

## Yanmar type 4JH4-HTE

# The Powerful Gem

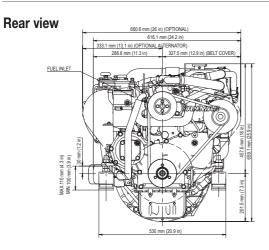


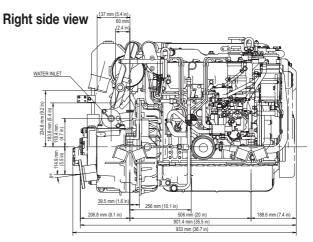
| Configuration                          | 4-stroke, vertical, water cooled diesel engine  |  |  |  |  |
|--|---|--|--|--|--|
| Maximum output at crankshaft           | * 80.9 kW ( 110 mhp) / 3200 rpm   |  |  |  |  |
| Continuous rating output at crankshaft | 73.6 kW (99 mhp) / 3101 rpm   |  |  |  |  |
| Displacement                           | 1.995 L ( 121.7 cu in)  |  |  |  |  |
| Bore x stroke                          | 84 mm x 90 mm ( 3.31 in x 3.54 in)  |  |  |  |  |
| Cylinders                              | 4 cylinders, 4-valves per cylinder  |  |  |  |  |
| Combustion system                      | Direct injection  |  |  |  |  |
| Aspiration                             | Turbocharged  |  |  |  |  |
| Starting system                        | Electric starting 12 V - 1.4 kW   |  |  |  |  |
| Alternator                             | 12 V - 80 A (60A optional)  |  |  |  |  |
| 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)     | Counter clockwise viewed from stern   |  |  |  |  |
| Dry weight without gear                | 217 kg (478 lbs)  |  |  |  |  |
| Environmental                          | Meets EPA Tier2, BSO Tier2 and RCD comprehensive emissions regulations introduced in and US in 2006 |  |  |  |  |
| Engine mounting                        | Rubber type flexible mounts   |  |  |  |  |

NOTE: Fuel condition: Density at  $15^{\circ}$ C = 0.84 g/cm  $^{3}$ ; 1kW = 1.3596 mhp = 1.3410 HP

Technical data is according to ISO 8665 / 3046

Dimensions (For detailed line-drawings, please refer to our web-site: www.yanmarmarine.com or contact your supplier)

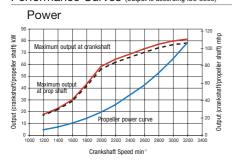


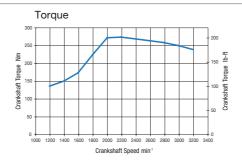


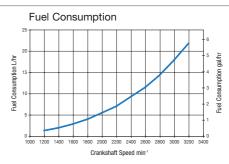
4JH4-HTE w/ KM4A2 marine gear



 $<sup>^{\</sup>star}$  Fuel temperature 40°C at the inlet of the fuel injection pump (ISO 8665)





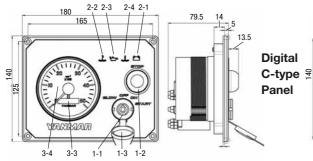


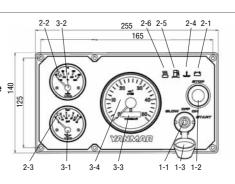
#### Marine Gears/Drive

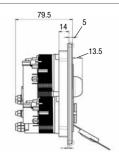
| Model                     | ZF3              | MO        | KM4A2 down angle:7            |                | KMH4A down angle: 8           |                | ZF25A down angle: 8            |                |           |
|---------------------------|------------------|-----------|-------------------------------|----------------|-------------------------------|----------------|--------------------------------|----------------|-----------|
| Туре                      | Mechani<br>di    |           | Mechanical<br>wet cone clutch |                | Hydraulic, wet<br>multi-disc  |                | Hydraulic, wet<br>multi-disc   |                |           |
| Dry weight                | 28 kg (          | (61 lbs)  |                               | 30 kg (66 lbs) |                               | 31 kg (68 lbs) |                                | 30 kg (66 lbs) |           |
| Reduction ratio (fwd/asn) | 2.15/2.64        | 2.70/2.64 | 1.47/1.47                     | 2.14/2.14      | 2.63/2.63                     | 2.04/2.04      | 2.45/2.45                      | 1.93/1.93      | 2.48/2.48 |
| Propeller speed(fwd/asn)  | 1488/1212        | 1185/1212 | 2177/2177                     | 1495/1495      | 1217/1217                     | 1569/1569      | 1306/1306                      | 1658/1658      | 1290/1290 |
| Direction of rotation     | Clockwise        |           | Clockwise or counterclockwise |                | Clockwise or counterclockwise |                | Clockwise & counter clockwisee |                |           |
| (propeller shaft - fwd)   | viewed fr        | om stern  | viewed from stern             |                | viewed from stern             |                | viewed from stern              |                |           |
| Dry weight engine         | 245 kg (         | (540 lbs) | 247 kg (545 lbs)              |                | 248 kg (547 lbs)              |                | 247 kg (545 lbs)               |                |           |
| and gear/drive            |                  |           |                               |                |                               |                |                                |                |           |
| Length engine             | 923 mm (36.3 in) |           | 903 mm (35.6 in)              |                | 933 mm (36.7 in)              |                | 1017 mm (40 in)                |                |           |
| and gear/drive            |                  |           |                               |                |                               |                |                                |                |           |

#### Instrument Panels









|  | Type of instrument panel |                      |  |  |
|--|--------------------------|----------------------|--|--|
| Function   | Digital B-type Panel     | Digital C-type Panel |  |  |
| ① Switch unit  | 0 71                     | ŭ ,,                 |  |  |
| 1-1 Key switch for GLOW/OFF/ON/START (4-position switch) | 0                        | 0                    |  |  |
| 1-2 Push button switch for engine stop                   | 0                        | 0                    |  |  |
| 1-3 Moisture cap for key switch                          | 0                        | 0                    |  |  |
| 2 Alarm lamp unit  |                          |                      |  |  |
| 2-1 Battery low charge alarm                             | 0                        | 0                    |  |  |
| 2-2 Coolant high temperature alarm                       | 0                        | 0                    |  |  |
| 2-3 Lubricating oil low pressure                         | 0                        | 0                    |  |  |
| 2-4 Water in sail drive seal alarm                       | 0                        | 0                    |  |  |
| 2-5 Water in fuel filter alarm (optional)                | X                        | 0                    |  |  |
| 3 Meters   |                          |                      |  |  |
| 3-1 Lubricating oil pressure meter                       | X                        | 0                    |  |  |
| 3-2 Coolant temperature meter                            | X                        | 0                    |  |  |
| 3-3 Hour meter   | 0                        | 0                    |  |  |
| 3-4 Tachometer   | 0                        | 0                    |  |  |
| Audible alarm buzzer                                     | 0                        | 0                    |  |  |

Note: O = Equipped on panel X = Not equipped on panel

#### Accessories

### Standard Package

- Set of flexible mounts
- Exhaust mixing elbow (L-type)
- V-belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12 V 80 A
- Electric stop solenoid

#### Optional

- Digital B-type instrument panel
  Digital C-type instrument panel + sensor assembly for digital C-panel)
- · Exhaust mixing elbow, U-type (high riser)
- Various extension wire harnesses (4M, 6M, 10M)

Texts and illustrations are not binding. Yanmar Marine reserves the right to introduce adaptations without prior notification.

4JH4-HTE Version: 2006-07

