

C13 770

C13 ENT M77

6 CYLINDERS IN LINE - DIESEL CYCLE

567 kW (770 HP) @ 2300 rpm (A1)

515 kW (700 HP) @ 2300 rpm (A2)

442 kW (600 HP) @ 2300 rpm (B)

397 kW (540 HP) @ 2300 rpm (C)



MARINE APPLICATIONS

C13 ENT M77 FOR MARINE APPLICATIONS

| | | |
|--|----|------------------------------------|
| Thermodynamic cycle | | Diesel 4 stroke |
| Air intake | | TAA |
| Arrangement | | 6L |
| Bore x Stroke | mm | 135 X 150 |
| Total displacement | l | 12.88 |
| Valves per cylinder | | 4 |
| Cooling | | liquid |
| Direction of rotation (viewed facing flywheel) | | CCW |
| Engine management | | electrical |
| Injection system | | Electronic Unit Injection (E.U.I.) |

Electrical system

| | | |
|---------|---|----|
| Voltage | V | 24 |
|---------|---|----|

Standard configuration

| | | |
|-----------------------------|--------|--------------------------------------|
| Flywheel housing | type | SAE 1 |
| Flywheel size | inch | 14 |
| Air filter | | rear side |
| Turbocharger | | 2, water cooled |
| Heat exchanger | | tube type |
| Exhaust cooled elbow | | - |
| Water charge tank | | included |
| Fuel filter | n° | 1 |
| Fuel prefilter | | 1 (loose) |
| Fuel pump | | gear driven |
| Oil filter | n° | 2 |
| Oil sump | | aluminium |
| Oil vapours blow-by circuit | | included |
| Oil heat exchanger | | included |
| Oil filler | | on timing cover |
| Starting motor | | 24 V - 5.5 kW |
| Alternator | | 28 V - 90 A |
| Engine stop device | | by electronic central unit |
| Wiring harness | | with EDC (Electronic Diesel Control) |
| Painting | colour | white "ICE" |

Not included in the standard configuration

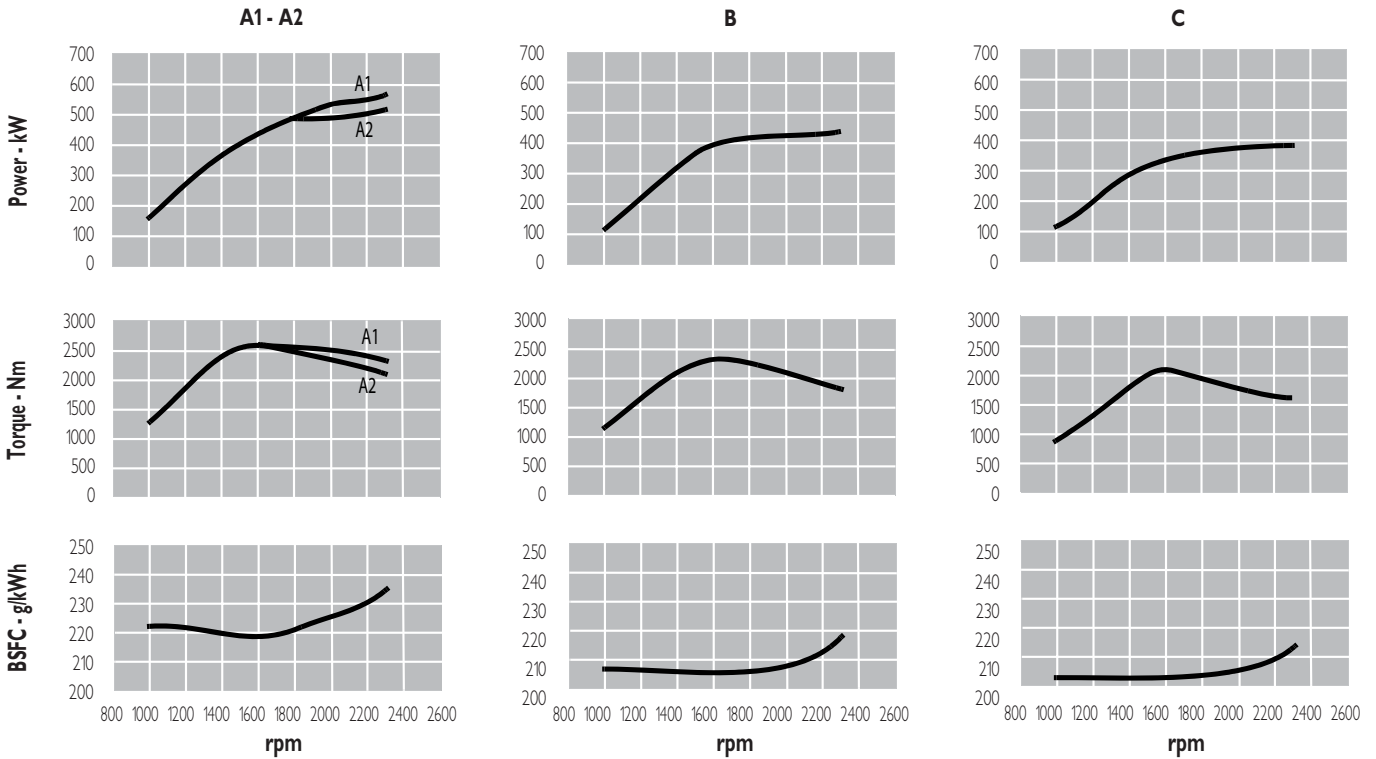
| | | |
|--|--|------------|
| Battery - minimum capacity recommended | | 2 x 180 Ah |
| Battery - minimum cold cranking capacity recommended | | 1200 A |

FPT 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, CONTACT THE FPT SALES NETWORK.

C13 ENT M77 FOR MARINE APPLICATIONS

| Rating type | | A1 | A2 | B | C |
|---|-------------------------|------------|-----------|-----------|-----------|
| Maximum power * | kW(HP) | 567 (770) | 515 (700) | 442 (600) | 397 (540) |
| At speed | rpm | 2300 | 2300 | 2300 | 2300 |
| Maximum no load governed speed at max rating | rpm | 2520 | 2520 | 2520 | 2520 |
| Minimum idling speed | rpm | 550 | 550 | 550 | 550 |
| Mean piston speed at rated speed | m/s | 11.5 | 11.5 | 11.5 | 11.5 |
| BMEP at max torque | kg/cm ² | 26.6 | 26.5 | 23.7 | 20.8 |
| Specific fuel consumption at full load (best value) | g/kWh @ rpm | 201 @ 1400 | | | |
| Oil consumption at max rating | (% of fuel consumption) | 0.2 | | | |
| Minimum starting temperature without auxiliaries | °C | - 15 | | | |
| Oil and oil filter maintenance interval for replacement | hours | 600 | | | |

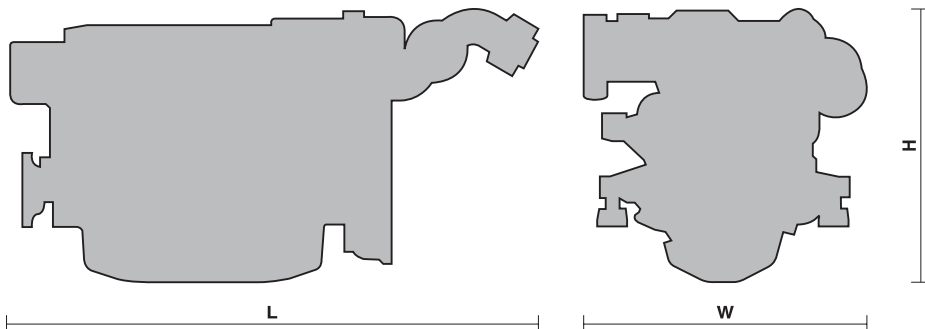
* **Net Power** at flywheel according to ISO 3046/1, after 50 hours running, fuel Diesel EN 590. Power tolerance 5%.
Test conditions: ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30% relative humidity.



A1 = High performance crafts.
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:
 - 300 hours per year (A1 service)
 - 1000 hours per year (A2 service).

B = Light duty.
 Full throttle operation restricted within 10% of total 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.



L = 2015 mm
W = 1064 mm
H = 1039 mm

Dry weight (without marine gear) = 1380 kg

ENGINE BENEFITS

- **PERFORMANCE:** Ratings, consumption and emissions optimisation due to electrical engine management and Electronic Unit system; high specific power; lightness (low weight/power ratio); compactness (low volume/power ratio); high torque at low rpms.
- **SERVICEABILITY:** Control, protection and diagnostic for the main engine components and parameters; widespread and quick service.
- **RELIABILITY:** Compact and functional design; long engine life.
- **COST EFFECTIVENESS:** Fuel consumption reduction; maintenance and overhaul intervals extension.
- **ENVIRONMENTALLY FRIENDLY:** Noise, gaseous emissions and vibrations reduction.
- **CUSTOMER ORIENTATION:** Wideness of uses, propulsion certifications and emissions; availability of accessories range.

FIAT POWERTRAIN TECHNOLOGIES

Via Puglia, 15 - 10156 Torino

FIAT POWERTRAIN TECHNOLOGIES

Viale dell'Industria, 15/17 - 20010 Pregnana Milanese (MI)

www.ftpowertrain.com

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