

MARINE Application

CURSOR series

C90 650

PLEASURE - Diesel
478 kW(650 HP) @ 2530 rpm (A1)

SPECIFICATIONS

Thermodynamic Cycle	Diesel 4 stroke
Air Handling	TAA
Arrangement	6L
Bore x Stroke (mm)	117 X 135
Total Displacement (L)	8.7
Valves per cylinder (n°)	4
Cooling System	liquid
Direction of Rotation (viewed facing flywheel)	CCW
Engine management	by EDC (Electronic Diesel Control)
InjectionSystem	ECR

STANDARD CONFIGURATION

Flywheel housing (type)	SAE 1
Flywheel size (inch)	14
Air Filter	rear side
Turbocharger	Waste Gate (water cooled) Turbo with Aftercooler (TAA)
Heat Exchanger	tube type
Exhaust gas water mixer - Exhaust cooled elbow	-
Water charge tank	included
Fuel filter (n°)	1 - right side
Fuel prefilter	1 (loose)
Fuel Pump	1 (gear type)
Lift pump	-
Oil filter (n°)	2 - left side
Oil sump	aluminium
Oil vapours blow-by circuit	included
Oil heat exchanger	included
Oil filler	by cylinder head cover
Starter	24V - 5.5kW
Alternator	28V - 90A
Engine stop device	by electronic central unit
Wiring harness	with negative to ground connection
Painting color	white "ICE"



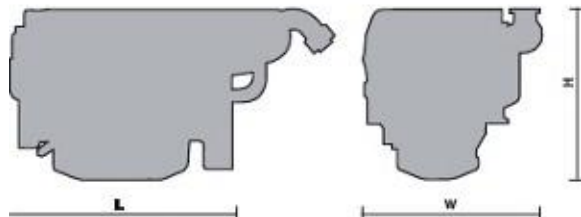
ELECTRICAL SYSTEM

Voltage	24
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NOT INCLUDED IN STANDARD CONFIGURATION

Battery - minimum capacity recommended [*] (Ah)	2 x 120
Battery - minimum cold cranking capacity recommended [*] (A)	900

WEIGHT AND DIMENSIONS



L = 1288
W = 868
H = 961
Dry Weight (without marine gear)= Kg 940

Legend

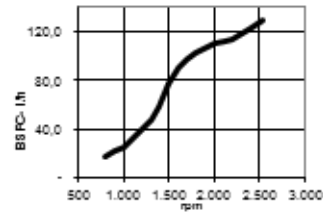
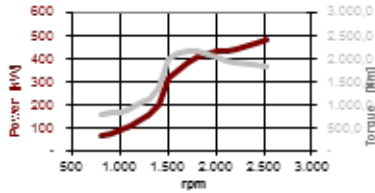
Arrangement	Air Handling	Turbocharger	InjectionSystem
L (in line)	TAA (Turbocharged with aftercooler) TC (Turbocharged) NA (Naturally Aspirated)	WG (Wastegate) VGT (Variable Geometry Turbocharger)	M (Mechanical) ECR (Electronic Common Rail) EUI (Electronic Unit Injector)
			SD: Stern Drive version PD (POD Drive version)

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RATING TYPE	A1	A2	B	C
Maximum power (kW(HP)@rpm)	478 (650) @ 2530	-	-	-
High idle speed (rpm)	2700	-	-	-
Low idle speed (rpm)	± 600	-	-	-
Mean piston speed at rated speed (m/s)	11.4	-	-	-
BMEP at max power (kg/cm)	26.5	-	-	-
Specific fuel consumption at full load (best value) (g/kWh @ rpm)	228	-	-	-
Oil consumption at max rating (% of fuel cons.)			≤ 0.2	
Minimum starting temperature without auxiliaries (°C)			-10 °	
Oil and oil filter maintenance interval for replacement [**] (hours)			300	

* Net Power at flywheel according to ISO 3046/1, after 50 hours running, Fuel Diesel EN 590. Power tolerance 5%.



- A1 High Performance Crafts. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 300 hours per year.
A2 Pleasure Commercial Vessels. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 1000 hours per year.
B Light Duty: Full throttle operation restricted within 10% of use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 1500 hours per year.
C Medium Duty: Full throttle operation < 25% of use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 3000 hours per year.
D Heavy Duty

FEATURES

SPECIFIC FEATURES

The two main technologies featured on these engines, Electronic Common Rail (C90) and Electronic Unit Injector (C13), combined with the 4 valves/cylinder induction system, provide several benefits: high injection pressure and timing precision under any operation condition, excellent performance, low fuel consumption and emissions.

TECHNOLOGICAL INNOVATION

Features achieved using innovative technologies and production processes such as: Electronic Common Rail or Electronic Unit Injector systems, bed plate cylinder block, rear gear-train timing system and superfinished helicoidal gears.

TECHNOLOGICAL SOLUTIONS FOR SERVICING

To reduce maintenance operations and improve engine life and reliability, the CURSOR series adopt plateaux machined cylinder walls and oil cooled pistons by J-jets.

SOLUTIONS FOR LOW OPERATING COSTS

High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).

MARINIZATION

Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo-charging cooling systems.

COMPONENT INTEGRATION

Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.

OPTION LIST

Wide range of accessories including electronic remote control, monitoring systems, wide range of emission certifications as IMO MARPOL, 2003/44/EC, EPA Recreational & Commercial and propulsion homologation as RINA.

SERVICEABILITY & MAINTAINABILITY

Easier engine servicing thanks to advanced diagnostic equipment & widespread worldwide service network.

BENEFITS

HIGH TORQUE AND POWER & PERFORMANCE
REDUCED FUEL CONSUMPTION AND EXHAUST GAS EMISSIONS

ENGINE EFFICIENCY AND STIFFNESS
VIBRATIONS & NOISE REDUCTION

REDUCED MAINTENANCE, LONGER ENGINE LIFE AND RELIABILITY

REDUCED MAINTENANCE AND OPERATING COSTS

MARINE LAY-OUT AND SETTINGS
SAFETY AND PROTECTION ON BOARD

LEAKAGE PREVENTION

CUSTOMER ORIENTATION

QUICK AND ACCURATE SERVICE SUPPORT

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FPT INDUSTRIAL OFFERS THE WIDEST AVAILABILITY OF ENGINE BUILD OPTIONS TO CUSTOMER SPECIFIC REQUIREMENTS WITHIN THE ENGINE SUPPLY. TO FIND OUT MORE ABOUT THE CONFIGURATIONS AND ACCESSORIES WHICH ARE AVAILABLE

