FPT
POWERTRAIN TECHNOLOGIES

MARINE

Our efficiency.
Your edge.

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Index

THE WAVE OF INNOVATION

FPT Industrial's engines for pleasure and commercial boats stand out for superb quality, features and application versatility. They bring maximum and continuous specific power and torque at low revolutions. They achieve better efficiency in all sea conditions. They also boast an impressive durability.

A dramatic reduction of noise and vibrations combines power with sailing pleasure. Exhaust emissions have been cut down too, lowering environmental impact and complying with the most stringent legislation.
Our engineering experience has delivered a lightweight design, with low volume/power and weight/power ratios, for easier installation and superior performance.

Superior Technology & Outstanding Advantages

Performance
Maximum and continuous high specific power. High torque at low revs. Lightness (weight/power low ratios).

Flexibility
Compactness (volume/power low ratios). Full range of accessories available. Wide range of emission and propulsion certifications. Keel cooling versions availability.

Low Environmental Impact
Drastic reduction of exhaust emissions. Low noise and vibrations.

Low Operating Costs
Lower fuel consumption.
Longer maintenance intervals costs.
Longer overhaul intervals.

Our range of marine solutions for pleasure and commercial application brings you freedom, speed, reliability and safety.

Engines Line-Up

Application	Model	Cylinders Arrangement Injection Aspiration	Displacement Litexs	Power[1] - KW (HP) @RPM				
				A1	A2=B1	B	C	D
○ ●	S30 230	4L / CR / TCA	3	169 (230) @4000	–	129 (175,5) @3500	85 (115,6) @3500	–
○ ●	N40 250 E	4L / CR / TCA	3,9	184 (250) @2800	–	147 (200) @2800	125 (170) @2800	–
○ ●	N45 100	4L / MEC / NA	4,5	74 (100) @2800	–	66,5 (90) @2800	63 (85) @2800	63 (85) @2800
○ ●	N60 400 E	6L / CR / TCA	5,9	294 (400) @3000	272 (370) @3000	243 (330) @3000	199 (270) @3000	–
○ ●	N67 150	6L / MEC / NA	6,7	110 (150) @2800	–	99,5 (135) @2800	92 (125) @2800	92 (125) @2800
○ ●	N67 220	6L / MEC / TC	6,7	162 (220) @2800	–	–	132 (180) @2800	110 (150) @2800
○ ●	N67 280	6L / MEC / TCA	6,7	206 (280) @2800	–	191 (260) @2800	169 (230) @2800	132 (180) @2500
○ ●	N67 450 E	6L / CR / TCA	6,7	331 (450) @3000	309 (420) @3000	272 (370) @3000	258 (350) @3000	–
○ ●	N67 550	6L / CR / TCA	6,7	405 (550) @3200	368 (500) @3200	353 (480) @3200	–	–
○	N67 570 EVO	6L / CR / TCA	6,7	419 (570) @3000	–	–	–	–
●	C90 380	6L / CR / TCA	8,7	–	–	–	301 (410) @2000	280 (380) @2000
○ ●	C90 620 E	6L / CR / TCA	8,7	456 (620) @2530	405 (550) @2530	368 (500) @2530	331 (450) @2530	–
○	C90 650 E	6L / CR / TCA	8,7	478 (650) @2530	–	–	–	–
●	C13 330	6L / CR / TC	12,9	–	–	–	–	243 (330) @1800
●	C13 500	6L / CR / TCA	12,9	–	–	–	382 (520) @2000	368 (500) @2000
○ ●	C13 825 E	6L / CR / TCA	12,9	607 (825) @2400	522 (750) @2400	478 (650) @2400	442 (600) @2400	–

Legend

Application
○ Pleasure
● Professional

Arrangement
L In line vertical

Air Intake
NA Naturally Aspirated
TC Turbocharged
TCA Turbocharged After Cooled

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 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 useage 300 hours per year.

A2=B1 Pleasure/commercial vessels. Full throttle operation restricted within 10% of total use period Cruising speed at engine rpm <90% of rated speed setting. Maximum useage 1000 hours per year.

B Light duty. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting.
Maximum useage 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 useage 3000 hours per year.

D Heavy duty. Maximum rating utilisation up to 100% of use period, for unlimited hours per year.

THE F1 SERIES

From 85 (115,6) to 169 (230) KW (HP)

Performance
Electronic Common Rail and multi-valve technology to provide maximum power density (up to 56 kW/ litre) and rapid response.

Efficiency & Productivity
High torque and power performance with minimum fuel consumption and low emmisions.

Reliability & Serviceability
Easy engine servicing. Up to 600 hours oil and filters replacement intervals minimize downtime.

Marinization
Engine and turbo-charging cooling systems are specifically optimized for marine duties.

The F1 Series features common-rail and electronic technologies.
It brings substantial benefits, including high specific power, torque at low RPM resulting in better planing, low fuel consumption and emissions.

A variety of options for stern drive pre-arrangements extends applications to pleasure and light commercial duties with any light-planing or semiplaning boats up to 8 meters (26 ft).

S30 230

Engine Specifications

Application	Model	Cylinders Arrangement Injection Aspiration	Displacement Liters	Power[1] - KW (HP) @RPM			
				A1	A2=B1	B	C
○ ●	S30 230	4L / CR / TCA	3	169 (230) @4000	-	129 (175,5) @3500	85 (115,6) @3500

Legend

Application
○ Pleasure
● Professional

Arrangement
L In line vertical

Air Intake
TCA Turbocharged After Cooled

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 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 useage 300 hours per year.

A2=B1 Pleasure/commercial vessels. Full throttle operation restricted within 10% of total use period Cruising speed at engine rpm <90% of rated speed setting. Maximum useage 1000 hours per year.

B Light duty. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting.
Maximum useage 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 useage 3000 hours per year.

Key Advantages

	Features	Benefits
Specific Features	State-of-the-art 2nd generation Common Rail System (ECR); accurate fuel delivery to achieve high performance in terms of torque and power.	High torque and power performance. Minimum fuel consumption and exhaust gas emission.
Technological Innovations	Innovative technologies and production processes such as: ECR, 4 valves/ cylinder, ladder frame cyl- inder block, fracture split connecting rods.	Engine efficiency and stiffness. Vibrations & noise reduction.
Technological Solutions for Servicing	F1 Series engines adopt a valves clearance hydraulic adjustment for the dual overhead camshaft drivenby chain and oil cooled pistons by J-jets.	Reduced maintenance, improved engine life and Reliability.
Solutions for Low Operating Costs	High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).	Reduced maintenance and operating costs.
Marinization	Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo- charging cooling systems.	Marine lay-out & settings focused on safety and protection on board.

	Features	Benefits
Components Integration	Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.	Leakage prevention.
Option List	Wide range of accessories including control & monitoring systems, stern drives pre-arrangement, propulsion and emission certifications.	Customer orientation.
Serviceability & Maintainability	Easier engine servicing thank to advanced diagnostic equipment & widespread worldwide service network.	Quick and accurate service support.

THE NEF SERIES

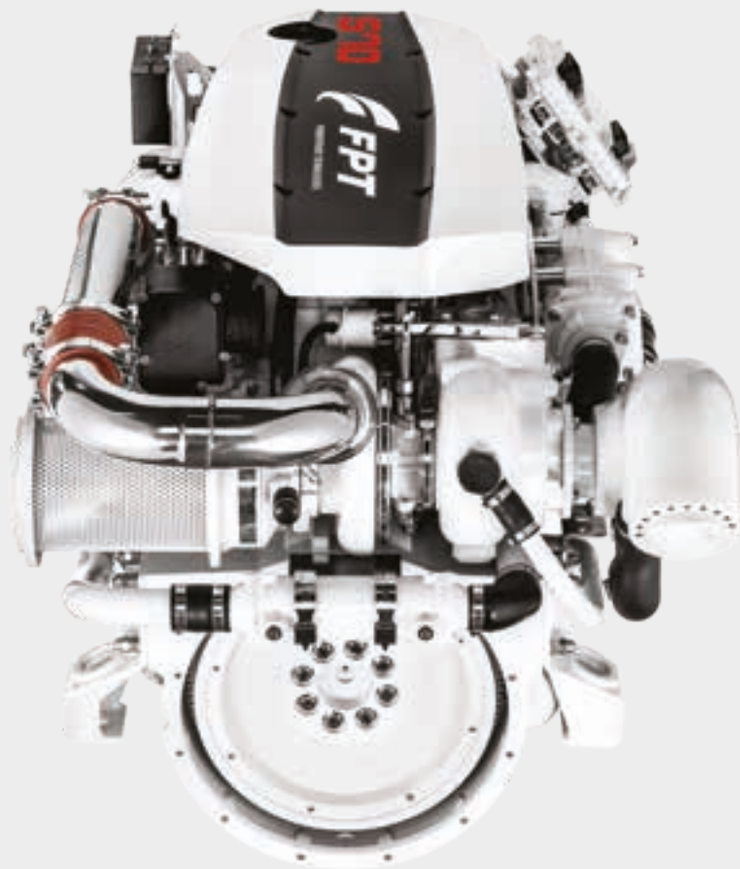
From 63 (85) to 419 (570) KW (HP)

Performance
High power density with minimum fuel consumption.

Efficiency & Productivity
Innovative technologies and production processes to save fuel while ensuring maximum performance and reliability.

Reliability & Serviceability
Easy engine servicing. Up to 600 hours oil and filters replacement intervals (among the best in the category).

Marinization
Engine and turbocharging cooling systems are specifically optimized for marine duties.



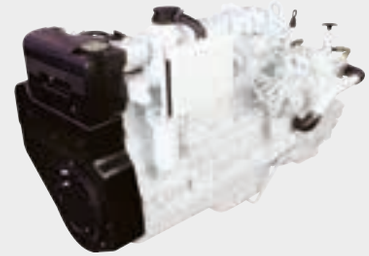
The NEF series is the result of prime production quality. It includes the broadest offering of FPT Industrial marine engines for pleasure and commercial use.

The pleasure-range engines are the state of the art in diesel technology (electronic-control common-rail systems, 4 valves/cylinder). They combine high performance with a lightweight, compact design. With low smoke, noise and vibrations, they are an environmentally-friendly solution for cruisers and yachts up to 12 meters (39 ft).

The commercial range uses advanced mechanical systems for fuel injection to ensure high continuous power and torque, reliability, low fuel consumption and modest servicing costs. This range also includes keel-cooling versions.

N45 100

N67 150



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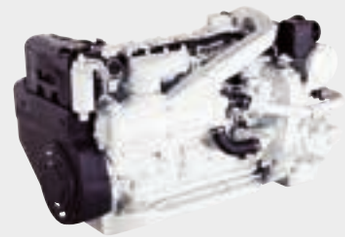
N67 280



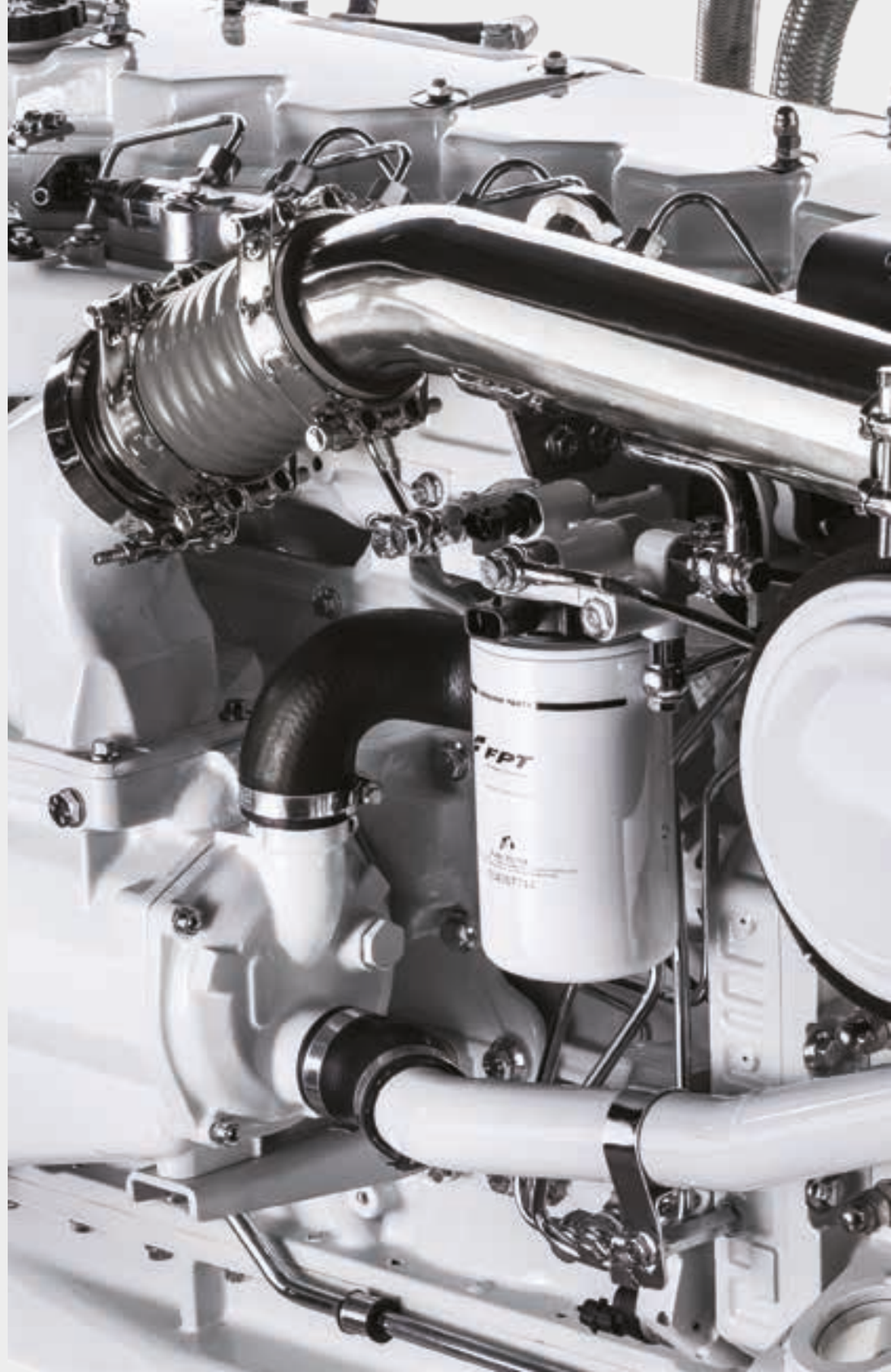
N40 250 E

N60 400 E

N67 450 E

N67 550

N67 570 EVO



Engine Specifications

Application	Model	Cylinders Arrangement Injection Aspiration	Displacement Liters	Power[1] - KW (HP) @RPM				
				A1	A2=B1	B	C	D
○ ●	N40 250 E	4L / CR / TCA	3,9	184 (250) @2800	–	147 (200) @2800	125 (170) @2800	–
○ ●	N45 100	4L / MEC / NA	4,5	74 (100) @2800	–	66,5 (90) @2800	63 (85) @2800	63 (85) @2800
○ ●	N60 400 E	6L / CR / TCA	5,9	294 (400) @3000	272 (370) @3000	243 (330) @3000	199 (270) @3000	–
○ ●	N67 150	6L / MEC / NA	6,7	110 (150) @2800	–	99,5 (135) @2800	92 (125) @2800	92 (125) @2800
○ ●	N67 220	6L / MEC / TC	6,7	162 (220) @2800	–	–	132 (180) @2800	110 (150) @2800
○ ●	N67 280	6L / MEC / TCA	6,7	206 (280) @2800	–	191 (260) @2800	169 (230) @2800	132 (180) @2500
○ ●	N67 450 E	6L / CR / TCA	6,7	331 (450) @3000	309 (420) @3000	272 (370) @3000	258 (350) @3000	–
○ ●	N67 550	6L / CR / TCA	6,7	405 (550) @3200	368 (500) @3200	353 (480) @3200	–	–
○	N67 570 EVO	6L / CR / TCA	6,7	419 (570) @3000	–	–	–	–

Legend

Application
○ Pleasure
● Professional

Arrangement
L In line vertical

Air Intake
NA Naturally Aspirated
TC Turbocharged
TCA Turbocharged After Cooled

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 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 useage 300 hours per year.

A2=B1 Pleasure/commercial vessels. Full throttle operation restricted within 10% of total use period Cruising speed at engine rpm <90% of rated speed setting. Maximum useage 1000 hours per year.

B Light duty. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting.
Maximum useage 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 useage 3000 hours per year.

D Heavy duty. Maximum rating utilisation up to 100% of use period, for unlimited hours per year.

Mechanical Engines Key Advantages

	Features	Benefits
Injection System	The NEF Mechanical Series is characterized by advanced systems for fuel injection with high continuous power and torque.	High torque and power performance. Reliability, minimum fuel consumption and exhaust gas emissions, low servicing costs.
Technological Innovations	Advanced injection system, ladder frame cylinder block, fracture split connecting rods, rear gear-train timing system.	Engine efficiency and stiffness. Vibrations & noise reduction.
Technological Solutions for Servicing	The NEF mechanical Series engines adopts plateaux machined cylinder walls and oil cooled pistons by J-jets.	Reduced maintenance operations, longer engine life and improved reliability.
Solutions for Low Operating Costs	High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).	Reduced maintenance and operating costs.
Marinization	Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo-charging cooling systems.	Marine lay-out & settings focused on safety and protection on board.

	Features	Benefits
Components Integration	Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.	Leakage prevention.
Option List	Wide range of accessories, including keel cooling version, monitoring systems, international certifications on emissions and propulsion such as RINA homologation.	Customer orientation.
Serviceability & Maintainability	Widespread worldwide service network.	Quick and accurate service support.

Electronic Engines Key Advantages

	Features	Benefits
Specific Features	State-of-the-art diesel technologies (Common Rail, electronic systems, 4 valves/cylinder), for cruisers, yachts and light/medium duties commercial boats.	High torque, high performance, lightness, compactness, design, low environmental impact, minimum fuel consumption.
Technological Innovations	Innovative technologies and production processes such as: ECR, ladder frame cylinder block, fracture split connecting rods, rear gear-train timing system.	Engine efficiency and stiffness. Vibrations & noise reduction.
Technological Solutions for Servicing	The Electronic Common Rail NEF Series adopts plateaux machined cylinder walls and oil cooled pistons by J-jets.	Reduced maintenance operations, improved engine life and reliability.
Solutions for Low Operating Costs	High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).	Reduced maintenance and operating costs.
Marinization	Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo-charging cooling systems.	Marine lay-out & settings focused on safety and protection on board.

	Features	Benefits
Components Integration	Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.	Leakage prevention.
Option List	Electronic remote control, monitoring systems, emission standards as IMO MARPOL, EU-RCD, EU-IWV, EPA and propulsion homologation as RINA.	Customer orientation.
Serviceability & Maintainability	Easier engine servicing thanks to advanced diagnostic equipment & widespread worldwide service network.	Quick and accurate service support.

Innovation is our path to excellence.

THE CURSOR SERIES

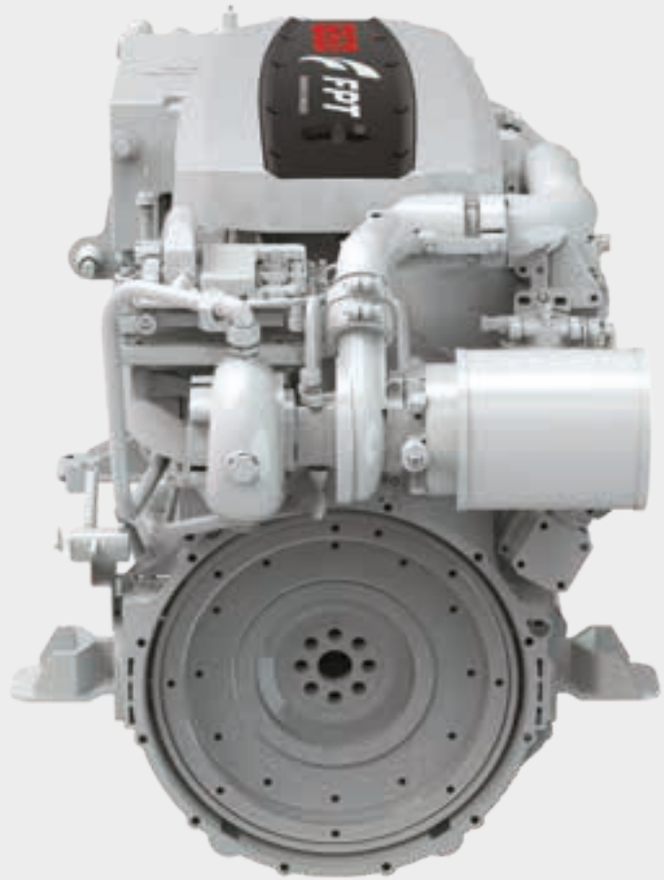
From 243 (330) to 607 (825) KW (HP)

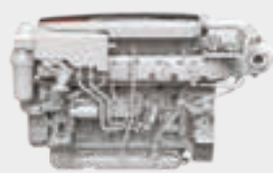
Performance
Low fuel consumption and emissions. Structural stiffness. Low vibration and noise.

Efficiency & Productivity
High power and torque density levels.

Reliability & Serviceability
Easy engine servicing. Up to 600 hours oil and filters replacement intervals (among the best in the category).

Marinization
Lay-out and specific settings are focused on marine duties.

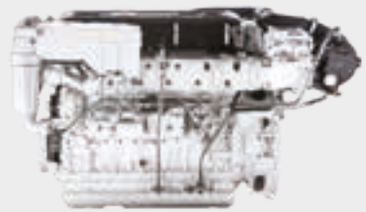




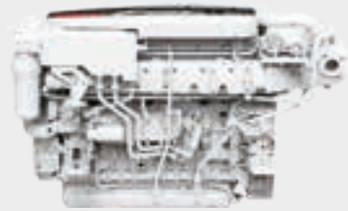
The Cursor series brings benefits such as high injection pressure and timing precision in all conditions, superb performance, fuel efficiency and low emissions. Sea professionals trust it for its state-of-the-art technology, reduced operating costs, and ease of maintenance.

This series provides users with proven performance, reliability and simpler installation. It is designed for pleasure applications of yachts and sports fishing boats up to 18 meters (60 ft) (according to displacement).

C90 380

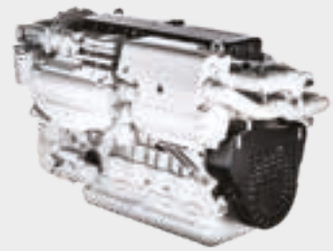


C90 620 E

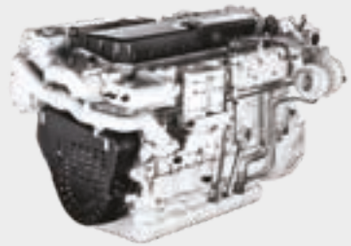


C90 650 E

C13 330



C13 500



C13 825 E

Engine Specifications

Application	Model	Cylinders Arrangement Injection Aspiration	Displacement Liters	Power[1] - KW (HP) @RPM				
				A1	A2=B1	B	C	D
●	C90 380	6L / CR / TCA	8,7	-	-	-	301 (410) @2000	280 (380) @2000
○ ●	C90 620 E	6L / CR / TCA	8,7	456 (620) @2530	405 (550) @2530	368 (500) @2530	331 (450) @2530	-
○	C90 650 E	6L / CR / TCA	8,7	478 (650) @2530	-	-	-	-
●	C13 330	6L / CR / TC	12,9	-	-	-	-	243 (330) @1800
●	C13 500	6L / CR / TCA	12,9	-	-	-	382 (520) @2000	368 (500) @2000
○ ●	C13 825 E	6L / CR / TCA	12,9	607 (825) @2400	522 (750) @2400	478 (650) @2400	442 (600) @2400	-

Legend

Application
○ Pleasure
● Professional

Arrangement
L In line vertical

Air Intake
TC Turbocharged
TCA Turbocharged After Cooled

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 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 useage 300 hours per year.

A2=B1 Pleasure/commercial vessels. Full throttle operation restricted within 10% of total use period Cruising speed at engine rpm <90% of rated speed setting. Maximum useage 1000 hours per year.

B Light duty. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting.
Maximum useage 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 useage 3000 hours per year.

D Heavy duty. Maximum rating utilisation up to 100% of use period, for unlimited hours per year.

Key Advantages

	Features	Benefits
Specific Features	ECR and Electronic Unit Injector, with 4 valves/ cylinder, provide several benefits: high injection pressure and timing precision under any operation condition.	Excellent Power performance and torque, reduced fuel consumption and exhaust gas emissions.
Technological Innovations	ECR or Electronic Unit Injector systems, bed plate cylinder block, rear gear-train timing system and superfinished helicoidal gears.	Engine efficiency and stiffness. Vibrations & noise reduction.
Technological Solutions for Servicing	To reduce maintenance operations and improve engine life and reliability, the Cursor Series adopts plateau machined cylinder walls and oil cooled pistons by J-jets.	Reduced maintenance, longer engine life and Reliability.
Solutions for Low Operating Costs	High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).	Reduced maintenance and operating costs.
Marinization	Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo-charging cooling systems.	Marine lay-out & settings focused on safety and protection on board.

	Features	Benefits
Components Integration	Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.	Leakage prevention.
Option List	Electronic remote control, monitoring systems, emission standards as IMO MARPOL, EU-RCD, EU-IWV, EPA and propulsion homologation as RINA.	Customer orientation.
Serviceability & Maintainability	Easier engine servicing thanks to advanced diagnostic equipment & widespread worldwide service network.	Quick and accurate service support.

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