



# 4JH45 Common Rail Series

|                                    |  |                     |     |
|------------------------------------|--|---------------------|-----|
| Configuration                      | 4-stroke, vertical, water-cooled diesel engine                                   |                     |     |
| Maximum output at crankshaft       | * 33.1 kW@3000 rpm   | [45 mhp@3000 rpm]   |     |
| Displacement                       | 2.190 L  | [134 cu in]         |     |
| Bore x stroke                      | 88 mm x 90 mm  | [3.46 in x 3.54 in] |     |
| Cylinders                          | In-line  |                     |     |
| Combustion system                  | Direct injection with Bosch common-rail system                                   |                     |     |
| Aspiration                         | Natural aspiration   |                     |     |
| Starting system                    | Electric starting 12V - 1.4 kW   |                     |     |
| Alternator                         | 12V - 125A   |                     |     |
| Cooling system                     | Fresh water cooling by centrifugal water pump and rubber impeller sea water pump |                     |     |
| Lubrication system                 | Enclosed, forced lubricating system  |                     |     |
| Direction of rotation [crankshaft] | Counterclockwise viewed from stern   |                     |     |
| Dry weight without gear            | 220 kg   | [485 lbs]           |     |
| Emission compliance                | EU: RCD 2  | BSO II              | EMC |
|                                    | US: EPA Tier 3   |                     |     |
| Engine mounting                    | Rubber type flexible mounting  |                     |     |

**NOTE:**

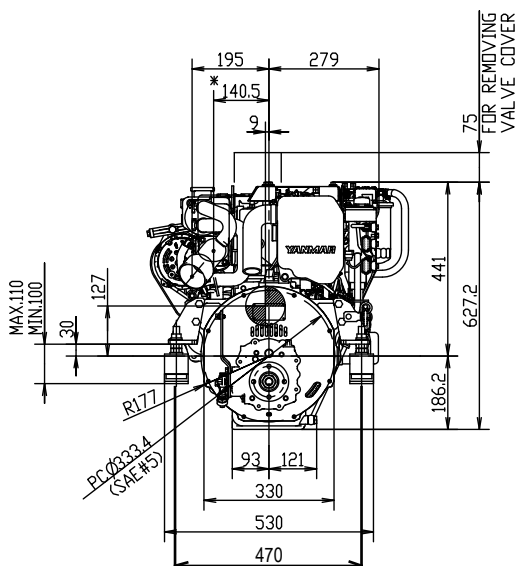
Fuel condition: Density at 15°C = 0.84 g/cm<sup>3</sup>: 1 kW = 1.3596 mhp = 1.3410 HP

\* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

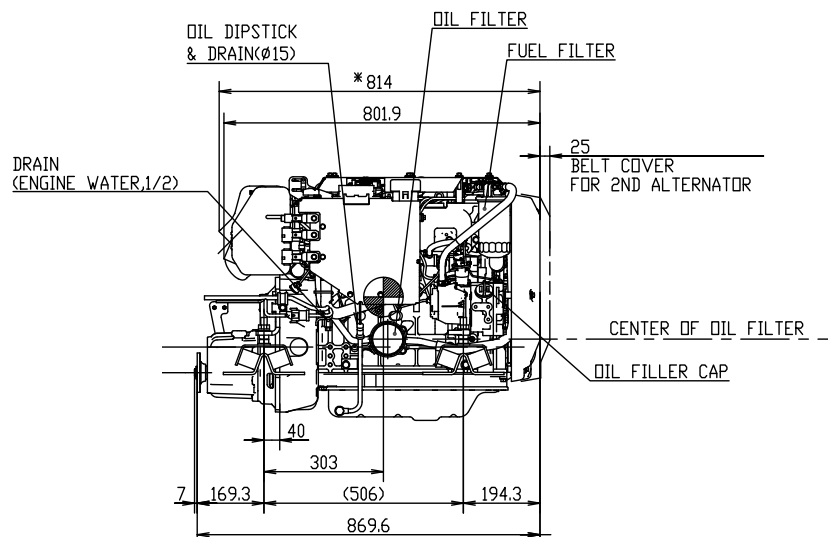
Technical data is according to ISO 8665: 2006

**DIMENSIONS**

**Rear view**



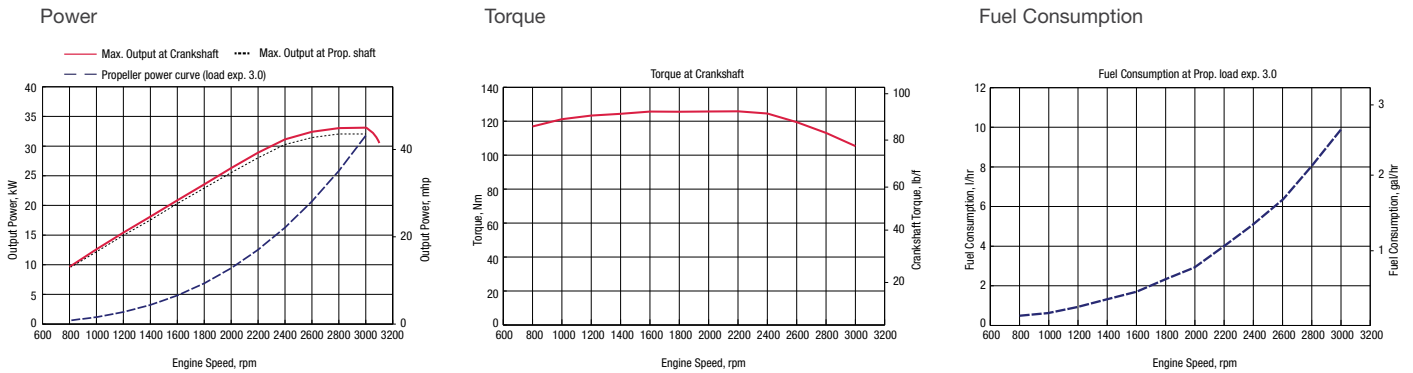
**Right side view**



4JH45 with KM35P marine gear



PERFORMANCE CURVES



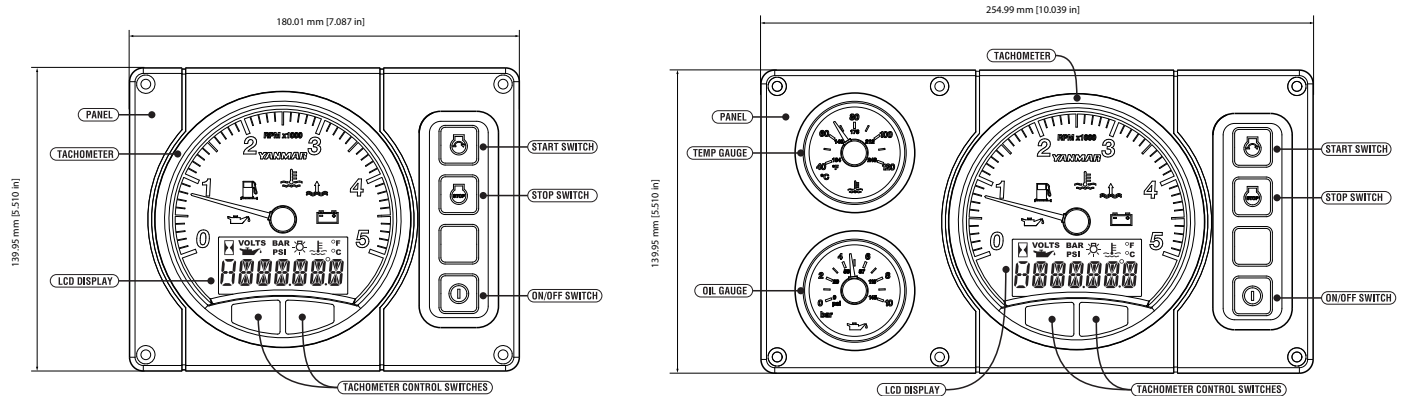
MARINE GEARS/DRIVE\*

| Model                                     | KM35P                  |          | KM35A2 [down angle: 7°] |          | KM4A1 [down angle: 7°]       |           |           | ZF30M                 |           | Saildrive SD60                 |           |
|---|------------------------|----------|-------------------------|----------|------------------------------|-----------|-----------|-----------------------|-----------|--------------------------------|-----------|
| Type                                      | Mechanical cone clutch |          | Mechanical cone clutch  |          | Mechanical cone clutch       |           |           | Mechanical multi-disc |           | Mechanical wet type multi-disc |           |
| Dry weight**                              | 12 kg [27 lbs]         |          | 13 kg [29 lbs]          |          | 30 kg [66 lbs]               |           |           | 28 kg [61 lbs]        |           | 43.6 kg [96 lbs]               |           |
| Reduction Ratio [fwd/rev]                 | 2.36/3.16              |          | 2.33/3.06               |          | 1.47/1.47                    |           |           | 2.15/2.64             |           | 2.23/2.23                      |           |
| Propeller speed [fwd/rev]                 | 1271/949               | 1149/949 | 1288/980                | 1136/980 | 2041/2041                    | 1402/1402 | 1141/1141 | 1395/1136             | 1111/1136 | 1345/1345                      | 1205/1205 |
| Direction of rotation (viewed from stern) | Clockwise              |          | Clockwise               |          | Clockwise & counterclockwise |           |           | Clockwise             |           | Clockwise & counterclockwise   |           |
| Dry weight - engine & gear**              | 232 kg [511 lbs]       |          | 233 kg [513 lbs]        |          | 250 kg [551 lbs]             |           |           | 248 kg [547 lbs]      |           | 264 kg [582 lbs]               |           |
| Length engine and gear/drive              | 870 mm [34 in]         |          | 868 mm [34 in]          |          | 926 mm [36 in]               |           |           | 950 mm [37 in]        |           | 1113 mm [44 in]                |           |

\* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

\*\* Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B25-panel

C35-panel

ACCESSORIES

Standard engine package

- Set of flexible engine mounts
- Exhaust mixing elbow [L-type]
- Belt safety cover
- Fresh water expansion tank
- Alternator 12V - 125A
- Operation manual
- B25-panel
- Sensors for instrument panel
- Seawaterpump front mounted
- Engine topcover for protection
- Emergency stop switch

Optional accessories

- Second alternator 12V - 125A or 24V - 60A
- High-riser mixing elbow [instead of L-elbow]
- Extension wire harness [3m, 5m, 10m]
- Hot water kit with cocks
- Dual Harness (For 2nd Station)
- C35-panel
- Oil pressure sensor for C35-panel
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60
- NMEA 2000 convertor for Engine monitoring system

NOTE: All data subject to change without notice. Text and illustrations are not binding.