



MARINE DIESEL ENGINES

4JH4-HTE

Configuration	In-line, 4-stroke, vertical, water-cooled diesel engine				
Max. output at crankshaft*	80.9 kW@3200 rpm	[110 mhp@3200 rpm]			
No. of cylinders	4 cylinder				
Displacement	1.995 L	[121.7 cu in]			
Bore x stroke	84 mm x 90 mm	[3.31 in x 3.54 in]			
Aspiration	Turbocharged & intercooled				
Combustion system	Direct injection, Bosch distributor type VE pump				
Starting system	Electric starting 12V - 1.4 kW				
Engine management	Mechanical				
Cooling system	Fresh water cooling by centrifugal fresh water pump				
Cooling system	Seawater cooling by rubber impeller seawater pump				
Alternator	12V - 125A				
Lubrication system	Enclosed, forced lubricating system				
Engine lube oil specifications	API class: CD or higher, SAE grade: 10W-30 or 15W-40				
Direction of rotation at crankshaft	Counterclockwise (CCW) viewed from stern				
Dry weight without gear	217 kg [4	178 lbs]			
Engine dimensions† L x W x H	933 x 661 x 659 mm				
Emission compliance	EU: RCD 1, BSO II, EMC	US: EPA Tier 2			
Flywheel housing size	SAE #4				
Controls	Mechanical				

NOTE:

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

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

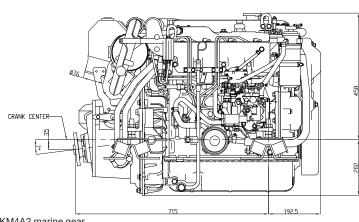
†Length includes KM4A2 marine gear (Dimensions may vary with other gears/elbow)

DIMENSIONS

Rear view

328 289

Right side view



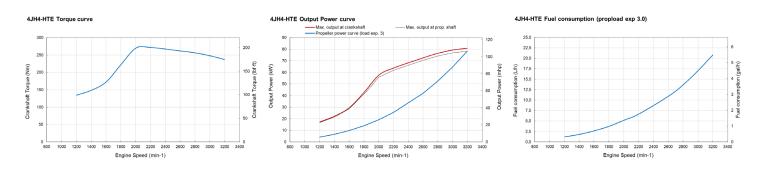
4JH4-HTE with KM4A2 marine gear (Not to be used for engine installation)

^{*} Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665]





PERFORMANCE CURVES

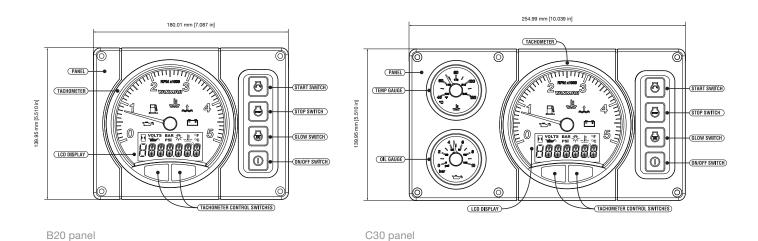


MARINE GEAR*

Model	ZF30M [parallel]		KM4A2 [down angle: 7°]		KMH4A [down angle: 8°]		ZF25A [down angle: 8°]		
Clutch type	Mechanical multi-disc		Mechanical cone		Hydraulic multi-disc		Hydraulic multi-disc		
Dry weight	28 kg [61 lbs]	28.5 kg [63 lbs]		30 kg [66 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
Direction of rotation [viewed from stern]	Clockwise		Clockwise & counterclockwise		Clockwise & Counterclockwise		Clockwise & counter clockwise		
Lubrication system	Splash lubrication		Splash lubrication		Trochoid pump		Trochoid pump		
Lube oil specifications	ATF		API class: CD or higher, SAE gra		ade: #20 or #30		ATF		
Max. lube oil capacity	1.1	L	2.0 L			2.0 L		1.8 L	
Dry weight - engine & gear	245 kg [245 kg [540 lbs]		245.5 kg [541 lbs]		247 kg [545 lbs]		247 kg [545 lbs]	

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

INSTRUMENT PANELS



ACCESSORIES

Standard engine package

- Exhaust mixing elbow [L-type]
- Alternator 12V 125A
- B20 panel
- Flexible mounts
- Expansion tank for fresh water cooling system
- Electric stop solenoid
- Belt safety cover

Optional accessories

- High-riser mixing elbow [instead of L-elbow]
- Secondary alternator 12V 130A or 24V 75A including smart regulator
- C30 pane
- Extension wire harness [4m, 6m 10m]
- Dual harness [for 2nd station]
- TFX Sidemount control head

- SOLAS including Certifi cate [factory fit only]
- Hot water kit with cocks
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60
- Air heater [glow]
- Trolling valve [only for KMH4A]