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THE NEW M-LINE MARINE DIESEL ENGINES

A VETUS INNOVATION

**CREATORS OF
BOAT SYSTEMS**

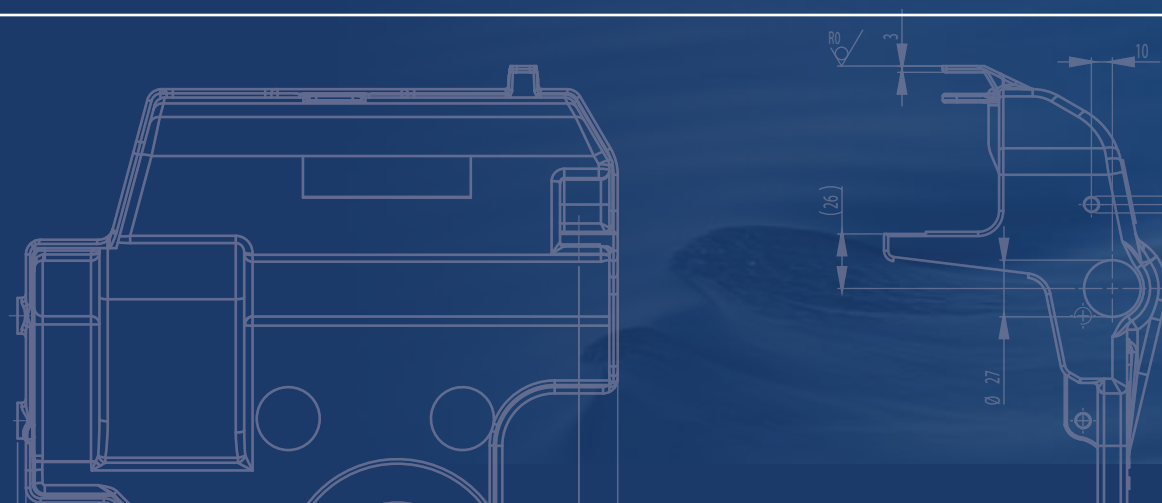


CREATING THE BEST

Product improvement involves learning from our customers and using shared experience to make existing products better. Innovation, in addition will amaze our customers, fill them with excitement, and provide them a product like no other. A. Roeling, Director Research & Development, VETUS

VETUS has marinised diesel engines since 1974 and since then, has become a trusted name in the marine market. The quality and reliability of our famous yellow engines is well known by end users and boat builders everywhere. VETUS now proudly presents the completely redesigned range of M-Line marine diesel engines! This range is the result of applying both improvements and innovations to an already strong product and we invite you to explore all the added benefits in the following pages.

VETUS
Creators of boat systems







THE LINE-UP

The line up of redesigned M-Line marine diesel engines is impressive. With new features, modern appearance, and added benefits, the new M-Line range is designed to meet future market demand.

One of the most notable changes is the cast aluminium top cover. This cover incorporates multiple new and innovative features.

INNOVATION

ENGINE SPACE TEMPERATURE REDUCTION

The heat build-up in engine spaces can easily reach temperatures of 70° C. High ambient temperatures in the engine space can have negative effects on engine performance and installed equipment.

VETUS has developed an elegant yet efficient solution by fitting a water-cooled aluminium top cover. Located directly above the cylinder head, this huge cooling element absorbs radiant heat coming from the engine.

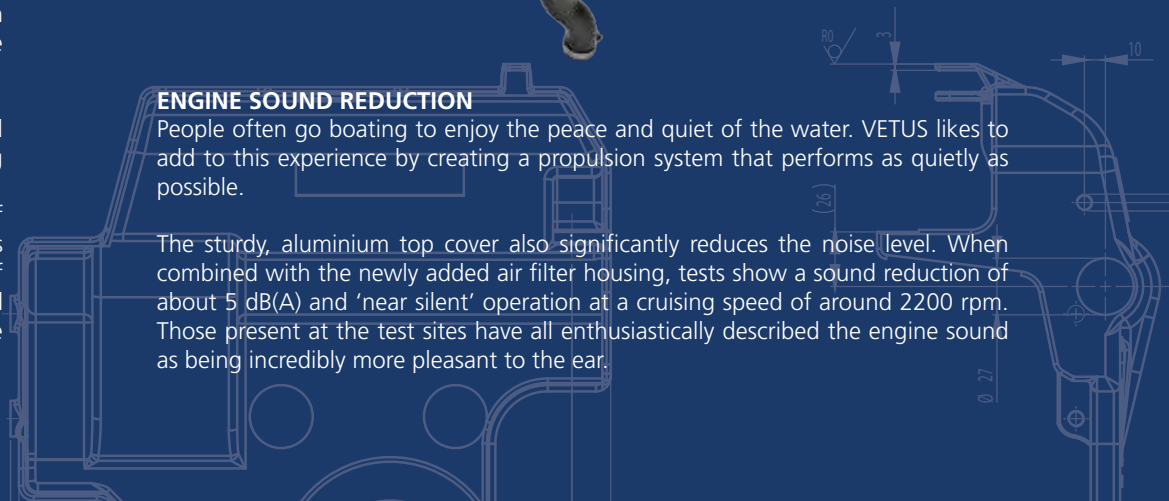
This innovative concept results in a significant temperature reduction of up to 15° C - a 20% reduction! In turn, the cooler ambient temperature provides a more fuel-efficient air supply to the engine and better combustion. To the best of our knowledge, no other marine engine manufacturer uses such an incorporated cooling element to reduce ambient temperature in the engine space. A truly unique solution specially developed by VETUS.

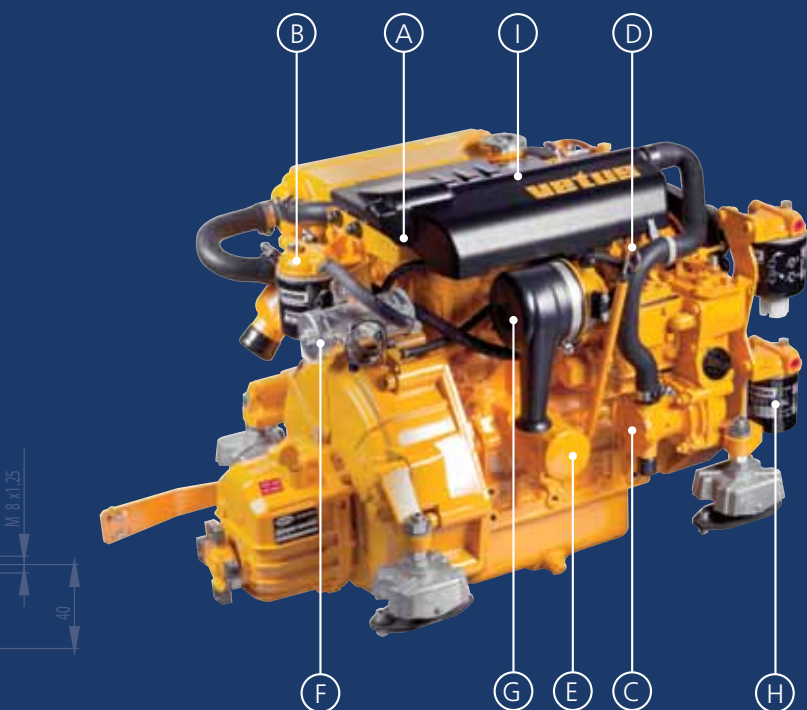


ENGINE SOUND REDUCTION

People often go boating to enjoy the peace and quiet of the water. VETUS likes to add to this experience by creating a propulsion system that performs as quietly as possible.

The sturdy, aluminium top cover also significantly reduces the noise level. When combined with the newly added air filter housing, tests show a sound reduction of about 5 dB(A) and 'near silent' operation at a cruising speed of around 2200 rpm. Those present at the test sites have all enthusiastically described the engine sound as being incredibly more pleasant to the ear.





NEW FEATURES

Based on shared experience, the redesigned M-line incorporates many new features designed to make life easier for both the boat builder and the end user:

- Service parts such as fuses and relays (A), fuel filter and fuel connections (B), impeller (C), dipstick (D), and oil filter (E) are all easily accessible. On all M4 engines the impeller is located at the front, for even easier access
- The wiring is improved to offer easy connection and extra safety
- All M-line engines are equipped with an electric fuel pump (F), actuated by the ignition switch
- A new air inlet filter housing attenuates the airflow and lowers the induction sound level (G)
- The heat exchanger unit has 26 improvements, including the construction materials and surface treatments
- The plastic front cover enhances safety and appearance. All pulleys and belts are covered, thereby meeting the EC Machinery Directive
- Front mounted oil and fuel filters including a bracket are available as an option, making servicing as convenient as possible (H)
- When higher charging output is required, all M4 engines are designed to accept a second alternator as an option (when a second alternator is fitted, the front cover is not supplied)
- Finally yet importantly, the water-cooled top cover not only reduces engine room temperature, but is designed to be used as a step, making it easier to move around the engine (I)

SOME THINGS NEVER CHANGE

All these new advantages come without compromising any other features. With a range from 12 – 52 HP (9 – 38 kW) the VETUS M-line is the preferred choice for many boat builders. Do you need even more reasons to choose a VETUS engine?

Customers can expect the very highest level of service when choosing a VETUS engine, together with high quality and professional advice. Purchasing a VETUS engine brings a host of related benefits:

- VETUS engines are quiet running and highly fuel-efficient
- These reliable and rugged engines offer high power and torque output
- The fuel system is automatically self-bleeding, which is convenient after a fuel filter replacement
- All VETUS marine diesel engines meet the Recreational Craft Directive 94/25/CE, as amended by 2003/44/CE and Russian RRR emission standards. Some also meet the BS0II emission regulations
- All engines are equipped with a high output marine alternator as a standard for fast recharging of batteries. A second alternator is available as an option on all type M4 engines
- A number of M-Line engines are available as 'power packs' or hydraulic propulsion versions
- A saildrive version is available for all M-Line engines
- M-line engines type M3.29 to M4.56 are available with SOLAS approval, for applications such as life and rescue boats

Please refer to page 13 for more information about saildrive and SOLAS versions



STANDARD SUPPLY

All VETUS M-Line engines are supplied with a start panel and connection loom as standard. The start panel incorporates an ignition key switch, together with warning lights and alarms for the most important functions. Panels supplied with M3 and M4 engines also include a tachometer, hour counter and voltmeter.

All panels can be upgraded if required to include additional monitoring instruments. A new, stylish aluminium panel, designed to complement the latest interior designs, is also available as an option.

As an alternative to the standard start panels, we can supply loose instruments and a readymade wiring loom, so that you can design your own dashboard.

Each engine is also supplied with four flexible engine mountings as standard. These mounts are carefully selected to provide optimum vibration damping, depending on the weight and characteristics of the engine model.

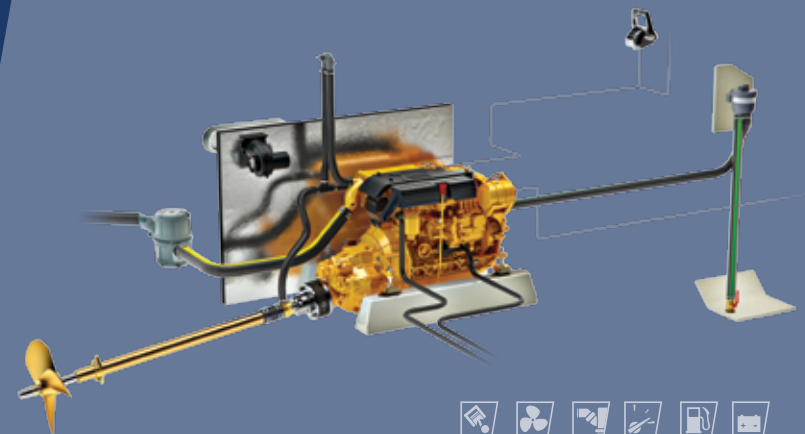


Optional stylish aluminium panel MPA22

COMPLEMENTARY EQUIPMENT

VETUS also designs and manufactures all the ancillary equipment to fit 'around the engine', thus ensuring a perfect installation. Think for example of engine controls, cooling water filters, sound insulation, stern gear, exhaust and fuel systems.

For more information about these systems, please ask your dealer, consult the VETUS catalogue, or visit www.vetus.com.



Engine room auxillary systems

M2.13



8.8 KW / 12 HP



TECHNICAL SPECIFICATIONS

Supplied as standard with instrument panel type MP10B12, four flexible engine mountings type KSTEUN25V, and a oil sump pump.

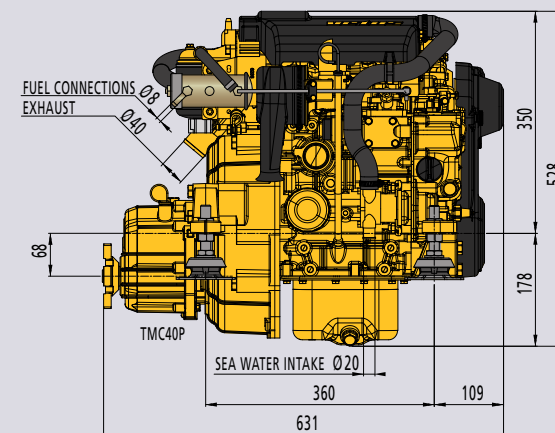
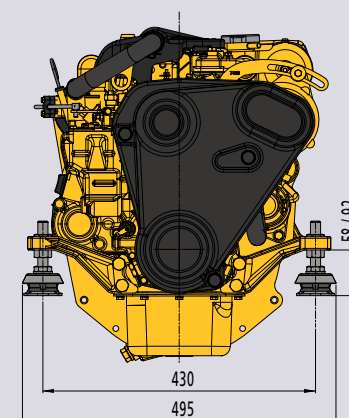
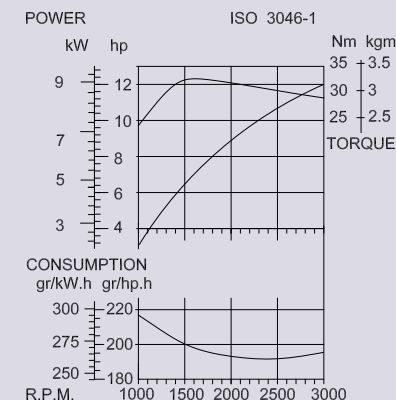
All VETUS engines are certified according ISO 8178-1



* Max. output at flywheel	8.8 kW (12 hp)
* Max. output at propeller shaft	8.7 kW (11.8 hp)
Maximum rpm	3000
Max. torque	32.7 Nm/1600 rpm
Bore x stroke	76 mm x 70 mm
Displacement	635 cm ³
Number of cylinders	2 in line
Combustion system	indirect injection
Compression ratio	23:1
Firing order	1-2
Intake	naturally aspirated
Electrical system	12 Volt - 75 Amps.
Cooling system (standard)	indirect cooling
	(keel cooling optional)
Gearbox, standard	TMC40P (2/2.60:1)
Gearbox options	ZF12M 2.114/2.63:1
	ZF15MIV 2.13/2.99:1
	TMC60A 2/2.5:1

Saildrive	SP60 2,15/2,38:1
	SD10 2,23/2,49:1
Dry weight (incl. std. gearbox)	107 kg
Fuel consumption at 2500 rpm	268 g/kW.h (196 g/hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	1.5 m
Calorifier connection kit	optional
Instrument panel (standard)	MP10B12
Warning lights and audible alarm	oil pressure,
	temperature
	(coolant and exhaust),
	charging current
Control light for	pre-heating
Electric circuit protection	fuse 10 Amps.
Certifications	EU-RCD

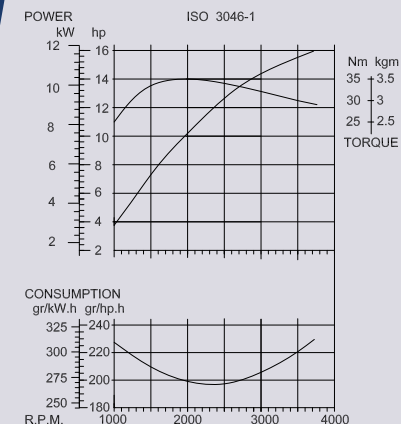
* In accordance with ISO 8665 and ISO 3046-1



M2.18



11.8 KW / 16 HP



TECHNICAL SPECIFICATIONS

Supplied as standard with instrument panel type MP10B12, four flexible engine mountings type KSTEUN35V, and a oil sump pump.

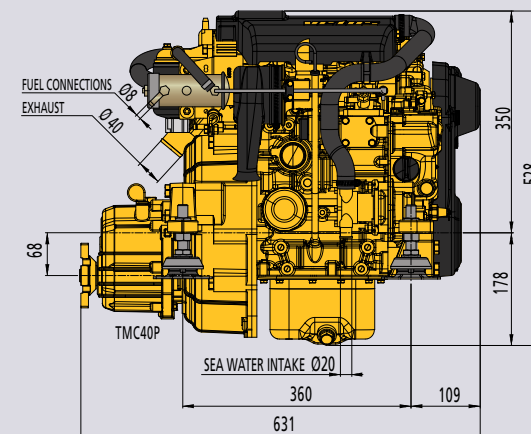
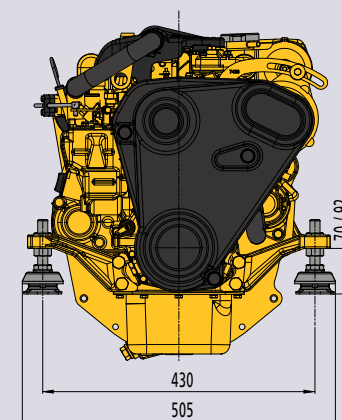


All VETUS engines are certified according ISO 8178-1

* Max. output at flywheel	11.8 kW (16 hp)
* Max. output at propeller shaft	11.6 kW (15.8 hp)
Maximum rpm	3600
Max. torque	35.1 Nm/2000 rpm
Bore x stroke	76 mm x 70 mm
Displacement	635 cm ³
Number of cylinders	2 in line
Combustion system	indirect injection
Compression ratio	23:1
Firing order	1-2
Intake	naturally aspirated
Electrical system	12 Volt - 75 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC40P (2/2.60:1)
Gearbox options	ZF12M 2.114/2.63:1 ZF15MIV 2.13/2.99:1 TMC60A 2/2.5:1

Saildrive	SP60 2,15/2,38:1 SD10 2,23/2,49:1
Dry weight (incl. std. gearbox)	107 kg
Fuel consumption at 2500 rpm	268 g/kW.h (196 g/hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle; Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	1.5 m
Calorifier connection kit	optional
Instrument panel (standard)	MP10B12
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating
Electric circuit protection	fuse 10 Amps.
Certifications	EU-RCD, BSO II

* In accordance with ISO 8665 and ISO 3046-1



M3.29



20 KW / 27 HP



TECHNICAL SPECIFICATIONS

Supplied as standard with instrument panel type MP22BS12A, four flexible engine mountings type KSTEUN40, and a oil sump pump.

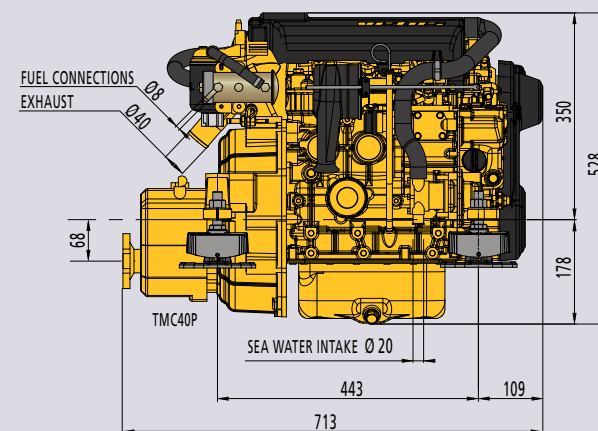
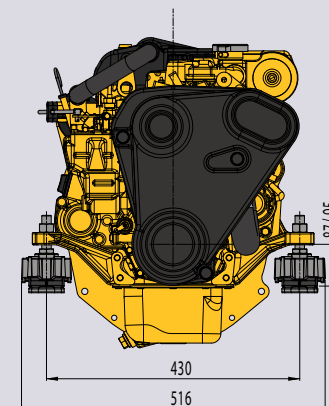
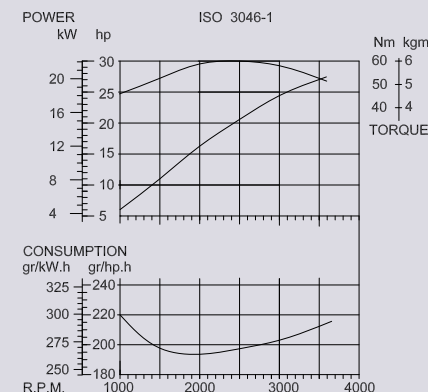
All VETUS engines are certified according ISO 8178-1



* Max. output at flywheel	20 kW (27 hp)
* Max. output at propeller shaft	19.3 kW (26.2 hp)
Maximum rpm	3600
Max. torque	30.2 Nm/2500 rpm
Bore x stroke	76 mm x 70 mm
Displacement	952 cm ³
Number of cylinders	3 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-2
Intake	naturally aspirated
Electrical system	12 Volt - 75 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC40P (2/2.60:1)
Gearbox options	ZF12M 2.114/2.63:1 ZF15MIV 2.13/2.99:1 TMC60A 2/2.5:1

Saildrive	SP60 2,15/2,38:1 SD10 2,23/2,49:1
Dry weight (incl. std. gearbox)	134 kg
Fuel consumption at 2500 rpm	270 g/kW.h (199 g/hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	1.5 m
Calorifier connection kit	optional
Instrument panel (standard)	MP22BS12A
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating
Electric circuit protection	fuse 10 Amps.
Certifications	EU-RCD, BSO II, SOLAS

* In accordance with ISO 8665 and ISO 3046-1



M4.35



24.3 KW / 33 HP



TECHNICAL SPECIFICATIONS

Supplied as standard with instrument panel type MP22BS12A, four flexible engine mountings type KSTEUN75, and a oil sump pump.

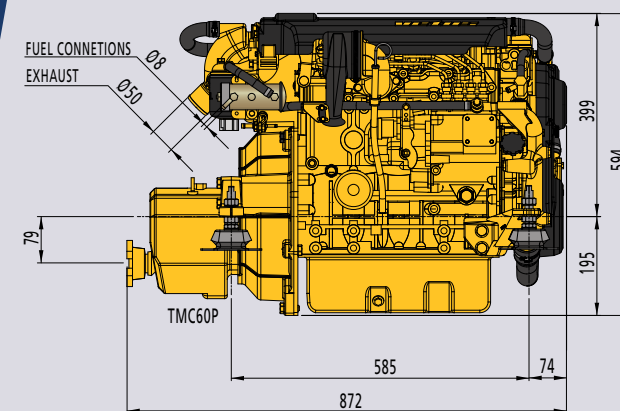
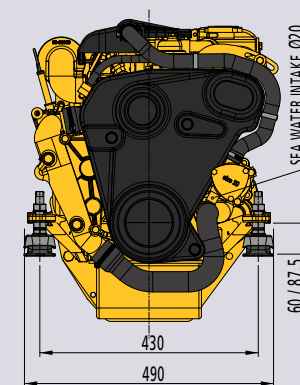
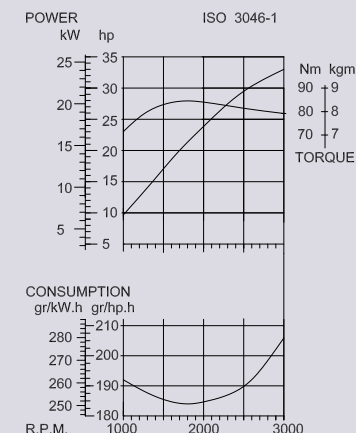
All VETUS engines are certified according ISO 8178-1



* Max. output at flywheel	24.3 kW (33 hp)
* Max. output at propeller shaft	23.6 kW (32.1 hp)
Maximum rpm	3000
Max. torque	83.8 Nm/1700 rpm
Bore x stroke	78 mm x 92 mm
Displacement	1758 cm ³
Number of cylinders	4 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-4-2
Intake	naturally aspirated
Electrical system	12 Volt - 110 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC60P (2/2.5/2.94:1)
Gearbox options	ZF12M 2.14/2.63:1 TMC60A 2/2.5:1

Saildrive	SP60 2,15/2,38:1 SD10 2,23/2,49:1
Dry weight (incl. std. gearbox)	199 kg
Fuel consumption at 1800 rpm	252 g/kW.h (185 g/hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	1.5 m
Calorifier connection kit	optional
Instrument panel (standard)	MP22BS12A
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating
Electric circuit protection	fuse 10 Amps.
Certifications	EU-RCD, SOLAS

* In accordance with ISO 8665 and ISO 3046-1



M4.45



30.9 KW / 42 HP



TECHNICAL SPECIFICATIONS

Supplied as standard with instrument panel type MP22BS12A, four flexible engine mountings type KSTEUN75, and a oil sump pump.

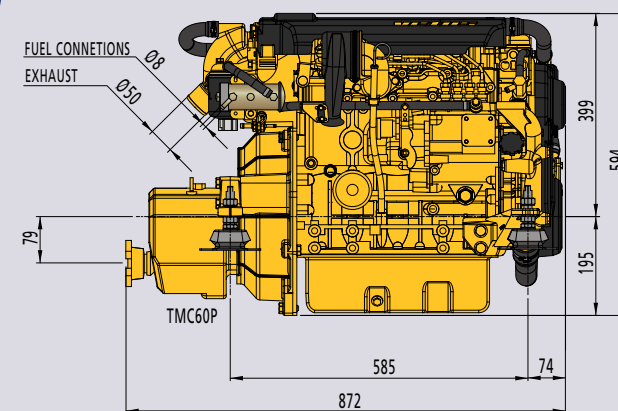
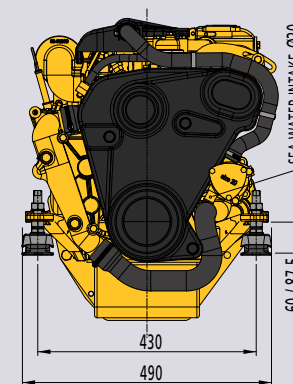
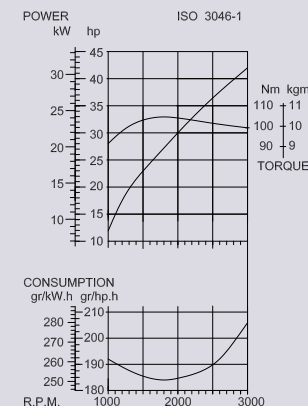
All VETUS engines are certified according ISO 8178-1



* Max. output at flywheel	30.9 kW (42 hp)
* Max. output at propeller shaft	30 kW (40.8 hp)
Maximum rpm	3000
Max. torque	106.4 Nm/1750 rpm
Bore x stroke	78 mm x 92 mm
Displacement	1758 cm ³
Number of cylinders	4 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-4-2
Intake	naturally aspirated
Electrical system	12 Volt - 110 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TMC60P (2/2.5/2.94:1)
Gearbox options	ZF12M 2.14/2.63:1 TMC60A 2/2.5:1

Saildrive	SP60 2,15/2,38:1 SD10 2,23/2,49:1
Dry weight (incl. std. gearbox)	199 kg
Fuel consumption at 1800 rpm	252 g/kW.h (185 g/hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	1.5 m
Calorifier connection kit	optional
Instrument panel (standard)	MP22BS12A
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating
Electric circuit protection	fuse 10 Amps.
Certifications	EU-RCD, BSO, SOLAS

* In accordance with ISO 8665 and ISO 3046-1



AVAILABLE IN 2015

M4.56



38.3 KW / 52 HP



TECHNICAL SPECIFICATIONS

This engine is available in 2015.

Supplied as standard with instrument panel type MP22BS12A, four flexible engine mountings type KSTEUN80V, and a oil sump pump.

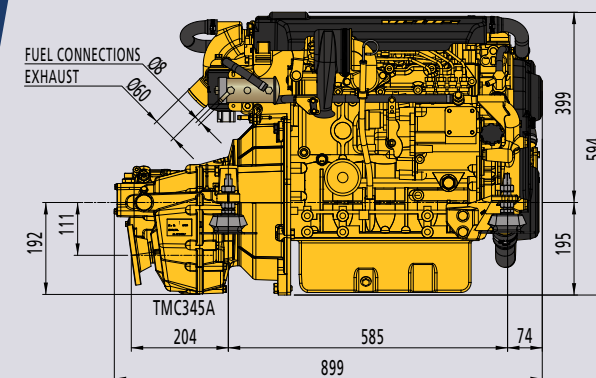
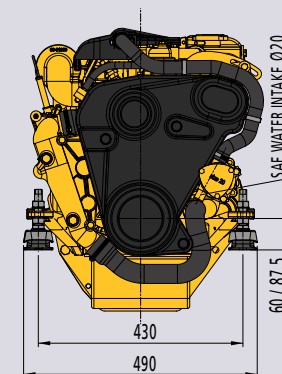
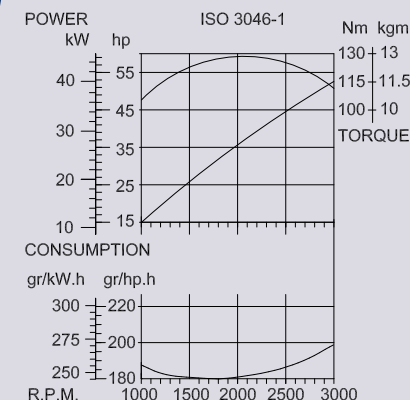
All VETUS engines are certified according ISO 8178-1



* Max. output at flywheel	38.3 kW (52 hp)
* Max. output at propeller shaft	37.1 kW (51 hp)
Maximum rpm	3000
Max. torque	127 Nm/2000 rpm
Bore x stroke	78 mm x 92 mm
Displacement	1758 cm ³
Number of cylinders	4 in line
Combustion system	indirect injection
Compression ratio	22:1
Firing order	1-3-4-2
Intake	Turbo charged
Electrical system	12 Volt - 110 Amps.
Cooling system (standard)	indirect cooling (keel cooling optional)
Gearbox, standard	TM345(A) (2/2.47:1)
Gearbox options	ZF12M 2.14:1 ZF15MIV 2.13/2.99:1 TMC60P 2/2.5:1

Saildrive	SP60 2,15/2,38:1 SD10 2,23/2,49:1
Dry weight (incl. std. gearbox)	206 kg
Fuel consumption at 1800 rpm	244 g/kW.h (179 g/hp.h)
Max. backwards installation angle	15°
Max. lateral inclination angle;	
Continuously	25°
5 minutes max.	30°
Suction height of fuel lift pump	1.5 m
Calorifier connection kit	optional
Instrument panel (standard)	MP22BS12A
Warning lights and audible alarm	oil pressure, temperature (coolant and exhaust), charging current
Control light for	pre-heating
Electric circuit protection	fuse 10 Amps.
Certifications	EU-RCD, SOLAS

* In accordance with ISO 8665 and ISO 3046-1



SAILDRIVE

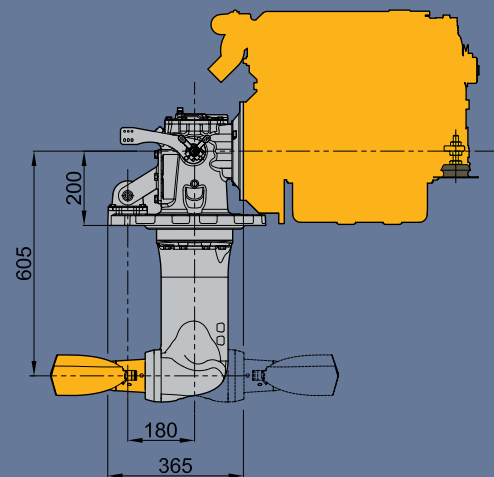
All M-line engines can be supplied with a ZF or Technodrive saildrive. Two ratio's are available to match engine power and speed to propeller size, with identical ratios both ahead and astern. This is ideal for twin-engine installations such as in a catamaran, with one left-hand and one right-hand propeller. The overall dimensions are identical for both ratios.

Another advantage of this saildrive is that the underwater drive leg can be fitted 180° reversed. This will permit the engine to be installed ahead or behind the saildrive unit for greater flexibility of installation. The installation is electrically isolated and can therefore be used in aluminium boats.

In addition, we can supply a GRP engine bed for both models.

Adaptor kit for existing Volvo Penta saildrives

All VETUS M-line engines can also be supplied with an adapter kit to fit an existing Volvo Penta saildrive. Kits are available for 110S, 120S or 120SB saildrives.



SOLAS

VETUS can also supply engines for SOLAS applications such as life and rescue boats. This range includes engines from 27.2 to 52 hp based on the current M-line models M3.29, M4.35, M4.45 and M4.56.

The abovementioned engine types can be supplied to comply with the following SOLAS requirements:

- The engine stops automatically if inverted. If this occurs, leakage of oil and fuel is minimal
- The engine can be restarted immediately after righting
- The engine starts at temperatures down to minus 15°C
- The engine operates when submerged in water to the crankshaft level
- The engine can operate intermittently with a maximum inclination of 30°
- The engine is available in either keel cooled or intercooled versions
- Various optional features such as a mechanical spring starter, fire fighting pump or a heating element are available on request.

A special SOLAS instrument panel is supplied as standard.



COMPLEMENTARY SERVICES

A VETUS engine brings with it 40 years of experience in producing reliable and compact marine engines, ensuring safe and continuous boating pleasure for all customers. We believe that our customers deserve the best when choosing VETUS, therefore all our engines come with a 5-year warranty in accordance with the VETUS Guarantee and Service conditions. Furthermore, all our customers can rely on the VETUS dealer network, which provides service, spare parts, and a specialised point of contact worldwide.





About VETUS

Developing innovative systems for your boat is truly what VETUS is about. VETUS invents and develops systems consisting of a wide range of products to keep your boat in an excellent technical condition. For 50 years VETUS has been one of the world's leading companies when it comes to innovative products for pleasure craft and small commercial vessels. The VETUS catalogue is regularly consulted by the engineers and designers from leading yacht builders for good reason. It is also regularly used as educational material in marine training establishments.

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