



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 6.6 kW@3600 rpm [9 mhp@3600 rpm]

0.318 L [19.41 cu in]

75 mm x 72 mm [2.95 in x 2.83 in]

1, vertical

system Indirect injection [special swirl type pre-combustion chamber]

Natural aspiration

Electric starting 12V - 1.0 kW with manual combination

12V - 40A

Direct seawater cooling by rubber impeller seawater pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

71 kg [156,5 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 2

Rubber type flexible mounting

NOTE:

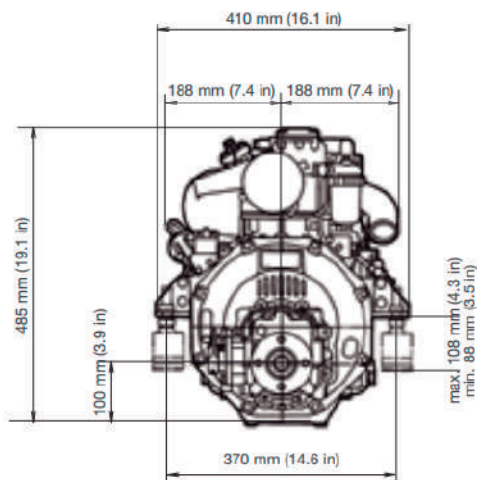
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP

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

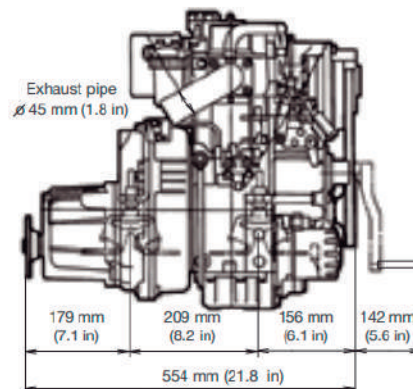
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view

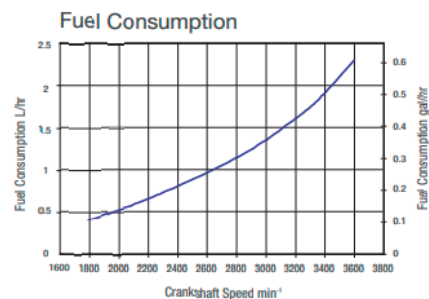
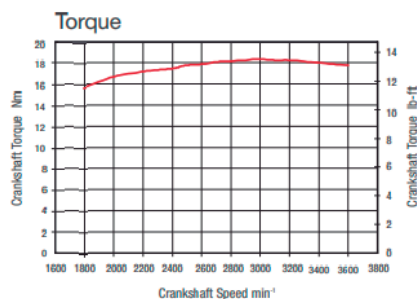
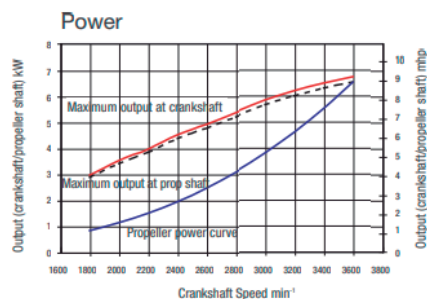


Right side view



1GM10 with KM2P-1 marine gear

PERFORMANCE CURVES

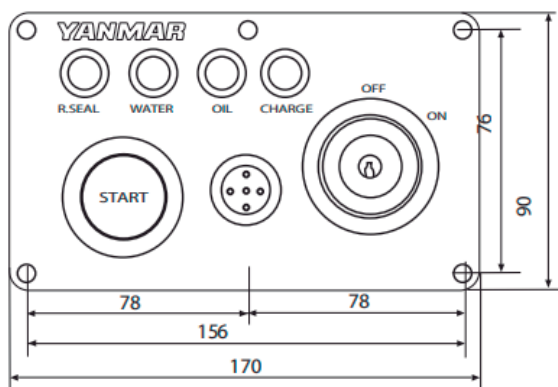


MARINE GEARS/DRIVE*

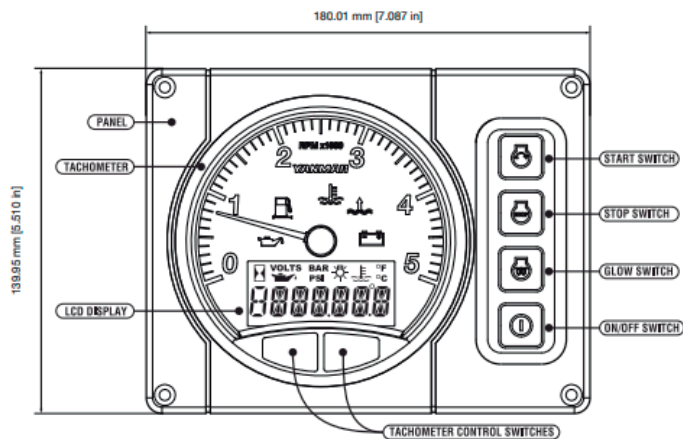
Model	KM2P-1 (parallel)			Saildrive [SD25]
Type	Mechanical cone clutch			Constant mesh gear with dog clutch
Dry weight	9.8 kg [22 lbs]			30 kg [66 lbs]
Reduction Ratio [fwd/rev]	2.21/3.06	2.62/3.06	3.22/3.06	2.64/2.64
Propeller speed [fwd/rev]	1629/1176	1374/1176	1118/1176	1364/1364
Direction of rotation (viewed from stern)	Clockwise			Counterclockwise
Dry weight - engine & gear	81 kg [178 lbs]			104 kg [229 lbs]
Length engine and gear/drive	554 mm [22 in]			723 mm [29 in]

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

INSTRUMENT PANELS



A-Type panel



B20-panel

ACCESSORIES

Standard Engine Package

- Sensor for instrument panel
- Rubber type flexible mounts
- Exhaust mixing elbow [L-type]
- Alternator 40A

Optional Accessories

- A-Type 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.

NEREX



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 10.0 kW@3600 rpm [13.6 mhp@3600 rpm]

0.570 L [34.7 cu in]

70 mm x 74 mm [2.75 in x 2.91 in]

In-line

Indirect injection

Natural aspiration

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling with heat exchanger

Enclosed, forced lubricating system

Counterclockwise viewed from stern

103 kg [227 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 3

Rubber type flexible mounting

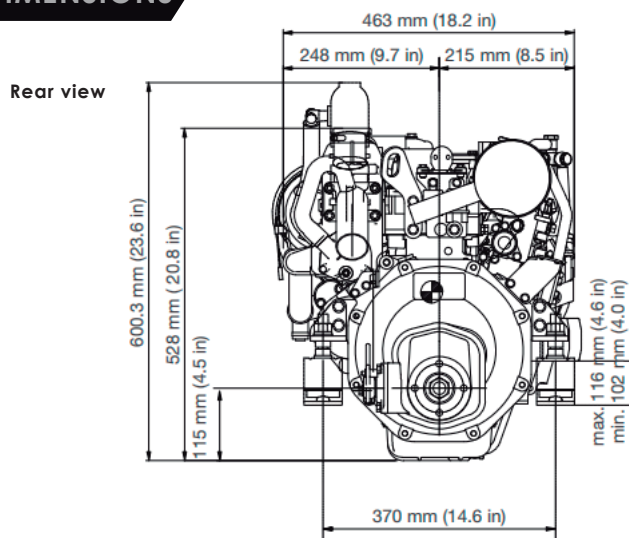
NOTE:

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

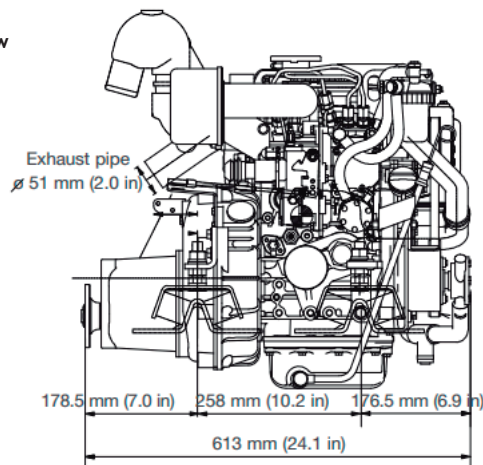
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

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

DIMENSIONS

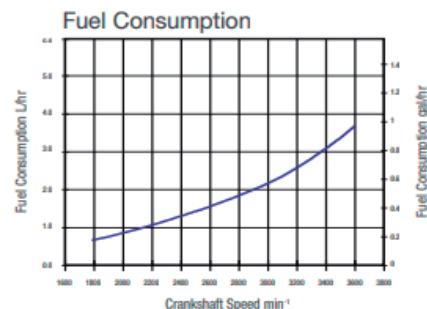
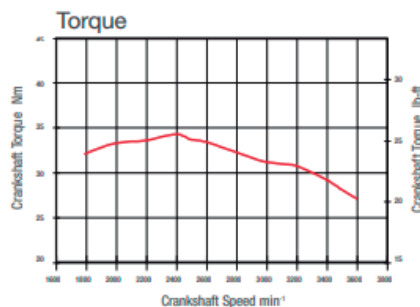
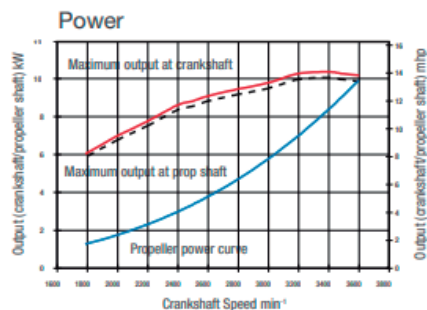


Right side view



2YM15 with KM2P-1 marine gear

PERFORMANCE CURVES

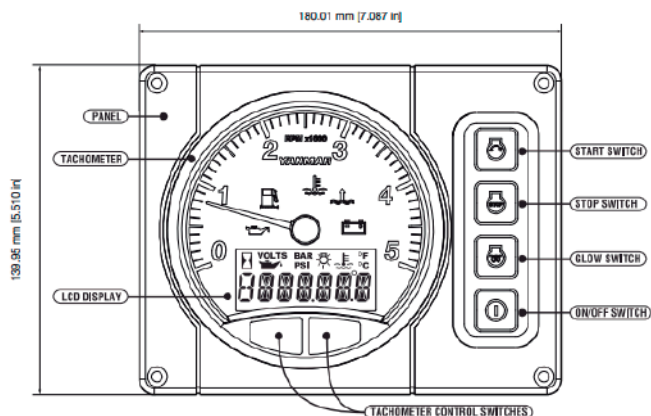


MARINE GEARS/DRIVE*

Model	KM2P-1 (parallel)			Saildrive [SD25]
Type	Mechanical cone clutch			Constant mesh gear with dog clutch
Dry weight	9.8 kg [22 lbs]			30 kg [66 lbs]
Reduction Ratio [fwd/rev]	2.21/3.06	2.62/3.06	3.22/3.06	2.64/2.64
Propeller speed [fwd/rev]	1629/1176	1374/1176	1118/1176	1363/1363
Direction of rotation (viewed from stern)	Clockwise			Counterclockwise
Dry weight - engine & gear	113 kg [249 lbs]			134 kg [295 lbs]
Length engine and gear/drive	613 mm [24 in]			793 mm [31 in]

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

INSTRUMENT PANELS



B20-panel

ACCESSORIES

Standard Engine Package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- 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
- Dual Harness (For 2nd Station)
- Propeller cone nut kit SD25

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





Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 15.3 kW@3600 rpm [21 mhp@3600 rpm]

0.854 L [52.1 cu in]

70 mm x 74 mm [2.76 in x 2.91 in]

In-line

Indirect injection

Natural aspiration

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling with heat exchanger

Enclosed, forced lubricating system

Counterclockwise viewed from stern

110 kg [243 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 3

Rubber type flexible mounting

NOTE:

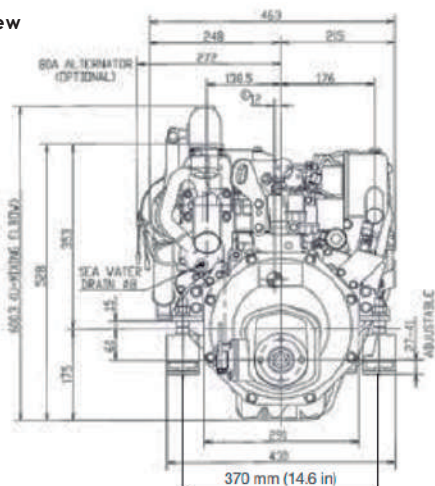
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP

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

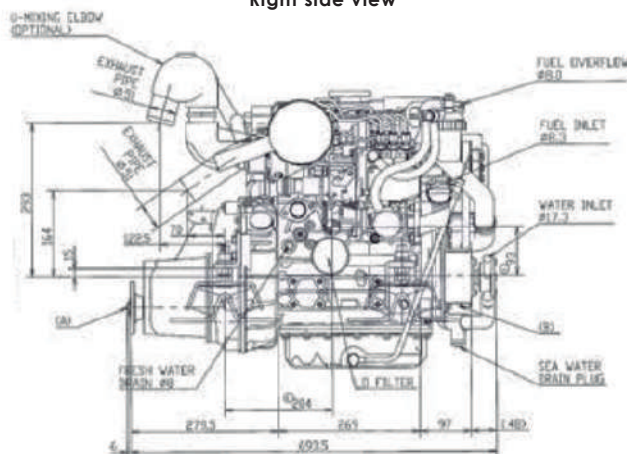
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view

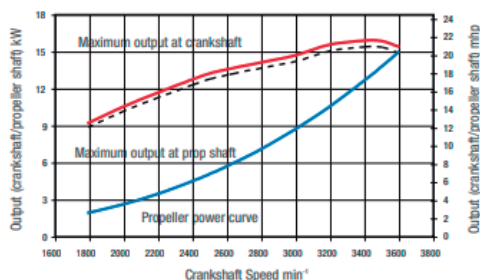


Right side view

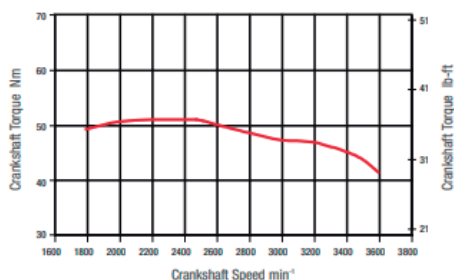


PERFORMANCE CURVES

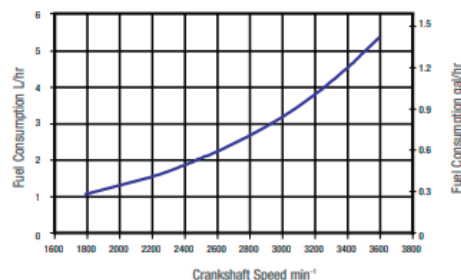
Power



Torque



Fuel Consumption

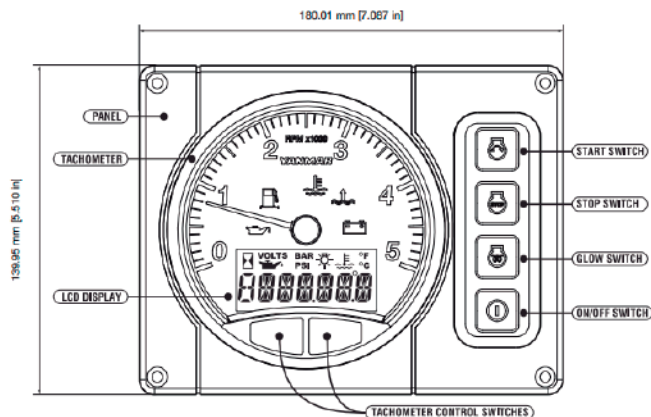


MARINE GEARS/DRIVE*

Model	KM2P-1 (parallel)			Saildrive [SD25]
Type	Mechanical cone clutch			Constant mesh gear with dog clutch
Dry weight	9.8 kg [22 lbs]			30 kg [66 lbs]
Reduction Ratio [fwd/rev]	2.21/3.06	2.62/3.06	3.22/3.06	2.64/2.64
Propeller speed [fwd/rev]	1629/1176	1374/1176	1118/1176	1364/1364
Direction of rotation (viewed from stern)	Clockwise			Counterclockwise
Dry weight - engine & gear	120 kg [265 lbs]			144 kg [317 lbs]
Length engine and gear/drive	693 mm [27 in]			873 mm [34 in]

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

INSTRUMENT PANELS



B20-panel

ACCESSORIES

Standard Engine Package

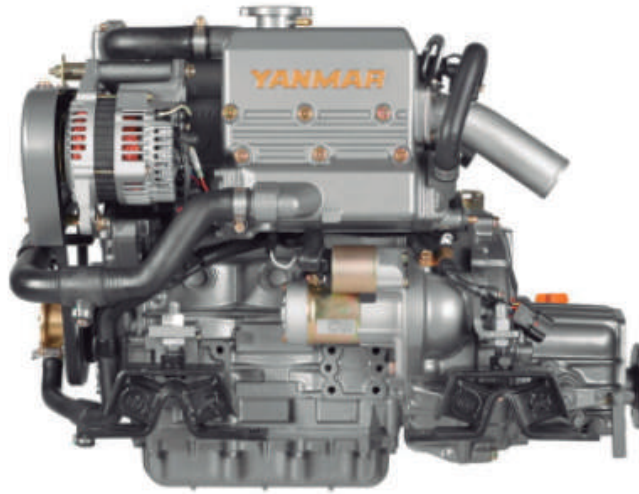
- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- Belt safety cover
- Expansion tank for fresh water cooling system
- Alternator 12V - 125A
- Electric stop solenoid
- Operation manual
- Sensor for instrument panel
- B20-panel

Optional Accessories

- Extension wire harness [4m, 6m, 10m]
- High-riser mixing elbow [instead of L-elbow]
- Hot water kit with cocks
- Dual Harness (For 2nd Station)
- Propeller cone nut kit SD25

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





Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 21.3 kW@3200 rpm [29.1 mhp@3200 rpm]

1.266 L [77 cu in]

80 mm x 84 mm [3.1 in x 3.3 in]

In-line

Indirect injection

Natural aspiration

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling with heat exchanger

Enclosed, forced lubricating system

Counterclockwise viewed from stern

127 kg [280 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 3

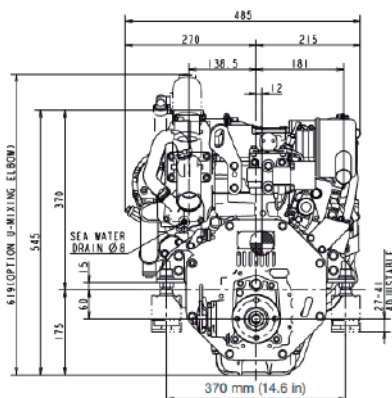
Rubber type flexible mounting

NOTE:

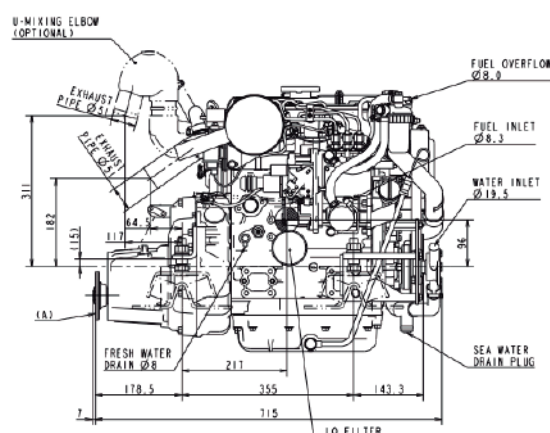
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665:2006]
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



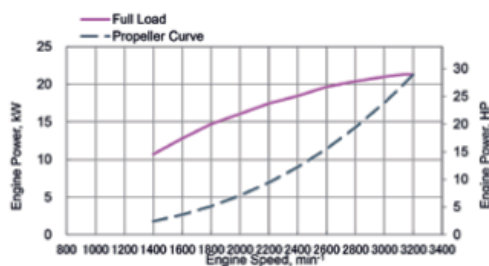
Right side view



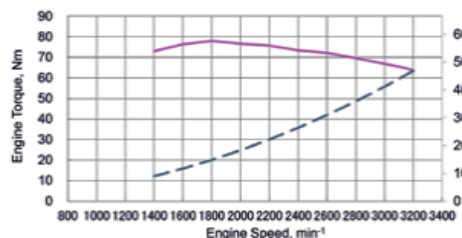
3YM30AE with KM2P-1 marine gear

PERFORMANCE CURVES

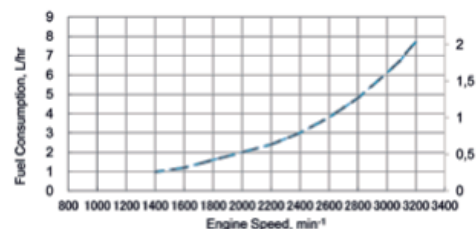
Power



Torque



Fuel Consumption

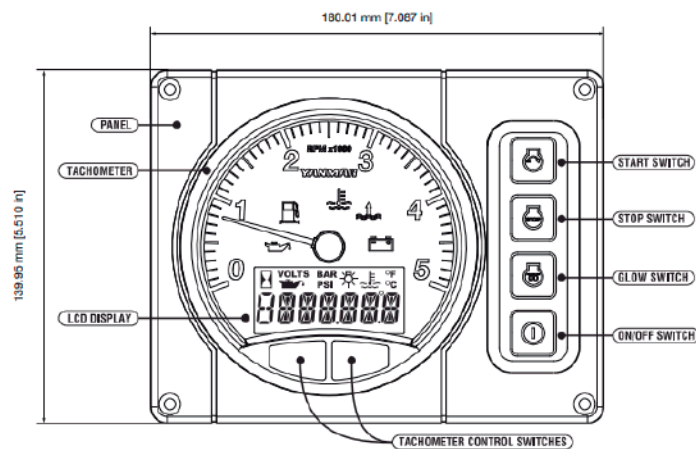


MARINE GEARS/DRIVE*

Model	KM2P-1 (parallel)		Saildrive [SD25]
Type	Mechanical cone clutch		Constant mesh gear with dog clutch
Dry weight	9.8 kg [22 lbs]		30 kg [66 lbs]
Reduction Ratio [fwd/rev]	2.21/3.06	2.62/3.06	2.64/2.64
Propeller speed [fwd/rev]	1629/1176	1374/1176	1212/1212
Direction of rotation (viewed from stern)	Clockwise		Counterclockwise
Dry weight - engine & gear	137 kg [302 lbs]		157 kg [346 lbs]
Length engine and gear/drive	715 mm [28 in]		899 mm [35 in]

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

INSTRUMENT PANELS



B20-panel

ACCESSORIES

Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- 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
- Dual Harness (For 2nd Station)
- Propeller cone nut kit SD25

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





Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 28.7 kW@3000 rpm [39 mhp@3000 rpm]

1.642 L [100 cu in]

88 mm x 90 mm [3.46 in x 3.54 in]

In-line

Direct injection

Natural aspiration

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal fresh water pump and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

173 kg [381 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 2

Rubber type flexible mounting

NOTE:

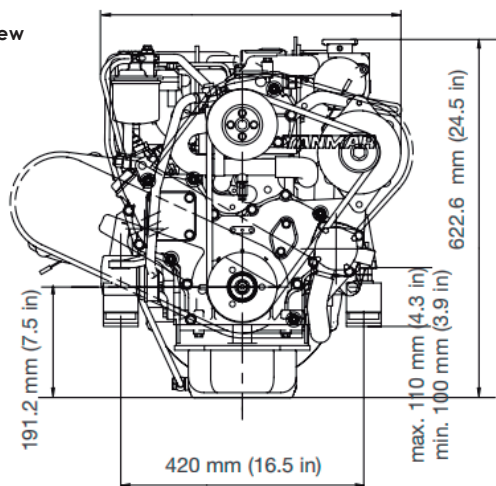
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP

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

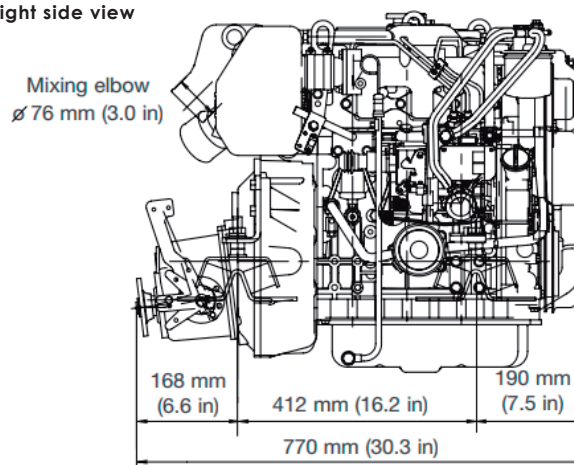
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

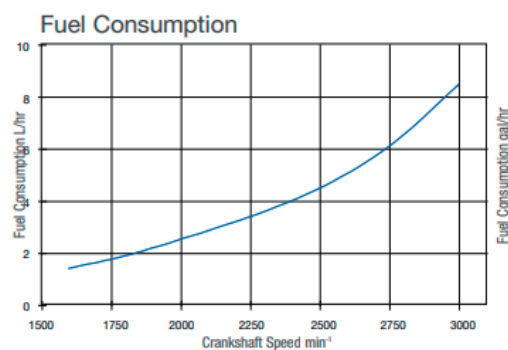
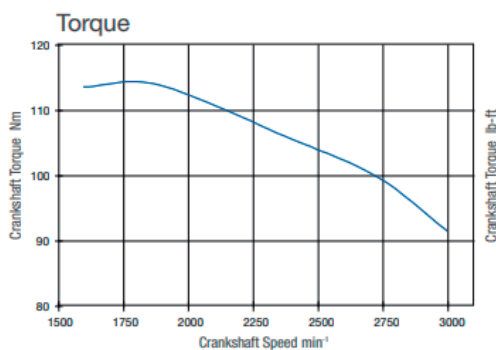
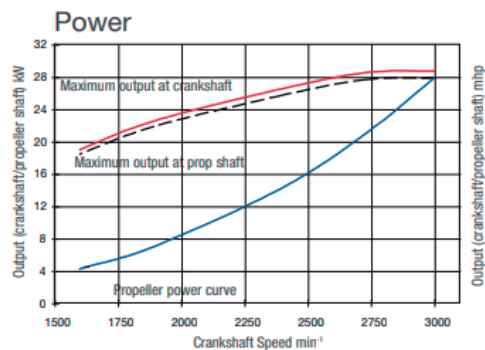
Rear view



Right side view



PERFORMANCE CURVES



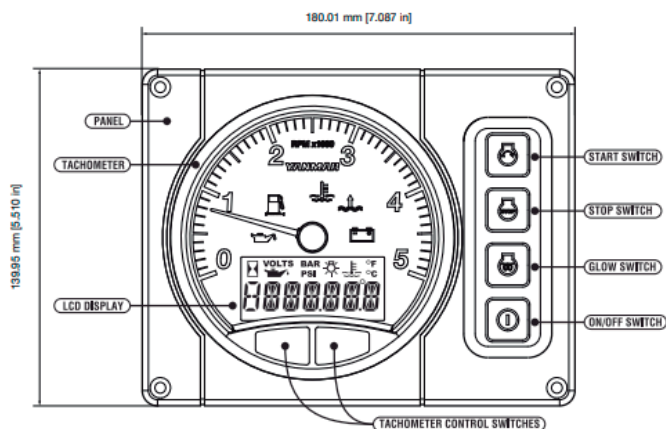
MARINE GEARS/DRIVE*

Model	KM35P		KM35A (Down Angle 7°)		SAILDRIVE (SD60)	
Type	Mechanical cone clutch		Mechanical cone clutch		Mechanical wet type multi-disc	
Dry weight**	12 kg [27 lbs]		13 kg [29 lbs]		43.6 kg [88 lbs]	
Reduction Ratio [fwd/rev]	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/rev]	1271/949	1149/949	1288/987	1136/987	1345/1345	1205/1205
Direction of rotation (viewed from the stern)	Clockwise		Clockwise		Clockwise & Counterclockwise	
Dry weight - engine & gear**	185 kg [408 lbs]		186 kg [410 lbs]		217 kg [478 lbs]	
Length engine and gear/drive	777 mm [31 in]		776 mm [31 in]		1019 mm [40 in]	

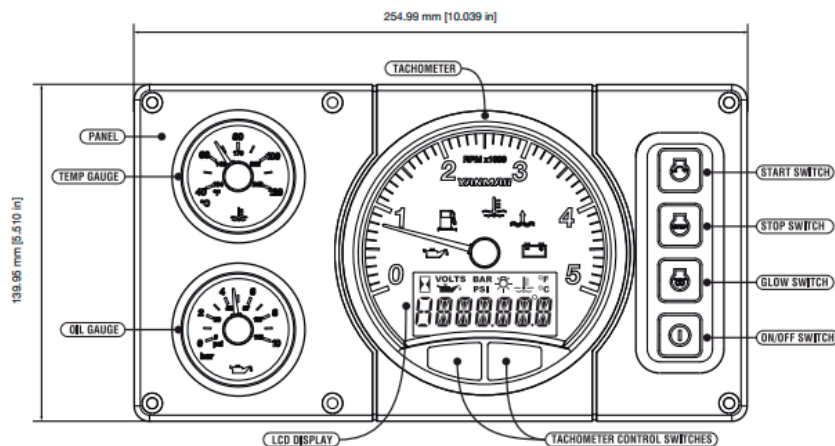
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B20-panel



C30-panel

ACCESSORIES

Standard Engine Package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- 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

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
- Dual Harness (For 2nd Station)
- 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.

NEREX

3JH40 Common Rail

MARINE COMMON RAIL ENGINES



Configuration

Maximum output at crankshaft*

Displacement

Bore x stroke

Cylinders

Combustion

Low idle rpm

Aspiration

Starting system

Alternator

Cooling system

4-stroke, vertical, water-cooled diesel engine

29.4 kW@3000 rpm [40 mhp@3000 rpm]

1.642 L [100 cu in]

88 mm x 90 mm [3.46 in x 3.45 in]

3 in-line

system Direct injection with Bosch common rail system

800 rpm

Naturally aspirated

Electric starting 12V – 1.4 kW

Valeo 12V - 125A

Fresh water cooling by centrifugal fresh water pump

Seawater cooling by rubber impeller seawater pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

192 kg [423lbs]

EU: RCD 2, BSO II, EMC US: EPA Tier 3

Rubber type flexible mounting

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear**

Emission compliance

Engine mounting

NOTE:

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

: 1 kW = 1.3596 mhp = 1.3410 HP

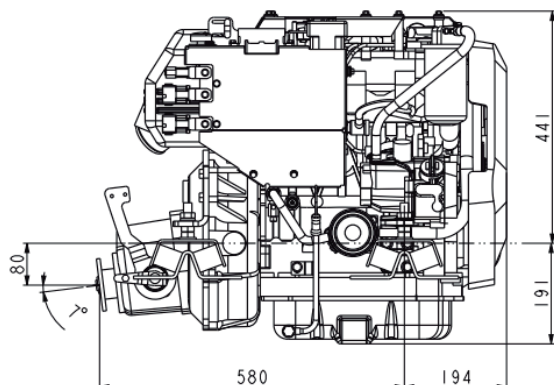
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

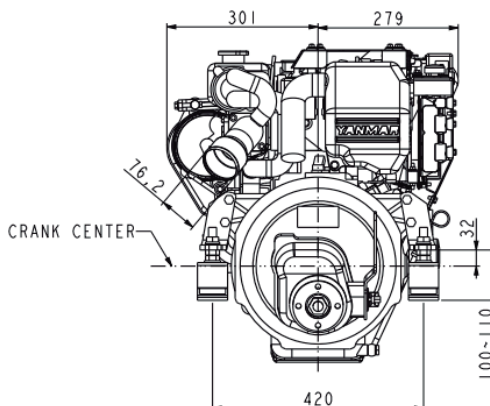
Technical data is according to ISO 8665: 2006

DIMENSIONS

Right side view



Rear view

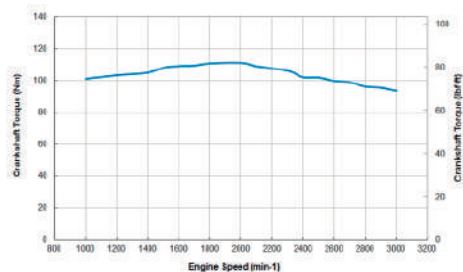


3JH40 with KMH35A marine gear

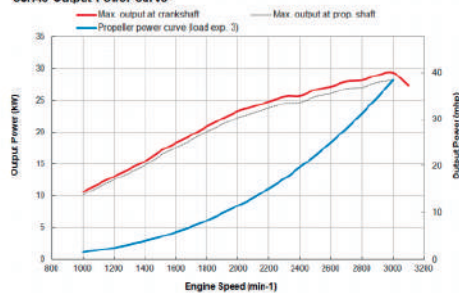
NEREX

PERFORMANCE CURVES

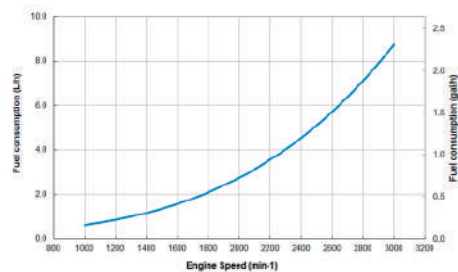
3JH40 Torque curve



3JH40 Output Power curve



3JH40 Fuel consumption (propload exp 3.0)



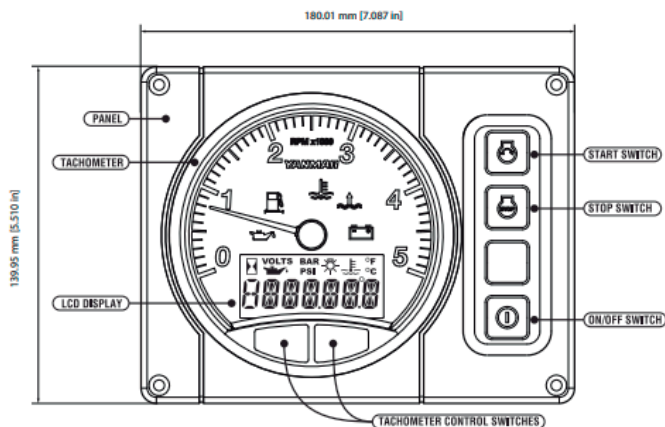
MARINE GEARS/DRIVE*

Model	KM35P [parallel]		KM35A [down angle: 7°]		Saildrive SD60	
Type	Mechanical cone clutch		Mechanical cone clutch		Mechanical wet multi-disc clutch	
Dry Weight**	12 kg [26 lbs]		13 kg [29 lbs]		44 kg [97 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]	1232/921 1114/921		1246/955 1103/955		1304/1304 1167/1167	
Direction of rotation [viewed from stern]	Clockwise		Clockwise		Clockwise & counter clockwise	
Dry weight - engine & gear	204 kg [450 lbs]		205 kg [452 lbs]		236 kg [520 lbs]	
Length engine and gear/drive	776 mm [30.6 in]		774 mm [30.5 in]		705 mm [27.8 in]	

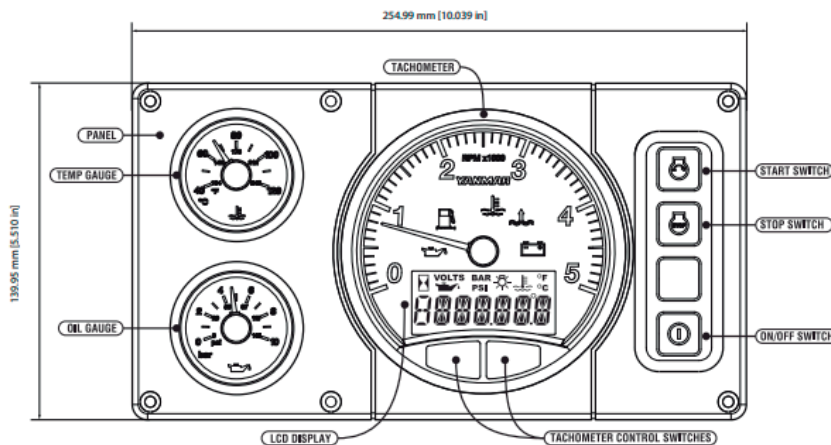
*For other configurations, consult your local Yanmar distributor.

**Dry weight includes cooler and brackets

INSTRUMENT PANELS



B25 STANDARD



C35 OPTIONAL

ACCESSORIES

Standard Package

- Exhaust mixing elbow [L-type]
- Alternator 12V - 125A
- B25 panel
- Oil sensor for instrument panel
- Mechanical throttle sensor
- Set of flexible engine mounts
- Fuel pre-filter with water separator
- Fresh water expansion tank
- Belt safety cover
- Engine topcover for protection
- Operation manual

Optional

- High-riser mixing elbow [instead of L-elbow]
- Secondary alternator 12V - 125A or 24V - 60A
- Semi 2-pole
- Hot water kit with cocks
- Extension harness [3m, 5m, 10m]
- C35 panel
- VC10 Vessel Control System
- Second station
- NMEA2000 Engine monitoring system
- Propeller cone nut kit SD60
- Extension saildrive leg [75mm]

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



4JH45 Common Rail Series

MARINE DIESEL ENGINES



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 33.1 kW@3000 rpm [45 mhp@3000 rpm]

2.190 L [134 cu in]

88 mm x 90 mm [3.46 in x 3.54 in]

In-line

Direct injection with Bosch common-rail system

Natural aspiration

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal water pump

and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

220 kg [485 lbs]

EU: RCD 2

BSO II EMC

US: EPA Tier 3

Rubber type flexible mounting

NOTE:

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

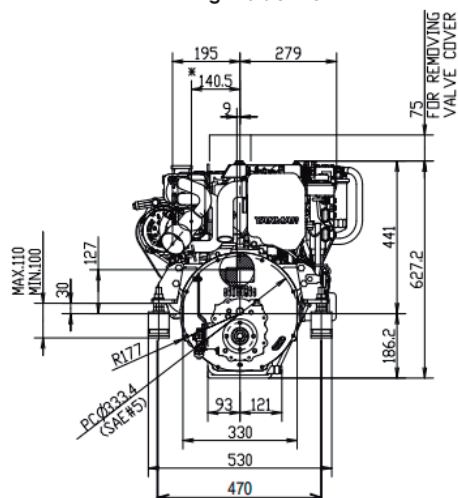
: 1 kW = 1.3596 mhp = 1.3410 HP

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

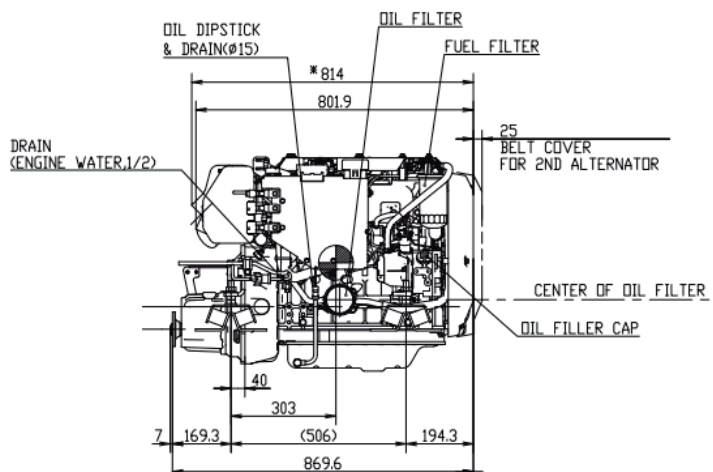
Technical data is according to ISO 8665: 2006

DIMENSIONS

Right side view



Rear view

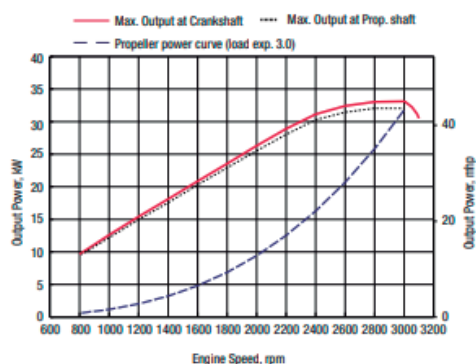


4JH45 with KM35P marine gear

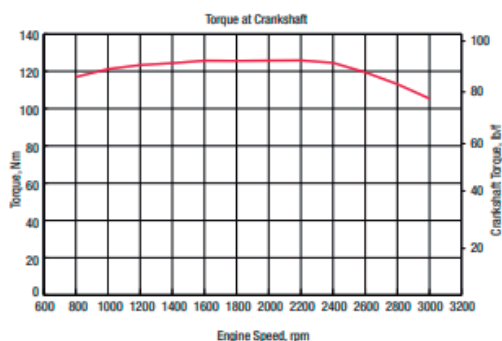
MEREK

PERFORMANCE CURVES

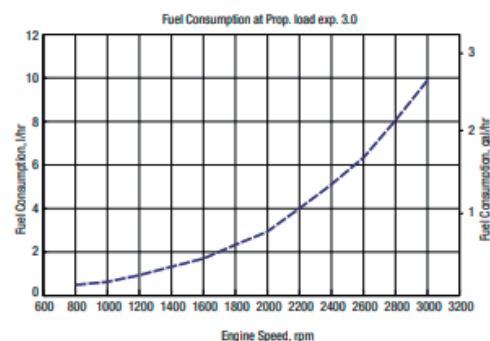
Power



Torque



Fuel Consumption



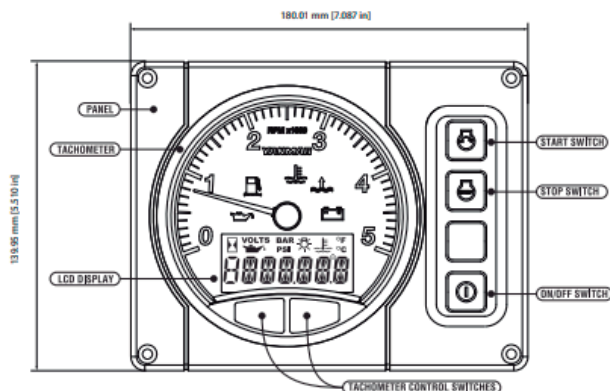
MARINE GEARS/DRIVE*

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]		30 kg [66 lbs]			28 kg [61 lbs]		43.6 kg [96 lbs]	
Reduction Ratio [fwd/rev]	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/rev]	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 (viewed from stern)	Clockwise		Clockwise		Clockwise & counterclockwise			Clockwise		Clockwise & counterclockwise	
Dry weight - engine & gear**	232 kg [511 lbs]		233 kg [513 lbs]		250 kg [551 lbs]			248 kg [547 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]	

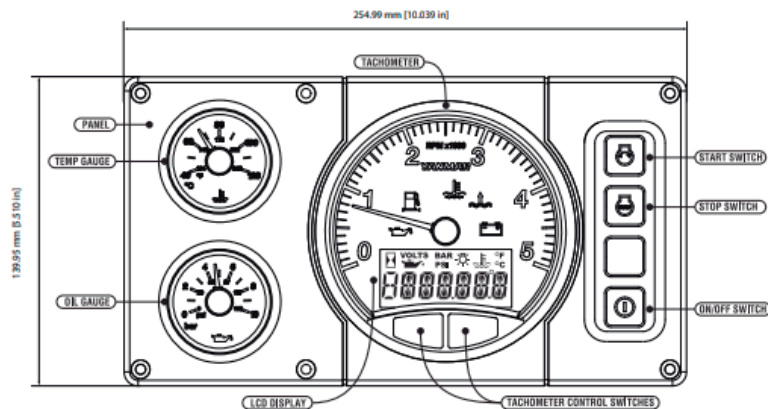
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B25-panel



C35-panel

ACCESSORIES

Standard engine package

- Set of flexible engine mounts
- Exhaust mixing elbow [L-type]
- 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
- Emergency stop switch

Optional Accessories

- 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
- Dual Harness (For 2nd Station)
- C35-panel
- Oil pressure sensor for C35-panel
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60
- NMEA 2000 convertor for Engine monitoring system

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

NEREX



DTORQUE TURBO DIESEL OUTBOARD ENGINE – 50 HP

The Neander Dtorque turbo diesel outboard engine sets a new benchmark in diesel engineering. The 804 ccm twin-cylinder aluminum powerhead delivers 50 hp at the propeller shaft.

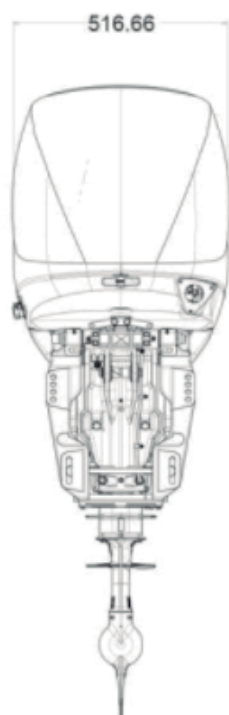
With a remarkable torque output, peaking at 111 Nm at 2,500 rpm, the Dtorque's performance surpasses even the leading 70 hp fuel injected, four-stroke gasoline outboards.

It offers exceptional capability when powering heavy loads at low rpm, as well as enabling the boat to get on plane quickly. This can be achieved, with excellent fuel efficiency, averaging less than 12 litres per hour at wide open throttle.

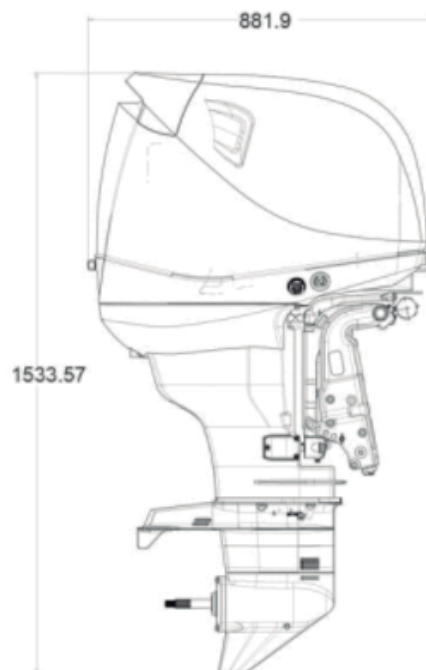
Power	36,8 kW/50 hp at 4.000 min-1
Max. Torque	111 Nm at 2000 - 3000 min-1
Engine Type	4-Stroke turbo diesel
Balance	Dual counter-rotating crankshafts
Swept Volume	804 ccm
Bore x Stroke	80 x 80 mm
No. Cylinders	2 In-Line, twin
Intake	Water cooled turbo charger and charge air cooling
Lubrication	Integrated dry sump - pressure lubricated
Fuel	Diesel
Injection	Bosch common rail direct injection
Starting	Electric
Alternator	Standard 12 V / 300 W
Cooling	NEANDER Active Thermo-Management System (ATMS)
Exhaust	Integrated underwater thru-hub propeller
Steering	Tiller / remote control, optional
Suspension	Silent-block-controlled compression and traction
Trim	Power trim
Shift	Mechanical - dog-clutch gearing
Transmission	Ratio 13/27 (2.07:1)
Available Shaft	Versions 20" (L) and 25" (XL)
Standard Propeller Type	3-blade with built-in damper
Weight	Basic version 175 kg (dry)

DIMENSIONS

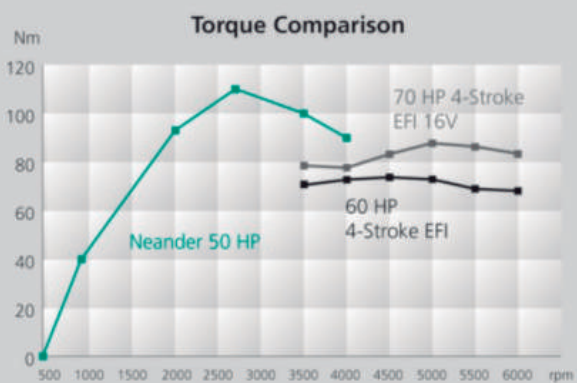
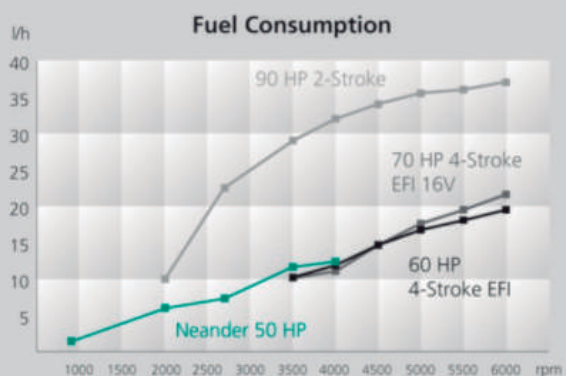
Dtorque111



Dtorque111



PERFORMANCE CURVES



PERFORMANCE CURVES

The Dtorque exceeds EU RDC Stage II emissions regulations and is SOLAS certified.





Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 39.6 kW@3000 rpm [53.8 mhp@3000 rpm]

2.190 L [134 cu in]

88 mm x 90 mm [3.46 in x 3.54 in]

In-line

Direct injection

Natural aspiration

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal fresh water pump and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

201 kg [443 lbs]

EU: RCD 1 BSO II EMC

US: EPA Tier 2

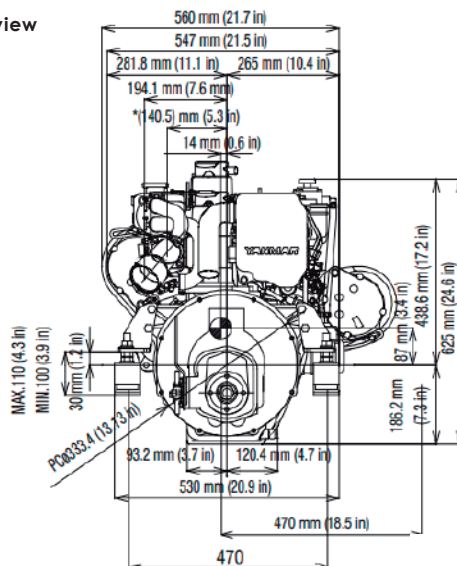
Rubber type flexible mounts

NOTE:

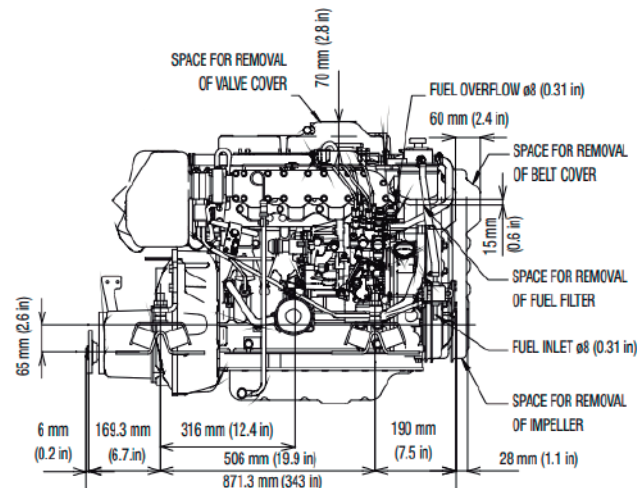
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

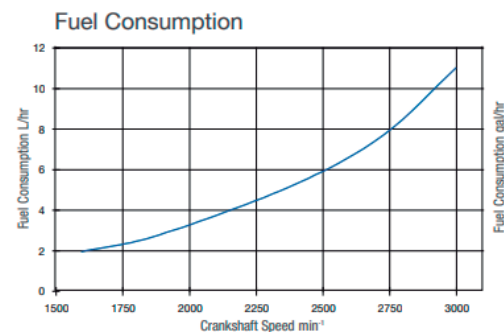
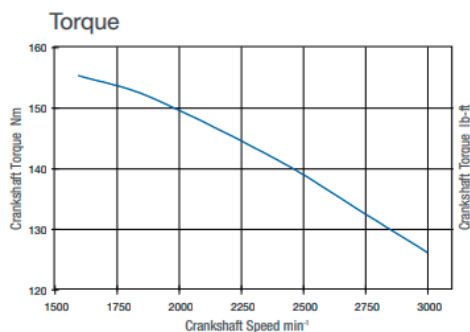
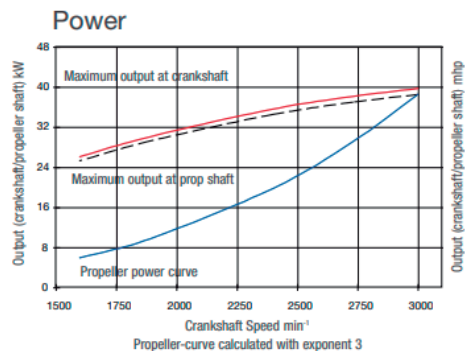
Rear view



Right side view



PERFORMANCE CURVES



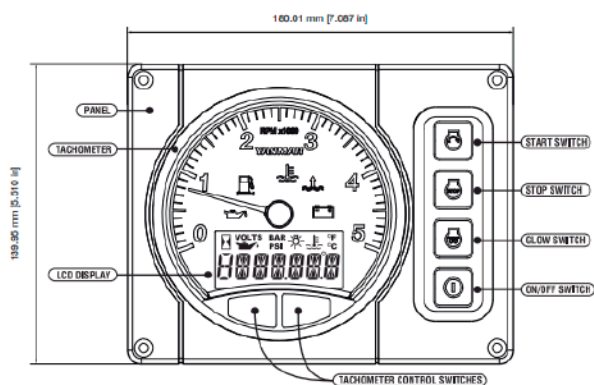
MARINE GEARS/DRIVE*

Model	KM35P		KM35A2 [down angle: 7°]		KM4A1-5 [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]		30 kg [66 lbs]			28 kg [61 lbs]		43.6 kg [88 lbs]	
Reduction Ratio [fwd/rev]	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/rev]	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 (viewed from stern)	Clockwise		Clockwise		Clockwise & counterclockwise			Clockwise		Clockwise & counterclockwise	
Dry weight - engine & gear**	213 kg [469.5 lbs]		214 kg [471.7 lbs]		230 kg [443 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]	

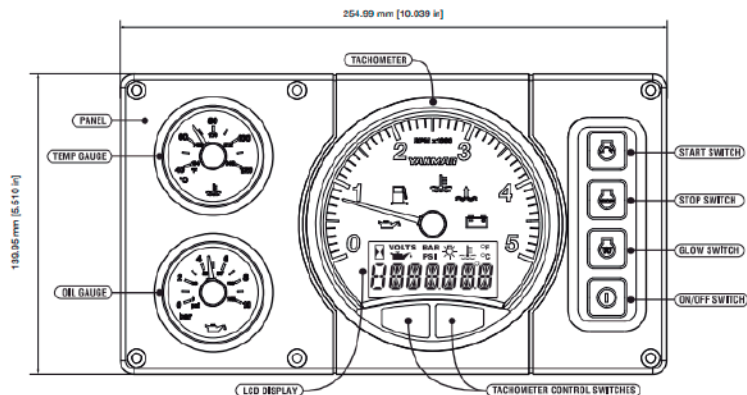
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B20-panel



C30-panel

ACCESSORIES

Standard engine package

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

Optional accessories

- 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
- Dual Harness (For 2nd Station)
- 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.

VEREX

4JH57 Common Rail Series

MARINE DIESEL ENGINES



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 41.9 kW@3000 rpm [57 mhp@3000 rpm]

2.190 L [134 cu in]

88 mm x 90 mm [3.46 in x 3.54 in]

In-line

Direct injection with Bosch common-rail system

Natural aspiration

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal fresh water pump and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

220 kg [485 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 3

Rubber type flexible mounting

NOTE:

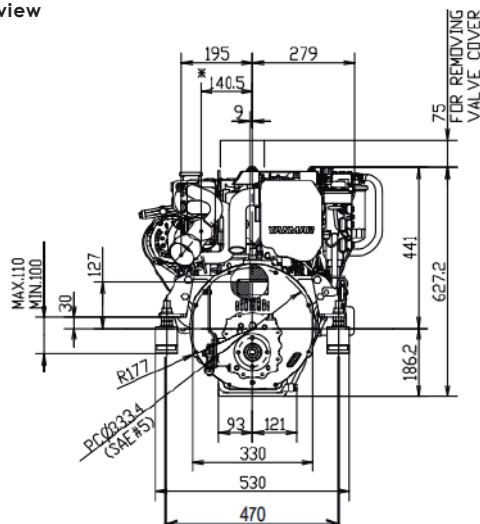
Fuel condition: Density at 15°C = 0.84 g/cm³ ; 1 kW = 1.3596 mhp = 1.3410 HP

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

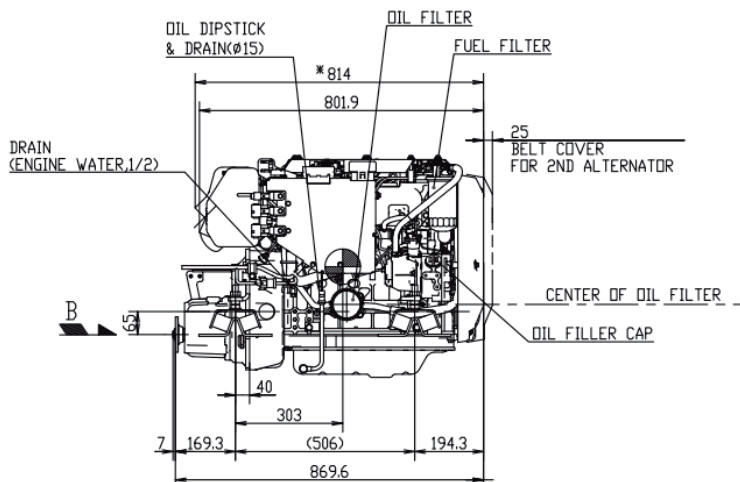
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



Right side view

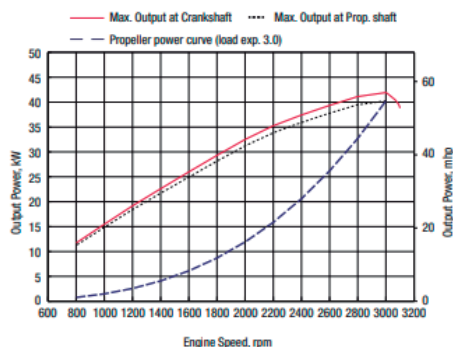


4JH57 with KM35P marine gear

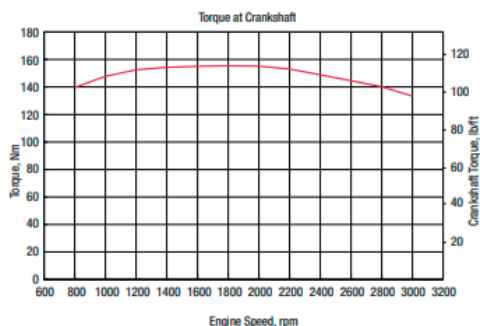
NEREX

PERFORMANCE CURVES

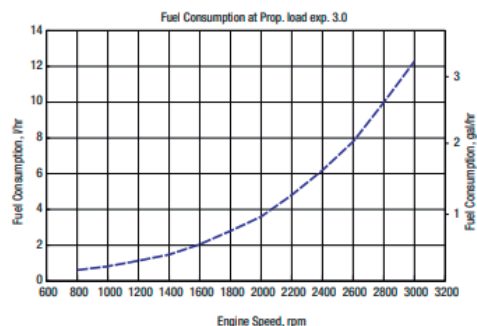
Power



Torque



Fuel Consumption



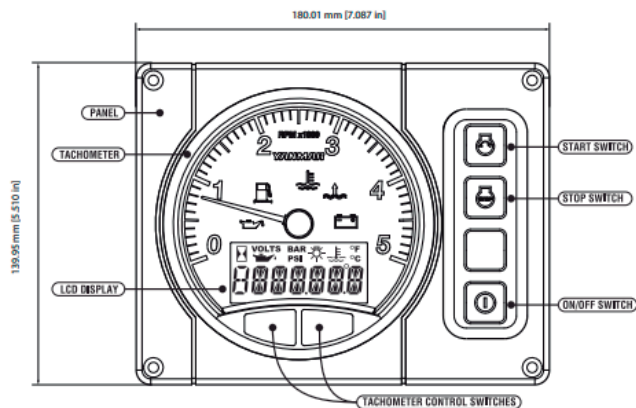
MARINE GEARS/DRIVE*

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]		30 kg [66 lbs]			28 kg [61 lbs]		43.6 kg [96 lbs]	
Reduction Ratio [fwd/rev]	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/rev]	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 (viewed from stern)	Clockwise		Clockwise		Clockwise & counterclockwise			Clockwise		Clockwise & counterclockwise	
Dry weight - engine & gear**	232 kg [511 lbs]		233 kg [513 lbs]		250 kg [551 lbs]			248 kg [547 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]	

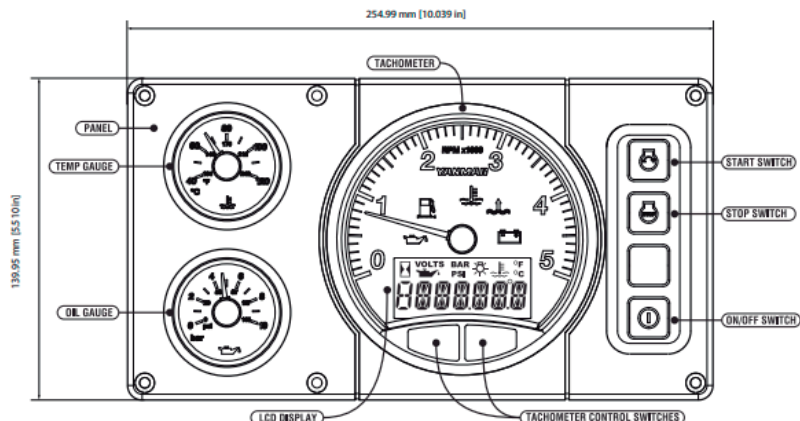
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B25-panel



C35-panel

ACCESSORIES

Standard engine package

- Set of flexible engine mounts
- Exhaust mixing elbow [L-type]
- 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
- Emergency stop switch

Optional accessories

- 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
- Dual Harness (For 2nd Station)
- C35-panel
- Oil pressure sensor for C35-panel
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60
- NMEA 2000 convertor for Engine monitoring system

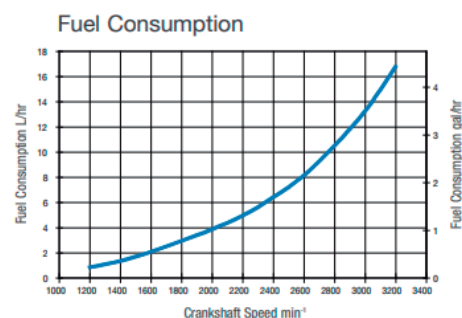
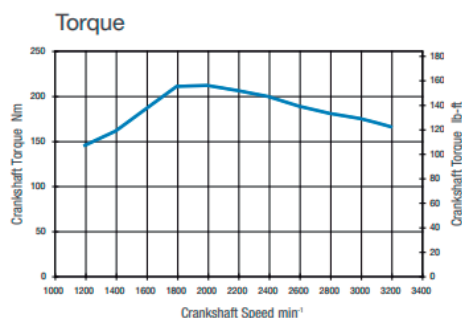
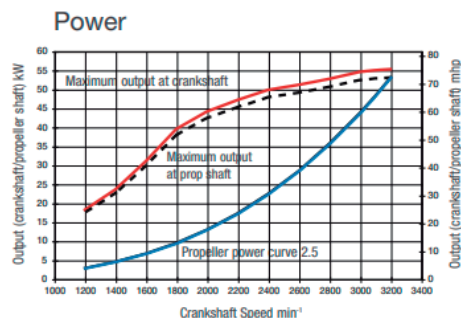
NOTE: All data subject to change without notice. Text and illustrations are not binding.

NEREX

MARINE DIESEL ENGINES



PERFORMANCE CURVES



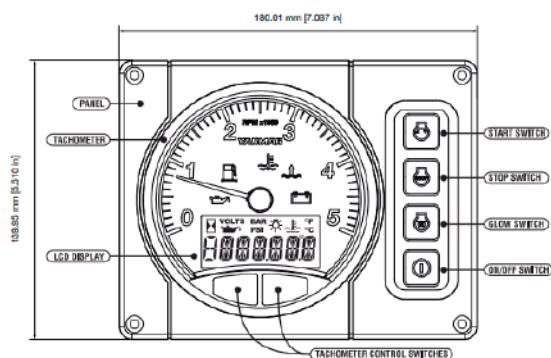
MARINE GEARS/DRIVE*

Model	ZF30M parallel		KM4A2 [down angle: 7°]			KM4A [down angle: 8°]		ZF25A [down angle: 8°]		Saildrive SD60	
Type	Mechanical wet multi-disc clutch		Mechanical wet cone clutch			Hydraulic, wet multi-disc		Hydraulic, wet multi-disc		Mechanical wet type multi-disc	
Dry weight**	28 kg [61 lbs]		28.5 kg [63 lbs]			30 kg [66 lbs]		30 kg [66 lbs]		45.1 kg [99 lbs]	
Reduction Ratio [fwd/rev]	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 [fwd/rev]	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 (viewed from stern)	Clockwise		Clockwise & Counterclockwise			Clockwise & Counterclockwise		Clockwise & Counterclockwise		Clockwise & Counterclockwise	
Dry weight - engine & gear**	235 kg [518 lbs]		237 kg [522 lbs]			238 kg [524 lbs]		237 kg [522 lbs]		262 kg [577 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]	

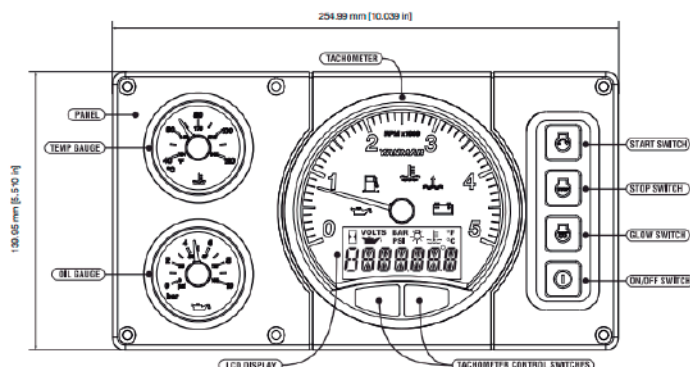
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B20-panel



C30-panel

ACCESSORIES

Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- 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

- 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
- Dual Harness (For 2nd Station)
- 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.

NEREX

4JH80 Common Rail Series

MARINE DIESEL ENGINES



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 58.8 kW@3200 rpm [80 mhp@3200 rpm]

2.000 L [122 cu in]

84 mm x 90 mm [3.31 in x 3.54 in]

In-line

Direct injection with Bosch common-rail system

Turbocharged with intercooler

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal fresh water pump and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

229 kg [505 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 3

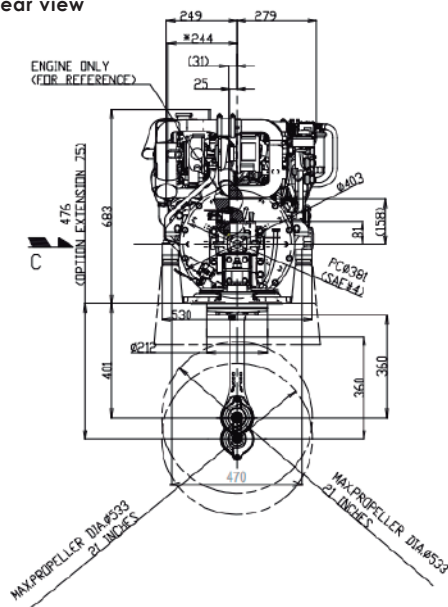
Rubber type flexible mounting

NOTE:

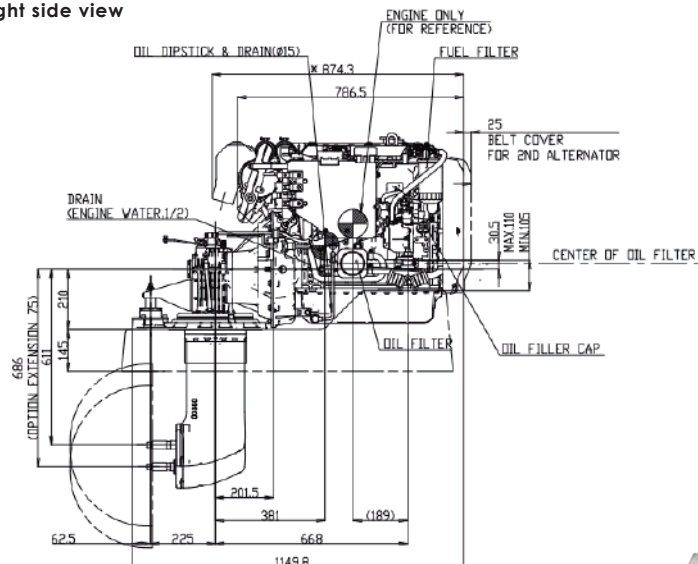
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



Right side view

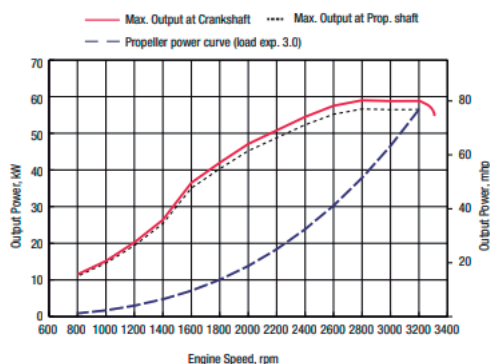


4JH80 with SD60 Sail Drive

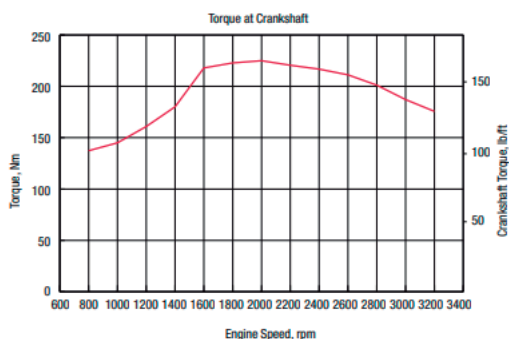
MEREX

PERFORMANCE CURVES

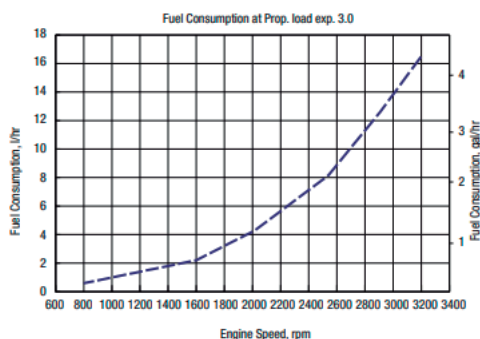
Power



Torque



Fuel Consumption



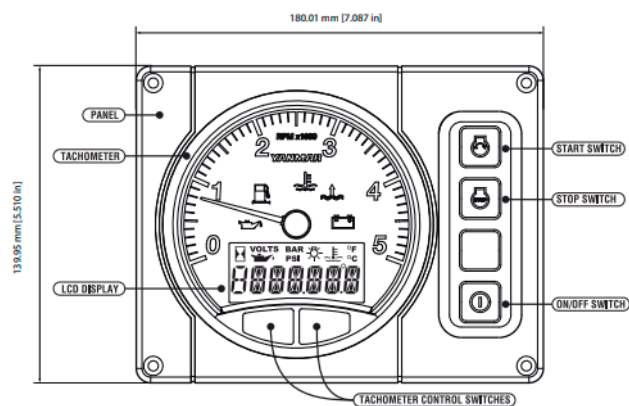
MARINE GEARS/DRIVE*

Model	KMH4A [down angle: 8°]		ZF25A [down angle: 8°]		KM4A2 [down angle: 7°]			ZF30M		Saildrive SD60	
Type	Hydraulic, multi disk clutch		Hydraulic, multi disk clutch		Mechanical cone clutch			Mechanical multi-disc		Mechanical wet type multi-disc	
Dry weight**	30 kg [66 lbs]		24 kg [53 lbs]		28.5 kg [63 lbs]			28 kg [62 lbs]		45 kg [99 lbs]	
Reduction Ratio [fwd/rev]	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/rev]	1569/1569	1306/1306	1658/1658	1290/1290	2177/2175	1495/1494	1217/1216	1488/1212	1185/1212	1488/1212	1185/1212
Direction of rotation (viewed from stern)	Clockwise & counterclockwise		Clockwise & counterclockwise		Clockwise & counterclockwise			Clockwise		Bi-rotation	
Dry weight - engine & gear**	259 kg [571 lbs]		253 kg [558 lbs]		257.5 kg [568 lbs]			256 kg [564 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]	

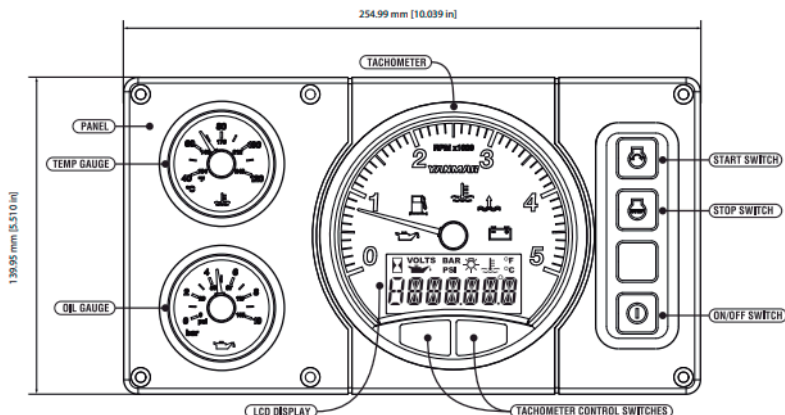
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B25-panel



C35-panel

ACCESSORIES

Standard engine 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
- Emergency stop switch

Optional accessories

- 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
- Dual Harness (For 2nd Station)
- C35-panel
- Oil pressure sensor for C35-panel
- Extension saildrive leg [75 mm]
- Propeller cone nut kit SD60
- NMEA 2000 convertor for Engine monitoring system

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

NEREX



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 80.9 kW@3200 rpm [110 mhp@3200 rpm]

1.995 L [121.7 cu in]

84 mm x 90 mm [3.31 in x 3.54 in]

In-line

Direct injection

Turbocharged with intercooler

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal water pump and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

217 kg [478 lbs]

EU: RCD 1 BSO II EMC US: EPA Tier 2

Rubber type flexible mounts

NOTE:

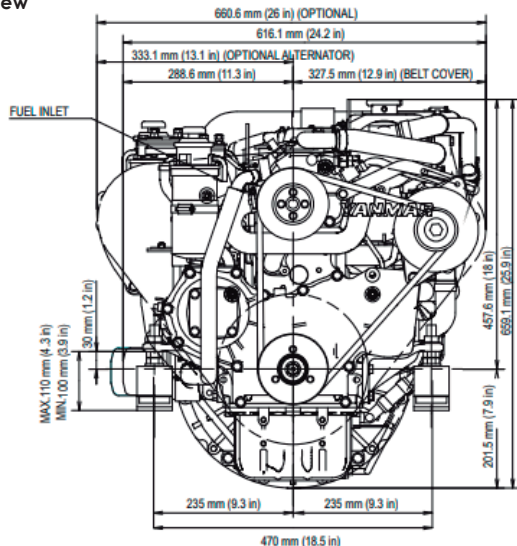
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP

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

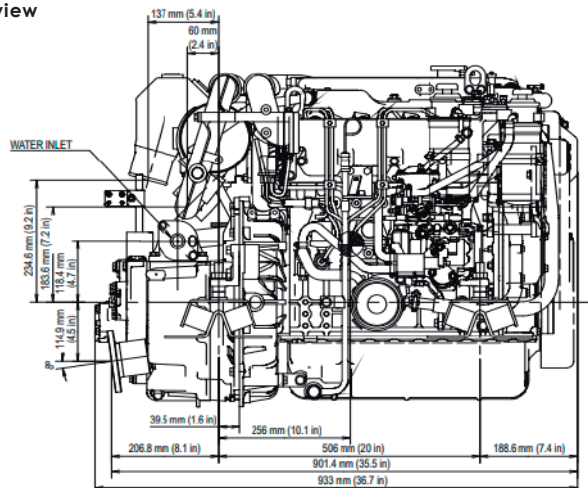
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

Rear view

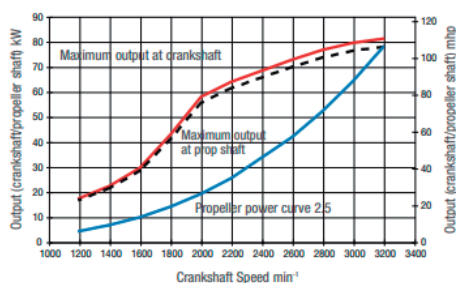


Right side view

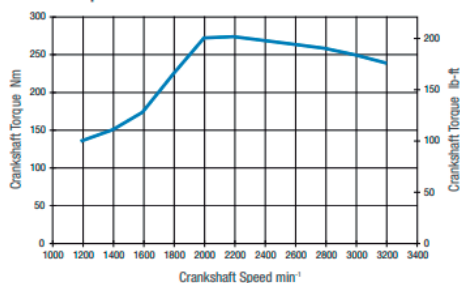


PERFORMANCE CURVES

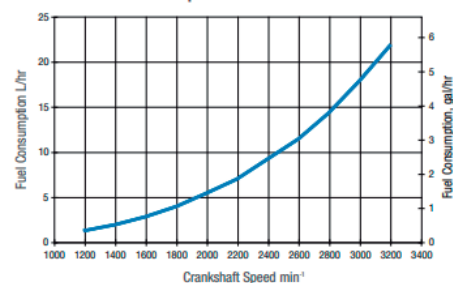
Power



Torque



Fuel Consumption



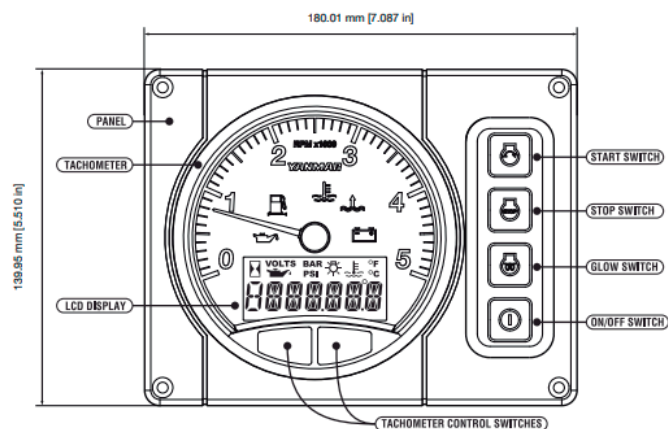
MARINE GEARS/DRIVE*

Model	ZF30M parallel		KM4A2 [down angle: 7°]			KMH4A [down angle: 8°]		ZF25A [down angle: 8°]	
Type	Mechanical wet multi-disc clutch		Mechanical wet cone clutch			Hydraulic, wet multi-disc		Hydraulic, wet multi-disc	
Dry weight**	28 kg [61 lbs]		28.5 kg [63 lbs]			30 kg [66 lbs]		30 kg [66 lbs]	
Reduction Ratio [fwd/rev]	2.15/2.64	2.70/2.64	1.47/1.47	2.14/2.14	2.63/2.63	2.04/2.04	2.45/2.45	1.93/1.93	2.48/2.48
Propeller speed [fwd/rev]	1488/1212	1185/1212	2177/2177	1495/1495	1217/1217	1569/1569	1306/1306	1658/1658	1290/1290
Direction of rotation (viewed from stern)	Clockwise		Clockwise & Counterclockwise			Clockwise & Counterclockwise		Clockwise & Counterclockwise	
Dry weight - engine & gear**	245 kg [540 lbs]		245.5 kg [541 lbs]			247 kg [545 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]	

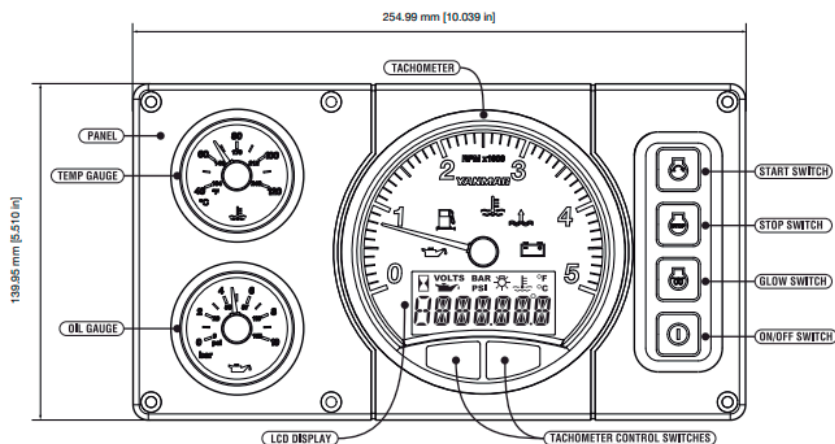
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B20-panel



C30-panel

ACCESSORIES

Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- 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

- Second alternator 12V - 130A or 24V - 75A, including smart regulator
- High-riser mixing elbow [instead of L-elbow]
- Extension wire harnesses [4m, 6m 10m]
- Hot water kit with cocks
- Dual Harness (For 2nd Station)
- C30-panel
- Sensor for C-30 panel

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

NEREX

4JH110 Common Rail Series

MARINE DIESEL ENGINES



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 80.9 kW@3200 rpm [110 mhp@3200 rpm]

2.000 L [122 cu in]

84 mm x 90 mm [3.31 in x 3.54 in]

In-line

Direct injection with Bosch common-rail system

Turbocharged with intercooler

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal water pump and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

229 kg [505 lbs]

EU: RCD 2 BSO II EMC US: EPA Tier 3

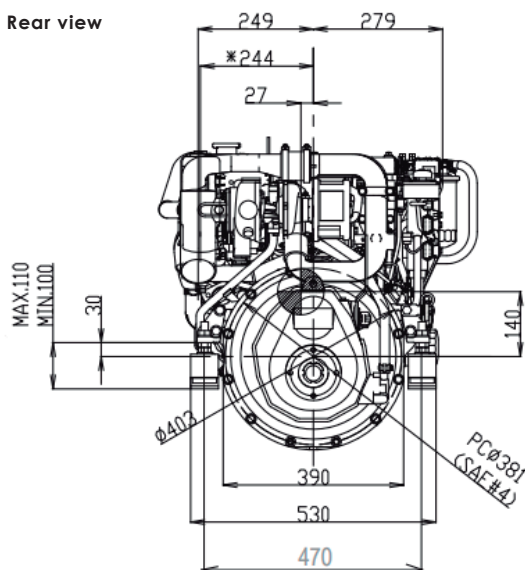
Rubber type flexible mounting

NOTE:

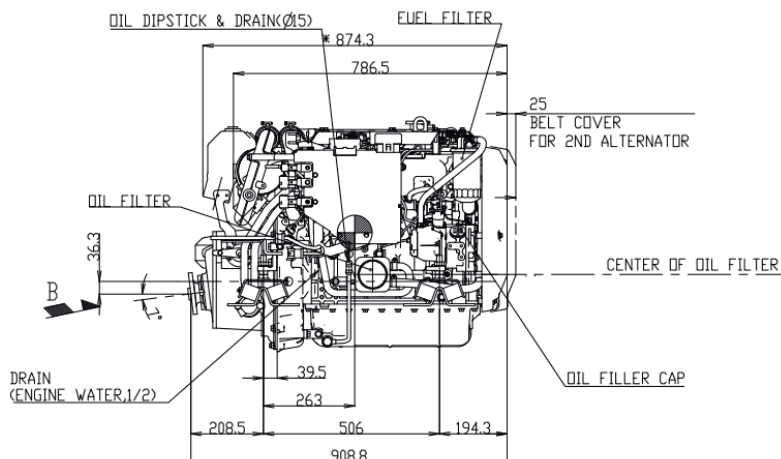
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



Right side view

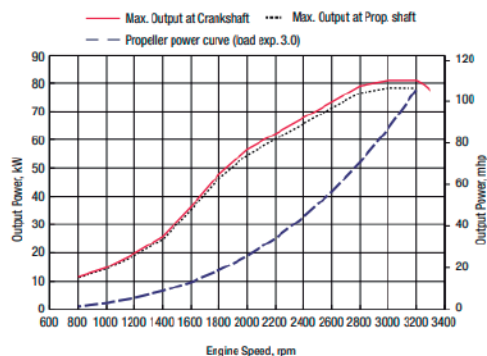


4JH110 with KM4A2 marine gear

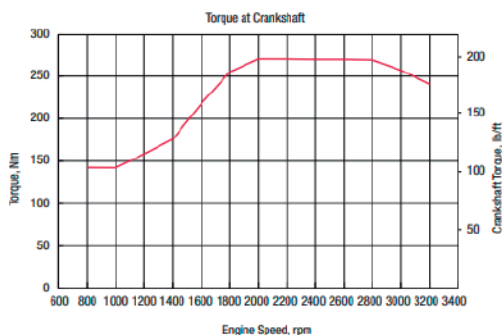
MEREX

PERFORMANCE CURVES

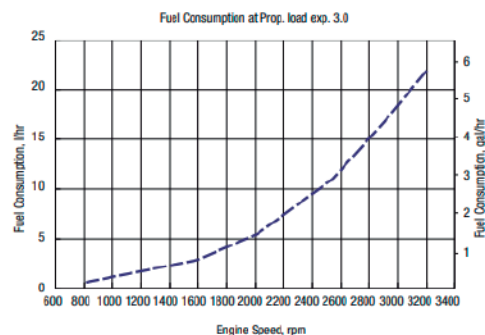
Power



Torque



Fuel Consumption



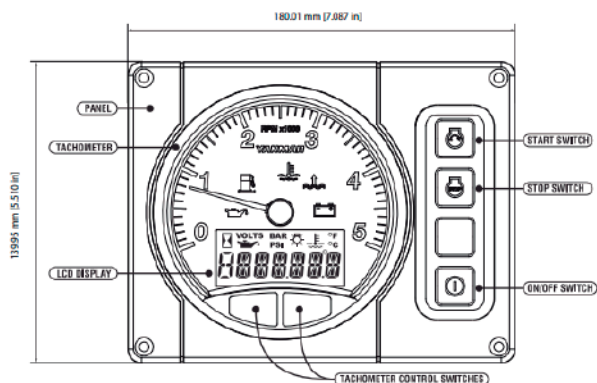
MARINE GEARS

Model	KM4A [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 multi-disc	
Dry weight**	30 kg [66 lbs]		24 kg [53 lbs]		28.5 kg [63 lbs]			28 kg [62 lbs]	
Reduction Ratio [fwd/rev]	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/rev]	1569/1569	1306/1306	1658/1658	1290/1290	2177/2175	1495/1494	1217/1216	1488/1212	1185/1212
Direction of rotation (viewed from stern)	Clockwise & counterclockwise		Clockwise & counterclockwise		Clockwise & counterclockwise			Clockwise	
Dry weight - engine & gear**	259 kg [571 lbs]		253 kg [558 lbs]		257.5 kg [568 lbs]			256 kg [564 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]	

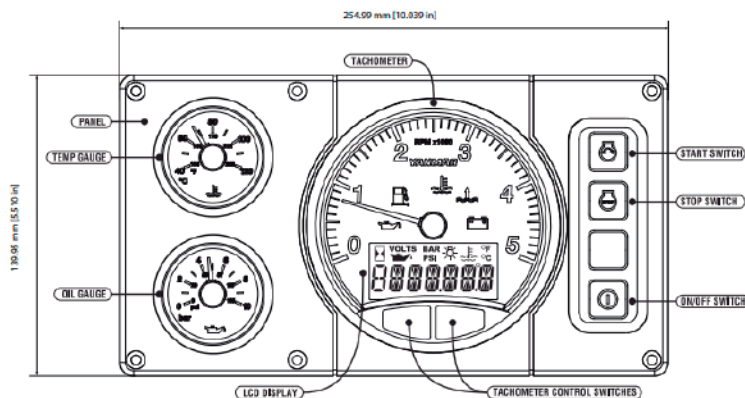
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B25-panel



C35-panel

ACCESSORIES

Standard engine package

- Set of flexible engine mounts
- Exhaust mixing elbow [L-type]
- 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
- Emergency stop switch

Optional accessories

- 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
- Dual Harness (For 2nd Station)
- C35-panel
- Oil pressure sensor for C35-panel
- Extension saildrive leg [75 mm]
- NMEA 2000 convertor for Engine monitory system

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

NEREX



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 89.1 kW@3800 rpm [121 mhp@3800 rpm]

** 91.9 kW@3800 rpm [125 mhp@3800 rpm]

1.995 L [122 cu in]

84 mm x 90 mm [3.31 in x 3.54 in]

In-line

Direct injection

Turbocharged with intercooler

Electric starting 12V - 1.4 kW

12V - 125A

Fresh water cooling by centrifugal fresh water pump and rubber impeller sea water pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

229 kg [504.8 lbs]

EU: RCD 1 BSO II EMC

Rubber type fl exible mounting

NOTE:

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

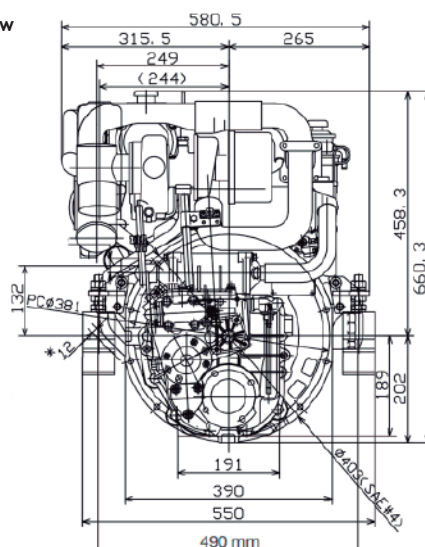
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

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

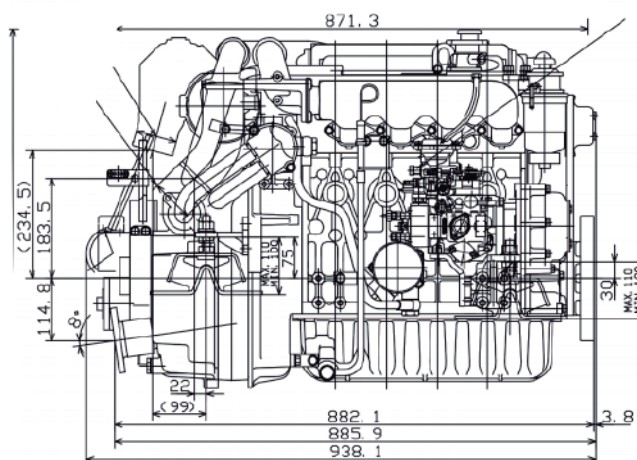
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

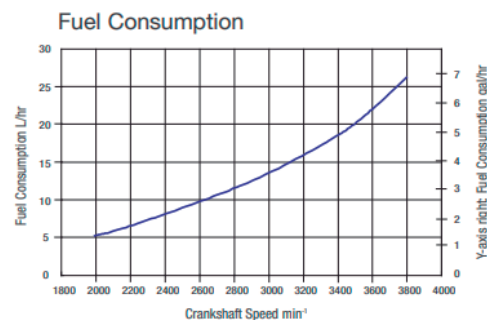
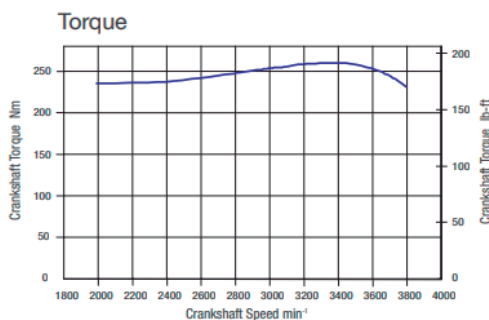
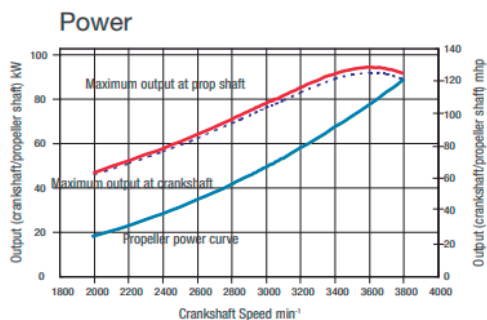
Rear view



Right side view



PERFORMANCE CURVES



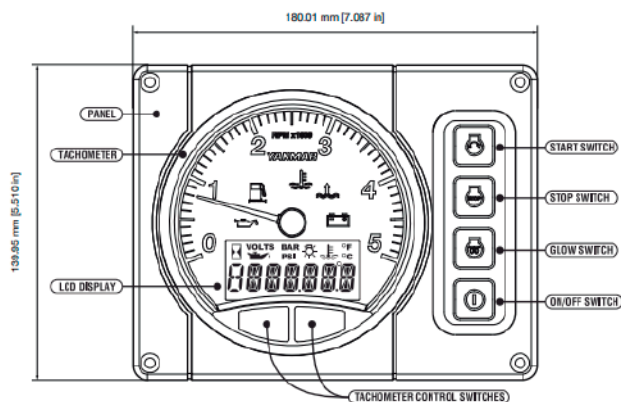
MARINE GEARS/DRIVE*

Model	KM4A [down angle: 8°]		ZF25A [down angle: 8°]	
Type	Hydraulic, wet multi-disc		Hydraulic, wet multi-disc	
Dry weight**	30 kg [66 lbs]		30 kg [66 lbs]	
Reduction Ratio [fwd/rev]	2.04/2.04	2.45/2.45	1.93/1.93	2.48/2.48
Propeller speed [fwd/rev]	1814/1814	1507/1507	1917/1917	1492/1492
Direction of rotation (viewed from stern)	Clockwise & Counterclockwise		Clockwise & Counterclockwise	
Dry weight - engine & gear**	259 kg [571 lbs]		259 kg [571 lbs]	
Length engine and gear/drive	886 mm [35 in]		1001 mm [39 in]	

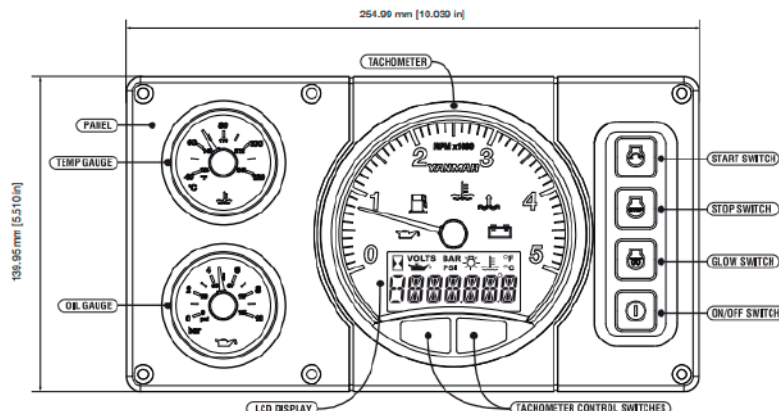
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



B20-Panel



C30-Panel

ACCESSORIES

Standard engine package

- Set of flexible mounts
- Exhaust mixing elbow [L-type]
- 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

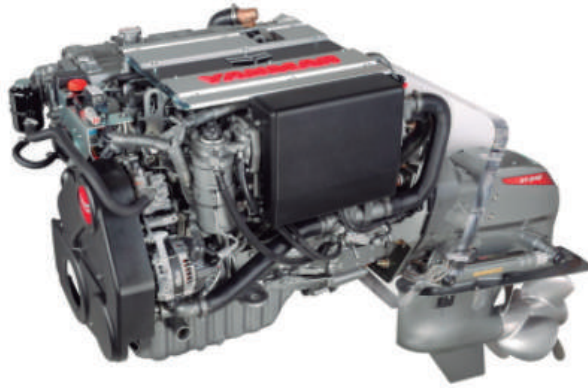
- High-riser mixing elbow [instead of L-elbow]
- Extension wire harness [4m, 6m, 10m]
- Hot water fitting with cocks
- Dual Harness (For 2nd Station)
- C30-panel
- Sensor for C30-panel

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

NEREX

4LV Series - 150 / 170 / 195

MARINE COMMON RAIL ENGINES



Configuration

Maximum output at crankshaft*

Displacement

Bore x stroke

Cylinders

Combustion system

Low idle rpm

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear**

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

110 kW@3500 rpm [150 mhp@3500 rpm]

125 kW@3500 rpm [170 mhp@3500 rpm]

143 kW@3500 rpm [195 mhp@3500 rpm]

2.755 L [168 cu in]

92 mm x 103.6 mm [3.6 in x 4 in]

4 in-line

Direct injection with Denso common rail system

750 rpm

Turbocharger with charge-air cooler

Electric starting 12V – 2 kW

Denso 12V - 130A

Fresh water cooling by centrifugal fresh water pump

Sea water cooling by rubber impeller seawater pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

332 kg [732 lbs]

EU: RCD 2, BSO II, EMC

US: EPA Tier 3

Rubber type flexible mounting

NOTE:

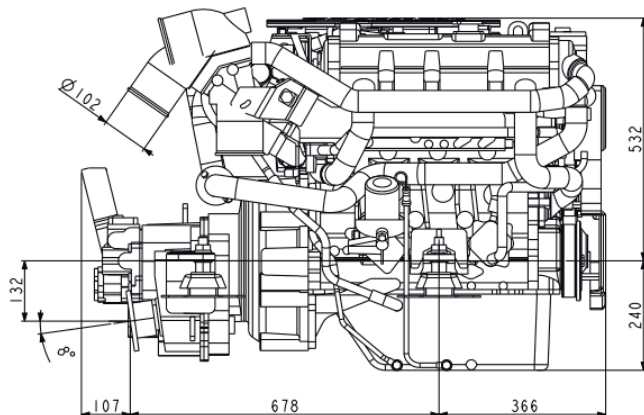
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

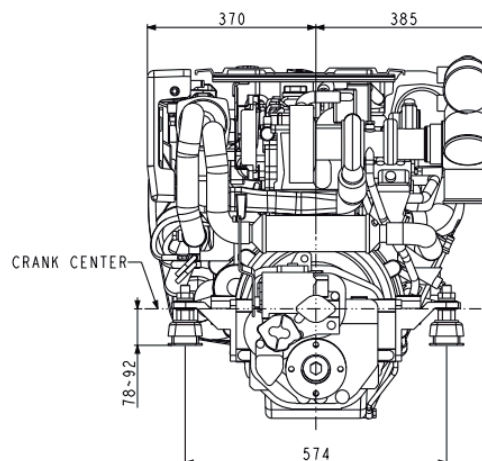
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



Right side view

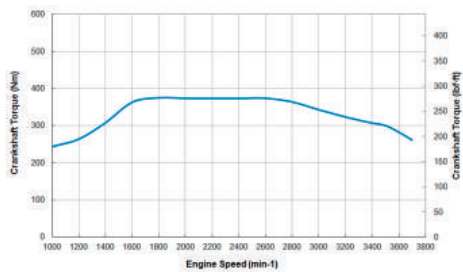


4JH3-DTE with KMH4A1 marine gear

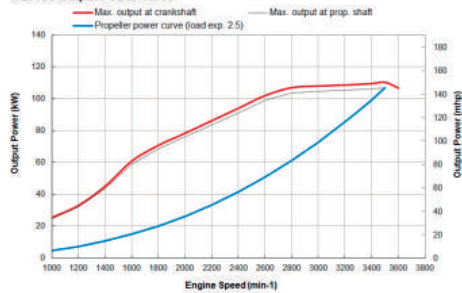
VEREX

PERFORMANCE CURVES

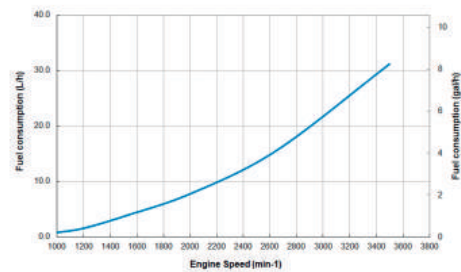
4LV150 Torque curve



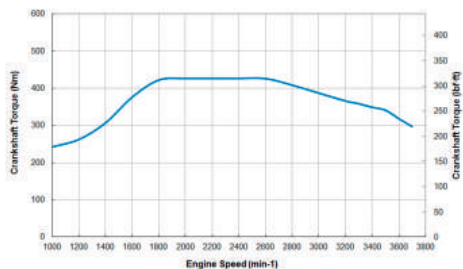
4LV150 Output Power curve



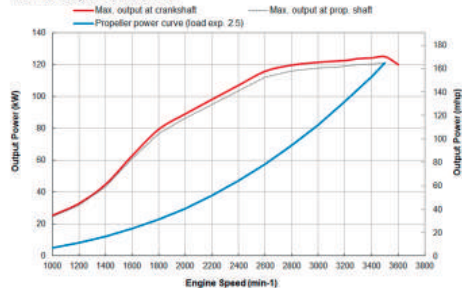
4LV150 Fuel consumption (load exp. 2.5)



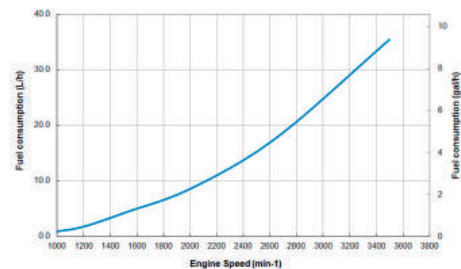
4LV170 Torque curve



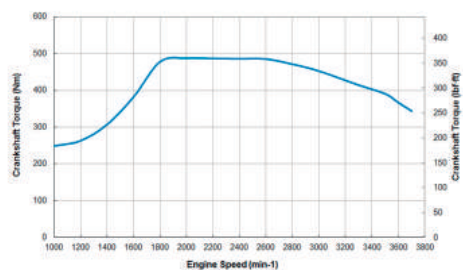
4LV170 Output Power curve



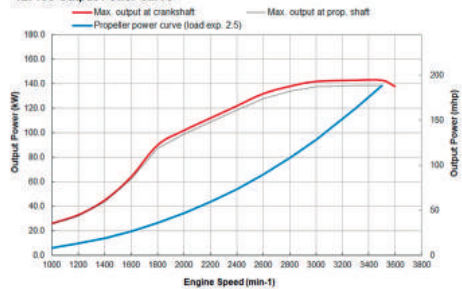
4LV170 Fuel consumption (load exp. 2.5)



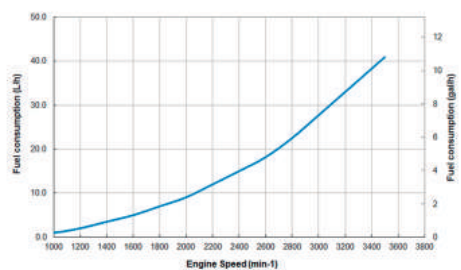
4LV195 Torque curve



4LV195 Output Power curve



4LV195 Fuel consumption (load exp. 2.5)



MARINE GEARS

Model	KMH50A [down angle: 8°]			KMH50V [V-drive, angle: 12°]			
Type	Hydraulic, multi disk clutch			Hydraulic, multi disk clutch			
Dry Weight**	52 kg [115 lbs]			75 kg [165 lbs]			
Reduction Ratio [fwd/asn]	1.67/1.67	2.13/2.13	2.43/2.43	1.22/1.22	1.58/1.58	2.08/2.08	2.47/2.47
Propeller speed [fwd/asn]	2096/2096	1643/1643	1440/1440	2869/2869	2215/2215	1683/1683	1417/1417
Direction of rotation [viewed from stern]	Clockwise & counterclockwise			Clockwise & counterclockwise			
Dry weight - engine & gear	384 kg [846 lbs]			407 kg [897 lbs]			
Length engine and gear/drive	1151 mm [45.3 in]			1151 mm [45.3 in]			

*For other configurations, consult your local Yanmar distributor.

**Dry weight includes cooler and brackets

ACCESSORIES

Standard Package

- Exhaust mixing elbow [L-type]
- Alternator 12V - 130A
- B25 panel
- Oil sensor for instrument panel
- Mechanical throttle sensor
- Set of flexible engine mounts
- Fresh water expansion tank
- Belt safety cover
- Engine topcover for protection
- Operation manual

Optional

- High-riser mixing elbow [instead of L-elbow]
- Secondary alternator 12V - 150A or 24V - 85A
- Multistage secondary alternator 12V - 130A or 24V - 110A
- Semi 2-Pole Electrical Installation
- Hot water connection
- Opposite dipstick
- Fuel pre-filter with water separator
- C-Type Trolling Valve KMH50
- Extension harness [3m, 5m, 10m, 20m]
- C35 panel
- Mechanical sidemount control head

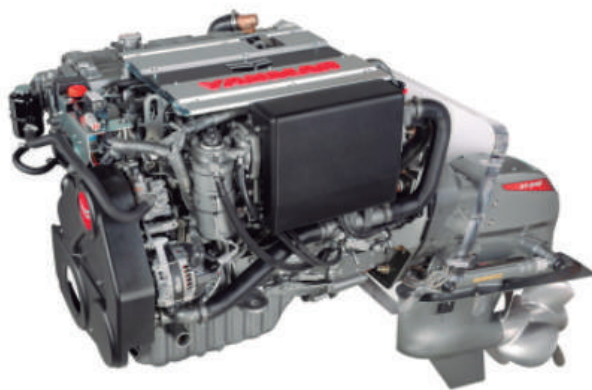
- VC10 Vessel Control System
- Second station
- NMEA2000 Engine monitoring system
- Electronic Side Mount CH instead of Top Mount
- SOLAS including Certificate (Factory fit only)
- Man Over Board Switch (single)
- On Board Spare Parts Kit 4LV
- Second station
- NMEA2000 Engine monitoring system
- JC20 Inboard Joystick

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



4LV Series - 150 / 170 / 195

MARINE COMMON RAIL ENGINES



Configuration

Maximum output at crankshaft*

Displacement

Bore x stroke

Cylinders

Combustion system

Low idle rpm

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear**

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

110 kW@3500 rpm [150 mhp@3500 rpm]

125 kW@3500 rpm [170 mhp@3500 rpm]

143 kW@3500 rpm [195 mhp@3500 rpm]

2.755 L [168 cu in]

92 mm x 103.6 mm [3.6 in x 4 in]

4 in-line

Direct injection with Denso common rail system
750 rpm

Turbocharger with charge-air cooler

Electric starting 12V – 2 kW

Denso 12V - 130A

Fresh water cooling by centrifugal fresh water pump

Sea water cooling by rubber impeller seawater pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

332 kg [732 lbs]

EU: RCD 2, BSO II, EMC

US: EPA Tier 3

Rubber type flexible mounting

NOTE:

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

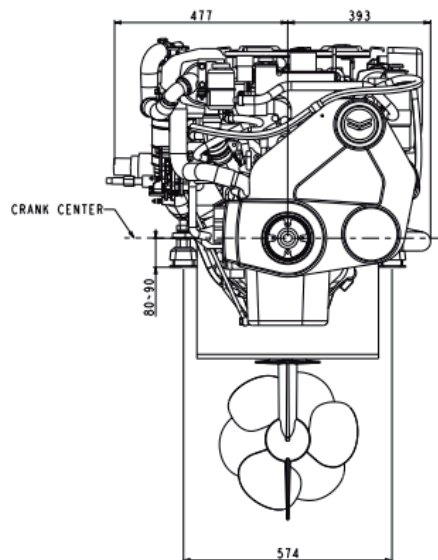
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

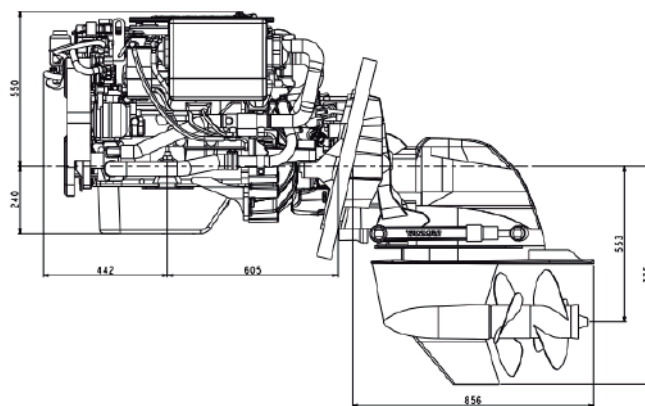
Technical data is according to ISO 8665: 2006

DIMENSIONS

Rear view



Right side view



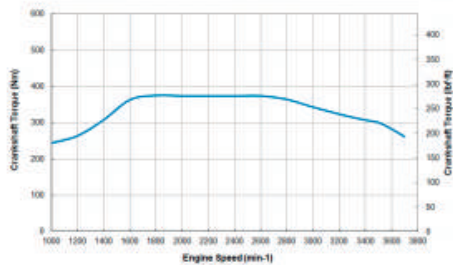
4LV 150Z / 170Z / 195Z

4LV 150Z / 170Z / 195Z

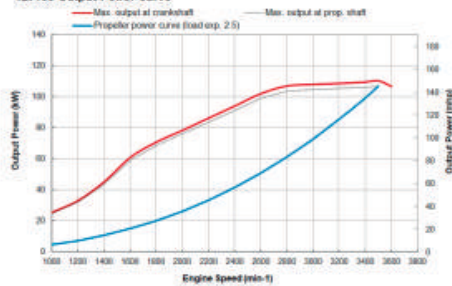
VEREX

PERFORMANCE CURVES

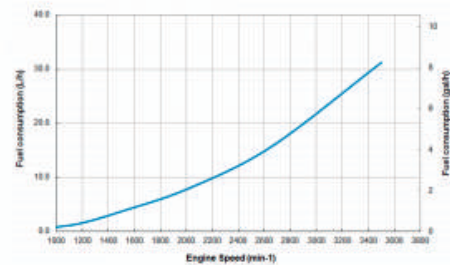
4LV150 Torque curve



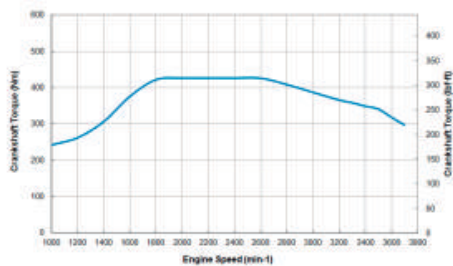
4LV150 Output Power curve



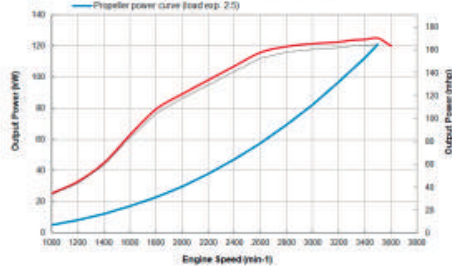
4LV150 Fuel consumption (load exp. 2.5)



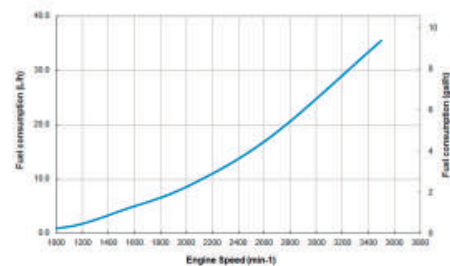
4LV170 Torque curve



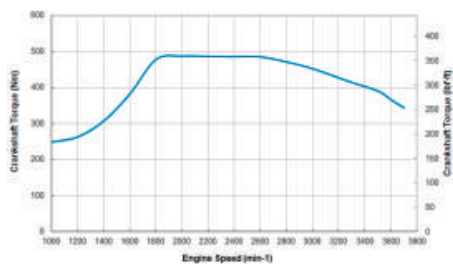
4LV170 Output Power curve



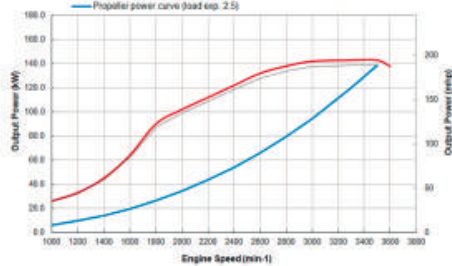
4LV170 Fuel consumption (load exp. 2.5)



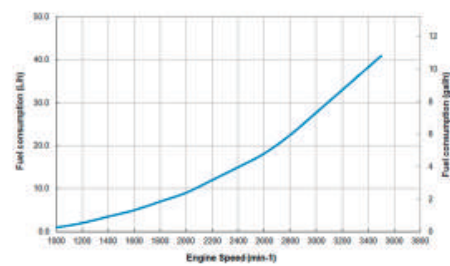
4LV195 Torque curve



4LV195 Output Power curve



4LV195 Fuel consumption (load exp. 2.5)



MARINE GEARS

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/rev]	1.65 / 1.65	1.78 / 1.78	1.97 / 1.97
Propeller speed	2121 / 2121	1966 / 1966	1776 / 1776
Direction of rotation viewed from the stern	Clockwise [rear prop] & Counterclockwise [front prop]		
Lube oil specifications	Quick Silver HPGL		
Dry weight engine with sterndrive	446 kg [983 lbs]		
Shift control	Mechanical or electro-magnetic		
Trim range	-6° - +10°		
Trailer limit	51°		

*For other configurations, consult your local Yanmar distributor.

**Dry weight includes cooler and brackets

ACCESSORIES

Standard Package

- Through drive exhaust
- Alternator 12V - 130A
- VC10 Vessel Control System
- Electronic CAN-bus control head
- Set of flexible engine mounts
- Fresh water expansion tank
- Belt safety cover
- Engine topcover for protection
- Operation manual

Optional

- Through drive exhaust
- Secondary alternator 12V - 150A or 24V - 85A
- Multistage secondary alternator 12V - 130A or 24V - 110A
- SOLAS including Certificate (Factory fit only)
- Hot water kit
- Power steering
- Internal tie-bar
- Opposite dipstick
- Extension harness [3m, 5m, 10m]

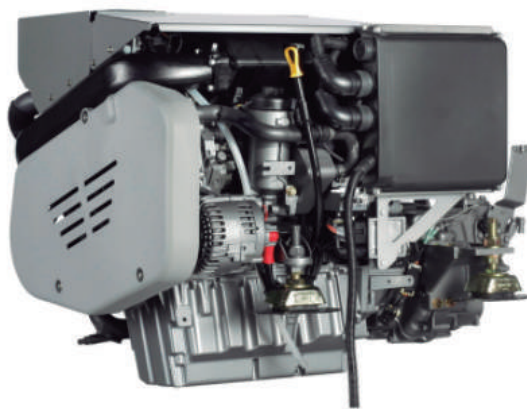
- JC10 joystick control
- Second station
- NMEA2000 Engine monitoring system
- Man Over Board Switch (single)
- On Board Spare Parts Kit 4LV

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

YANMAR

4by3-150 / 4by3-180 Series

MARINE DIESEL ENGINES



Configuration Maximum output at crankshaft

Displacement
Bore x stroke
Cylinders
Combustion system
Aspiration
Low Idle rpm
Electric system
Alternator
Start-assist
Cooling system

Lubrication system
Direction of rotation [crankshaft]
Dry weight without gear
Environmental

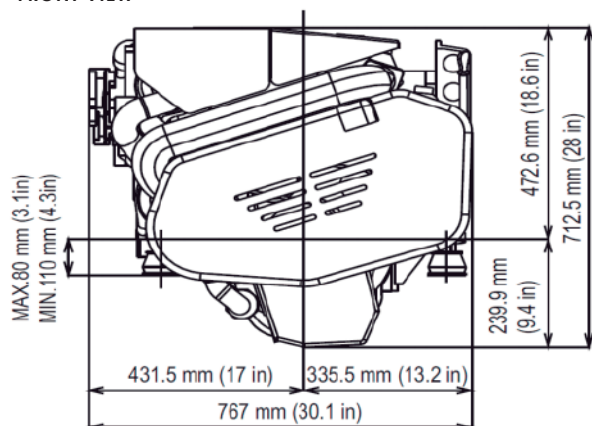
Engine mounting

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

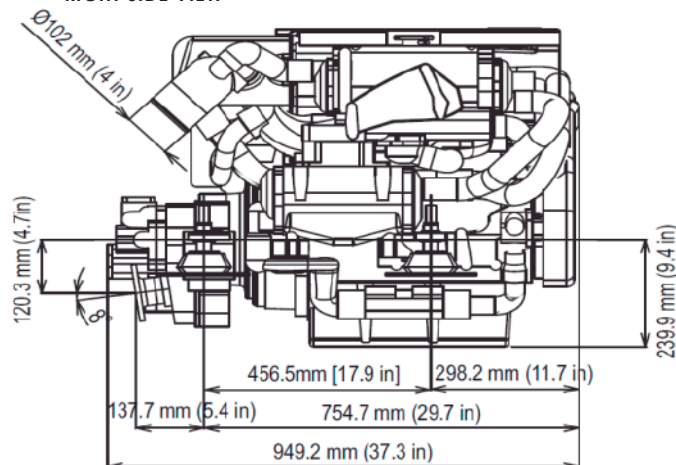
4-stroke, water-cooled diesel engine
110 kW@4000 rpm [150 mhp@4000 rpm]
132 kW@4000 rpm [180 mhp@4000 rpm]
1.995 ltr [122 cu in]
84 mm x 90 mm [3.31 in x 3.54 in]
4 in line
Direct injection with Bosch Common Rail System
Turbocharger + charge air cooler
650 - 950 rpm [adjustable]
12V
12V - 150A
Glow-plug system
Fresh water cooling by centrifugal fresh water pump
Sea water cooling by rubber impeller seawater pump
Enclosed, forced lubricating system
Counterclockwise viewed from flywheel side
263 kg [580 lbs]
EU: RCD EMC BSO II US: EPA Tier3
SOLAS MED 96/98/EC
Rubber type flexible mounting

DIMENSIONS

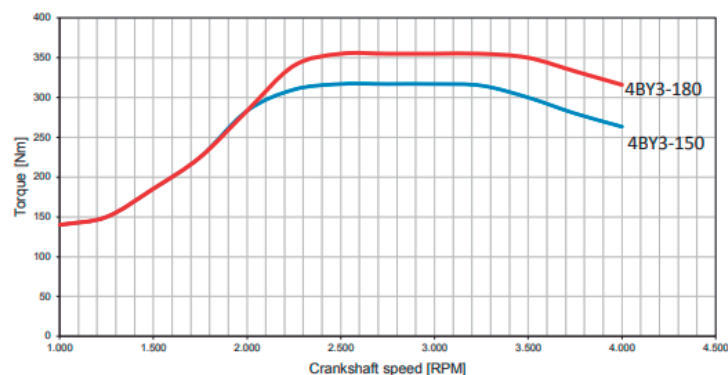
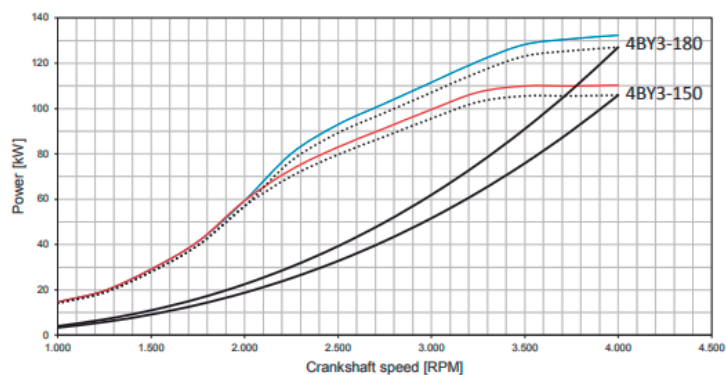
FRONT VIEW



RIGHT SIDE VIEW



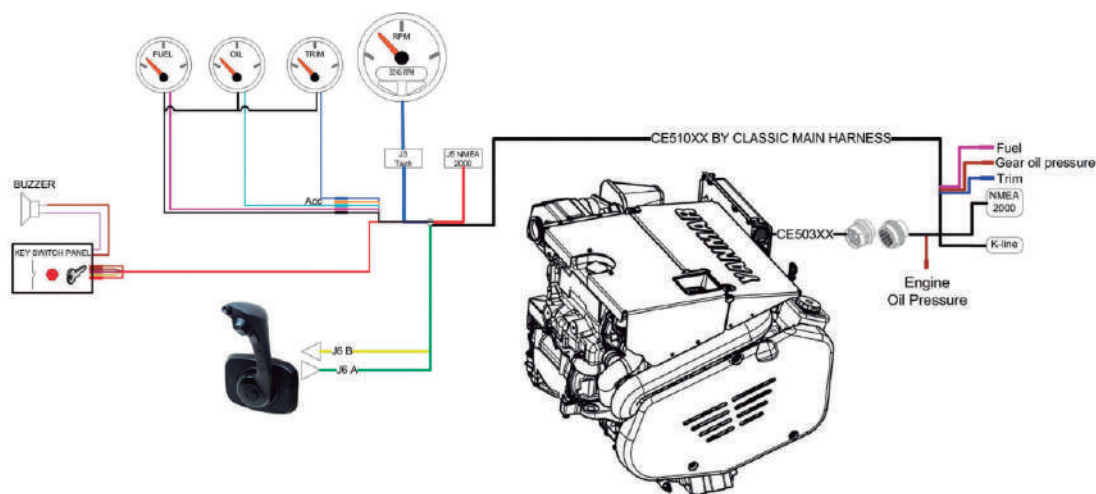
PERFORMANCE CURVES



DRIVE SYSTEMS

Model	KMH41A [down angle 8°]			
Type	Hydraulic Actuated Multi-friction disc clutch			
Dry weight	34 kg excl. cooler			
Reduction ratio [fwd/asn]	1.53	2.04	2.45	2.62
Direction of rotation	Clockwise & Counterclockwise viewed from the stern			
Lub oil specifications	API class: CF or higher SAE grade #30			
Dry weight - engine & gear	297 kg			

Control system "Classic"



ENGINE ACCESSORIES

Standard engine package

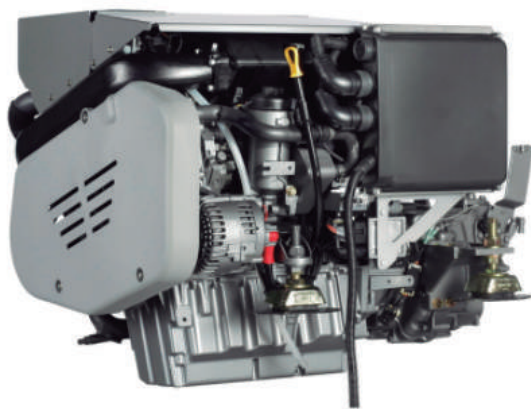
- Single pole, 150A Alternator
- Exhaust mixing elbow [L-type]
- Automatic glow-plug controller
- Flexible engine mounting
- Analogue throttle with redundancy function

Optional accessories

- High-riser mixing elbow [instead of L-elbow]
- Exhaust-side 2nd dipstick
- Electric gearshift
- Trolling on gearbox [mechanical and electrical]
- NMEA2000 digital display
- Full NMEA2000 electronic control system [CAN-bus]

4by3-150Z / 4by3-180Z Series

MARINE DIESEL ENGINES



Configuration Maximum output at crankshaft

Displacement
Bore x stroke
Cylinders
Combustion system
Aspiration
Low Idle rpm
Electric system
Alternator
Start-assist
Cooling system

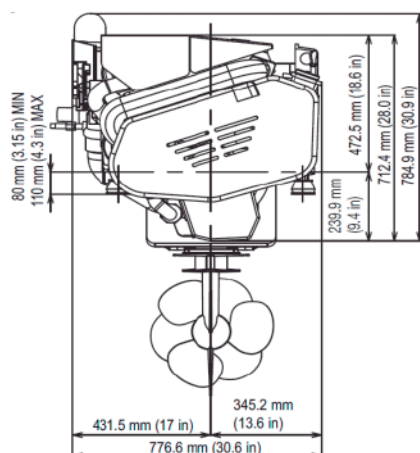
Lubrication system
Direction of rotation [crankshaft]
Dry weight without gear
Environmental
Engine mounting

4-stroke, water-cooled diesel engine
110 kW@4000 rpm [150 mhp@4000 rpm]
132 kW@4000 rpm [180 mhp@4000 rpm]
1.995 ltr [122 cu in]
84 mm x 90 mm [3.31 in x 3.54 in]
4 in line
Direct injection with Bosch Common Rail System
Turbocharger + charge air cooler
650 - 950 rpm [adjustable]
12V
12V - 150A
Glow-plug system
Fresh water cooling by centrifugal fresh water pump
Sea water cooling by rubber impeller seawater pump
Enclosed, forced lubricating system
Counterclockwise viewed from flywheel side
263 kg [580 lbs]
EU: RCD EMC BSO II US: EPA Tier3
Rubber type flexible mounting

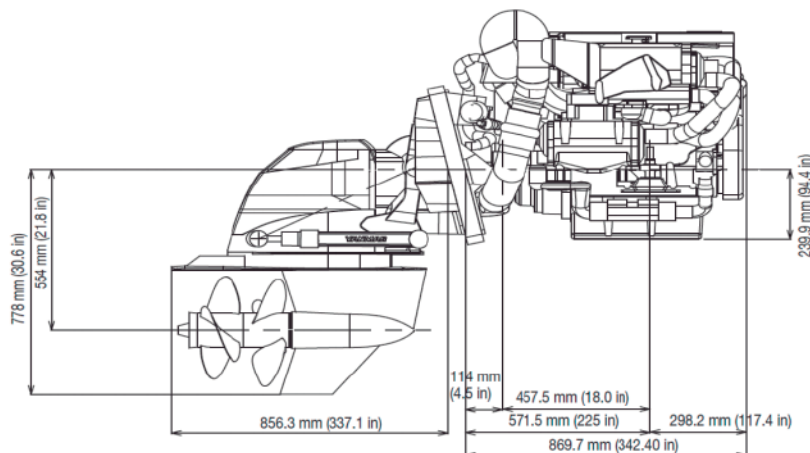
NOTE:
Fuel condition: Density at 15°C = 0.84 g/cm³
Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

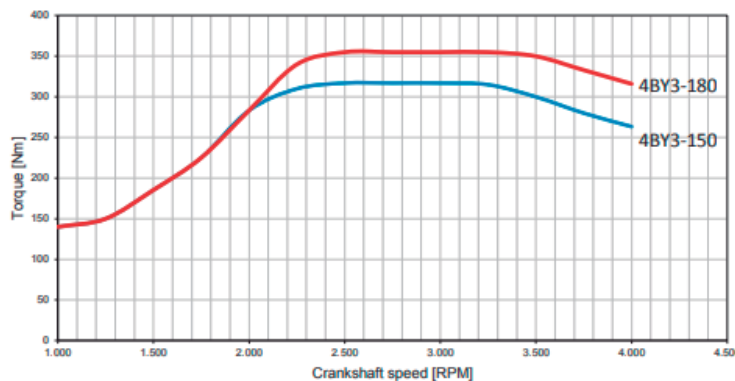
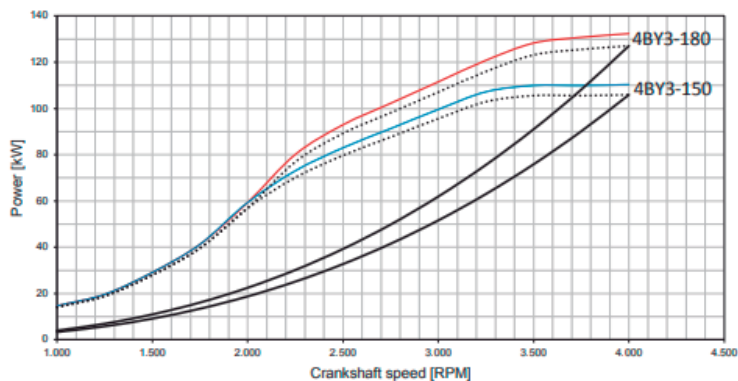
FRONT VIEW



RIGHT SIDE VIEW



PERFORMANCE CURVES



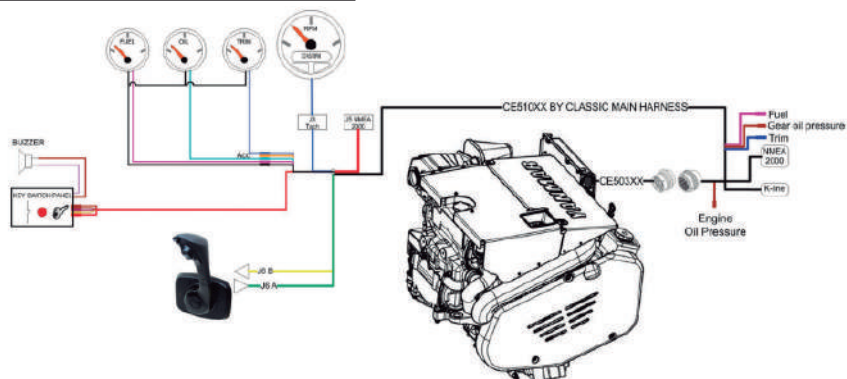
DRIVE SYSTEMS

Model	ZT370 Steerable Z-drive with duo-propeller			
Type	Hydraulic Actuated Multi-friction disc Sterndrive			
Dry weight	69 kg [drive] / 46 kg [Transom + trim-pump] / 15 kg [Propellers]			
Reduction ratio [fwd/asn]	1.65	1.78	1.97	2.18
Propeller speed [fwd/asn]	2424	2247	2030	1835
Direction of rotation	Clockwise [rear propeller] / Counterclockwise [front propeller]			
Lub oil specifications	API class: GL5 SAE grade #80W90 or QuickSilver High Performance Gearlube			
Dry weight - engine & gear	378 kg			

Model	Mercruiser Bravo 1 Steerable Z-drive with single propeller			
Type	Mechanical cone-clutch type Sterndrive			
Dry weight	59 kg [drive] / 48 kg [Transom + trim-pump] / 8 kg [Propeller]			
Reduction ratio [fwd/asn]	1.36	1.5	1.65	
Propeller speed [fwd/asn]	2424	2667	2424	
Direction of rotation	Clockwise & Counterclockwise viewed from the stern			
Lub oil specifications	Mercury High Performance Gearlube			
Dry weight - engine & gear	370 kg			

- 1 - Inner and outer transom surface must be parallel within 3mm in area covered by transom plates and remain within transom thickness limits.
- 2 - Area covered by gimbal housing assembly must be flat to within 1.6 mm.
- 3 - Area covered by inner transom plate must be flat to within 3.2 mm.
- 4 - Transom angle: 13° to 16°.
- 5 - Also available with Bravo X-2 drive's, please contact your local supplier for support.

Control system "Classic"



ENGINE ACCESSORIES

Standard engine package

- Single pole, 150A Alternator
- High-riser mixing exhaust elbow
- Automatic glow-plug controller
- Flexible engine mounting
- Analogue throttle with redundancy function

Optional accesories

- Through transom exhaust
- Exhaust-side 2nd dipstick
- Electric gearshift
- NMEA2000 digital display
- Various monitoring gauges
- Full NMEA2000 electronic control system [CAN-bus]

Propellers

- Propeller size 20" - 22" - 24" - 26" - 28"
- Propellers with cup 24" - 26"

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





Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

* 118 kW@3300 rpm [160 mhp@3300 rpm]

** 113 kW@3300 rpm [154 mhp@3300 rpm]

3.455 L [211 cu in]

100 mm x 110 mm [3.94 in x 4.33 in]

In-line

Direct injection

Turbocharged with intercooler

Electric starting 12V - 2 kW

12V - 80A

Fresh water cooling by centrifugal fresh water pump and rubber impeller seawater pump

Enclosed, forced lubricating system

Counterclockwise viewed from stern

342 kg [754 lbs]

EU: RCD 1 BSO II EMC

SOLAS MED 96/98/EC

Rubber type fl exible mounting

NOTE:

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

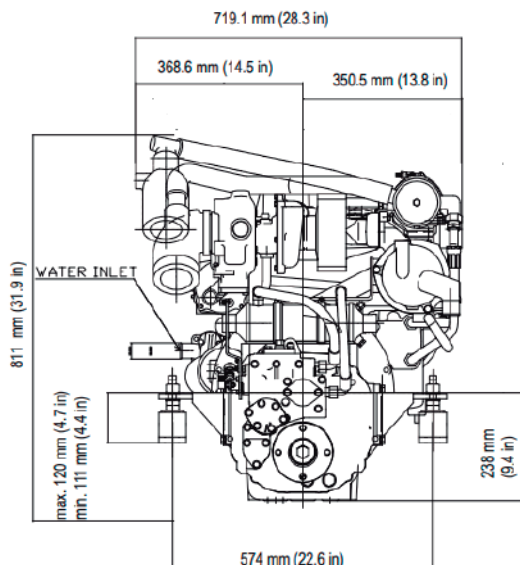
* Fuel temperature 25°C at the inlet of the fuel injection pump [ISO 3046-1]

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

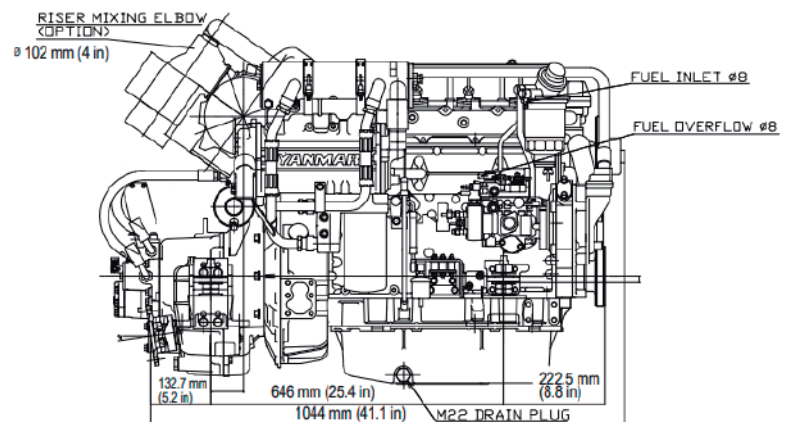
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

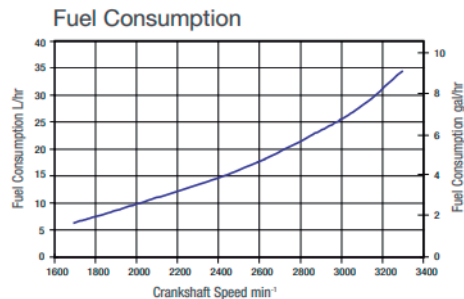
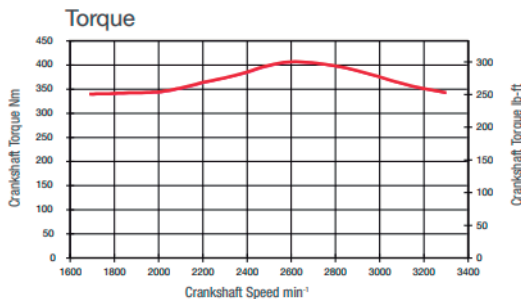
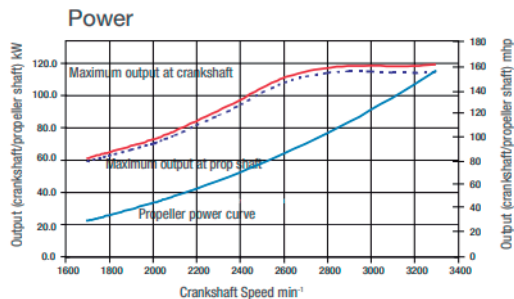
Rear view



Right side view



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



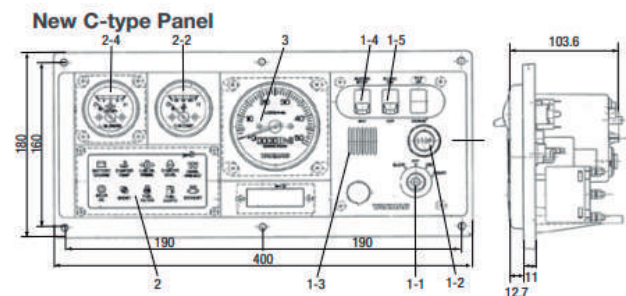
MARINE GEARS/DRIVE*

Model	KMH50A [down angle 8°]			ZF63A [down angle 8°]			
Type	Hydraulically Actuated Multi-Disc Clutch			Hydraulically Actuated Multi-Disc Clutch			
Dry weight**	57,6 kg [127 lbs]			44 kg [96,8 lbs]			
Reduction Ratio [fwd/rev]	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/rev]	1976/1976	1549/1549	1358/1358	2627/2627	2180/2180	1622/1622	1355/1355
Direction of rotation (viewed from stern)	Clockwise & Counterclockwise			Clockwise & Counterclockwise			
Dry weight engine and gear/drive**	400 kg [881 lbs]			386 kg [851 lbs]			

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

** Dry weight includes cooler, brackets and damper disk.

INSTRUMENT PANELS



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

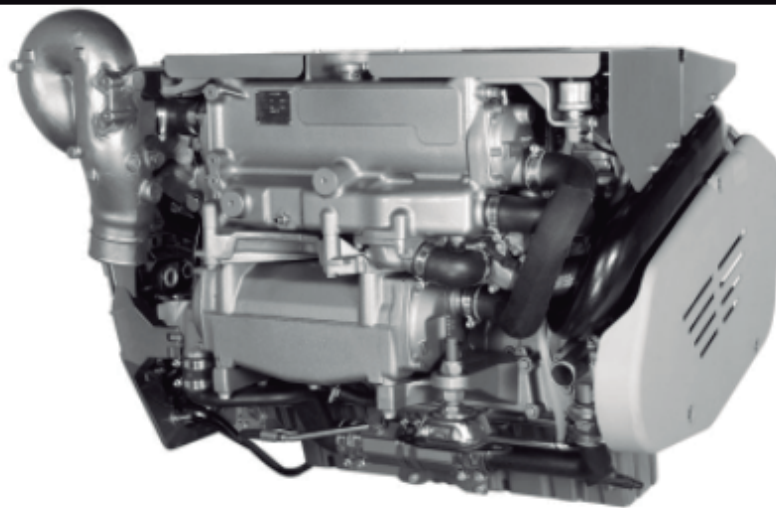
- Flexible mounts
- High-riser/water mixing elbow [instead of L-elbow]
- New C-type instrument panels
- Dual station Y harness
- Dipstick for opposite side
- Air venting device for cooling water tank

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



6by3-160 Series

MARINE DIESEL ENGINES



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Low Idle rpm

Electric system

Alternator

Start-assist

Cooling system

4-stroke, water-cooled diesel engine

117 kW@2800 rpm [160 mhp@2800 rpm]

2.993 ltr [183 cu in]

84 mm x 90 mm [3.31 in x 3.54 in]

6 in line

Direct injection with Bosch Common-rail system

Turbocharger + charge air cooler

650 - 950 rpm [adjustable]

12V

12V / 150A option: secondary alternator 24V / 90A

Glow-plug system

Fresh water cooling by centrifugal fresh water pump

Sea water cooling by rubber impeller seawater pump

Enclosed, forced lubricating system

Counterclockwise viewed from flywheel side

328 kg [723 lbs]

EU: RCD BSO II EMC US: EPA Tier3

Rubber type flexible mounting

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Environmental

Engine mounting

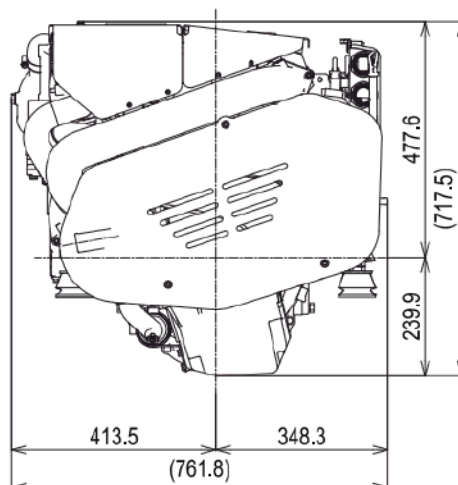
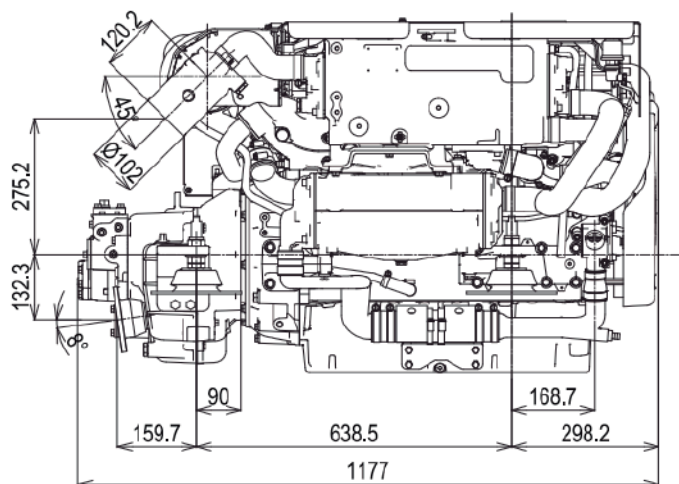
NOTE:

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]

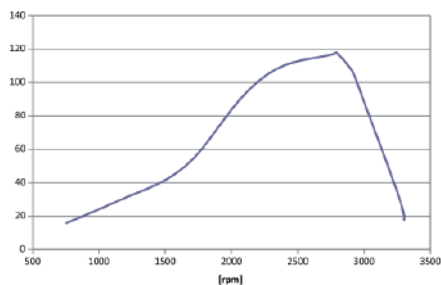
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

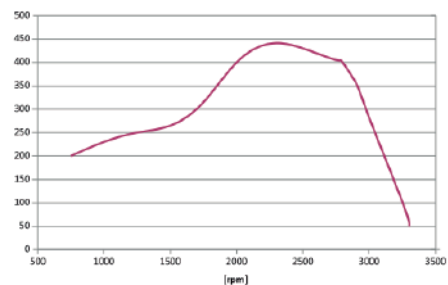


PERFORMANCE CURVES

Power [kW]



Torque [Nm]

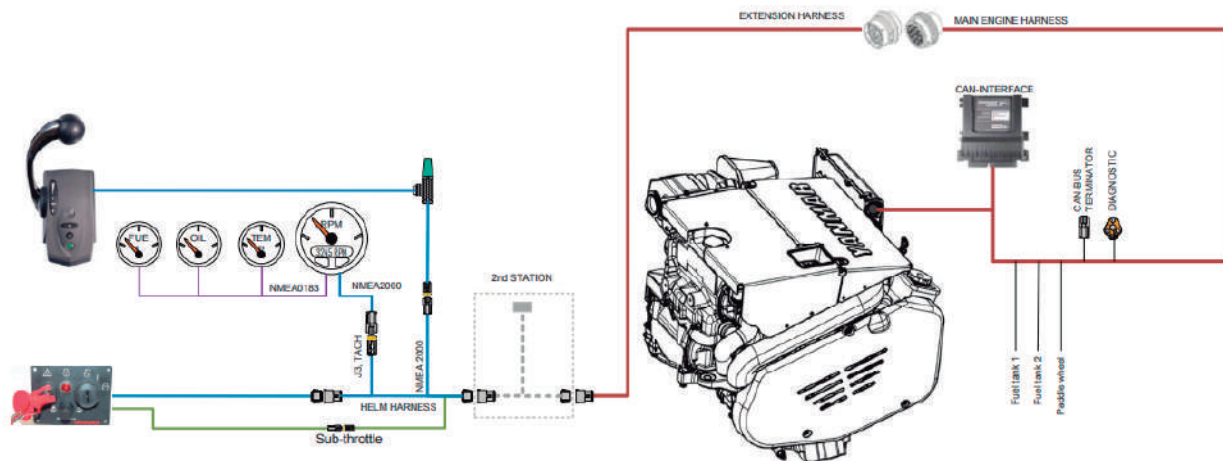


DRIVE SYSTEMS

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 & gear	375 kg		

Model	KMH50V [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 2.47/2.47
Direction of rotation	Clockwise & Counterclockwise viewed from the stern		
Lub oil specifications	API class: CF or higher SAE grade #30		
Dry weight - engine & gear	395 kg		

CONTROL SYSTEM "LIMITED"



ENGINE ACCESSORIES

Standard engine package

- Single pole, 150A Alternator
- Exhaust mixing elbow [L-type]
- Automatic glow-plug controller
- Flexible engine mounting
- Full NMEA2000 electronic control system [CAN-bus]

Optional

- Secondary Alternator 24V / 90A
- High-riser mixing elbow [instead of L-elbow]
- Exhaust-side 2nd dipstick
- Electric gearshift
- Trolling on gearbox [mechanical and electrical]
- NMEA2000 digital display