

3JH40 Common Rail

MARINE DIESEL 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

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

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

NOTE:

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

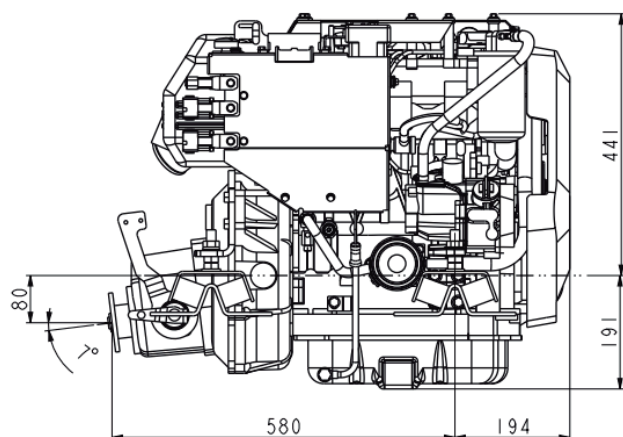
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

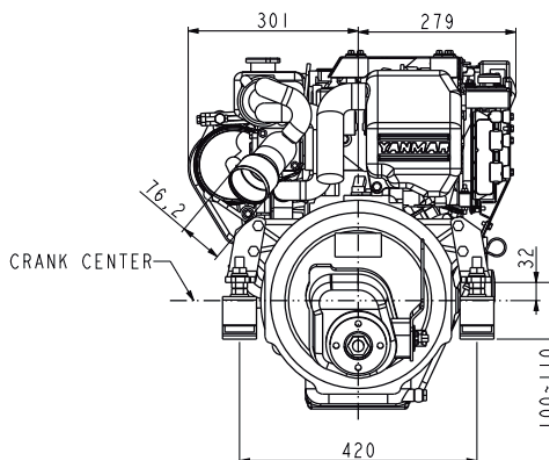
Technical data is according to ISO 8665: 2006

DIMENSIONS

RIGHT SIDE VIEW



REAR VIEW



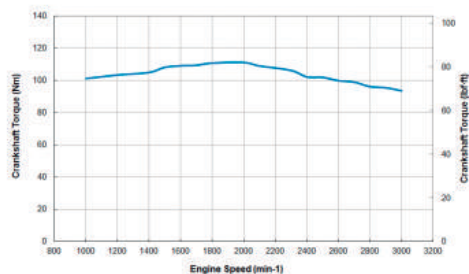
3JH40 with KMH35A marine gear



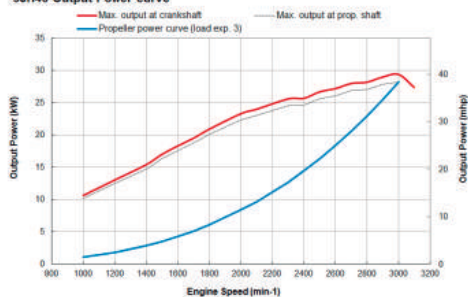
NEREX

PERFORMANCE CURVES

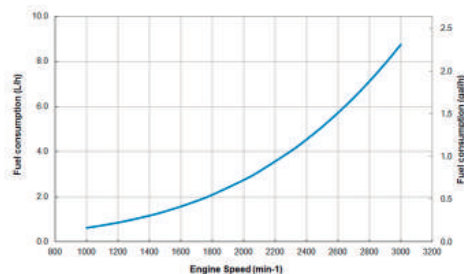
3JH40 Torque curve



3JH40 Output Power curve



3JH40 Fuel consumption (proload exp 3.0)



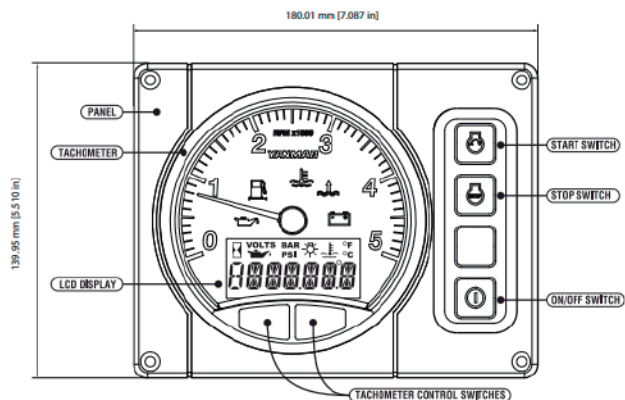
MARINE GEARS

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]	

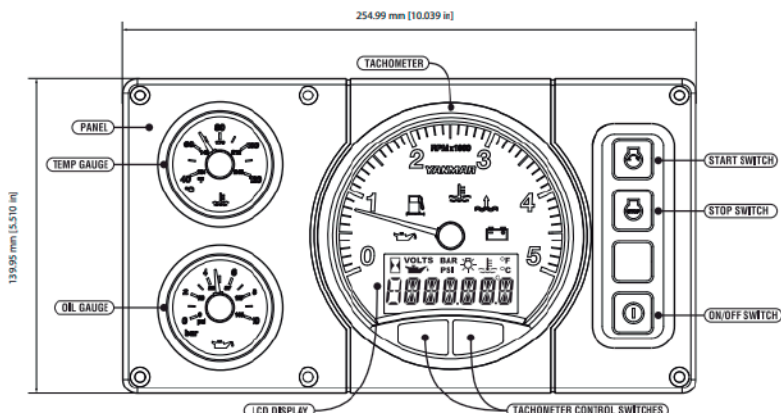
*For other configurations, consult your local Yanmar distributor.

**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

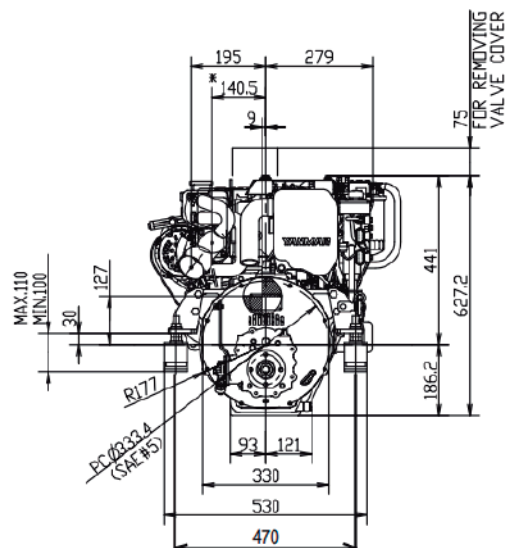
Rubber type flexible mounting

NOTE:

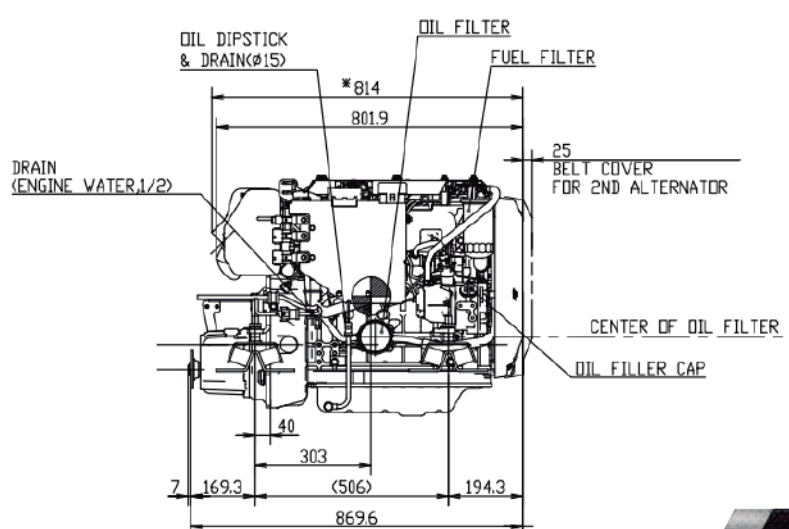
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
Technical data is according to ISO 8665: 2006

DIMENSIONS

REAR VIEW



RIGHT SIDE VIEW

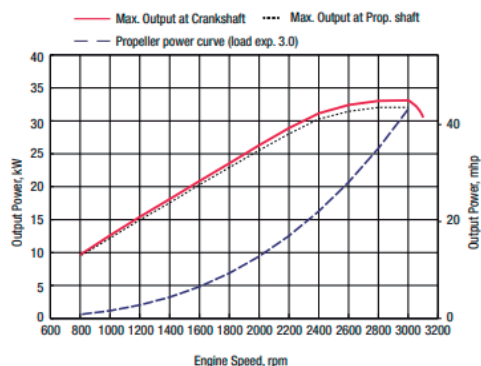


4JH45 with KM35P marine gear

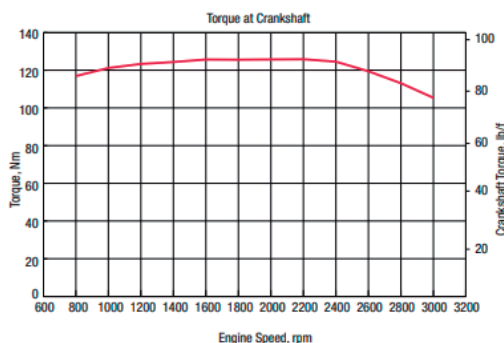
NEREX

PERFORMANCE CURVES

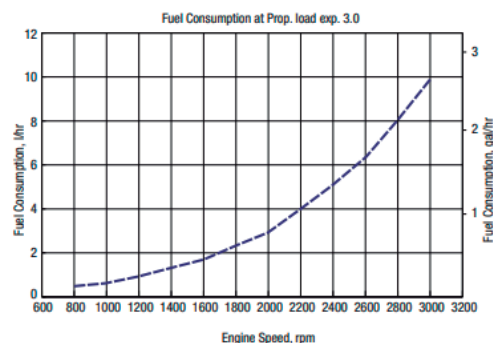
Power



Torque



Fuel Consumption



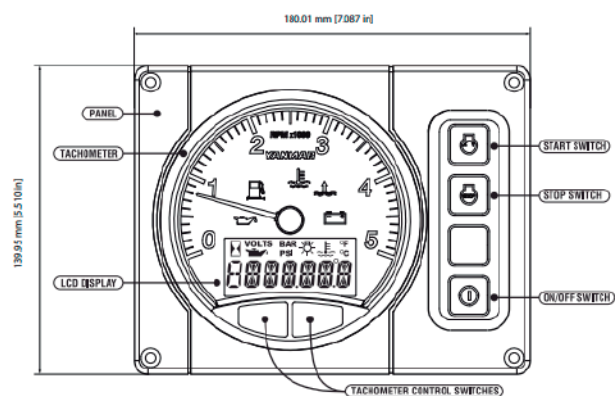
MARINE GEARS/DRIVE*

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]	

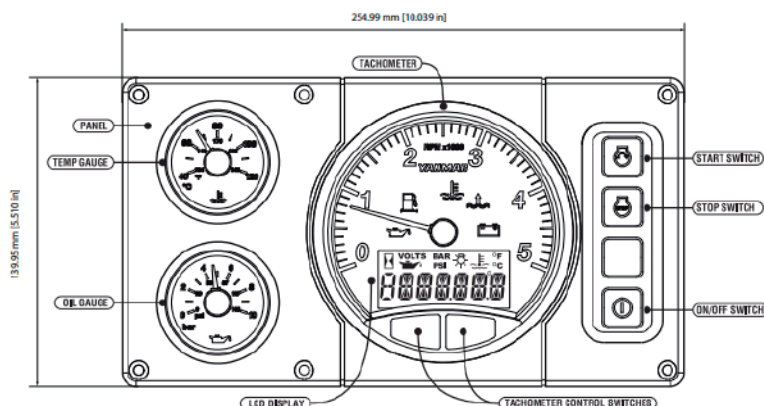
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** 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.

MEREX

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

* 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 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

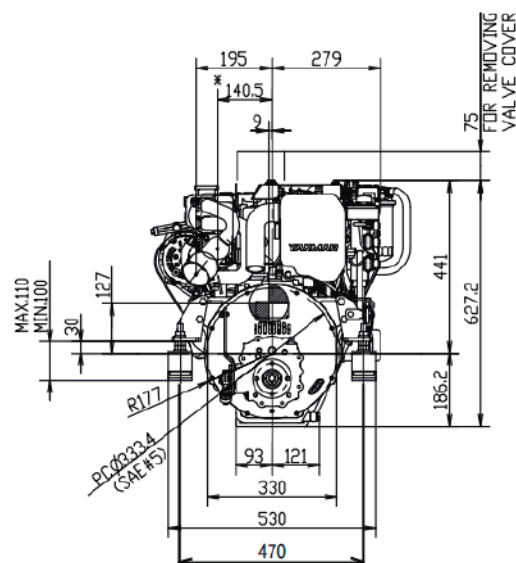
Rubber type flexible mounting

NOTE:

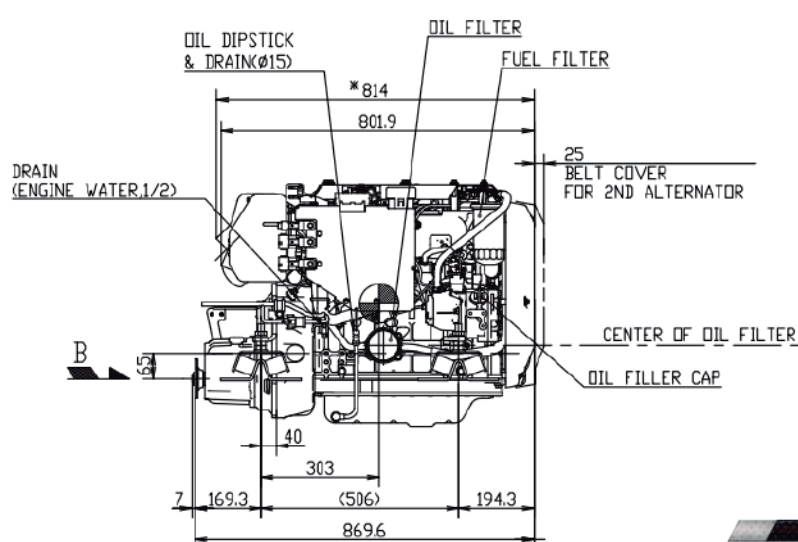
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
Technical data is according to ISO 8665: 2006

DIMENSIONS

REAR VIEW



RIGHT SIDE VIEW

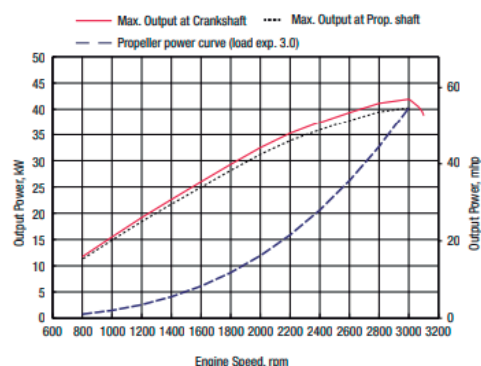


4JH57 with KM35P marine gear

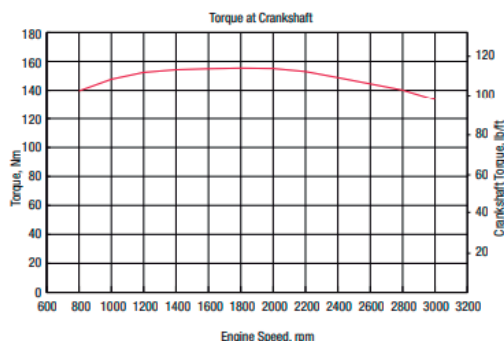
NEREX

PERFORMANCE CURVES

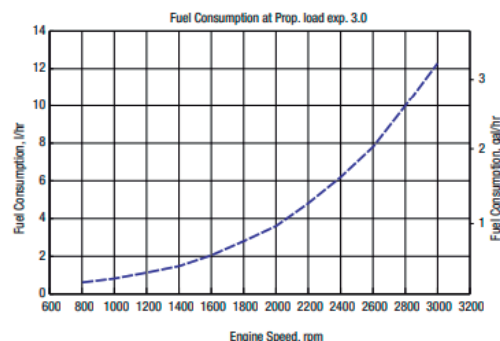
Power



Torque



Fuel Consumption



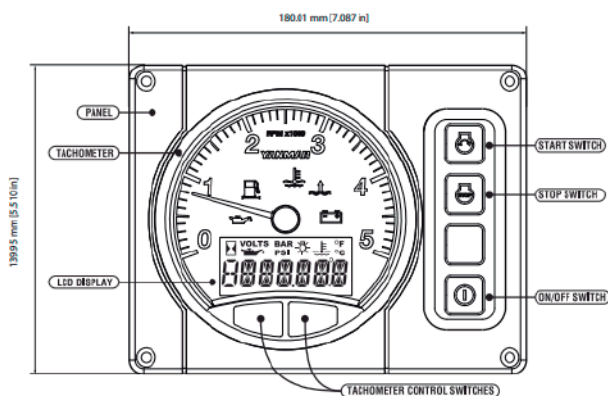
MARINE GEARS/DRIVE*

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]	

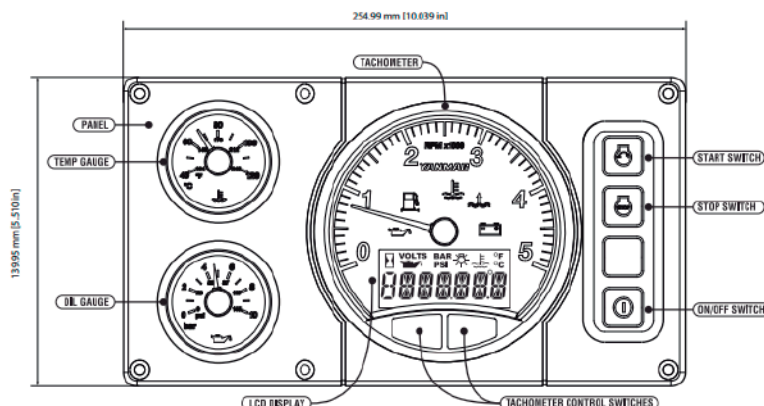
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** 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.

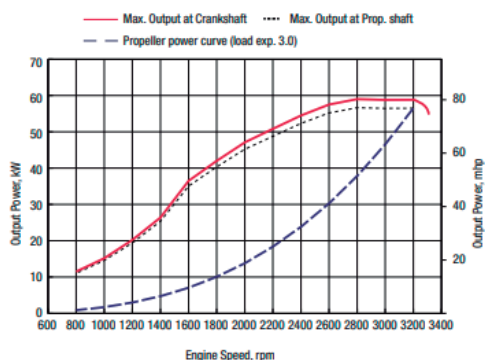
NEREX

MARINE DIESEL ENGINES

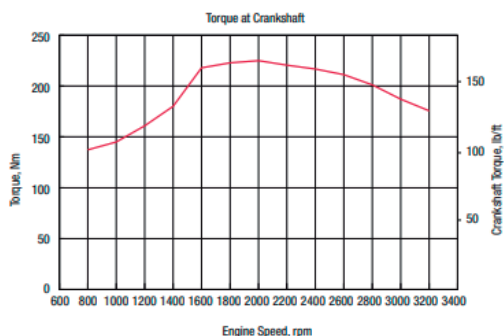


PERFORMANCE CURVES

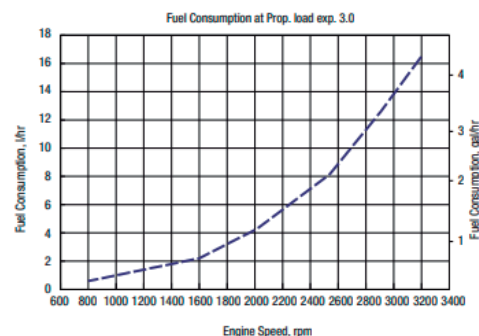
Power



Torque



Fuel Consumption



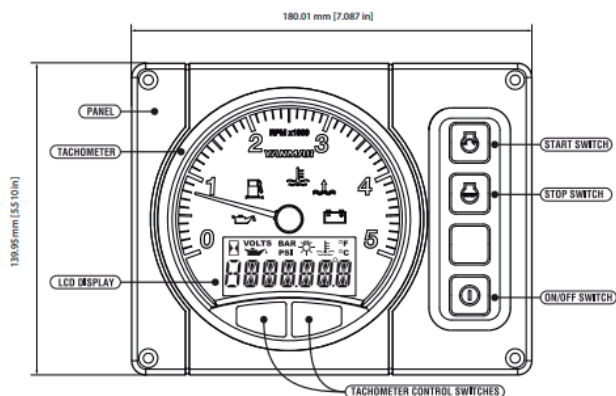
MARINE GEARS/DRIVE*

Model	KM44A [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]	

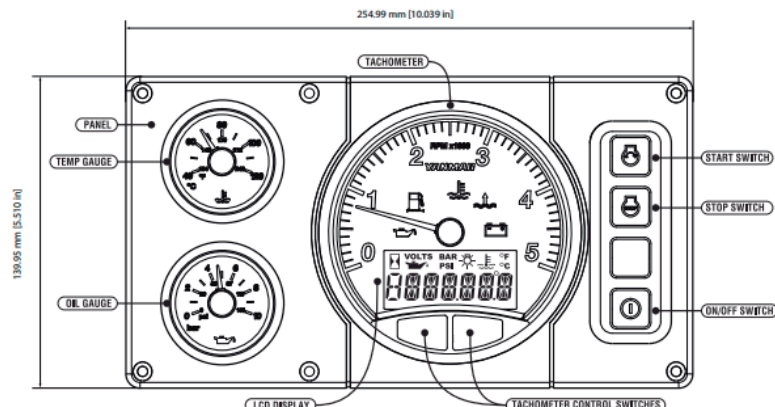
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** 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

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

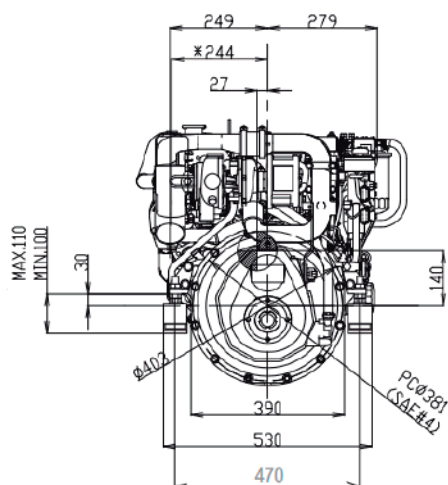
Rubber type flexible mounting

NOTE:

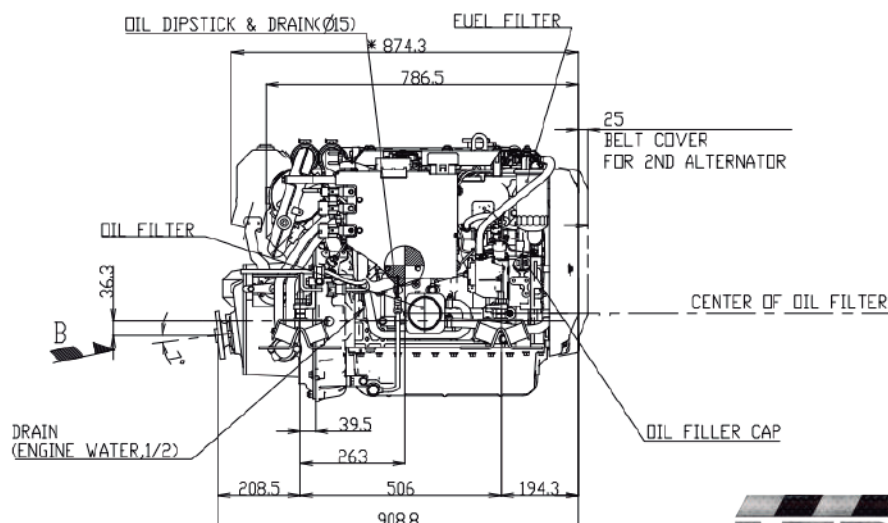
Fuel condition: Density at 15°C = 0.84 g/cm³; 1 kW = 1.3596 mhp = 1.3410 HP
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]
Technical data is according to ISO 8665: 2006

DIMENSIONS

REAR VIEW



RIGHT SIDE VIEW

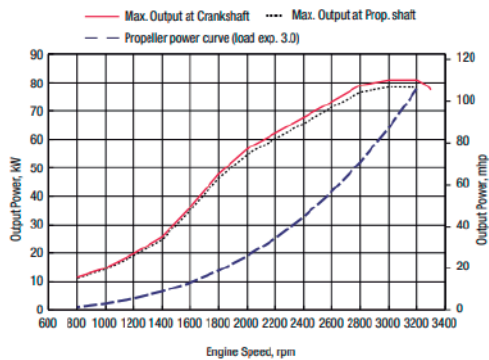


4JH110 with KM4A2 marine gear

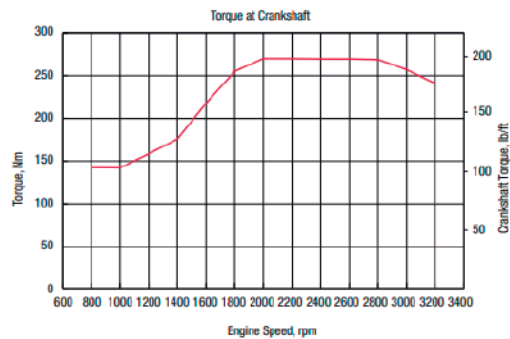
NEREX

PERFORMANCE CURVES

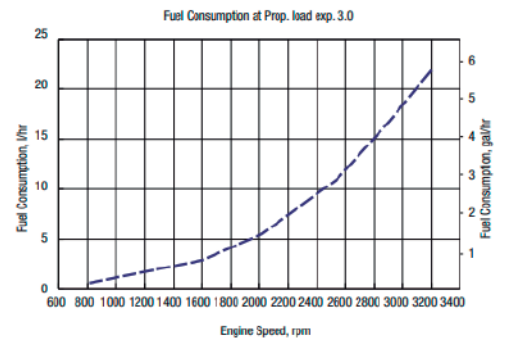
Power



Torque



Fuel Consumption



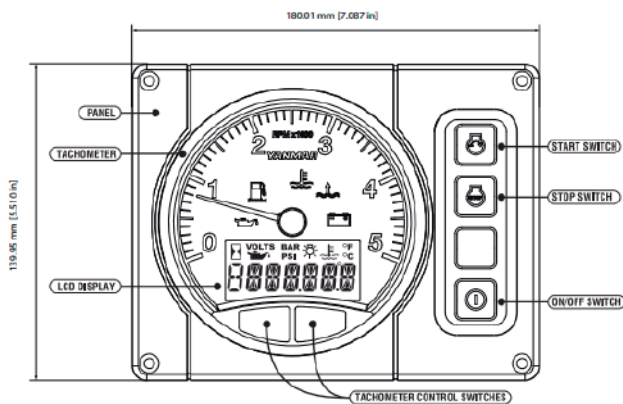
MARINE GEARS/DRIVE*

Model	KM44A [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]	

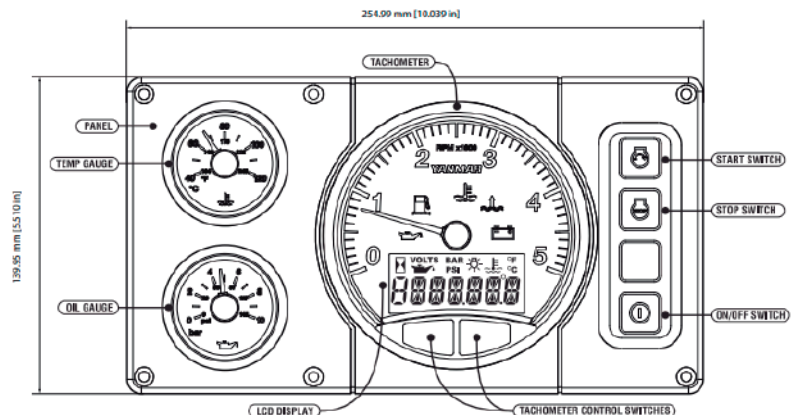
* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

** 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

4LV Series - 150 / 170 / 195

MARINE DIESEL 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

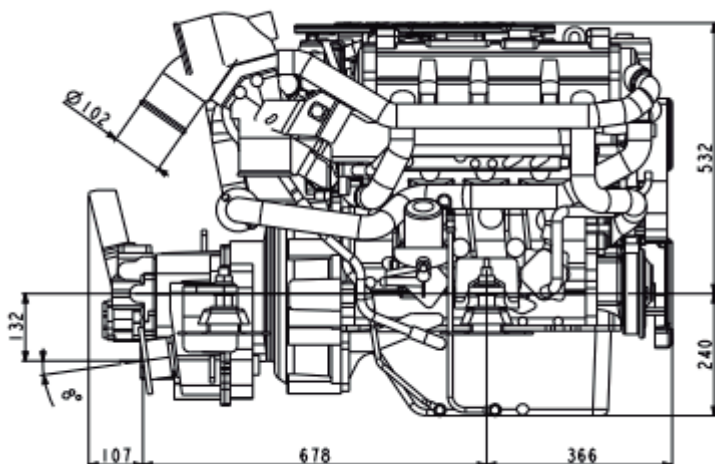
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

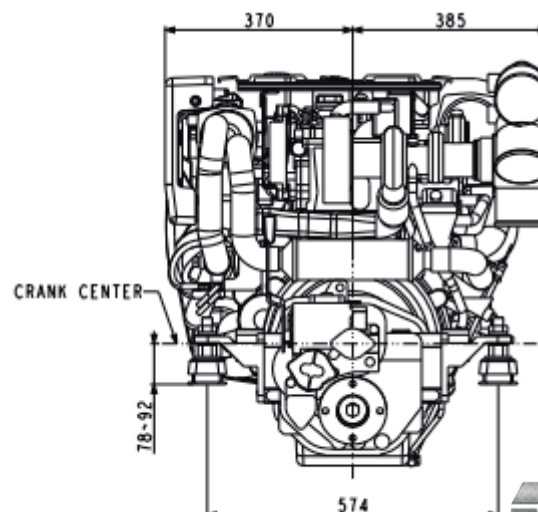
Technical data is according to ISO 8665: 2006

DIMENSIONS

RIGHT SIDE VIEW



REAR VIEW

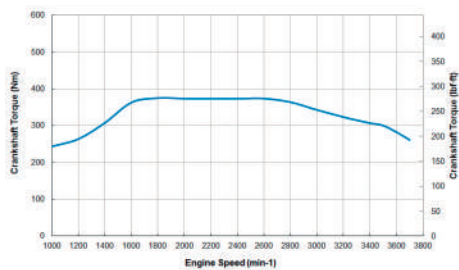


4LV195 with KMH50A marine gear

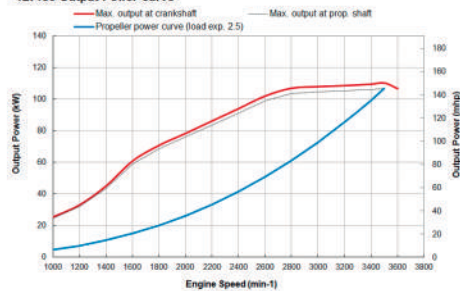
NEREX

PERFORMANCE CURVES

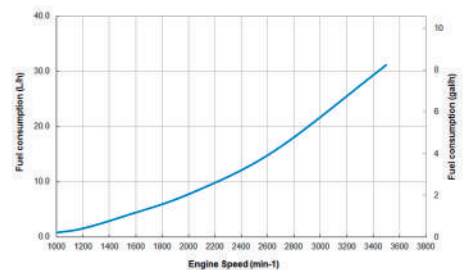
4LV150 Torque curve



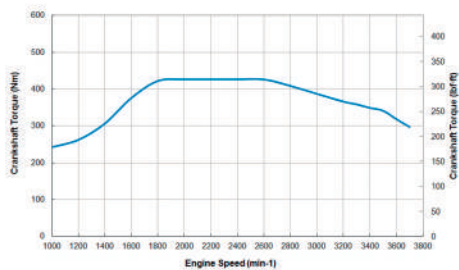
4LV150 Output Power curve



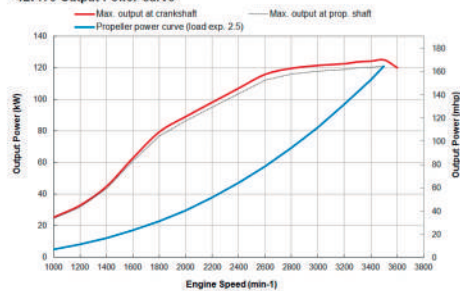
4LV150 Fuel consumption (load exp. 2.5)



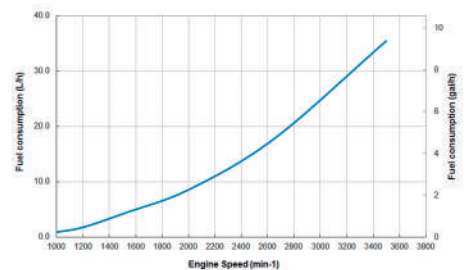
4LV170 Torque curve



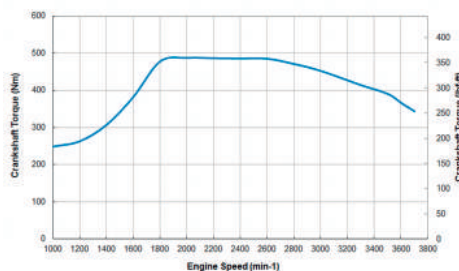
4LV170 Output Power curve



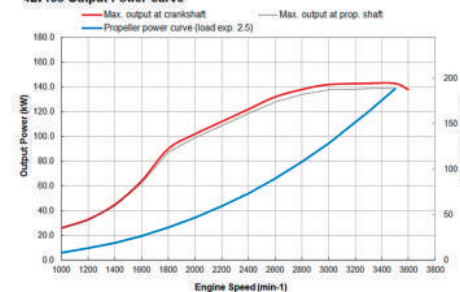
4LV170 Fuel consumption (load exp. 2.5)



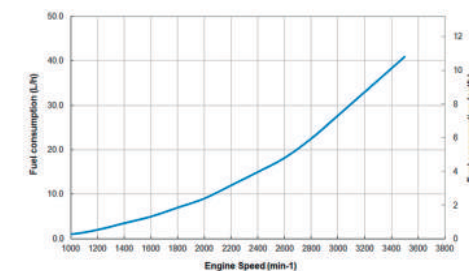
4LV195 Torque curve



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 - 150Z / 170Z / 195Z

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

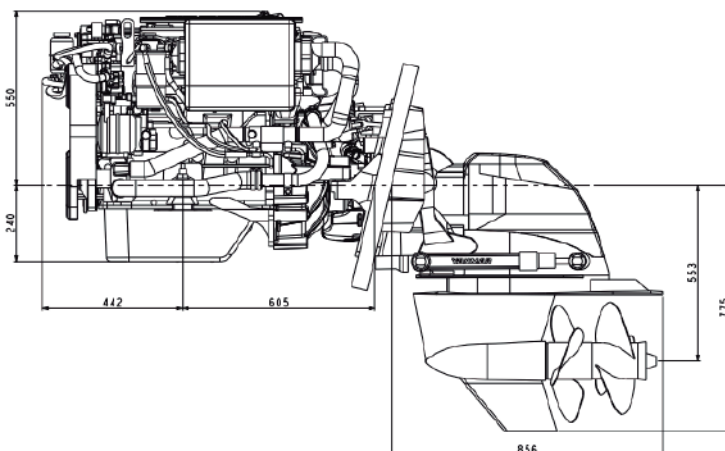
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

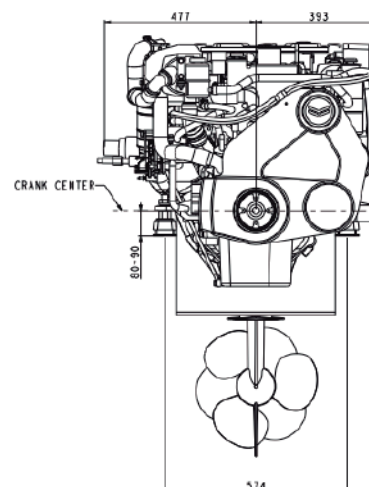
Technical data is according to ISO 8665: 2006

DIMENSIONS

RIGHT SIDE VIEW



REAR VIEW

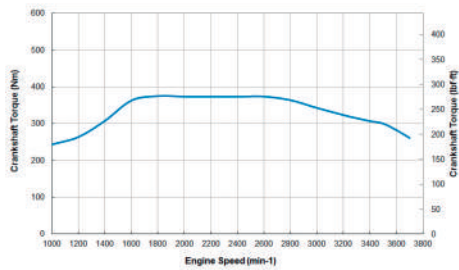


4LV 150Z / 170Z / 195Z

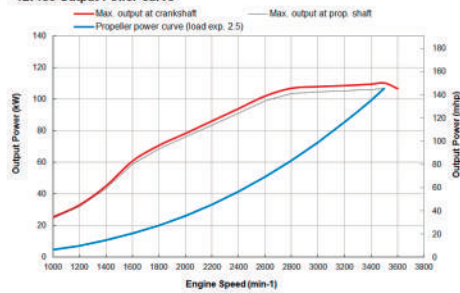
VEREX

PERFORMANCE CURVES

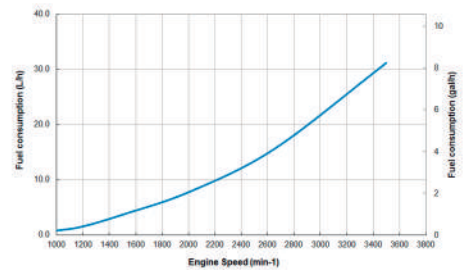
4LV150 Torque curve



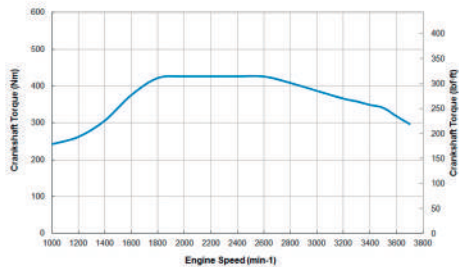
4LV150 Output Power curve



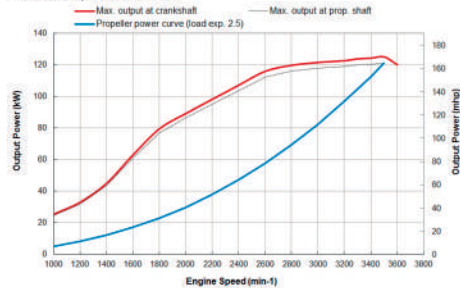
4LV150 Fuel consumption (load exp. 2.5)



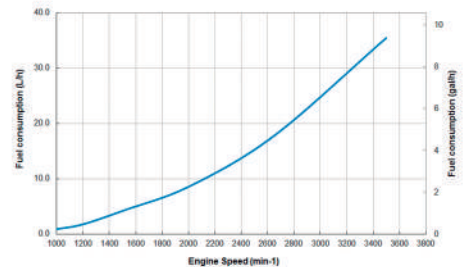
4LV170 Torque curve



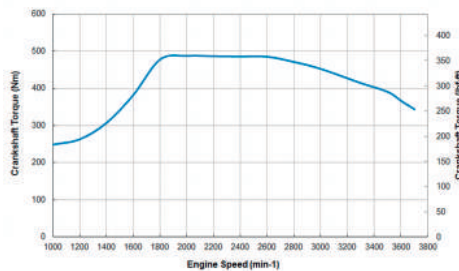
4LV170 Output Power curve



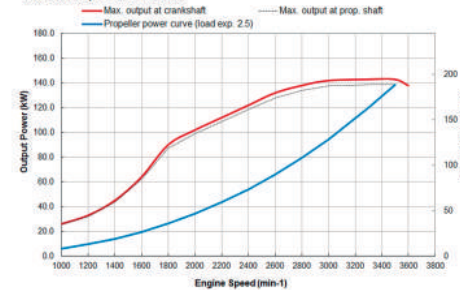
4LV170 Fuel consumption (load exp. 2.5)



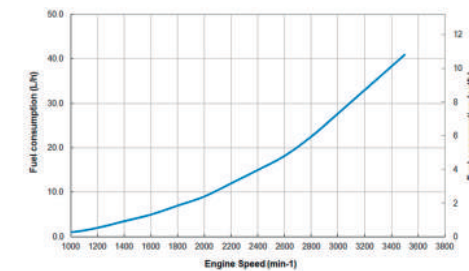
4LV195 Torque curve



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
Propellor 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.



4LV Series - 230 / 250

MARINE COMMON RAIL ENGINES



Configuration

Maximum output at crankshaft*

Displacement

Bore x stroke

Cylinders

Combustion system

Low idle rpm

Aspiration

Starting system

Alternator Denso

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear**

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

169kW @3800 [230 mhp@3800 rpm]

184kW @3800 [250 mhp@3800 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

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

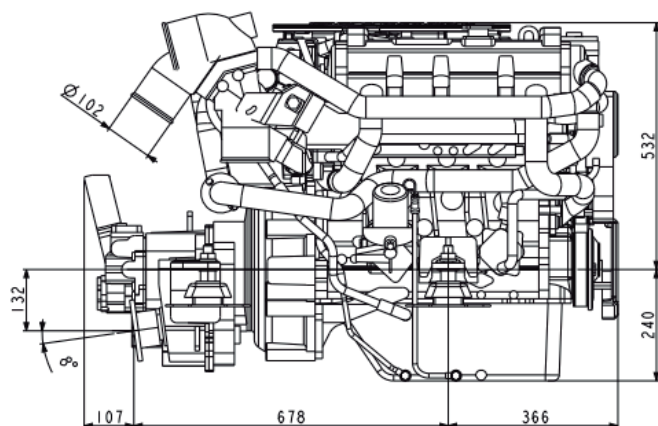
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

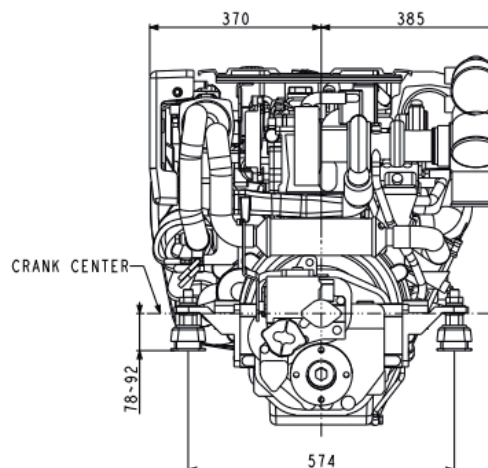
Technical data is according to ISO 8665: 2006

DIMENSIONS

RIGHT SIDE VIEW



REAR VIEW

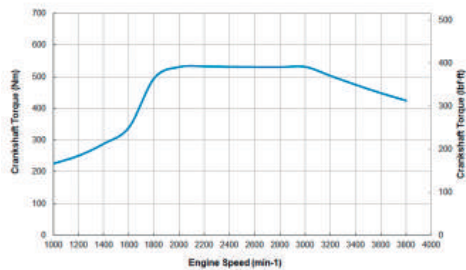


4LV230 with KMH50A marine gear

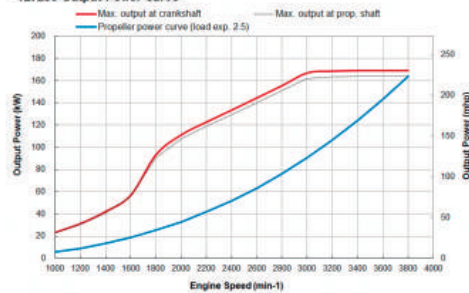
NEREX

PERFORMANCE CURVES

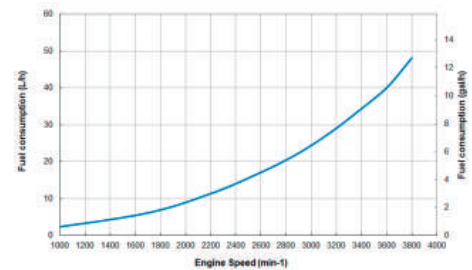
4LV230 Torque curve



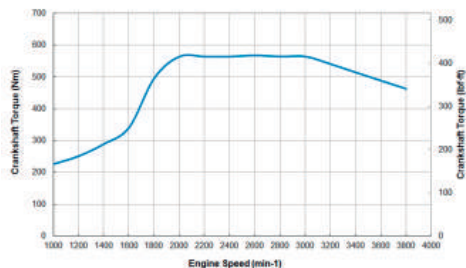
4LV230 Output Power curve



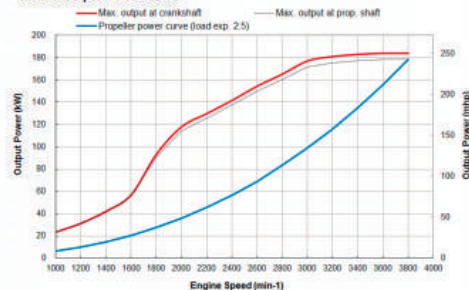
4LV230 Fuel consumption (load exp. 2.5)



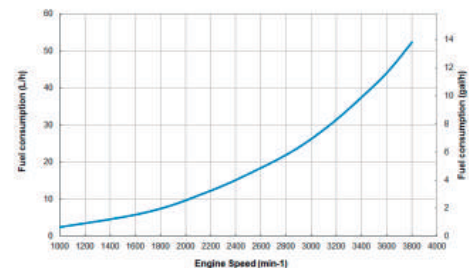
4LV250 Torque curve



4LV250 Output Power curve



4LV250 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]	2275/2275	1784/1784	1564/1564	3115/3115	2405/2405	1827/1827	1538/1538
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 - 230Z / 250Z

MARINE COMMON RAIL ENGINES



Configuration

Maximum output at crankshaft*

Displacement

Bore x stroke

Cylinders

Combustion system

Low idle rpm

Aspiration

Starting system

Alternator Denso

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear**

Emission compliance

Engine mounting

4-stroke, vertical, water-cooled diesel engine

169kW @3800 [230 mhp@3800 rpm]

184kW @3800 [250 mhp@3800 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

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

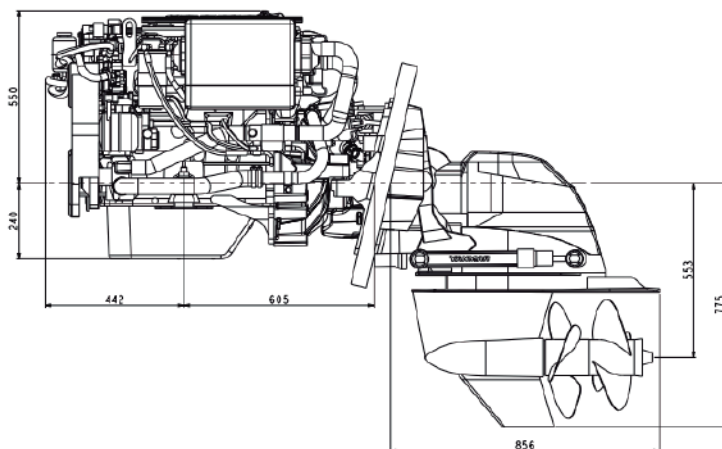
* Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

** Including damper disk

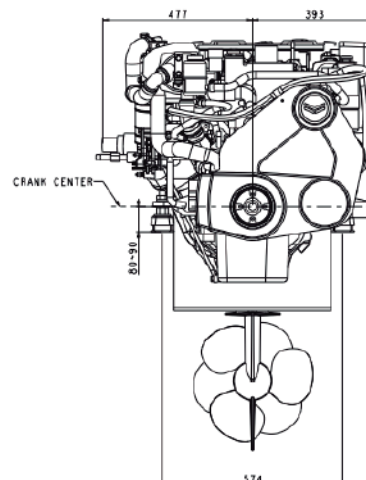
Technical data is according to ISO 8665: 2006

DIMENSIONS

RIGHT SIDE VIEW



REAR VIEW

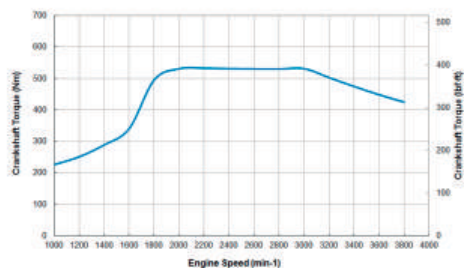


4LV 230Z / 250Z

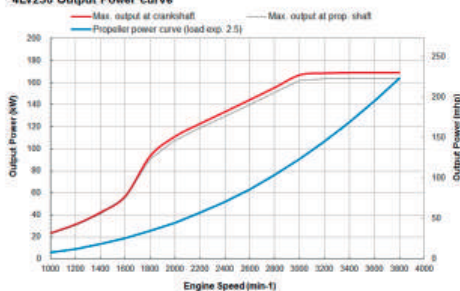
NEREX

PERFORMANCE CURVES

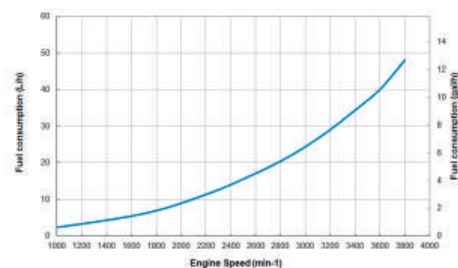
4LV230 Torque curve



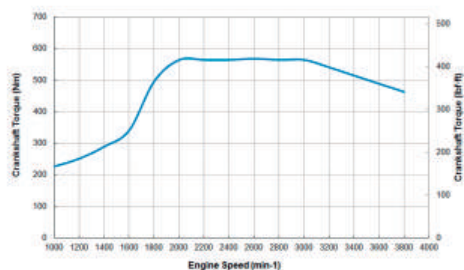
4LV230 Output Power curve



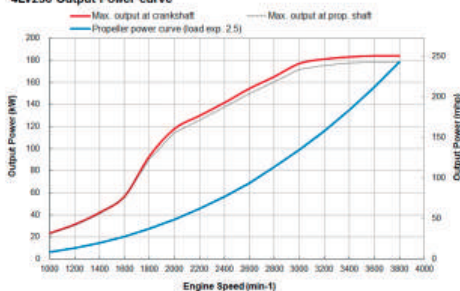
4LV230 Fuel consumption (load exp. 2.5)



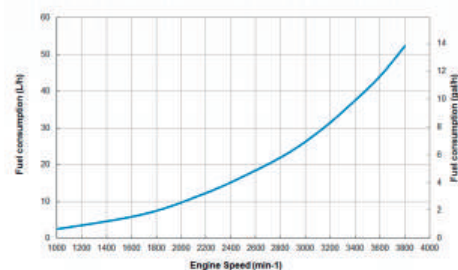
4LV250 Torque curve



4LV250 Output Power curve



4LV250 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
Propellor speed	2303 / 2303	2134 / 2134	1928 / 1928
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.



8LV-320/350/370 Series

MARINE COMMON RAIL ENGINES



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Alternator

Start-assist

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, water-cooled diesel engine

*235 kW@3800 rpm [320 mhp@3800 rpm]

*257 kW@3800 rpm [350 mhp@3800 rpm]

*272 kW@3800 rpm [370 mhp@3800 rpm]

4.460 L [272.24 cu in]

86 mm x 96 mm [3.38 in x 3.78 in]

8 in V-90°

Direct injection common-rail system

Turbocharged with twin TC

12V - 180A

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 stern

435 kg [959 lbs]

EU: RCD 2 EMC US: EPA Tier 3 IMO

Rubber type flexible mounting

NOTE:

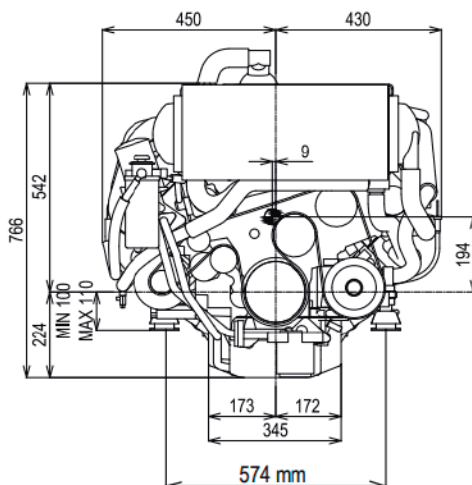
Fuel condition: Density at 15°C = 0.84 g/cm³

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

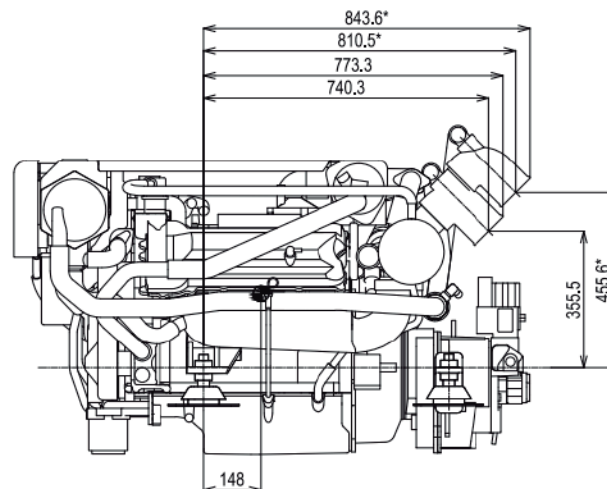
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

GEAR VIEW



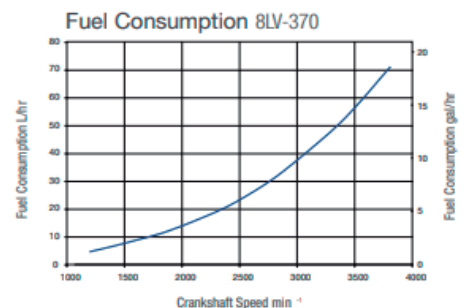
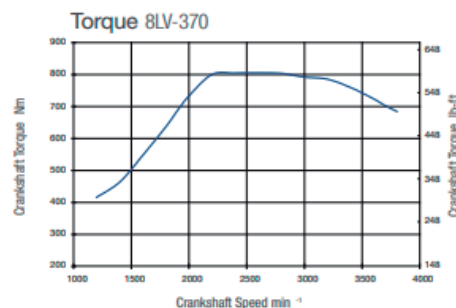
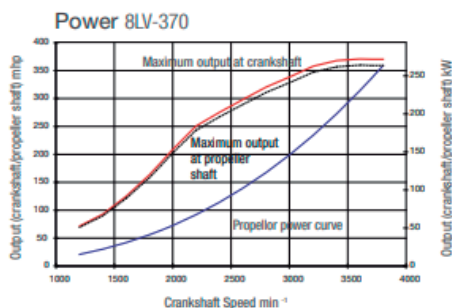
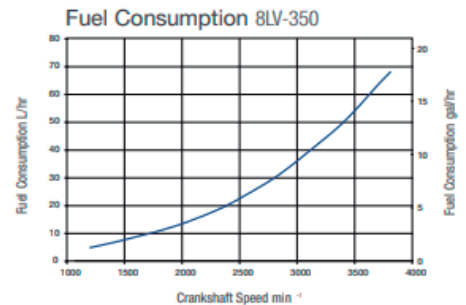
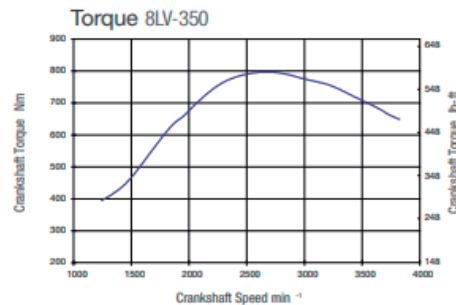
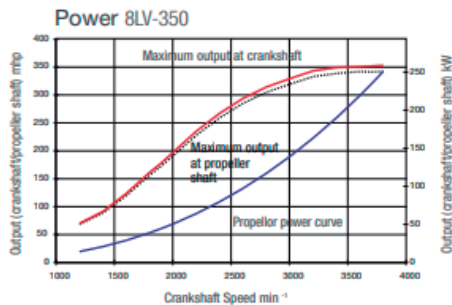
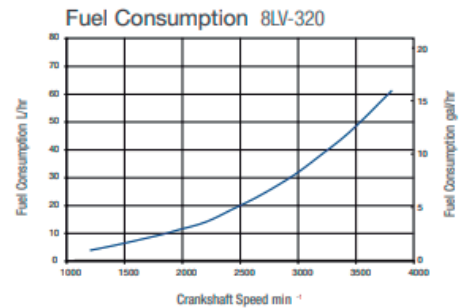
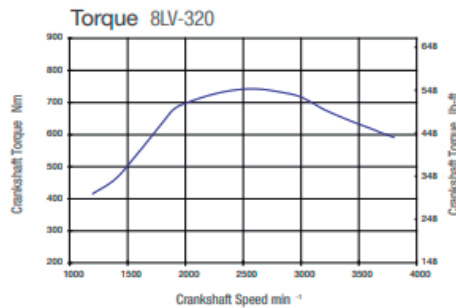
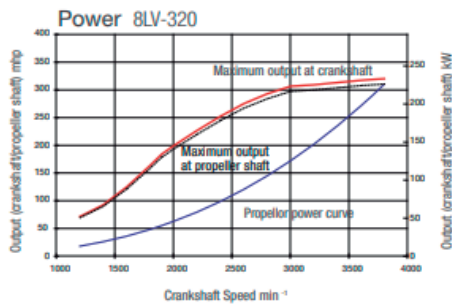
RIGHT SIDE VIEW



8LV series with KMH50A marine gear

VEREX

PERFORMANCE CURVES



MARINE GEARS/DRIVE*

Model	KMH50A [down angle 8°]	KMH52V [integral V-drive 12°]
Type	Hydraulic Actuated Multi-friction disc clutch	
Dry weight**	52 kg (115 lbs)	77 kg (170 lbs)
Reduction Ratio [fwd/rev]	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
Direction of rotation	Clockwise or Counterclockwise	
Lub oil specifications	API class: CF or higher SAE grade #30	
Dry weight – engine & gear 1x**	487 kg (1074 lbs)	512 kg (1129 lbs)

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

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

CONTROL SYSTEM

- YANMAR VC10 control system
- Electronic CAN-bus control-head
- Multi-function color display
- NMEA2000 or J1939 gauge output
- Second or third station - optional

OPTIONAL ACCESSORIES

- High-riser mixing elbow
- SOLAS kit
- Front-PTO pulley [V-belt type A or B]
- Hot water connector

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

NEREX

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

MARINE COMMON RAIL ENGINES



Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Cylinders

Combustion system

Aspiration

Alternator

Start-assist

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

4-stroke, water-cooled diesel engine

*235 kW@3800 rpm [320 mhp@3800 rpm]

*257 kW@3800 rpm [350 mhp@3800 rpm]

*272 kW@3800 rpm [370 mhp@3800 rpm]

4.460 L [272.24 cu in]

86 mm x 96 mm [3.38 in x 3.78 in]

8 in V-90°

Direct injection common-rail system

Turbocharged with twin TC

12V - 180A

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 stern

435 kg [959 lbs]

EU: RCD 2 EMC US: EPA Tier3 IMO

Rubber type flexible mounting

NOTE:

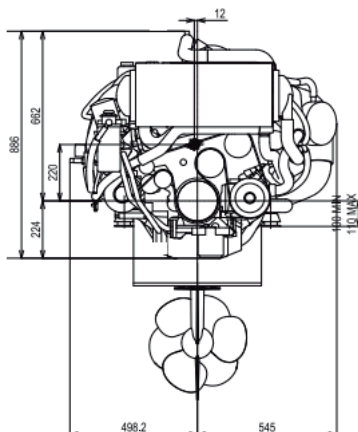
Fuel condition: Density at 15°C = 0.84 g/cm³

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

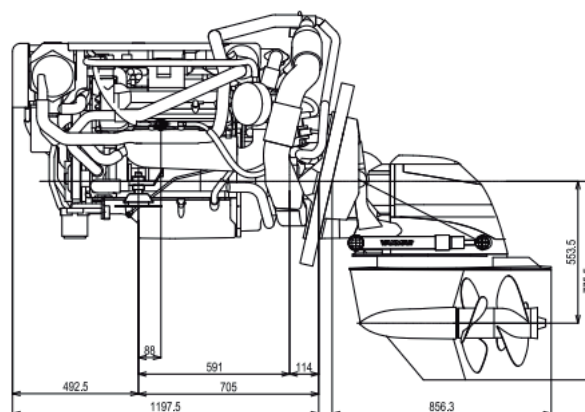
Technical data is according to ISO 8665: 2006/3046-1

DIMENSIONS

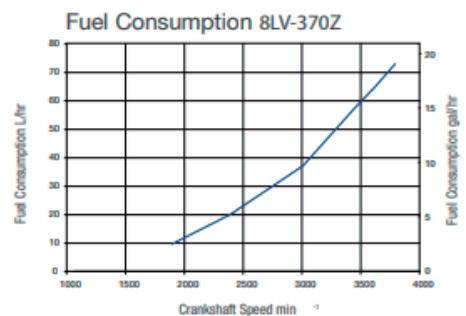
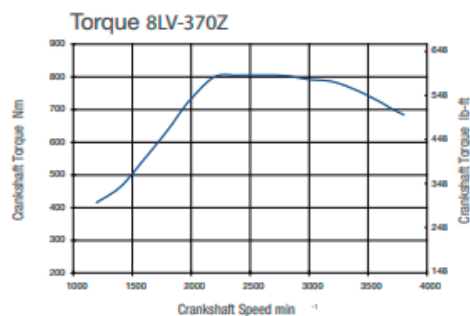
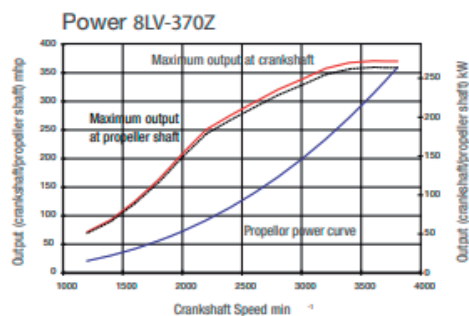
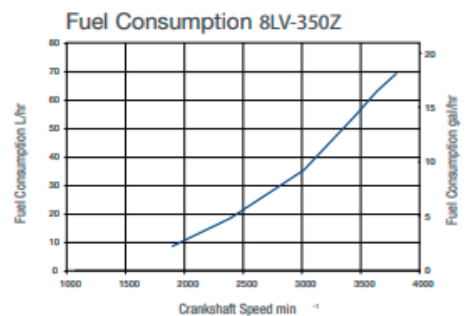
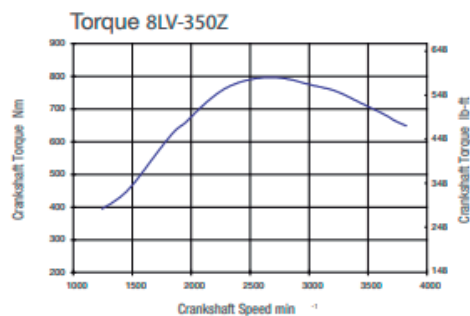
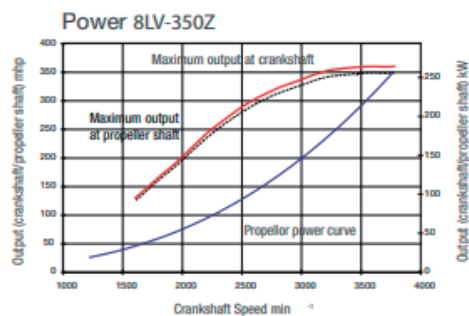
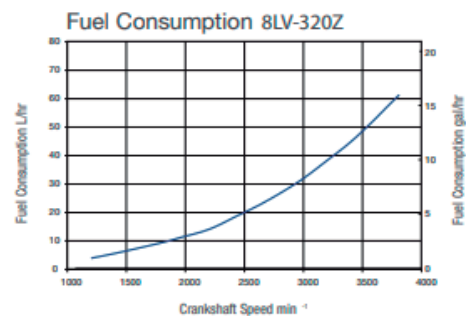
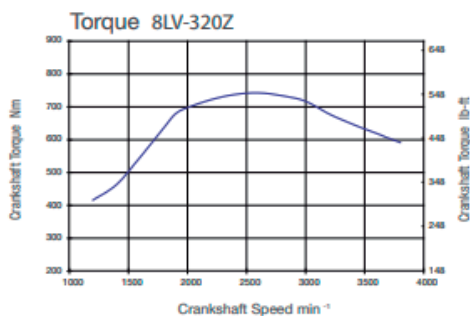
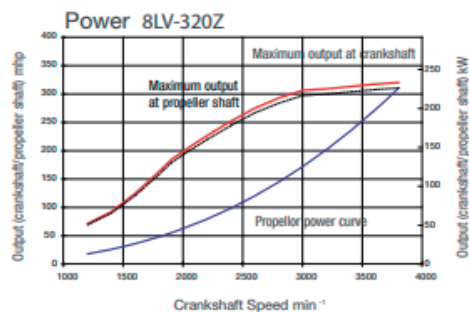
FRONT VIEW



RIGHT SIDE VIEW



PERFORMANCE CURVES



MARINE GEARS/DRIVE

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
Propeller 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 VC10 control system
- Electronic CAN-bus control-head
- Multi-function color display
- NMEA2000 or J1939 gauge output
- Second or third station - optional

OPTIONAL ACCESSORIES

- High-riser mixing elbow
- SOLAS kit
- Front-PTO pulley [V-belt type A or B]
- Hot water connector

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





Configuration

Maximum output at crankshaft

Displacement

Bore x stroke

Combustion system

Aspiration

Starting system

Alternator

Cooling system

Lubrication system

Direction of rotation [crankshaft]

Dry weight without gear

Emission compliance

Engine mounting

In-line 6-cylinder, 4-stroke, vertical, water-cooled diesel engine

*294 kW@3300 rpm [400 mhp]@3300 rpm

*324 kW@3300 rpm [440 mhp]@3300 rpm

5.813 L [354 cu in]

106 mm x 110 mm [4.17 in x 4.33 in]

Direct Injection with Denso Common-Rail system

Turbocharged with watercooled turbine housing

Electric starting 12V - 2.5 kW

12V - 125A

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

Enclosed, forced lubricating system

Counterclockwise viewed from stern

585 kg [1290 lbs]

EU: RCD 2 IMO/GL EMC US: EPA Tier 3

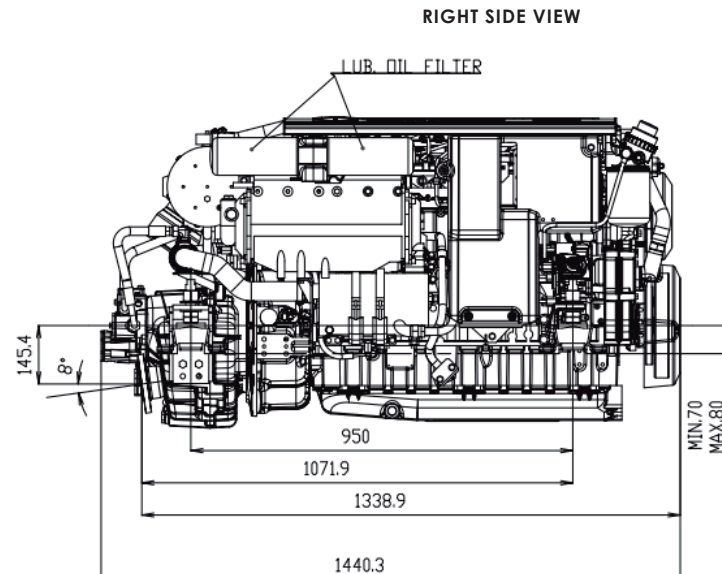
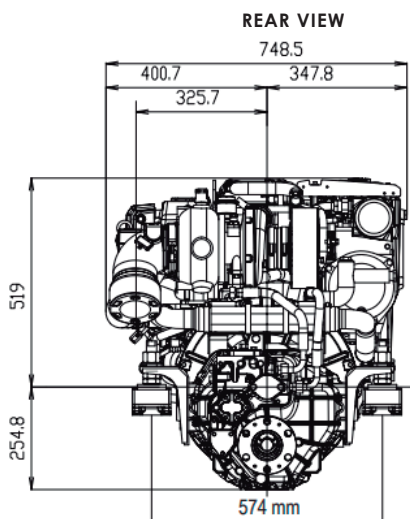
Rubber type flexible mounting

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]

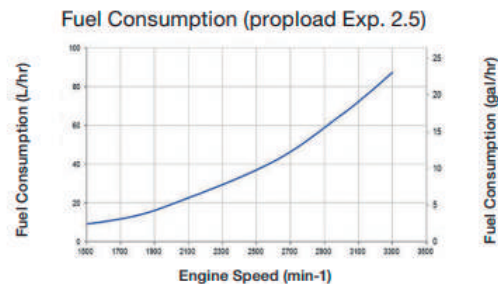
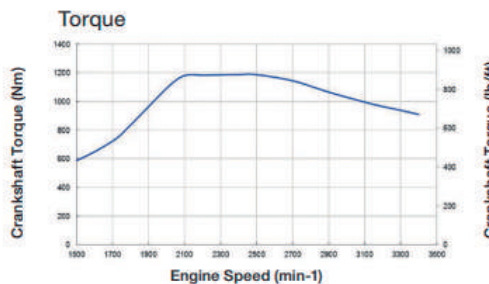
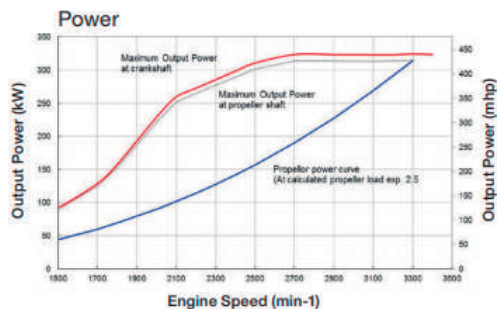
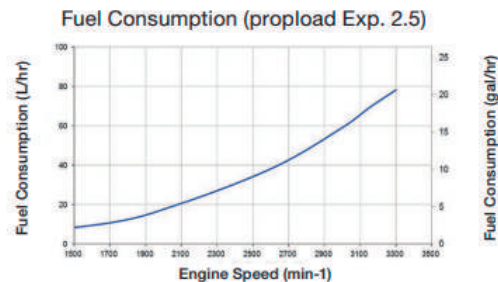
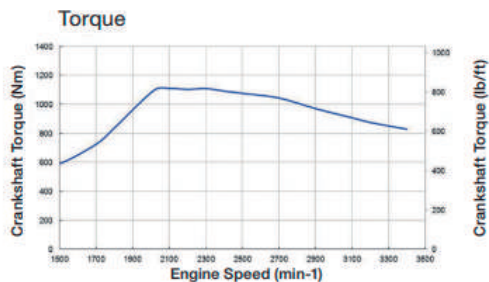
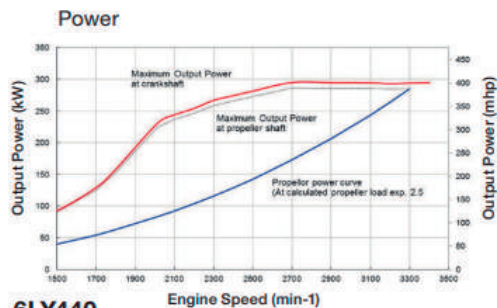
DIMENSIONS



6LY440 with KMH61A2 marine gear

VEREX

PERFORMANCE CURVES



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/rev]	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/rev]	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 color 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.

