



YANMAR

NEXT GENERATION

YANMAR JH-CR SERIES
MARINE COMMON-RAIL ENGINES
45 – 57 – 80 – 110 MHP



5 BEST IN CLASS
X



Clean



Interconnective



Quiet



Powerful



Fuel Efficient

PROVEN MARINE TECHNOLOGY



1GM10 Series

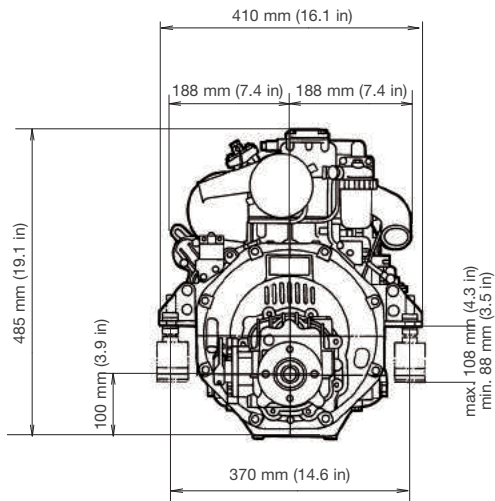
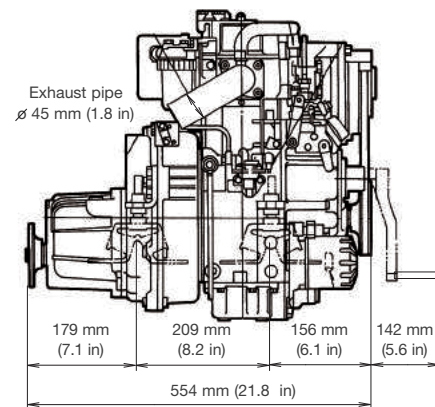
Configuration	4-stroke, vertical, raw water-cooled diesel engine		
Maximum output at crankshaft	* 6.7 kW@3600 rpm	[9 mhp@3600 rpm]	
	** 6.6 kW@3600 rpm	[9 mhp@3600 rpm]	
Displacement	0.318 ltr	[19.41 cu in]	
Bore x stroke	75 mm x 72 mm	[2.95 in x 2.83 in]	
Cylinders	1		
Combustion system	Indirect injection [special swirl type pre-combustion chamber]		
Aspiration	Natural aspiration		
Starting system	Electric starting 12V - 1.0 kW with manual combination		
Alternator	12V – 40A		
Cooling system	Direct seawater cooling by rubber impeller seawater pump		
Lubrication system	Enclosed, forced lubricating system		
Direction of rotation [crankshaft]	Counterclockwise viewed from flywheel side		
Dry weight with gear	76 kg	[168 lbs]	
Environmental	EU: RCD	BSO II	EMC
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 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]

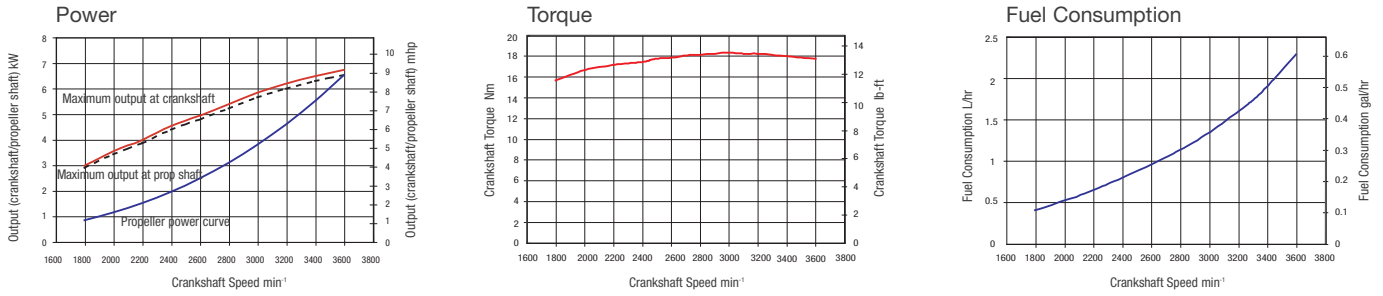
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS**Rear view****Right side view**

1GM10 with KM2P-1 marine gear



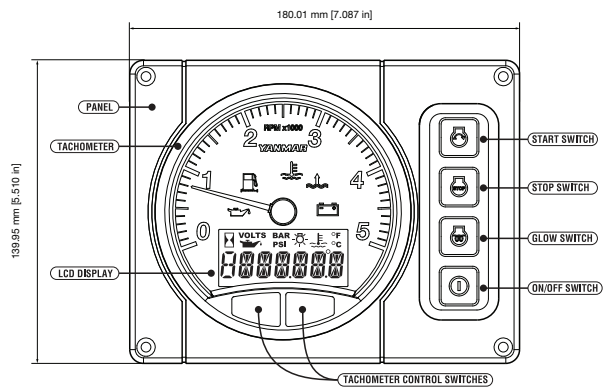
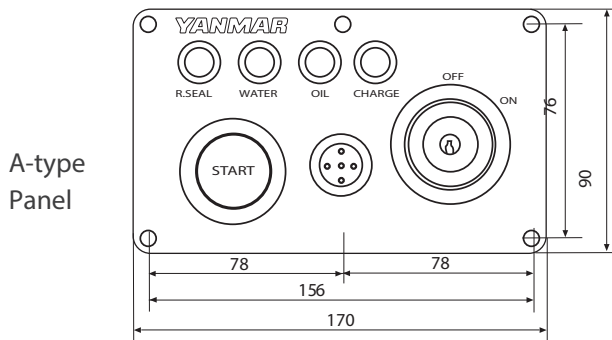
PERFORMANCE CURVES



MARINE GEARS/DRIVE

Model	KM2P-1		SAILDRIVE [SD25]
Type	Constant mesh gear with servo-cone clutch		Constant mesh gear with dog clutch
Dry Weight	10 kg [22 lbs]		30 kg [66 lbs]
Reduction Ratio [fwd/asn]	2.21/3.06	2.62/3.06	2.64/2.64
Propeller speed [fwd/asn]	1629/1176	1374/1176	1364/1364
Direction of rotation	Clockwise		Counterclockwise
[propeller shaft - fwd]	viewed from flywheel side		viewed from flywheel side
Dry weight - engine & gear	76 kg [168 lbs]		104 kg [229 lbs]
Length engine and gear/drive	554 mm [22 in]		723 mm [29 in]

INSTRUMENT PANELS



ACCESORIES

Standard engine package

- Sensor for instrument panel
- Rubber type flexible mounts
- Exhaust mixing elbow [L-type]
- Alternator 60A

Optional accesories

- A-panel
- B20-panel
- Various extension wire harnesses
- Propeller cone nut kit SD25

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



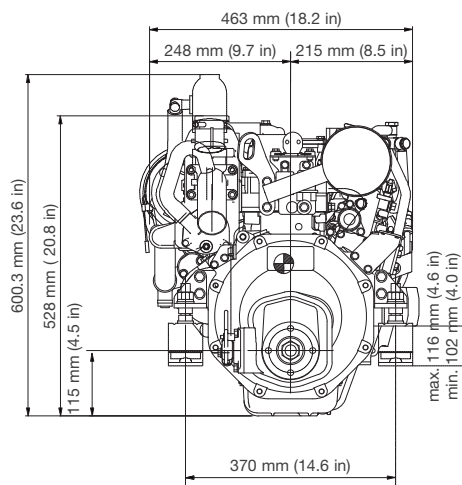
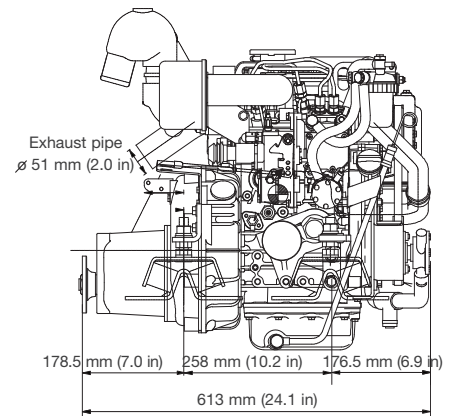
2YM15 Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 10.0 kW@3600 rpm	[13.6 mhp@3600 rpm]	
Displacement	0.570 ltr	[34.7 cu in]	
Bore x stroke	70 mm x 74 mm	[2.75 in x 2.91 in]	
Cylinders	2		
Combustion system	Indirect injection		
Aspiration	Natural aspiration		
Starting system	Electric starting 12V - 1.4 kW		
Alternator	12V - 125A		
Cooling system	Fresh water cooling with heat exchanger		
Lubrication system	Enclosed, forced lubricating system		
Direction of rotation [crankshaft]	Counterclockwise viewed from flywheel side		
Dry weight without gear	103 kg	[227 lbs]	
Environmental	EU: RCD	BSO II	EMC
	US: EPA Tier3		
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]

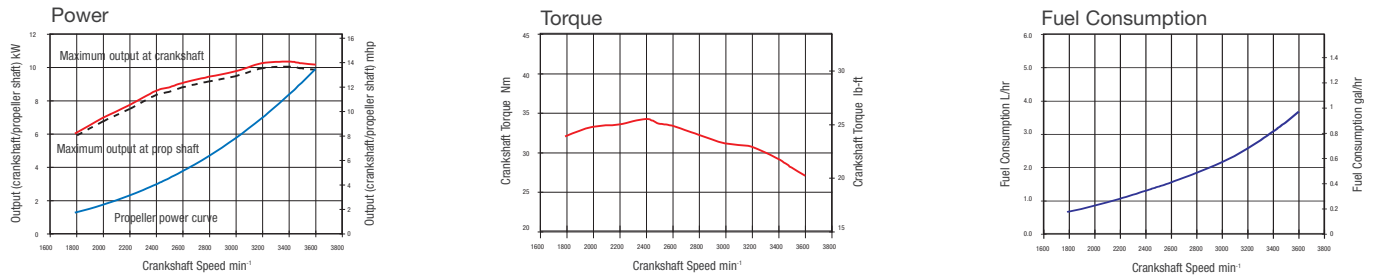
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS**Rear view****Right side view**

2YM15 with KM2P-1 marine gear



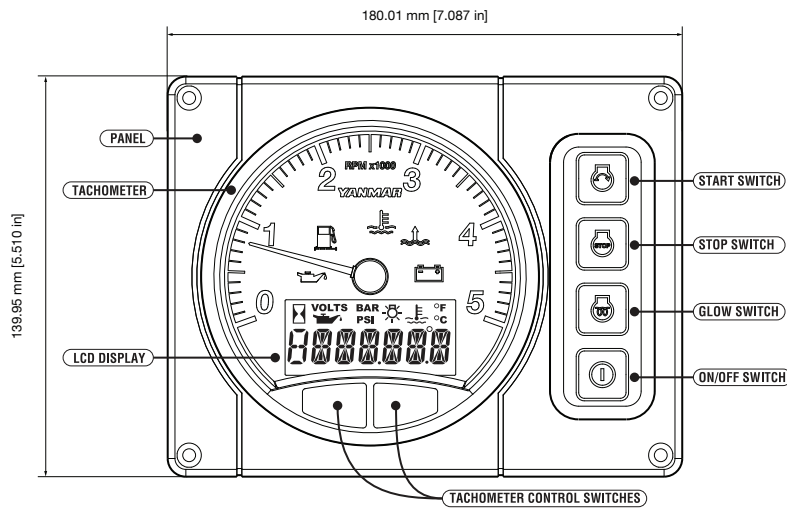
PERFORMANCE CURVES



MARINE GEARS / DRIVE

Model	KM2P-1			Saildrive [SD25]
Type	Constant mesh gear with servo-cone clutch			Constant mesh gear with dog clutch
Dry weight	10 kg [22 lbs]			30 kg [66 lbs]
Reduction ratio [fwd/asn]	2.21/3.06	2.62/3.06	3.22/3.06	2.64/2.64
Propeller speed [fwd/asn]	1629/1176	1374/1176	1118/1176	1363/1363
Direction of rotation [propeller shaft - fwd]	Clockwise viewed from flywheel side			Counterclockwise viewed from flywheel side
Dry weight engine and gear/drive	113 kg [249 lbs]			134 kg [295 lbs]
Length engine and gear/drive	613 mm [24 in]			793 mm [31 in]

INSTRUMENT PANELS



B20 STANDARD

ACCESORIES

Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- V-belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- B20-panel
- Sensor for instrument panel

Optional accessories

- Extension wire harness [4m, 6m, 10m]
- High-riser mixing elbow [instead of L-elbow]
- Hot water kit with cocks
- Second station harness
- Propeller cone nut kit SD25

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



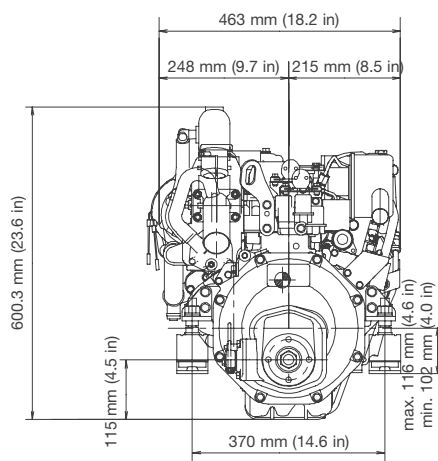
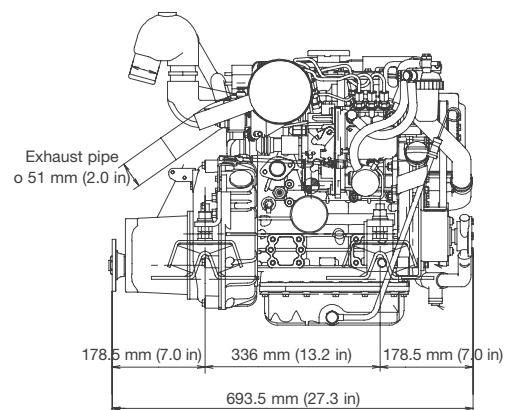
3YM20 Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 15.3 kW@3600 rpm	[21 mhp@3600 rpm]	
Displacement	0.854 ltr	[52.1 cu in]	
Bore x stroke	70 mm x 74 mm	[2.8 in x 2.9 in]	
Cylinders	3		
Combustion system	Indirect injection		
Aspiration	Naturel aspiration		
Starting system	Electric starting 12V - 1.4 kW		
Alternator	12V - 125A		
Cooling system	Fresh water cooling with heat exchanger		
Lubrication system	Enclosed, forced lubricating system		
Direction of rotation [crankshaft]	Counterclockwise viewed from flywheel side		
Dry weight without gear	110 kg	[243 lbs]	
Environmental	EU: RCD	BSO II	EMC
	US: EPA Tier3		
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]

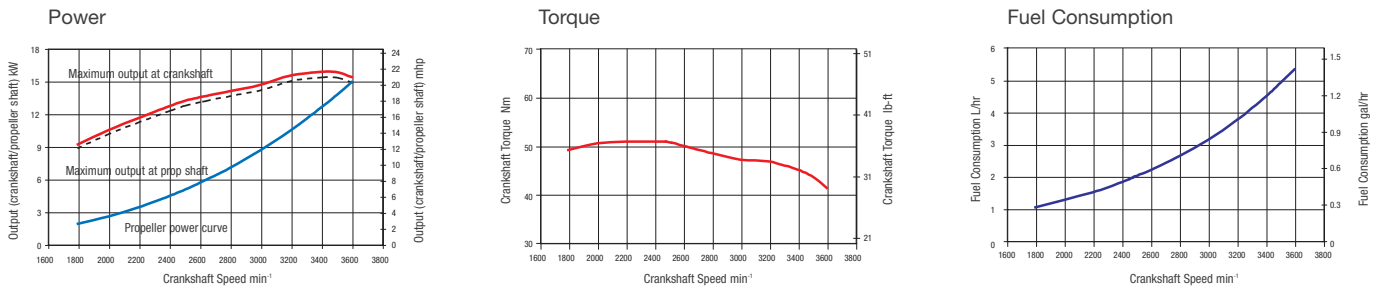
Technical data is according to ISO 8665:2006/3046-1

DIMENSIONS**Rear view****Right side view**

3YM20 with KM2P-1 marine gear



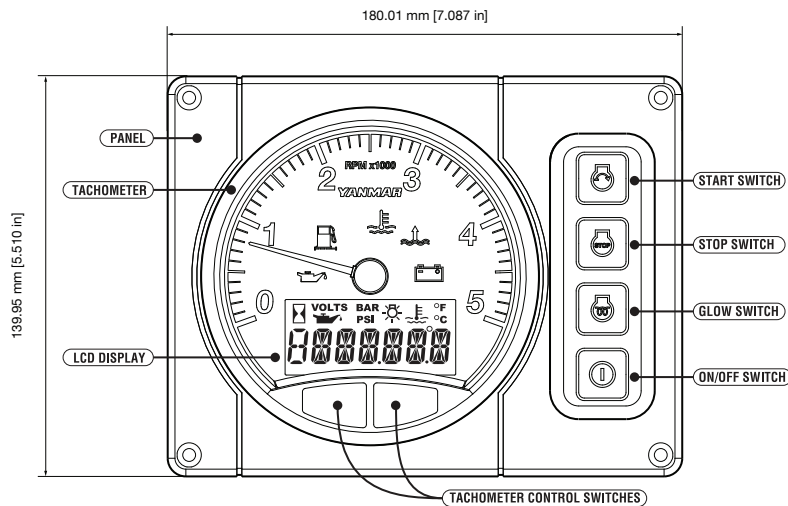
PERFORMANCE CURVES



MARINE GEARS / DRIVE

Model	KM2P-1			Saidrive [SD25]
Type	Constant mesh gear with servo-cone clutch			Constant mesh gear with dog clutch
Dry weight	10 kg [22 lbs]			30 kg [66 lbs]
Reduction ratio [fwd/asn]	2.21/3.06	2.62/3.06	3.22/3.06	2.64/2.64
Propeller speed [fwd/asn]	1629/1176	1374/1176	1118/1176	1364/1364
Direction of rotation	Clockwise			Counter clockwise
[propeller shaft - fwd]	viewed from flywheel side			viewed from flywheel side
Dry weight engine and gear/drive	120 kg [265 lbs]			144 kg [317 lbs]
Length engine and gear/drive	693 mm [27 in]			873 mm [34 in]

INSTRUMENT PANELS



B20 STANDARD

ACCESORIES

Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- V-belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- Sensor for instrument panel
- B20-panel

Optional accessories

- Extension wire harness [4m, 6m, 10m]
- High-riser mixing elbow [instead of L-elbow]
- Hot water kit with cocks
- Second station harness
- Propeller cone nut kit SD25

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



3YM30AE Series

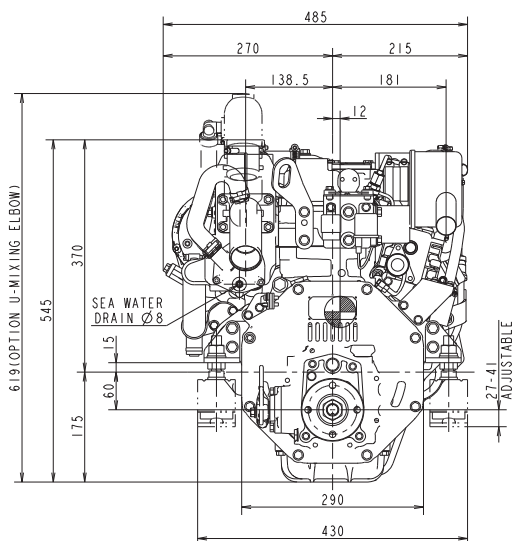
Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 21.3 kW@3200 rpm	[29.1 mhp@3200 rpm]	
Displacement	1.266 ltr	[77 cu in]	
Bore x stroke	80 mm x 84 mm	[3.1 in x 3.3 in]	
Cylinders	3		
Combustion system	Indirect injection		
Aspiration	Natural aspiration		
Starting system	Electric starting 12V - 1.4 kW		
Alternator	12V - 125A		
Cooling system	Fresh water cooling with heat exchanger		
Lubrication system	Enclosed, forced lubricating system		
Direction of rotation [crankshaft]	Counterclockwise viewed from flywheel side		
Dry weight without gear	127 kg	[280 lbs]	
Environmental	EU: RCD	BSO II	EMC
	US: EPA Tier3		
Engine mounting	Rubber type flexible mounting		

NOTE:

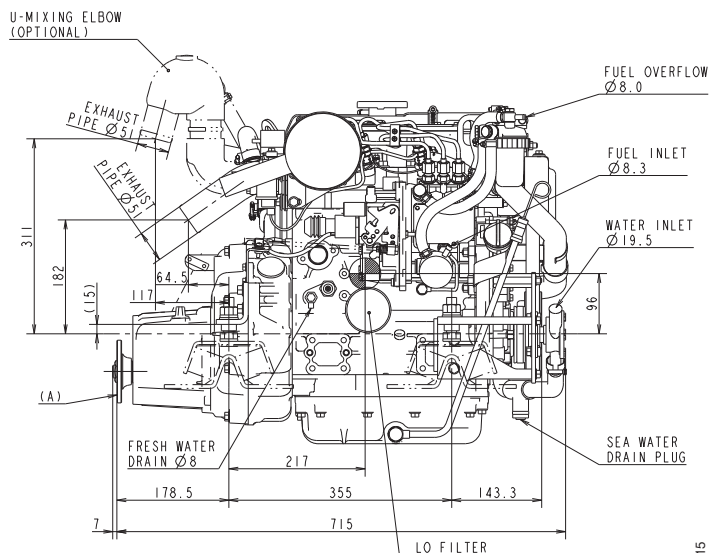
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
 * Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665:2006]
 Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



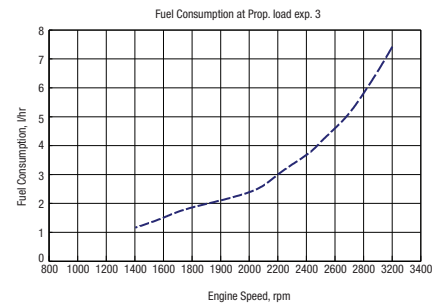
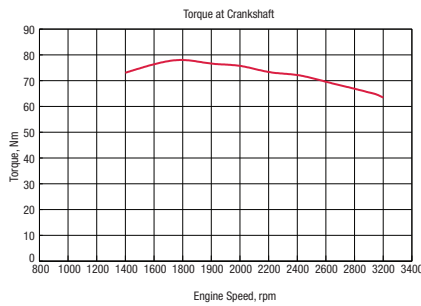
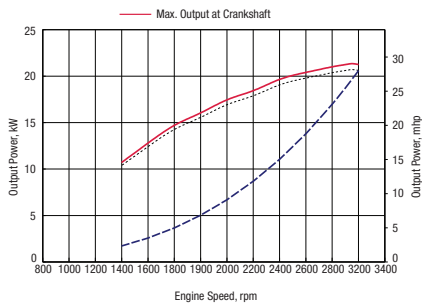
Right side view



3YM30AE with KM2P-1 marine gear



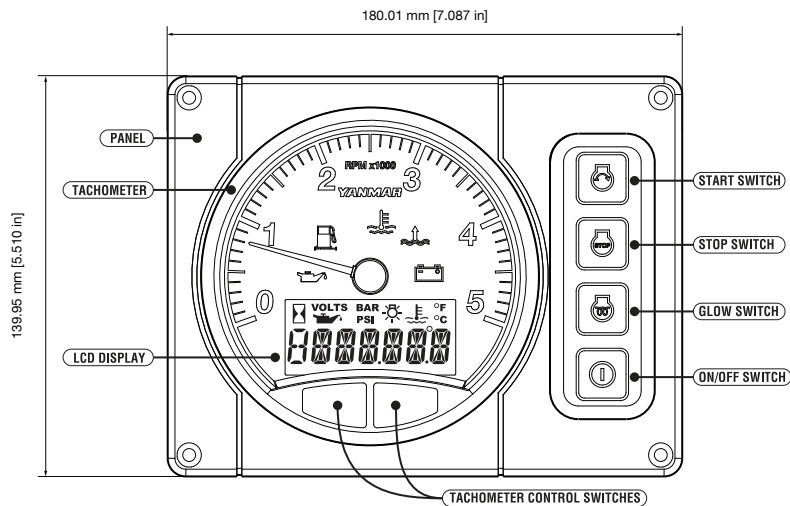
PERFORMANCE CURVES



MARINE GEARS / DRIVE

Model	KM2P-1	Saildrive [SD25]
Type	Constant mesh gear with servo-cone clutch	Constant mesh gear with dog clutch
Dry weight	10 kg [22 lbs]	30 kg [66 lbs]
Reduction ratio [fwd/asn]	2.21/3.06	2.64/2.64
Propeller speed [fwd/asn]	1448/1046	1212/1212
Direction of rotation [propeller shaft - fwd]	Clockwise viewed from flywheel side	Counterclockwise viewed from flywheel side
Dry weight engine and gear/drive	133 kg [293 lbs]	157 kg [346 lbs]
Length engine and gear/drive	715 mm [28 in]	899 mm [35 in]

INSTRUMENT PANELS



B20 STANDARD

ACCESORIES

Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- V-belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- Sensor for instrument panel
- B20-panel

Optional accessories:

- Extension wire harness [4m, 6m, 10m]
- High riser mixing elbow [instead of L-elbow]
- Hot water kit with cocks
- Second station harness
- Propeller cone nut kit SD25

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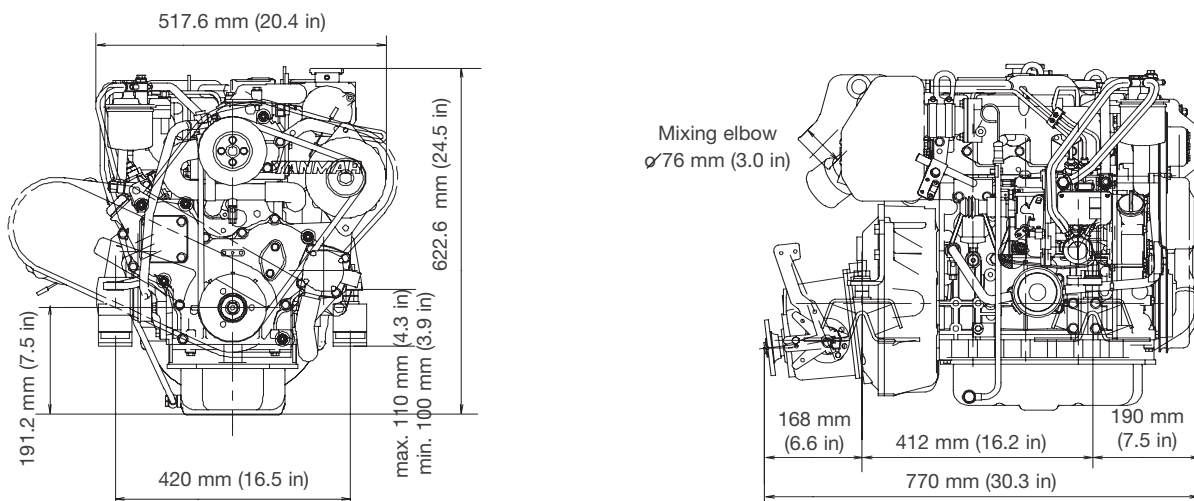
3JH5E Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	28.7 kW@3000 rpm	[38.5 mhp@3000 rpm]	
Displacement	1.642 ltr	[100 cu in]	
Bore x stroke	88 mm x 90 mm	[3.46 in x 3.54 in]	
Cylinders	3 in line		
Combustion system	Direct injection		
Aspiration	Natural aspiration		
Starting system	Electric starting 12V - 1.4 kW		
Alternator	12V – 125A		
Cooling system	Fresh water cooling by centrifugal fresh 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	173 kg	[381 lbs]	
Environmental	EU: RCD	BSO II	EMC
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]

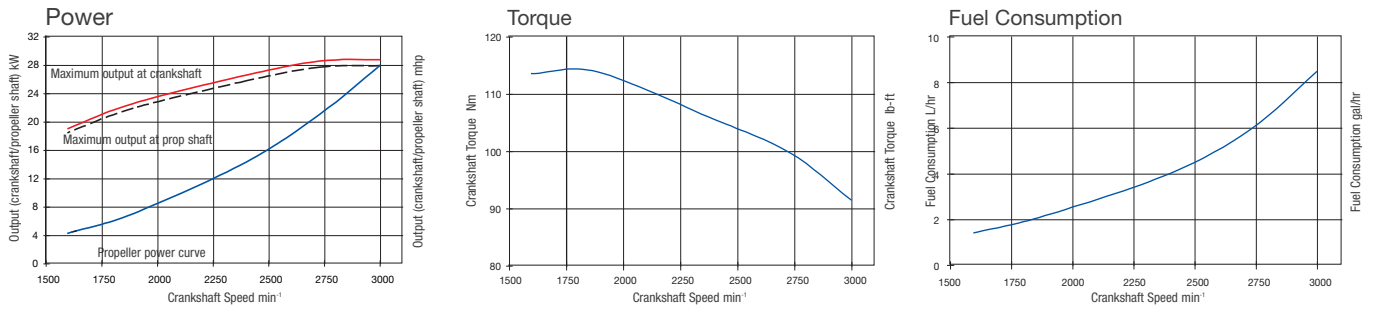
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

3JH5E with KM35A marine gear



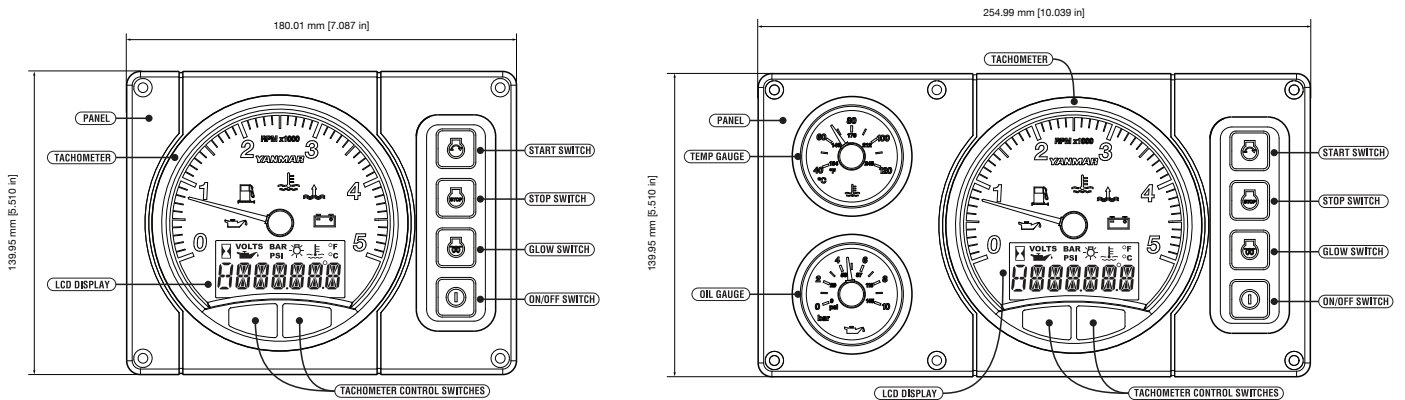
PERFORMANCE CURVES



MARINE GEARS/DRIVE

Model	KM35P		KM35A (DOWN ANGLE: 7DEG)		SAILDRIVE (SD60)	
Type	Mechanical cone clutch		Mechanical cone clutch		Mechanical wet type multi-disc	
Dry Weight	12 kg [27 lbs]		13 kg [29 lbs]		40 kg [88 lbs]	
Reduction Ratio [fwd/asn]	2.36/3.16	2.61/3.16	2.33/3.04	2.64/3.04	2.23/2.23	2.49/2.49
Propeller speed [fwd/asn]	1271/949	1149/949	1288/987	1136/987	1345/1345	1205/1205
Direction of rotation [propeller shaft - fwd]	Clockwise viewed from the stern		Clockwise viewed from the stern		Clockwise & Counterclockwise viewed from flywheel side	
Dry weight - engine & gear	185 kg [408 lbs]		186 kg [410 lbs]		213 kg [470 lbs]	
Length engine and gear/drive	777 mm [31 in]		776 mm [31 in]		1019 mm [40 in]	

INSTRUMENT PANELS



B20 STANDARD

C30 OPTIONAL

ACCESORIES

Standard engine package

- Set of flexible engine mounts
- Exhaust mixing elbow [L-type]
- V-belt safety cover
- Fresh water expansion tank
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- B20-panel
- Sensor for instrument panel

Optional accessories

- Second alternator 12V - 130A or 24V - 75A incl. smart regulator
- High-riser mixing elbow [instead of L-elbow]
- Hot water kit with cocks
- Second station harness
- C30-panel
- Sensor for C30-panel
- Extension saildrive leg [75 mm]
- Extension wire harness [4m, 6m 10m]
- Propeller cone nut kit SD60

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



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) BSO II	EMC
	US: EPA Tier 3	
Engine mounting	Rubber type flexible mounting	

NOTE:

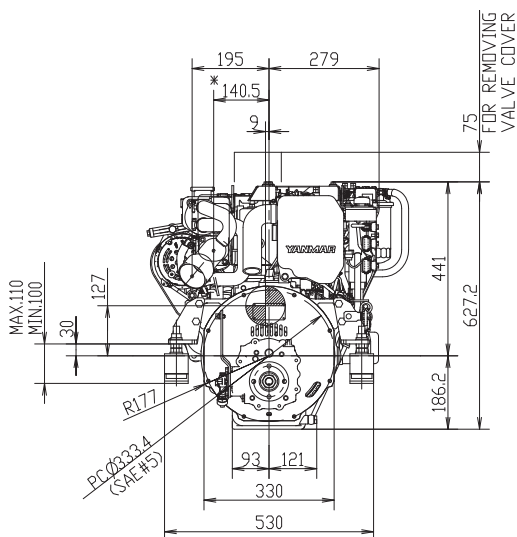
Fuel condition: Density at 15°C = 0.84 g/cm³: 1 kW = 1.3596 mhp = 1.3410 HP

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

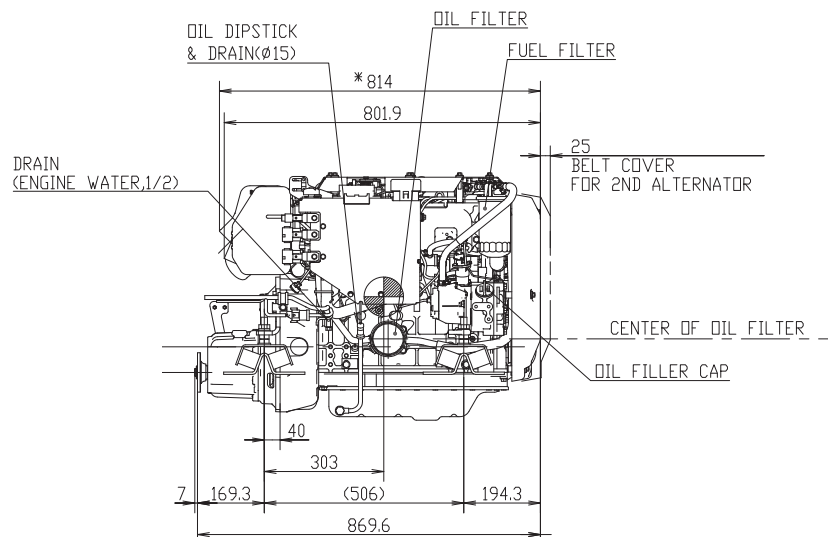
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DIMENSIONS

Rear view



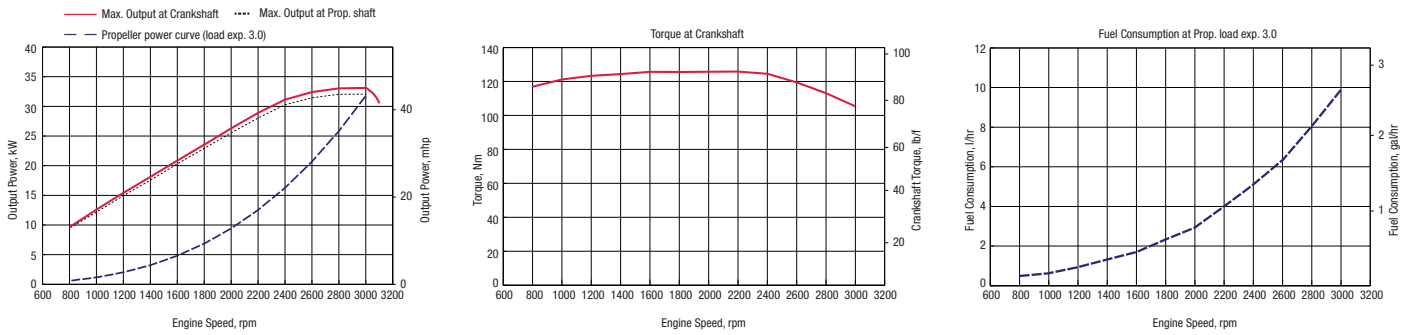
Right side view



4JH45 with KM35P marine gear



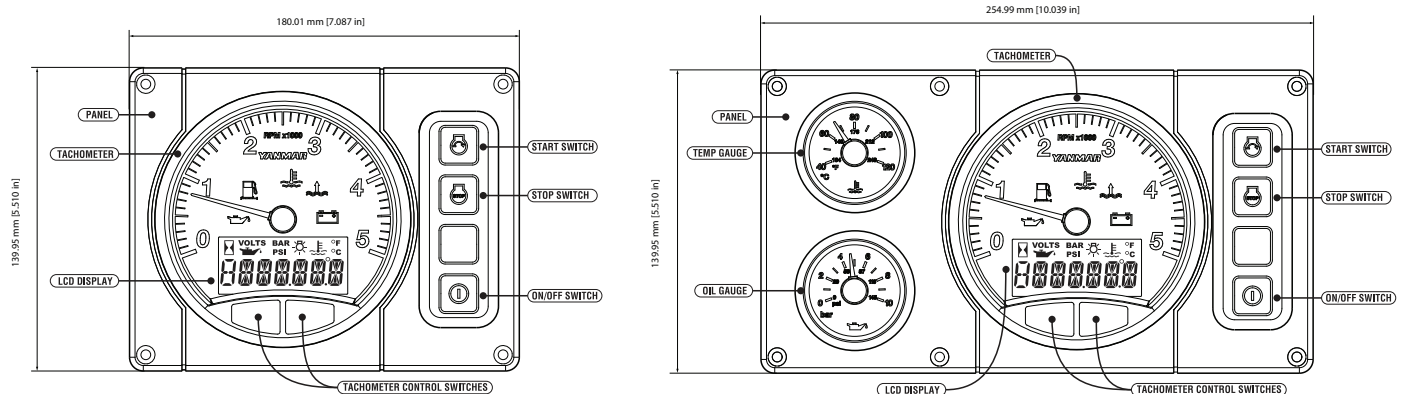
PERFORMANCE CURVES



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	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]	Clockwise viewed from 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 in]		926 mm [36 in]			950 mm [37 in]		1113 mm [44 in]	

INSTRUMENT PANELS



B25 STANDARD

C35 OPTIONAL

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

Optional

- 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
- 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.



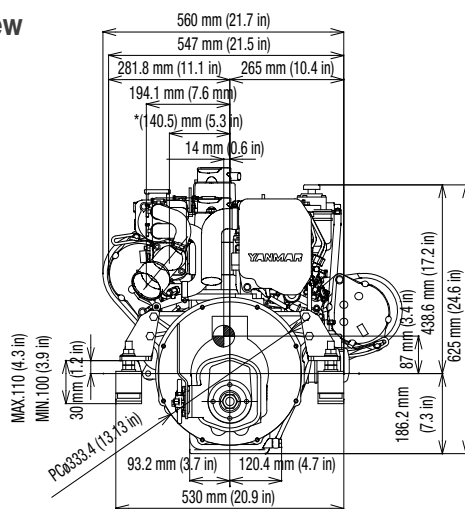
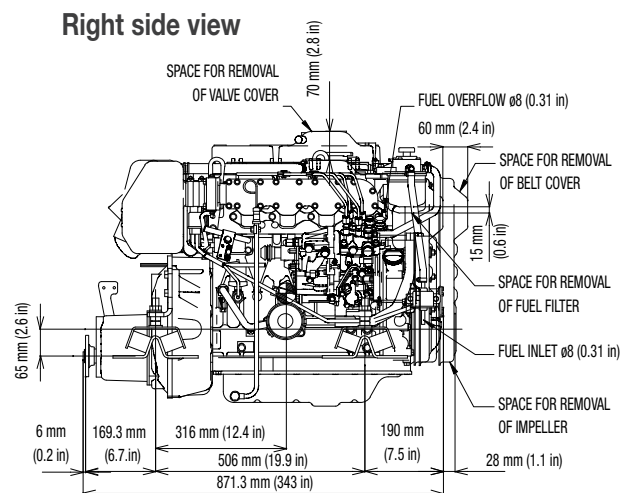
4JH5E Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 39.6 kW@3000 rpm	[53.1 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		
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	201 kg	[443 lbs]	
Environmental	EU: RCD	BSO II	EMC
Engine mounting	Rubber type flexible mounts		

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]

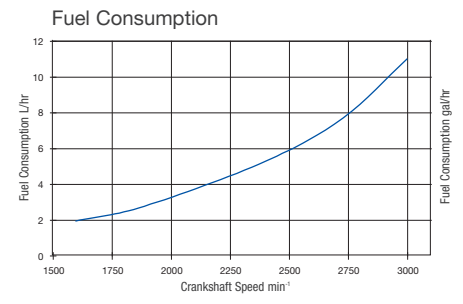
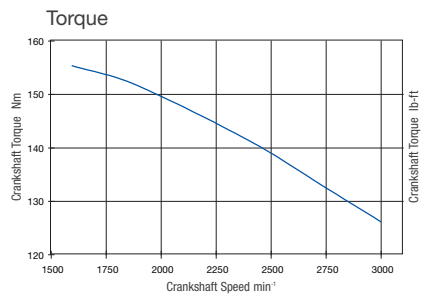
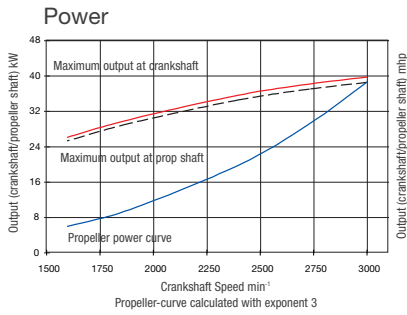
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS**Rear view****Right side view**

4JH5E with KM35P marine gear



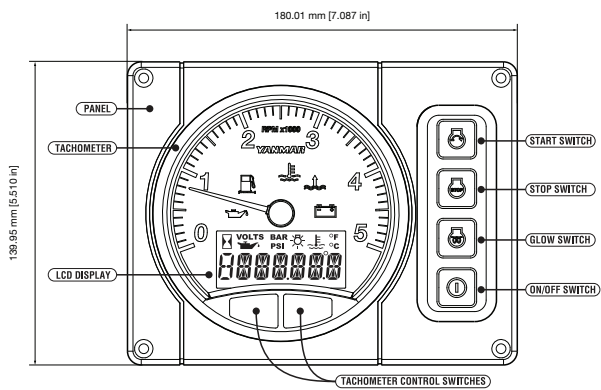
PERFORMANCE CURVES



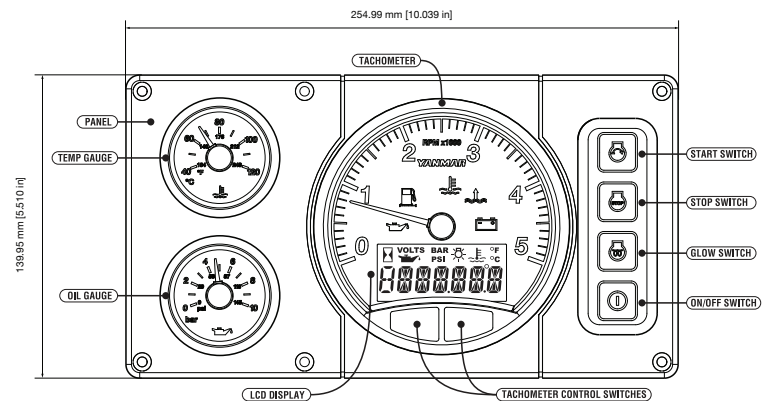
MARINE GEARS/DRIVE

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]		29 kg [64 lbs]			28 kg [61 lbs]		40 kg [88 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]	Clockwise viewed from stern		Clockwise viewed from stern		Clockwise viewed from stern			Clockwise viewed from stern		Clockwise & counterclockwise viewed from stern	
Dry weight - engine & gear	213 kg [469.5 lbs]		214 kg [471.7 lbs]		214 kg [471.7 lbs]			229 kg [505 lbs]		241 kg [531 lbs]	
Length engine and gear/drive	871 mm [34 in]		864 mm [34 in]		922 mm [36 in]			950 mm [37 in]		1113 mm [44 in]	

INSTRUMENT PANELS



B20 STANDARD



C30 OPTIONAL

ACCESSORIES

Standard Package

- Set of flexible engine mounts
- Exhaust mixing elbow [L-type]
- V-belt safety cover
- Fresh water expansion tank
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- B20-panel
- Sensor for instrument panel

Optional

- Second alternator 12V - 130A or 24V - 75A, including smart regulator
- High-riser mixing elbow [instead of L-elbow]
- Extension wire harness [4m, 6m, 10m]
- Hot water kit with cocks
- Second station harness
- C30-panel
- Sensor for C30-panel
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60

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



4JH57 Common Rail Series

Configuration	4-stroke, vertical, water-cooled diesel engine	
Maximum output at crankshaft	*41.9 kW@3000 rpm	[57 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) BSO II	EMC
	US: EPA Tier 3	
Engine mounting	Rubber type flexible mounting	

NOTE:

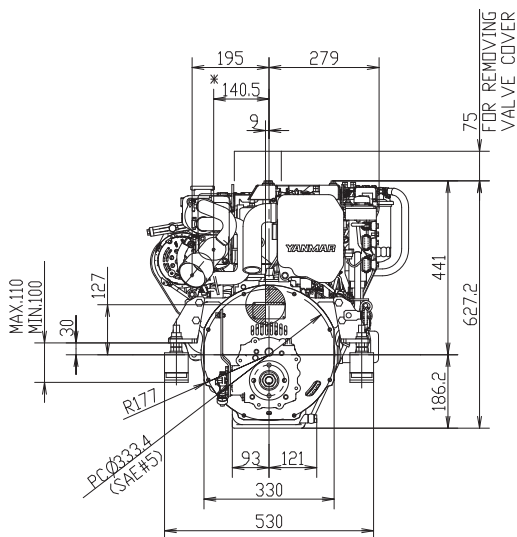
Fuel condition: Density at 15°C = 0.84 g/cm³: 1 kW = 1.3596 mhp = 1.3410 HP

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

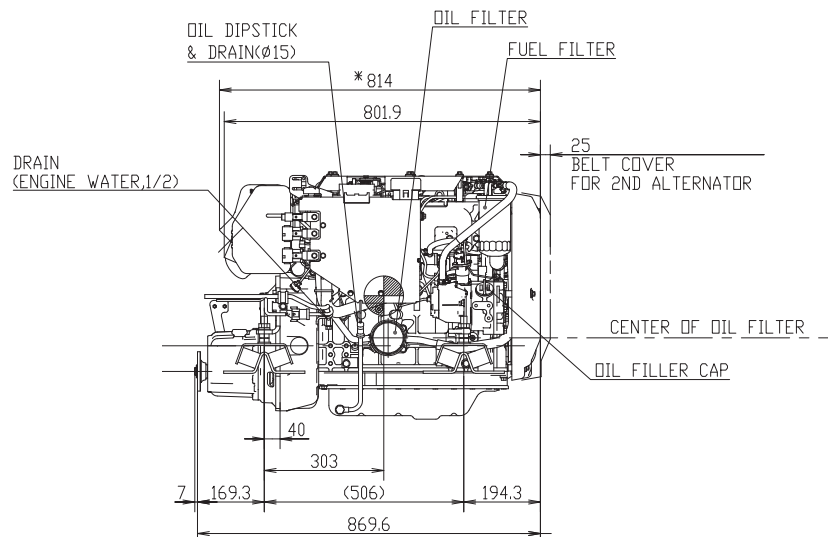
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



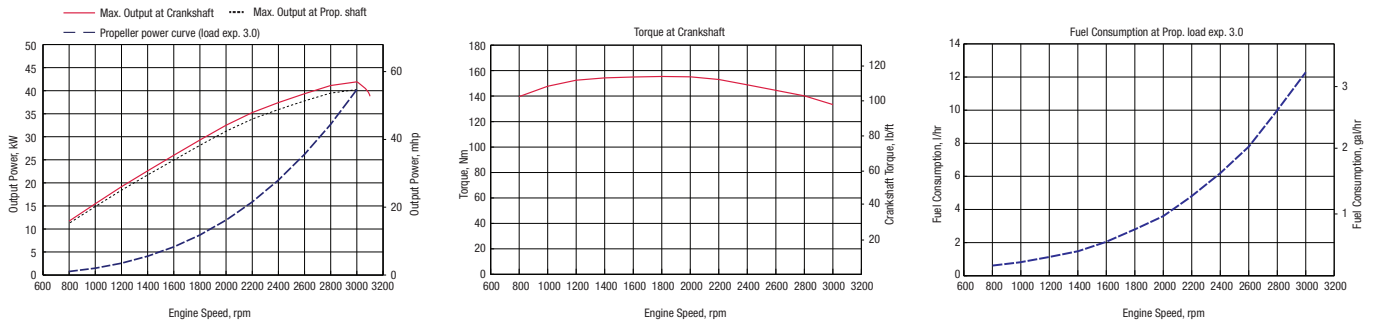
Right side view



4JH57 with KM35P marine gear



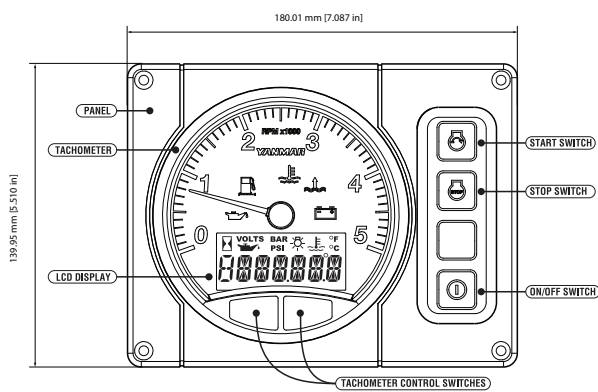
PERFORMANCE CURVES



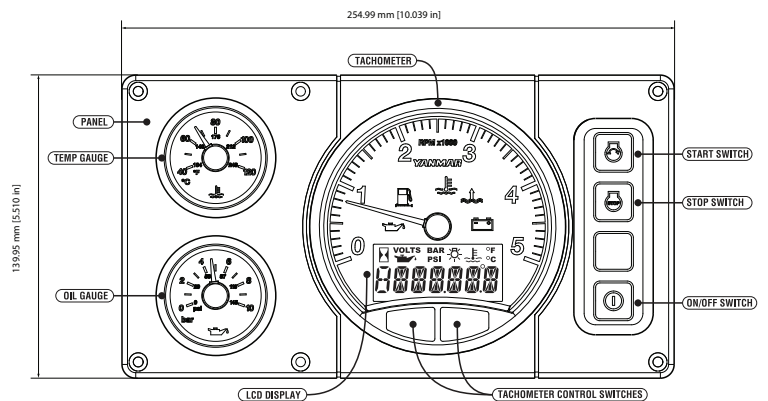
MARINE GEARS/DRIVE

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	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		2.33/3.06		1.47/1.47 2.14 / 2.14 2.63/2.63			2.15/2.64		2.23/2.23 2.49/2.49	
Propeller speed [fwd/asn]	1271/949		1288/980		2041/2041 1402/1402 1141/1141			1395/1136		1111/1136 1345/1345 1205/1205	
Direction of rotation [propeller shaft - fwd]	Clockwise viewed from 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 [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]	

INSTRUMENT PANELS



B25 STANDARD



C35 OPTIONAL

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

Optional

- 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
- 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.



4JH4-TE Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 55.2 kW@3200 rpm	[75 mhp@3200 rpm]	
Displacement	1.995 ltr	[121.7 cu in]	
Bore x stroke	84 mm x 90 mm	[3.31 in x 3.54 in]	
Cylinders	4, 4-valves per cylinder		
Combustion system	Direct injection		
Aspiration	Turbocharged		
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	207 kg	[456 lbs]	
Environmental	EU: RCD	BSO II	EMC
Engine mounting	Rubber type flexible mounts		

NOTE:

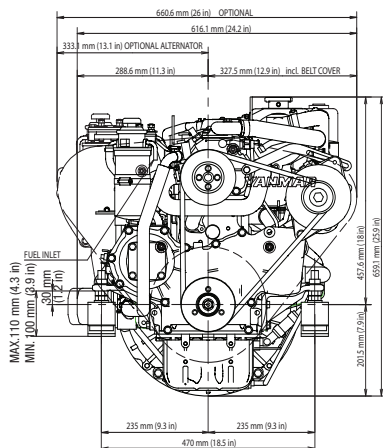
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP

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

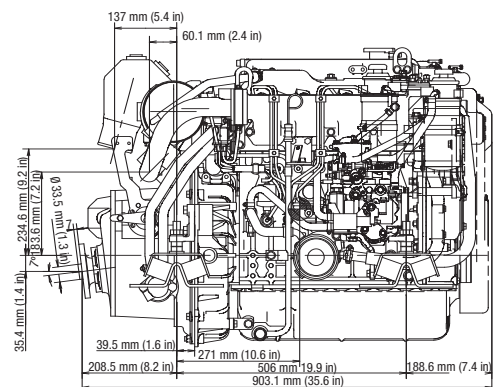
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view



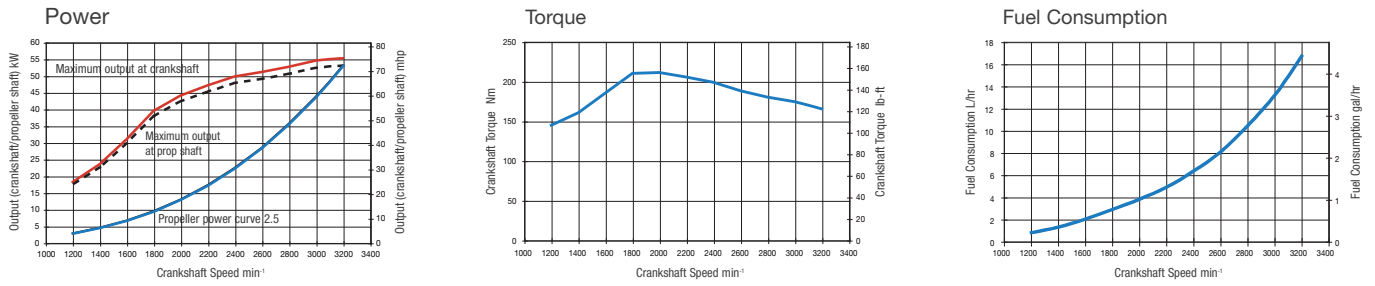
Right side view



4JH4-TE with KM4A2 marine gear



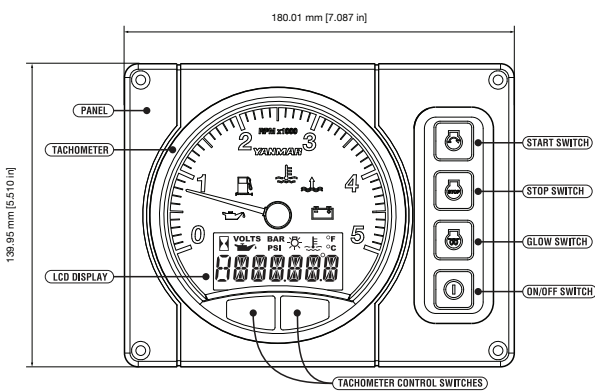
PERFORMANCE CURVES



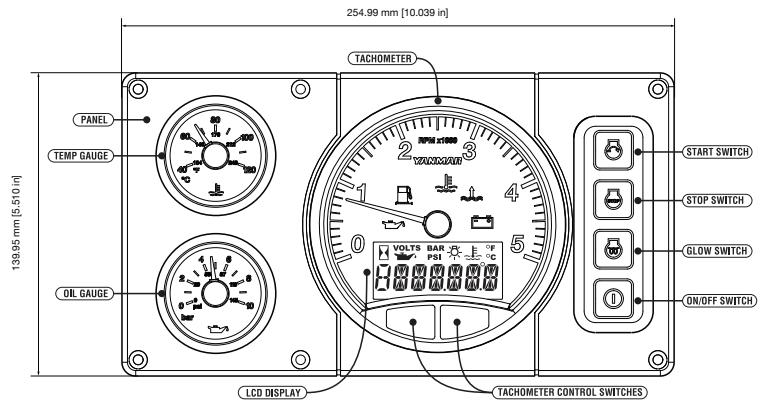
MARINE GEARS/DRIVE

Model	ZF30M parallel	KM4A2 [down angle: 7°]	KMH4A [down angle: 8°]	ZF25A [down angle: 8°]	Saidrive SD60
Type	Mechanical multi-disc	Mechanical wet cone clutch	Hydraulic, wet multi-disc	Hydraulic, wet multi-disc	Mechanical wet type multi-disc
Dry Weight	28 kg [61 lbs]	30 kg [66 lbs]	31 kg [68 lbs]	30 kg [66 lbs]	42 kg [92 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	2.23/2.23 2.49/2.49
Propeller speed at cont. rating [fwd/asn]	1488/1212 1185/1212	2177/2177 1495/1495 1217/1217	1569/1569 1306/1306	1658/1658 1290/1290	1435/1435 1285/1285
Direction of rotation [propeller shaft - fwd]	Clockwise viewed from flywheel side	Clockwise & Counterclockwise viewed from flywheel side	Clockwise & Counterclockwise viewed from flywheel side	Clockwise & Counterclockwise viewed from flywheel side	Clockwise & Counterclockwise viewed from flywheel side
Dry weight - engine & gear	235 kg [518 lbs]	237 kg [522 lbs]	238 kg [524 lbs]	237 kg [522 lbs]	249 kg [549 lbs]
Length engine and gear/drive	923 mm [36 in]	903 mm [35 in]	933 mm [37 in]	1017 mm [40 in]	1148 mm [45 in]

INSTRUMENT PANELS



B20 STANDARD



C30 OPTIONAL

ACCESSORIES

Standard Package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- V-belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- B20-panel
- Sensor for instrument panel

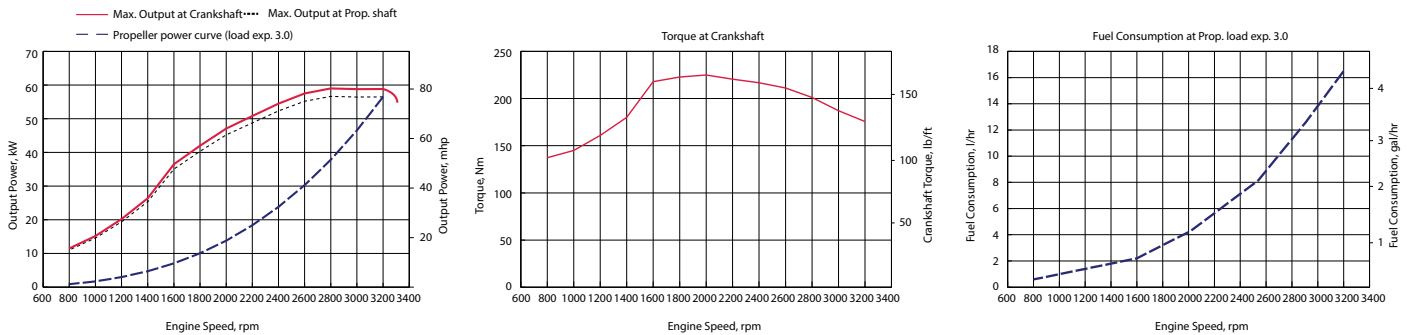
Optional

- Digital B or C type instrument panel
- Second Alternator 12V - 130A or 24V - 75A, including smart regulator
- High-riser mixing elbow [instead of L-elbow]
- Extension wire harness [4m, 6m, 10m]
- Hot water kit with cocks
- Second station harness
- C30-panel
- Sensor for C30-panel
- Extension saildrive leg [75mm]
- Propeller cone nut kit SD60

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



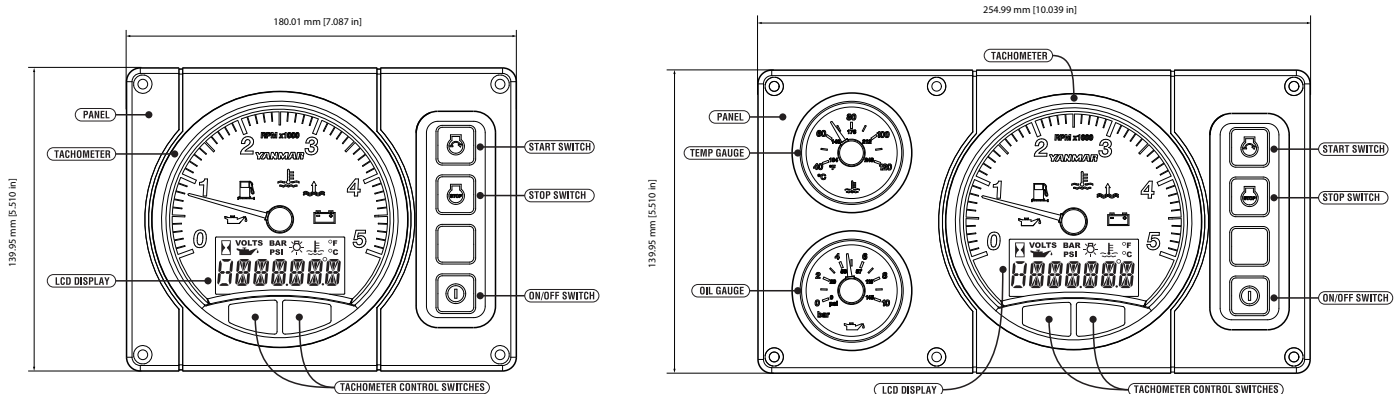
PERFORMANCE CURVES



MARINE GEARS/DRIVE

Model	KMH4A [down angle: 8°]	ZF25A [down angle: 8°]	KM4A2 [down angle: 7°]	ZF30M	Saildrive SD60
Type	Hydraulic, multi disk clutch		Mechanical cone clutch	Mechanical multi-disc	Mechanical wet type multi-disc
Weight	33 kg [73 lbs]	30 kg [66 lbs]	33 kg [73 lbs]	25 kg [55 lbs]	45 kg [99 lbs]
Reduction Ratio [fwd/asn]	2.04/2.04 2.45/2.45	1.93/1.93 2.48/2.48	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]	1569/1569 1306/1306	1658/1658 1290/1290	2177/2175 1495/1494 1217/1216	1488/1212 1185/1212	1435/1435 1285/1285
Direction of rotation [propeller shaft - fwd]	Clockwise & counterclockwise viewed from stern		Clockwise & counterclockwise viewed from stern	Clockwise viewed from stern	Clockwise & counterclockwise viewed from stern
Dry weight - engine & gear	261 kg [575 lbs]	259 kg [571 lbs]	263 kg [580 lbs]	254 kg [560 lbs]	274 kg [604 lbs]
Length engine and gear/drive	907 mm [35.7 in]	905 mm [35.6 in]	909 mm [35.8 in]	925 mm [36.4 in]	1150 mm [45.3 in]

INSTRUMENT PANELS



B25 STANDARD

C35 OPTIONAL

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
- Engine Topcover for protection

Optional

- 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
- 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
- Seawaterpump front mounted

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



4JH4-HTE Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 80.9 kW@3200 rpm	[110 mhp@3200 rpm]	
Displacement	1.995 ltr	[121.7 cu in]	
Bore x stroke	84 mm x 90 mm	[3.31 in x 3.54 in]	
Cylinders	4, 4-valves per cylinder		
Combustion system	Direct injection		
Aspiration	Turbocharged with intercooler		
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	217 kg	[478 lbs]	
Environmental	EU: RCD	BSO II	EMC
Engine mounting	Rubber type flexible mounts		

NOTE:

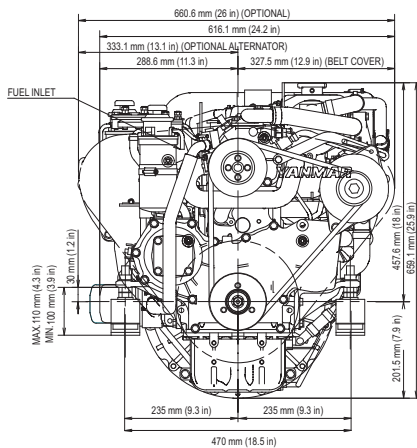
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP

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

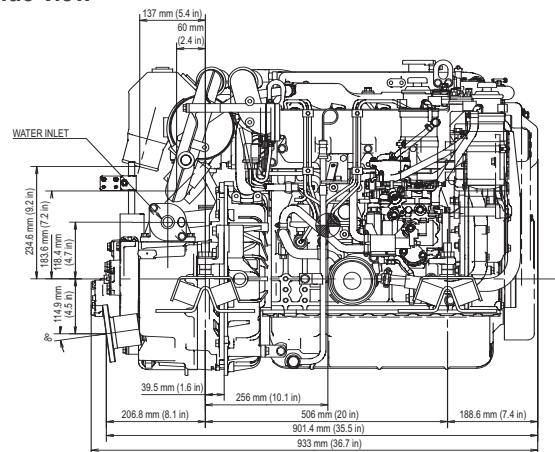
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view



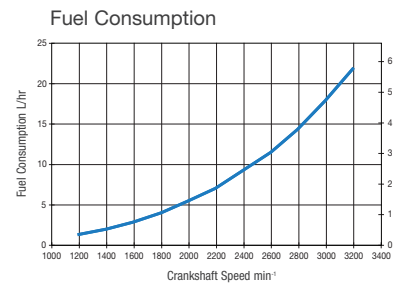
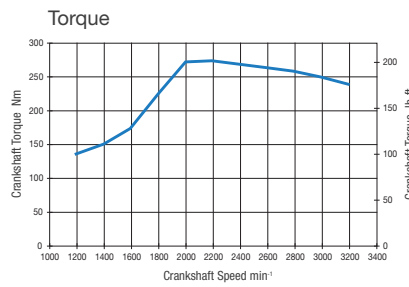
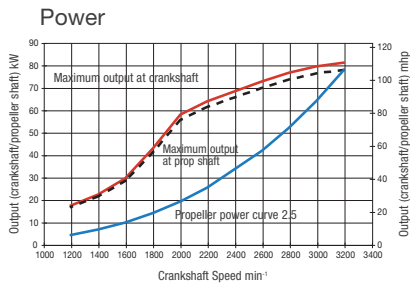
Right side view



4JH4-HTE with KMH4A marine gear



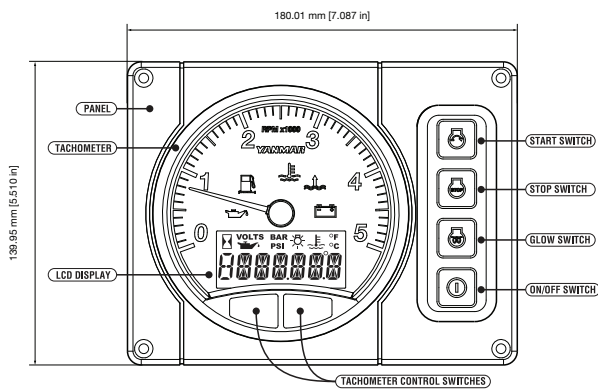
PERFORMANCE CURVES



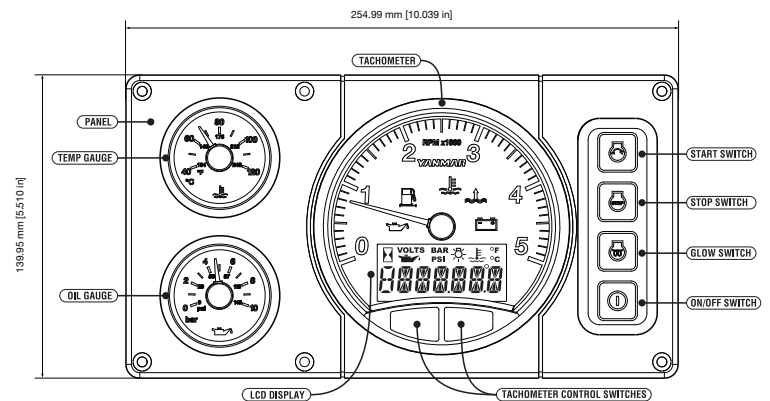
MARINE GEARS/DRIVE

Model	ZF30M parallel		KM4A2 [down angle: 7°]			KMH4A [down angle: 8°]		ZF25A [down angle: 8°]	
Type	Mechanical multi-disc		Mechanical wet cone clutch			Hydraulic, wet multi-disc		Hydraulic, wet 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 at cont. rating [fwd/asn]	1488/1212	1185/1212	2177/2177	1495/1495	1217/1217	1569/1569	1306/1306	1658/1658	1290/1290
Direction of rotation [propeller shaft - fwd]	Clockwise viewed from flywheel side		Clockwise & Counterclockwise viewed from flywheel side			Clockwise & Counterclockwise viewed from flywheel side		Clockwise & Counterclockwise viewed from flywheel side	
Dry weight - engine & gear	245 kg [540 lbs]		247 kg [545 lbs]			248 kg [547 lbs]		247 kg [545 lbs]	
Length engine and gear/drive	923 mm [36 in]		903 mm [35 in]			933 mm [37 in]		1017 mm [40 in]	

INSTRUMENT PANELS



B20 STANDARD



C30 OPTIONAL

ACCESSORIES

Standard Package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- V-belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- B20-panel
- Sensor for instrument panel

Optional

- Second alternator 12V - 130A or 24V - 75A, including smart regulator
- High-riser mixing elbow [insted of L-elbow]
- Extension wire harnesses [4m, 6m 10m]
- Hot water kit with cocks
- Second station harness
- C30-panel
- Sensor for C-30 panel

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



4JH110 Common Rail Series

Configuration	4-stroke, vertical, water-cooled diesel engine	
Maximum output at crankshaft	* 80.9 kW@3200 rpm	[110 mhp@3200 rpm]
Displacement	2.0 ltr	[122 cu in]
Bore x stroke	84 mm x 90 mm	[3.31 in x 3.54 in]
Cylinders	4 in line	
Combustion system	Direct injection with common rail system	
Aspiration	Turbocharged with intercooler	
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	229 kg	[505 lbs]
Environmental	EU: RCD (will comply RCD2 from 2016) BSO II	EMC
	US: EPA Tier 3	
Engine mounting	Rubber type flexible mounting	

NOTE:

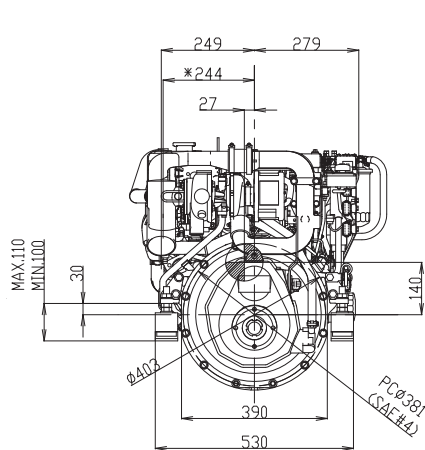
Fuel condition: Density at 15°C = 0.84 g/cm³: 1 kW = 1.3596 mhp = 1.3410 HP

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

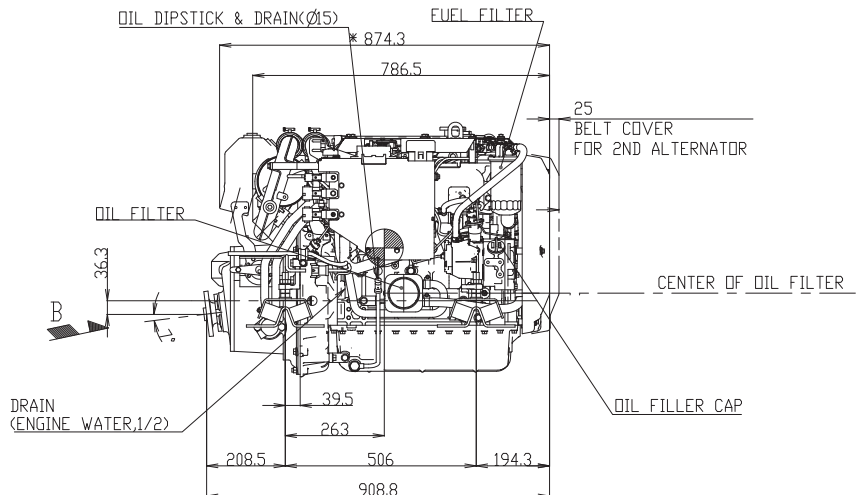
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



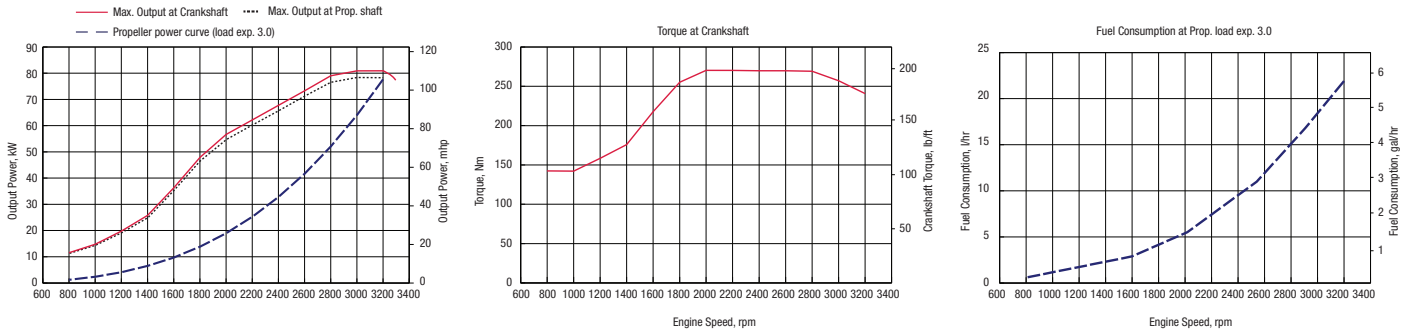
Right side view



4JH110 with KM4A2 marine gear



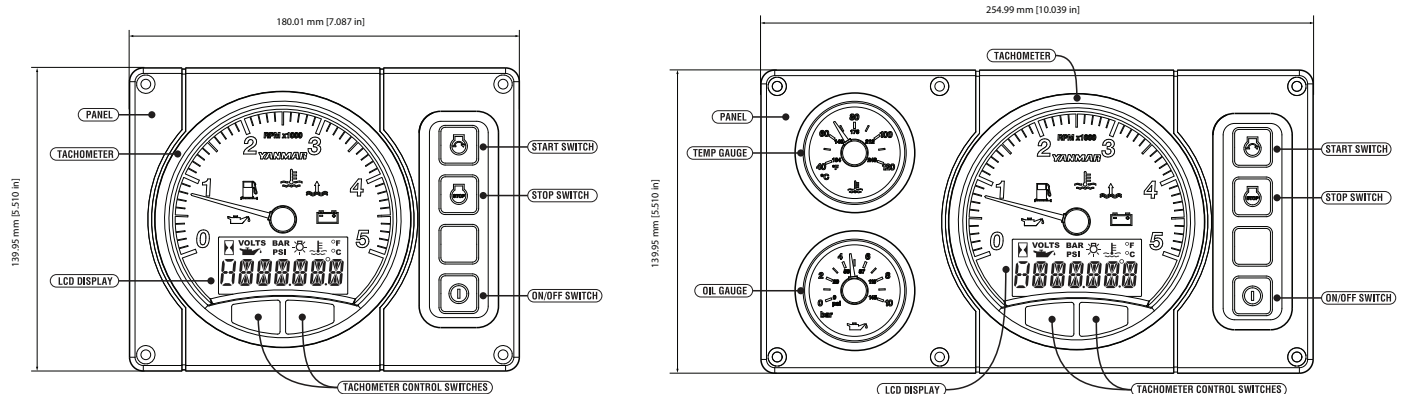
PERFORMANCE CURVES



MARINE GEARS

Model	KMH4A [down angle: 8°]		ZF25A [down angle: 8°]		KM4A2 [down angle: 7°]			ZF30M	
Type	Hydraulic, multi disk clutch		Hydraulic, multi disk clutch		Mechanical cone clutch			Mechanical cone clutch	
Dry Weight	33 kg [73 lbs]		30 kg [66 lbs]		33 kg [73 lbs]			25 kg [55 lbs]	
Reduction Ratio [fwd/asn]	2.04/2.04	2.45/2.45	1.93/1.93	2.48/2.48	1.47/1.47	2.14 / 2.14	2.63/2.63	2.15/2.64	2.70/2.64
Propeller speed [fwd/asn]	1569/1569	1306/1306	1658/1658	1290/1290	2177/2175	1495/1494	1217/1216	1488/1212	1185/1212
Direction of rotation [propeller shaft - fwd]	Clockwise & counterclockwise viewed from stern		Clockwise & counterclockwise viewed from stern		Clockwise & counterclockwise viewed from stern			Clockwise viewed from stern	
Dry weight - engine & gear	261 kg [575 lbs]		259 kg [571 lbs]		263 kg [580 lbs]			254 kg [560 lbs]	
Length engine and gear/drive	907 mm [35.7 in]		905 mm [35.6 in]		909 mm [35.8 in]			925 mm [36.4 in]	

INSTRUMENT PANELS



B25 STANDARD

C35 OPTIONAL

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
- Engine Topcover for protection

Optional

- 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
- Second station harness and panel
- C35-panel
- Oil pressure sensor for C35-panel
- NMEA 2000 convertor for Engine monitory system
- Emergency stop switch
- Seawaterpump front mounted

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



4JH3-DTE Series

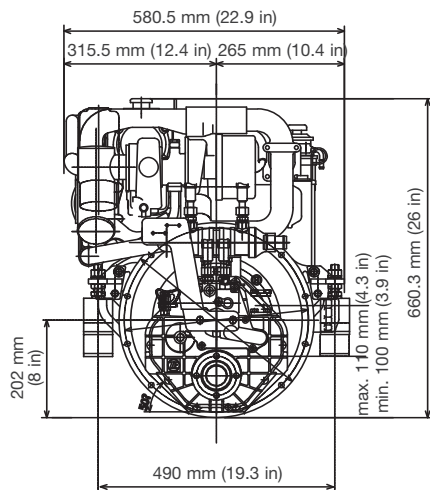
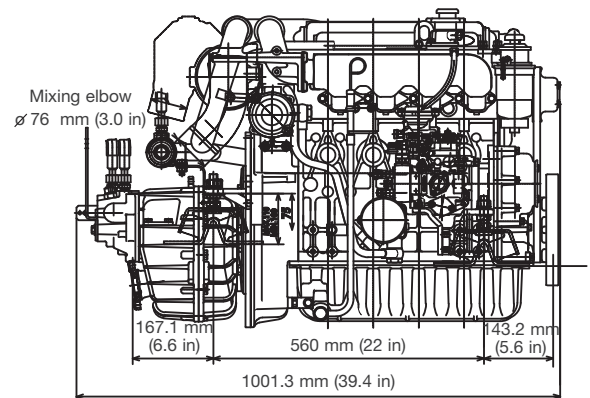
Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 89.1 kW@3800 rpm	[121 mhp@3800 rpm]	
	** 91.9 kW@3800 rpm	[125 mhp@3800 rpm]	
Displacement	1.995 ltr	[122 cu in]	
Bore x stroke	84 mm x 90 mm	[3.31 in x 3.54 in]	
Cylinders	4		
Combustion system	Direct injection		
Aspiration	Turbocharged with intercooler		
Starting system	Electric starting 12V - 1.4 kW		
Alternator	12V - 125A		
Cooling system	Fresh water cooling by centrifugal fresh 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	229 kg	[504.8 lbs]	
Environmental	EU: RCD	BSO II	EMC
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]

** Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]

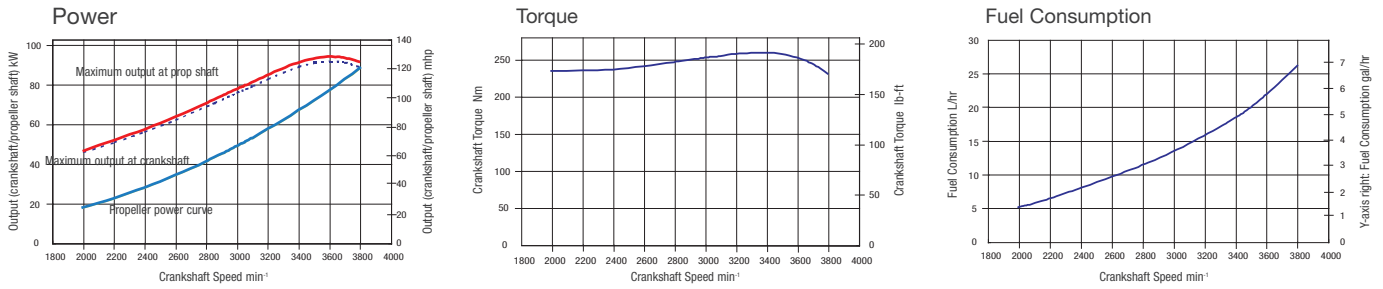
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS**Rear view****Right side view**

4JH3-DTE with ZF25A marine gear



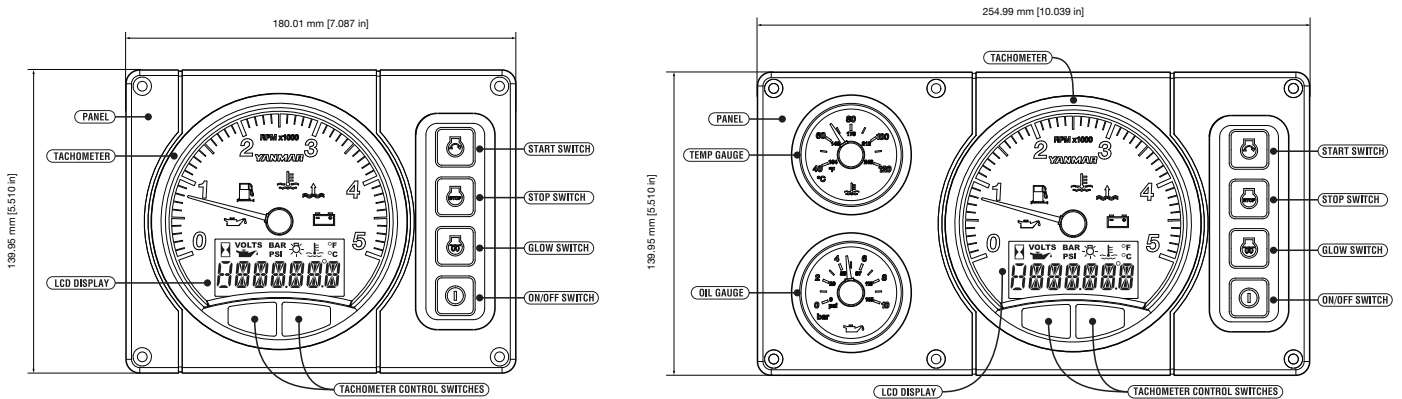
PERFORMANCE CURVES



MARINE GEARS/DRIVE

Model	KMH4A1 [down angle: 8°]		ZF25A	
Type	Hydraulic clutch		Hydraulic clutch	
Dry Weight	31 kg [68 lbs]		30 kg [66 lbs]	
Reduction Ratio [fwd/asn]	2.04/2.04	2.45/2.45	1.93/1.93	2.48/2.48
Propeller speed [fwd/asn]	1814/1814	1507/1507	1917/1917	1492/1492
Direction of rotation [propeller shaft - fwd]	Clockwise & Counterclockwise viewed from stern		Clockwise & Counterclockwise viewed from stern	
Dry weight - engine & gear	260 kg [573 lbs]		259 kg [571 lbs]	
Length engine and gear/drive	886 mm [35 in]		1001 mm [39 in]	

INSTRUMENT PANELS



B20 STANDARD

C30 OPTIONAL

ACCESSORIES

Standard Package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- Expansion tank for fresh water cooling system
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- B20-panel
- Sensor for instrument panel

Optional

- High-riser mixing elbow [instead of L-elbow]
- Extension wire harness [4m, 6m, 10m]
- Hot water fitting with cocks
- Second station harness
- C30-panel
- Sensor for C30-panel

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



4LHA-HTP Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 118 kW@3300 rpm	[160 mhp@3300 rpm]	
	** 113 kW@3300 rpm	[154 mhp@3300 rpm]	
Displacement	3.455 ltr	[211 cu in]	
Bore x stroke	100 mm x 110 mm	[3.94 in x 4.33 in]	
Cylinders	4 in line		
Combustion system	Direct injection		
Aspiration	Turbocharged with intercooler		
Starting system	Electrical starting 12V		
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 flywheel side		
Dry weight without gear	360 kg	[794 lbs]	
Environmental	EU: RCD	BSO II	EMC
	SOLAS MED 96/98/EC		
Engine mounting	Rubber type flexible mounting		

NOTE:

Fuel condition: Density at 15°C = 0.842 g/cm³; 1 mhp = 1 ps = 0.7355 kW = 0.9863 bhp

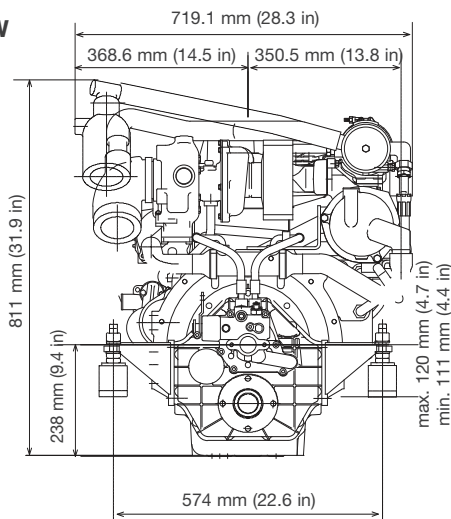
* Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]

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

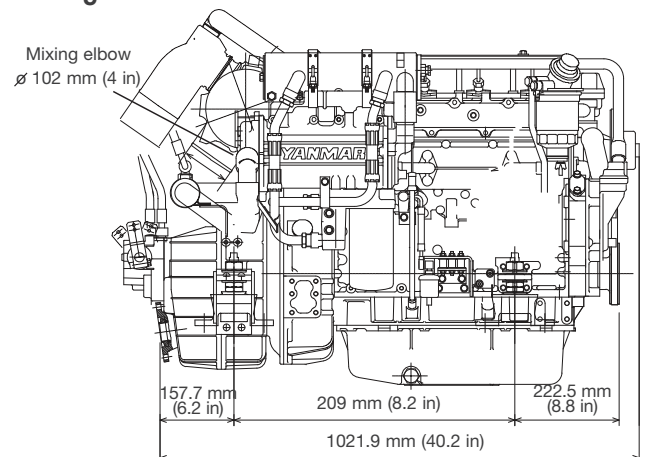
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view



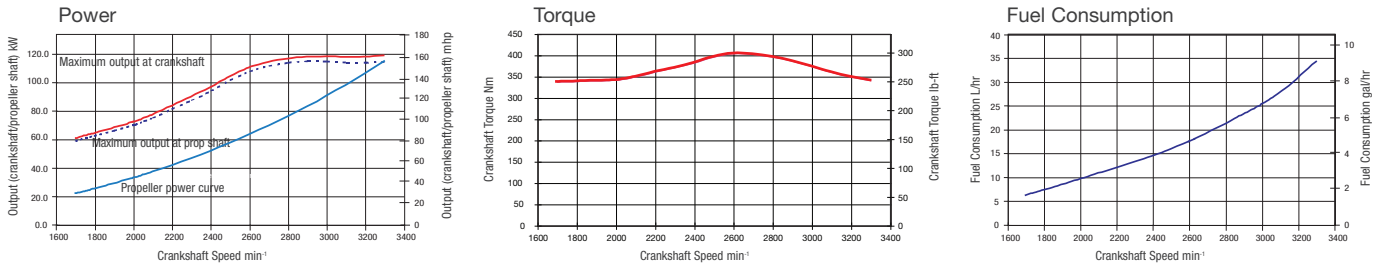
Right side view



4LHA-HTP with ZF45A marine gear



PERFORMANCE CURVES (Output is according ISO 8665 - Output includes +/- 3% tolerance)

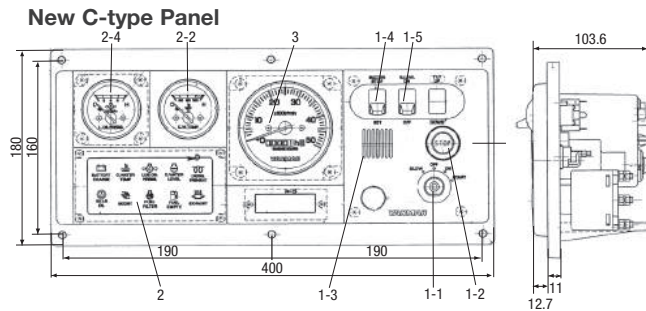


MARINE GEARS*

Model	KMH50A			ZF63A			
Type	8° down hydraulic			8° down hydraulic			
Dry weight	44 kg [97 lbs]			28 kg [62 lbs]			
Reduction ratio [fwd/asn]	1.67/1.67	2.13/2.13	2.43/2.43	1.26/1.26	1.51/1.51	2.03/2.03	2.44/2.44
Propeller speed [fwd/asn]	1976/1976	1549/1549	1358/1358	2627/2627	2180/2180	1622/1622	1355/1355
Direction of rotation	Clockwise & Counterclockwise			Clockwise & Counterclockwise			
[propeller shaft - fwd]	viewed from flywheel side			viewed from flywheel side			
Dry weight engine and gear/drive	404 kg [891 lbs]			388 kg [855 lbs]			

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

INSTRUMENT PANELS



Function	TYPE OF INSTRUMENT PANEL
1-Switch unit	NEW C-TYPE PANEL
1-1 Key switch for GLOW/OFF/ON/START [4-position switch]	Equipped on panel
1-2 Push button switch for engine stop	Equipped on panel
1-3 Moisture cap for key switch	Equipped on panel
1-4 Alarm buzzer stop switch	Equipped on panel
1-5 Illumination switch for meters	Equipped on panel
2-Alarm lamp unit	
Battery not charging	Equipped on panel
C.W. high temperature	Equipped on panel
L.O. low pressure	Equipped on panel
Boost pressure high [for 4LHA-STP]	Equipped on panel
3-Tachometer with hour meter	Equipped on panel
4-Sub meter unit	Equipped on panel
4-1 L.O. pressure meter	Equipped on panel
4-2 C.W. Temperature meter	Equipped on panel
4-3 Boost meter [turbo]	Not equipped on panel
5-Quartz clock	Not equipped on panel

ACCESSORIES

Standard Package

- Sensor for various panels
- Exhaust/water mixing elbow [L-type]
- Cooling water hoses
- Alternator 12V - 80A

Optional

- Flexible mounts
- High-riser/water mixing elbow [instead of L-elbow]
- New C-type instrument panels
- Dual station Y harness
- Dipstick for opposite side
- Air venting device for cooling water tank

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



4LHA-DTP Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 147 kW@3300 rpm	[200 mhp@3300 rpm]	
	** 140 kW@3300 rpm	[190 mhp@3300 rpm]	
Displacement	3.455 ltr	[211 cu in]	
Bore x stroke	100 mm x 110 mm	[3.94 in x 4.33 in]	
Cylinders	4 in line		
Combustion system	Direct injection		
Aspiration	Turbocharged with intercooler		
Starting system	Electrical starting 12V		
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 flywheel side		
Dry weight without gear	365 kg	[805 lbs]	
Environmental	EU: RCD	BSO II	EMC
	SOLAS MED 96/98/EC		
Engine mounting	Rubber type flexible mounting		

NOTE:

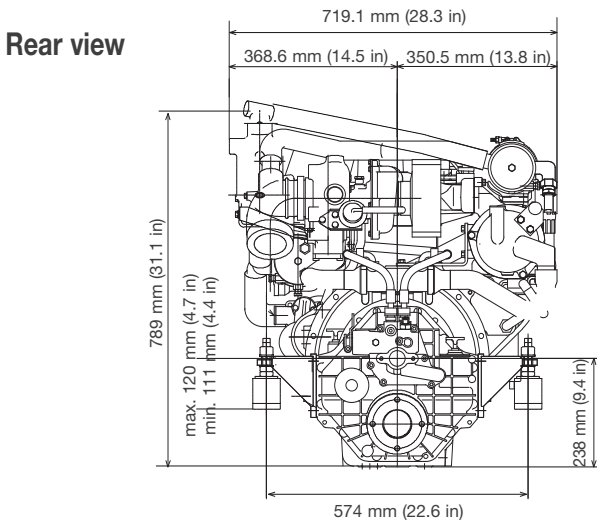
Fuel condition: Density at 15°C = 0.842 g/cm³; 1 mhp = 1 ps = 0.7355 kW = 0.9863 bhp

* Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]

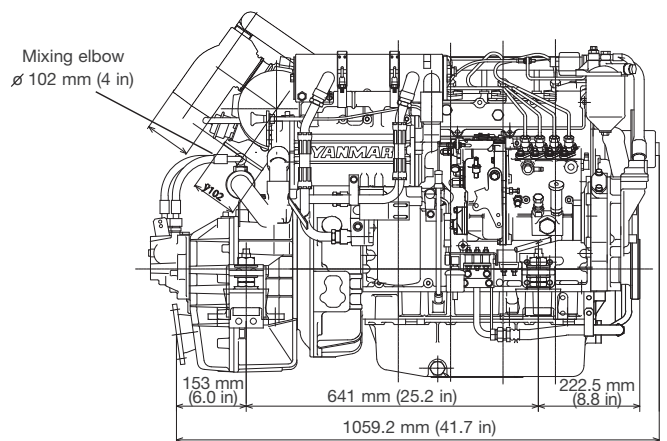
** Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

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

DIMENSIONS



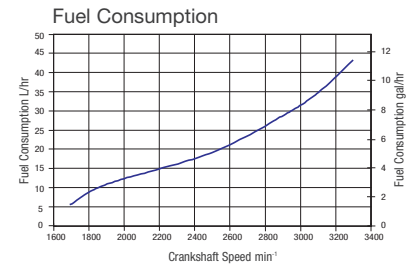
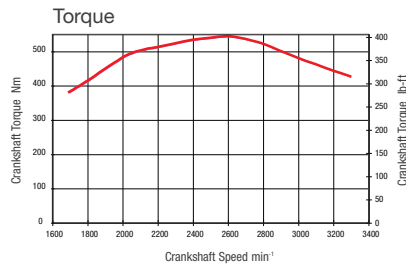
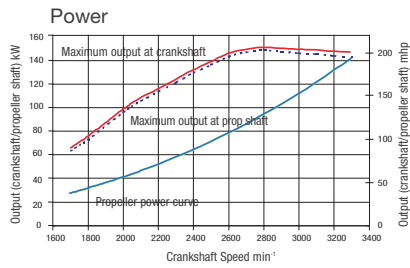
Right side view



4LHA-DTP with ZF63A marine gear



PERFORMANCE CURVES (Output is according ISO 8665 - Output includes +/- 3% tolerance)



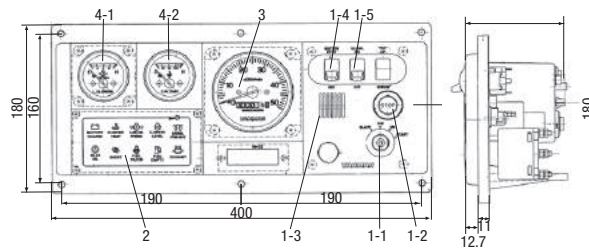
MARINE GEARS*

Model	KMH50A			ZF63A				
Type	8° down hydraulic			8° down hydraulic				
Dry weight	44 kg [97 lbs]			28 kg [62 lbs]				
Reduction ratio [fwd/asn]	1.67/1.67	2.13/2.13	2.43/2.43	1.22/1.22	1.56/1.58	2.04/2.02	2.52/2.54	2.68/2.71
Propeller speed [fwd/asn]	1976/1976	1549/1549	1358/1358	2714/2716	2111/2085	1620/1636	1308/1301	1230/1218
Direction of rotation [propeller shaft - fwd]	Clockwise & Counterclockwise viewed from flywheel side			Clockwise & Counterclockwise viewed from flywheel side				
Dry weight engine and gear/drive	409 kg [902 lbs]			393 kg [866 lbs]				

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

INSTRUMENT PANELS

New C-type Panel



Function	TYPE OF INSTRUMENT PANEL
1-Switch unit	NEW C-TYPE PANEL
1-1 Key switch for GLOW/OFF/ON/START [4-position switch]	Equipped on panel
1-2 Engine stop switch	Equipped on panel
1-3 Alarm buzzer [C.W. Temp., L.O. Pressure]	Equipped on panel
1-4 Alarm buzzer stop switch	Equipped on panel
1-5 Illumination switch for meters	Equipped on panel
2-Alarm lamp unit	
Battery not charging	Equipped on panel
C.W. high temperature	Equipped on panel
L.O. low pressure	Equipped on panel
Boost pressure high [for 4LHA-STP]	Equipped on panel
3-Tachometer with hour meter	Equipped on panel
4-Sub meter unit	Equipped on panel
4-1 L.O. pressure meter	Equipped on panel
4-2 C.W. Temperature meter	Equipped on panel
4-3 Boost meter [turbo]	Not equipped on panel
5-Quartz clock	Not equipped on panel

ACCESSORIES

Standard Package

- Sensor for various panels
- Exhaust/water mixing elbow [L-type]
- Alternator 12V - 80A

Optional

- Flexible mounts
- High-riser/water mixing elbow [instead of L-elbow]
- New C-type instrument panel
- Dual station Y harness
- Dipstick for opposite side
- Air venting device for cooling water tank

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



4LHA-STP Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 177 kW@3300 rpm	[240 mhp@3300 rpm]	
	** 169 kW@3300 rpm	[230 mhp@3300 rpm]	
Displacement	3.455 ltr	[211 cu in]	
Bore x stroke	100 mm x 110 mm	[3.94 in x 4.33 in]	
Cylinders	4 in line		
Combustion system	Direct injection		
Aspiration	Turbocharged with intercooler		
Starting system	Electrical starting 12V		
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 flywheel side		
Dry weight without gear	365 kg	[805 lbs]	
Environmental	EU: RCD	BSO II	EMC
	SOLAS MED 96/98/EC		
Engine mounting	Rubber type flexible mounting		

NOTE:

Fuel condition: Density at 15°C = 0.842 g/cm³; 1 mhp = 1 ps = 0.7355 kW = 0.9863 bhp

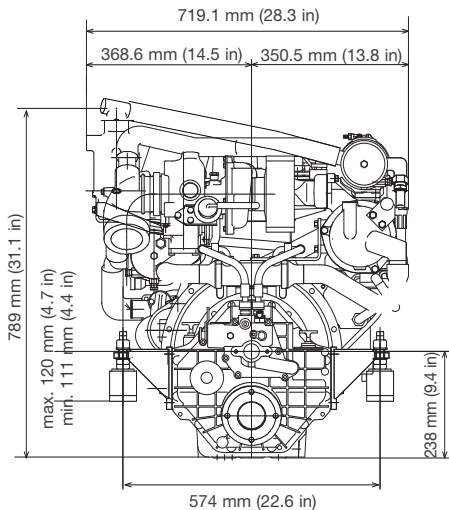
* Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]

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

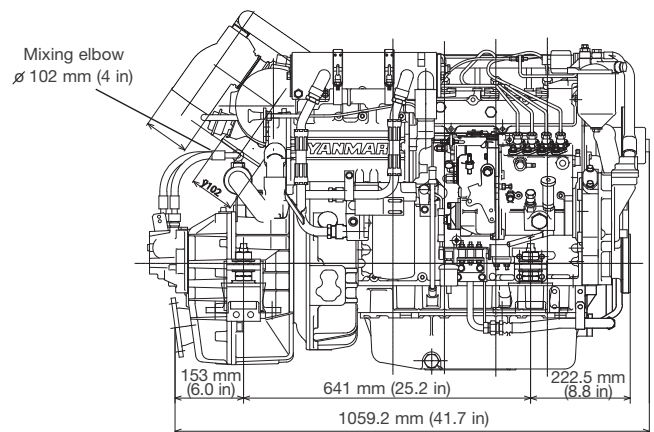
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view



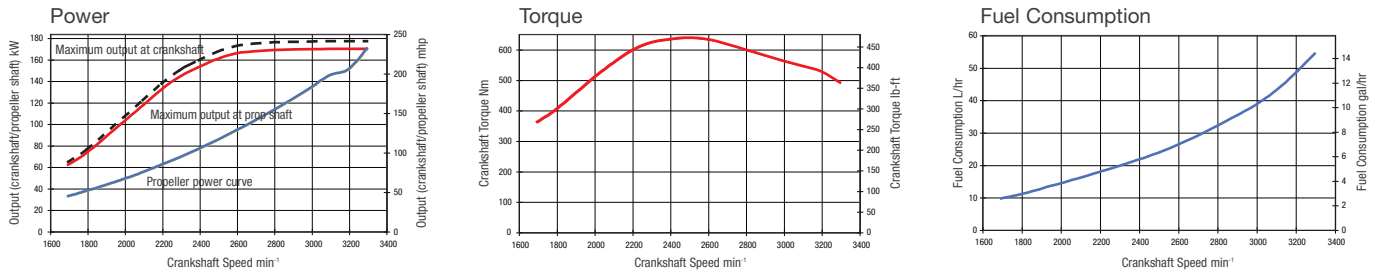
Right side view



4LHA-STP with ZF63A marine gear



PERFORMANCE CURVES (Output is according ISO 8665 - Output includes +/- 3% tolerance)



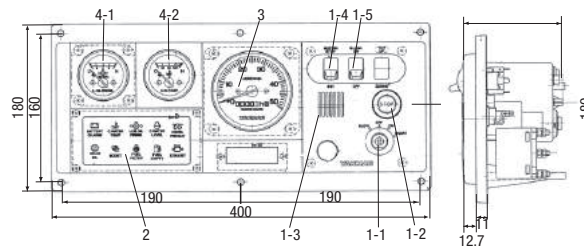
MARINE GEARS*

Model	KMH50A				ZF63A				
Type	8° down hydraulic				8° down hydraulic				
Dry weight	44 kg [97 lbs]				28 kg [62 lbs]				
Reduction ratio [fwd/asn]	1.67/1.67	2.13/2.13	2.43/2.43	1.22/1.22	1.56/1.58	2.04/2.02	2.52/2.54	2.68/2.71	
Propeller speed [fwd/asn]	1976/1976	1549/1549	1358/1358	2714/2716	2111/2085	1620/1636	1308/1301	1230/1218	
Direction of rotation	Clockwise & Counterclockwise				Clockwise & Counterclockwise				
[propeller shaft - fwd]	viewed from flywheel side				viewed from flywheel side				
Dry weight engine and gear/drive	409 kg [902 lbs]				393 kg [866 lbs]				

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

INSTRUMENT PANELS

New C-type Panel



Function	TYPE OF INSTRUMENT PANEL
1-Switch unit	DIGITAL C-TYPE PANEL
1-1 Key switch for GLOW/OFF/ON/START [4-position switch]	Equipped on panel
1-2 Engine stop switch	Equipped on panel
1-3 Alarm buzzer [C.W. Temp., L.O. Pressure]	Equipped on panel
1-4 Alarm buzzer stop switch	Equipped on panel
1-5 Illumination switch for meters	Equipped on panel
2-Alarm lamp unit	
Battery not charging	Equipped on panel
C.W. high temperature	Equipped on panel
L.O. low pressure	Equipped on panel
Boost pressure high [for 4LHA-STP]	Equipped on panel
3-Tachometer with hour meter	Equipped on panel
4-Sub meter unit	Equipped on panel
4-1 L.O. pressure meter	Equipped on panel
4-2 C.W. Temperature meter	Equipped on panel
4-3 Boost meter [turbo]	Not equipped on panel
5-Quartz clock	Not equipped on panel

ACCESSORIES

Standard Package

- Sensor for various panels
- Exhaust/water mixing elbow [L-type]
- Alternator 12V - 80A

Optional

- Flexible mounts
- High-riser/water mixing elbow [instead of L-elbow]
- New C-type instrument panel
- Dual station Y harness
- Dipstick for opposite side
- Air venting device for cooling water tank

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



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 ltr	[254 cu in]	
Bore x stroke	94 mm x 100 mm	[3.7 in x 3.94 in]	
Cylinders	6 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 flywheel side		
Dry weight without gear	408 kg	[899 lbs]	
Environmental	EU: RCD	BSO II	EMC
	US: EPA Tier2		
	IMO: MARPOL 73/78 Annex VI		
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

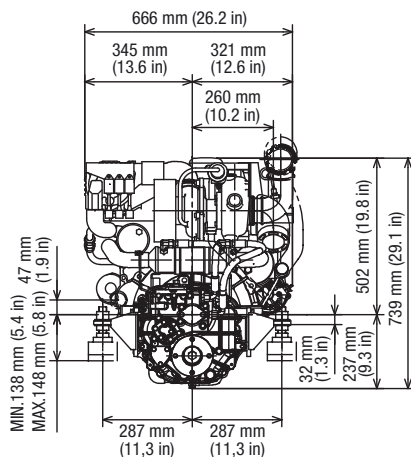
* Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]

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

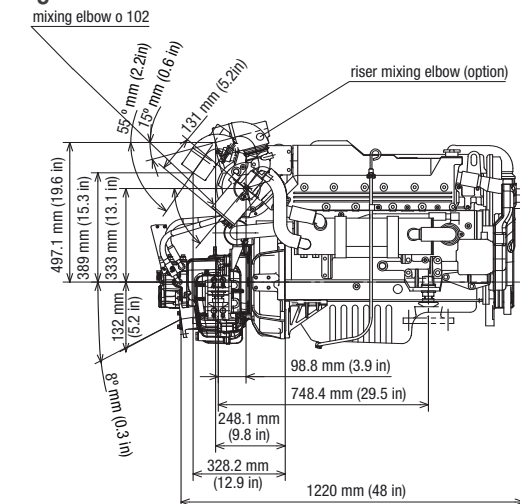
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view



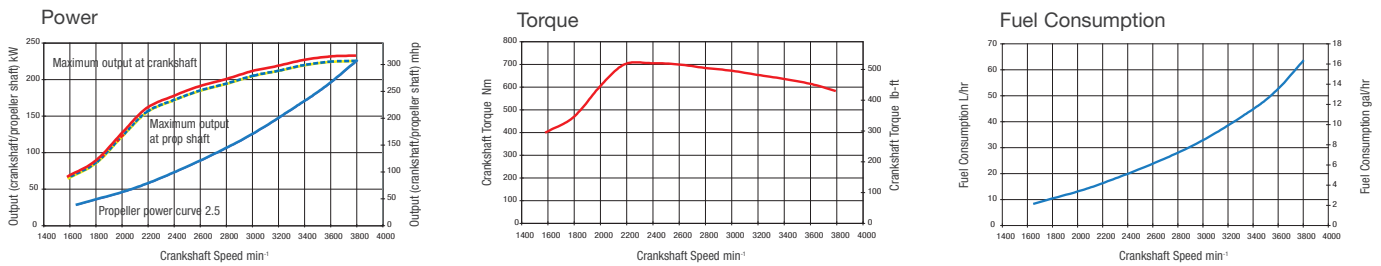
Right side view



6LPA-STP2 with KM2P-1 marine gear



PERFORMANCE CURVES

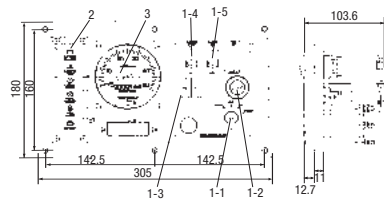


MARINE GEARS / DRIVE

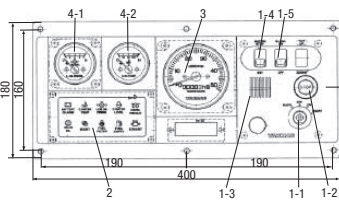
Model	KMH50A			ZF63A			
Type	8° down hydraulic			8° down hydraulic			
Dry weight	43 kg [95 lbs]			44 kg [97 lbs]			
Reduction ratio [fwd/asn]	1.67/1.67	2.13/2.13	2.43/2.43	1.22/1.21	1.56/1.58	2.04/2.10	2.52/2.53
Propeller speed [fwd/asn]	2275	1784	1564	3115/3140	2436/2405	1863/1810	1429/1423
Direction of rotation [propeller shaft - fwd]	Counterclockwise viewed from flywheel side			Counterclockwise viewed from flywheel side			
Dry weight engine and gear/drive	449 kg [990 lbs]			452 kg [996 lbs]			
Length engine and gear/drive	1190 mm [46.9 in]			1205 mm [47.4 in]			

INSTRUMENT PANELS

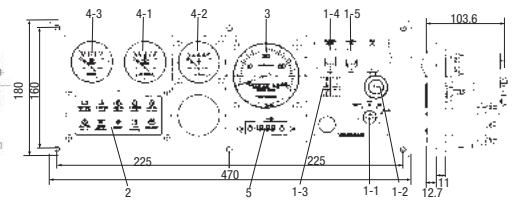
New B-type Panel



New C-type Panel



New D-type Panel



Function	TYPE OF INSTRUMENT PANEL		
	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 separator	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

ACCESORIES

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 accesories

- 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

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



6LPA-STZP2 Series

Configuration	4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	* 232 kW@3800 rpm	[315 mhp@3800 rpm]	
	** 225 kW@3800 rpm	[306 mhp@3800 rpm]	
Displacement	4.164 ltr	[254 cu in]	
Bore x stroke	94 mm x 100 mm	[3.7 in x 3.94 in]	
Cylinders	6 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 flywheel side		
Dry weight without gear	428 kg	[944 lbs]	
Environmental	EU: RCD	BSO II	EMC
	US: EPA Tier2		
	IMO: MARPOL 73/78 Annex VI		
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

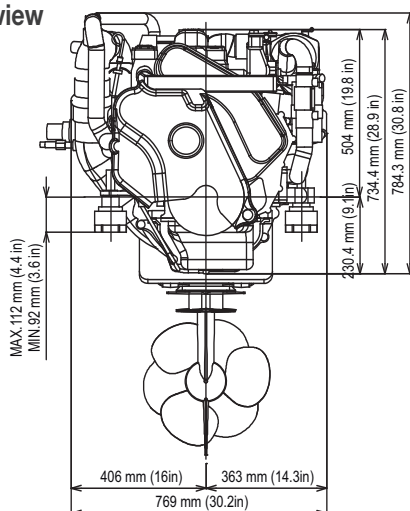
* Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]

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

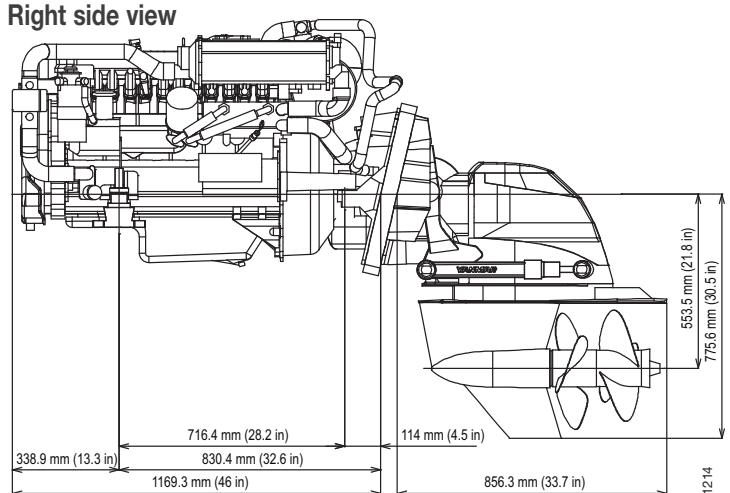
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view



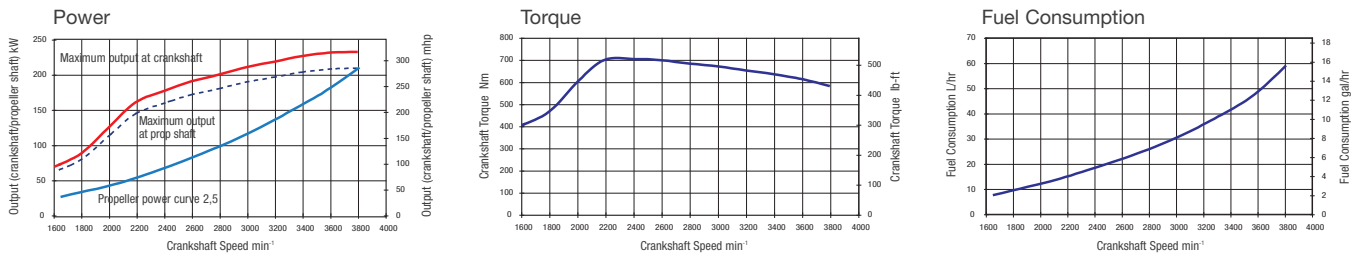
Right side view



6LPA-STZP2 with KM2P-1 marine gear



PERFORMANCE CURVES

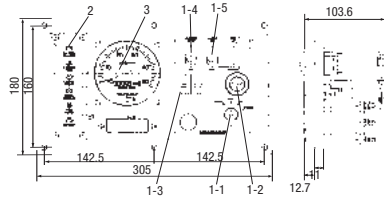


MARINE GEARS / DRIVE

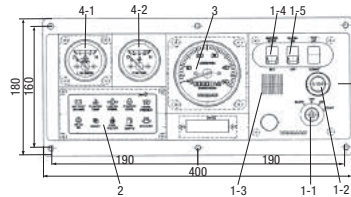
Model	ZT370 [Steerable Z-drive with dual prop]	
Type	Hydraulic Actuated Multi-friction disc clutch	
Dry weight	100 kg	
Reduction ratio [fwd/asn]	1.65/1.65	1.78/1.78
Propeller speed [fwd/asn]	2424/2424	2247/2247
Direction of rotation viewed from the stern	Clockwise [rear prop] & Counterclockwise [front prop]	
Lub oil specifications	API class: GL5 SAE grade #80W90	
Dry weight engine with sterndrive	550 kg [1213 lbs]	
Shift control	Mechanical or Electro-magnetic	
Trim range	-6° -+ 10°	
Trailer limit	51°	

INSTRUMENT PANELS

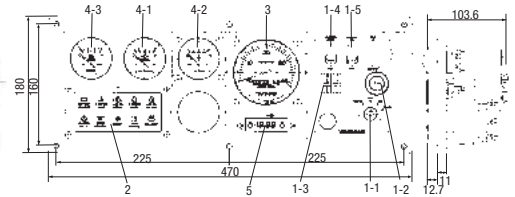
New B-type Panel



New C-type Panel



New D-type Panel



Function	TYPE OF INSTRUMENT PANEL		
	DIGITAL B-TYPE PANEL	DIGITAL B-TYPE PANEL	DIGITAL B-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 separator	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	Not 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	Not equipped on panel		
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

ACCESORIES

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 accesories

- 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

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



8LV-320/350/370 Series

Configuration	4-stroke, water-cooled diesel engine	
Maximum output at crankshaft	235 kW@3800 rpm	[320 mhp@3800 rpm]
	257 kW@3800 rpm	[350 mhp@3800 rpm]
	272 kW@3800 rpm	[370 mhp@3800 rpm]
Displacement	4.46 ltr	[272.24 cu in]
Bore x stroke	86 mm x 96 mm	[3.38 in x 3.78 in]
Cylinders	8 in V-90°	
Combustion system	Direct injection Common Rail System	
Compression ratio	15:8	
Low Idle rpm	550 rpm	
Aspiration	Turbocharged with twin TC	
Electric system	12V	
Alternator	12V - 180A	
Start-assist	Glow-plug system	
Cooling system	Fresh water cooling by centrifugal fresh water pump	
	Sea water cooling by rubber impeller seawater pump	
Lubrication system	Enclosed, forced lubricating system	
Direction of rotation [crankshaft]	Counterclockwise viewed from flywheel side	
Dry weight without gear	435 kg	[959 lbs]
	Environmental	
Environmental	EU: RCD	EMC
	US: EPA Tier3	
Engine mounting	Rubber type flexible mounting	

NOTE:

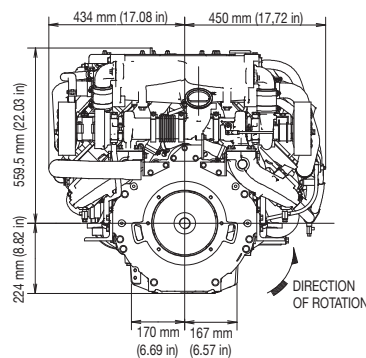
Fuel condition: Density at 15°C = 0.84 g/cm³

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

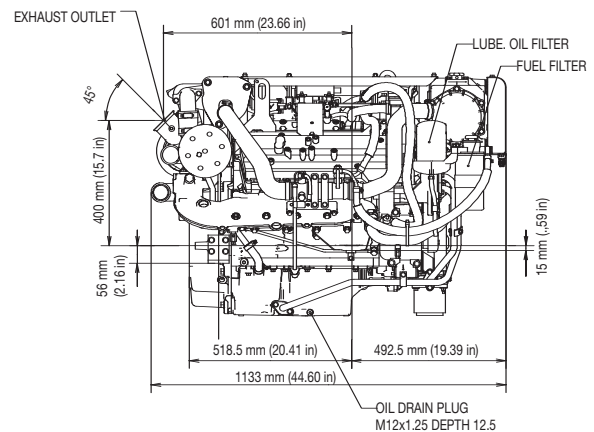
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Gear view



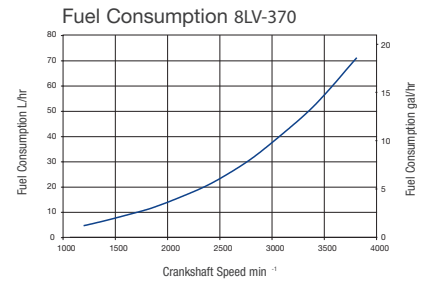
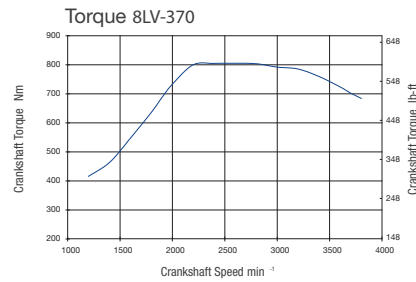
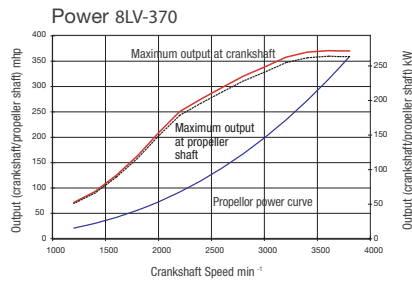
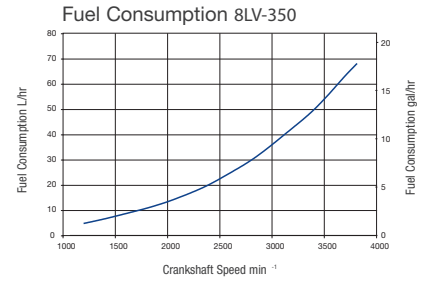
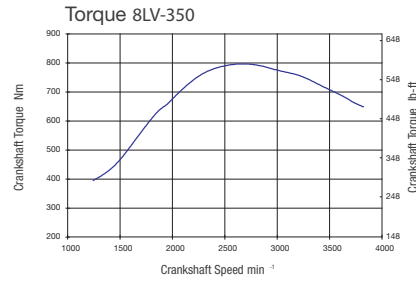
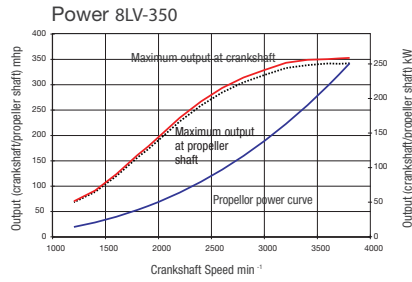
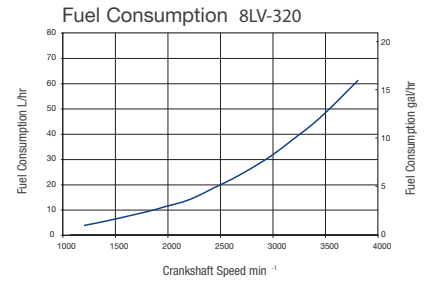
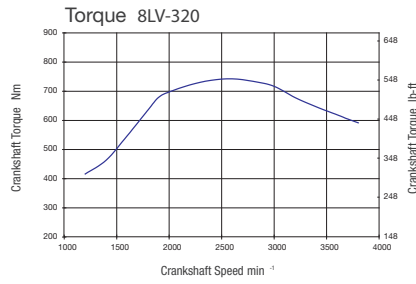
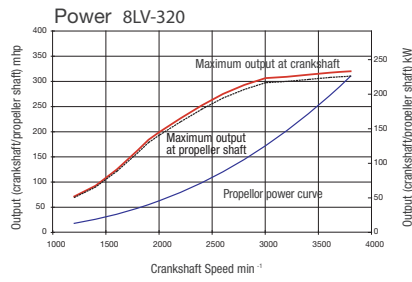
Right side view



8LV-320/8LV-350/8LV-370



PERFORMANCE CURVES



DRIVE SYSTEMS

Model	KMH50A [down angle 8°]		
Type	Hydraulic Actuated Multi-friction disc clutch		
Dry weight	43 kg excl. foot and cooler [=15.5 kg]		
Reduction ratio [fwd/asn]	1.67/1.67	2.13/2.13	2.43/2.43
Direction of rotation	Clockwise & Counterclockwise viewed from the stern		
Lub oil specifications	API class: CF or higher SAE grade #30		
Dry weight engine and gear	494 kg [1089 lbs]		
Model	KMH52V [integral V-drive 12°]		
Type	Hydraulic Actuated Multi-friction disc clutch		
Dry weight	59 kg excl. foot and cooler [=20 kg]		
Reduction ratio [fwd/asn]	1.22/1.22	1.58/1.58	2.08/2.08
Direction of rotation	Clockwise & Counterclockwise viewed from the stern		
Lub oil specifications	API class: CF or higher SAE grade #30		
Dry weight engine and gear	514 kg [1133 lbs]		

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

CONTROL SYSTEM

- Yanmar CAN-bus control system
- Electronic CAN-bus control-head
- Multi-function colour display
- NMEA2000 or J1939 gauge output
- Second or third station - optional

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



8LV-320Z/350Z/370Z Series

Configuration	4-stroke, water-cooled diesel engine	
Maximum output at crankshaft	235 kW@3800 rpm	[320 mhp@3800 rpm]
according ISO 8665: 2006	257 kW@3800 rpm	[350 mhp@3800 rpm]
	272 kW@3800 rpm	[370 mhp@3800 rpm]
Displacement	4.46 ltr	[272.24 cu in]
Bore x stroke	86 mm x 96 mm	[3.38 in x 3.78 in]
Cylinders	8 in V-90°	
Combustion system	Direct injection Common Rail System	
Compression ratio	15:8	
Low Idle rpm	550 rpm	
Aspiration	Turbocharged with twin TC	
Electric system	12V	
Alternator	12V - 180A	
Start-assist	Glow-plug system	
Cooling system	Fresh water cooling by centrifugal fresh water pump Sea water cooling by rubber impeller seawater pump	
Lubrication system	Enclosed, forced lubricating system	
Direction of rotation [crankshaft]	Counterclockwise viewed from flywheel side	
Dry weight without gear	435 kg	[959 lbs]
Environmental	EU: RCD	EMC
	US: EPA Tier3	
Engine mounting	Rubber type flexible mounting	

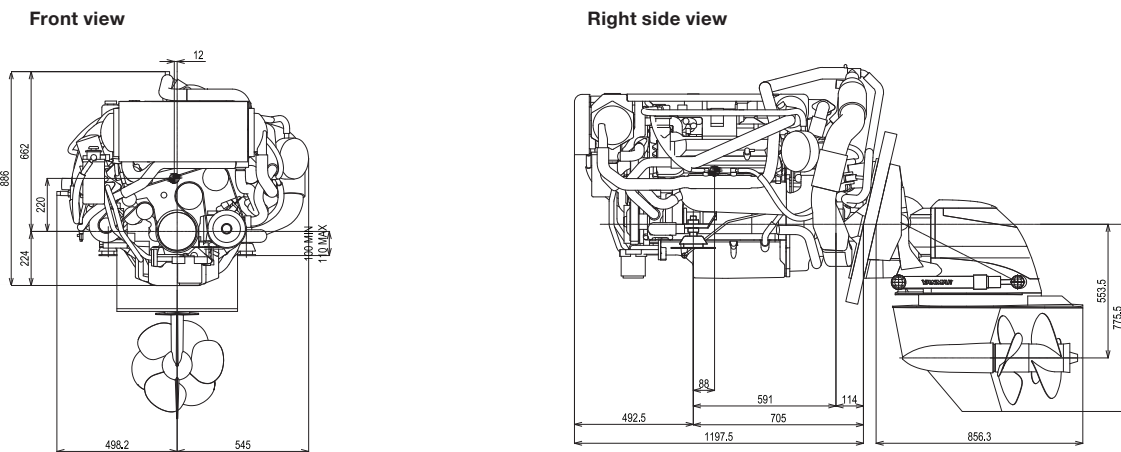
NOTE:

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

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

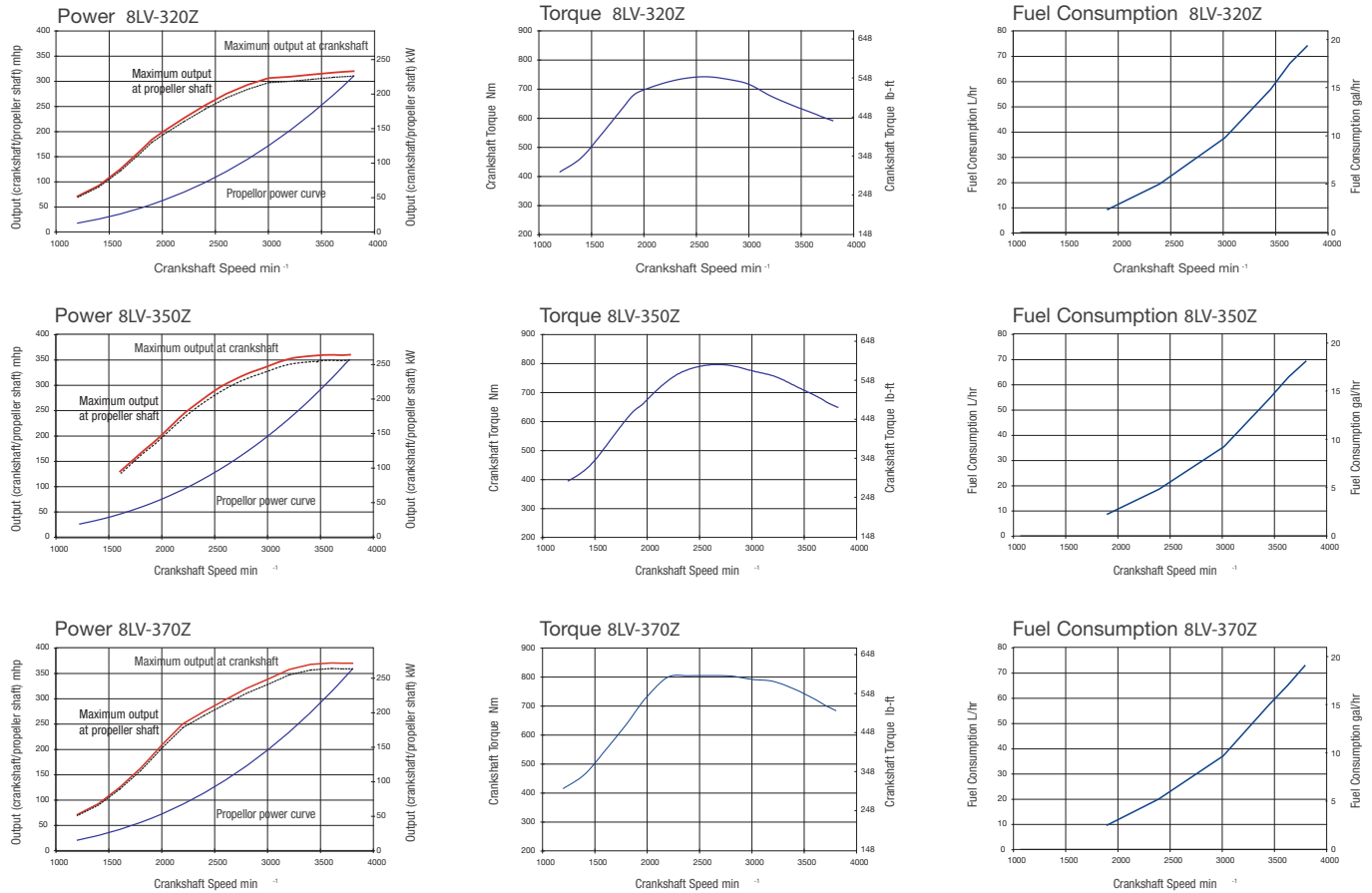
DIMENSIONS



8LV-320Z/8LV-370Z/8LV-370Z



PERFORMANCE CURVES



DRIVE SYSTEMS

Model	ZT370 [Steerable Z-drive with dual prop]	
Type	Hydraulic actuated multi-friction disc clutch	
Dry weight with propellers	112 kg [247 lbs]	
Reduction ratio [fwd/asn]	1.65/1.65	1.78/1.78
Propellor speed	2424/2424	2247/2247
Direction of rotation viewed from the stern	Clockwise [rear prop] & Counterclockwise [front prop]	
Lub oil specifications	Quick Silver HPGL	
Dry weight engine with sterndrive	547 kg [1205 lbs]	
Shift control	Mechanical or electro-magnetic	
Trim range	-6° - +10°	
Trailer limit	51°	

CONTROL SYSTEM

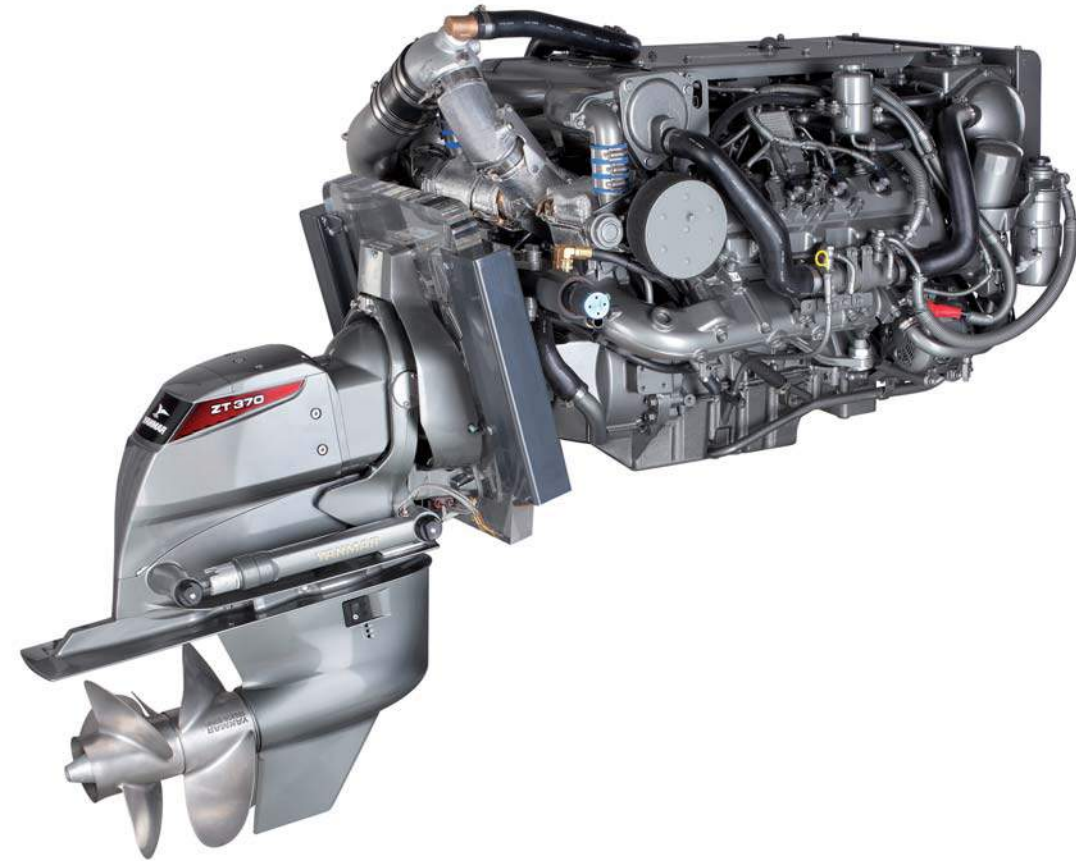
- Yanmar CAN-bus control system
- Electronic CAN-bus control-head
- Multi-function colour display
- NMEA2000 or J1939 gauge output
- Second or third station - optional

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

8LV Series

320 mhp (235 kW) - 370 mhp (272 kW) - Full Throttle

THE PERFECT MATCH FOR NEW BOATS & REPOWERING



Yanmar Marine is dedicated to the needs and preferences of people who enjoy boating, and those who support them, all around the world. With regional headquarters in Europe, the United States, Asia and Japan, plus full-scale sales and service support facilities in more than 130 countries, Yanmar Marine provides engines, drive systems and accessories for all types of boats, from runabouts to sailing craft, from cruisers to luxury power boats. In pleasure boating, the worldwide reputation of Yanmar Marine is second to none.



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8LV DIESEL STERNDRIVE & INBOARD

DESIGNED, DEVELOPED & MANUFACTURED BY YANMAR

PUSHING STANDARDS FORWARD – YET AGAIN

You will be astonished by the acceleration, top speed and fuel economy of Yanmar's new twinturbo 8LV320 and 8LV370 diesel engines. You'll be just as impressed by the amazingly low noise levels and the smooth ride. Add in all of those renowned Yanmar qualities of performance, reliability, durability and respect for nature and you have an engine that pushes marine standards to a new high.

For ski boats to fast sports craft to luxury cruisers – new build or repowering – the 8LV is at the forefront of today's propulsion technology, providing the kind of high end performance associated with V8 gasoline engines, but with all of the solid, long-life and cost-effective benefits of diesel. This V8 can be matched perfectly with Yanmar's latest twin-propeller sterndrive, the ZT370, or to a KMH50 inboard transmission. Yanmar remains dedicated to achieving maximum performance from minimum weight and the 8LV proves the point: another big displacement engine, weighing in dry at a mere 435 kilograms. The 8LV provides boaters with the best-in-class power band. It idles at 550 rpm,

capable of crawling speed in the marina, aided further by the hydraulic clutch of the ZT370 or KMH50 drive systems. Maximum engine speed is a big 3,800 rpm – well ahead of other engines in this segment. You can enjoy high power, high torque. Low noise, low vibration. You can go much further on a tank of fuel. There is the advantage of a 12 volt, 180 amp alternator to charge all your onboard electrics. The 8LV uses Yanmar's new CAN-bus control system, the Yanmar VCS, so you don't have to rely on anyone else. Then there is easy installation, simple servicing, and all that worldwide Yanmar support, wherever, whenever.



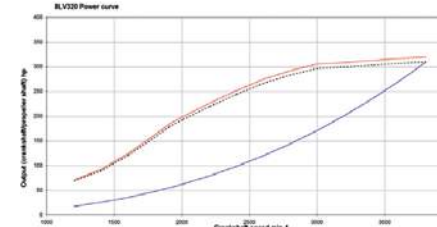
SPECIFICATIONS SUMMARY YANMAR 8LV320 & 8LV370

Configuration	4-stroke, vertical, water cooled diesel engine	
Cylinders	8 in V-90°	
	8LV320	8LV370
Maximum output crankshaft according to ISO 8665:2006	235 kW @ 3,800 rpm 320 mhp @ 3,800 rpm	272 kW @ 3,800 rpm 370 mhp @ 3,800 rpm
Continuous output crankshaft	214 kW @ 3,683 rpm	248 kW @ 3,683 rpm
Displacement	4.46 litres (272.24 cu in)	
Bore x Stroke	86 mm x 96 mm (3.38 in x 3.78 in)	
Combustion system	Direct injection with common-rail system	
Control system	Yanmar VCS CAN-bus	
Compression ratio	15:8	
Low idle rpm	550 rpm	
Aspiration	Twin turbocharged	
Electric system	12V	
Alternator	12V / 180A	
Start assistance	Glow plug system	
Cooling system	Fresh water cooling by centrifugal fresh water pump Sea water cooling by rubber impeller sea water pump	
Lubrication system	Enclosed, forced lubrication	
Rotation (crankshaft)	Counter clockwise viewed from flywheel side	
Dry weight without gear	435 Kg (959 lbs)	
Environmental	EU: RCD US: EPA Tier 3	
Engine mounting	Rubber type flexible	
Dimensions	Length 1122 mm Width 867 mm Height from cs centre 551 mm Height total 775 mm	

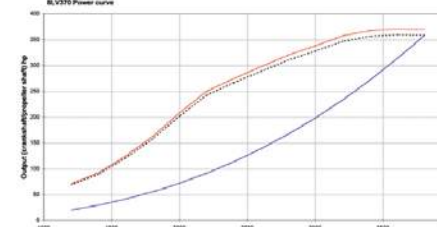


NOTES : fuel density at 15°C = 0.84 g/cm³; fuel temperature 40°C at the inlet of the fuel injection pump (ISO 8665:2006)

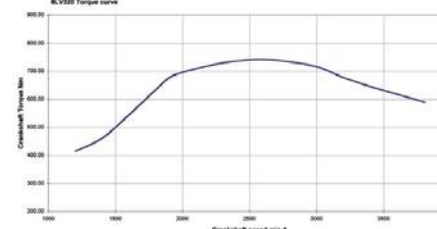
8LV320 Power



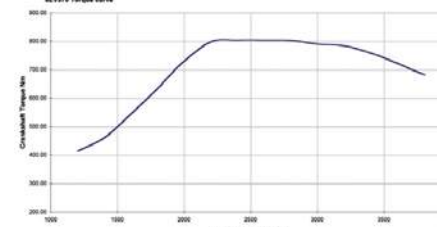
8LV370 Power



8LV320 Torque

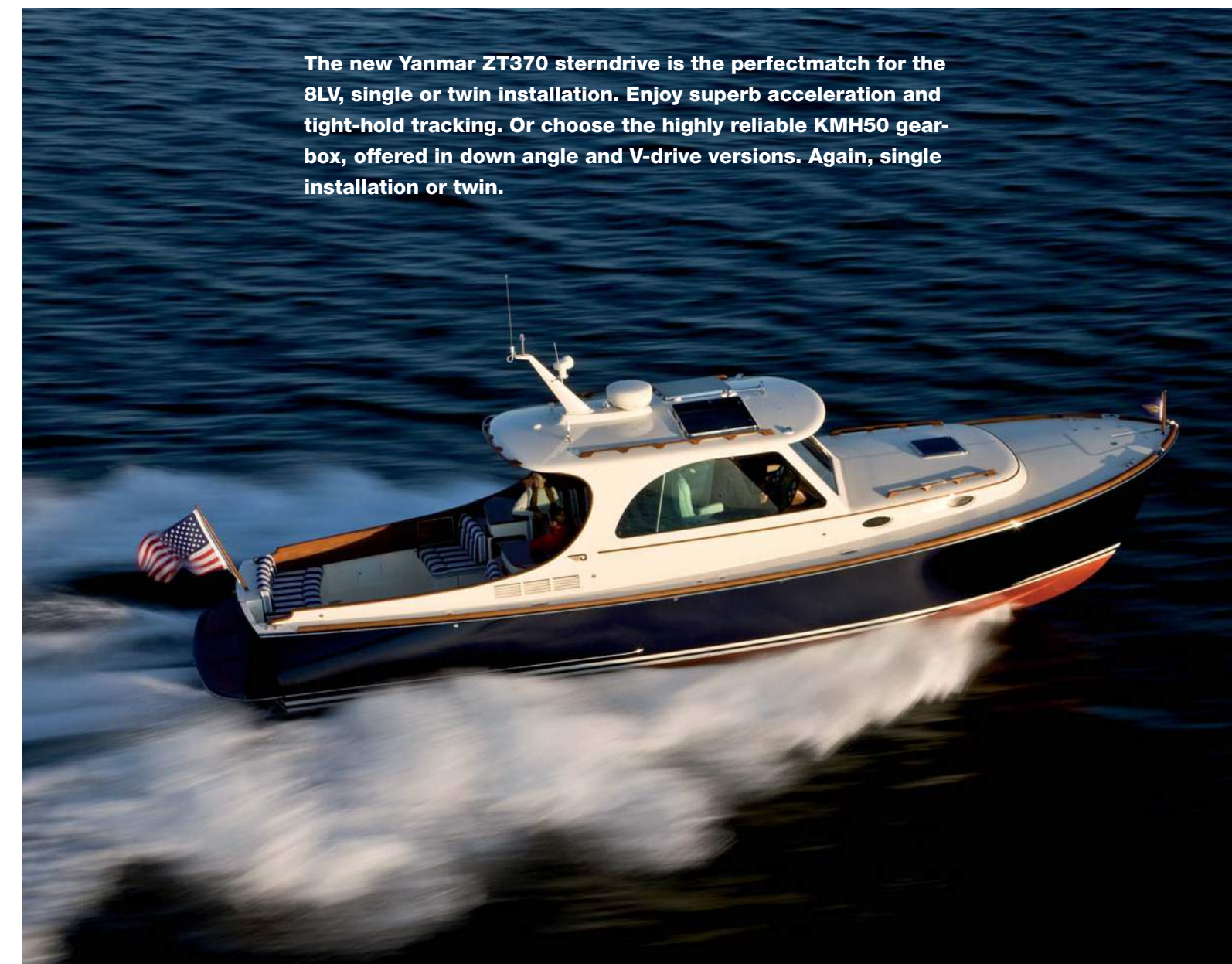


8LV370 Torque



YANMAR 8LV: FOR NEW BOATS & REPOWERING

- Twin-turbo V8 diesel with common-rail fuel injection
- Available with new ZT370 sterndrive or KMH50 transmission
- Benefits from Yanmar's VCS CAN-bus vessel control system
- Wide power band from low 550 rpm to high 3,800 rpm
- Designed for fuel economy and with outstanding cruising range
- Extremely high power, gripping acceleration and big torque
- Exceptionally low noise and minimised vibration
- Advantages of powerful 12V / 180A alternator



The new Yanmar ZT370 sterndrive is the perfect match for the 8LV, single or twin installation. Enjoy superb acceleration and tight-hold tracking. Or choose the highly reliable KMH50 gearbox, offered in down angle and V-drive versions. Again, single installation or twin.



6LY3-UTP Series

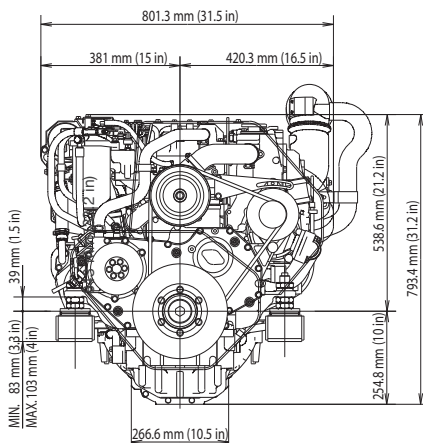
Configuration	24 valve, 4-stroke, vertical, water-cooled diesel engine	
Maximum output at crankshaft	279 kW@3300 rpm	[380 mhp@3300 rpm]
Displacement	5.813 ltr	[354 cu in]
Bore x stroke	106 mm x 110 mm	[4.17 in x 4.33 in]
Cylinders	6 in line	
Combustion system	Direct injection	
Aspiration	Turbocharged with seawater cooled intercooler	
Starting system	Electric starting 12V - 3 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 flywheel side	
Dry weight without gear	640 kg	[1411 lbs]
Environmental	EU: RCD	EMC
	US: EPA Tier2	
	IMO: MARPOL 73/78 Annex VI	
Engine mounting	Rubber type flexible mounts	

NOTE:

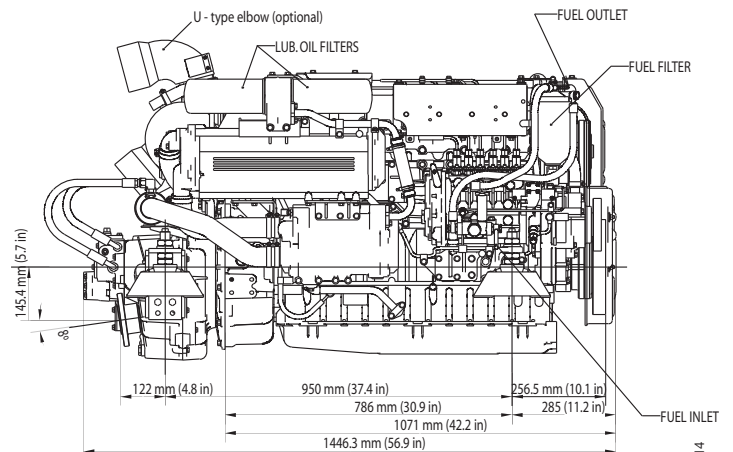
Fuel condition: Density at 15°C = 0.86 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
 Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
 Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Front view



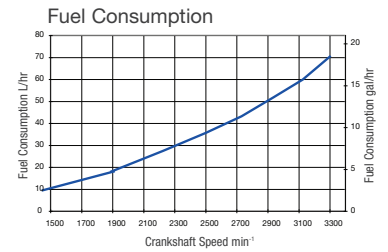
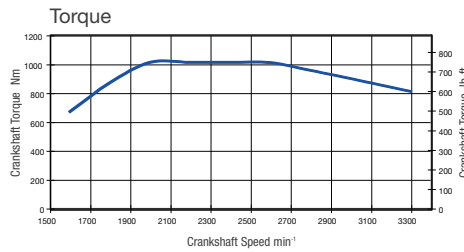
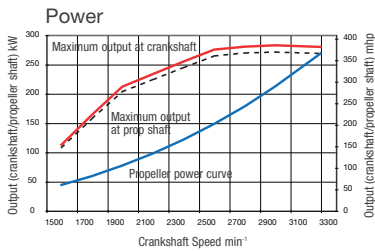
Right side view



6LY3-UTP with Yanmar KMH61A marine gear



PERFORMANCE CURVES



MARINE GEARS / DRIVE

Model	KMH61A			KMH61V			
Type	Hydraulically actuated multi-disc clutch			Hydraulically actuated multi-disc clutch			
Dry weight	78 kg [172 lbs]			83.9 kg [185 lbs]			
Reduction ratio [fwd/asn]	1.55/1.55	2.04/2.04	2.43/2.43	1.24/1.24	1.49/1.49	1.98/1.98	2.43/2.43
Propeller speed [fwd/asn]	2129/2129	1618/1618	1358/1358	2661/2661	2215/2215	1666/1666	1358/1358
Direction of rotation [propeller shaft - fwd]	Clockwise & Counterclockwise viewed from flywheel side			Clockwise & Counterclockwise viewed from flywheel side			
Dry weight engine and gear/drive	718 kg [1583 lbs]			723.9 kg [1596 lbs]			

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

INSTRUMENT PANELS

Various Control heads

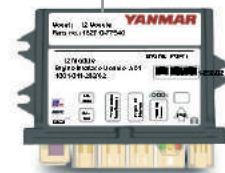


Multi function LCD display



CAN Bus system

- Multi function LCD display:
- engine information
 - maintenance information
 - diagnosis messages



Engine ECU Interface

ACCESORIES

Standard engine package

- Standard engine package
- Exhaust mixing elbow [L-type]
- Air heater

Optional engine package

- Fuel/water separator
- High-riser mixing elbow [instead of L-elbow]
- Lub oil evacuation pump
- Remote oil filter opposite side
- Air vent for coolant tank
- Flexible mounts

ELECTRONIC CONTROL SYSTEM

Standard electronic control system

- CANBUS-NMEA 2000 electronic control system
- Ignition panel with rocker switches
- Multi-function LCD display
- Electronic control head

Optional electronic control system:

- Second station kit for flybridge
- Ignition panel with keyswitch
- Extension wire harnesses
- Various control heads
- Trolling mode kit

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



6LY400 / 6LY440

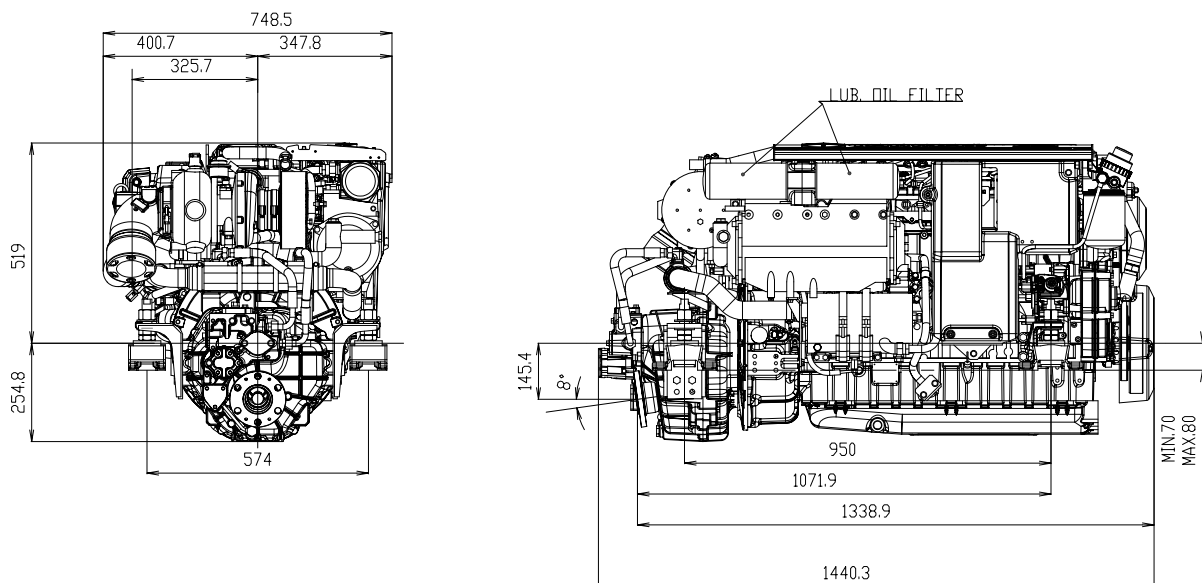
Configuration	In-line 6-cylinder, 4-stroke, vertical, water-cooled diesel engine		
Maximum output at crankshaft	*294 kW@3300 rpm	[400 mhp]@3300 rpm	
	*324 kW@3300 rpm	[440 mhp]@3300 rpm	
Displacement	5.813 L	[354 cu in]	
Bore x stroke	106 mm x 110 mm	[4.17 in x 4.33 in]	
Combustion system	Direct Injection with Denso Common-Rail system		
Aspiration	Turbocharged with watercooled turbine housing		
Starting system	Electric starting 12V - 2.5 kW		
Alternator	12V - 125A		
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	585 kg	[1290 lbs]	
Emission compliance	EU: RCD 2	IMO/GL	EMC
	US: EPA Tier 3		
Engine mounting	Rubber type flexible mounting		

NOTE:

Fuel condition: Density at 15°C = 0.842 g/cm³; 1HP = 0.7355 kW

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

DIMENSIONS

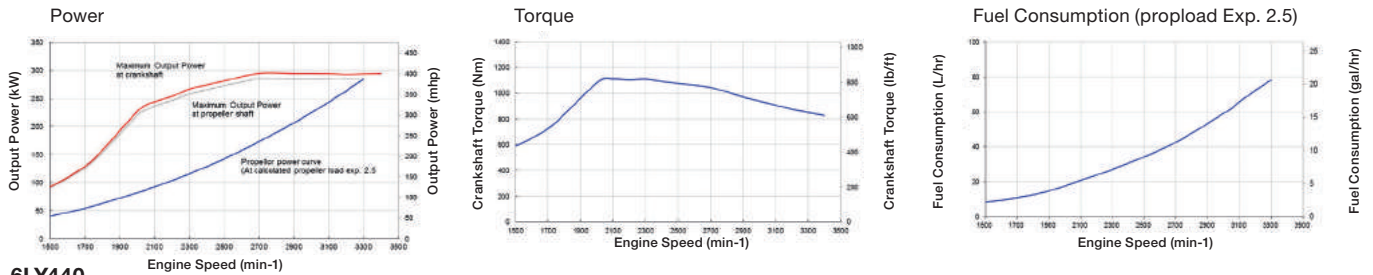


6LY440 with KMH61A2 marine gear

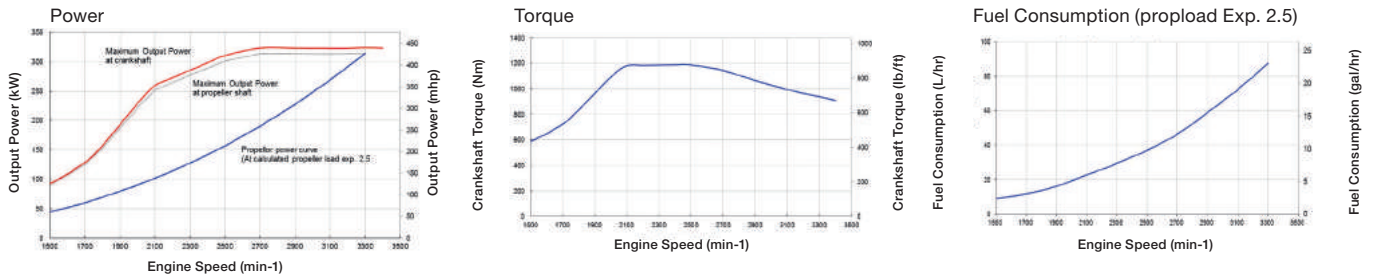


PERFORMANCE CURVES

6LY400



6LY440



MARINE GEARS / DRIVE*

Model	KMH61A2 [down angle: 8°]			KMH61V2 [V-drive]				ZF280-1 [parallel]
Type	Hydraulically actuated multi-disc clutch			Hydraulically actuated multi-disc clutch				Hydraulically actuated multi-disc clutch
Dry weight**	81 kg [187 lbs]			113 kg [249 lbs]				113 kg [249 lbs]
Reduction ratio [fwd/asn]	1.55/1.55	2.04/2.04	2.43/2.43	1.24/1.24	1.49/1.49	1.98/1.98	2.43/2.43	Gear ratio's as available from ZF
Propeller speed [fwd/asn]	2129	1618	1358	2661	2215	1667	1358	
Direction of rotation viewed from stern	Counterclockwise & Clockwise			Counterclockwise & Clockwise				Counterclockwise & Clockwise
Dry weight engine and gear/drive**	666 kg [1468 lbs]			698 kg [1538 lbs]				698 kg [1538 lbs]

* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.
 ** Dry weight including cooler, brackets & damper disk.

ACCESSORIES

Standard engine package

- 2-pole 12V Electric system
- Exhaust/water mixing elbow [L-type]
- Alternator 12V - 125A
- Mounting brackets
- Dipstick on both sides

Optional accessories

- Flexible mounts
- Fuel water separator
- High-riser mixing elbow
- SOLAS kit including certificates
- 24V Secondary Alternator

CONTROL SYSTEM

Standard engine package

- YANMAR CAN-bus control system
- Multi-function colour display
- NMEA2000 or J1939 gauge output
- Switch panel
- Back up panel

Optional accessories

- Electronic CAN-bus control-head
- Extension wire harness
- NMEA2000 gauges
- Second or third station

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



YANMAR

MARINE COMMON-RAIL ENGINES

6LY400 | **6LY440**

400 MHP

440 MHP



Specifications

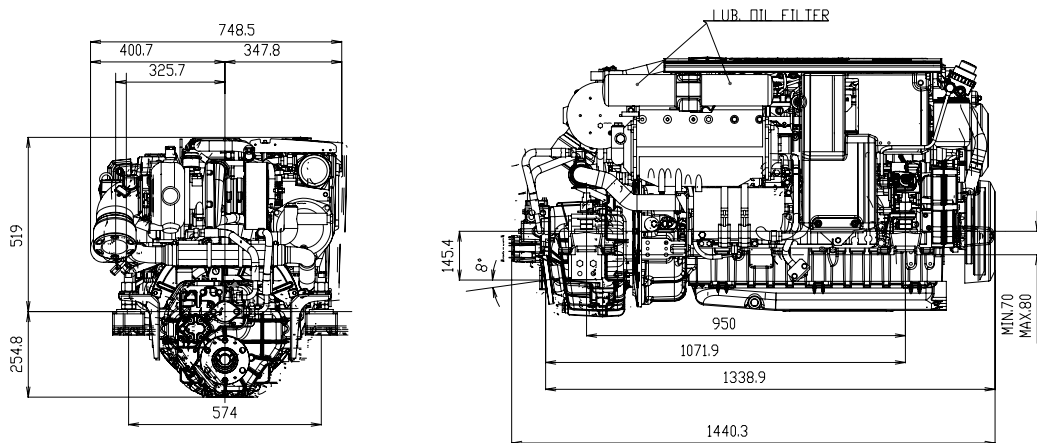
Configuration	In-line 6-cylinder, 4-stroke, vertical, water-cooled diesel engine			
Maximum output at crankshaft	*294 kW@3300 rpm	[400 mhp]@3300 rpm		
	*324 kW@3300 rpm	[440 mhp]@3300 rpm		
Displacement	5.813 L	[354 cu in]		
Bore x stroke	106 mm x 110 mm	[4.17 in x 4.33 in]		
Combustion system	Direct Injection with Denso Common-rail system			
Aspiration	Turbocharged with watercooled turbine housing			
Starting system	Electric starting 12V - 2.5 kW			
Alternator	12V - 125A			
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	585 kg	1290 lbs		
Emission compliance	EU: RCD 2	US: EPA Tier 3	IMO/GL	EMC
Engine mounting	Rubber type flexible mounting			

NOTE:

Fuel condition: Density at 15°C = 0.842 g/cm³; 1HP = 0.7355 kW

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

Dimensions



6LY440 with KMH61A2 marine gear

Worldwide YANMAR Service Network

First-quality YANMAR parts and service are available wherever you are and for whatever you need to do through an international network of dedicated YANMAR distributors and dealers. Thoroughly trained and fully equipped. For your convenience,

you will find the YANMAR sales and service network in more than 130 countries all around the world.

www.yanmarmarine.com/Network/



YANMAR 6LY - the rebirth of a legend

Our fourth-generation 6LY marine diesel series builds on the virtues of its classic six-cylinder forerunners, advancing efficiency and lowering emissions.

The new 6LY takes all the attributes of its forerunners and adds major engineering advances. The beating heart of the engine remains the international powerboat race-winning compact 5.8-litre in-line six-cylinder YANMAR engine block that over three decades has cemented its popularity with boat designers, builders and owners who laud its performance, fuel efficiency, reliability and smooth and quiet operation.

This latest incarnation has taken the engine into a new era of mechanical and digital sophistication. We have completely re-engineered the fuel induction and aspiration systems - all functions now being managed by state-of-the-art electronic precision for even better all-round performance.

We've replaced single injectors with a high-pressure common-rail fuel system to deliver exceptionally finely atomised fuel to the cylinders for better power-to-weight performance, fuel economy and smooth

running. There's also a new 24-valve cylinder head which, with a redesigned inlet and exhaust manifold, optimises engine breathing.

All this makes the 6LY one of the most efficient, refined and easy-to-live-with marine diesel engines in the 400-500 mhp power segment on the market today. It's ideal not just for new-builds, but for refits too. Sharing the compact footprint of its predecessors, it fits perfectly into engine rooms housing earlier 6LY models and other similar engines. The 6LY400/440 connects easily with existing mechanical controls.

Fingertip controllability

For the ultimate in easy and precise boat control, YANMAR offers the latest VC10 'fly-by-wire' vessel control system to give precision gear changing and throttle adjustment with perfect 'feel'. And with the joystick control option as part of a fully-integrated YANMAR engine and controls package, docking is also really easy. Single- and

dual-lever control heads have push-buttons for function selection. Operations are precisely monitored on 3.5-inch robust IP66-rated display screens with IP66 waterproof rating and with full diagnostic capabilities plus UV-protection, anti-dazzle coating and anti-fogging ventilation.

For maximum operational security, two parallel CAN bus networks separate engine and monitoring functions. YANMAR's J1939 control bus is dedicated to the engine and drive control system while GPS, chart plotter and monitoring displays are handled by NMEA2000 data bus so that, in the unlikely event of J1939 failure, the system automatically switches to a pull-out back-up panel.

VC10 offers operation modes for single and twin-inboard or sterndrive installations. All are designed for easy serviceability and are readily expandable to allow owners to extend monitoring capability at any time.



Common-rail

The 6LY400/440 has common-rail fuel injection in place of single mechanical direct injectors and is rated for leisure marine and workboat applications. There's new pipe work to handle the higher pressures of the Denso CR system, as well as a new 24-valve cylinder head, along with redesigned inlet and exhaust manifold to assist engine breathing.

Proven marine technology

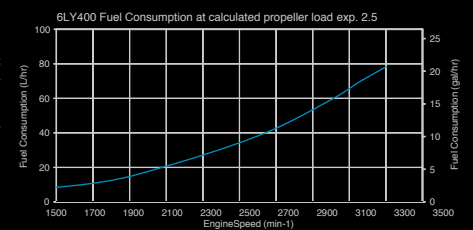
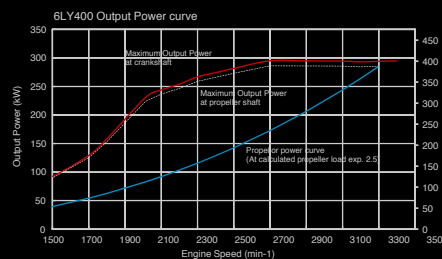
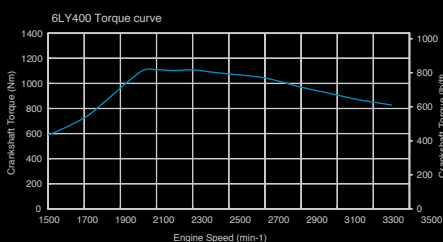
The new engine takes what was a very accomplished and highly popular power unit to a higher level. Like all YANMAR marine engines, it was designed expressly for marine duty.

After decades of distinguished service 6LY series engines are still regarded as some of the best in the world for cruising and workboat duty. In its transfigured form the 6LY is set to

continue this tradition. Its small footprint, low height and narrow width will make it attractive for installation in new craft with ever-tighter engine-room space. Its high power density in an ultra-compact package will also make it an engine of choice for replacement not only of earlier YANMAR units, but also larger and heavier engines of similar output.

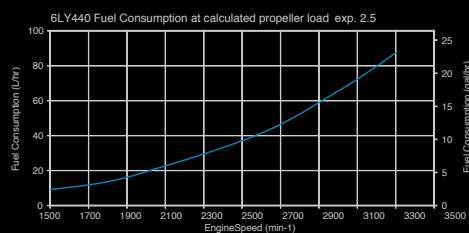
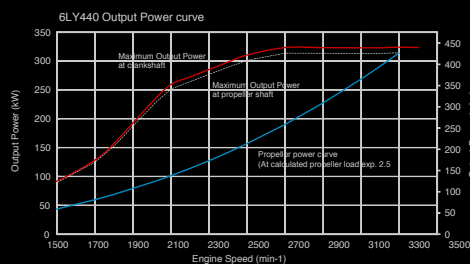
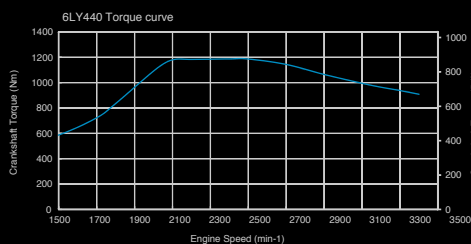


Performance curves



Unique features:

- 4th generation YANMAR 6LY engine
- Purpose-built marine engine
- Legendary YANMAR reliability
- Complies with US Tier 3 and EU RCD 2 emissions limits





6LY3-STP Series

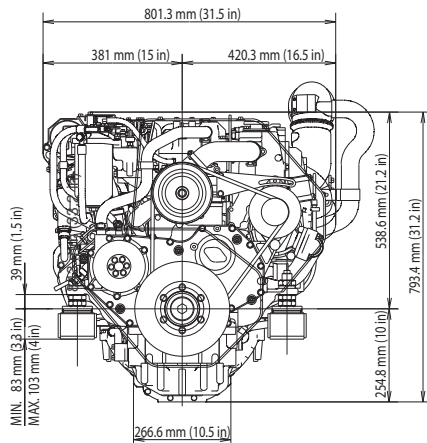
Configuration	24 valve, 4-stroke, vertical, water-cooled diesel engine	
Maximum output at crankshaft	324 kW@3300 rpm	[440 mhp@3300 rpm]
Displacement	5.813 ltr	[354 cu in]
Bore x stroke	106 mm x 110 mm	[4.17 in x 4.33 in]
Cylinders	6 in line	
Combustion system	Direct injection	
Aspiration	Turbocharged with seawater cooled intercooler	
Starting system	Electric starting 12V - 3 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 flywheel side	
Dry weight without gear	640 kg	[1411 lbs]
Environmental	EU: RCD	EMC
	US: EPA Tier2	
	IMO: MARPOL 73/78 Annex VI	
Engine mounting	Rubber type flexible mounts	

NOTE:

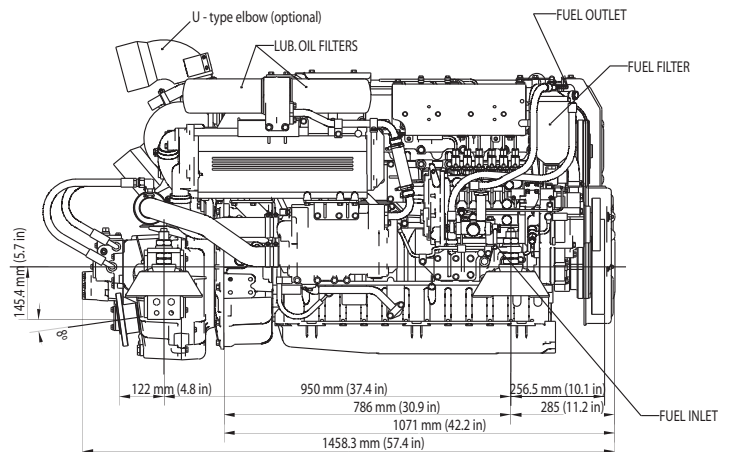
Fuel condition: Density at 15°C = 0.86 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
 Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
 Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Front view



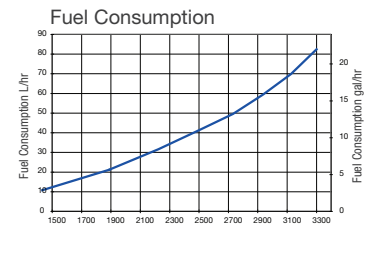
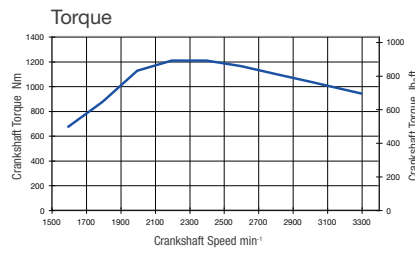
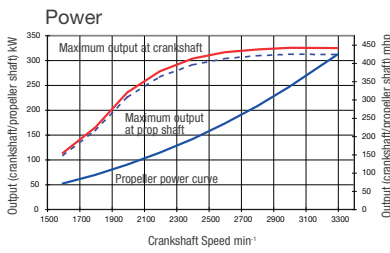
Right side view



6LY3-STP with Yanmar KMH61A marine gear



PERFORMANCE CURVES



MARINE GEARS / DRIVE

Model	KMH61A			KMH61V			
Type	Hydraulically actuated multi-disc clutch			Hydraulically actuated multi-disc clutch			
Dry weight	78 kg [172 lbs]			83.9 kg [185 lbs]			
Reduction ratio [fwd/asn]	1.55/1.55	2.04/2.04	2.43/2.43	1.24/1.24	1.49/1.49	1.98/1.98	2.43/2.43
Propeller speed [fwd/asn]	2129/2129	1618/1618	1358/1358	2661/2661	2215/2215	1666/1666	1358/1358
Direction of rotation	Clockwise & Counterclockwise			Clockwise & Counterclockwise			
[propeller shaft - fwd]	viewed from flywheel side			viewed from flywheel side			
Dry weight engine and gear/drive	718 kg [1583 lbs]			723.9 kg [1596 lbs]			

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

INSTRUMENT PANELS

Various Control heads

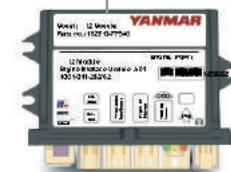


Multi function LCD display



CAN Bus system

- Multi function LCD display:
- engine information
 - maintenance information
 - diagnosis messages



Engine ECU Interface

ACCESORIES

Standard engine package

- Standard engine package
- Exhaust mixing elbow [L-type]
- Air heater

Optional engine package

- Fuel/water separator
- High-riser mixing elbow [instead of L-elbow]
- Lub oil evacuation pump
- Remote oil filter opposite side
- Air vent for coolant tank
- Flexible mounts

ELECTRONIC CONTROL SYSTEM

Standard electronic control system

- CANBUS-NMEA 2000 electronic control system
- Ignition panel with rocker switches
- Multi-function LCD display
- Electronic control head

Optional electronic control system:

- Second station kit for flybridge
- Ignition panel with keyswitch
- Extension wire harnesses
- Various control heads
- Trolling mode kit

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



6LY3-ETP Series

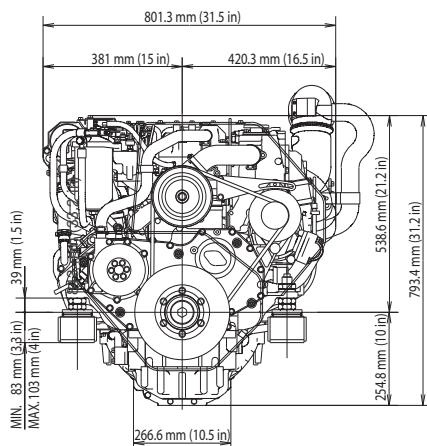
Configuration	24 valve, 4-stroke, vertical, water-cooled diesel engine	
Maximum output at crankshaft	353 kW@3300 rpm	[480 HP@3300 rpm]
Displacement	5.813 ltr	[354 cu in]
Bore x stroke	106 mm x 110 mm	[4.17 in x 4.33 in]
Cylinders	6 in line	
Combustion system	Direct injection	
Aspiration	Turbocharged with seawater cooled intercooler	
Starting system	Electric starting 12V - 3 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 flywheel side	
Dry weight without gear	640 kg	[1411 lbs]
Environmental	EU: RCD	EMC
	US: EPA Tier2	
	IMO: MARPOL 73/78 Annex VI	
Engine mounting	Rubber type flexible mounts	

NOTE:

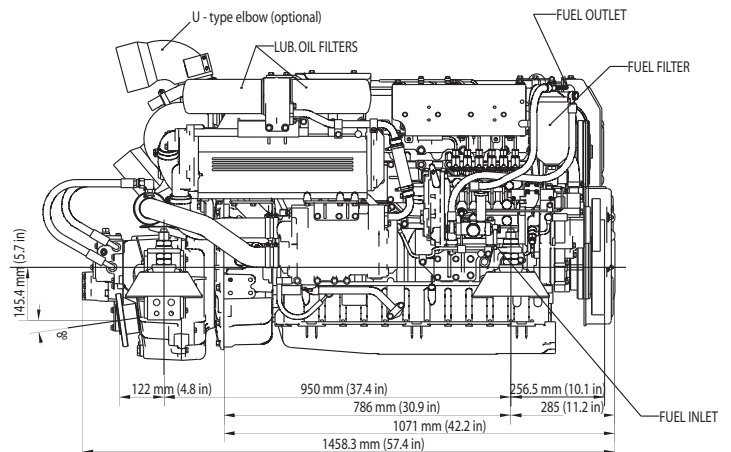
Fuel condition: Density at 15°C = 0.86 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
 Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
 Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Front view



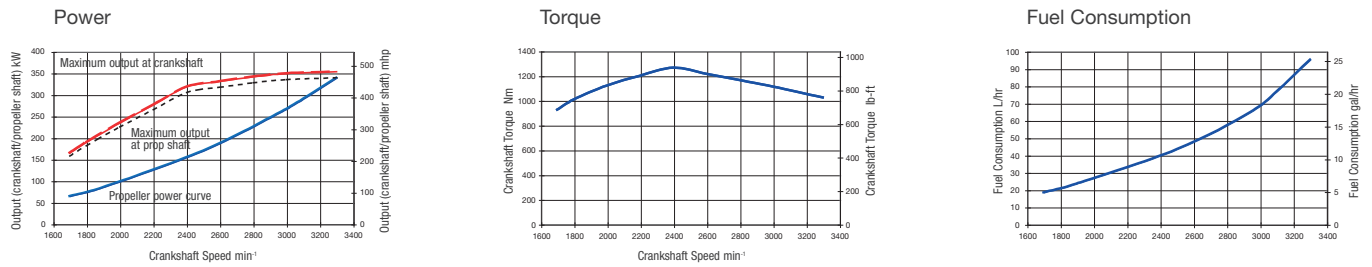
Right side view



6LY3-ETP with Yanmar KMH61A marine gear



PERFORMANCE CURVES



MARINE GEARS / DRIVE

Model	KMH61A			KMH61V			
Type	Hydraulically actuated multi-disc clutch			Hydraulically actuated multi-disc clutch			
Dry weight	78 kg [172 lbs]			83.9 kg [185 lbs]			
Reduction ratio [fwd/asn]	1.55/1.55	2.04/2.04	2.43/2.43	1.24/1.24	1.49/1.49	1.98/1.98	2.43/2.43
Propeller speed [fwd/asn]	2129/2129	1618/1618	1358/1358	2661/2661	2215/2215	1666/1666	1358/1358
Direction of rotation [propeller shaft - fwd]	Clockwise & Counterclockwise viewed from flywheel side			Clockwise & Counterclockwise viewed from flywheel side			
Dry weight engine and gear/drive	718 kg [1583 lbs]			723.9 kg [1596 lbs]			

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

INSTRUMENT PANELS



Multi function LCD display:
 - engine information
 - maintenance information
 - diagnosis messages

ACCESORIES

Standard engine package

- Alternator 12V - 80A
- Exhaust mixing elbow [L-type]
- Air heater

Optional engine package

- Fuel/water separator
- High-riser mixing elbow [instead of L-elbow]
- Lub oil evacuation pump
- Remote oil filter opposite side
- Air vent for coolant tank
- Flexible mounts

ELECTRONIC CONTROL SYSTEM

Standard electronic control system

- CANBUS-NMEA 2000 electronic control system
- Ignition panel with rocker switches
- Multi-function LCD display
- Electronic control head

Optional electronic control system:

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