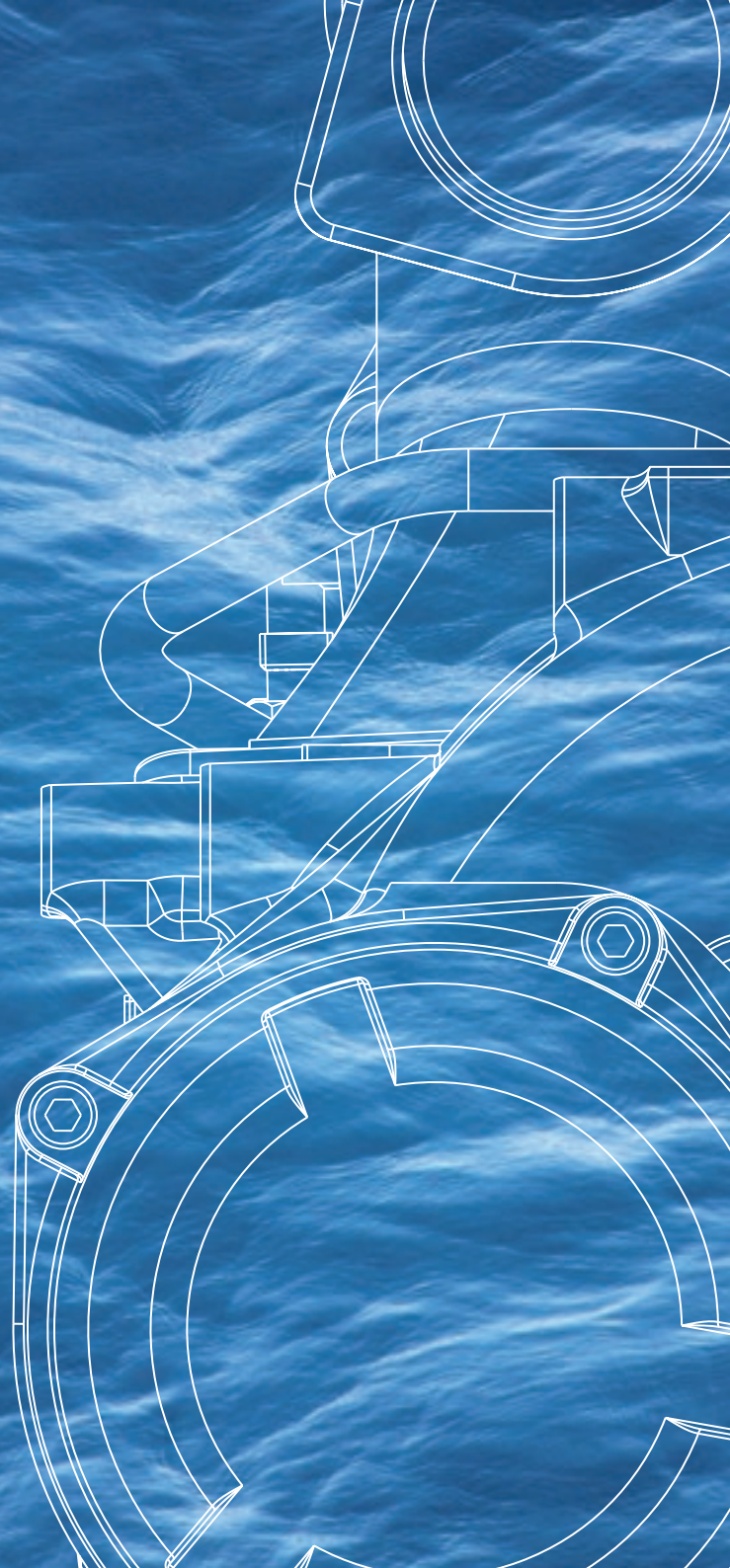


MARINE



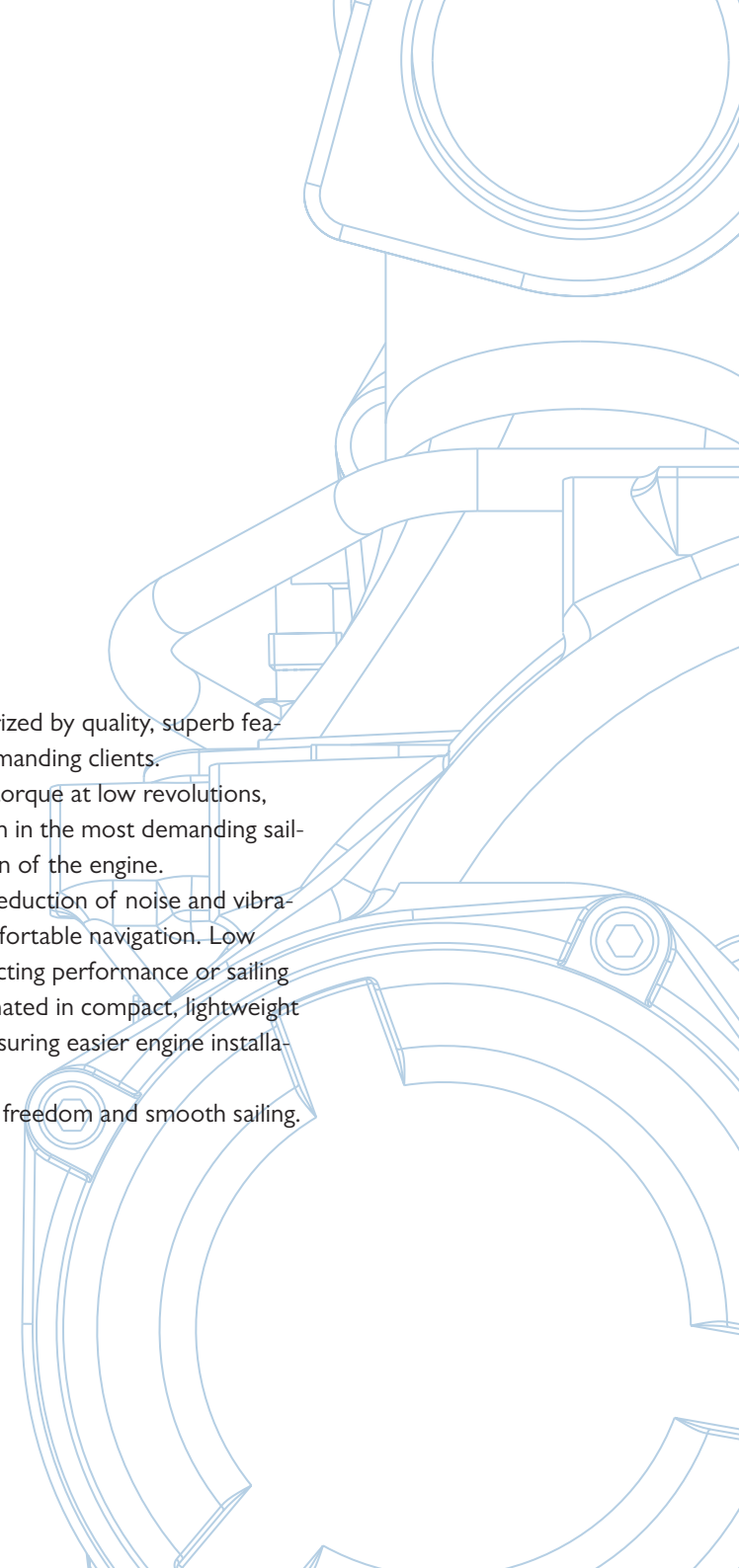
THE WAVE OF INNOVATION

FPT Industrial offers a complete range of products characterized by quality, superb features and applications versatility, to satisfy even the most demanding clients.

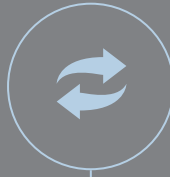
Thanks to maximum and continuous specific power and torque at low revolutions, pleasure and commercial boats achieve better efficiency even in the most demanding sailing conditions, without compromising the impressive life-span of the engine.

This competitive performance is backed up by a drastic reduction of noise and vibrations to create the sensation of powerful yet extremely comfortable navigation. Low exhaust emissions and noise levels are ensured, without affecting performance or sailing pleasure. Engineering experience at FPT Industrial has culminated in compact, lightweight design with low volume/power and weight/power ratios, ensuring easier engine installation and boats' superior efficiency.

High quality of components ensures a great reliability for freedom and smooth sailing. Keel cooled versions allow sailing even in shallow waters.



FPT Industrial offers superior technology and outstanding advantages



PERFORMANCE

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

FLEXIBILITY

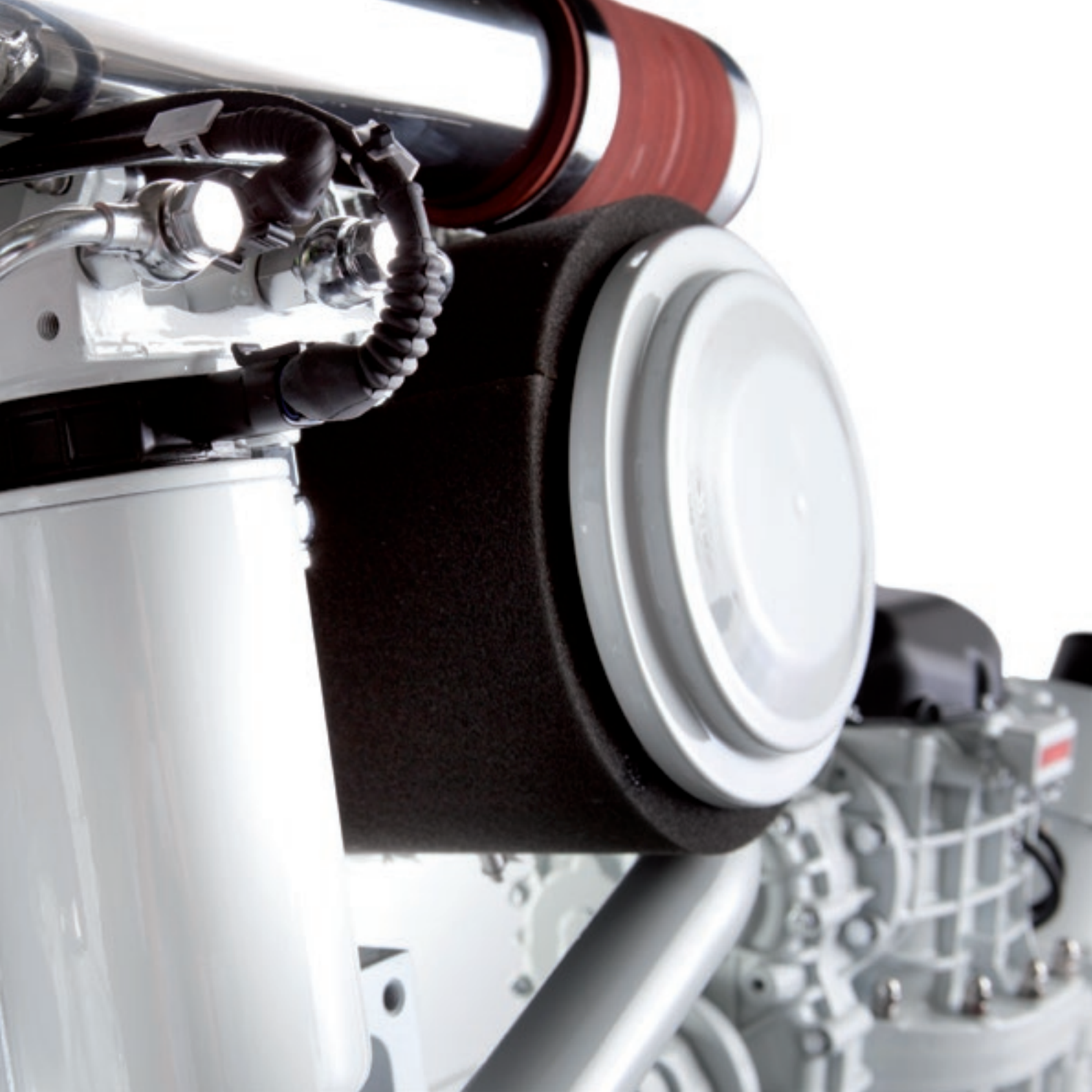
Compactness (volume/power low ratios)
Full range of accessories available
Wide range of emission and propulsion certifications
Keel cooling versions availability

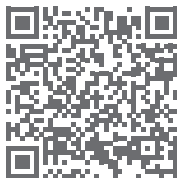
LOW ENVIRONMENTAL IMPACT

Drastic reduction of exhaust emissions
Low noise and vibrations

LOWER OPERATING COSTS

Lower fuel consumption
Longer maintenance intervals costs
Longer overhaul intervals





LEGEND

APPLICATION

- Pleasure
- Professional

ARRANGEMENT

- L In-line vertical

AIR INTAKE

- NA Naturally Aspirated
- TC Turbocharged
- TCA Turbocharged After Cooled

S1 Sportive duty

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 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

APPLICATION	MODEL	CYLINDERS ARRANGEMENT ASPIRATION	DISPLACEMENT LITERS
○	S30 230	4L / TCA	3
○	S30 230SD	4L / TCA	3
○ ●	N40 250	4L / TCA	3,9
○ ●	N45 100 ²	4L / NA	4,5
○ ●	N60 370	6L / TCA	5,9
○ ●	N60 400	6L / TCA	5,9
○	N60 480	6L / TCA	5,9
○ ●	N67 150	6L / NA	6,7
○ ●	N67 220	6L / TC	6,7
○ ●	N67 280	6L / TCA	6,7
○ ●	N67 450	6L / TCA	6,7
○ ●	N67 570	6L / TCA	6,7
●	C90 380	6L / TCA	8,7
○ ●	C90 620	6L / TCA	8,7
○	C90 650	6L / TCA	8,7
●	C13 330	6L / TC	12,9
●	C13 500	6L / TCA	12,9
○ ●	C13 825	6L / TCA	12,9

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 5%

POWER¹ – KW (HP) @ RPM

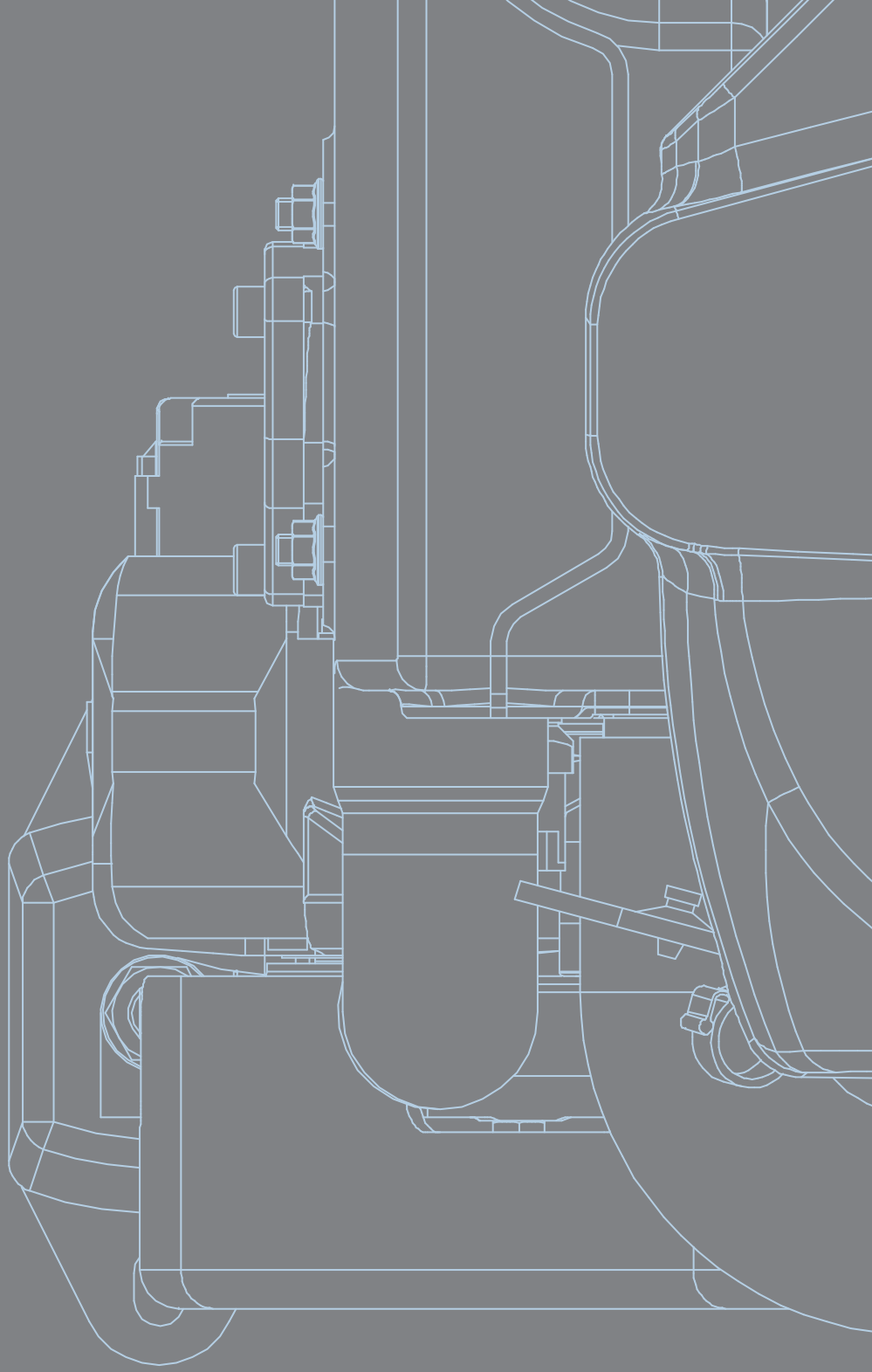
S1	A1	A2	B	C	D
–	169 (230) @ 4000	–	129 (175,5) @ 3500	85 (115,6) @ 3500	–
–	169 (230) @ 4000	–	–	–	–
–	184 (250) @ 2800	–	147 (200) @ 2800	125 (170) @ 2800	–
–	74 (100) @ 2800	–	66,5 (90) @ 2800	63 (85) @ 2800	63 (85) @ 2800
–	272 (370) @ 2800	–	243 (330) @ 2800	199 (270) @ 2800	–
–	294 (400) @ 3000	272 (370) @ 3000	243 (330) @ 3000	199 (270) @ 3000	–
353 (480) @ 3000	–	–	–	–	–
–	110 (150) @ 2800	–	99,5 (135) @ 2800	92 (125) @ 2800	92 (125) @ 2800
–	162 (220) @ 2800	–	–	132 (180) @ 2800	110 (150) @ 2800
–	206 (280) @ 2800	–	191 (260) @ 2800	169 (230) @ 2800	132 (180) @ 2500
–	331 (450) @ 3000	309 (420) @ 3000	272 (370) @ 3000	258 (350) @ 3000	–
–	419 (570) @ 3000	368 (500) @ 3000	331 (450) @ 3000	–	–
–	–	–	–	301 (410) @ 2000	280 (380) @ 2000
–	456 (620) @ 2530	405 (550) @ 2530	368 (500) @ 2530	331 (450) @ 2530	–
–	478 (650) @ 2530	–	–	–	–
–	–	–	–	–	243 (330) @ 1800
–	–	–	–	382 (520) @ 2000	368 (500) @ 2000
–	607 (825) @ 2400	522 (750) @ 2400	478 (650) @ 2400	442 (600) @ 2400	–



FB Design RED FPT winner of U.I.M. Marathon World Cup and Harmsworth Trophy (August 2010).
RED FPT is powered by 4 FPT Industrial N67 Evolution at 600 HP.



THE F1 SERIES



The F1 Series

Common Rail and electronic systems are the main technologies featured by this Series, which offers important advantages, such as high specific power, torque at low rpm (for boats better planing), low fuel consumption and emissions.

The availability of specific options for stern drive prearrangements can expand this engine application to any kind of light planing or semiplaning boats for pleasure and light commercial duties up to 7-8 meters.

S30 230



APPLICATION	MODEL	CYLINDERS ARRANGEMENT ASPIRATION	DISPLACEMENT LITERS	POWER ¹ – KW (HP) @ RPM				
				S1	A1	A2	B	C
○	S30 230	4L/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

S1 Sportive duty

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 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

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 5%

Features

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 with the minimum fuel consumption and exhaust gas emissions.

TECHNOLOGICAL INNOVATION

Features achieved using innovative technologies and production processes such as: Electronic Common Rail, 4 valves/cylinder, ladder frame cylinder block, fracture split connecting rods.

TECHNOLOGICAL SOLUTIONS FOR SERVICING

To reduce maintenance operations and improve engine life and reliability, F1 Series engines adopt a valves clearance hydraulic adjustment for the dual overhead camshaft driven by chain 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.

COMPONENTS 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 can-bus control & monitoring systems, stern drives, propulsion and emission certifications.

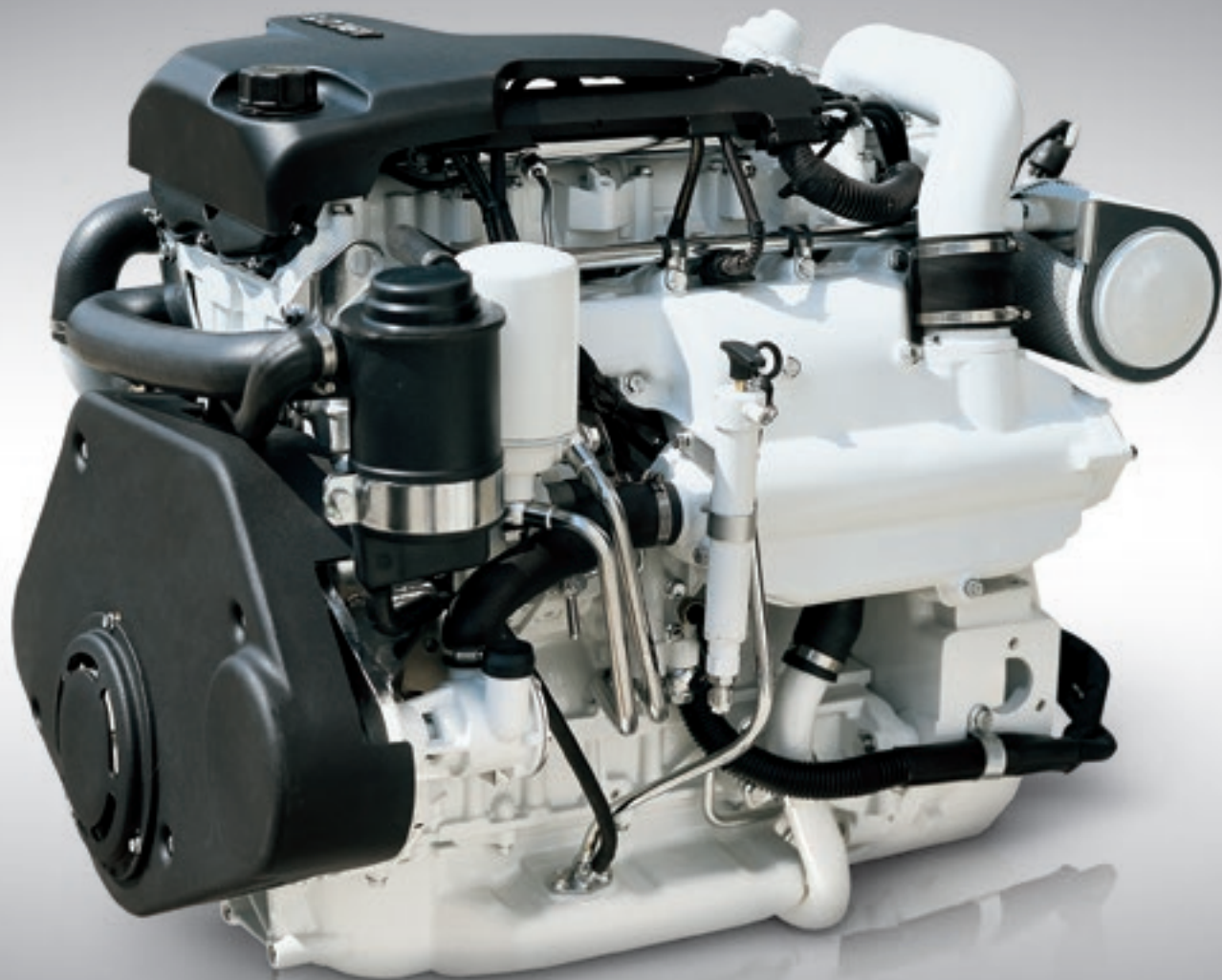
SERVICEABILITY & MAINTAINABILITY

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

Benefits

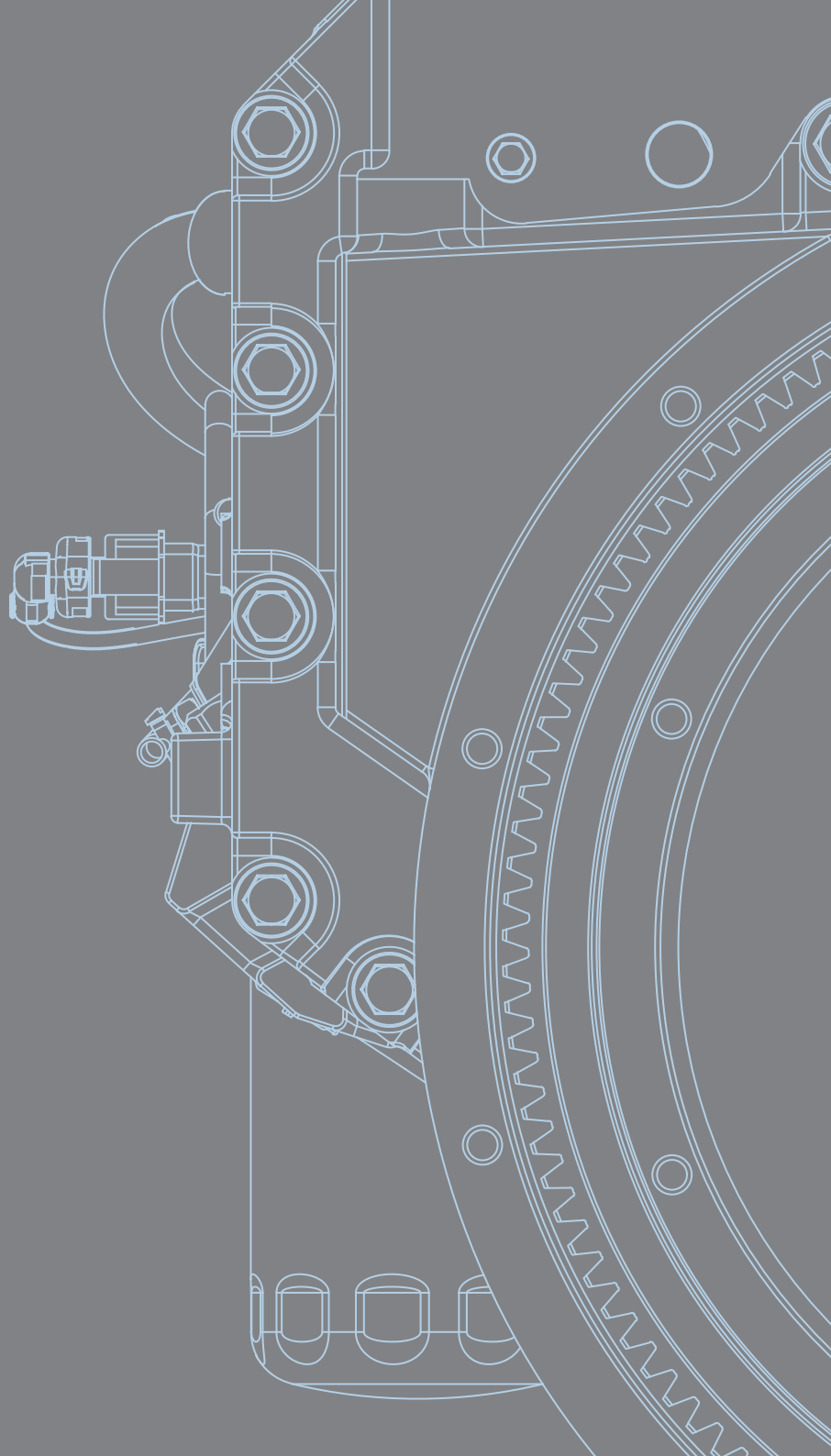
- ✓ **HIGH TORQUE AND POWER PERFORMANCE
MINIMUM FUEL CONSUMPTION
AND EXHAUST GAS EMISSION**
- ✓ **ENGINE EFFICIENCY AND STIFFNESS
VIBRATIONS & NOISE REDUCTION**
- ✓ **REDUCED MAINTENANCE,
LONGER ENGINE LIFE AND RELIABILITY**
- ✓ **REDUCED MAINTENANCE
AND OPERATING COSTS**
- ✓ **MARINE LAY-OUT & SETTINGS
SAFETY AND PROTECTION ON BOARD**
- ✓ **LEAKAGE PREVENTION**
- ✓ **CUSTOMER ORIENTATION**
- ✓ **QUICK AND ACCURATE
SERVICE SUPPORT**







THE NEF SERIES



The NEF Series

Characterized by top production quality standards, the NEF Series is the widest among FPT Industrial engine families for pleasure and commercial duties.

The pleasure range engines can be considered a state-of-the-art in diesel technology (Common Rail and electronic systems, 4 valves/cylinder), ensuring high performance, lightness, compact design, low environmental impact (low smoke, noise and vibration) for cruisers and yachts up to 12 meters.

The commercial range (completed by keel cooling versions availability) is characterized by advanced mechanical systems for fuel injection with high continuous power and torque, reliability, low fuel consumptions and low servicing costs.



N45 100

N67 150



N60 400



N40 250



N60 370



N67 220



N67 280



N60 370SD



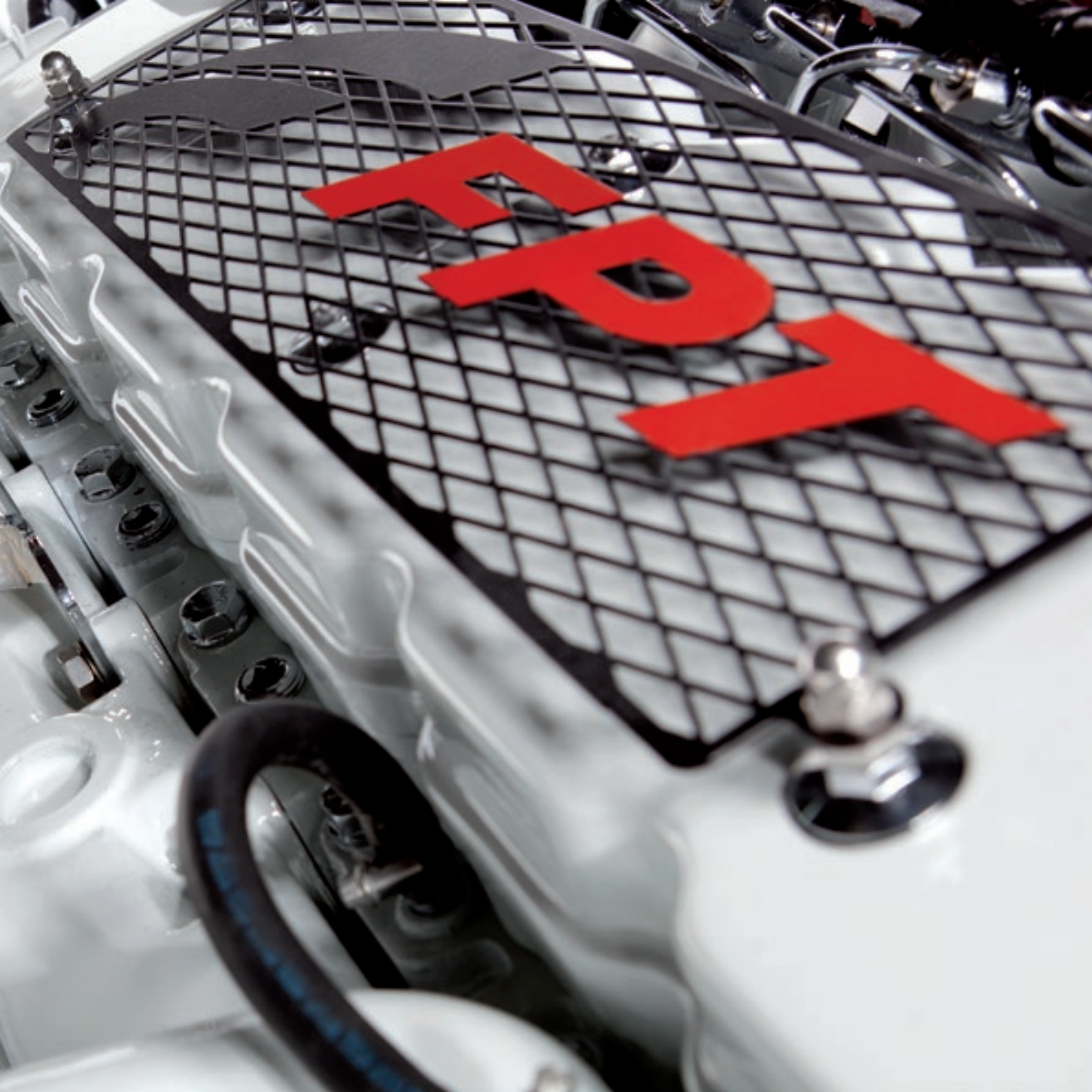
N67 450



N60 480



N67 570



APPLICATION	MODEL	CYLINDERS ARRANGEMENT ASPIRATION	DISPLACEMENT LITERS	POWER ¹ – KW (HP) @ RPM					
				S1	A1	A2	B	C	D
○ ●	N40 250	4L / TCA	3,9	–	184 (250) @ 2800	–	147 (200) @ 2800	125 (170) @ 2800	–
○ ●	N45 100	4L / NA	4,5	–	74 (100) @ 2800	–	66,5 (90) @ 2800	63 (85) @ 2800	63 (85) @ 2800
○ ●	N60 370	6L / TCA	5,9	–	272 (370) @ 2800	–	243 (330) @ 2800	199 (270) @ 2800	–
○ ●	N60 400	6L / TCA	5,9	–	294 (400) @ 3000	272 (370) @ 3000	243 (330) @ 3000	199 (270) @ 3000	–
○	N60 480	6L / TCA	5,9	353 (480) @ 3000	–	–	–	–	–
○ ●	N67 150	6L / NA	6,7	–	110 (150) @ 2800	–	99,5 (135) @ 2800	92 (125) @ 2800	92 (125) @ 2800
○ ●	N67 220	6L / TC	6,7	–	162 (220) @ 2800	–	–	132 (180) @ 2800	110 (150) @ 2800
○ ●	N67 280	6L / TCA	6,7	–	206 (280) @ 2800	–	191 (260) @ 2800	169 (230) @ 2800	132 (180) @ 2500
○ ●	N67 450	6L / TCA	6,7	–	331 (450) @ 3000	309 (420) @ 3000	272 (370) @ 3000	258 (350) @ 3000	–
○ ●	N67 570	6L / TCA	6,7	–	419 (570) @ 3000	368 (500) @ 3000	331 (450) @ 3000	–	–

LEGEND

APPLICATION
○ Pleasure
● Professional

ARRANGEMENT
L In-line vertical

AIR INTAKE
NA Naturally Aspirated
TC Turbocharged
TCA Turbocharged After Cooled

S1 Sportive duty

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 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

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 5%

Mechanical Engines – Features

INJECTION SYSTEM

The NEF Series mechanical fuel injection system is characterized by advanced components providing high torque and power, reliability, low fuel consumption and exhaust gas emissions, low servicing costs.

TECHNOLOGICAL INNOVATION

Features achieved using innovative technologies and production processes such as: advanced injection system, ladder frame cylinder block, fracture split connecting rods, rear gear-train timing system.

TECHNOLOGICAL SOLUTIONS FOR SERVICING

To reduce maintenance operations and improve engine life and reliability, the NEF mechanical Series engines adopts 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.

COMPONENTS 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 keel cooling version availability, monitoring systems, international emission certifications as IMO MARPOL, 2004/26/EC, CCNR, EPA Recreational & Commercial and propulsion homologation as RINA.

SERVICEABILITY & MAINTAINABILITY

Widespread worldwide service network.

Benefits

- ✓ **HIGH TORQUE AND POWER PERFORMANCE
MINIMUM FUEL CONSUMPTION
AND EXHAUST GAS EMISSION**
- ✓ **ENGINE EFFICIENCY AND STIFFNESS
VIBRATIONS & NOISE REDUCTION**
- ✓ **REDUCED MAINTENANCE,
LONGER ENGINE LIFE AND RELIABILITY**
- ✓ **REDUCED MAINTENANCE
AND OPERATING COSTS**
- ✓ **MARINE LAY-OUT & SETTINGS
SAFETY AND PROTECTION ON BOARD**
- ✓ **LEAKAGE PREVENTION**
- ✓ **CUSTOMER ORIENTATION**
- ✓ **QUICK AND ACCURATE
SERVICE SUPPORT**



Electronic Engines – Features

SPECIFIC FEATURES

The NEF pleasure range features state-of-the-art diesel technologies (Common Rail, electronic systems, 4 valves/cylinder), thus ensuring high performance, lightness, compactness, design, low environmental impact (low smoke, noise and vibration) for cruisers, yachts and light/medium duties commercial boats up to 12 meters.

TECHNOLOGICAL INNOVATION

Features achieved using innovative technologies and production processes such as: Electronic Common Rail, ladder frame cylinder block, fracture split connecting rods, rear gear-train timing system.

TECHNOLOGICAL SOLUTIONS FOR SERVICING

To reduce maintenance operations and improve engine life and reliability, the Electronic Common Rail NEF Series adopts 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 turbocharging optimized cooling systems.

COMPONENTS INTEGRATION

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

OPTION LIST

Wide range of accessories availability including electronic remote control, monitoring systems, international emission standards as IMO MARPOL, 2003/44/EC, 2004/26/EC, EPA Recreational & Commercial and propulsion homologation as RINA.

SERVICEABILITY & MAINTAINABILITY

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

Benefits

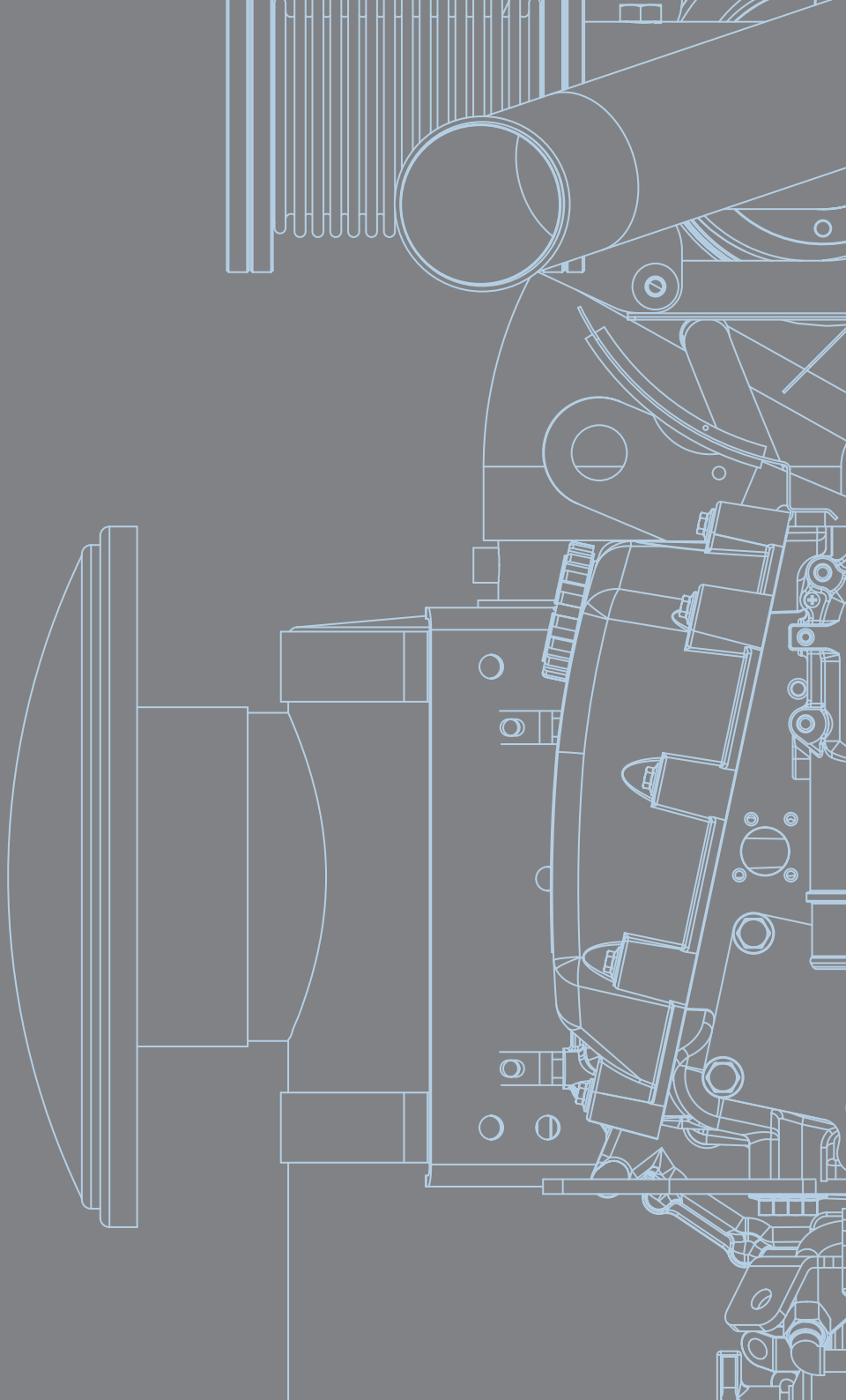
- ✓ **HIGH TORQUE AND POWER PERFORMANCE
REDUCED FUEL CONSUMPTION AND
EXHAUST GAS EMISSION**
- ✓ **ENGINE EFFICIENCY AND STIFFNESS
VIBRATIONS & NOISE REDUCTION**
- ✓ **REDUCED MAINTENANCE,
LONGER ENGINE LIFE AND RELIABILITY**
- ✓ **REDUCED MAINTENANCE
AND OPERATING COSTS**
- ✓ **MARINE LAY-OUT & SETTINGS
SAFETY AND PROTECTION ON BOARD**
- ✓ **LEAKAGE PREVENTION**
- ✓ **CUSTOMER ORIENTATION**
- ✓ **QUICK AND ACCURATE
SERVICE SUPPORT**







THE CURSOR SERIES



The Cursor Series

The **Cursor Series** features state-of-the-art technologies providing customers with benefits such as high injection pressure and timing precision under any operation condition, excellent performance, low fuel consumption and emissions. Professionals of the sea trust **Cursor Series** for its outstanding technology, low operating costs, fuel economy and ease of maintenance.

This Series for pleasure applications is recommended for yachts and sport fishing boats up to 16-18 meters (according to boat displacement) and ensures proven performance, reliability and simplified installation.



APPLICATION	MODEL	CYLINDERS ARRANGEMENT ASPIRATION	DISPLACEMENT LITERS	POWER ¹ – KW (HP) @ RPM					
				S1	A1	A2	B	C	D
●	C90 380	6L / TCA	8,7	–	–	–	–	301 (410) @ 2000	280 (380) @ 2000
○ ●	C90 620	6L / TCA	8,7	–	456 (620) @ 2530	405 (550) @ 2530	368 (500) @ 2530	331 (450) @ 2530	–
○	C90 650	6L / TCA	8,7	–	478 (650) @ 2530	–	–	–	–
●	C13 330	6L / TC	12,9	–	–	–	–	–	243 (330) @ 1800
●	C13 500	6L / TCA	12,9	–	–	–	–	382 (520) @ 2000	368 (500) @ 2000
○ ●	C13 825	6L / 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

- TCA Turbocharged After Cooled
- TC Turbocharged

S1 Sportive duty

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 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

(1) Net rating at flywheel according to ISO 3046-1 and delivered after ~ 50 hours running. Engine performance within ± 5%

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 adopts plateau 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.

COMPONENTS 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, international 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 EMISSION**
- ✓ **ENGINE EFFICIENCY AND STIFFNESS
VIBRATIONS & NOISE REDUCTION**
- ✓ **REDUCED MAINTENANCE,
LONGER ENGINE LIFE AND RELIABILITY**
- ✓ **REDUCED MAINTENANCE
AND OPERATING COSTS**
- ✓ **MARINE LAY-OUT & SETTINGS
SAFETY AND PROTECTION ON BOARD**
- ✓ **LEAKAGE PREVENTION**
- ✓ **CUSTOMER ORIENTATION**
- ✓ **QUICK AND ACCURATE
SERVICE SUPPORT**





FB 41' SF (FB Design) holder of New York – Bermuda 2012 record.
FB 41' SF is powered by two FPT Industrial engines C90 at 650 HP.



All the pictures, drawings illustrations and descriptions contained in this brochure are based on product information available to FPT Industrial at the time of printing (30/06/2016).

Some of the engine line-ups may refer to a specific market configuration which may not be present or offered for sale available in all other markets. The colors featured in this brochure may differ from the originals.

FPT Industrial reserves the right to introduce any modifications, at any time and without any prior advance notice, to design, material, components equipment and/or technical specifications.

Graphic Design STAR S.p.A. Italy



FPT INDUSTRIAL S.p.A.
Via Puglia 15, 10156 – Torino, Italy
marketing1@fptindustrial.com
www.fptindustrial.com