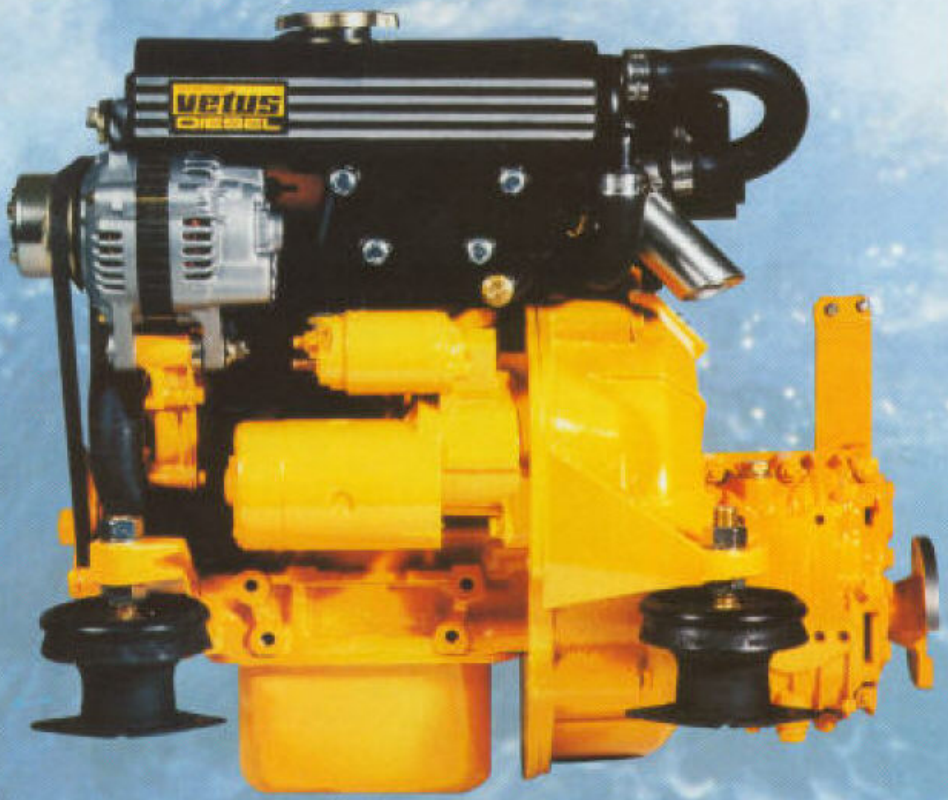
vetus® MARINE DIESEL ENGINES

These VETUS marine diesel engines feature an **indirect** cooling system by means of a **heat exchanger**. The high level of standard equipment is as follows:

1. Not only is the fresh cooling water temperature protected by means of audible and visual signals, but also the **temperature of the raw water cooling systems** is safeguarded by the same method. In case of an insufficient supply of water (e.g. clogged waterstrainer or defective pump) a warning (sensor in the exhaust) is given long before the engine itself becomes overheated.
2. Engine instrument panel.
3. Four flexible engine mountings, suited to the engine.
4. In case of a fault in the control panel or board circuitry, the engine can also be stopped by means of a **mechanical stop** on the fuel pump.
5. The complete engine wiring with multi-plugs, all hoses and the connections for the remote control cables are readily fitted to the engine, for quick and easy installation.
6. A manual oil sump pump is standard supply with each **VETUS** engine, for easy oil change.

The indirect cooling system of VETUS marine diesel engines is completely prepared for quick and easy installation of a (VETUS) calorifier.

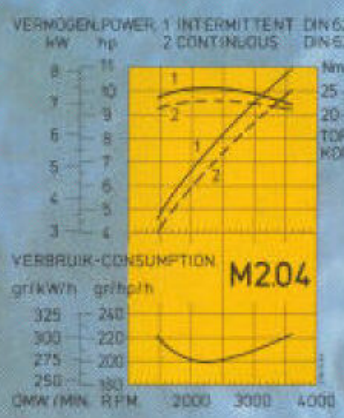
The basic engine block is made by Mitsubishi and the marinization has been carried out to under VETUS own control. Both Mitsubishi and VETUS have devoted very careful attention to the reduction of vibration and noise level. In short: a VETUS diesel represents "world-class" power.

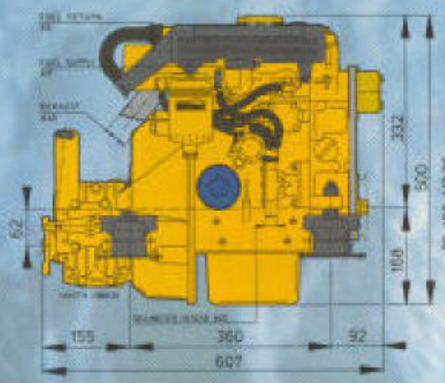


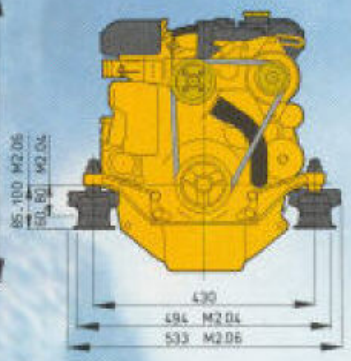
M 2.04 and M 2.06

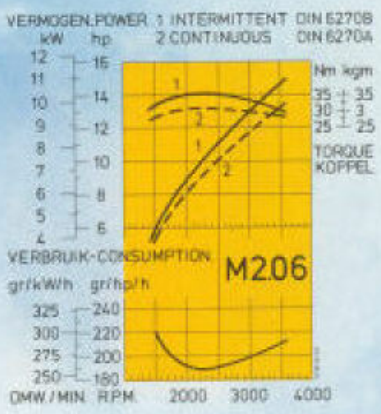
Technical data M 2.04:		Technical data M 2.06:
Basic engine	: Mitsubishi	: Mitsubishi
Bore	: 65 mm	: 76 mm
Stroke	: 70 mm	: 70 mm
Capacity	: 464 cm³	: 635 cm³
Number of cylinders	: 2	: 2
Alternator	: 12 Volt - 40 Amp.	: 12 Volt - 40 Amp.
Output	: 8,1 kW (11 HP) (DIN6270B) 7,4 kW (10 HP) (DIN6270A)	: 11 kW (15 HP) (DIN6270B) 9,9 kW (13,5 HP) (DIN6270A)
Number of revs.	: 3600 r.p.m.	: 3600 r.p.m.
Torque	: 23 Nm at 2500 r.p.m. (DIN 6270B) (21 Nm at 2500 omw./min. DIN 6270A)	: 32 Nm at 2500 r.p.m. (DIN 6270B) (29 Nm at 2500 r.p.m. DIN 6270A)
Fuel consumption	: 269 g/kW/h (198 g/HP/h) at 2200 r.p.m.	: 252 g/kW/h (185 g/HP/h)
Reserve-gearbox	: Hurth HBW 35-2R (2,05:1) HBW 35-3R (2,72:1) V-drive HBW 150-V-2 (2,13:1) V-drive HBW 150-V-3 (2,99:1)	: Hurth HBW 35-2R (2,05:1) Hurth HBW 35-3R (2,72:1) V-drive HBW 150-V-2 (2,13:1) V-drive HBW 150-V-3 (2,99:1)
Weight (incl. HBW 35 gearbox)	: 98 kg/216 lbs	: 98 kg/216 lbs
Suction height mech. feedpump	: 1,5 m/5 ft.	: 1,5 m/5 ft.
Max. installation angle (backwards)	: 15°	: 15°
Max. lateral inclination angle (cont.)	: 25°	: 25°
Max. lateral inclination angle (5 minutes max.)	: 30°	: 30°
Boiler connection	: standard	: standard
Alarm (buzzer and control light) for	: oil pressure, temperature (fresh- and raw-water), charging current	: oil pressure, temperature (fresh- and raw-water), charging current
Control light for	: pre-heating	: pre-heating
Automatic circuit breaker	: 10 Amp.	: 10 Amp.
Cooling system	: Indirect cooling (standard) or keelcooling (optional)	: Indirect cooling (standard) or keelcooling (optional)

M 2.04: 2 cylinder 8,1 kW (11 HP).
M 2.06: 2 cylinder 11 kW (15 HP).









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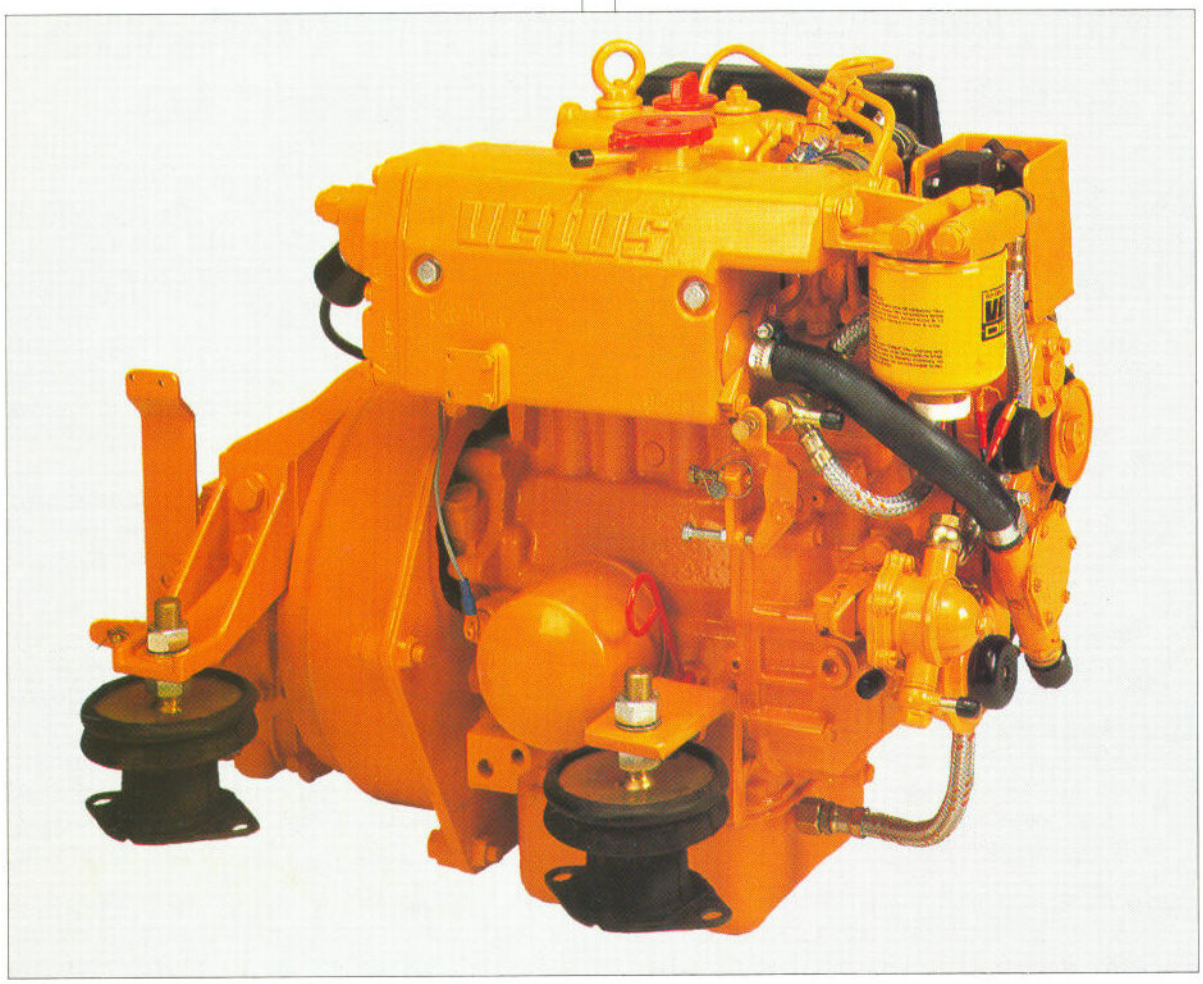
W.H. DEN OUDEN vetus®

marine diesel engine type M 2.05

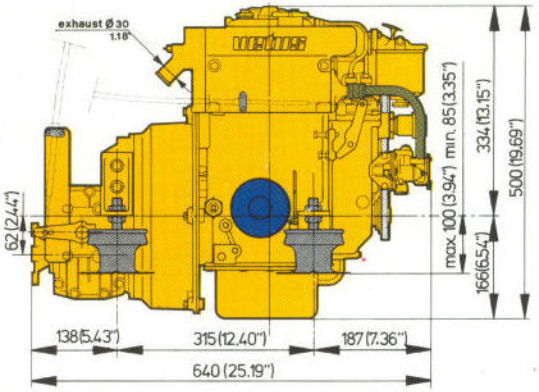


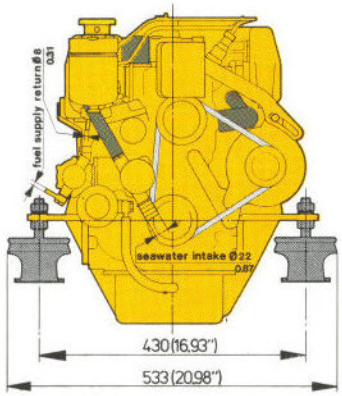
2 cylinder 7.7 kW (10.5 HP).

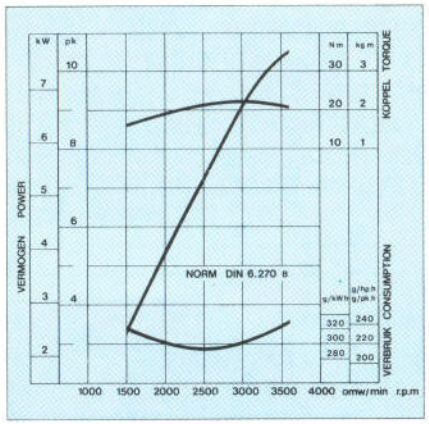
Characteristics see page 4.

Technical data

Basic engine	: Mitsubishi
Bore (mm/inch)	: 65/2.56
Stroke (mm/inch)	: 68/2.68
Capacity (cm³/cu.inch)	: 451/28
Number of cylinders	: 2
Compression ratio	: 23:1
Alternator	: 14 Volt - 35 Amp.
Max. output	: 7.7 kW (10.5 HP) (DIN 6270B)
Max. r.p.m.	: 3600
Max. torque	: 22 Nm at 3000 r.p.m.
Fuel consumption	: 299 g/kW/h at 2200 r.p.m.
Gearbox	: Hurth HBW 50 (2:1)
Weight (incl. gearbox) (kg/lbs)	: 93/205
Suction height mech. feedpump (m/ft)	: 1.5/4.5
Max. installation angle (backwards)	: 15°
Max. inclination angle (cont.)	: 25°
Max. inclination angle (max. 5 minutes)	: 30°
Boiler connection	: standard
Alarm (buzzer and control light) on	: oil pressure, temperature, charging current
Control light on	: pre-heating
Automatic circuit breaker:	10 Amp.
Tachometer	: electronic



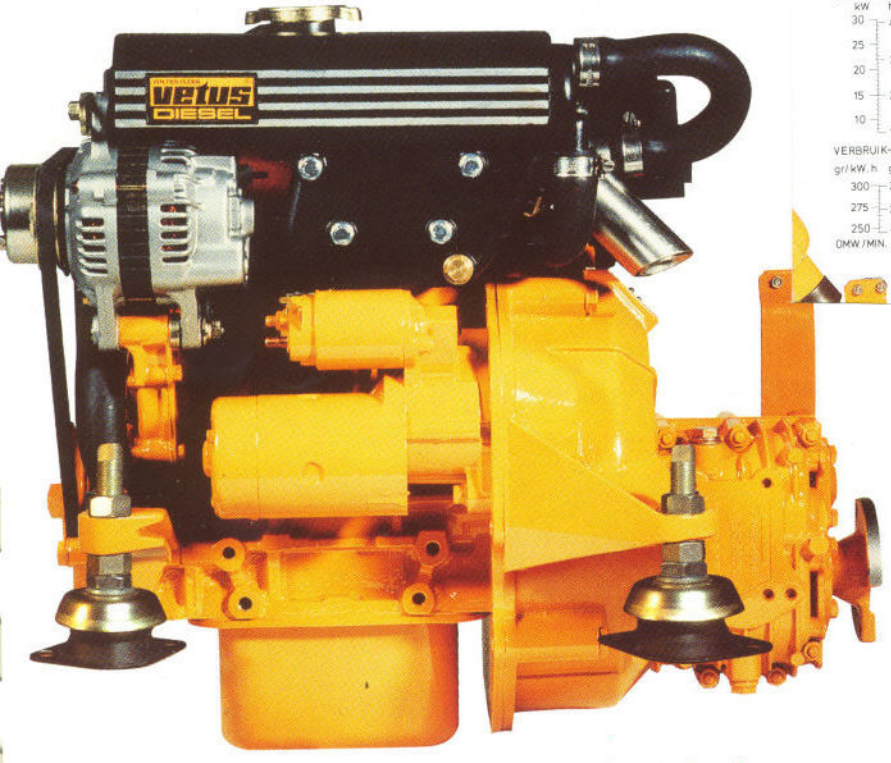


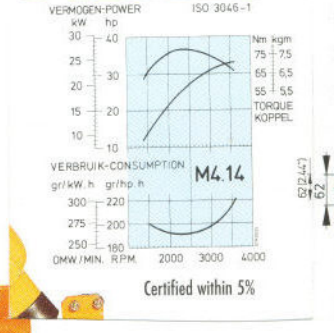


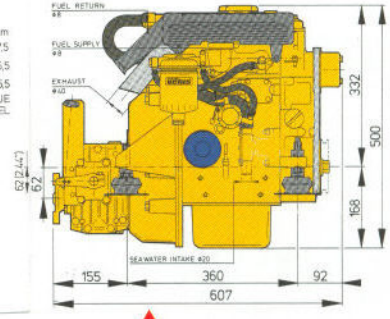
Vetus waterseparator/ fuel filter (not standard supply). We advise you to install a VETUS water separator/fuel filter with each engine.

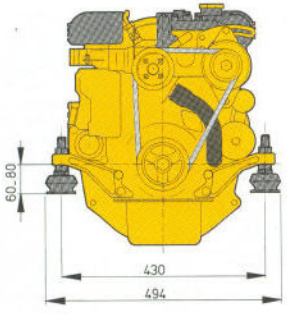
The whole fuel system is **selfbleeding** which means that after an interruption of the fuel supply (empty fueltank, engine service etc.) it is **not** necessary to bleed the fuel system.

vetus® MARINE DIESELS M 2.C5 AND M 2.D5









BASED ON MITSUBISHI

TECHNICAL DATA M 2.C5

Basic engine	: Mitsubishi
Bore	: 70 mm/2.8 inch
Stroke	: 70 mm/2.8 inch
Capacity	: 538 cm³/33 cu.inch
Number of cylinders	: 2
Compression ratio	: 23:1
Firing order	: 1-2
Alternator	: 12 Volt - 40 Amps.
* Max. output at flywheel (ISO 3046-1)	: 8.1 kW (11 hp)
* Max. output at propeller shaft (ISO 3046-1)	: 7.9 kW (10,7 hp)
Maximum rpm	: 3000
Torque at 3000 rpm	: 26 Nm
Fuel consumption at 2300 rpm	: 265 g/kW.h (195 g/hp.h)
Gearbox,standard	: Technodrive TMC40
Ratio	: 2.00/2.60 : 1
Optional	: Hurth HBW 50. 2.05/2.72 : 1 Hurth V-drive HBW 150 V 2.13/2.99 : 1
Dry weight (incl. gearbox)	: 98 kg/216 lbs
Suction height of fuel lift pump	: 1.5 m/5 ft
Max.installation angle (backwards)	: 15°
Max.lateral inclination angle (continuously)	: 25°
Max.lateral inclination angle (5 minutes max.)	: 30°
Calorifier connection	: standard
Warning lights and audible alarm for	: oil pressure, temperature (fresh and raw water), charging current
Control light for	: pre-heating
Electric circuit protection	: fuse 10 Amps
Cooling system	: indirect cooling as standard (keel cooling optional)

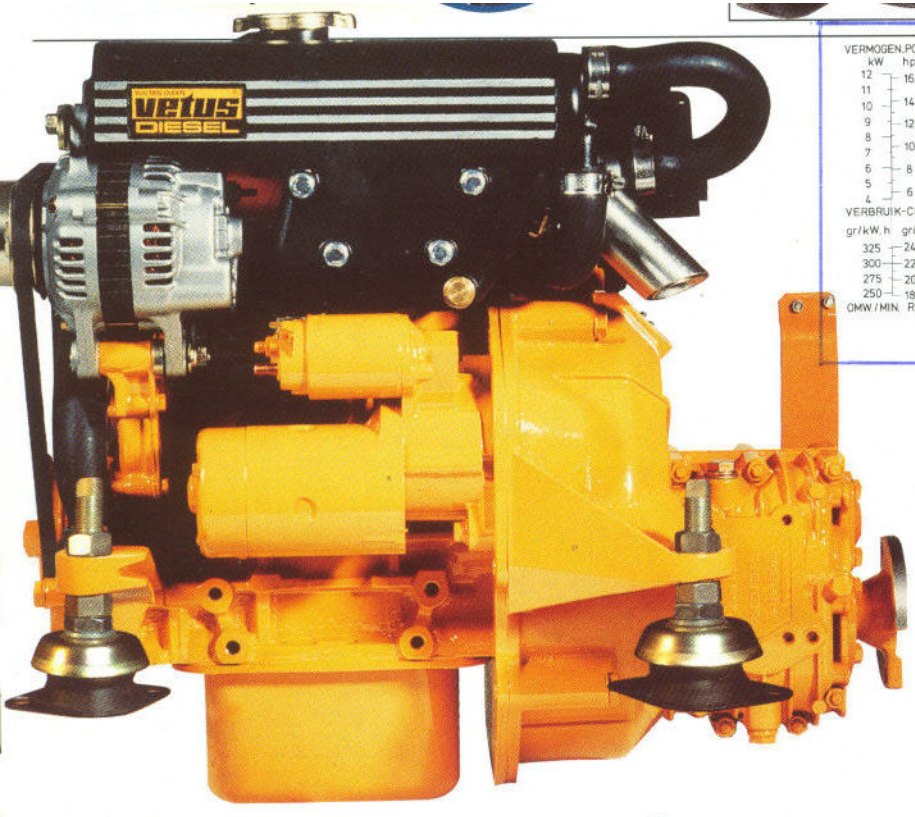
* In accordance with ISO 8665

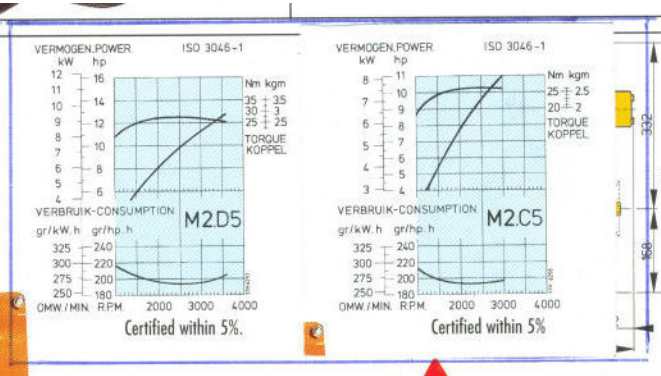
M 2.C5: 2 CYLINDER, 8.1 kW (11 hp)

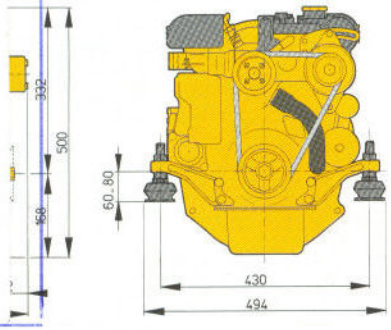
A vetus® TERRIER Blackjack

4 VETUS flexible engine mountings, type K25, are supplied with engine model M 2.C5

This instrument panel is supplied as standard: Model MP 10 VETUS **waterproof** engine instrument panel, provided with 5 monitoring lights (LED's) and an acoustic alarm. Instead of the instrument panel shown, a special panel, model MP 20 or MP 22 may be supplied.







BASED ON MITSUBISHI

TECHNICAL DATA M 2.D5

Basic engine	: Mitsubishi
Bore	: 70 mm/2.8 inch
Stroke	: 70 mm/2.8 inch
Capacity	: 538 cm³/33 cu.inch
Number of cylinders	: 2
Compression ratio	: 23:1
Firing order	: 1-2
Alternator	: 12 Volt - 40 Amps.
* Max. output at flywheel (ISO 3046-1)	: 9.5 kW (13 hp)
* Max. output at propeller shaft (ISO 3046-1)	: 9.3 kW (12,6 hp)
Maximum rpm	: 3600
Torque at 3600 rpm	: 25 Nm
Fuel consumption at 2300 rpm	: 265 g/kW.h (195 g/hp.h)
Gearbox,standard	: Technodrive TMC40
Ratio	: 2.00/2.60:1
Optional	: Hurth HBW 50. 2.05/2.72:1 Hurth V-drive HBW 150 V 2.13/2.99:1
Dry weight (incl. gearbox)	: 98 kg/216 lbs
Suction height of fuel lift pump	: 1.5 m/5 ft
Max.installation angle (backwards)	: 15°
Max.lateral inclination angle (continuously)	: 25°
Max.lateral inclination angle (5 minutes max.)	: 30°
Calorifier connection	: standard
Warning lights and audible alarm for	: oil pressure,temperature (fresh and raw water), charging current
Control light for	: pre-heating
Electric circuit protection	: fuse 10 Amps
Cooling system	: indirect cooling as standard (keel cooling optional)

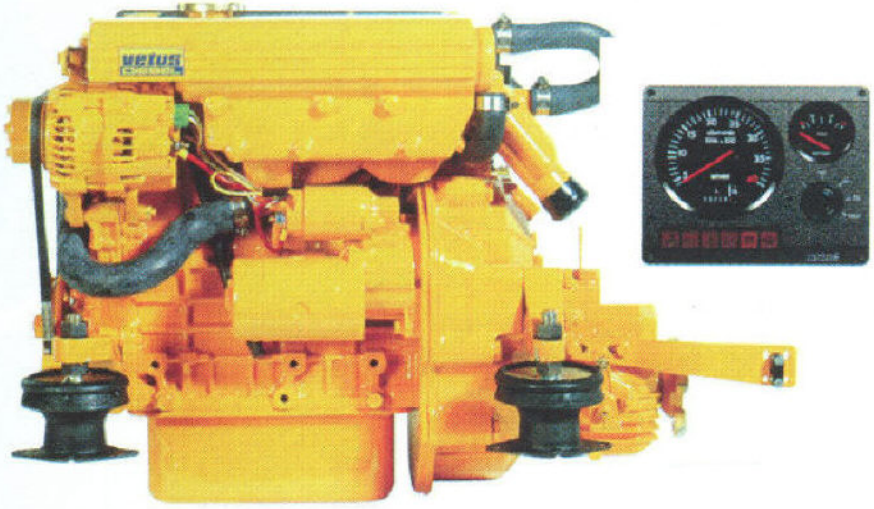
* In accordance with ISO 8665

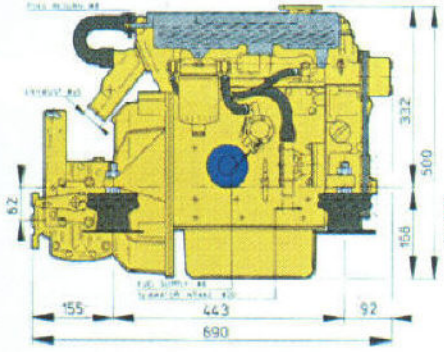
M 2.D5: 2 CYLINDER, 9.5 kW (13 hp)

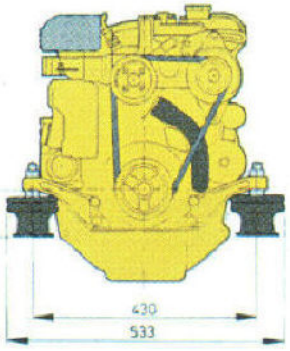
A vetus® TERRIER Chewing

4 VETUS flexible engine mountings, type K25, are supplied with engine model M 2.D5

This instrument panel is supplied as standard: Model MP 10 VETUS **waterproof** engine instrument panel, provided with 5 monitoring lights (LED's) and an acoustic alarm. Instead of the instrument panel shown, a special panel, model MP 20 or MP 22 may be supplied.





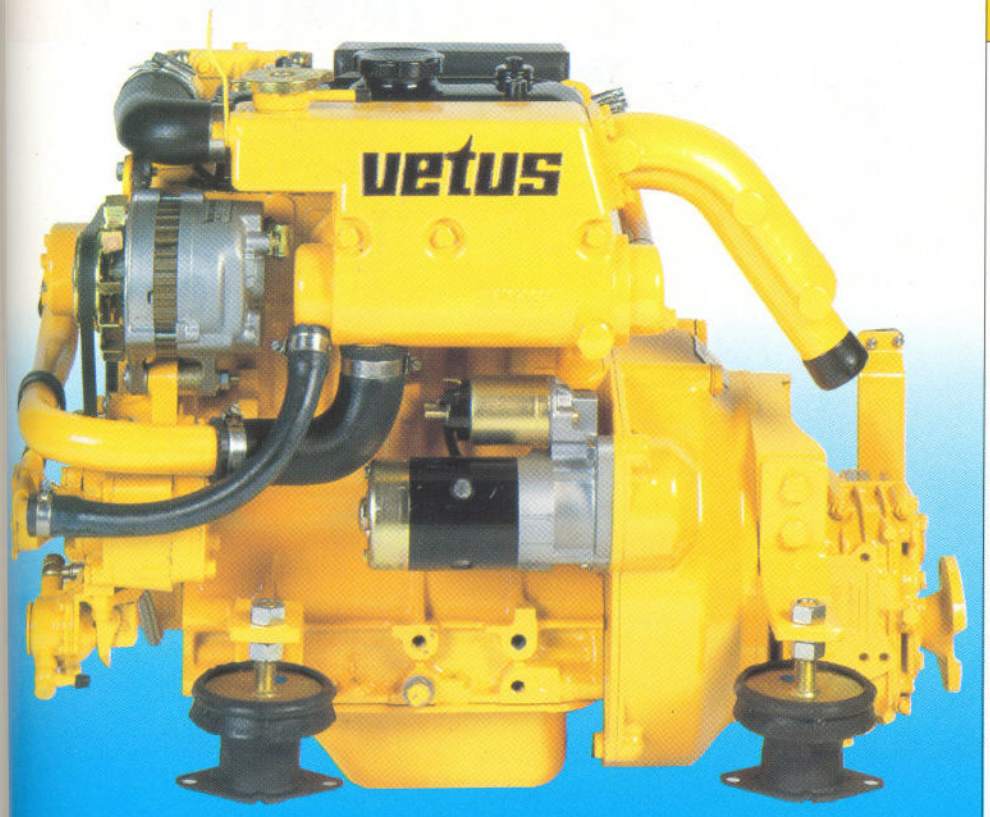


M3.09

Motor Hacmi	: 952 cm^3
BorxStrok	: 76 mm.x70 mm.
Silindir Sayısı	: 3
Kompresyon Oranı	: 23:1
Alternatör	: 12 V /40 A
Güç	: 25 HP (18,4 KW) (ISO 304
Maksimum RPM	: 3,600
3,600 RPM de Tork	: 49,1 Nm
2,600 RPM de yakıt tüketimi	: 187 Gr./Hp h.
Şanjman (Standart)	: Technodrive TMC40
Şanjman Oranı	: 2.05:1, 2.72:1
Opsiyonel Şanjman	: ZF10M - 2.00:1, 2.60:1 ZF15A - 1.88:1, 2.63:1
Ağırlık (Şanjman Dahil)	: 123 Kg.

vetus® MARINE DIESEL ENGINES

VETUS marine diesel engines feature an **indirect** cooling system by means of a **heat exchanger**, the benefits of which are mentioned on page 68. The high level of standard equipment is also described on page 68.
The basic engine block is made by Mitsubishi and the marinization has been carried out under VETUS own control.
Both Mitsubishi and VETUS have devoted very careful attention to the reduction of vibration and noise level.
In short: a VETUS diesel represents "world-class" power.

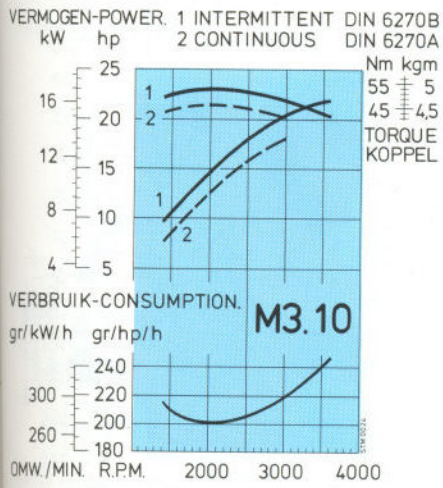


3 cylinders 16.2 kW (22 HP).

M 3.10

Technical data:

Basic engine	: Mitsubishi
Bore	: 73 mm/2.78 inch
Stroke	: 78 mm/3.09 inch
Capacity	: 979 cm³/60 cu. inch
Number of cylinders	: 3
Compression ratio	: 22:1
Firing order	: 1-3-2
Alternator	: 12 Volt - 35 Amp.
Output	: 16.2 kW (22 HP) (DIN6270B) 13.6 kW (18.5 HP) (DIN6270A)
Number of revs.	: 3000 r.p.m.
Torque	: 53 Nm at 2000 r.p.m. (DIN 6270B) 48 Nm at 2000 r.p.m. (DIN 6270A)
Fuel consumption	: 269 g/kW/h at 2100 r.p.m.
Gearbox	: Hurth HBW 50-2R (2.05:1) HBW 100-3R (2.72:1) PRM Delta (2.09:1 or 2.83:1) Hurth V-drive HBW 150-V-2 (2.13:1) HBW 150-V-3 (2.99:1)
Weight (incl. HBW 50 gearbox)	: 155 kg/340 lbs
Suction height mech. feedpump	: 1.5 m/5 ft
Max. installation angle (backwards)	: 15°
Max. lateral inclination angle (cont.)	: 25°
Max. lateral inclination angle (5 minutes max.)	: 30°
Boiler connection	: standard
Alarm (buzzer and control light) on	: oil pressure, temperature (fresh- and raw water), charging current
Control light on	: pre-heating
Automatic circuit breaker	: 10 Amp.
Tachometer	: electronic
Cooling system	: indirect cooling (standard) or keelcooling (optional)



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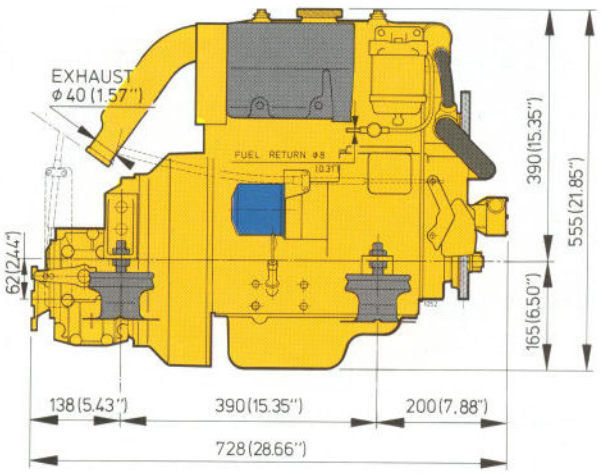
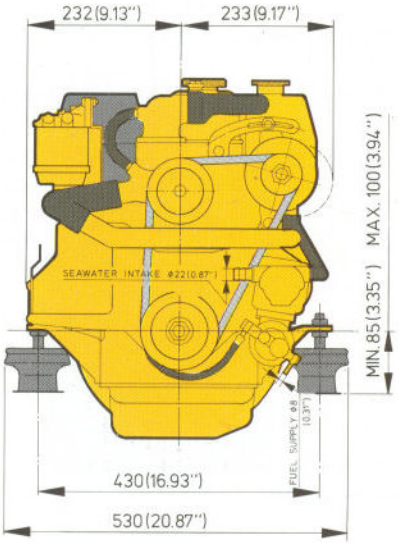




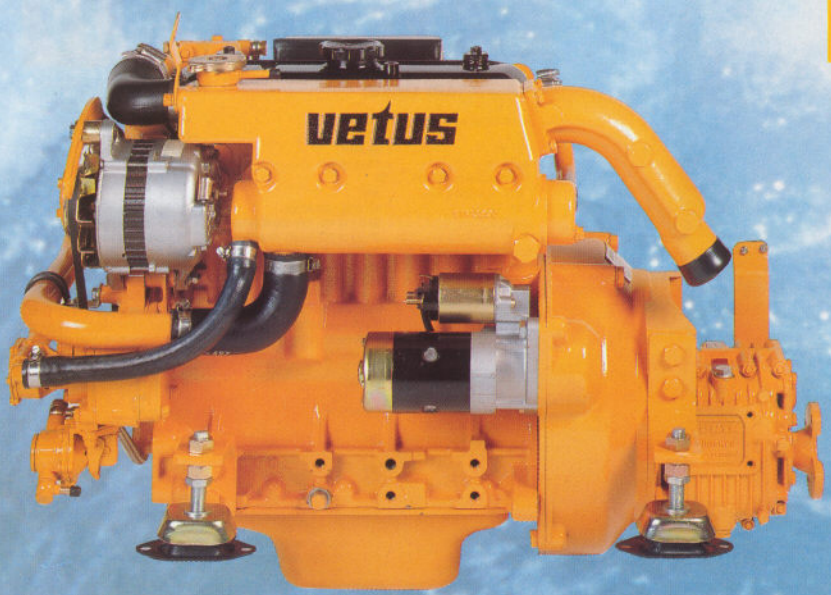
vetus® MARINE DIESEL ENGINES

These VETUS marine diesel engines feature an **indirect** cooling system by means of a **heat exchanger**. The high level of standard equipment is as follows:

1. Not only is the fresh cooling water temperature protected by means of audible and visual signals, but also the **temperature of the raw water cooling systems** is safeguarded by the same method. In case of insufficient supply of water (e.g. clogged waterstrainer or defective pump) a warning (sensor in the exhaust) is given long before the engine itself becomes overheated.
2. Engine instrument panel.
3. Four flexible engine mountings, suited to the engine.
4. In case of a fault in the control panel or board circuitry, the engine can also be stopped by means of a **mechanical stop** on the fuel pump.
5. The complete engine wiring with multi-plugs, all hoses and the connections for the remote control cables are readily fitted to the engine, for quick and easy installation.
6. A manual oil sump pump is standard supply with each **VETUS** engine, for easy oil change.

The indirect cooling system of VETUS marine diesel engines is completely prepared for quick and easy installation of a (VETUS) calorifier.

The basic engine block is made by Mitsubishi and the marinization has been carried out to under VETUS own control. Both Mitsubishi and VETUS have devoted very careful attention to the reduction of vibration and noise level. In short: a VETUS diesel represents "world-class" power.

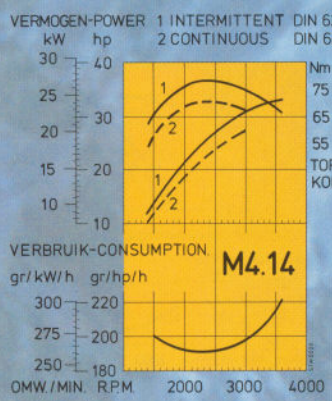


M 4.14

Technical data:

Basic engine	: Mitsubishi
Bore	: 76 mm/3 inch
Stroke	: 78 mm/3.07 inch
Capacity	: 1415 cm³/86.5 cu. inch
Number of cylinders	: 4
Compression ratio	: 22:1
Firing order	: 1-3-4-2
Alternator	: 12 Volt - 50 Amp.
Output	: 24.3 kW (33 HP) (DIN6270B) 20.4 kW (27.7 HP) (DIN6270A)
Number of revs.	: 3600 r.p.m. (DIN6270B) 3000 r.p.m. (DIN6270A)
Torque	: 77 Nm at 2300 r.p.m. (DIN 6270B) 69 Nm at 2300 r.p.m. (DIN 6270A)
Fuel consumption	: 269 g/kW/h at 2100 r.p.m.
Gearbox	: Hurth HBW 100-2R (1.79:1) HBW 125-2,5R (2.63:1) PRM Delta (2.09:1 or 2.83:1) Hurth V-drive HBW 150-V-2 (2.13:1) HBW 150-V-3 (2.99:1)
Weight (incl. HBW 100 gearbox)	: 185 kg/408 lbs
Suction height mech. feedpump	: 1.5 m/5 ft
Max. installation angle (backwards)	: 15°
Max. lateral inclination angle (cont.)	: 25°
Max. lateral inclination angle (5 minutes max.)	: 30°
Boiler connection	: standard
Alarm (buzzer and control light) for	: oil pressure, temperature (fresh- and raw-water), charging current
Control light for Automatic circuit breaker	: pre-heating
Tachometer	: 10 Amp.
Cooling system	: electronic
	: indirect cooling (standard) or keelcooling (optional)

4 cylinders 24.3 kW (33 HP).



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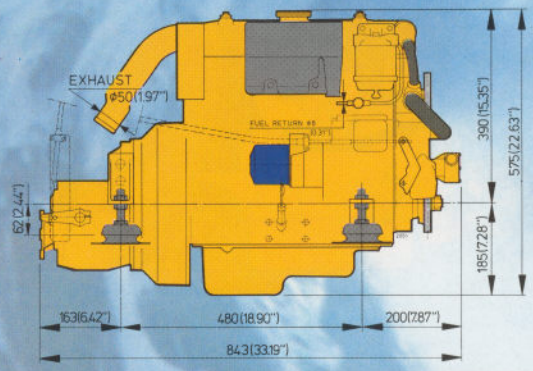
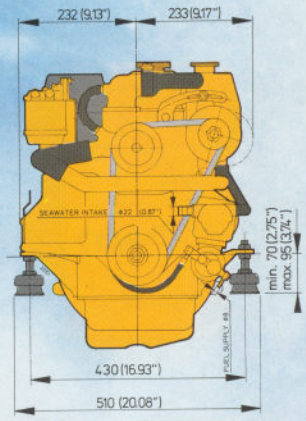


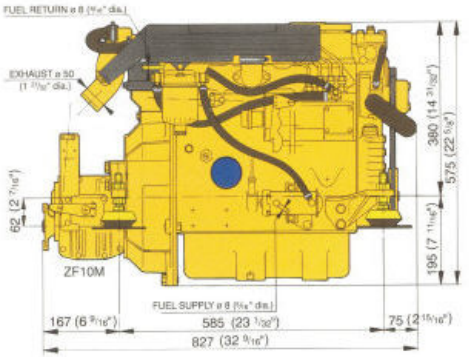


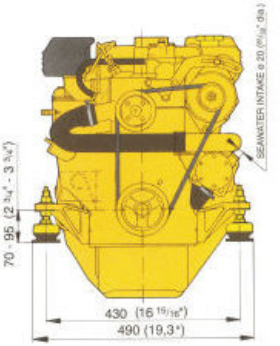
MARINE DIESEL M 4.15

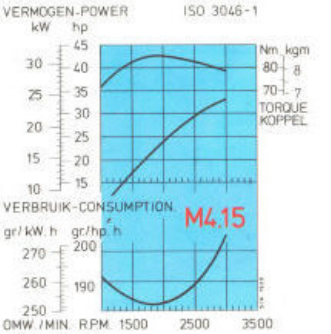
M 4.15: 4 CYLINDERS, 24.3 KW (33 HP)

Technical data	**M 4.15** IDI/4stroke/4cyl. in line/ NA diesel
Basic engine	: Mitsubishi
Bore	: 78 mm / 3.07 inch
Stroke	: 78.5mm / 3.09 inch
Capacity	: 1500 cm³ / 92 cu.inch
Number of cylinders	: 4
Compression ratio	: 22:1
Firing order	: 1-3-4-2
Alternator	: 12 Volt - 50 A. optional 12 Volt-95A
* Max. output at flywheel (ISO 3046-1)	: 24.3 kW (33 hp)
* Max. output at propeller shaft (ISO 3046-1)	: 23.6 kW (32.1 hp)
Maximum rpm	: 3000
Torque at 3000 rpm	: 77.4 Nm
Fuel consumption at 1800 rpm	: 252 g/kW.h (185 g/hp.h)
Gearbox,standard	: ZF10M
Ratio	: 2,05:1
Optional	: ZF12M 2,14/2,63:1 ZF12 2,14/2,63:1 ZF15M 1,88/2,63:1 Technodrive TMC60 2,0/2,5/2,94:1
Hydraulic	: ZF 25 1,97/2,8:1 ZF 25A 1,93/2,29/2,71:1
Dry weight (incl. gearbox)	: 180 kg/397 lbs
Suction height of fuel lift pump	: 1.5 m/5 ft
Max.installation angle (backwards)	: 15°
Max.lateral inclination angle (continuously)	: 25°
Max.lateral inclination angle (5 minutes max.)	: 30°
Calorifier connection	: standard
Warning lights and audible alarm for	: oil pressure,temperature (fresh and raw water), charging current
Control light for	: pre-heating
Electric circuit protection	: fuse 10 A
Tachometer	: electronic
Cooling system	: Indirect cooling as standard (keelcooling optional)

* In accordance with ISO 8665







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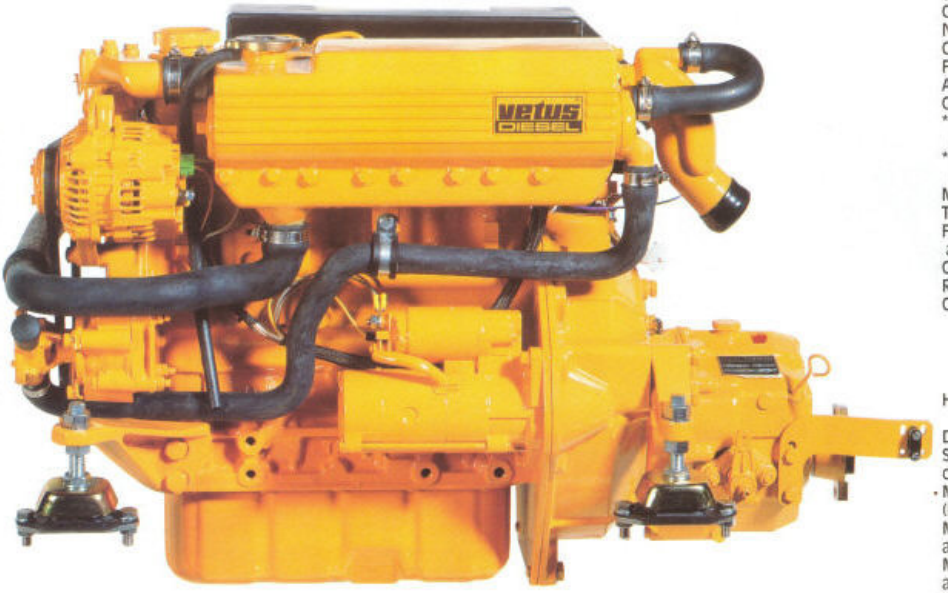
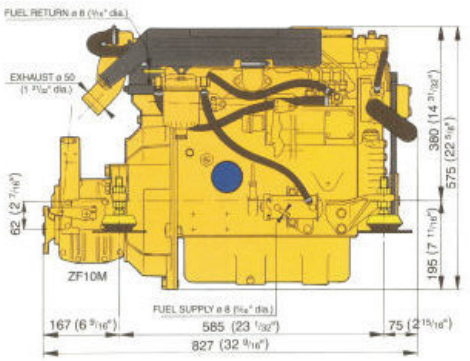
MARINE DIESEL M 4.17

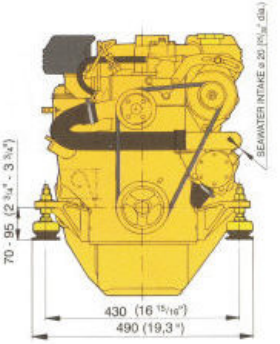


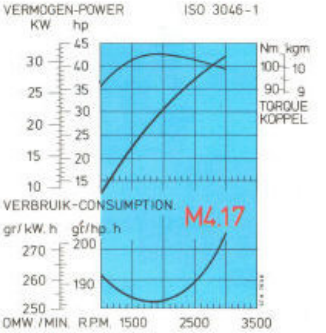
M 4.17: 4 CYLINDERS, 30.9 KW (42 HP)

Technical data	M 4.17
	IDI/4stroke/4cyl. in line/ NA diesel
Basic engine	: Mitsubishi
Bore	: 78 mm / 3.07 inch
Stroke	: 92 mm / 3.62 inch
Capacity	: 1758 cm³ / 108 cu.inch
Number of cylinders	: 4
Compression ratio	: 22:1
Firing order	: 1-3-4-2
Alternator	: 12 Volt - 50 Amps.
Optional	: 12 Volt - 95 Amps
* Max. output at flywheel (ISO 3046-1)	: 30.9 kW (42 hp)
* Max. output at propeller shaft (ISO 3046-1)	: 30 kW (40.8 hp)
Maximum rpm	: 3000
Torque at 3000 rpm	: 98 Nm
Fuel consumption at 1800 rpm	: 252 g/kW.h (185 g/hp.h)
Gearbox, standard	: ZF10M
Ratio	: 2,05:1
Optional	: ZF12M 2,14/2,63:1 ZF12 2,14/2,63:1 ZF15MA 1,88/2,63:1 Technodrive TMC60 2/2,5/2,94:1
Hydraulic	: ZF 25 1,97/2,8:1 ZF 25A 1,93/2,29/2,71:1
Dry weight (incl. gearbox)	: 185 kg/408 lbs
Suction height of fuel lift pump	: 1.5 m/5 ft
Max.installation angle (backwards)	: 15°
Max.lateral inclination angle (continuously)	: 25°
Max.lateral inclination angle (5 minutes max.)	: 30°
Calorifier connection	: standard
Warning lights and audible alarm for	: oil pressure,temperature (fresh and raw water), charging current
Control light for	: pre-heating
Electric circuit protection	: fuse 10 A
Tachometer	: electronic
Cooling system	: Indirect cooling as standard (keelcooling optional)

* In accordance with ISO 8665







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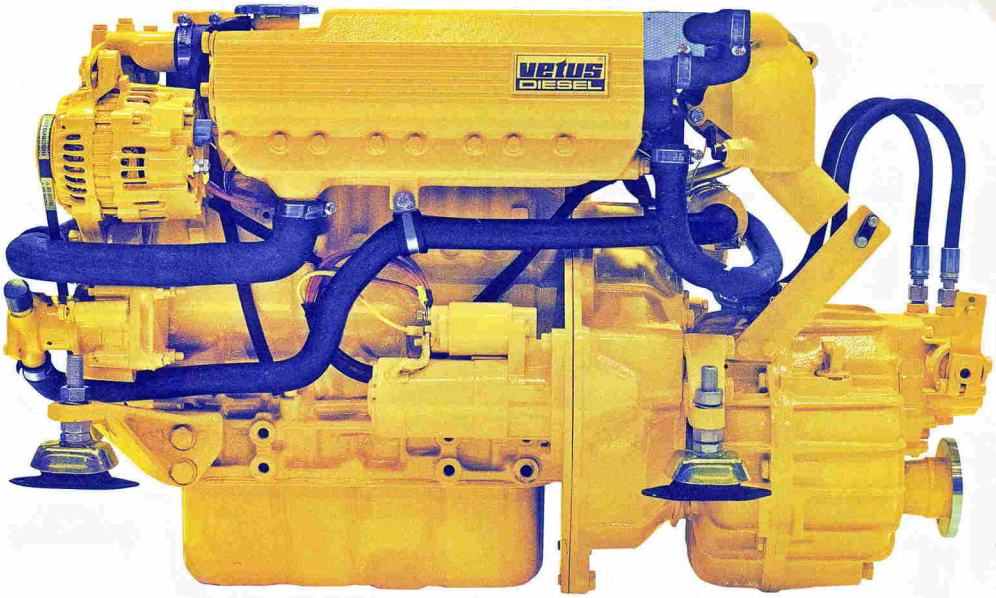
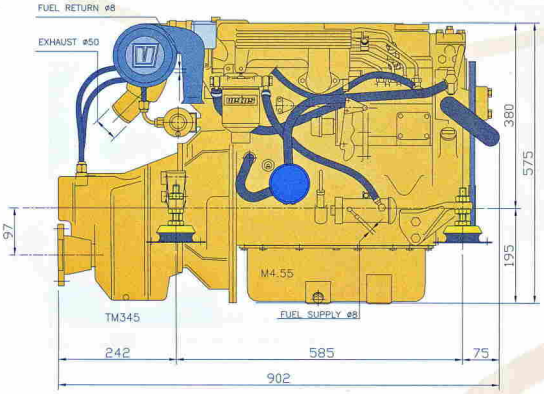
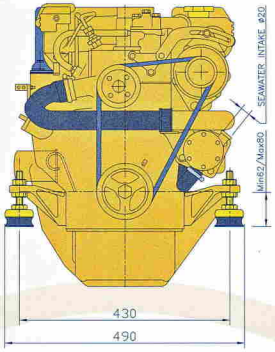
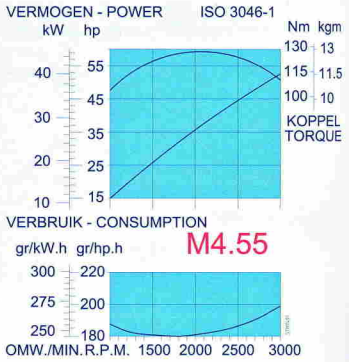
MOTOR MARINO DIESEL M 4.55



Datos técnicos	M 4.55
	DI/4 tiempos/4 Cilindros en línea/AN diesel
Motor de base	: Mitsubishi
Diámetro del pistón	: 78 mm
Carrera	: 92 mm
Cilindrada	: 1758 cm³
Número de Cilindros	: 4
Relación de compresión	: 22:1
Orden	: 1-3-4-2
Alternador	: 12 V - 110 Amp. opcional
* Potencia al volante (ISO 3046-1)	: 38,3 kW (52 CV)
* Potencia al eje (ISO 3046-1)	: 37,1 kW (51 CV)
Máx. rpm.	: 3000
Par a 2000 rpm	: 127 Nm
Consumo de gasoil a 1800 rpm	: 244 g/kW.h (179 g/cv.h)
Inversor estándar hidr.	: TM345 2/2,47:1
Opcional	: TMC60E 2/2,5:1
Peso (con inversor)	: 192 kg
Altura de aspiración de la bomba	: 1,5 m
Máx. ángulo de instalación (hacia atrás)	: 15°
Máx. ángulo transversal de inclinación (continuo)	: 25°
Máx. ángulo transversal de inclinación (no más 5 min.)	: 30°
Conexiones del calentador	: estándar
Alarma luminosa y audible para	: presión de aceite, temperatura (agua de refrigeración exterior), carga de corriente
Luz de control	: precalentador
Fusible automático	: 10 Amp
Tacómetro	: electrónico
Sistema de refrigeración	: indirecto estándar (bajo quilla opcional)

* De acuerdo con ISO 8665

M 4.55: 4 CILINDROS, 38,3 KW (52 CV)

Los modelos de motor M4.15, M4.17 y M4.55 pueden equiparse opcionalmente con un segundo alternador de una capacidad de 110 Amp.
En este caso, la anchura máxima del motor aumenta hasta los 640 mm.