

C78 550

C78 ENT M55

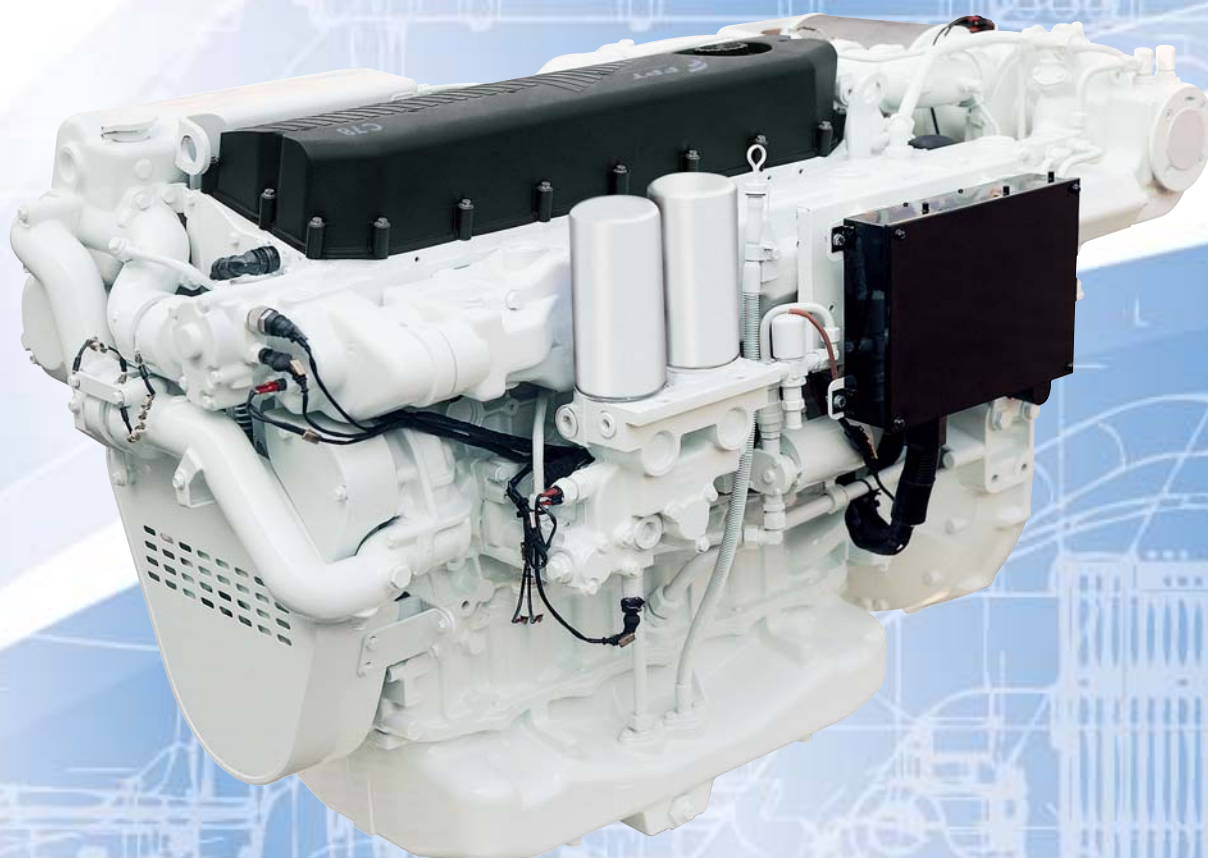
6 CYLINDERS IN LINE - DIESEL CYCLE

405 kW (550 HP) @ 2600 rpm (A1)

368 kW (500 HP) @ 2600 rpm (A2)

331 kW (450 HP) @ 2600 rpm (B)

294 kW (400 HP) @ 2600 rpm (C)



MARINE APPLICATIONS

C78 ENT M55 FOR MARINE APPLICATIONS

| | | |
|--|----|------------------------------------|
| Thermodynamic cycle | | Diesel 4 stroke |
| Air intake | | TAA |
| Arrangement | | 6L |
| Bore x Stroke | mm | 115 X 125 |
| Total displacement | l | 7.8 |
| 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 | | wastw gate controlled and water cooled |
| Heat exchanger | | tube type |
| Exhaust cooled elbow | | – |
| Water charge tank | | included |
| Fuel filter | n° | 1 - right side |
| Fuel prefilter | | 1 - (supplied loose) |
| Fuel pump | | 1 - gear driven |
| Oil filter | n° | 2 - left side |
| Oil sump | | aluminium |
| Oil vapours blow-by circuit | | included |
| Oil heat exchanger | | included |
| Oil filler | | on timing cover |
| Starting motor | | 24 V - 4.5 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

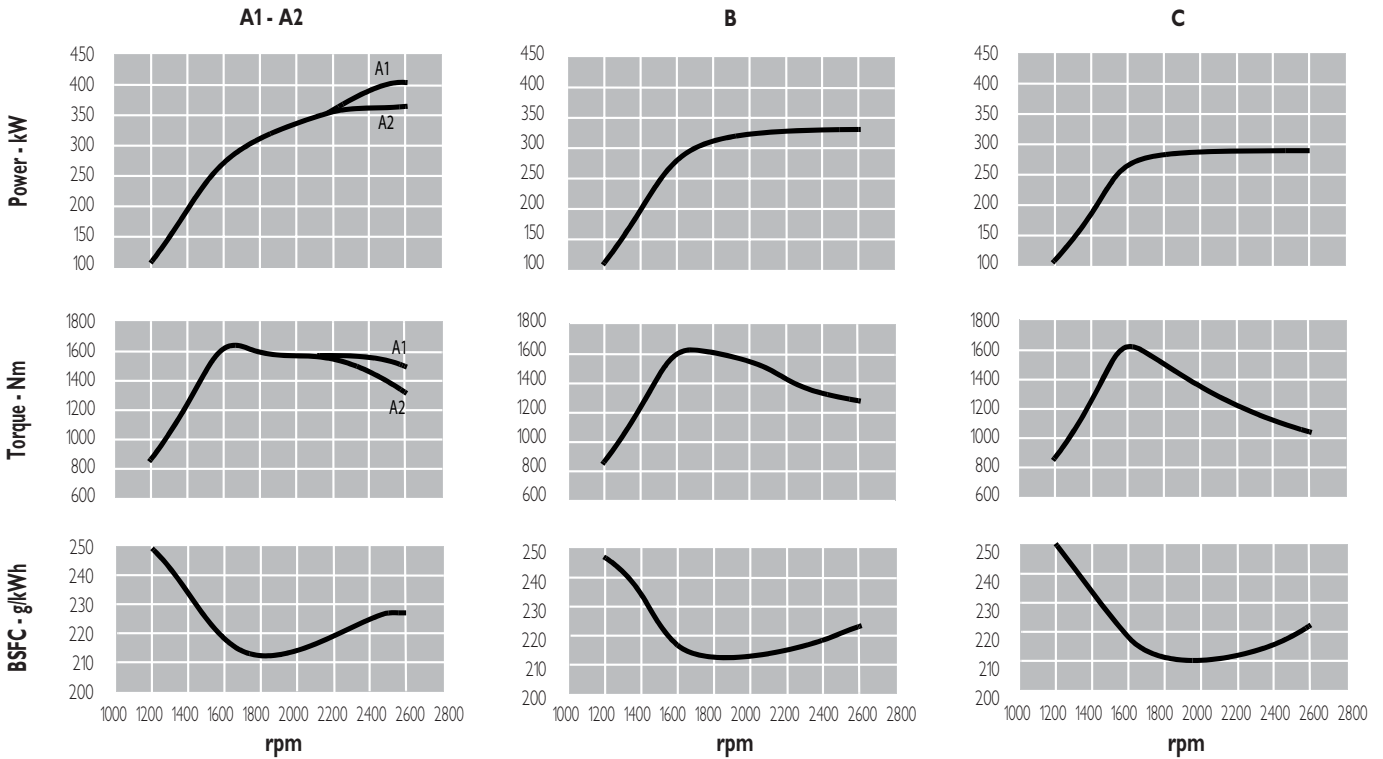
| | | |
|--|--|------------|
| Battery - minimum capacity recommended | | 2 x 120 Ah |
| Battery - minimum cold cranking capacity recommended | | 900 A |

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.

C78 ENT M55 FOR MARINE APPLICATIONS

| Rating type | | A1 | A2 | B | C |
|---|-------------------------|-----------|-----------|------------|-----------|
| Maximum power * | kW(HP) | 405 (550) | 368 (500) | 331 (450) | 294 (400) |
| At speed | rpm | 2600 | 2600 | 2600 | 2600 |
| Maximum no load governed speed at max rating | rpm | 2800 | 2800 | 2800 | 2800 |
| Minimum idling speed | rpm | 600 | 600 | 600 | 600 |
| Mean piston speed at rated speed | m/s | 10.8 | 10.8 | 10.8 | 10.8 |
| BMEP at max torque | kg/cm ² | | | 26.6 | |
| Specific fuel consumption at full load (best value) | g/kWh @ rpm | | | 210 @ 2000 | |
| 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 | |

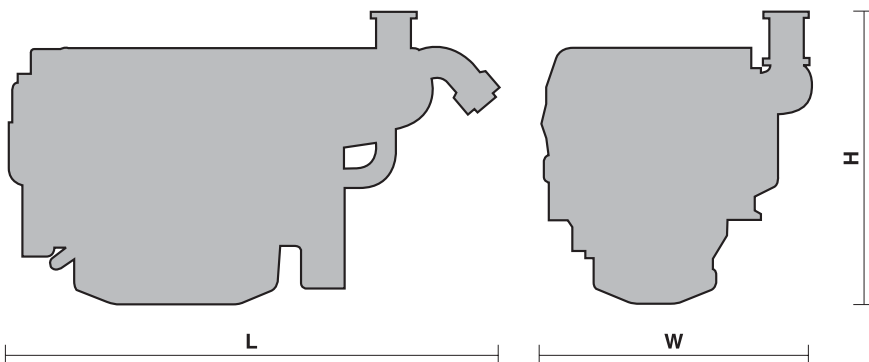
* **Net Power** at flywheel according to ISO 3046/1, after 50 hours running, fuel Diesel EN 590. Power tolerance 5%.
Test conditions: ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30% relative humidity.



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 = 1771 mm
W = 1000 mm
H = 1077 mm
Dry weight (without marine gear) = 910 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

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