

## MARINE Application

### CURSOR series

## C90 620

**PLEASURE - Diesel**  
 456 kW(620 HP) @ 2530 rpm (A1)  
 405 kW(550 HP) @ 2530 rpm (A2)  
 368 kW(500 HP) @ 2530 rpm (B)  
 331 kW(450 HP) @ 2530 rpm (C)

#### 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 driven
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"



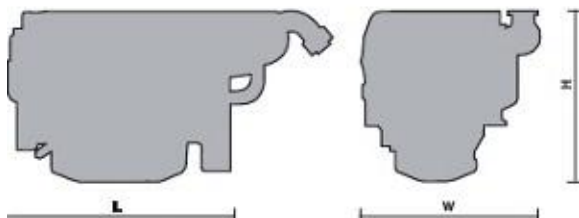
#### ELECTRICAL SYSTEM

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

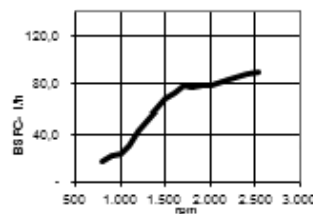
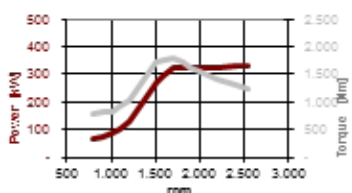
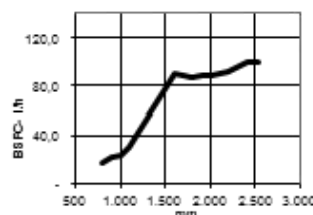
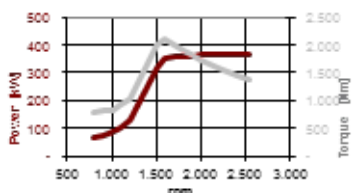
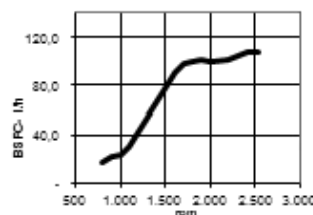
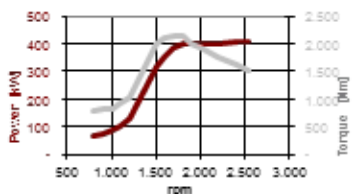
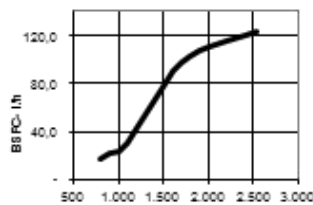
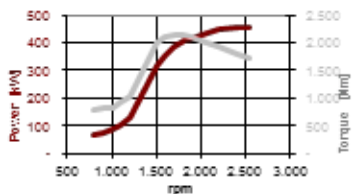
Arrangement	Air Handling	Turbocharger	InjectionSystem
L (in line)	TAA (Turbocharged with aftercooler) TC (Turbocharged) NA (Naturally Aspirated)	WG (Wastegate) VGT (Variable Geometry Turbocharger)	M (Mechanical) ECR (Electronic Common Rail) EUI (Electronic Unit Injector)
			SD: Stern Drive version PD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

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RATING TYPE	A1	A2	B	C
Maximum power (kW(HP))@rpm	456 ( 620 ) @ 2530	405 ( 550 ) @ 2530	368 ( 500 ) @ 2530	331 ( 450 ) @ 2530
High idle speed (rpm)	2700	2700	2700	2700
Low idle speed (rpm)	± 600	± 600	± 600	± 600
Mean piston speed at rated speed (m/s)	11.4	11.4	11.4	11.4
BMEP at max power (kg/cm)	24.8	22.1	20.1	18.1
Specific fuel consumption at full load (best value) (g/kWh @ rpm)	228.5	224.6	226.3	228.6
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

