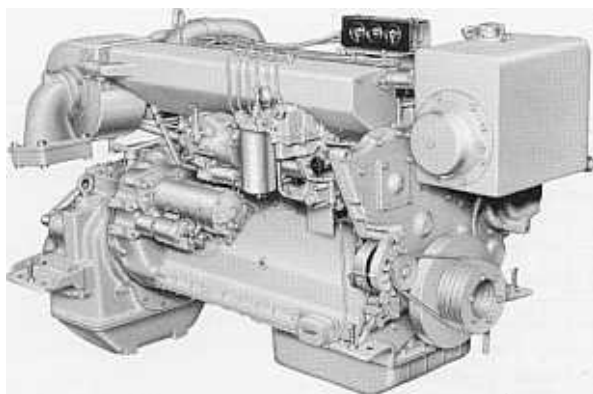




CATERPILLAR

D333C Marine Engine



ENGINE FEATURES

AIR CLEANERS: Dry-type with replaceable filter elements. Provide positive filtration independent of engine speed or temperature change.

BEARINGS: Corrosion-resistant, precision-type aluminum alloy. High load carrying ability and exceptional fatigue strength. Tin-plated for good "break-in."

BLOCK: High quality, close grained grey iron casting. Ribs designed for maximum strength and to assure perfect alignment for bearings.

COMBUSTION SYSTEM: Precombustion chamber system enables the engine to efficiently burn a wide variety of fuels under varied speed and load conditions. Minimizes objectionable smoke and odor characteristics of some diesel engines. Also retards combustion deposit build-up and washdown of cylinder lubricant.

COOLING: Built-in, gear-driven, centrifugal pump circulates jacket water providing ample flow through engine at all times. Water temperature is thermostatically controlled.

CRANKSHAFT: Forged steel, statically and dynamically-balanced, heat-treated and shot-peened for increased toughness. Individually induction-hardened and superfinished [within 5 to 10 millionths inch (127×10^{-6} mm to 254×10^{-6} mm) of smooth] main and connecting rod journals.

CYLINDER LINERS: Replaceable, full length, wet-type liners. Induction hardened, precision honed and chemically treated on inside surface.

FUEL: Burns No. 2 Fuel Oil (ASTM Specifications D396), often called No. 2 furnace or burner oil, with a minimum cetane rating of 35. Most of the new, low cost economy diesel fuels are suitable. Expensive, so called premium quality, diesel fuels can be used but they are not required.

FUEL SYSTEM: Caterpillar designed and manufactured fuel system features adjustment-free individual injection pumps and single orifice injection valves. Fuel is continuously filtered through replaceable cellulose filter elements.

GOVERNOR: Caterpillar governor operates through entire speed range. Approximate 10% regulation is standard.

LUBRICATION: Positive displacement gear pump maintains continuous flow of lubricant under pressure to all moving parts. Full-flow filtration is provided by replaceable cellulose filter elements. Water-cooled oil cooler maintains proper oil-temperature.

PISTONS: Elliptically-ground, contoured, aluminum alloy pistons with integrally-cast iron band for top rings. Two chrome-faced compression rings and one chrome-faced, spring-loaded oil ring on each.

REVERSE & REDUCTION GEAR: Fingertip operated hydraulic control with shock-free response, instant power, specially treated gears and oil-cooled clutches.

STARTING: Electric, air and hydraulic starting systems are offered.

VALVES: Stellite-faced valves and hard alloy steel seats. Valves rotate 3° each time they lift to seat in a new position each time and to allow even heat distribution.

FOUR-CYCLE TURBOCHARGED DIESEL

NUMBER OF CYLINDERS 6

BORE AND STROKE: inches 4.75 x 6.00
millimeters 121 x 152

PISTON DISPLACEMENT: cu. in. 638
liters 10,5

FLYWHEEL HOUSING (Standard) .. SAE No. 2

LOW IDLE RPM (Standard) 600

ROTATION ... Counterclockwise when viewed from
flywheel end

STANDARD GEAR RATIOS: ... 1.45:1, 2.0:1, 2.95:1,
3.83:1, 4.5:1

CAPACITIES FOR LIQUIDS:

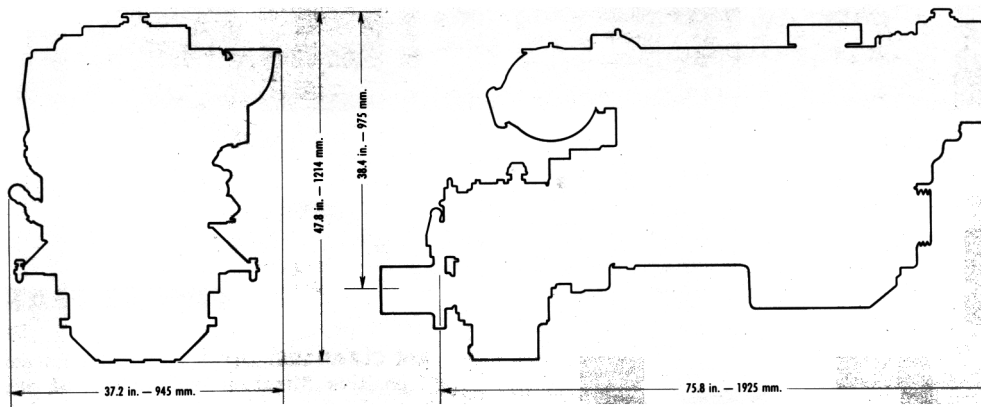
	U.S. Gal.	Imp. Gal.	Liters
Cooling System (engine only) ..	10	8.3	37,9
Lube Oil System (refill, engine only)	7.3	6.0	27,4
Lube Oil System (gear only)			
Deep Case	3.3	2.8	12,5
Shallow Case	2.5	2.1	9,5

WEIGHT: Net Dry (approximate)

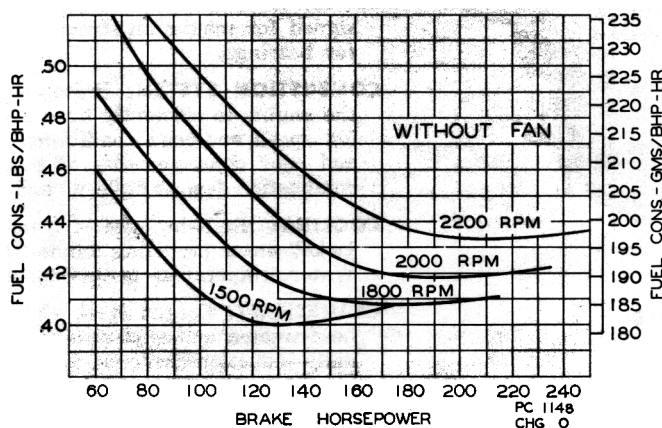
	LB.	KG.
Deep case	2675	1210
Shallow case	2540	1150

D333C

Marine Engine



FUEL CONSUMPTION



MARINE RATINGS

Maximum 300 HP @ 2200
Intermittent 250 HP @ 2200
Continuous 190 HP @ 2000

RATINGS:

MAXIMUM rating is the horsepower capability of the engine that can be demonstrated with 5% at the factory under standard conditions.

INTERMITTENT is the horsepower and speed capability of the engine which can be utilized for about one hour, followed by about an hour of operation at or below the continuous rating. Many engine users elect to operate their engines continuously in this rating area, trading shorter maintenance periods for increased earnings.

CONTINUOUS is the horsepower and speed capability of the engine which can be utilized without interruption or load cycling. This can extend for months or years of operation if the engine is equipped for non stop lube oil and filter changes.

OTHER RATINGS — Intermittent and continuous ratings as published are intended to be a general guide for world-wide use in a broad range of applications. Other ratings, yielding gains in performance and economic return, are available to meet the requirements of particular applications when detailed information is submitted.

STANDARDS:

Ratings are at SAE Standard conditions of 29.38 in. (746 mm.) Hg. and 85°F (29°C). All marine ratings are output ratings at the flywheel. Fuel consumption shown is based on fuel oil having a gross heat value of 19,500 BTU per pound (10,830 Cal./kg.) and weighing 7.12 pounds per U.S. gallon (855 gm./liter). Ratings are based on British and American BHP.

Materials and specifications are subject to change without notice.

