flywheel	SAE 18-inch

4. Maintenance Schedule

Daily / 10 hrs	Check oil and coolant levels, visual inspection
250 hrs	Change lubricating oil and filters

500 hrs	Replace fuel filters, check injectors
1,000 hrs	Inspect turbochargers, adjust valve lash
2,000 hrs	Replace coolant, check aftercooler
6,000 hrs	Major inspection; fuel pump calibration
12,000–15,000 hrs	Top-end overhaul
20,000–25,000 hrs	Full overhaul (liners, pistons, bearings)

5. Summary

Model	Cummins KTA38-M5
CPL / Arrangement	L4157
Power Output	1,400–1,500 bhp @ 1,950 rpm
Fuel System	Mechanical PT
Governor	Mechanical
Displacement	37.7 litres
Build Year	2010
Block Casting No.	3640900
Rebuild Code	SR5
Weight	≈ 4.1 tonnes