



## **MARINE DIESEL ENGINES**

# **6LPA-STP2 Series**

| Configuration                      | 4-stroke, vertical, water-cooled diesel engine  |                    |     |  |  |
|------------------------------------|---|--------------------|-----|--|--|
| Maximum output at crankshaft       | * 232 kW@3800 rpm   | [315 mhp@3800 rpm] |     |  |  |
|                                    | ** 220 kW@3800 rpm  | [299 mhp@3800 rpm] |     |  |  |
| Displacement                       | 4.164 L   | [254 cu in]        |     |  |  |
| Bore x stroke                      | 94 mm x 100 mm [3.7 in x 3.94 in]   |                    |     |  |  |
| Cylinders                          | In-line, 4 valves per cylinder  |                    |     |  |  |
| Combustion system                  | Direct injection  |                    |     |  |  |
| Aspiration                         | Turbocharged with intercooler   |                    |     |  |  |
| Starting system                    | Electric starting 12V - 2.5 kW  |                    |     |  |  |
| Alternator                         | 12V - 80A   |                    |     |  |  |
| Cooling system                     | Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump |                    |     |  |  |
| Lubrication system                 | Enclosed, forced lubricating system   |                    |     |  |  |
| Direction of rotation [crankshaft] | Counterclockwise viewed from stern  |                    |     |  |  |
| Dry weight without gear            | 408 kg  | [899 lbs]          |     |  |  |
| Emission compliance                | EU: RCD 1   | BSO II             | EMC |  |  |
| Engine mounting                    | Rubber type flexible mounting   |                    |     |  |  |

## NOTE:

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

- \* Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]
- \*\* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

Technical data is according to ISO 8665: 2006/3046-1

# DIMENSIONS

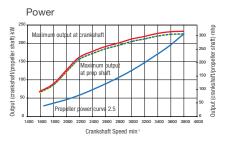
## Rear view Right side view mixing elbow o 102 666 mm (26.2 in) <sup>2</sup>, mm (2.2in) 345 mm (13.6 in) 321 mm (12.6 in) riser mixing elbow (option) 260 mm (10.2 in) 497.1 mm (19.6 in) 389 mm (15.3 in) 502 mm (19.8 in) 739 mm (29.1 in) MIN.138 mm (5.4 in) 47 mm MAX.148 mm (5.8 in) (1.9 in) 237 mm (9.3 in) 98.8 mm (3.9 in) 8° mm (0.3 in) 748.4 mm (29.5 in) 287 mm (11,3 in) 287 mm 1220 mm (48 in)

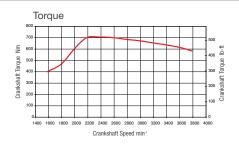
6LPA-STP2 with KMH50A marine gear

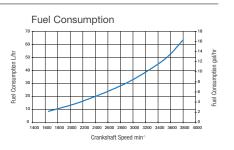




## PERFORMANCE CURVES





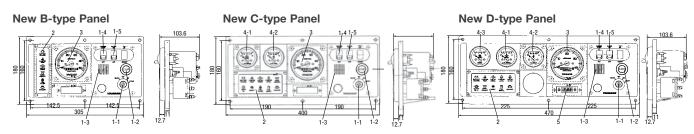


#### MARINE GEARS / DRIVE\*

| Model                                     | KMH50A [down angle 8°]                   |           | ZF63A [down angle 8°]                    |                  |           |           |           |
|---|--|-----------|--|------------------|-----------|-----------|-----------|
| Туре                                      | Hydraulically Actuated Multi-Disc Clutch |           | Hydraulically Actuated Multi-Disc Clutch |                  |           |           |           |
| Dry weight**                              | 51 kg [112 lbs]                          |           | 44 kg [97 lbs]                           |                  |           |           |           |
| Reduction Ratio [fwd/rev]                 | 1.67/1.67                                | 2.13/2.13 | 2.43/2.43                                | 1.22/1.21        | 1.56/1.58 | 2.04/2.10 | 2.52/2.53 |
| Propeller speed [fwd/rev]                 | 2275                                     | 1784      | 1564                                     | 3115/3140        | 2436/2405 | 1863/1810 | 1429/1423 |
| Direction of rotation (viewed from stern) | Clockwise or Counterclockwise            |           |  | Counterclockwise |           |           |           |
| Dry weight – engine & gear**              | 459 kg [1012 lbs]                        |           | 452 kg [996 lbs]                         |                  |           |           |           |
| Length engine and gear/drive              | 1190 mm [46.9 in]                        |           | 1205 mm [47.4 in]                        |                  |           |           |           |

<sup>\*</sup> 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**



|  |                       | TYPE OF INSTRUMENT PANEL |                   |  |
|--|-----------------------|--------------------------|-------------------|--|
| Function   | DIGITAL B-TYPE PANEL  | NEW C-TYPE PANEL         | NEW D-TYPE PANEL  |  |
| 1-Switch unit  |                       |                          |                   |  |
| 1-1 Key switch for GLOW/OFF/ON/START [4-position switch] | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 1-2 Engine stop switch                                   | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 1-3 Alarm buzzer [C.W. Temp., L.O. Pressure]             | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 1-4 Alarm buzzer stop switch                             | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 1-5 Illumination switch for meters                       | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 2-Alarm lamp unit  |                       |                          |                   |  |
| 2-1 Battery not charging                                 | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 2-2 C.W. high temperature                                | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 2-3 L.O. low pressure                                    | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 2-4 F.O. drain seperator                                 | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 2-5 Sea water flow                                       | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 2-6 C.W. level for fresh water tank                      | Not equipped on panel | Equipped on panel        | Equipped on panel |  |
| 2-7 Boost pressure high                                  | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 3-Tachometer with hour meter                             | Equipped on panel     | Equipped on panel        | Equipped on panel |  |
| 4-Sub meter unit   |                       |                          |                   |  |
| 4-1 L.O. pressure meter                                  | Not equipped on panel | Equipped on panel        | Equipped on panel |  |
| 4-2 C.W. Temperature meter                               | Not equipped on panel | Equipped on panel        | Equipped on panel |  |
| 4-3 Boost meter [turbo]                                  | Not equipped on panel | Not equipped on panel    | Equipped on panel |  |
| 5 Quartz clock   | Not equipped on panel | Not equipped on panel    | Equipped on panel |  |
|  |                       |                          |                   |  |

## **ACCESSORIES**

# Standard engine package

- Sensor for instrument panel [New B, C and D-type]
- Exhaust/water mixing elbow [L-type]
- Cooling water hoses
- Fuel water separator [integrated with fuel filter]
- Alternator 12V 80A

## Optional accessories

- Flexible mounts [2 pcs] High-riser mixing elbow [instead of L-elbow]
- Analog instrument panels [New B, C and D-type]
- Dual station Y-harness Sensor for VDO instrument panels
- Control heads Extension wire harness [4m, 6m, 10m]
- Lub oil evacuation pump
- Air venting device for cooling water tank
- VDO instrumentation for main panel and fly bridge Dipstick for opposite side