



MARINE DIESEL ENGINES

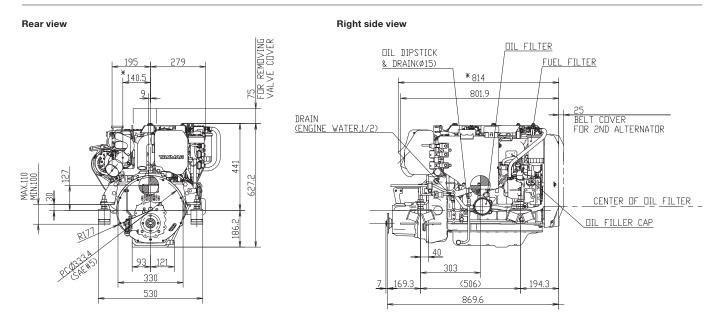
4JH45 Common Rail Series

Configuration	4-stroke, vertical, water-cooled diesel engine				
Maximum output at crankshaft	* 33.1 kW@3000 rpm	[45 mhp@3000 rpm]			
Displacement	2.19 ltr	[134 cu in]			
Bore x stroke	88 mm x 90 mm	[3.46 in x 3.54 in]			
Cylinders	4 in line				
Combustion system	Direct injection with 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 flywheel side				
Dry weight without gear	220 kg	[485 lbs]			
Environmental	EU: RCD (will comply RCD2 from 2016	s) BSO II	EMC		
	US: EPA Tier 3				
Engine mounting	Rubber type flexible mounting				

NOTE:

Fuel condition: Density at 15° C = 0.84 g/cm³: 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

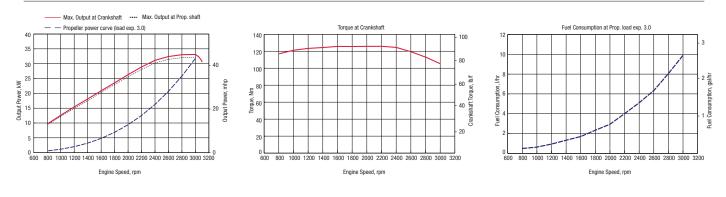


4JH45 with KM35P marine gear





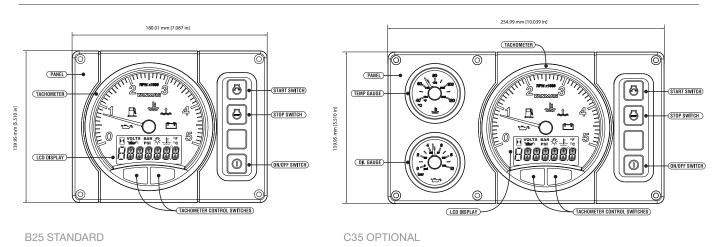
PERFORMANCE CURVES



MARINE GEARS/DRIVE

Model	KM35P KM35A2 [down angle: 7°]		KM4A1 [down angle: 7°]		ZF30M		Saildrive SD60				
Туре	Mechanical	cone clutch	Mechanical cone clutch		Mechanical cone clutch		Mechanical multi-disc		Mechanical wet type multi-disc		
Dry Weight	15 kg ([33 lbs]	16 kg [35 lbs]		33 kg [73 lbs]			23 kg [51 lbs]		44 kg [97 lbs]	
Reduction Ratio [fwd/asn]	2.36/3.16	2.61/3.16	2.33/3.06	2.64/3.06	1.47/1.47	2.14 / 2.14	2.63/2.63	2.15/2.64	2.70/2.64	2.23/2.23	2.49/2.49
Propeller speed [fwd/asn]	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 [propeller shaft - fwd]		kwise rom stern	Clockwise viewed from stern		Clockwise & counterclockwise viewed from stern		Clockwise viewed from stern		Clockwise & counterclockwise viewed from stern		
Dry weight - engine & gear	235 kg [518 lbs] 236 kg [520 lbs]		253 kg [558 lbs]		243 kg [536 lbs]		264 kg [582 lbs]				
Length engine and gear/drive	870 mm [34 in] 868 mm [34		n [34 in]	926 mm [36 in]		950 mm [37 in]		1113 mm [44 in]			

INSTRUMENT PANELS



ACCESSORIES

- Standard Package
- Set of flexible engine mounts
- Exhaust mixing elbow [L-type]
- · V-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

• Second alternator 12V - 125A or 24V - 60A

Optional

- High-riser mixing elbow [instead of L-elbow]
- Extension wire harness [3m, 5m, 10m]
- Hot water kit with cocks
- Second station harness and panel
- C35-panel
- Oil pressure sensor for C35-panel
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60
- NMEA 2000 convertor for Engine monitory system
- Emergency stop switch

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