

CATALOGUE 2013



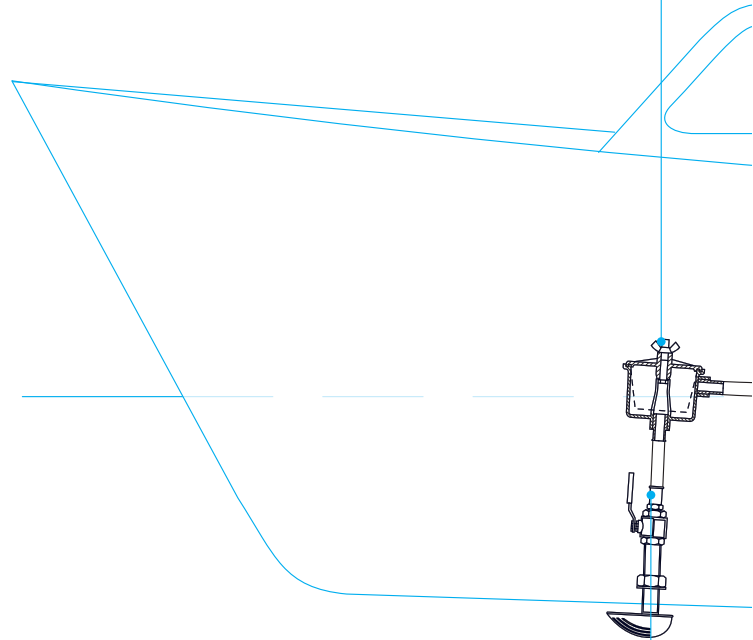
LAT: 41° 27' 41" N
LONG: 1° 54' 38" E



Marine Diesel Engines • Gensets • Propellers • Accessories

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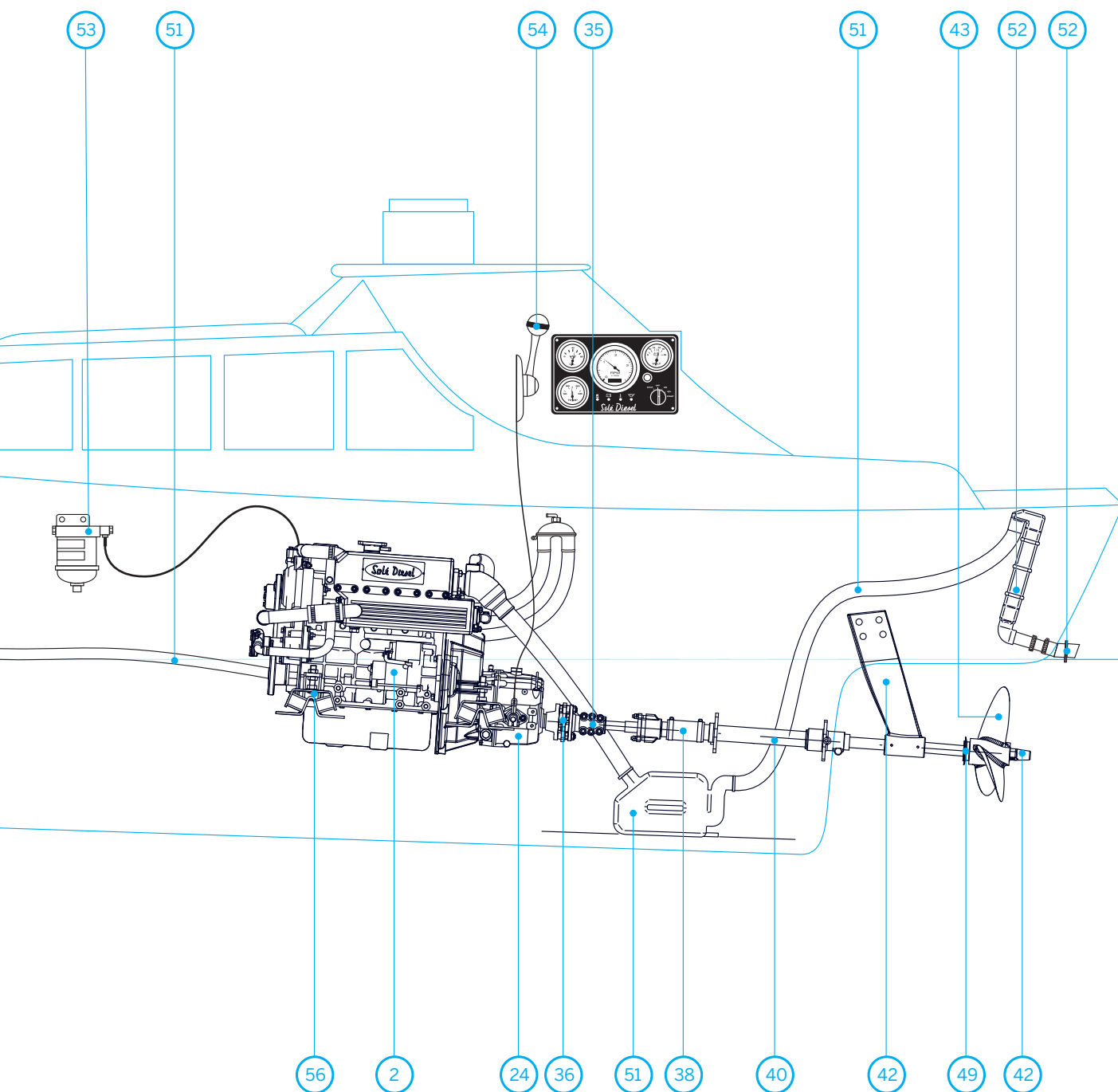
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EQUIPMENT

STANDARD

- Instrument panel
- 3 m electrical extension lead
- Anti Vibration Mounts
- Oil extraction pump
- Owner's Manual and Spare parts manual

Standard instrument panel with:



- RPM Indicator
- Hour Counter
- Temperature Gauge
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Dimensions: 180 x 150 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater connections
- Power train: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Deluxe instrument panel with:

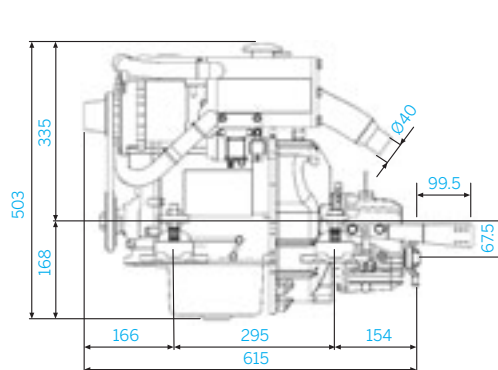


- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

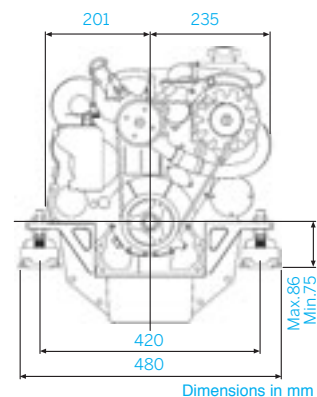
Engine mount

TYPE A

Part number 616.31.100



MINI-17 CON TMC 40



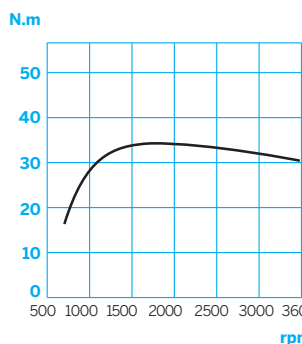
Dimensions in mm

TECHNICAL SPECIFICATIONS

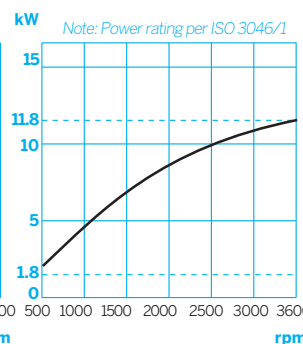
Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	2 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	76 x 70
Total displacement (cc)	635
Compression ratio	23:1
Intermittent power rating (per ISO 3046/1)	16 CV (11.8 kW)
Continuous output	14.4 CV (10.6 kW)
Fuel injection system	Indirect
Alternator	12 V - 40A
Maximum working angle	25° continuous / 30° intermittent
Int. Ø Salt water hose	20 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	5 mm
Certifications	EU RCD

TRANSMISSIONS AVAILABLE

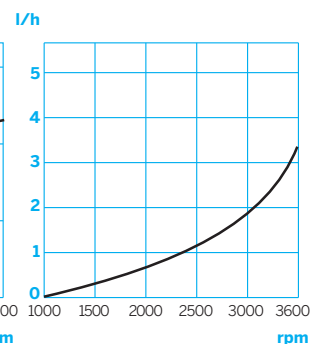
Model	TMC40	TTMC35A2	SAILDRIVE SPROP 60
Manufacturer	Technodrive	Kanzaki	Technodrive
Type	Mechanical	Mechanical	Mechanical
Shaft angle	—	7°	—
Reduction ratios (pleasure)	2.00:1 - 2.60:1	2.33:1	2.15:1
Reduction ratios (heavy duty)	2.00:1 - 2.60:1	2.33:1	—
Engine weight with gearbox	96 Kg	99 Kg	125 Kg

GRAPHS
ENGINE TORQUE

POWER



FUEL CONSUMPTION



Note: Power rating per ISO 3046/1



EQUIPMENT

STANDARD

- Instrument panel
- 3 m electrical extension lead
- Anti Vibration Mounts
- Oil extraction pump
- Owner's Manual and Spare parts manual

Standard instrument panel with:



- RPM Indicator
- Hour Counter
- Temperature Gauge
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Dimensions: 180 x 150 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- 110A alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Deluxe instrument panel with:

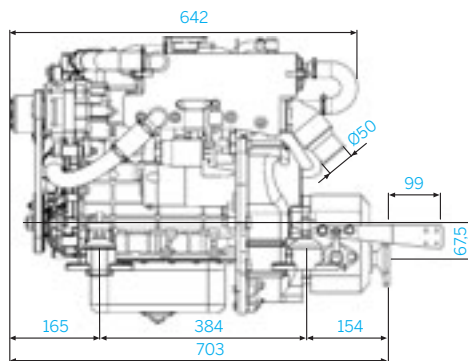


- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

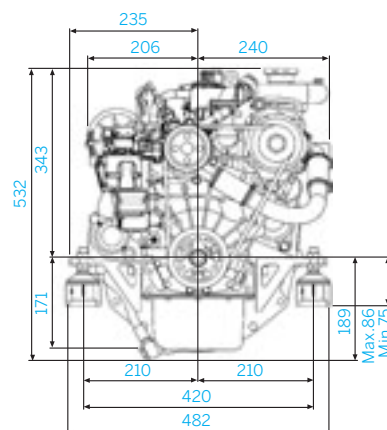
Engine mount

TYPE A

Part number 616.31.100



MINI-29 CON TMC 40



Dimensions in mm

TECHNICAL SPECIFICATIONS

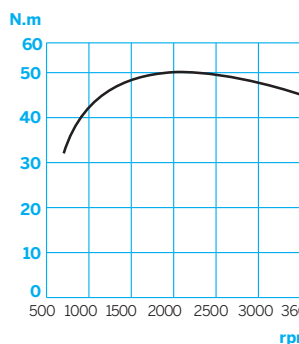
Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	3 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	76 x 70
Total displacement (cc)	952
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	27.2 CV (20 kW)
Continuous output	24.5 CV (18 kW)
Fuel injection system	Indirect
Alternator	12 V - 40A
Maximum working angle	25° continuous / 30° intermittent
Int. Ø Salt water hose	20 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	5 mm
Certifications	EURCD

TRANSMISSIONS AVAILABLE

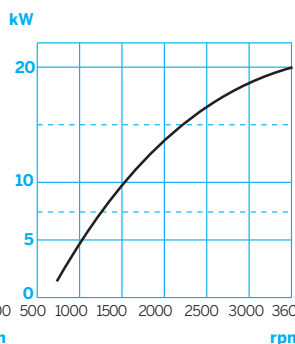
Model	TMC40	TMC60	TTMC35A2	SAILDRIVE SPROP 60
Manufacturer	Technodrive	Technodrive	Kanzaki	Technodrive
Type	Mechanical	Mechanical	Mechanical	Mechanical
Shaft angle	—	—	7°	—
Reduction ratios (pleasure)	2.00:1 - 2.60:1	2.00:1 - 2.45:1	2.33:1	2.15:1
Reduction ratios (heavy duty)	2.00:1 - 2.60:1	2.00:1 - 2.45:1	2.33:1	—
Engine weight with gearbox	101 kg	104 Kg	109 Kg	132 Kg

GRAPHS

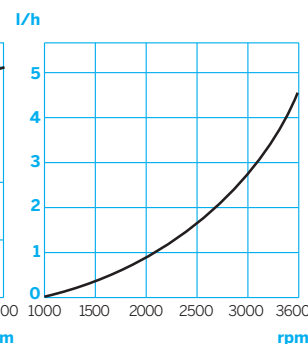
ENGINE TORQUE



POWER

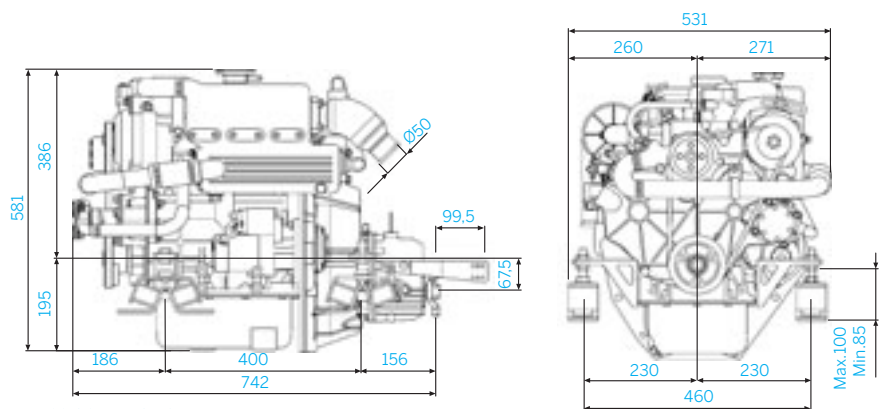


FUEL CONSUMPTION



Note: Power rating per ISO 3046/1

MINI-33. Mitsubishi base. 3-cylinder 31.4 HP (23.1 kW) at 3000 rpm



MINI-33 CON TMC 40

Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 3 m electrical extension lead
- Anti Vibration Mounts
- Oil extraction pump
- Owner's Manual and Spare parts manual

Standard instrument panel with:



- RPM Indicator
- Hour Counter
- Temperature Gauge
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Dimensions: 180 x 150 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- 110A alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

Engine mount

TYPE E

Part number 616.73.000



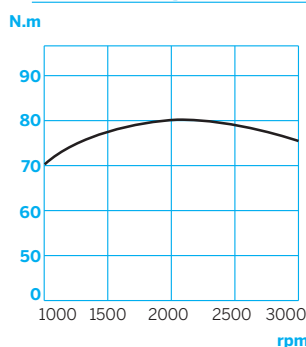
TECHNICAL SPECIFICATIONS

Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	3 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	78 x 92
Total displacement (cc)	1318
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	31.4 CV (23.1 kW)
Continuous output	28.5 CV (20.9 kW)
Fuel injection system	Indirect
Alternator	12 V - 50A
Maximum working angle	15° continuous / 30° intermittent
Int. Ø Salt water hose	20 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	5 mm
Certifications	EURCD

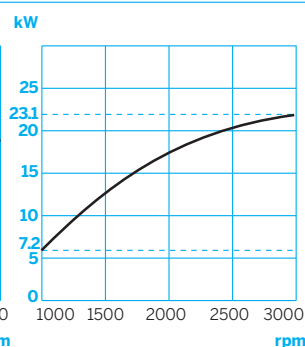
TRANSMISSIONS AVAILABLE

Model	TMC40	TMC60	SMI-R3	TTMC35A2	SAILDRIVE SPROP 60
Manufacturer	Technodrive	Technodrive	Solé Diesel	Kanzaki	Technodrive
Type	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Shaft angle	—	—	—	7°	—
Reduction ratios (pleasure)	2.00:1 - 2.60:1	2.00:1 - 2.45:1	2.00:1 - 2.50:1 - 3:1	2.33:1	2.15:1
Reduction ratios (heavy duty)	2.00:1 - 2.60:1	2.00:1 - 2.45:1	2.00:1 - 2.50:1 - 3:1	2.33:1	—
Engine weight with gearbox	159 Kg	165 Kg	180 Kg	163 Kg	192 Kg

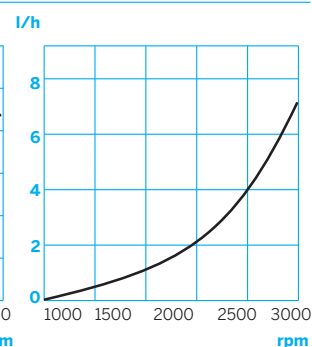
GRAPHS ENGINE TORQUE



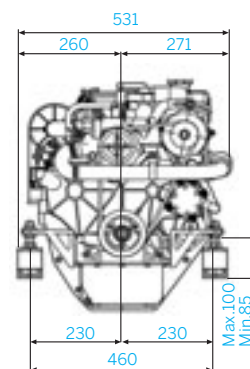
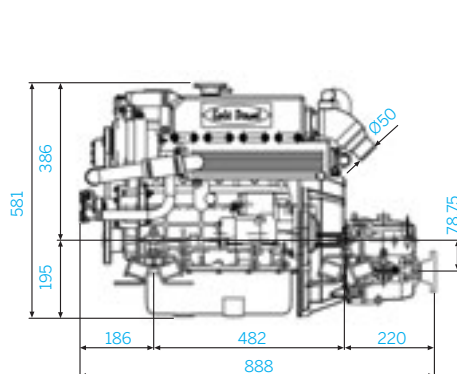
POWER



FUEL CONSUMPTION



Note: Power rating per ISO 3046/1



MINI-44 CON TMC 60

Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 3 m electrical extension lead
- Anti Vibration Mounts
- Oil extraction pump
- Owner's Manual and Spare parts manual

Standard instrument panel with:



- RPM Indicator
- Hour Counter
- Temperature Gauge
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Dimensions: 180 x 150 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- 110A alternator
- 24V electrical system
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

Engine mount

TYPE E

Part number 616.73.000



TECHNICAL SPECIFICATIONS

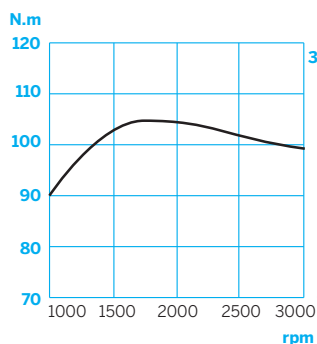
Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	4 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	78 x 92
Total displacement (cc)	1758
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	42 CV (30.9 kW)
Continuous output	38 CV (27.9 kW)
Fuel injection system	Indirect
Alternator	12 V - 50A
Maximum working angle	15° continuous / 30° intermittent
Int. Ø Salt water hose	20 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	5 mm
Certifications	EURCD

TRANSMISSIONS AVAILABLE

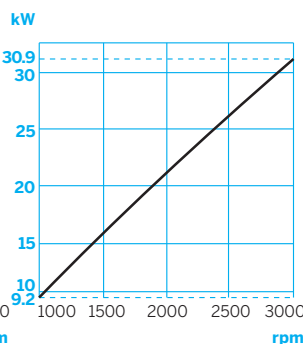
Model	TMC60	SMI-R3	TTMC35A2	TM345	TM345A	SAILDRIVE SPROP 60
Manufacturer	Technodrive	Solé Diesel	Kanzaki	Technodrive	Technodrive	Technodrive
Type	Mechanical	Mechanical	Mechanical	Hydraulic	Hydraulic	Mechanical
Shaft angle	—	—	7°	—	8°	—
Reduction ratios (pleasure)	2.00:1 - 2.45:1	2.00:1 - 2.50:1 - 3:1	2.33:1	2.00:1 - 2.47:1	2.00:1 - 2.47:1	2.15:1
Reduction ratios (heavy duty)	2.00:1	2.00:1 - 2.50:1 - 3:1	2.33:1	2.00:1 - 2.47:1	2.00:1 - 2.47:1	—
Engine weight with gearbox	171 Kg	190 Kg	174 Kg	185 Kg	185 Kg	197 Kg

GRAPHS

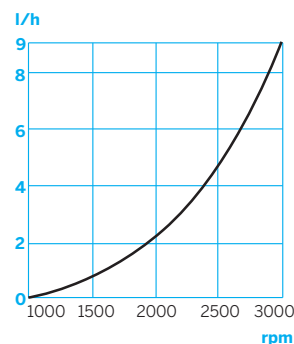
ENGINE TORQUE



POWER



FUEL CONSUMPTION



Note: Power rating per ISO 3046/1

MINI-55. Mitsubishi base. 4-cylinder 52 HP (38.3 kW) at 3000 rpm



EQUIPMENT

STANDARD

- Instrument panel
- 3 m electrical extension lead
- Anti Vibration Mounts
- Oil extraction pump
- Owner's Manual and Spare parts manual

Standard instrument panel with:



- RPM Indicator
- Hour Counter
- Temperature Gauge
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Dimensions: 180 x 150 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- 110A alternator
- 24V electrical system
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Deluxe instrument panel with:

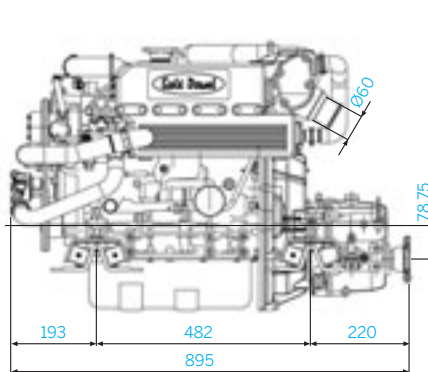


- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

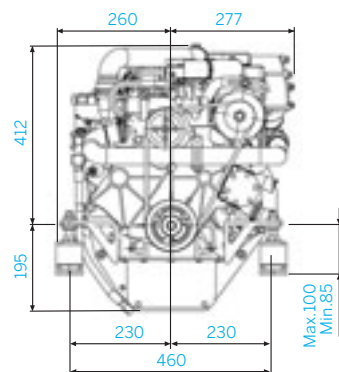
Engine mount

TYPE E

Part number 616.73.000



MINI-55 CON TMC 60



Dimensions in mm

TECHNICAL SPECIFICATIONS

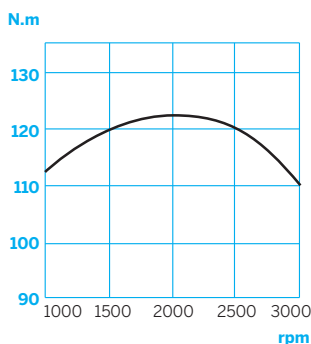
Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	4 in-line
Intake system	Turbo Charged
Diameter x stroke (mm)	78 x 92
Total displacement (cc)	1758
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	52 HP (38.3 kW)
Continuous power rating	46.8 HP (34.4 kW)
Fuel injection system	Indirect
Alternator	12 V - 50A
Maximum working angle	15° continuous / 30° intermittent
Int. Ø Salt water hose	26 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	5 mm
Certifications	EURCD

TRANSMISSIONS AVAILABLE

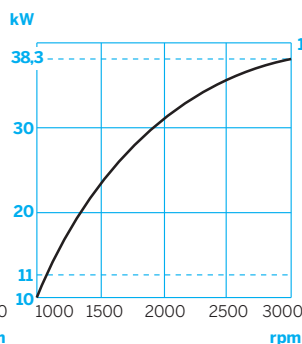
Model	TMC60	SMI-R3	TTMC35A2	TM345	TM345A	SAILDRIVE SPROP 60
Manufacturer	Technodrive	Solé Diesel	Kanzaki	Technodrive	Technodrive	Technodrive
Type	Mechanical	Mechanical	Mechanical	Hydraulic	Hydraulic	Mechanical
Shaft angle	—	—	7°	—	8°	—
Reduction ratios (pleasure)	2.00:1 - 2.45:1	2.00:1 - 2.50:1	2.33:1	2.00:1 - 2.47:1	2.00:1 - 2.47:1	2.15:1
Reduction ratios (heavy duty)	2.00:1	2.00:1 - 2.50:1	2.33:1	2.00:1 - 2.47:1	2.00:1 - 2.47:1	—
Engine weight with gearbox	176 Kg	191 Kg	179 Kg	190 Kg	190 Kg	202 Kg

GRAPHS

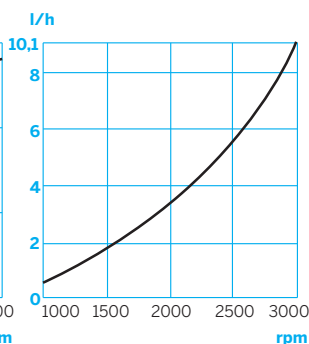
ENGINE TORQUE



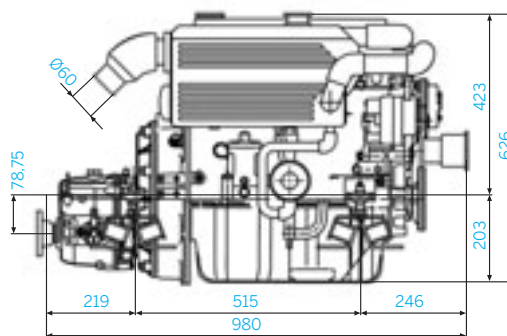
POWER



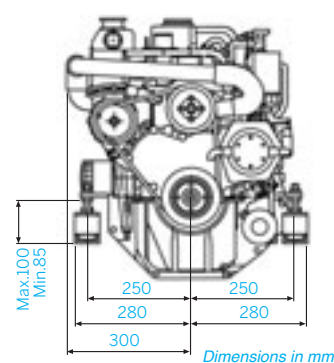
FUEL CONSUMPTION



Note: Power rating per ISO 3046/1



MINI-62 CON TMC 60



Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 4 m electrical extension lead
- Anti Vibration Mounts
- Oil extraction pump
- Owner's Manual and Spare parts manual

Standard instrument panel with:



- RPM Indicator
- Hour Counter
- Temperature Gauge
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Dimensions: 180 x 150 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- 110A alternator
- 24V electrical system
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

Engine mount

TYPE E

Part number 616.71.000



TECHNICAL SPECIFICATIONS

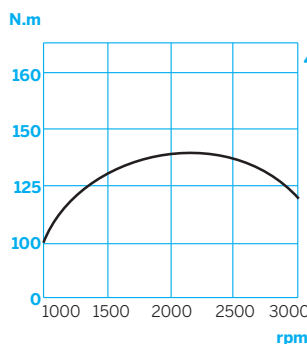
Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	4 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	88 x 95
Total displacement (cc)	2311
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	59 HP (43.4 kW)
Continuous power rating	53 HP (38.9 kW)
Fuel injection system	Indirect
Alternator	12 V - 50A
Maximum working angle	15° continuous / 20° intermittent
Int. Ø Salt water hose	32 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	6 mm
Certifications	EURCD

TRANSMISSIONS AVAILABLE

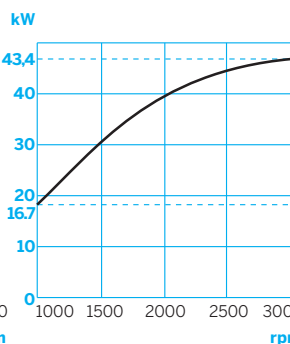
Model	TMC60	SMI-R3	TM345	TM345A	SAILDRIVE SPROG 60
Manufacturer	Technodrive	Solé Diesel	Technodrive	Technodrive	Technodrive
Type	Mechanical	Mechanical	Hydraulic	Hydraulic	Mechanical
Shaft angle	—	—	—	8°	—
Reduction ratios (pleasure)	2.00:1	2.01 - 2.50:1	2.00:1 - 2.47:1	2.00:1 - 2.47:1	2.15:1
Reduction ratios (heavy duty)	—	2.01 - 2.50:1	2.00:1 - 2.47:1	2.00:1 - 2.47:1	—
Engine weight with gearbox	228 Kg	243 Kg	240 Kg	240 Kg	262 Kg

GRAPHS

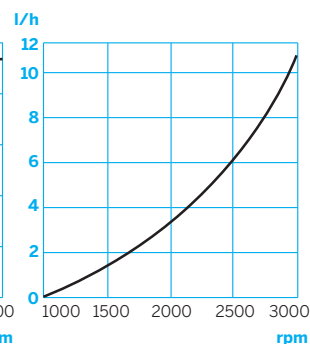
ENGINE TORQUE



POWER RATING

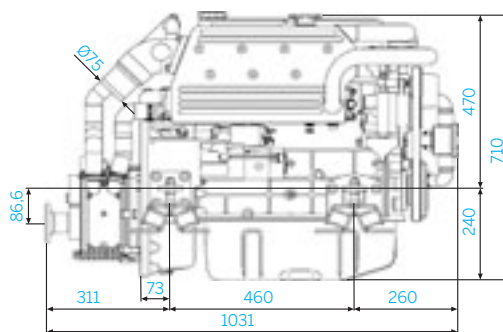
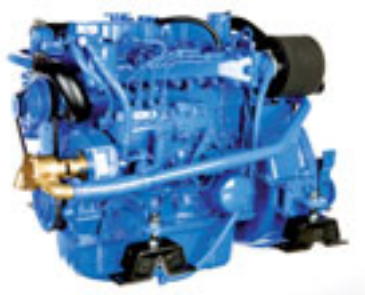


FUEL CONSUMPTION

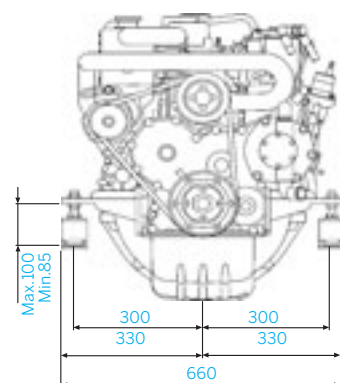


Note: Power rating per ISO 3046/1

MINI-74.

 Mitsubishi base. 4-cylinder 65 HP (47.9 kW) at 2500 rpm


MINI-74 CON SMI-R3



Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 4 m electrical extension lead
- Anti Vibration Mounts
- Oil extraction pump
- Owner's Manual and Spare parts manual

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- 24V electrical system
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft or pulley
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Engine mount

TYPE E

Part number 616.82.000



TECHNICAL SPECIFICATIONS

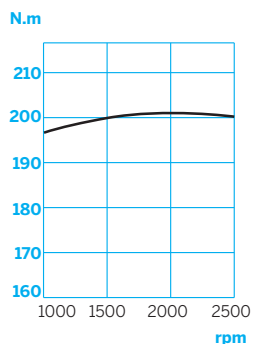
Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	4 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	94 x 120
Total displacement (cc)	3331
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	65 HP (47.9 kW)
Continuous power rating	62 HP (45.6 kW)
Fuel injection system	Indirect
Alternator	12 V - 110A
Maximum working angle	15° continuous / 25° intermittent
Int. Ø Salt water hose	32 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	----
Certifications	EURCD

TRANSMISSIONS AVAILABLE

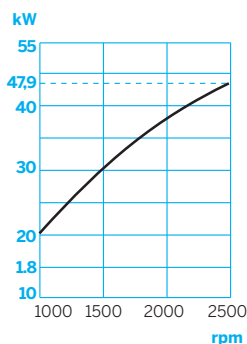
Model	SMI-R3	TM345	TM345A	TM93	TM93A
Manufacturer	Solé Diesel	Technodrive	Technodrive	Technodrive	Technodrive
Type	Mechanical	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Shaft angle	—	—	8°	—	8°
Reduction ratios (pleasure)	2.00:1	2.00:1 - 2.47:1	2.00:1 - 2.47:1	2.09:1 - 2.40:1 - 2.77:1	2.09:1 - 2.40:1
Reduction ratios (heavy duty)	—	—	—	2.09:1 - 2.40:1 - 2.77:1	2.09:1 - 2.40:1
Engine weight with gearbox	367 Kg	362 Kg	362 Kg	394 Kg	394 Kg

GRAPHS

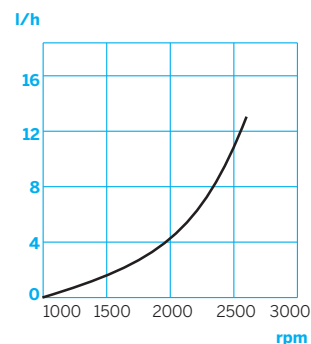
ENGINE TORQUE



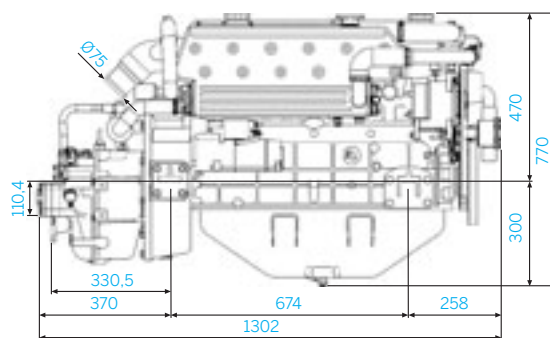
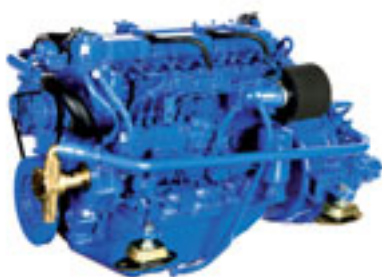
POWER RATING



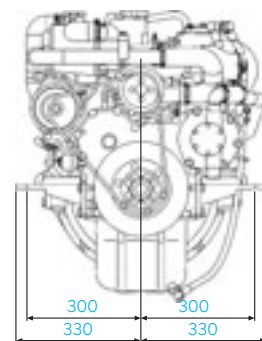
FUEL CONSUMPTION



Note: Power rating per ISO 3046/1



SM-105 CON TM93



Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual and Spare parts manual

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- 24V electrical system
- Two-pole electrical system
- Dry exhaust system
- Anti Vibration Mounts
- Keel cooling
- Power take-off shaft or pulley 4A or 4B
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Engine mount
(OPTIONAL)

TYPE D

Part number 616.65.200



TECHNICAL SPECIFICATIONS

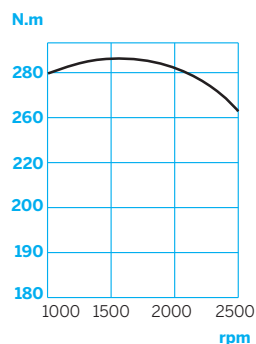
Base	MITSUBISHI
Type	Diesel, 4 stroke
Cylinders	6 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	94 x 120
Total displacement (cc)	4996
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	95 HP (69.9 kW)
Continuous power rating	87 HP (63.9 kW)
Fuel injection system	Indirect
Alternator	12 V - 110A
Maximum working angle	15° continuous / 20° intermittent
Int. Ø Salt water hose	32 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	----
Certifications	EURCD

TRANSMISSIONS AVAILABLE

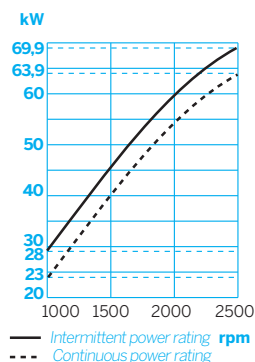
Model	TM93	TM93A	TM170	TM170A
Manufacturer	Technodrive	Technodrive	Technodrive	Technodrive
Type	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Shaft angle	—	8°	—	10°
Reduction ratios (pleasure)	2.09:1 - 2.40:1 - 2.77:1	2.09:1 - 2.40:1	2.04:1 - 2.50:1 - 2.94:1	2.08:1 - 2.60:1
Reduction ratios (heavy duty)	2.09:1 - 2.40:1 - 2.77:1	—	2.04:1 - 2.50:1 - 2.94:1	2.08:1 - 2.60:1
Engine weight with gearbox	415 Kg	415 Kg	440 Kg	440 Kg

GRAPHS

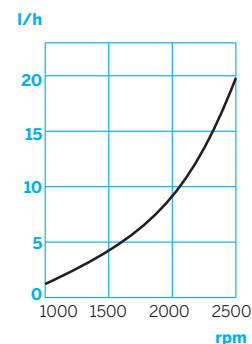
ENGINE TORQUE



POWER RATING

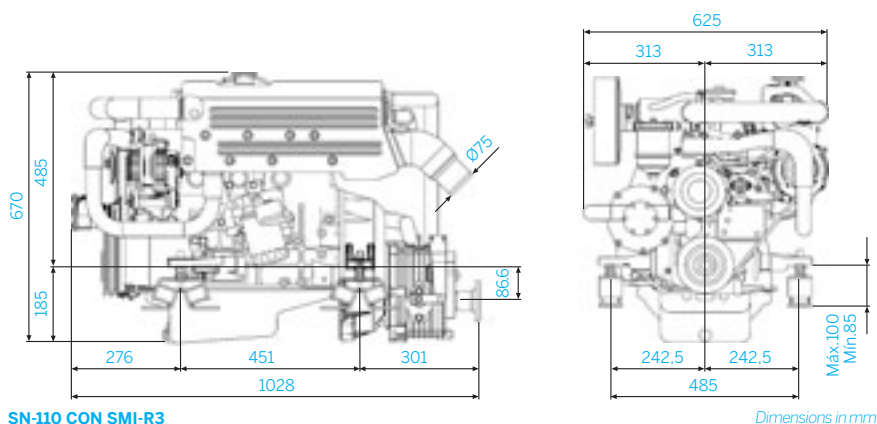


FUEL CONSUMPTION



Note: Power rating per ISO 3046/1

SN-110. NISSAN Base. 4-cylinder 101 HP (74.3 kW) at 3600 rpm



SN-110 CON SMI-R3

Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 4 m electrical extension lead
- Oil extraction pump
- Anti Vibration Mounts
- Owner's Manual and Spare parts manual
- Heater inlet

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Dimensions: 150 x 250 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Keel cooling
- Power take-off shaft
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Engine mount

TYPE E

Part number 616.82.000



TECHNICAL SPECIFICATIONS

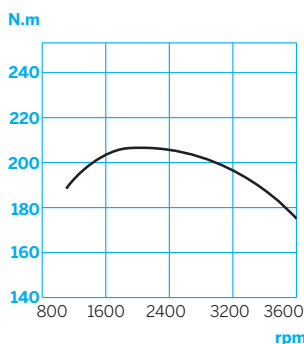
Base	NISSAN
Type	Diesel, 4 stroke
Cylinders	4 in-line
Intake system	Naturally Aspirated
Diameter x stroke (mm)	99.2 x 102
Total displacement (cc)	3153
Compression ratio	22:1
Intermittent power rating (per ISO 3046/1)	101 HP (74.3 kW)
Continuous output	91 HP (66.9 kW)
Fuel injection system	Indirect
Alternator	12 V - 110A
Maximum working angle	15° continuous / 20° intermittent
Int. Ø Salt water hose	32 mm
Int. Ø Diesel fuel intake hose	8 mm
Int. Ø Diesel fuel return hose	7 mm
Certifications	EURCD

TRANSMISSIONS AVAILABLE

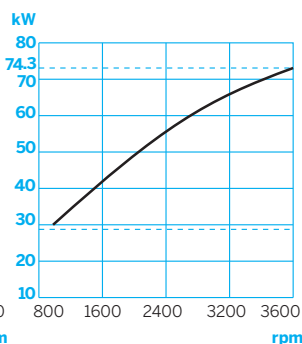
Model	SMI-R3	TM345	TM345A	TM93	TM93A
Manufacturer	Solé Diesel	Technodrive	Technodrive	Technodrive	Technodrive
Type	Mechanical	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Shaft angle	–	–	8°	–	8°
Reduction ratios (pleasure)	2.00:1 - 2.50:1	2.00:1 - 2.47:1	2.09:1 - 2.47:1	2.09:1 - 2.40:1 - 2.77:1	2.09:1 - 2.40:1
Reduction ratios (heavy duty)	–	2.00:1	2.09:1	2.09:1 - 2.40:1 - 2.77:1	2.09:1 - 2.40:1
Engine weight with gearbox	316 Kg	314 Kg	314 Kg	344 Kg	344 Kg

GRAPHS

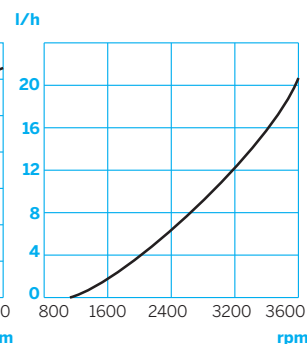
ENGINE TORQUE



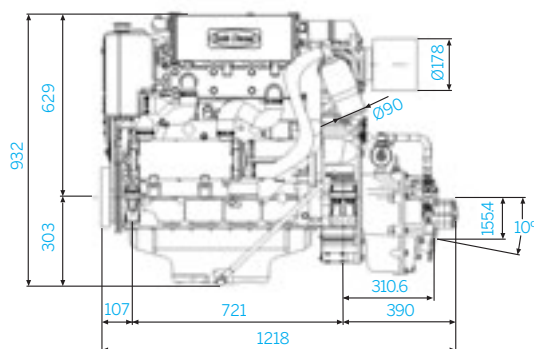
POWER RATING



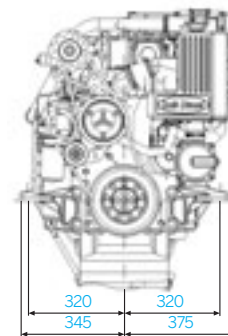
FUEL CONSUMPTION



Note: Power rating per ISO 3046/1



SDZ-165 CON TM170A



Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual and Spare parts manual

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Anti Vibration Mounts
- Keel cooling
- Power take-off shaft or pulley 4A or 4B
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Engine mount
(OPTIONAL)

TYPE C

Part number 616.90.000

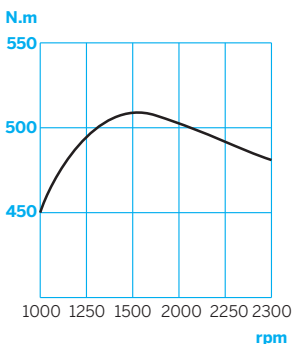


TECHNICAL SPECIFICATIONS

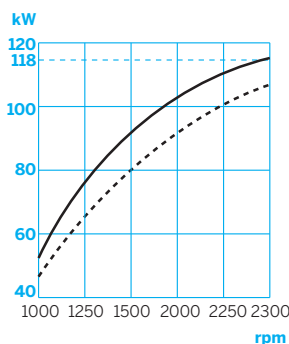
Base	DEUTZ
Type	Diesel, 4 stroke
Cylinders	4 in-line
Intake system	Turbocharged and intercooler
Diameter x stroke (mm)	108 x 130
Total displacement (cc)	4764
Compression ratio	17.6
Intermittent power rating (per ISO 3046/1)	160 CV (118 kW)
Continuous output	144 CV (106.2 kW)
Fuel injection system	Direct
Alternator	24 V - 55A
Maximum working angle	10°
Int. Ø Salt water hose	38 mm
Int. Ø Diesel fuel intake hose	12 mm
Int. Ø Diesel fuel return hose	12 mm
Certifications	EURCD

TRANSMISSIONS AVAILABLE

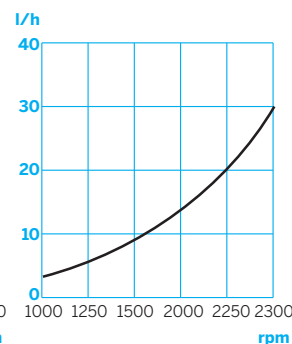
Model	TM170	TM170A	TM265	TM265A	TM200
Manufacturer	Technodrive	Technodrive	Technodrive	Technodrive	Technodrive
Type	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Shaft angle	–	10°	–	7°	–
Reduction ratios (pleasure)	2.04:1 - 2.50:1 - 2.94:1	2.08:1 - 2.60:1	2.09:1 - 2.82:1	2.00:1 - 2.30:1	–
Reduction ratios (heavy duty)	2.04:1	–	2.09:1 - 2.82:1	2.00:1 - 2.30:1	3.60:1 - 4.48:1
Engine weight with gearbox	679 Kg	679 Kg	772 Kg	772 Kg	820 Kg

GRAPHS
ENGINE TORQUE

POWER RATING

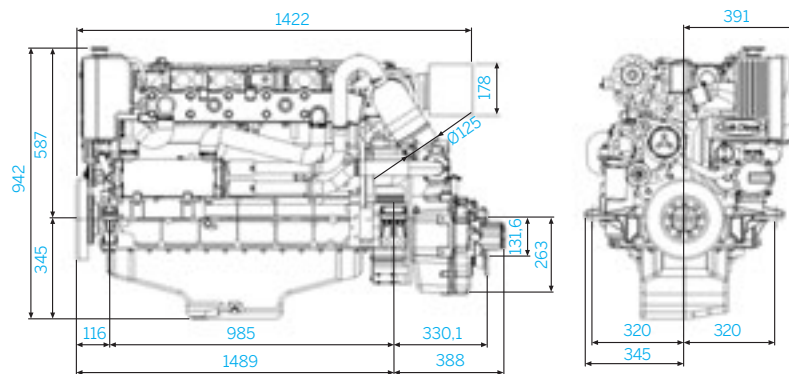
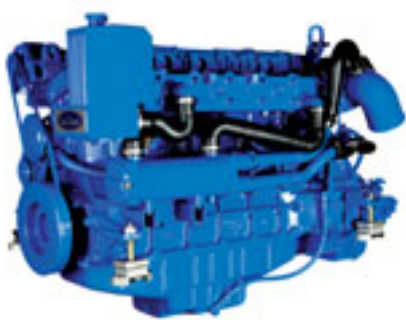


FUEL CONSUMPTION



Note: Power rating per ISO 3046/1

SDZ-205. DEUTZ base. 6-cylinder 197 HP (145 kW) at 2300 rpm



SDZ-205 CON TM265

Dimensions in mm

EQUIPMENT

STANDARD

- Instrument panel
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual and Spare parts manual

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

OPTIONAL

- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Anti Vibration Mounts
- Keel cooling
- Power take-off shaft or pulley 4A or 4B
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Engine mount
(OPTIONAL)

TYPE C

Part number 616.91.000



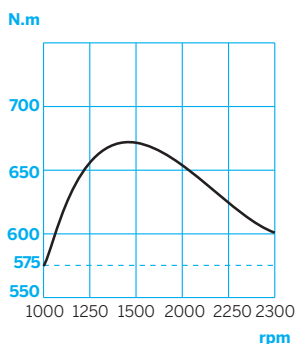
TECHNICAL SPECIFICATIONS

Base	DEUTZ
Type	Diesel, 4 stroke
Cylinders	6 in-line
Intake system	Turbocharged
Diameter x stroke (mm)	108 x 130
Total displacement (cc)	7146
Compression ratio	17.6:1
Intermittent power rating (per ISO 3046/1)	197 CV (145 kW)
Continuous output	175 CV (128.8 kW)
Fuel injection system	Direct
Alternator	24 V - 55A
Maximum working angle	10°
Int. Ø Salt water hose	38 mm
Int. Ø Diesel fuel intake hose	12 mm
Int. Ø Diesel fuel return hose	12 mm
Certifications	EU RCD

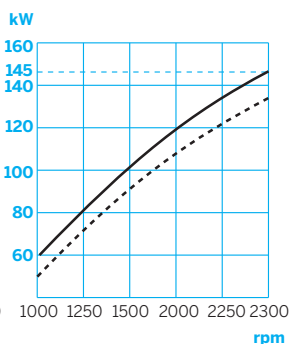
TRANSMISSIONS AVAILABLE

Model	TM170	TM170A	TM265	TM265A
Manufacturer	Technodrive	Technodrive	Technodrive	Technodrive
Type	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Shaft angle	–	10°	–	7°
Reduction ratios (pleasure)	2.04:1	2.08:1	2.09:1 - 2.82:1	2.00:1 - 2.30:1
Reduction ratios (heavy duty)	2.04:1	–	2.09:1 - 2.82:1	–
Engine weight with gearbox	787 Kg	787 Kg	890 Kg	890 Kg

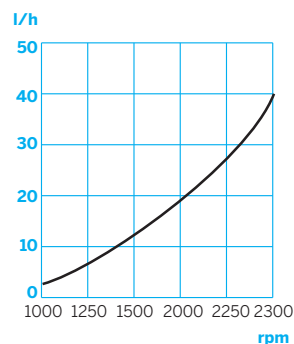
GRAPHS ENGINE TORQUE



POWER RATING



FUEL CONSUMPTION



Note: Power rating per ISO 3046/1



EQUIPMENT

STANDARD

- Instrument panel
- 4 m electrical extension lead
- Oil extraction pump
- Owner's Manual and Spare parts manual

Deluxe instrument panel with:



- RPM Indicator
- Hour Counter
- Key start and stop with timed preheat indication
- Audible and visual alarm for high engine temperature, low oil pressure and battery charge
- Temperature Gauge, oil pressure Gauge and Voltmeter
- Dimensions: 150 x 250 mm

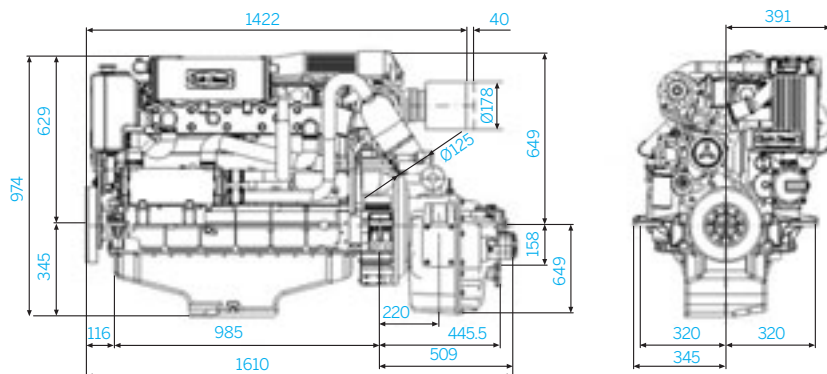
OPTIONAL

- Twin instrument panel installation
- Twin alternator
- Two-pole electrical system
- Dry exhaust system
- Anti Vibration Mounts
- Keel cooling
- Power take-off shaft or pulley 4A or 4B
- Heater inlet
- Drivetrain: Propeller, shaft, sterntube
- Water and diesel fuel filters
- Water, exhaust, and diesel fuel hoses

Engine mount
(OPTIONAL)

Type C

Part number 616.91.000



SDZ-280 CON TM265

TECHNICAL SPECIFICATIONS

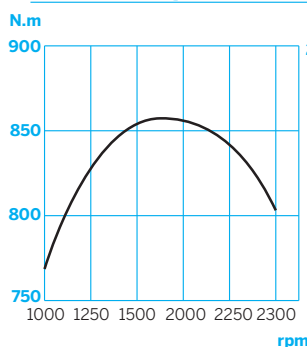
Base	DEUTZ
Type	Diesel, 4 stroke
Cylinders	6 in-line
Intake system	Turbocharged and intercooler
Diameter x stroke (mm)	108 x 130
Total displacement (cc)	7150
Compression ratio	17.5:1
Intermittent power rating (per ISO 3046/1)	272 CV (200 kW)
Continuous output	239 CV (175.9 kW)
Fuel injection system	Directa
Alternator	24 V - 55A
Maximum working angle	10°
Int. Ø Salt water hose	38 mm
Int. Ø Diesel fuel intake hose	12 mm
Int. Ø Diesel fuel return hose	12 mm
Certifications	EURCD

TRANSMISSIONS AVAILABLE

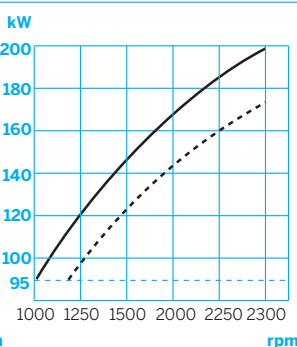
Model	TM265	TM265A
Manufacturer	Technodrive	Technodrive
Type	Hydraulic	Hydraulic
Shaft angle	—	7°
Reduction ratios (pleasure)	2.09:1 - 2.82:1	2.00:1 - 2.30:1
Reduction ratios (heavy duty)	2.09:1 - 2.82:1	—
Engine weight with gearbox	932 Kg	932 Kg

GRAPHS

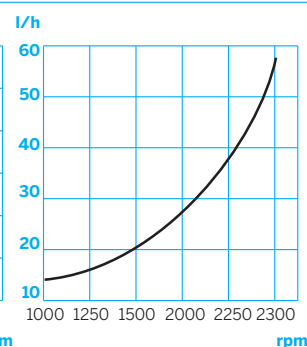
ENGINE TORQUE



POWER RATING



FUEL CONSUMPTION



Note: Power rating per ISO 3046/1

1. DIESEL MARINE ENGINES OPTIONAL KITS.

CUSTOMIZATIONS TO OTHER GEARBOXES AND SAILDRIVES

- VOLVO SAILDRIVE 100S / 110S / 120SB / 120S / 130S
- VOLVO SAILDRIVE 270 / 280 / 290
- YANMAR SAILDRIVE SD 20
- BUCK SAILDRIVE DV10 / DV20
- BW GEARBOXES
- HURTH 150A
- TECHNODRIVE GEARBOXES



MNI-29 ADAPTED FOR VOLVO 130S SAILDRIVE

EXHAUST SYSTEM

DRY EXHAUST

- Dry exhaust coupling
- Dry exhaust elbow
- Dry exhaust elbow + muffler

SDZ-280 WITH FULL DRY EXHAUST



POWER TAKE-OFF

POWER TAKE-OFF SHAFT/PULLEY

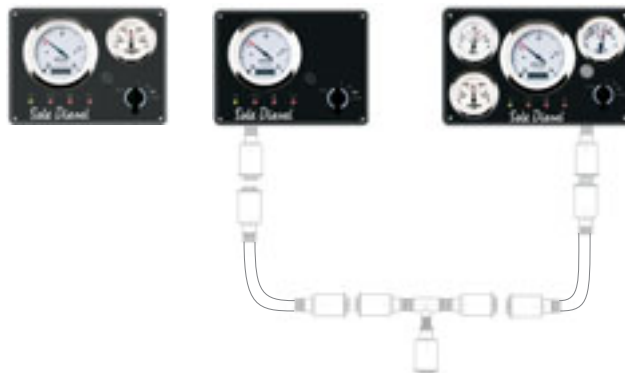
- 2 A sections
- 2 B sections
- 4 A sections
- 4 B sections
- Power take-off shaft



SDZ-205 WITH V-FRONT PULLEY 4B

INSTRUMENT PANEL

- DELUXE PANEL
- DOUBLE PANEL
- DELUXE DOUBLE PANEL



ELECTRICAL SYSTEM

24V installations
12 or 24V two-pole installations

2ND ALTERNATOR (FOR 12 OR 24V INSTALLATIONS)

- 12V/70A alternator
- 14V/90A alternator
- 14V/110A alternator
- 24V/55A alternator
- 24V/140A alternator

SM-105 WITH ALTERNATOR
24V / 55A AUXILIARY



OTHERS

- Heater inlet
- Trolling valve
- Keel cooling
- Double-walled injection pipes



GENERATOR SET WITH CLUTCH
HYDRAULIC PUMP DRIVE

We can offer you the following mounts for the full range of propulsion engines, according to your needs.

* Other mounts - check availability



Basic maintenance kit with all the essential items for your engine annual check; oil filter, fuel filter, impeller and pump cover gasket.

PART NR WITH BOX	PART NR WITHOUT BOX	MODEL ENGINE	OIL FILTER	FILTER FUEL	IMPELLER	PUMP COVER GASKET
138.40.111	138.40.110	MINI-17	13124051	13114022	31211008	31211003
138.40.111	138.40.110	MINI-29	13124051	13114022	31211008	31211003
138.40.111	138.40.110	MINI-33	13124051	13114022	31211008	31211003
138.40.111	138.40.110	MINI-44	13124051	13114022	31211008	31211003
177.40.111	177.40.110	MINI-55	13124051	13114022	35111008	35211003
171.40.111	171.40.110	MINI-62	13924051	17114022	34711008	34711003
174.40.111	174.40.110	MINI-74	17424051	17414022	34711008	34711003
187.40.111	187.40.110	SV-230	19024051	18524020	38611008	V45210035A
182.40.111	182.40.110	SN-85	18224051	18224022	34711008	34711003
182.40.111	182.40.110	SN-110	18224051	18224022	34711008	34711003
175.40.111	175.40.110	SM-105	17524051	17414022	34711008	34711003
194.40.111	194.40.110	SDZ-165	19424051	19424022	34711008	34711003
194.40.111	194.40.110	SDZ-205	19424051	19424022	34711008	34711003
194.40.111	194.40.110	SDZ-280	19424051	19424022	34711008	34711003

2 GENERATOR SETS

DIGITAL GENERATOR SET PANEL (SCO 10)



The new digital panel SCO 10 offers a wide choice of integrated control solutions for the marine gen-sets. Controllers are easy to use with an intuitive user interface and graphic display. The SCO 10 panel offers a wide range of advantages, such as:

- History log
- CAN bus information output with SAE J1939 protocol
- Graphic LCD display with LED indicators
- Multiple alarms possibilities
- Configuration protected by password

TECHNICAL SPECIFICATIONS

General description

- Graphic LCD with light, 128 x 64 pixels display
- 2 LED indicators
- Genset Measures (see Display Information)
- Configuration protected by password
- Running hour indication
- Multilanguage
- Genset protections (see Alarm Management)
- Preheating function
- D+ pre-excitation Terminal
- CAN bus information output with SAE J1939 protocol
- Two multipurpose timers

Power Supply

Voltage supply: 12/24V DC with fuse protection
Consumption: 80/51mA

Dimensions and weight

Dimensions: 180 x 120 x 55 mm
Weight: 450g

Operating conditions

Operating temperature: -20 +70°C
Humidity: 95% Without condensation
Protection front panel: IP65

Standard Conformity

- Low Voltage Directive
EN 61010-1:95 +A1:97
- Electromagnetic Compatibility
EN 50081-1:94, EN 50081-2:96
EN 50082-1:99, EN 50082-2:97

Function Description

OFF Mode
MAN Mode (manual start/stop engine)
AUT Mode (auto start/stop engine)

* The specified function needs the current transformers (Optional Equipment) for showing the information in SCO 10 panel display

Display Information

• Measurement

L1-L3 Voltage (V)
Frequency (Hz)
Oil Pressure (bar)
Coolant Temperature (°C)
Battery Voltage (V DC)
rpm
Active Power* (kW)
Apparent Power* (kVA)
Current* (A)
PF*

• History log

Alarm Management

• Shut Downs (SD)

High coolant temperature
Low oil pressure
Overspeed
Overload*
Short circuit*
Overcurrent*
Over/Under voltage
Over/Under frequency
Emergency stop

• Warnings (WRN)

High coolant temperature
Low oil pressure
High/Low battery voltage
Maintenance request

• Sensor Fails (FLS)

Optional Equipment

• SCO 10 Double panel:

SCO 10 Double panel allows the same operation and functionality as Main SCO 10. They are connected by RS485 port with a communication wire, available in 12/24/36 m.

• Current transformers:

Current (A), Active Power (kW), Apparent Power (kVA) and PF genset measures.

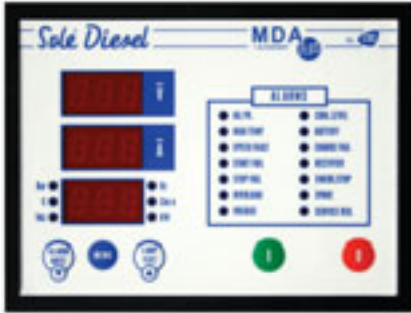
• Isolated transformers:

Voltage transformer unit to separate mains voltage and controller with voltage ratio 1:1.

• Binary Input/Output extension module

• IG-IB Internet communication bridge:

For Ethernet/Internet communications



Standard equipment in all but the following models:
G-8T-3, G-15T-3, G-6T-15, G-8M-3, G-15M-3, G-6M-15



Optional auxiliary panel

This panel is a complete unit designed to start and stop the generator set manually or via remote control. The manual control consists of the front panel (green and red) buttons and the remote control consists of a timer that launches the starter signal.

Once the generator set is operating, the panel automatically controls the unit's stopping and starting, as well as monitoring internal and external alarm signals.

The MENU button may be used to obtain readings indicating the status of each parameter. It is possible to monitor the panel's programming variables using a computer application.

TABLE OF CHARACTERISTICS:

Manual and remote start-up
Engine control
Generator protection
Pre-alarms and alarms
Line-to-line voltage reading
Current reading for each phase
Engine oil pressure monitoring
Engine coolant temperature monitoring
Supplied power monitoring (kW)
Installation cos phi monitoring
Maintenance period notification
Generator set operating hours
Password option to prevent tampering with variables
RS-232 serial port
LED displays
Option to configure 2 analogue inputs
Option to configure 7 digital inputs
Option to configure 2 output relays. Total output relays: 4.

TABLE OF TECHNICAL SPECIFICATIONS:

Generator voltage: 15-300 V-AC (phase/neutral).
Generator frequency: 0-100 Hz
Load fault trip voltage: 9.0 to 33.0 V-DC
Typical current consumption in standby: 100 mA-DC
Maximum current consumption while operating: 300 mA-DC (with open output relays)
Output relays: 10A / 28V
Excitation load current: 54 mA / 12 V-DC
Analogue signal input range: 0-5000 Ω
Serial ports: RS-232, 2400 baud, no parity, 1 bit per pulse.
Operating temperature: -20 to 70 °C
Storage temperature: -30 to 80 °C
Maximum humidity: 95% non-condensing
IP protection: IP65 (front panel), IP30 (back panel)
Dimensions: 155x 115 x 48 mm.
Weight: approximately 310 g
Housing material: ABS, resistant to high temperatures (UL94-V0, 110°C).



Only for the following models:
G-8T-3, G-15T-3, G-6T-15, G-8M-3, G-15M-3, G-6M-15

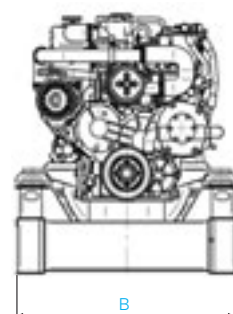
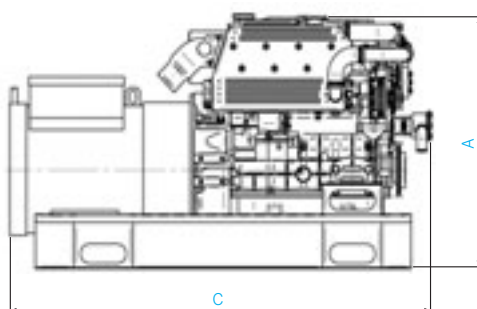
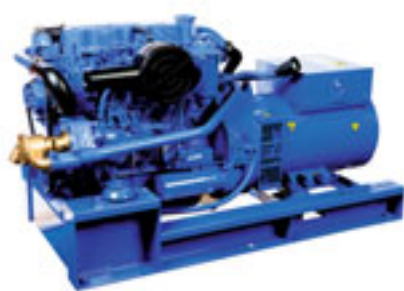
COMPLIES WITH EU DIRECTIVES:

73/23/EEC and 93/68/EEC (low voltage).
89/336/EEC, 92/31/EEC and 93/68/EEC (EMC).

Panel developed by Solé Diesel. Controlled from an electronic control unit, this unit is designed to start and stop a generator set manually. Once the engine is running, the unit monitors failure conditions and stops the engine automatically in the event of an alarm. When the engine stops the corresponding alarm icon lights up on the front panel, as well as activating an audible alarm.

TABLE OF TECHNICAL SPECIFICATIONS:

Power: 12 to 24 VDC.
Energy consumption: 80 mA maximum (Relays disabled)
Load fault trip voltage: 8 VDC
50 / 60 Hz compatible
Operating temperature: -15 to 70 °C
Storage temperature: -20 to 80 °C
Maximum humidity: 95% non-condensing
Dimensions: A x B x C mm.
Weight: approximately 550 g
Installation: Front panel mounting



THREE-PHASE GENERATOR SETS at 3000 rpm 50 Hz

Engine technical specifications	G-8T-3	G-15T-3	G-25T-0
Engine model	MINI-17	MINI-26	MINI-44
Base engine	MITSUBISHI	MITSUBISHI	MITSUBISHI
Compression	23:1	23:1	22:1
Cylinders	2	3	4
Cooling system	Double Circuit	Double Circuit	Double Circuit
Diameter	76	76	78
Stroke	70	70	92
Total displacement	952	952	1758
r.p.m	3000	3000	3000
Intake system	Atmospheric	Atmospheric	Atmospheric
Spec. Fuel consumption (l/h)	25%: 1,3 50%: 1,9 75%: 2,6 100%: 3,4	25%: 1,7 50%: 3 75%: 4,1 100%: 5	25%: 3,6 50%: 5,1 75%: 6,5 100%: 7,8
Engine voltage (V)	12	12	12
Engine alternator current (A)	40	0	50
Shut-down system ELECTRONIC	ETS	ETS	ETR
Fuel injection system	Indirect	Indirect	Indirect
Panel type	Analogue	Analogue	MDA
Exhaust hose	40	50	50
Water hose	20	20	20
Fuel hose	8	8	8
Diesel fuel return hose	6,5	6,5	6,5
Housing (in)	SAE 5	SAE 5	SAE 5
Flywheel (in)	SAE 6 1/2	SAE 6 1/2	SAE 7 1/2

Alternator technical specifications	G-8T-3	G-15T-3	G-25T-0
Brand	MECCALTE	MECCALTE	MECCALTE
Model	T20FS-130	ECO3-1L/2	ECO28-2L/2
Phases	Three phases	Three phases	Three phases
Voltage (V)	400 / 230	400 / 230	400 / 230
VOLTAGE PHASES One phase	0	0	0
VOLTAGE PHASES Three phases STAR	400	400	400
VOLTAGE PHASES Three phases DELTA	230	230	230
VOLTAGE PHASES-NEUTRAL One phase	0	0	0
Frequency (Hz)	50	50	50
Type of regulator	Regulating transformer	DSR	DSR
Cos phi	0,8	0,8	0,8
Power rate (kVA)	8	15	25
Power rate (kW)	6,4	12	20
Alternator cooling	Air	Air	Air
No. Of poles	2	2	2
Current (A)	12	22 / 37,7	37 / 62,8
Isolation Type	H	H	H

Dimensions and weight

A (mm)	547	549	619
B (mm)	482	485	560
C (mm)	889	909	1.214
Total weight (Kg)	165	223	352

THREE-PHASE GENERATOR SETS at 1500 rpm 50 Hz

G-6T-15	G-10T-15
MINI-26	MINI-33
MITSUBISHI	MITSUBISHI
23:1	22:1
3	3
Double Circuit	Double Circuit
76	78
70	92
952	1318
1500	1500
Atmospheric	Atmospheric
25%: 0,7 50%: 1,2 75%: 1,7 100%: 2	25%: 1 50%: 1,3 75%: 1,6 100%: 2,1
12	12
40	50
ETS	ETR
Indirect	Indirect
MDA	MDA
50	50
20	20
8	8
6,5	6,5
SAE 5	SAE 5
SAE 6 1/2	SAE 7 1/2

G-6T-15	G-10T-15
MECCALTE	MECCALTE
ECO3-1SN/4	ECO3-1LN/4
Three phases	Three phases
400 / 230	400 / 230
0	0
400	400
230	230
0	0
50	50
DSR	DSR
0,8	0,8
6	10
4,8	8
Air	Air
4	4
9 / 15,1	15 / 25,2
H	H

554	596
485	505
1001	1150
196	272

EQUIPMENT

Solé marine diesel generator sets generate from 6 kVA to 104 kVA at 50 Hz and up to 126 kVA at 60 Hz. These generator sets meet the highest standards with respect to reliability, features and durability, all while maintaining excellent fuel economy and minimising polluting emissions. Bed-mounted generator sets include Anti Vibration Mounts for stable and quiet operation.

STANDARD

- Flexible mounts*
- 3/4 m extension lead*
- Oil extraction pump
- Owner's Manual and Spare parts manual
- Analogue / Digital*

OPTIONAL*

- Double panel
- Dry exhaust system
- Two-pole electrical installation
- 24V electrical system
- Power take-off
- Keel cooling
- Double-walled injection pipes

Mount TYPE F



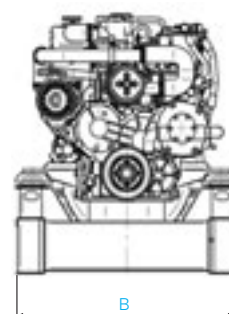
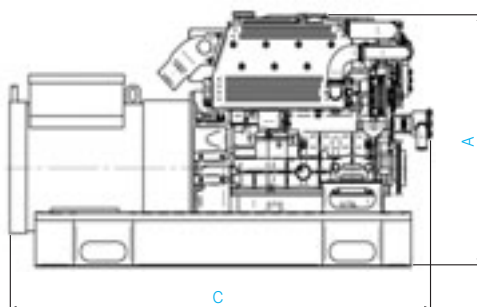
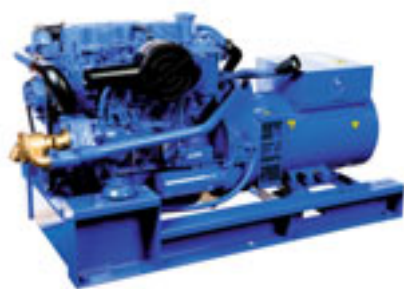
Anti Vibration Mounts included

G-15T-15	G-20T-15 / G-20T-15X	G-104T-15	G-35T-15	G-51T-15
MINI-44	MINI-62	SDZ-165	MINI-74	SM-105
mitsubishi	mitsubishi	DEUTZ	mitsubishi	mitsubishi
22:1	22:1	19:1	22:1	22:1
4	4	4	4	6
Double Circuit	Double Circuit	Double Circuit	Double Circuit	Double Circuit
78	88	108	94	94
92	95	130	120	120
758	2311	4764	3331	4996
1500	1500	1500	1500	1500
Atmospheric	Atmospheric	Turbocharged and intercooler	Atmospheric	Atmospheric
25%: 1,6	25%: 1,6	25%: 4,9	25%: 2,4	25%: 3,4
50%: 2,1	50%: 2,4	50%: 8,8	50%: 3,8	50%: 5,5
75%: 2,7	75%: 3,1	75%: 12,7	75%: 5,3	75%: 7,8
100%: 3,4	100%: 3,9	100%: 16,9	100%: 6,9	100%: 10,3
12	12	24	12	12
50	50	55	110	110
ETR	ETR (ETS Earth isolated version)	ETS	ETR	ETR
Indirect	Indirect	Indirect	Indirect	Indirect
MDA	MDA	MDA	MDA	MDA
50	60	90	75	75
20	32	38	32	32
8	8	12	8	8
6,5	6,5	12	8	8
SAE 5	SAE 5	SAE 2	SAE 3	SAE 3
SAE 7 1/2	SAE 8	SAE 11 1/2	SAE 11 1/2	SAE 11 1/2

G-15T-15	G-20T-15 / G-20T-15X	G-104T-15	G-35T-15	G-51T-15
MECCALTE	MECCALTE	MECCALTE	MECCALTE	MECCALTE
ECO28-SN/4	ECO28-1L/4	ECP34-2S/4	ECO32-2S/4	ECO32-1L/4
Three phases	Three phase	Three phases	Three phases	Three phases
400 / 230	400 / 230	400 / 230	400 / 230	400 / 230
0	0	0	0	0
400	400	400	400	400
230	230	230	230	230
0	0	0	0	0
50	50	50	50	50
DSR	DSR	SR7/2 electronic	DSR	AVR DSR electronic
0,8	0,8	0,8	0,8	0,8
15	20	104	35	50
12	16	83,2	28	40
Air	Air	Air	Air	Air
4	4	4	4	4
22 / 37,7	29 / 50,3	151 / 261,1	51 / 87,9	71 / 122,8
H	H	H	H	H

619	690	996	768	833
560	610	840	700	700
1139	1.293	1775	1382	1.721
320	389	1158	547	745

*Refer to model



THREE-PHASE GENERATOR SETS

at 3000 rpm 50 Hz

Engine technical specifications	G-8M-3X	G-15M-3	G-25M-3
Engine model	MINI-17	MINI-26	MINI-44
Base engine	MITSUBISHI	MITSUBISHI	MITSUBISHI
Compression	23 :1	23:1	22:1
Cylinders	2	3	4
Cooling system	Double Circuit	Double Circuit	Double Circuit
Diameter	76	76	78
Stroke	70	70	92
Total displacement	952	952	1758
r.p.m	3000	3000	3000
Intake system	Atmospheric	Atmospheric	Atmospheric
Spec. Fuel consumption (l/h)	25%: 1,3 50%: 1,9 75%: 2,6 100%: 3,4	25%: 1,7 50%: 3 75%: 4,1 100%: 5	25%: 3,6 50%: 5,1 75%: 6,5 100%: 7,8
Engine voltage (V)	12	12	12
Engine alternator current (A)	40	0	50
Shut-down system ELECTRONIC	ETS	ETS	ETR
Fuel injection system	Indirect	Indirect	Indirect
Panel type	Analogue	Analogue	MDA
Exhaust hose	40	50	50
Water hose	20	20	20
Fuel hose	8	8	8
Diesel fuel return hose	6,5	6,5	6,5
Housing (in)	SAE 5	SAE 5	SAE 5
Flywheel (in)	SAE 6 1/2	SAE 6 1/2	SAE 7 1/2
Alternator technical specifications	G-8M-3X	G-15M-3	G-25M-3
Brand	MECCALTE	MECCALTE	MECCALTE
Model	S20FS-130	ECS028-2L/2	ECSN-31SA
Phases	One phase	One phase	One phase
Voltage (V)	230	230	230
VOLTAGE PHASES One phase	230	230	230
VOLTAGE PHASES Three phases STAR	0	0	0
VOLTAGE PHASES Three phases DELTA	0	0	0
VOLTAGE PHASES-NEUTRAL One phase	115	115	115
Frequency (Hz)	50	50	50
Type of regulator	Condenser regulation	DSR	Regulating transformer
Cos phi	1	1	1
Power rate (kVA)	8	15	25
Power rate (kW)	8	15	25
Alternator cooling	Aire	Air	Air
No. Of poles	2	2	2
Current (A)	35	66	109
Isolation Type	H	H	H
Dimensions and weight			
A (mm)	547	589	605
B (mm)	482	500	524
C (mm)	889	1.023	1.295
Total weight (Kg)	163	305	420

EQUIPMENT

Solé marine diesel generator sets generate from 6 kVA to 104 kVA at 50 Hz and up to 126 kVA at 60 Hz. These generator sets meet the highest standards with respect to reliability, features and durability, all while maintaining excellent fuel economy and minimising polluting emissions. Bed-mounted Anti Vibration Mounts for stable and quiet operation.

STANDARD

- Flexible mounts*
- 3/4 m extension lead*
- Oil extraction pump
- Owner's Manual and Spare parts manual
- Analogue / Digital*

OPTIONAL*

- Double panel
- Dry exhaust system
- Two-pole electrical installation
- 24V electrical system
- Power take-off
- Keel cooling
- Double-walled injection pipes

Mount TYPE F



Anti Vibration Mounts included

SINGLE PHASE GENERATOR SETS

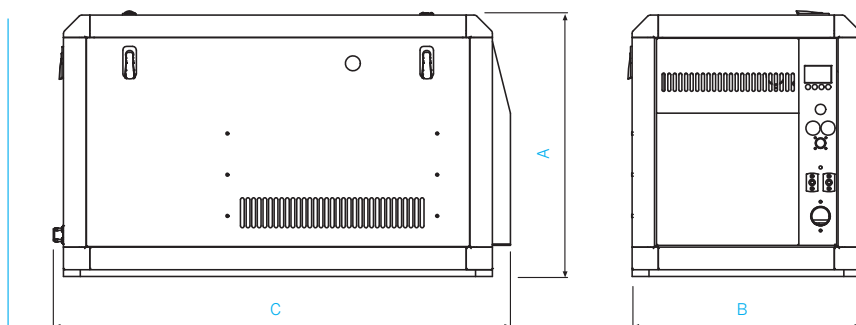
at 1500 rpm 50 Hz

G-6M-15	G-10M-15	G-15M-15	G-20M-15
MINI-26	MINI-33	MINI-44	MINI-62
MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
23:1	22:1	22:1	22:1
3	3	4	4
Double Circuit	Double Circuit	Double Circuit	Double Circuit
76	78	78	88
70	92	92	95
952	1318	1758	2311
1500	1500	1500	1500
Atmospheric	Atmospheric	Atmospheric	Atmospheric
25%: 0,8	25%: 1,2	25%: 1,8	25%: 2,1
50%: 1,1	50%: 1,6	50%: 2,3	50%: 2,9
75%: 1,5	75%: 2	75%: 3	75%: 3,9
100%: 1,9	100%: 2,5	100%: 3,9	100%: 4,9
12	12	12	12
40	50	50	50
ETS	ETR	ETR	ETR (ETS Earth isolated version)
Indirect	Indirect	Indirect	Indirect
MDA	MDA	MDA	MDA
50	50	50	60
20	20	20	32
8	8	8	8
6,5	6,5	6,5	6,5
SAE 5	SAE 5	SAE 5	SAE 5
SAE 6 1/2	SAE 7 1/2	SAE 7 1/2	SAE 8

G-6M-15	G-10M-15	G-15M-15	G-20M-15
MMECCALTE	MECCALTE	MECCALTE	MECCALTE
ECP3-2S/4	ECP3-3L/4	ECO28-2L/4	ECO32-2S/4
One phase	One phase	One phase	One phase
230	230	230	230
230	230	230	230
0	0	0	0
0	0	0	0
115	115	115	115
50	50	50	50
DSR	DSR	DSR	DSR
0,8	0,8	1	0,8
6	10	15	20
6	10	15	20
Air	Air	Air	Air
4	4	4	4
27	44	66	87
H	H	H	H

547	596	619	701
465	505	560	610
1003	1150	1.214	1.372
215	250	370	480

*Refer to model



THREE-PHASE GENERATOR SETS

WITH CANOPY at 1500 rpm 50 Hz

Engine technical specifications	7 GSC	10 GSC	14 GSC	19 GSC	29 GSC	29 GS
Engine model	MINI-26	MINI-33	MINI-44	MINI-62	MINI-74	MINI-74
Base engine	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
Compression	23:1	22:1	22:1	22:1	22:1	22:1
Cylinders	3	3	4	4	4	4
Cooling system	Double Circuit	Double Circuit	Double Circuit	Double Circuit	Double Circuit	Double Circuit
Diameter	76	78	78	88	94	94
Stroke	70	92	92	95	120	120
Total displacement	952	1318	1758	2311	3331	3331
r.p.m	1500	1500	1500	1500	1500	1500
Intake system	Atmospheric	Atmospheric	Atmospheric	Atmospheric	Atmospheric	Atmospheric
Spec. Fuel consumption (l/h)	25%: 0,8 50%: 1,1 75%: 1,5 100%: 1,9	25%: 1,2 50%: 1,6 75%: 2 100%: 2,5	25%: 1,8 50%: 2,3 75%: 3 100%: 3,9	25%: 2,1 50%: 2,9 75%: 3,9 100%: 4,9	25%: 3,3 50%: 5,4 75%: 7,7 100%: 10,9	25%: 2,4 50%: 4,2 75%: 6 100%: 8,2
Engine voltage (V)	12	12	12	12	12	12
Engine alternator current (A)	40	50	50	50	110	110
Shut-down system ELECTRONIC	ETS	ETR	ETR	ETR (ETS Earth isolated version)	ETR	ETR
Fuel injection system	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect
Panel type	SCO 10	SCO 10	SCO 10	SCO 10	SCO 10	SCO 10
Exhaust hose	50	50	50	60	75	75
Water hose	20	20	20	32	32	32
Fuel hose	8	8	8	8	8	8
Diesel fuel return hose	6,5	6,5	6,5	6,5	8	8
Housing (in)	SAE 5	SAE 5	SAE 5	SAE 5	SAE 3	SAE 3
Flywheel (in)	SAE 6 1/2	SAE 7 1/2	SAE 7 1/2	SAE 8	SAE 11 1/2	SAE 11 1/2
Alternator technical specifications	7 GSC	10 GSC	14 GSC	19 GSC	29 GSC	29 GS
Brand	SINCRO	SINCRO	SINCRO	SINCRO	MECCALTE	MECCALTE
Model	SK160SZ1	SK160CA1	SK160MA1	SK160LA1	ECO32-1L/4	ECO32-1L/4
Phases	One phase	One phase	One phase	One phase	One phase	One phase
Voltage (V)	230	230	230	230	230	230
VOLTAGE PHASES One phase	230	230	230	230	230	230
VOLTAGE PHASES Three phases STAR	0	0	0	0	0	0
VOLTAGE PHASES Three phases DELTA	0	0	0	0	0	0
VOLTAGE PHASES-NEUTRAL One phase	115	115	115	115	115	115
Frequency (Hz)	50	50	50	50	50	50
Type of regulator	AVR BL4 electronic	AVR BL4 electronic	AVR BL4 electronic	AVR BL4 electronic	AVR DSR electronic	electrónico AVR DSR
Cos phi	1	1	1	1	0,8	0,8
Power rate (kVA)	6,6	9,4	13,9	19	34	34
Power rate (kW)	6,6	9,4	13,9	19	27,2	27,2
Alternator cooling	Air	Air	Air	Air	Air	Air
No. Of poles	4	4	4	4	4	4
Current (A)	29	41	61	83	124	124
Isolation Type	H	H	H	H	H	H
Dimensions and weight						
A (mm)	608	668,5	668	698	848	848
B (mm)	560	580	580	610	840	840
C (mm)	892	1032	1181	1145	1875	1875
Total weight (Kg)	222	n/a	n/a	n/a	n/a	0

EQUIPMENT

Solé marine diesel generator sets generate from 6 kVA to 104 kVA at 50 Hz and up to 126 kVA at 60 Hz. These generator sets meet the highest standards with respect to reliability, features and durability, all while maintaining excellent fuel economy and minimising polluting emissions. Bed-mounted Anti Vibration Mounts for stable and quiet operation.

STANDARD

- Flexible mounts*
- 3/4 m extension lead*
- Oil extraction pump
- Owner's Manual and Spare parts manual
- Analogue / Digital*

OPTIONAL*

- Double panel
- Dry exhaust system
- Two-pole electrical installation
- 24V electrical system
- Power take-off
- Keel cooling
- Double-walled injection pipes

Mount TYPE F



Anti Vibration Mounts included

SINGLE PHASE GENERATOR SETS

WITH CANOPY at 1500 rpm 50 Hz

8 GTC	11 GTC	17 GTC	20 GTC	35 GT/GTC	50 GTC	85 GT/GTC	115 GTC
MINI-26	MINI-33	MINI-44	MINI-62	MINI-74	SM-105	SDZ-109	SDZ-165
MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	DEUTZ	DEUTZ
23:1	22:1	22:1	22:1	22:1	22:1	19:1	19:1
3	3	4	4	4	6	4	4
Double Circuit	Double Circuit	Double Circuit	Double Circuit	Double Circuit	Double Circuit	Double Circuit	Double Circuit
76	78	78	88	94	94	108	108
70	92	92	95	120	120	130	130
952	1318	1758	2311	3331	4996	4764	4764
1500	1500	1500	1500	1500	1500	1500	1500
Atmospheric	Atmospheric	Atmospheric	Atmospheric	Atmospheric	Atmospheric	Atmospheric	Turbocharged and intercooler
25%: 0,8	25%: 1	25%: 1,6	25%: 1,6	25%: 2,4	25%: 3,4	25%: 3,8	25%: 5,9
50%: 1,1	50%: 1,3	50%: 2,1	50%: 2,4	50%: 3,8	50%: 5,5	50%: 7,1	50%: 10,5
75%: 1,5	75%: 1,6	75%: 2,7	75%: 3,1	75%: 5,3	75%: 7,8	75%: 10,2	75%: 15,5
100%: 1,8	100%: 2,1	100%: 3,4	100%: 3,9	100%: 6,9	100%: 10,3	100%: 13,4	100%: 20,7
12	12	12	12	12	12	24	24
40	50	50	50	110	110	55	55
ETS	ETR	ETR	ETR (ETS Earth isolated version)	ETR	ETR	ETS	ETS
Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect
SCO 10	SCO 10	SCO 10	SCO 10	SCO 10	SCO 10	SCO 10	SCO 10
50	50	50	60	75	75	90	90
20	20	20	32	32	32	38	38
8	8	8	8	8	8	12	12
6,5	6,5	6,5	6,5	8	8	12	12
SAE 5	SAE 5	SAE 5	SAE 5	SAE 3	SAE 3	SAE 2	SAE 2
SAE 6 1/2	SAE 7 1/2	SAE 7 1/2	SAE 8	SAE 11 1/2	SAE 11 1/2	SAE 11 1/2	SAE 11 1/2

8 GTC	11 GTC	17 GTC	20 GTC	35 GT/GTC	50 GTC	85 GT/GTC	115 GTC
SINCRO	SINCRO	SINCRO	SINCRO	SINCRO	MECCALTE	MECCALTE	MECCALTE
SK160SA	SK160CA	SK160MA	SK160MB	SK160WB	ECO32-1L/4	ECP34-1S/4	ECP34-1L/4
Three phases	Three phases	Three phases	Three phases	Three phases	Three phases	Three phases	Three phases
400 / 230	400 / 230	400 / 230	400 / 230	400 / 230	400 / 230	400 / 230	400 / 230
0	0	0	0	0	0	0	0
400	400	400	400	400	400	400	400
230	230	230	230	230	230	230	230
0	0	0	0	0	0	0	0
50	50	50	50	50	50	50	50
AVR BL4 electronic	AVR BL4 electronic	AVR BL4 electronic	AVR BL4 electronic	AVR BL4 electronic	AVR DSR electronic	AVR DSR electronic	AVR DSR electronic
0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8
7,8	10,5	16,4	20	35	50	85	115
6,3	8,4	13,2	16	28	40	68	92
Air	Air	Air	Air	Air	Air	Air	Air
4	4	4	4	4	4	4	4
12 / 19,6	16 / 26,4	24 / 41,2	29 / 50,3	51 / 87,9	71 / 122,8	123 / 213,4	163 / 282,2
H	H	H	H	H	H	H	H

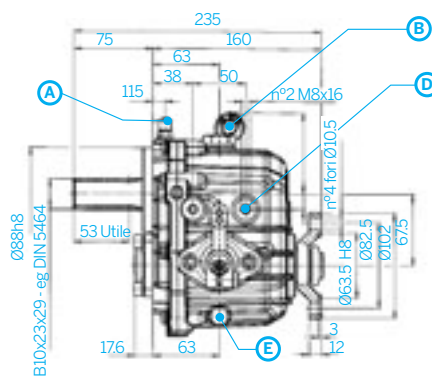
608	668,5	668	698	788	848	1048	1048
560	580	580	610	630	840	840	840
892	1032	1181	1145	1445	1875	1965	1965
n/a	298	n/a	396	544	795	n/a	n/a

*Refer to model

TMC40P TECHNODRIVE

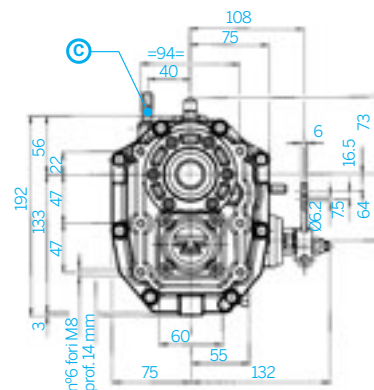


The **TECHNODRIVE TMC 40 P** marine transmission is equipped with mechanically activated, servo-controlled tapered clutches; the gears have been specially designed to provide quiet operation, and the bearings are oversized.



DRAWING LEGEND

- A** safety valve
- B** Filler cap
- C** Oil level dipstick
- D** Threaded bores for Morse mounting
- E** Drain plug



TECHNICAL SPECIFICATION

Forward ratio	1.45/2.00/2.60:1
Reverse ratio	2.13:1
Type	Mechanical
Max. input torque (Nm)	See technical appendix
Max. input speed	See technical appendix
Direction of rotation, output shaft	Clockwise
Approximate weight (dry)	9kg (See technical appendix)
Oil capacity	0.2 l
Oil type	ATF
Max oil temperature	95°C
Max installation angle	15°

PARTS NUMBERS TABLE

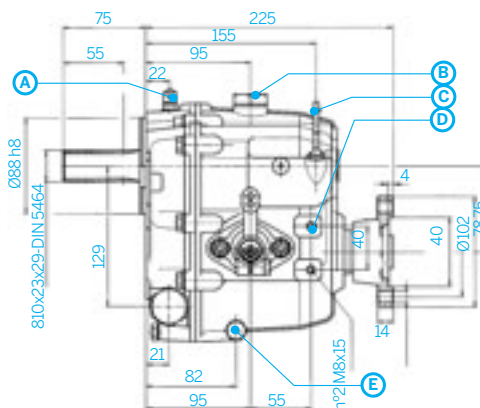
Part number	Reduction ratio	Note (Part number)
248.62.000P	1.45:1	
248.63.000P	2.00:1	Housing Adaptor: SAE 7" BW.
248.64.000P	2.60:1	(Part number 225. 10.012)

4. GEARBOXES

TMC60E TECHNODRIVE

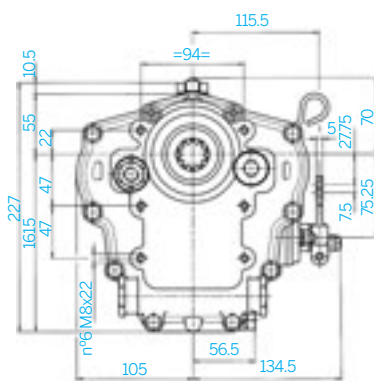


The **TECHNODRIVE TMC 60 E** marine transmission is equipped with mechanically activated, servo-controlled tapered clutches; the gears have been specially designed to provide quiet operation, and the bearings are oversized. The transmission ratios of 2.00 and 2.45 are suitable for turning the propeller to the left or the right in forward gear, and so the TMC 60 E unit is especially appropriate for dual engine installations.



DRAWING LEGEND

- A** safety valve
- B** Filler cap
- C** Oil level dipstick
- D** Threaded bores for Morse mounting
- E** Drain plug



TECHNICAL SPECIFICATION

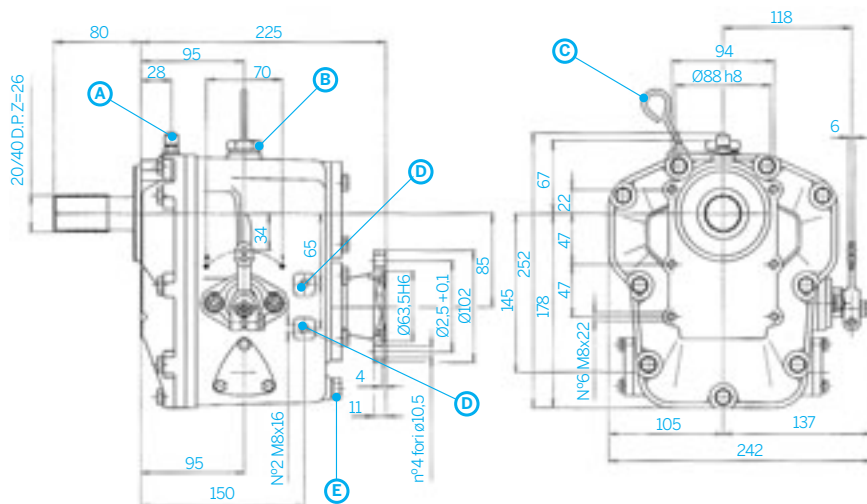
Forward ratio	1.55/2.00/2.45:1
Reverse ratio	2.00/2.00/2.45:1
Type	Mechanical
Max. input torque (Nm)	See technical appendix
Max. input speed	See technical appendix
Direction of rotation, output shaft	Bidirectional (except 1.55 forward ratio, clockwise)
Approximate weight (dry)	14kg (See technical appendix)
Oil capacity	0.65 l
Oil type	ATF
Max. operating temperature	95°C
Max installation angle	15°

PARTS NUMBERS TABLE

Part number	Reduction ratio	Note (Part number)
248.82.000	1.55:1	
248.83.000	2.00:1	Housing Adaptor: SAE 7" BW.
248.84.000	2.45:1	(Part number 225. 10.012)



TMC 260 marine gearbox unit is equipped with conical clutches mechanically operated, actuated by a servo-system; gears are specially constructed for quiet operation and bearings are amply proportioned.



DRAWING LEGEND

- A** Safety valve
- B** Filler cap
- C** Oil level dipstick
- D** Threaded bores for Morse mounting
- E** Drain plug

PARTS NUMBERS TABLE

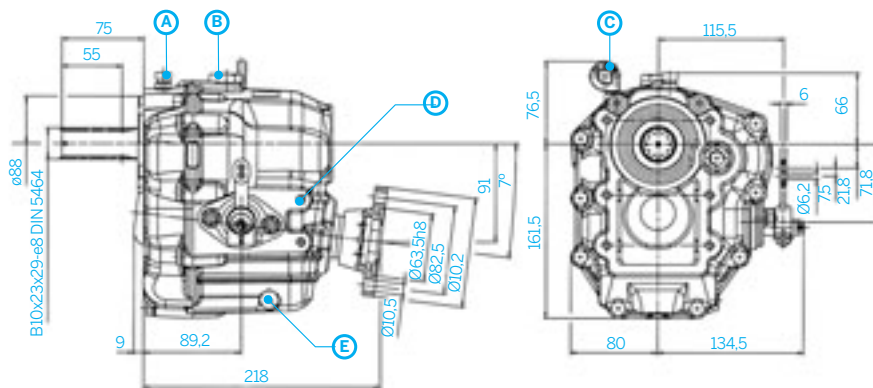
Part number	Reduction ratio
248.92.000	1.54
248.93.000	2.00
248.95.000	2.47
248.95.000	2.88

TECHNICAL SPECIFICATION

Forward ratio	1.54/2.00/2.47/2.88
Reverse ratio	2.00/2.00/2.47/2.47
Type	Mechanical
Max. Input torque (Nm)	See technical appendix
Max. Input speed	See technical appendix
Direction of rotation	Bidirectional (except 1.54 y 2.88 forward ratio, clockwise)
Approximate weight (dry)	18Kg (See technical appendix)
Oil capacity	1.2l
Oil type	ATF
Max. operating temperature	95°C
Max. installation angle	15°



TECHNODRIVE TMC 60 A marine gearbox unit is equipped with conical clutches mechanically operated, actuated by servo-system; gears are specially constructed for quiet operation and bearings are amply proportioned. This is a gear box, especially designed for those installations which requires a 7° down angle installation



DRAWING LEGEND

- A** Safety valve
- B** Filler cap
- C** Oil level dipstick
- D** Threaded bores for Morse mounting
- E** Drain plug

TECHNICAL SPECIFICATION

Forward ratio	2.00	2.45
Reverse ratio	2.17	2.17
Type	Mechanical	
Angle	7°	
Max. Input torque (Nm)	See technical appendix	
Max. Input speed	See technical appendix	
Direction of rotation	Bidirectional (same ratio of 2.17 on reverse, with both forward ratios)	
Approximate weight (dry)	15Kg (See technical appendix)	
Oil capacity	0.60l	
Oil type	ATF	
Max. operating temperature	95°C	
Max. installation angle		

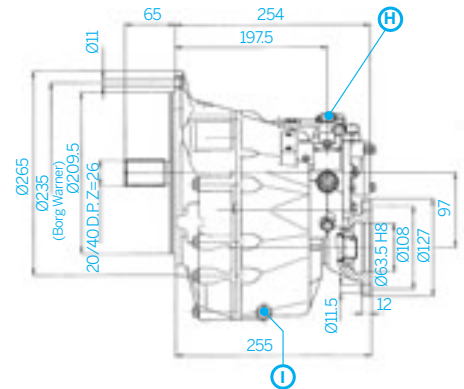
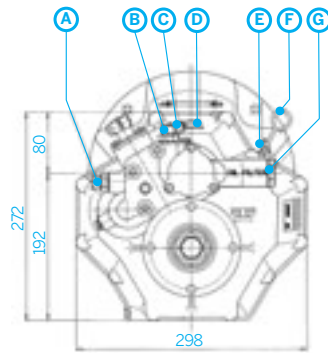
PARTS NUMBERS TABLE

Part number	Reduction ratio	Note	Ref.
248.83.100	2.00	Housing adaptor: SAE 7"	225.10.012
248.84.100	2.45		

TM-345 TECHNODRIVE



The **TM 345** marine transmission has an aluminium alloy housing and is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.



DRAWING LEGEND

- A** Return oil line connection from oil cooler
- B** Oil line connection to oil cooler
- C** Dead centre sensor
- D** Filler cap
- E** safety valve
- F** Oil level dipstick
- G** Oil filter
- H** Control lever
- I** Drain plug

TECHNICAL SPECIFICATION

Forward ratio	2.00	2.47:1
Reverse ratio	2.00	2.47:1
Type	Hydraulic	
Max. input torque (Nm)	See technical appendix	
Max. input speed	See technical appendix	
Direction of rotation, output shaft	Bidirectional	
Approximate weight (dry)	25 kg (See technical appendix)	
Oil capacity	1.6 l	
Oil type	SAE 15W40	
Max. operating temperature	95°C	
Max installation angle	15°	

PARTS NUMBERS TABLE

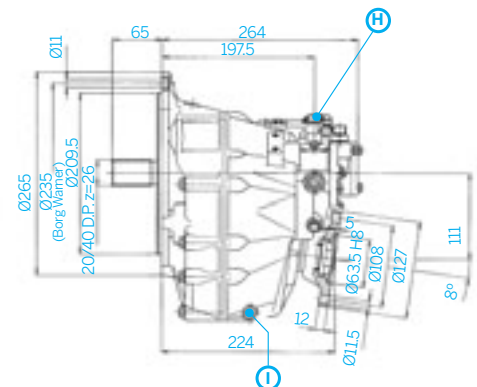
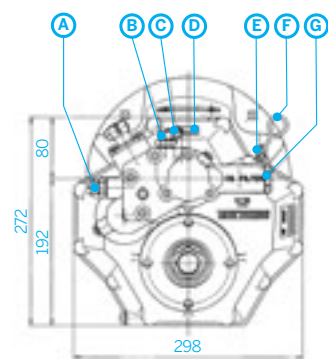
Part number	Reduction ratio	Note
248.53.000	2.00:1	Idle valve kit (Part number 248.50.050) Housing: SAE 7" (type BW)
248.54.000	2.47:1	

TM-345A TECHNODRIVE. Angle 8°



The **TM 345A** marine transmission has an aluminium alloy housing and is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.

The 8° angle of depression of the output shaft makes it possible to correctly install the marine engine-transmission set on planning or semi-displacement hulls.



DRAWING LEGEND

- A** Return oil line connection from oil cooler
- B** Oil line connection to oil cooler
- C** Dead centre sensor
- D** Filler cap
- E** safety valve
- F** Oil level dipstick
- G** Oil filter
- H** Control lever
- I** Drain plug

TECHNICAL SPECIFICATION

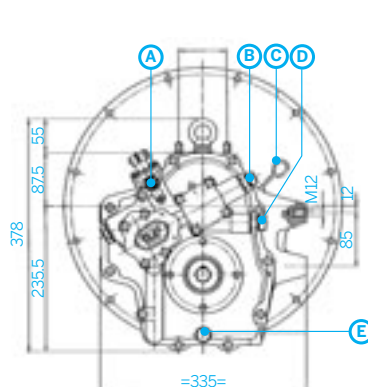
Forward ratio	1.54	2.00	2.47:1
Reverse ratio	1.54	2.00	2.47:1
Type	Hydraulic		
Max. input torque (Nm)	See technical appendix		
Max. input speed	See technical appendix		
Direction of rotation, output shaft	Bidirectional		
Approximate weight (dry)	25 kg (See technical appendix)		
Oil capacity	1.6 l		
Oil type	SAE 15W40		
Max. operating temperature	95°C		
Angle	8°		
Max installation angle	15°		

PARTS NUMBERS TABLE

Part number	Reduction ratio	Note
248.52.100	1.54:1	Idle valve kit (Part number 248.50.050) Housing: SAE 7" (type BW)
248.53.100	2.00:1	
248.54.100	2.47:1	



The **TM 93** marine transmission is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.

**DRAWING LEGEND**

- A** Dead centre sensor
- B** Return oil line connection from oil cooler
- C** Oil level dipstick
- D** Oil line connection to oil cooler
- E** Drain plug
- F** Filler cap
- G** Adaptor flange (SAE 3" and BW).
X (SAE 3" = 12.5 mm / BW = 13.5 mm)
- H** H= Control lever

TECHNICAL SPECIFICATION

Forward ratio	1.51	2.09	2.40	2.77:1
Reverse ratio	1.51	2.09	2.40	2.77:1
Type	Hydraulic			
Max. input torque (Nm)	See technical appendix			
Max. input speed	See technical appendix			
Direction of rotation, output shaft	Bidirectional			
Approximate weight (dry)	53 kg (See technical appendix)			
Oil capacity	2.4 l			
Oil type	SAE 15W40			
Max. operating temperature	95°C			
Max installation angle	15°			

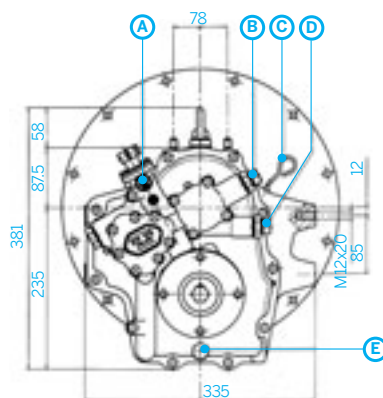
PARTS NUMBERS TABLE

Part number	Reduction ratio	Note
248.12.000	1.51:1	
248.13.000	2.09:1	Housing Adaptor: SAE 3" (x=12.5mm).
248.14.000	2.40:1	Housing Adaptor: SAE 7" (Type BW).
248.15.000	2.77:1	Idle valve kit.

Part number 248.10.021**Part number 248.70.021****Part number 248.10.050**

The **TM 93A** marine transmission is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward gear and in reverse.

The 8° angle of depression of the output shaft makes it possible to correctly install the marine engine-transmission set on planing or semi-displacement hulls.

**DRAWING LEGEND**

- A** Dead centre sensor
- B** Return oil line connection from oil cooler
- C** Oil level dipstick
- D** Oil line connection to oil cooler
- E** Drain plug
- F** Filler cap
- G** Adaptor flange (SAE 3" and BW).
X (SAE 3" = 12.5 mm / BW = 13.5 mm)
- H** H= Control lever

TECHNICAL SPECIFICATION

Forward ratio	1.51	2.09	2.40:1
Reverse ratio	1.51	2.09	2.40:1
Type	Hydraulic		
Max. input torque (Nm)	See technical appendix		
Max. input speed	See technical appendix		
Direction of rotation, output shaft	Bidirectional		
Approximate weight (dry)	53 kg (See technical appendix)		
Oil capacity	2.4 l		
Oil type	SAE 15W40		
Max. operating temperature	95°C		
Angle	8°		
Max installation angle	15°		

PARTS NUMBERS TABLE

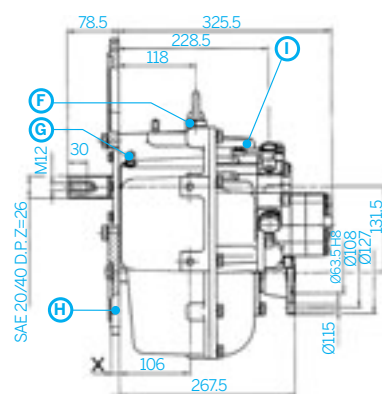
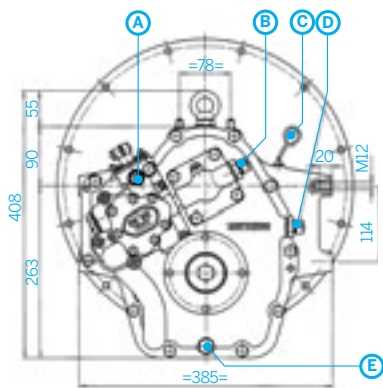
Part number	Reduction ratio	Note
248.12.100	1.51:1	Housing Adaptor: SAE 3" (x=12.5mm).
248.13.100	2.09:1	Housing Adaptor: SAE 3" (Type BW).
248.14.100	2.40:1	Idle valve kit.

Part number 248.10.021**Part number 248.70.021****Part number 248.10.050**

TM-170 TECHNODRIVE



The **TM 170** marine transmission is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.



DRAWING LEGEND

- A** Dead centre sensor
- B** Return oil line connection from oil cooler
- C** Oil level dipstick
- D** Oil line connection to oil cooler
- E** Drain plug
- F** Filler cap
- G** safety valve
- H** Adaptor flange (SAE 3" and BW). X (SAE 3" = 12.5mm / BW = 13.5mm)
- I** Control lever

TECHNICAL SPECIFICATION

Forward ratio	1.50	2.04	2.50	2.94:1
Reverse ratio	1.50	2.04	2.50	2.94:1
Type	Hydraulic			
Max. input torque (Nm)	See technical appendix			
Max. input speed	See technical appendix			
Direction of rotation, output shaft	Bidirectional			
Approximate weight (dry)	75 kg (See technical appendix)			
Oil capacity	2.8 l			
Oil type	SAE 15W40			
Max. operating temperature	95°C			
Max installation angle	15°			

PARTS NUMBERS TABLE

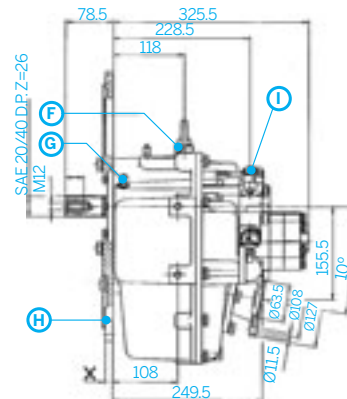
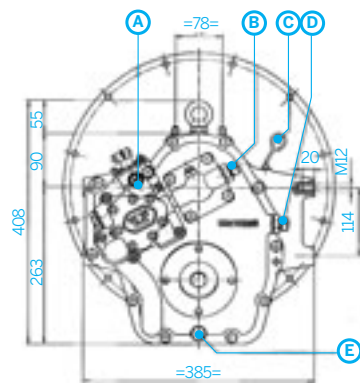
Part number	Reduction ratio	Note
248.22.000	1.50:1	Housing Adaptor: SAE 3" (x=12.5mm). Housing Adaptor: SAE 7" (Type BW). Idle valve kit.
248.23.000	2.04:1	
248.24.100	2.50:1	
248.25.000	2.94:1	
		Part number 248.10.021 Part number 248.10.022 Part number 248.20.050

TM-170A TECHNODRIVE. Angle 10°



The **TM 170A** marine transmission is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.

The 10° angle of depression of the output shaft makes it possible to correctly install the marine engine-transmission set on planing or semi-displacement hulls.



DRAWING LEGEND

- A** Dead centre sensor
- B** Return oil line connection from oil cooler
- C** Oil level dipstick
- D** Oil line connection to oil cooler
- E** Drain plug
- F** Filler cap
- G** safety valve
- H** Adaptor flange (SAE 3" y BW). X (SAE 3" = 12.5mm / BW = 13.5mm)
- I** Control lever

TECHNICAL SPECIFICATION

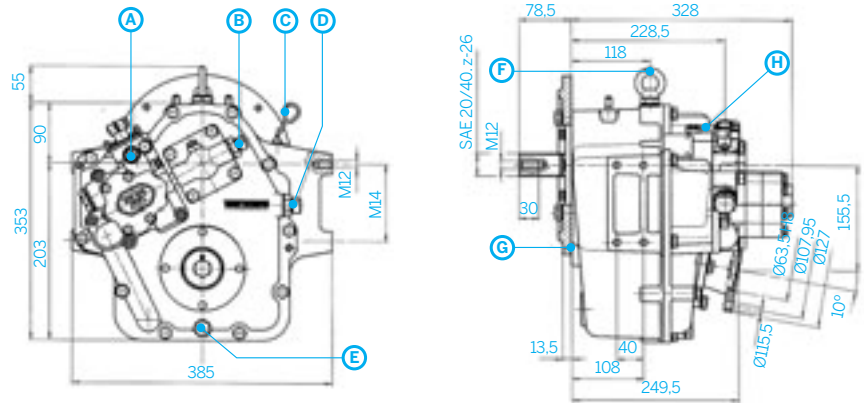
Forward ratio	1.53	2.08	2.60:1
Reverse ratio	1.53	2.08	2.60:1
Type	Hydraulic		
Max. input torque (Nm)	See technical appendix		
Max. input speed	See technical appendix		
Direction of rotation, output shaft	Bidirectional		
Approximate weight (dry)	75 kg (See technical appendix)		
Oil capacity	2.8 l		
Oil type	SAE 15W40		
Max. operating temperature	95°C		
Angle	10°		
Max installation angle	15°		

PARTS NUMBERS TABLE

Part number	Reduction ratio	Note
248.22.200	1.53:1	Housing Adaptor: SAE 3" (x=12.5mm). Housing Adaptor: SAE 7" (Type BW). Idle valve kit.
248.23.200	2.08:1	
248.24.200	2.60:1	
		Part number 248.10.021 Part number 248.10.022 Part number 248.20.050



TM 880A marine transmission is built with aluminium alloy housing and equipped with multiple-disc clutches hydraulically operated. Clutches and gears are properly constructed to transmit the full power with the same ratio, both in forward and reverse running. A 10° down angle output shaft provides a proper engine-marine gearbox group installation on planning or semi-displacement boats.

**DRAWING LEGEND**

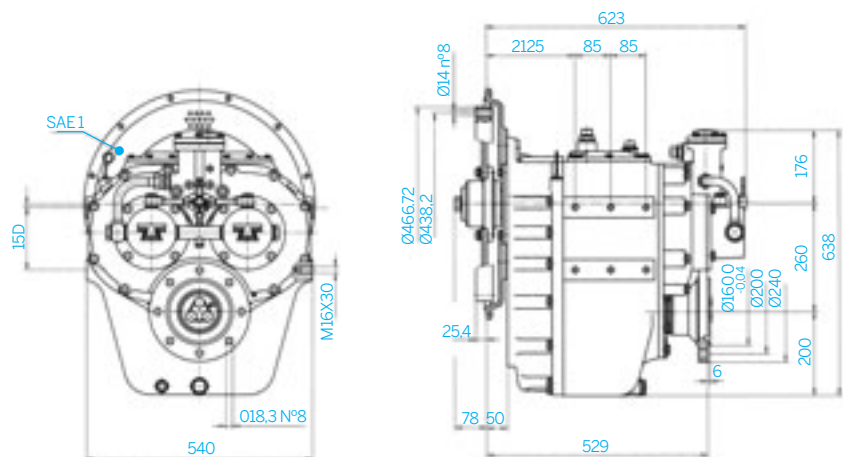
- A** Neutral indicator
- B** Oil from cooler
- C** Oil dipstick
- D** Oil to cooler
- E** Oil drain plug
- F** Filling plug
- G** Mounting flange SAE 3", SAE 4" (X=12, 5/33), BW (X=13,5)
- H** Actuating lever

TECHNICAL SPECIFICATION

Forward ratio	1.53/2.08/2.60
Reverse ratio	1.53/2.08/2.60
Type	Hydraulic
Angle	10°
Max. Input torque (Nm)	See technical appendix
Max. Input speed	See technical appendix
Direction of rotation	Bidirectional
Approximate weight (dry)	54Kg (See technical appendix)
Oil capacity	3,7l
Oil type	SAE 15W40
Max. operating temperature	95°C

PARTS NUMBERS TABLE

Part number	Reduction ratio	Note (Part number)	
248.16.000	1.53	Kit trolling valve	Ref. 248.90.050
248.17.000	2.08		
248.18.000	2.60		



TM 360 marine gearbox is equipped with multi-disc clutches hydraulically actuated. Casing is built with cast-iron and gears are of high quality alloy steel, casehardened and hardened. All TM 360 parts are widely sized for continuous duty. Clutches and gears are properly constructed to transmit the full power with the same ratio, both in ahead or astern mode.

TECHNICAL SPECIFICATION

Forward ratio	3.00/3.50/4.00/5.00
Reverse ratio	3.00/3.50/4.00/5.00
Type	Hydraulic
Max. Input torque (Nm)	See technical appendix
Max. Input speed	See technical appendix
Direction of rotation	Bidirectional
Approximate weight (dry)	415Kg (See technical appendix)
Oil capacity	14l
Oil type	SAE 15W40
Max. operating temperature	95°C
Max. installation angle	15°

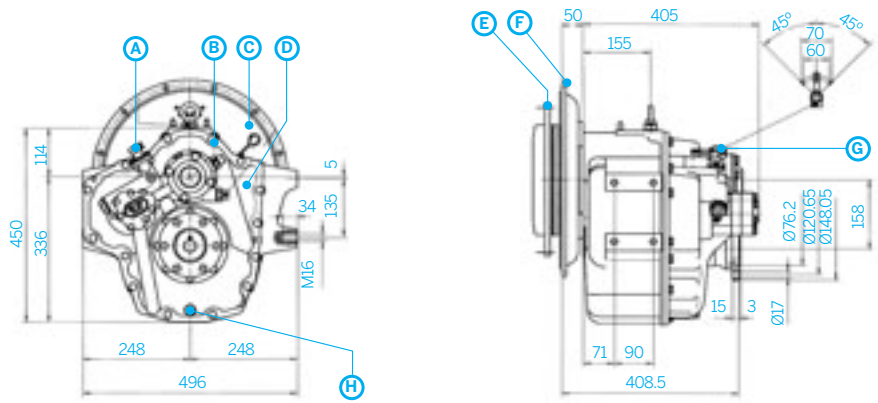
PARTS NUMBERS TABLE

Part number	Reduction ratio
248.26.000	3.00
248.27.000	3.50
248.28.000	4.00
248.27.000	5.00

TM-265 TECHNODRIVE



The **TM 265** marine transmission is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.



DRAWING LEGEND

- A** Filler cap
- B** Return oil line connection from oil cooler
- C** Oil level dipstick
- D** Oil line connection to oil cooler
- E** Flexible coupling (SAE 11" 1/2)
- F** Adaptor flange (SAE 3" . X= 12.5mm)
- G** Control lever
- H** Drain plug

TECHNICAL SPECIFICATION

Forward ratio	1.50	2.09	2.81:1
Reverse ratio	1.50	2.09	2.81:1
Type	Hydraulic		
Max. input torque (Nm)	See technical appendix		
Max. input speed	See technical appendix		
Direction of rotation, output shaft	Bidirectional		
Approximate weight (dry)	165 kg (See technical appendix)		
Oil capacity	6.6 l		
Oil type	SAE 15W40		
Max. operating temperature	95°C		
Max installation angle	15°		

PARTS NUMBERS TABLE

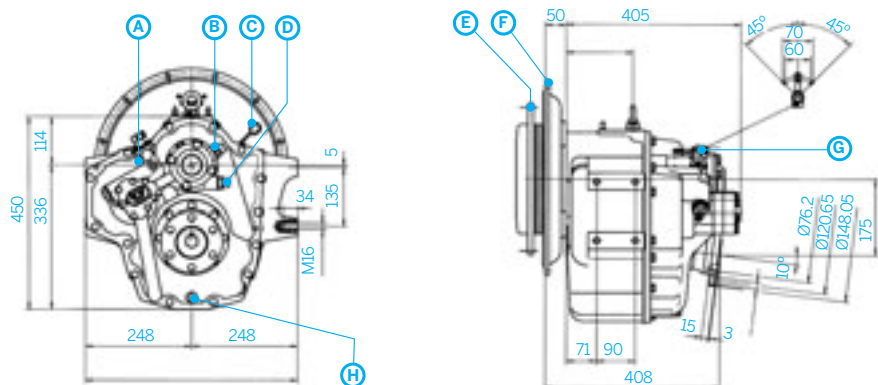
Part number	Reduction ratio	Note	Part number
248.42.000	1.50:1	Idle valve kit.	248.40.050
248.43.000	2.09:1	SAE FLYWHEEL = SAE 11.5"	248.10.021
248.45.000	2.82:1	SAE HOUSING = SAE 3"	248.70.021

TM-265A TECHNODRIVE. Angle 10°



The **TM 265A** marine transmission is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.

The 7° angle of depression of the output shaft makes it possible to correctly install the marine engine-transmission set on planing or semi-displacement hulls.



DRAWING LEGEND

- A** Filler cap
- B** Return oil line connection from oil cooler
- C** Oil level dipstick
- D** Oil line connection to oil cooler
- E** Flexible coupling (SAE 11" 1/2)
- F** Adaptor flange (SAE 3" . X= 12.5mm)
- G** Control lever
- H** Drain plug

TECHNICAL SPECIFICATION

Forward ratio	2.09	2.30:1
Reverse ratio	2.09	2.30:1
Type	Hydraulic	
Max. input torque (Nm)	See technical appendix	
Max. input speed	See technical appendix	
Direction of rotation, output shaft	Bidirectional	
Approximate weight (dry)	165 kg (See technical appendix)	
Oil capacity	6.6 l	
Oil type	SAE 15W40	
Max. operating temperature	95°C	
Angle	10°	
Max installation angle	15°	

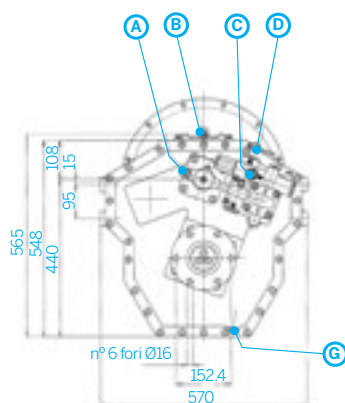
PARTS NUMBERS TABLE

Part number	Reduction ratio	Note	Part number
248.43.100	2.09:1	Idle valve kit.	248.40.050
248.44.000	2.30:1	SAE FLYWHEEL = SAE 11.5"	248.10.021
		SAE Housing = SAE 3"	248.70.021



The **TM 200B** marine transmission is equipped with hydraulically activated multiple disk clutches. The case is made of cast iron and the gears are high quality alloy steel, cemented and tempered. All parts of the TM 200B unit have been amply sized for ongoing use.

The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.

**DRAWING LEGEND**

- A** Return oil line connection from oil cooler
- B** Filler cap
- C** Oil line connection to oil cooler
- D** Control lever
- E** Flexible coupling (SAE 11" 1/2)
- F** Adaptor flange (SAE 3" . X=12.5mm)
- G** Drain plug

TECHNICAL SPECIFICATION

Forward ratio	3.60	4.48:1
Reverse ratio	3.60	4.48:1
Type	Hydraulic	
Max. input torque (Nm)	See technical appendix	
Max. input speed	See technical appendix	
Direction of rotation, output shaft	Bidirectional	
Approximate weight (dry)	235 kg (See technical appendix)	
Oil capacity	13 l	
Oil type	SAE 15W40	
Max. operating temperature	95°C	
Max installation angle	15°	

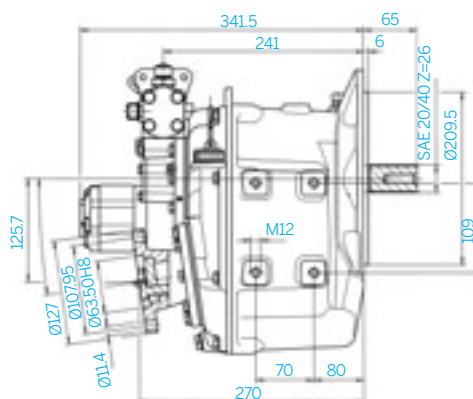
PARTS NUMBERS TABLE

Part number	Reduction ratio	Note
248.36.100	3.60:1	SAE FLYWHEEL = SAE 11.5" Part number 248.10.021
248.37.000	4.48:1	SAE Housing = SAE 3" Part number 248.10.022



The **TM 485A** marine transmission is equipped with hydraulically activated multiple disk clutches. The clutches and gears have been designed to transmit full power, with the same transmission ratio in forward and reverse.

The 8° angle of depression of the output shaft makes it possible to correctly install the marine engine-transmission set on planing or semi-displacement hulls.

**DRAWING LEGEND**

- A** Control lever
- B** Return oil line connection from oil cooler
- C** Dead centre sensor
- D** Oil level dipstick
- E** Filler cap
- F** Drain plug
- G** Oil line connection to oil cooler

TECHNICAL SPECIFICATION

Forward ratio	2.09:1
Reverse ratio	2.09:1
Type	Hydraulic
Max. input torque (Nm)	See technical appendix
Max. input speed	See technical appendix
Direction of rotation, output shaft	Bidirectional
Approximate weight (dry)	36 kg (See technical appendix)
Oil capacity	2.7 l
Oil type	SAE 15W40
Max. operating temperature	95°C
Angle	8°
Max installation angle	15°

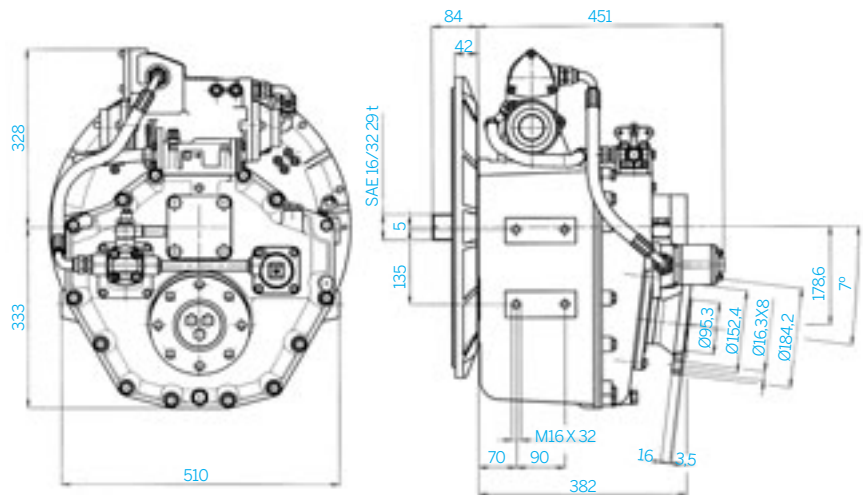
PARTS NUMBERS TABLE

Part number	Reduction ratio	Note
248.72.200.1	1,51:1	
248.73.200.1	2,09:1	Housing Adaptor: SAE 7" (tipo BW)
248.74.200.1	2,40:1	

TM-1200 A TECHNODRIVE



TM 1200A marine transmission is built with aluminium alloy casing and equipped with multi-disc clutches hydraulically actuated. Clutches and gears are properly constructed to transmit the full power with the same ratio, both in ahead or astern mode. A 7° down angle on output shaft provides a proper engine-marine gearbox group installation on planning or semi-displacement boats.



TECHNICAL SPECIFICATION

Forward ratio	1.44/2.00/2.30
Reverse ratio	1.44/2.00/2.30
Type	Hydraulic
Angle	7°
Max. Input torque (Nm)	See technical appendix
Max. Input speed	See technical appendix
Direction of rotation	Bidirectional
Approximate weight (dry)	120Kg (See technical appendix)
Oil capacity	6.5l
Oil type	SAE 15W40
Max. operating temperature	95°C
Max. installation angle	15°

PARTS NUMBERS TABLE

Reduction ratio	
1.44	Ref. 248.10.021.2
2.00	
2.30	

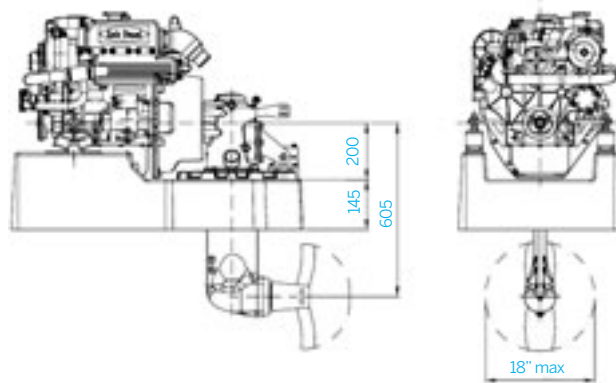
SAIL DRIVE SPROP-60 TECHNODRIVE



The **SEAPROP 60** transmission is intended for use on recreational craft (displacement-hull craft used for recreation or amateur sail boats) or work craft (sail boats with a heavily-used displacement hull, intended for hire and professional activities). The body of the sail drive can be turned 180°. Refer to engines on which it can be mounted.

The transmission is equipped with:

- case
- Anti Vibration Mounts support
- retaining flange and water-tight membranes for applications over the hull
- water intake for cooling the engine



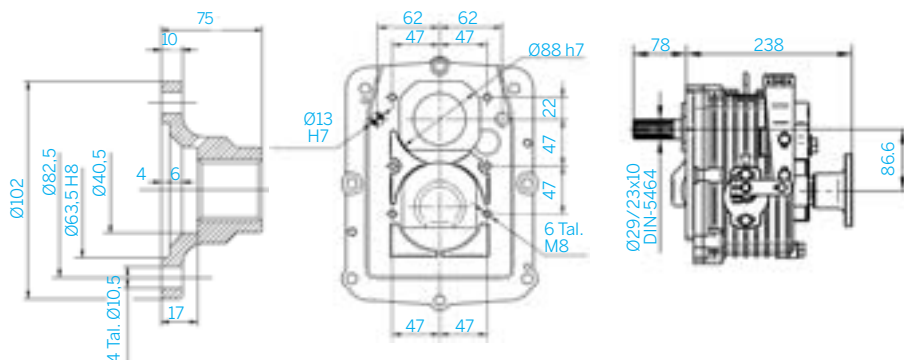
TECHNICAL SPECIFICATION

Forward ratio	2.15:1
Reverse ratio	2.15:1
Type	Mechanical
Max. input torque (Nm)	See technical appendix
Max. input speed	See technical appendix
Direction of rotation, output shaft	Bidirectional
Approximate weight (dry)	35 kg (See technical appendix)
Oil capacity	2.8 l
Oil type	ATF
Max. operating temperature	95°C
Max installation angle	0°

PARTS NUMBERS TABLE

Ref	Transmission	Reduction ratio	Ref.	Note
248.13.500A	SPROP-60	2.15:1	248.13.509	Fiber bed glass for MINI-17/26/29
			248.13.506	Fiber bed glass for MINI-33/44/55
			248.13.507	Fiber bed glass for MINI-62

* Dimensions, refer to Solé Diesel



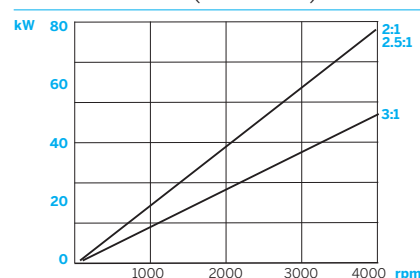
The marine transmission type SMI consists of a grey cast alloy housing of high mechanical resistance and a sea water corrosion resistance, rectified gears with surface thermal treatment that provides high strength, and a clutch unit formed by a double bronze cone with a hardening surface treatment. It has been designed to minimise the effects of noise and vibrations.

The SMI marine transmission can be coupled only to anticlockwise rotation engines (as observed from the flywheel side). With reduction ratios 2:1 y 2.5:1 y 3:1. The reduction gearbox can transmit the total power in forward gear and reverse, making it suitable for single and double engine installations. As optional equipment, the gearbox can be supplied with an adaptor flange SAE-7 (type BW) and with flexible coupling.

TECHNICAL SPECIFICATION

		2.00	2.50	3.00
Forward ratio		2.00	2.50	3.00
Reverse ratio		2.00	2.50	3.00
Type		Mechanical		
Max Torque	Pleasure	200	200	110
Input (Nm)	Heavy duty	150	150	80
Pot. Max	Pleasure	75	75	45
Input (kW)	Heavy duty	50	50	30
Max. input speed		4000 rpm		
Output rotation direction		*		
Direction of rotation, output shaft		Bidirectional		
Weight aproximado en seco		29 kg		
Oil capacity		1,3 l		
Oil type		ATF		
Max oil temperature		95°C		
Max installation angle		15°		

* Anticlockwise/clockwise

POWER GRAPHS (PLEASURE)**PARTS NUMBERS TABLE**

Ref	Reduction ratio	Gearbox	Notes
257.13.000 H	2:1	SMI-R3	With Hurth type cover
257.14.000 H	2.5:1	SMI-R3	
256.15.200 H	3:1	SMI-R2	

SEE GEARBOX APPENDIX ON PAGE 61**DEFINITION OF SERVICE TYPES****INFORMATION ABOUT THE APPLICATION****RESPONSIBILITIES****MECHANICAL GEARBOXES**

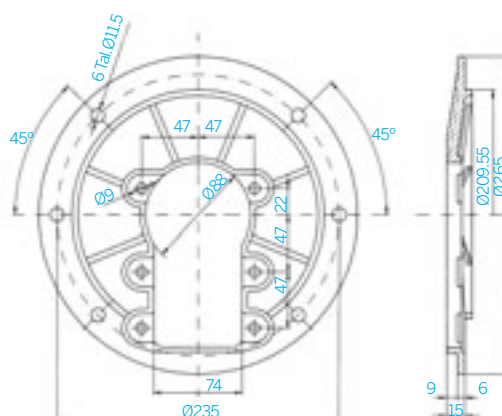
**PLEASURE
INTERMEDIATE SERVICE
CONTINUOUS SERVICE**

HYDRAULIC GEARBOXES

**PLEASURE
INTERMEDIATE SERVICE
CONTINUOUS SERVICE**



Adaptor flange SAE-7 (BW type) for marine RONIM-V gearboxes, and SMI made of aluminium cast.

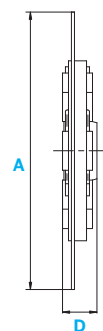
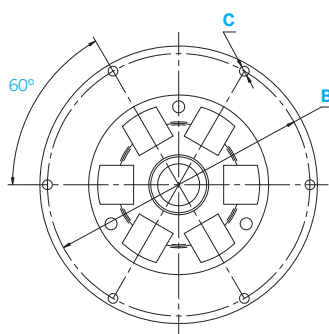
**PARTS NUMBERS TABLE**

Part number
225.10.012

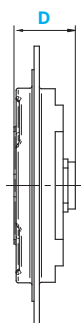
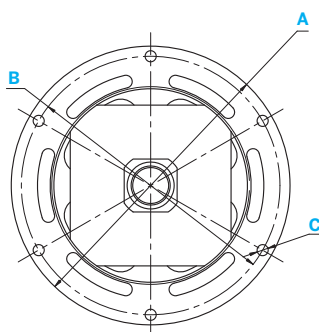
FLEXIBLE COUPLING (SAE 11" 1/2)

Flexible coupling disk mounted on the engine's flywheel for gearboxes

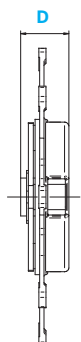
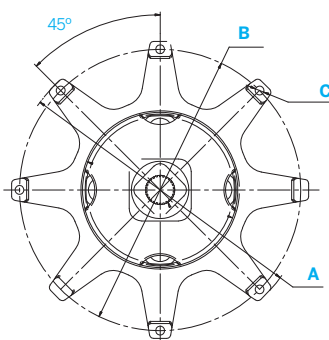
TYPE A



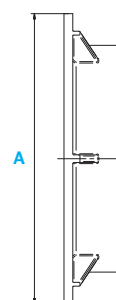
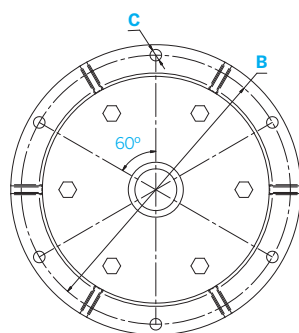
TYPE B



TYPE C



TYPE D



TECHNICAL SPECIFICATION AND PART NUMBERS TABLE

nr. Of splines	A	B	C	D	SAE	Torque Máx. (N x m)			Type	Part nr.
10	185	175	6x6.5	23	---	76			A	138.10.040
10	185	175	6x6.5	23	---	100			A	173.10.070
10	263.52	244.48	6x10.5	23	8	150			A	171.10.070
10	352.42	333.37	8x10.5	23	11 1/2	115			A	174.10.070
10	263.52	244.48	6x10.5	23	8	210			A	182.10.070
10	185	175	6x6.5	23	---	130			A	147.10.070
						*	**	***		
26	215.9	200	6xØ9	58		150	120	100	B	172.10.071
26	263.52	244.48	6XØ10.5	58	8"	258	200	150	B	171.10.071
26	263.52	244.48	6XØ10.5	58	8"	700	520	420	B	185.10.170
26	352.42	333.37	8XØ10.5	57	11" 1/2	700	520	420	C	165.10.170
26	263.5	244.47	6XØ10.5	51.5	8"	700	560	490	D	183.10.172

Striated 029/23x10 DIN-5464

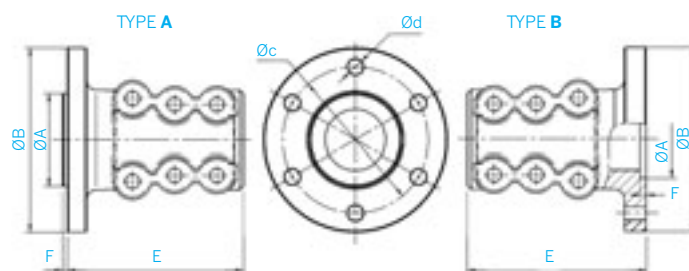
Service: * Pleasure / ** Intermediate / *** Heavy duty
Striated: SAE 20/40 DP Z=26

FOR GEARBOXES

RONIM-V, SMI,
TMC40, TTMC35P,
TTMC35A2,
TMC-60 SPROP-60
TMC-260,
TM-345, TM-345A
TM-93, TM-93A
TM-170, TM-170A



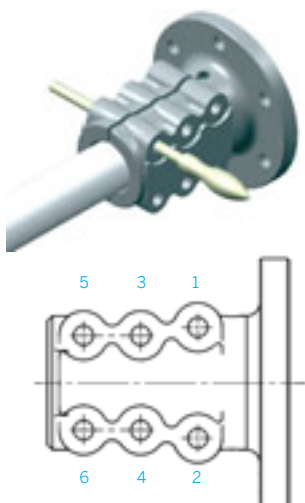
SG iron clamp-on couplings. Keyway not required. All nuts and bolts are provided.



PARTS NUMBERS TABLE

Ø	Type	ØA	ØB	ØC	Ød	E	F	Gearbox	Type	Part number
19	A	33	62	50	3x8.5	64	3	Solé Diesel	Ronim III	400.19.107
22	A	63.5	102	82.5	4x10.5	81	2	Solé Diesel	Ronim-V SMI-R SMI-R2 SMI-R3	400.22.106
								PRM	PRM-120/150 Delta	
								ZF-HURTH	HBW35/40/50/100/125/250 HBW150-A/V	
								Technodrive	TMC40 - TMC60	
								Kanzaki	TTMC35P - TTMC35A2	
	A	65	93	77	2xØ9	63	2	Covach	AS-16	400.22.107
25	A	33	62	50	3x8.5	64	3	Solé Diesel	Ronim III	400.25.107
	A	50	100	78	4x10.5	82	3	Yanmar	KM2-P M3-P KBW-10E KM3A	400.25.109
	B	60	102	80	4x10.5	83	4	Volvo	MS-2A MS-2A-L	400.25.108
	A	63.5	102	82.5	4x10.5	81	2	Solé Diesel	Ronim-V SMI-R SMI-R2 SMI-R3	400.25.106
								PRM	PRM-120/150 Delta	
								ZF-HURTH	HBW35/40/50/100/125/250 HBW150-A/V	
								Technodrive	TMC40 - TMC60	
								Kanzaki	TTMC35P - TTMC35A2	
	A	65	93	77	2xØ9	63	2	Covach	AS-16	400.25.117
30	A	50	100	78	4x10.5	105	2	Yanmar	KM2-P M3-P KBW-10E KM3A	400.30.109
	B	60	102	80	4x10.5	106	4	Volvo	MS-2A MS-2A-L MS-25-L MS-25-A	400.30.107
	A	63.5	102	82.5	4x10.5	104	2	Solé Diesel	Ronim-V SMI-R SMI-R2 SMI-R3	400.30.106
								ZF-HURTH	HBW35/40/50/100/125/250 - HBW150-AV - HSW250A	
								Technodrive	TMC40 - TMC60	
								PRM	PRM-120/150 Delta	
								Kanzaki	TTMC35P - TTMC35A2	
	A	65	120	100	4x10.5	105	2	Yanmar	KBW-20/21 KM-4A KMH4A	400.30.112
	A	63.5	127	108	4x11.5	105	2	Volvo	MS-4 HS-1 HS-1A	400.30.108
								ZF-HURTH	HBW360H HSW450A/V HSW630A/H/V	
								Technodrive	TM345A/545A/93/93A/170/170A	
								PRM	PRM-160/260	
								Borg Warner	BW-71/72C VDrive	
35	B	60	102	80	4x10.5	107	5	Volvo	MS-2A MS-2A-L MS25L MS25A	400.35.111
	A	63.5	102	82.5	4x10.5	105	2	Solé Diesel	Ronim-V SMI-R SMI-R2 SMI-R3	400.35.107
								ZF-HURTH	HBW35/40/50/100/125/250 HBW150-A/V	
								Technodrive	TMC40 - TMC60	
								PRM	Delta - PRM120/150	
								Kanzaki	TTMC35P - TTMC35A2	
	A	65	120	100	4x10.5	105	4	Yanmar	KBW-20/21 KM-4A KMH4A	400.35.108
	A	63.5	127	108	4x11.5	105	4	Volvo	MS-4 MS-45A HS-1 HS-25A	400.35.106
								ZF-HURTH	HBW360H HSW450A/V HSW630A/H/V	
								Technodrive	TM345A/545A/93/93A/170/170A	
								PRM	PRM-160/260	
								Borg Warner	BW-71/72C VDrive	
	A	63.5	130	108	4x12.5	105	4	Yanmar	K-45A	400.35.109
40	A	63.5	102	82.5	4xM10	126	4	Solé Diesel	SMI-R SMI-R2 SMI-R3	400.40.107
	A	63.5	127	108	4x11.5	126	4	Volvo	MS-4 HS-45A HS-1 HS63AE HS-25A	400.40.106
								ZF-HURTH	HBW360H HSW450A/V HSW630A/H/V	
								Technodrive	TM345A/545A/93/93A/170/170A	
								PRM	PRM-160/260	
								Borg Warner	BW-71/72C VDrive	
	A	63.5	130	108	4x12.5	126	4	Yanmar	K-45A	400.40.108
45	A	63.5	127	108	4x11.5	140	4	Volvo	MS-4 HS-1 HS-25A HS-63AE	400.45.108
								ZF-HURTH	HBW360H HSW450A/V HSW630A/H/V	
								Yanmar	KMH50A	
								Technodrive	TM345A/545A/93/93A/170/170A	
								PRM	PRM-160/260	
								Borg Warner	BW-71/72C VDrive	
	A	76.2	152.4	120.7	6xØ13	140	4	PRM	PRM-302/402/601/750/1000	400.45.107
	B	146			6xØ17	141	4	Technodrive	TM-265/265A	400.45.109
50	B	63.5	121	98.4	6xM12	148	4	ZF	IRM-220 / 220A	400.50.110
	A		127	108	4xM12	146	4	Technodrive	TM-170 / 170A	400.50.109
								Borg Warner	BW-71C/72C VDrive	
	A	76.2	152.4	120.7	6xØ13	146	4	PRM	PRM-302/402/601/750/1000	400.50.107
	B	76.2	146	120.7	6xØ17	148	4	Technodrive	TM-265 / 265A	400.50.108
								ZF	ZF-280/280A	

ASSEMBLY INSTRUCTIONS

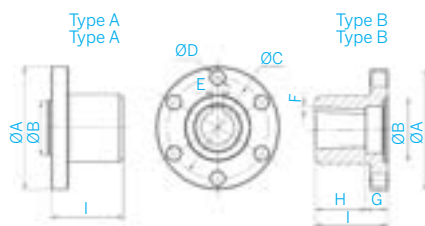


DIMENSIONS TABLE

ØShaft	Screw	Quality	Torque
19	M8	12.9	4 kg x m
22	M10	8.8	5 kg x m
25	M10	8.8	5 kg x m
30	M10	8.8	5 kg x m
35	M10	12.9	8.3 kg x m
40	M12	12.9	14.5 kg x m
45	M12	12.9	14.5 kg x m
50	M12	12.9	14.5 kg x m

Dimensions in mm.

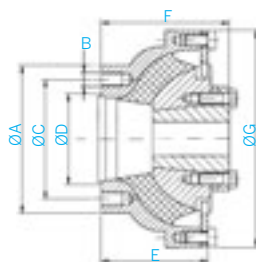
HALF COUPLINGS



PARTS NUMBERS TABLE

Ø	Type	ØA	ØB	ØC	ØD	E	F	G	H	I	Gearbox	Type	Ref
35	A	127	63.5	108	4xØ11.5	10	3.7	24	60	84	ZF-HURTH	HBW360H/HSW450AH/HSW630AHV/ZF 45A	400.35.005A
											Technodrive	TM345A/545A/93 TM/93A/170/170A	
											PRM	PRM-160/260	
											B. Warner	BW-71C/72C VDrive	
40	A	127	63.5	108	4xØ11.5	12	3.7	24	60	84	Volvo	MS-4 MS-1 HS-1A HS45A HS63AE HS63IV	400.35.006A
											Yanmar	KBW-20 KM-4A KMH4A KMH40A	
											ZF-HURTH	HBW360H/HSW450AH/HSW630AHV	
											Technodrive	TM93A/93 TM345/TM545A TM345A/345 TM170A/170	
45	A	127	63.5	108	4xØ11.5	14	4.2	26	60	86	PRM	PRM-160/260	400.40.005A
											B. Warner	BW-71C/72C VDrive	
											Volvo	MS-4 MS-1 HS-1A HS45A HS63AE HS63IV	
											Yanmar	KMH40A KMH50A	
45	B	146	76.2	120	6xØ16.5	14	4.2	26	60	86	ZF	ZF-63-IV	400.40.008A
											ZF	ZF-80A	
											Volvo	HS80EA	
											ZF-HURTH	HBW360H ZF-45A HSW450AH HSW630AHV	
50	A	127	63.5	108	4xØ12	14	4.2	26	60	86	Technodrive	TM345A/545A/93 TM/93A/170/170A TM485A	400.45.005A
											PRM	PRM-160/260	
											B. Warner	BW-71C/72C VDrive	
											Volvo	MS-4 HS-1 HS-1A	
50	B	146	76.2	120	6xØ16.5	14	4.2	26	60	86	Yanmar	KMH40A KMH50A	400.45.006A
											Technodrive	TM-265/265A	
											ZF	ZF-280A	
											TWIN DISC	MG-5061A MG-5050A	
50	B	184	95.25	152.4	6xØ19.5	14	4.2	45	60	105	Yanmar	KMH60A	400.45.007A
											TWIN DISC	MG-5085A MG-5085A	
											ZF	ZF-80A	
											Volvo	HS80EA	
50	B	155	100	125	10xØ16.2	14	4.2	26	60	86	ZF	ZF-305A	400.45.010A
											ZF	ZF-63-IV	
											ZF	ZF-80-IV	
											ZF - HURTH	IRM 220A	
50	A	127	63.5	108	4xØ12	14	4.2	26	60	86	ZF	ZF-305A	400.45.012A
											ZF	ZF-63-IV	
											ZF	ZF-80A	
											ZF	ZF-325-IV	
50	B	146	76.2	120.65	6xØ16.5	14	4.2	26	60	86	ZF - HURTH	HSW/HSWE-630V	400.45.013A
											ZF	ZF-80A / ZF-280/280A/220/286A	
											TWIN DISC	MG-5061A MG-5050A	
											Yanmar	KMH60A	
60	A	127	63.5	108	4xØ12	14	4.2	20	60	76	ZF-HURTH	HSW/HSWE-630V	400.50.007A
											ZF-HURTH	IRM-220A	
											ZF-HURTH	HSW-800-VI	
											ZF	ZF-305A	
60	B	146	76.2	120.65	6xØ16.5	14	4.2	26	60	86	ZF	ZF-305A	400.50.011A
											TWIN DISC	MG-5081A MG-5085A	
											ZF	ZF-305A	
											ZF	ZF-325-IV	
60	B	146	76.2	120.65	6xØ16.5	14	4.2	45	60	105	ZF	ZF-325-IV	400.50.012A
											ZF	ZF-325-IV	
											ZF	ZF-325-IV	
											ZF	ZF-325-IV	
60	B	146	76.2	120.65	6xØ16.5	18	5.3	42	68	110	Technodrive	TM-265/265A	400.50.013A
											ZF	ZF-80A / ZF-280A	
											TWIN DISC	MG-5061A MG-5050A	
											Yanmar	KMH60A	
60	B	184	95.25	152.4	6xØ16.5	18	5.3	42	68	110	Technodrive	TM-200	400.60.008A
											ZF	ZF-311A	
											ZF	ZF-305A	
											ZF	ZF-305A	
60	A	127	63.5	108	4xØ12	18	5.3	24	66	90	Technodrive	TM345/345A/545A/93/93A TM170/170A TM485A	400.60.014A
											ZF	ZF-63-A	
											ZF	ZF-63-A	
											ZF	ZF-63-IV	
60	A	127	63.5	108	4xØ12	18	5.3	---	68	64	ZF	ZF-63-IV	400.60.017A
											ZF	ZF-63-IV	
											ZF	ZF-63-IV	
											ZF	ZF-63-IV	

Dimensions in mm. Cone 1:10



SELECTION EXAMPLE

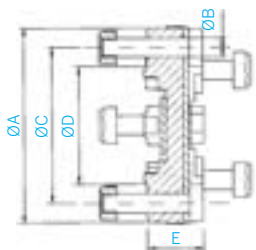
P' = Engine power = 40 CV
 N = maximum engine rpm = 3000 rpm
 R = Gearbox Reduction Ratio = 2:1 = 2
 N' = Shaft Revolutions = $N / R = 3000 / 2 = 1500$ rpm
 P = Coupling - Permissible Power $P = \frac{N'}{100} \times f \rightarrow P \geq P'$
 Our engine has an SMI-R3 ($\varnothing D=63.5$) gearbox, so we look in the catalogue for a coupling that fits the gearbox's flange. We choose the 400.25.200 and determine its admissible power P
 $P = (1500 / 100) \times 2.8 = 42$ CV ≥ 40 CV $\rightarrow$ correct

Flexible couplings solve problems due to alignment and centring of shafts. Moreover, flexible couplings facilitate assembly by providing a tolerance of 2° when aligning and centring the shaft over the gearbox fixing plate.

TABLE OF DIMENSIONS AND PART NUMBERS

$\varnothing$	$\varnothing A$	$\varnothing B$	$\varnothing C$	$\varnothing D$	E	F	$\varnothing G$	f	Gearbox	Ref
25	102	M10	82.5	63.5	75	95	150	2.8	ZF, B. Warner, Technodrive	400.25.200
30	102	M10	82.5	63.5	75	95	150	2.8	ZF, B. Warner, Technodrive	400.30.200
30	127	M10	82.5	63.5	97	125	195	5.6	ZF, B. Warner, Technodrive	400.30.210
35	127	M10	82.5	63.5	97	125	195	5.6	ZF, B. Warner, Technodrive	400.35.200

Dimensions in mm



SELECTION EXAMPLE

P' = Engine power = 40 CV
 N = maximum engine rpm = 3000 rpm
 R = Gearbox Reduction Ratio = 2:1 = 2
 N' = Shaft Revolutions = $N / R = 3000 / 2 = 1500$ rpm
 P = Coupling - Permissible Power $P = \frac{N'}{100} \times f \rightarrow P \geq P'$
 Our engine has an SMI-R3 ($\varnothing D=63.5$) gearbox, so we look in the catalogue for a coupling that fits the gearbox's flange. We choose the 400.25.100 and determine its admissible power P
 $P = (1500 / 100) \times 3 = 45$ CV ≥ 40 CV $\rightarrow$ correct

Flexible couplings are made of hard but elastic polyurethane and are able to withstand any temporary engine/shaft misalignment. They are provided with the bolts and nuts necessary for installation.

TABLE OF DIMENSIONS AND PART NUMBERS

$\varnothing A$	$\varnothing B$	$\varnothing C$	$\varnothing D$	E	F	Gearbox	Ref
102	4x9.9	82.55	63.5	28	3	SOLÉ DIESEL, B. Warner, PRM, Hurth, Technodrive	400.25.100
102	4x9.9	82.55	63.5	31	8	SOLÉ DIESEL, B. Warner, PRM, Hurth	400.30.100
142	4x11.2	108	63.5	41	13	B. Warner, PRM, Hurth, Technodrive	400.40.100
142	4x11.2	108	63.5	52	20	B. Warner, PRM, Hurth, Technodrive	400.45.100
155	6x16	120.6	76.2	50	28	Technodrive (TM) - 265)	400.50.100
223	10x18	170	140	124	75	ZF325IV	400.50.101

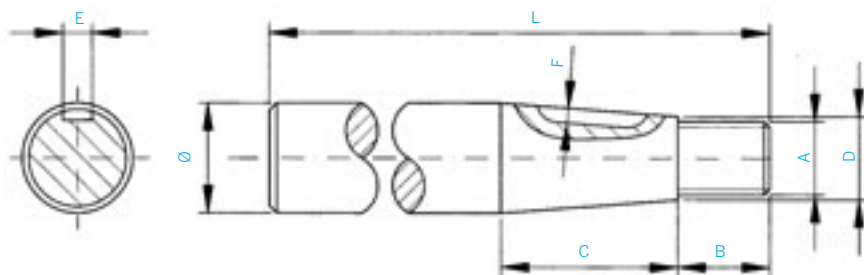
Dimensions in mm

SHAFTS



Ground (h9 finish) standard or AISI-329 stainless steel shafts machined on the end of the propeller, with propeller key, nut with anode and safety washer.
Taper 1:10 according to norm ISO-4566.
Except for 19 mm Ø shafts.

AISI 329 steel offers mechanical properties that are superior to those of standard steel, allowing for a smaller-diameter shaft capable of withstanding greater stresses. This becomes an advantage for ships requiring greater engine power without sacrificing the existing sterntube and propeller strut, thus representing a major savings for the shipowner.



DIMENSIONS TABLE

	Diameter Ø							
	19	25	30	35	40	45	50	60
A	M14x1.5	M16x1.5	M20x1.5	M24x2	M24x2	M30x2	M36x3	M42x3
B	25	25	25	32	32	40	40	50
C	38	55	73	84	94	104	110	130
D	Ø14.8	Ø19.5	Ø22.7	Ø26.6	Ø30.6	Ø34.6	Ø39	Ø47
E	5	6	8	10	12	14	14	18
F	5.2	3.5	4	4.5	4.5	5	5	6
Cone	3°30'	1:10(2°52')	1:10(2°52')	1:10(2°52')	1:10(2°52')	1:10(2°52')	1:10(2°52')	1:10(2°52')

Dimensions in mm

STANDARD PART NUMBERS TABLE

L (mm)	19	25	30	Diameter Ø 35	40	45	50	60
1000	403.19.100	403.25.100M	403.30.100M					
1200	403.19.120	403.25.120M	403.30.120M					
1400	403.19.140	403.25.140M	403.30.140M	403.35.140M				
1600	403.19.160	403.25.160M	403.30.160M	403.35.160M	403.40.160M	403.45.160M		
1700							403.50.170M	
1800	403.19.180	403.25.180M	403.30.180M	403.35.180M	403.40.180M	403.45.180M		
2000	403.19.200	403.25.200M	403.30.200M	403.35.200M	403.40.200M	403.45.200M	403.50.200M	403.60.200M
2250	403.19.225	403.25.225M	403.30.225M	403.35.225M	403.40.225M	403.45.225M	403.50.225M	403.60.225M
2500	403.19.250	403.25.250M	403.30.250M	403.35.250M	403.40.250M	403.45.250M	403.50.250M	403.60.250M
3000		403.25.300M	403.30.300M	403.35.300M	403.40.300M	403.45.300M	403.50.300M	403.60.300M
3500		403.25.350M	403.30.350M	403.35.350M	403.40.350M	403.45.350M	403.50.350M	403.60.350M
4000								403.60.400M

TABLE OF PART NUMBERS AISI- 329

L (mm)	19	25	30	Diameter Ø 35	40	45	50	60
1000		403.25.100AM	403.30.100AM					
1200		403.25.120AM	403.30.120AM					
1400		403.25.140AM	403.30.140AM	403.35.140AM				
1600		403.25.160AM	403.30.160AM	403.35.160AM	403.40.160AM	403.45.160AM		
1700							403.50.170AM	
1800		403.25.180AM	403.30.180AM	403.35.180AM	403.40.180AM	403.45.180AM		
2000		403.25.200AM	403.30.200AM	403.35.200AM	403.40.200AM	403.45.200AM	403.50.200AM	403.60.200AM
2250		403.25.225AM	403.30.225AM	403.35.225AM	403.40.225AM	403.45.225AM	403.50.225AM	403.60.225AM
2500		403.25.250AM	403.30.250AM	403.35.250AM	403.40.250AM	403.45.250AM	403.50.250AM	403.60.250AM
3000		403.25.300AM	403.30.300AM	403.35.300AM	403.40.300AM	403.45.300AM	403.50.300AM	403.60.300AM
3500		403.25.350AM	403.30.350AM	403.35.350AM	403.40.350AM	403.45.350AM	403.50.350AM	403.60.350AM
4000								403.60.400AM

All shafts can be supplied with clockwise thread by ordering 404.____ instead of 403.____, except for Ø19 shafts/

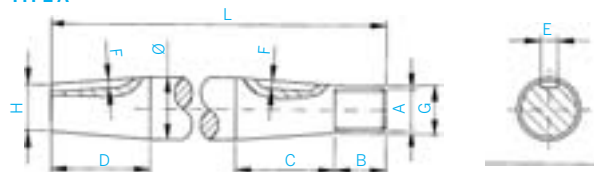


Ground (h9 finish) standard or AISI-329 stainless steel shafts machined on both ends, with key, nut and safety washer.
Taper 1:10 according to norm ISO-4566

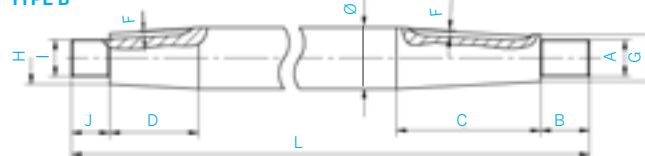
Solé Diesel can supply the tapered shafts with a length in accordance with the customer's needs.
(See form chapter)

AISI 329 steel offers mechanical properties that are superior to those of standard steel, allowing for a smaller-diameter shaft capable of withstanding greater stresses. This becomes an advantage for ships requiring greater engine power without sacrificing the existing stern tube and propeller strut, thus representing a major savings for the shipbuilder.

TYPE A



TYPE B



DIMENSIONS TABLE

	TYPE B			TYPE A	
	Ø35	Ø40	Ø45	Ø50	Ø60
A	M24x2	M24x2	M30x2	M36x2	M42x2
B	32	32	40	40	50
C	84	94	104	110	130
D	58	58	58	58	65
E	10	12	14	14	18
F	4.5	4.5	5	5	6
G	Ø26.6	Ø30.6	Ø34.6	Ø39	Ø47
H	Ø29.2	Ø34.2	Ø39.2	Ø44.2	Ø53.5
I	M24x2	M24x2	M27x2	---	---
J	25	25	27	---	---
Cone	1:10 (2°52')	1:10 (2°52')	1:10 (2°52')	1:10 (2° 52')	1:10(2°52')

Dimensions in mm

STANDARD PART NUMBERS TABLE

L (mm)	Ø35	Ø40	Ø45	Ø50	Ø60
2000	409.35.200M	409.40.200M	409.45.200M	409.50.200M	409.60.200M
2250	409.35.225M	409.40.225M	409.45.225M	409.50.225M	409.60.225M
2500	409.35.250M	409.40.250M	409.45.250M	409.50.250M	409.60.250M
3000	409.35.300M	409.40.300M	409.45.300M	409.50.300M	409.60.300M
3500	409.35.350M	409.40.350M	409.45.350M	409.50.350M	409.60.350M
4000	409.35.400M	409.40.400M	409.45.400M	409.50.400M	409.60.400M

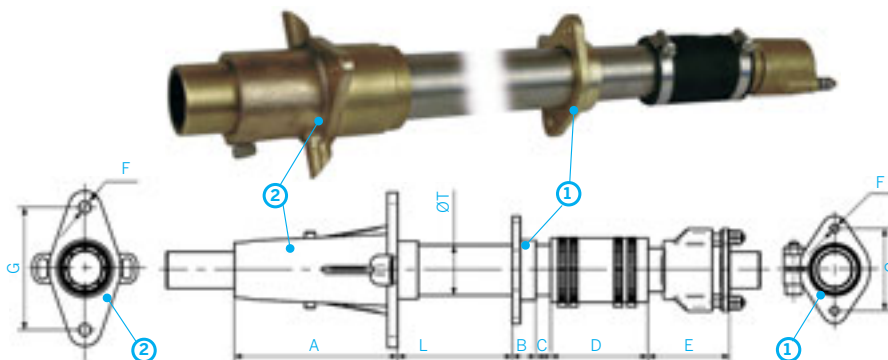
TABLE OF PART NUMBERS AISI - 329

L (mm)	Ø35	Ø40	Ø45	Ø50	Ø60
2000	409.35.200AM	409.40.200AM	409.45.200AM	409.50.200AM	409.60.200AM
2250	409.35.225AM	409.40.225AM	409.45.225AM	409.50.225AM	409.60.225AM
2500	409.35.250AM	409.40.250AM	409.45.250AM	409.50.250AM	409.60.250AM
3000	409.35.300AM	409.40.300AM	409.45.300AM	409.50.300AM	409.60.300AM
3500	409.35.350AM	409.40.350AM	409.45.350AM	409.50.350AM	409.60.350AM
4000	409.35.400AM	409.40.400AM	409.45.400AM	409.50.400AM	409.60.400AM

All shafts can be supplied with clockwise thread by ordering 410.___ instead of 409.___

COMPLETE STERNTUBE ASSEMBLIES

Stern tube assembly with rubber bearing at stern support, stuffing box with fix studs (prepared for additional cooling) and stainless steel pipe.



DIMENSIONS TABLE

Ø	A		B	C	D	E	ØT	①		②			
	Type A	Type B						F	G	Type A	Type B	Type A	Type B
19	100	---	40	0	82	55	Ø28	2xØ9	68	2xØ9	---	68	---
25	120	80	23	15	104	75	Ø40	2xØ8.5	74	2xØ12	2xØ8.5	92	86
30	120	75	23	15	105	80	Ø44	2xØ8.5	78	2xØ12	2xØ8.5	98	94
35	160	105	23	15	95	80	Ø48.3	2xØ8.5	80	2xØ12	2xØ8.5	120	98

Dimensions in mm. ØT= ØTube

PART NUMBERS TABLE

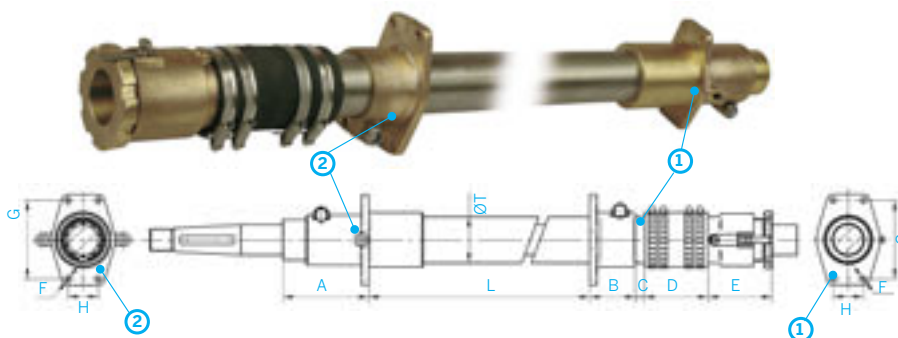
L(mm)	Ø 19		Ø 25		Ø 30		Ø 35	
	Type A	Type B	Type A	Type B	Type A	Type B	Type A	Type B
400	481.19.040	481.25.040A	481.25.040	481.30.040A	481.30.040	--	--	--
500	481.19.050	481.25.050A	481.25.050	481.30.050A	481.30.050	481.35.050A	481.35.050	481.35.050
600	481.19.060	481.25.060A	481.25.060	481.30.060A	481.30.060	481.35.060A	481.35.060	481.35.060
700	481.19.070	481.25.070A	481.25.070	481.30.070A	481.30.070	481.35.070A	481.35.070	481.35.070
800	481.19.080	481.25.080A	481.25.080	481.30.080A	481.30.080	481.35.080A	481.35.080	481.35.080
900	481.19.090	481.25.090A	481.25.090	481.30.090A	481.30.090	481.35.090A	481.35.090	481.35.090
1000	481.19.100	481.25.100A	481.25.100	481.30.100A	481.30.100	481.35.100A	481.35.100	481.35.100
1200	--	481.25.120A	481.25.120	481.30.120A	481.30.120	481.35.120A	481.35.120	481.35.120
1400	--	--	--	--	--	481.35.140A	481.35.140	481.35.140

Type A: Full stern tube with Type A bearing bushing. Type B: Full stern tube with Type B bearing bushing.

Stern tube assembly with rubber bearing at stern support, threaded stuffing box (prepared for additional cooling) and stainless steel pipe.

PART NUMBERS TABLE

L(mm)	Ø 40	Ø 45	Ø 50
600	481.40.060	481.45.060	--
700	481.40.070	481.45.070	--
800	481.40.080	481.45.080	481.50.080
900	481.40.090	481.45.090	481.50.090
1000	481.40.100	481.45.100	481.50.100
1100	481.40.110	481.45.110	--
1200	481.40.120	481.45.120	481.50.120
1300	481.40.130	481.45.130	--
1400	481.40.140	481.45.140	--
1500	481.40.150	481.50.150	481.50.150
1600	--	--	481.50.160



DIMENSIONS TABLE

Ø	A	B	C	D	E	ØT	①			②		
							F	G	H	F	G	H
40	114	60	15	110	91	Ø60	4xØ8.5	112	40	4xØ8.5	112	40
45	123	60	15	125	100	Ø60	4xØ8.5	112	40	4xØ8.5	112	40
50	141.2	75	15	105	105	Ø76.1	4xØ9	130	50	4xØ9	130	50

Dimensions in mm. ØT= ØTube

RIGID STERNTUBES

Solé Diesel also has rigid stern tubes for shafts diameters 25, 30, 35, 45, 50 and 60. Queries concerning other features should be directed to the commercial department.

TYPE A



TYPE B



Bearing bushing assembly equipped with seawater-lubricated rubber bearing.

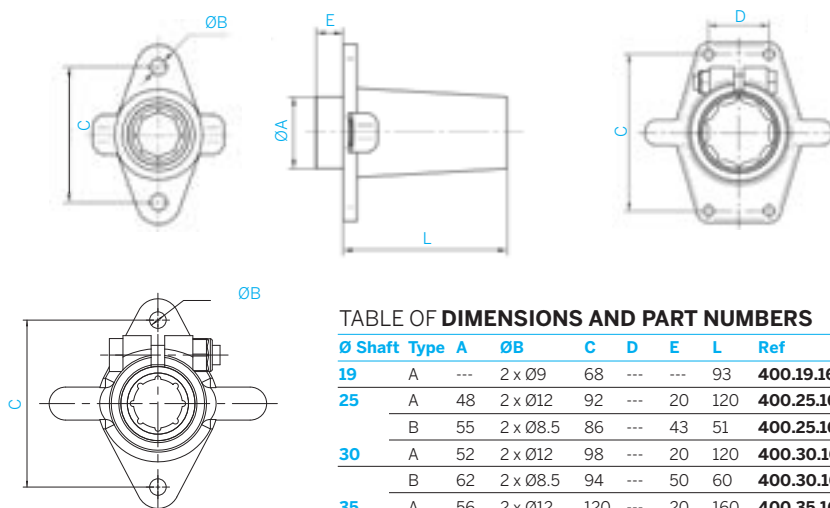


TABLE OF DIMENSIONS AND PART NUMBERS

Ø Shaft	Type	A	ØB	C	D	E	L	Ref
19	A	---	2 x Ø9	68	---	---	93	400.19.165
25	A	48	2 x Ø12	92	---	20	120	400.25.168A
	B	55	2 x Ø8.5	86	---	43	51	400.25.166
30	A	52	2 x Ø12	98	---	20	120	400.30.168A
	B	62	2 x Ø8.5	94	---	50	60	400.30.166
35	A	56	2 x Ø12	120	---	20	160	400.35.168A
	B	66	2 x Ø10.5	98	---	56	105	400.35.166
40	B	75	4 x Ø8.5	112	40	78	85	400.40.166
45	B	80	4 x Ø8.5	112	40	83	90	400.45.166
50	B	90	4 x Ø9	130	50	90	103	400.50.166

Dimensions in mm.

WATER-COOLED

Bronze water-cooled stuffing box, with packing, rubber sleeve, and stainless steel clamps. Additional direct cooling allowed by this system.

TABLE OF DIMENSIONS AND PART NUMBERS

Stuffing box with fix studs			Threaded stuffing box			Special tool		
Ø	Part number		Ø	Part number		Ø	Part number	
19	400.19.125		40	400.40.125		40	400.40.020	
25	400.25.125A		45	400.45.125		45	400.45.020	
30	400.30.125A		50	400.50.125		50	400.50.020	
35	400.35.125A							

Dimensions in mm

OIL BATH COOLED

Sealed bronze oil-cooled stuffing box, self lubricated bearing, rubber sleeve, stainless steel clamps and plastic tank. (provided separately)

TABLE OF DIMENSIONS AND PART NUMBERS

Ø Part number			SAE 15W40 oil		
25	400.25.126	ØA = Ø6	Reference		
30	400.30.126	ØA = Ø6	400.25.037		
35	400.35.126	ØA = Ø6			

Dimensions in mm



Braided packing to achieve sterntube water-tightness. Manufactured with acrylic fibre threads and lubricated with 40% Teflon. Supplied by the metre.

TABLE OF DIMENSIONS AND PART NUMBERS

A x B	Ø Shaft	Ref
6 x 6	Ø19 - 25 - 35	M95200060
8 x 8	Ø30 - 40 - 45 - 50	M95200080
10 x 10	Ø60	M95200100

Dimensions in mm

TECHNICAL SPECIFICATION

Pressure	100 kg/cm2
Temperature	250 °C
Speed	15 m/s
pH	1 - 13

5. SHAFT LINES

RUBBER BEARINGS



Neoprene-based bearings with brass cover. Water-lubricated.

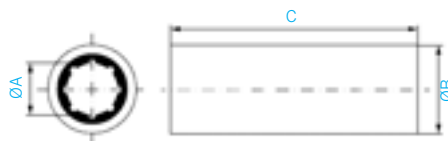


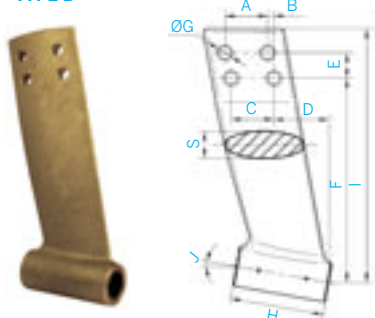
TABLE OF **DIMENSIONS AND PART NUMBERS**

ØA	B (in)	B (mm)	C (in)	C (mm)	Ref
19	1 1/4"	31.75	3"	76.2	400.19.070
25	1 1/2"	38.1	4"	100.0	400.25.070
30	1 3/4"	44.45	4"	100.0	400.30.070
35	1 7/8"	47.62	5 1/2"	139.7	400.35.070
40	2 1/8"	54	6 1/2"	165.0	400.40.070
45	2 3/8"	60.3	7"	177.8	400.45.070
50	2 5/8"	66.7	8"	203.2	400.50.070

5. SHAFT LINES

STRUTS

TYPE B



Bronze struts. Includes the self-lubricating rubber bearing.

TYPE A

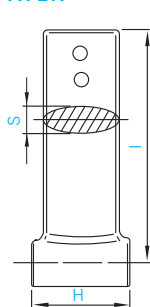


TABLE OF **DIMENSIONS AND PART NUMBERS**

Ø	Type	A	B	C	D	E	F	G	H	I	J	S	Ref
19	A	---	---	---	---	---	---	---	76	339	---	18	400.19.580
25	A	---	---	---	---	---	---	---	102	370	---	22	400.25.581
30	B	57	35	57	28	42	323	Ø18	115	400	10°	28	400.30.581
35	B	65	33	65	23	45	360	Ø25	142	450	10°	30	400.35.581
40	B	75	11	75	96	45	362	Ø25	165	450	10°	32	400.40.581
45	B	80	---	80	92	50	460	Ø25	182	565	10°	36	400.45.581
50	B	90	---	90	57	60	460	Ø25	205	565	10°	39	400.50.581

Dimensions in mm

5. SHAFT LINES

PROPELLER NUT FASTENER



Made of standard-grade stainless steel. This part prevents the propeller nut from coming unthreaded.

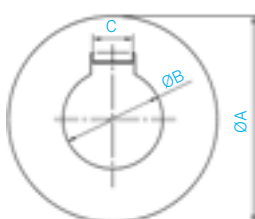


TABLE OF **DIMENSIONS AND PART NUMBERS**

ØShaft	ØA	ØB	C	Ref
19	32	14.5	5	400.19.090
25	40	17	5	400.25.090
30	48	21	7.5	400.30.090
35	60	27	9.5	400.35.090
40	60	27	9.5	400.35.090
45	66	31	13	400.45.090M
50	66	37	13	400.50.090M
60	90	43	17	400.60.090

Dimensions in mm

5. SHAFT LINES

ZINC ANODE NUTS

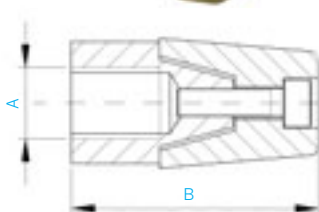


TABLE OF **DIMENSIONS AND PART NUMBERS**

Ø Shaft	A	B	Ref. NUT ASSEMBLY Anti-clockwise thread ¹	Clockwise thread ²	Ø Shaft	A	SCREW NUT FASTENER	Ref ANODE
19					19	M14x1.5		
25	M16x1.5	58	400.25.193M	400.25.194M	25	M16x1.5	541.03.157	400.25.092
30	M20x1.5	69	400.30.193M	400.30.194M	30	M20x1.5	541.03.258	400.30.092
35	M24x2	85	400.35.193M	400.35.194M	35	M24x2	541.03.258	400.35.092
40	M24x2	85	400.35.193M	400.35.194M	40	M24x2	541.03.258	400.35.092
45	M30x2	110	400.45.193M	400.45.194M	45	M30x2	541.03.310	400.45.092
50	M36x3	115	400.50.193M	400.50.194M	50	M36x3	541.03.310	400.45.092
60	M42x3	147	400.60.193M	400.60.194M	60	M42x3	541.03.310	400.60.092

Dimensions in mm.

¹ Shaft-mounted for clockwise-turning propeller.

² Shaft-mounted for anticlockwise-turning propeller.



2-BLADED FOLDING PROPELLERS

Two-bladed folding propellers made of nickel-aluminium bronze. Statically and dynamically balanced.

Reduce drag significantly when sailing. Only available for the TECHNODRIVE striated sail-drive shaft.



TWO-BLADED FIXED PROPELLERS

Aluminium two-bladed fixed propellers, statically and dynamically balanced. Only available for TECHNODRIVE sail-drive striated shafts.



THREE-BLADED FIXED PROPELLERS

Aluminium three-bladed fixed propellers, statically and dynamically balanced. Only available for sail-drive striated shaft

ALL OF THESE PROPELLERS ARE COMPATIBLE WITH:

Volvo 110S, Volvo 120S, Yanmar SD20/31/40-4T, BUCK, NANNI y SONIC Sail Drives

TABLE OF DIMENSIONS AND PART NUMBERS

Ø	Pitch	Surface	Part number LH 
14	8	25%	41.10.1408
15	10	25%	41.10.1410
18	10	25%	41.10.1810
18	11	25%	41.10.1811
18	12	25%	41.10.1812
18	13	25%	41.10.1813
18	14	25%	41.10.1814

Dimensions in mm

TABLE OF DIMENSIONS AND PART NUMBERS

Ø	Pitch	Surface	Part number LH 
14	8	25%	41.11.1408
14	9	25%	41.11.1409
16	9	25%	41.11.1609

Dimensions in mm

TABLE OF DIMENSIONS AND PART NUMBERS

Ø	Pitch	Surface	Part number LH 
14	9	50%	43.10.1409
14	10	50%	43.10.1410
16	10	50%	43.10.1610
16	11	50%	43.10.1611
17	11	50%	43.10.1711
17	12	50%	43.10.1712
17	13	50%	43.10.1713
17	14	50%	43.10.1714

Dimensions in mm



2-BLADED FOLDING PROPELLERS

Two-bladed folding propellers made of nickel-aluminium bronze. Statically and dynamically balanced. Reduce drag while sail sailing. Only available for the SELVA sail-drive striated shaft.



THREE-BLADED FIXED PROPELLERS

Aluminium three-bladed fixed propellers, statically and dynamically balanced. Only available for SELVA sail-drive striated shafts.

TABLE OF DIMENSIONS AND PART NUMBERS

Ø	Pitch	Surface	Part number RH  LH 
13	7	25%	42.00.1307
15	7	25%	42.00.1507
15	8	25%	42.00.1508
15	10	25%	42.00.1510
16	9	25%	42.00.1609

Dimensions in mm

TABLE OF DIMENSIONS AND PART NUMBERS

Ø	Pitch	Surface	Part number RH  LH 
14	8	50%	44.00.1408
14	10	50%	44.00.1410

Dimensions in mm

SRX PROPELLERS



PROPELLERS FOR PLANING OR PROFESSIONAL CRAFT

Designed specifically for medium to fast boats (15-35 knots) or work boats that demand high performance and have restrictions on diameter while requiring a higher pitch. Made of high tensile manganese bronze. High-precision static and dynamic balance. High skew blades reduce noticeably noise and vibrations induced in the boat's rudder and hull. To achieve best performance, an ogival-airfoil mixed blade profile has been designed to minimise cavitation whilst providing smooth and effective thrust. Propellers made with antisinging edge. Diameter and pitch in inches.

TABLE OF DIMENSIONS AND PART NUMBERS

Part number						Part number						
shaft	Ø	Pitch	Surface	RH 	LH 	shaft	Ø	Pitch	Surface	RH 	LH 	
25	16	16		46204141RC		40	17	21		46504353RC	45504353RC	
30	16	14	75%	46304136RC			18	18	75%	46504646RC		
	16	15	75%	46304138RC			18	19	75%	46504648RC		
	16	16	75%	46304141RC	45304141RC		18	20	75%	46504651RC	45504651RC	
	16	17	75%	46304143RC			18	21	75%	46504653RC		
	16	18	75%	46304146RC	45304146RC		18	22	75%	46504656RC	45504656RC	
	16	19	75%	46304148RC	45304148RC		18	23	75%	46504658RC	45504658RC	
	17	19	75%	46304348RC	45304348RC		18	25	75%	46504663RC		
	17	20	75%	46304351RC			19	25	75%	46504863RC	45504863RC	
	17	21	75%	46304648RC			21	23	75%	46505358RC		
	18	19	75%	46304648RC			21	25	75%	46505363RC		
	18	22	75%	46304353RC	45304353RC	45	18	18	75%	46604646RC		
	18	22	75%	46304656RC	45304656RC			18	19	75%	46604648RC	
35	16	14	75%	46404136RC				18	20	75%	46604651RC	45604651RC
	16	15	75%	46404138RC				18	21	75%	46604653RC	
	16	16	75%	46404141RC	45404141RC			18	22	75%	46604656RC	45604656RC
	16	17	75%	46404143RC				18	23	75%	46604658RC	45604658RC
	16	18	75%	46404146RC	45404146RC			19	25	75%	46604863RC	45604863RC
	16	19	75%	46404148RC	45404148RC			21	23	75%	46605358RC	
	17	19	75%	46404348RC	45404348RC			21	25	75%	46605363RC	
	17	20	75%	46404351RC			50	25	20	75%	46706351RC	45706351RC
	17	21	75%	46404353RC	45404353RC	60		25	20	75%	46906351RC	45906351RC
		18	18	75%	46404646RC							
	18	19	75%	46404648RC								
	18	20	75%	46404651RC	45404651RC							
	18	21	75%	46404653RC								
	18	22	75%	46404656RC	45404656RC							
	18	23	75%	46404658RC								
	18	25	75%	46404663RC								

PROPELLERS

3- and 4-bladed manganese bronze propellers, statically and dynamically balanced, 1:10 tapered (except propellers Ø19, 3°30'). Diameter and pitch in inches.

3-BLADED PROPELLERS



4-BLADED PROPELLERS



TABLE OF DIMENSIONS AND PART NUMBERS

				Part number						Part number	
Ø shaft (mm)	Diameter	Pitch	Surface %	RH 	LH 	Surface %	RH 	LH 		RH 	LH 
19	9	8	51%	44.15.2320							
	10	11		44.15.2628							
	12	7		44.15.3118							
	12	8		44.15.3120							
	12	9		44.15.3123							
	12	10		44.15.3125							
	12	10.5			43.16.3126						
	13	8		44.15.3320							
	13	9		44.15.3323							
	13	10	55%	44.16.3325							
	13	11				72%	46.19.3328	46.19.3328			
	14	9	51%	44.15.3623							
	14	10		44.15.3626							
	15	10			43.16.3826						

Dimensions in mm

TABLE OF DIMENSIONS AND PART NUMBERS

Ø shatf (mm)	Diameter	Pitch	Surface %	Part number		Surface %	Part number	
				RH 	LH 		RH 	LH 
22	9	8	51	44.205.2320				
	10	11	51	44.205.2628				
	12	7	51	44.205.3118				
	12	8	51	44.205.3120				
	12	9	51	44.205.3123				
	12	10	51	44.205.3125				
	12	10.5	55		43.206.3126			
	13	7	51	44.205.3318				
	13	8	51	44.205.3320				
	13	9	51	44.205.3323				
	13	10	55	44.206.3325				
	13	11	55	44.206.3328		72	46.209.3328	
	13	12	55			72	46.209.3331	
	14	8	51	44.205.3620				
	14	9	51	44.205.3623		69	46.208.3624	
	14	10	51	44.205.3626		69	46.208.3626	
	14	11	51	44.205.3628				
	14	13	51			72	46.209.3633	
	14	14	51				46.209.3636	
	14	16	51				46.209.3641	
	15	7	55	44.206.3818				
	15	9	55	44.206.3823				
	15	10	55	44.206.3826	43.206.3826			
	15	11	55	44.206.3828				
	15	12	55	44.206.3831	43.206.3831			
	15	13	55	44.206.3833	43.206.3833			
	15	14	55	44.206.3836				
	16	10	55	44.206.4126				
	16	11	55	44.206.4128	43.206.4128	72	46.209.4128	
	16	12	55	44.206.4131	43.206.4131	72	46.209.4131	
	16	13	55	44.206.4133	43.206.4133	72	46.209.4133	45.209.4133
	16	14	55	44.206.4136	43.206.4136	72	46.209.4136	
	16	15	55	44.206.4138	43.206.4138	72	46.209.4138	
	16	16	55	44.206.4141		72	46.209.4141	45.209.4141
	16	17	55	44.206.4143		72	46.209.4143	
	17	11	55	44.206.4328		72		
	17	12	55	44.206.4331	43.206.4331	72		
	17	13	55	44.206.4333		72	46.209.4333	
	17	14	55		43.206.4336	72		
	18	14	55	44.206.4636		72		
25	9	8	51	44.25.2320				
	10	11	51	44.25.2628				
	12	7	51	44.25.3118				
	12	8	51	44.25.3120				
	12	9	51	44.25.3123				
	12	10	51	44.25.3125				
	12	10.5	55		43.26.3126			
	13	7	51	44.25.3318				
	13	8	51	44.25.3320				
	13	9	51	44.25.3323				
	13	10	55	44.26.3325				
	13	11	55	44.26.3328		72	46.29.3328	
	13	12	55			72	46.29.3331	
	14	8	51	44.25.3620				
	14	9	51	44.25.3623		69	46.28.3624	
	14	10	51	44.25.3626		69	46.28.3626	
	14	11	51	44.25.3628				
	14	1	51			72	46.29.3633	
	14	14	51			73	46.29.3636	
	14	16	51			72	46.29.3641	
	15	7	55	44.26.3818				
	15	9	55	44.26.3823				
	15	10	55	44.26.3826	43.26.3826			
	15	11	55	44.26.3828				
	15	12	55	44.26.3831	43.26.3831			
	15	13	55	44.26.3833	43.26.3833			
	15	14	55	44.26.3836				
	16	10	55	44.26.4126				

Dimensions in mm

PROPELLERS

TABLE OF DIMENSIONS AND PART NUMBERS

Ø shatf (mm)	Diameter	Pitch	Surface %	Part number		Surface %	Part number	
				RH 	LH 		RH 	LH 
25	16	11	55	44.26.4128	43.26.4128		46.29.4128	
	16	12	55	44.26.4131	43.26.4131		46.29.4131	
	16	13	55	44.26.4133	43.26.4133		46.29.4133	45.29.4133
	16	14	55	44.26.4136	43.26.4136		46.29.4136	
	16	15	55	44.26.4138	43.26.4138		46.29.4138	
	16	16	55	44.26.4141			46.29.4141	45.29.4141
	16	17	55	44.26.4143			46.29.4143	
	17	11	55	44.26.4328				
	17	12	55	44.26.4331	43.26.4331			
	17	13	55	44.26.4333			46.29.4333	
	17	14	55		43.26.4336			
	18	14	55	44.26.4636				
30	14	9	51	44.35.3623				
	14	10	51	44.35.3626		72		
	14	13	55			72	46.39.3633	
	14	14	55			72	46.39.3636	
	14	16	55			72	46.39.3641	
	15	9	55	44.36.3823		72		
	15	10	55	44.36.3826	43.36.3826	72		
	15	11	55	44.36.3828	43.36.3828	72		
	15	12	55	44.36.3831	43.36.3831	72		
	15	13	55	44.36.3833	43.36.3833	72		
	15	14	55	44.36.3836		72	46.39.3836	
	16	10	55	44.36.4126		72		
	16	11	55	44.36.4128	43.36.4128	72	46.39.4128	
	16	12	55	44.36.4131	43.36.4131	72	46.39.4131	
	16	13	55	44.36.4133	43.36.4133	72	46.39.4133	45.39.4133
	16	14	55	44.36.4136	43.36.4136	72	46.39.4136	
	16	15	55	44.36.4138	43.36.4138	72	46.39.4138	45.39.4138
	16	16	55	44.36.4141	43.36.4141	72	46.39.4141	45.39.4141
	16	17	55	44.36.4143		72	46.39.4143	45.39.4143
	17	11	55	44.36.4328		72		
	17	12	55	44.36.4331	43.36.4331	72		
	17	13	55	44.36.4333	43.36.4333	72	46.39.4333	
	17	14	55	44.36.4336	43.36.4336	72	46.39.4336	
	17	15	55	44.36.4338	43.36.4338	72	46.39.4338	
	17	16	55	44.36.4340	43.36.4340	72		
	17	17	55	44.36.4343	43.36.4343	72		
	18	13	55	44.36.4633	43.36.4633	72		
	18	14	55	44.36.4636	43.36.4636	72	46.39.4636	
	18	15	55	44.36.4638	43.36.4638	72	46.39.4638	
	18	16	55	44.36.4641		72	46.39.4641	
	18	17	55	44.36.4643		72	46.39.4643	
	19	12	55	44.36.48.38		72	46.38.4831	
	19	13	55	44.36.4833		72		
	19	14	55	44.36.4836		72	46.39.4836	
	19	15	55	44.36.4838		72	46.39.4838	
	19	16	55	44.36.4841	43.36.4841	72	z46.39.4841	
	19	17	55	44.36.4843	43.36.4843	72		
	19	18	55			72	46.39.4846	
	19	19	55			72	46.39.4848	
35	16	11				72	46.49.4128	
	16	12				72	46.49.4131	
	16	13				72	46.49.4133	45.49.4133
	16	14				72	46.49.4136	
	16	15				72	46.49.4138	45.49.4138
	16	16				72	46.49.4141	45.49.4141
	16	17				72	46.49.4143	45.49.4143
	17	11	55	44.46.4328		72		
	17	12	55	44.46.4331	43.46.4331	72		
	17	13	55	44.46.4333	43.46.4333	72	46.49.4333	
	17	14	55	44.46.4336	43.46.4336	72	46.49.4336	
	17	15	55	44.46.4338	43.46.4338	72	46.49.4338	
	17	16	55	44.46.4340	43.46.4340	72		
	17	17	55	44.46.4343	43.46.4343	72		
	18	13	55	44.46.4633	43.46.4633	72	46.49.4633	
	18	14	55	44.46.4636	43.46.4636	72	46.49.4636	
	18	15	55	44.46.4638	43.46.4638	72	46.49.4638	
	18	16	55	44.46.4641		72	46.49.4641	

Dimensions in mm

TABLE OF DIMENSIONS AND PART NUMBERS

Ø shatf (mm)	Diameter	Pitch	Surface %	Part number		Surface %	Part number	
				RH 	LH 		RH 	LH 
35	18	17	55	44.46.4643		72	46.49.4643	
	19	12				69	46.48.4831	
	19	13	55	44.46.4833				
	19	14	55	44.46.4836		72	46.49.4836	
	19	15	55	44.46.4838	43.46.4838	72	46.49.4838	
	19	16	55	44.46.4841	43.46.4841	72	46.49.4841	
	19	17	55	44.46.4843	43.46.4843	72		
	19	18	55			72	46.49.4846	
	19	19	55			72	46.49.4848	
	20	13	55	44.46.5133	43.46.5133	72		
	20	15	55	44.46.5138	43.46.5138	72		
	20	16	55	44.46.5141	43.46.5141	72		
	20	17	55	44.46.5143	43.46.5143	72		
	20	21	55			72	46.49.5153	
	21	16	55	44.46.5341	43.46.5341	72		
	21	17	55	44.46.5343	43.46.5343	72		
	21	18	55	44.46.5346	43.46.5346	72	46.49.5346	
	22	15	55			69	46.48.5537	45.48.5537
	22	16		44.46.5641	43.46.5641	69		
	22	17		44.46.5643	43.46.5643	69	46.48.5543	45.48.5543
	22	18		44.46.5646	43.46.5646	72	46.49.5646	45.49.5646
	22	19				69	46.48.5648	45.48.5648
	23	20				69	46.48.5851	45.48.5851
40	18	13					46.59.4633	
	18	14					46.59.4636	
	18	15					46.59.4638	
	18	16					46.59.4641	
	18	17					46.59.4643	
	18	18					46.59.4646	
	19	12					46.58.4831	
	19	14					46.59.4836	
	19	15					46.59.4838	
	19	16					46.59.4841	
	19	18					46.59.4846	
	19	19	55				46.59.4848	
	20	13	55	44.56.5133	43.56.5133			
	20	15	55	44.56.5138	43.56.5138			
	20	16	55	44.56.5141	43.56.5141			
	20	17	55	44.56.5143	43.56.5143			
	20	21	55				46.59.5153	
	20	23	55	44.56.5158	43.56.5158			
	20	24	55	44.56.5161				
	21	16	55	44.56.5341	43.56.5341			
	21	17	55	44.56.5343	43.56.5343			
	21	18	55	44.56.5346	43.56.5346		46.59.5346	
	21	23.5	55	44.56.5359	43.56.5359			
	22	15	55				46.58.5537	45.58.5537
	22	16	55	44.56.5641	43.56.5641			
	22	17	55	44.56.5643	43.56.5643		46.58.5543	45.58.5543
	22	18	55	44.56.5646	43.56.5646		46.59.5646	45.59.5646
	22	19	55				46.58.5648	45.58.5648
	23	20	55				46.58.5851	45.58.5851
	24	16	55	44.56.6141		69	43.56.6141	
	24	17	55	46.59.6143		72	45.59.6143	
	24	18	55	44.56.6146		72	46.59.6146	45.59.6146
	24	19	55	44.56.6148		72	46.59.6148	
	24	20	55	44.56.6151		72	46.59.6151	45.59.6151
	24	22	55			72	46.59.6156	45.59.6156
	25	15	55			69	46.58.6338	
	25	16	55			69	46.58.6341	
	26	18	55			69	46.58.6646	
	26	19	55	44.56.6648		69		
	26	20	55	44.56.6651		69	46.59.6651	45.59.6651
	26	21	55	44.56.6654		69	46.58.6653	
	26	22	55			69	46.58.6656	45.58.6656
	26	24	55			69	46.58.6661	
	26	25	55			69	46.58.6663	

Dimensions in mm

PROPELLERS

TABLE OF DIMENSIONS AND PART NUMBERS

Ø shatf (mm)	Diameter	Pitch	Surface %	Part number		Surface %	Part number	
				RH 	LH 		RH 	LH 
45	19	12	55			69	46.68.4831M	
	20	18	55			72	46.69.5146M	
	21	18	55			72	46.69.5346M	
	22	15	55			69	46.68.5537M	45.68.5537M
	22	17	55			69	46.68.5543M	45.68.5543M
	22	18	55			72	46.69.5646M	45.69.5646M
	22	19	55			69	46.68.5648M	45.68.5648M
	23	20	55			69	46.68.5851M	45.68.5851M
	24	16	55	44.66.6141M	43.66.6141M	69		
	24	17	55			72	46.69.6143M	45.69.6143M
	24	18	55	44.66.6146M		72	46.69.6146M	45.69.6146M
	24	19	55	44.66.6148M		72	46.69.6148M	
	24	20	55	44.66.6151M		72	46.69.6151M	45.69.6151M
	24	22					46.69.6156M	45.69.6156M
	25	15				69	46.68.6338M	
	25	16				69	46.68.6341M	
	26	18				69	46.68.6646M	
	26	19	55	44.66.6648M				
	26	20	55	44.66.6651M		69	46.69.6651M	45.69.6651M
	26	21	55	44.66.6654M	43.66.6654M	69/72	46.68.6653M	45.69.6654M
	26	22				69	46.68.6656M	45.68.6656M
	26	24				69	46.68.6661M	
	26	25				69	46.68.6663M	
	28	23				69	46.68.7158M	
	28	24				69	46.68.7161M	
	28	26				69	46.68.7166M	
	30	21				69	46.68.7653M	
50	22	17					46.785648	45.785648
	22	19				69	46.78.5543	45.78.5543
	22	22				69		
	23	20				69	46.78.5851	45.78.5851
	24	17				72	46.79.6143	45.79.6143
	24	18				72	46.79.6146	45.79.6146
	24	19				72	46.79.6148	
	24	20				72	46.79.6151	45.79.6151
	24	22				69	46.79.6156	45.79.6156
	25	15				69	46.78.6338	
	25	16				69	46.78.6341	
	26	18				69	46.78.6646	
	26	20				69	46.79.6651	45.79.6651
	26	21				69/72	46.78.6653	45.79.6654
	26	22				69	46.78.6656	45.78.6656
	26	24				69	46.78.6661	
	26	25				69	46.78.6663	
	27	23				69	46.78.6858	
	28	21				69	46.78.7153	
	28	22				69	46.78.7156	
	28	23				69	46.78.7158	
	28	24				69	46.78.7161	
	28	26				69	46.78.7166	
	30	21				69	46.78.7653	
	30	23					46.78.7658	
60	33	20					46.78.8550	
	26	20				72	46.99.6651	45.99.6651
	26	22				69	46.98.6656	45.98.6656
	27	23				69	46.98.6858	
	28	22				69	46.98.7156	
	28	24				69	46.98.7161	
	28	26				69	46.98.7166	
	30	21				69	46.98.7653	
	30	23				69	46.98.7658	
	31	18				69	46.98.7946	
	33	20				69	46.98.8550	

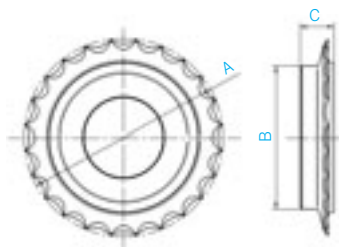
Dimensions in mm



ROPE CUTTER

ANODE

Made of Stainless steel AISI-316L.
This rope cutter cuts nylon ropes, plastic nets and flexible cable of up to 7mm, freeing the propeller and thus preventing further damage. See assembly notes. Use gloves, cutting edges.



The threaded bores on the propeller must be machined. Rope cutter mounting screws included.

In order to mount the rope cutters, the new specified anodes must be mounted.

The rope cutter for the Volvo 130S is only compatible with fixed blade propellers.

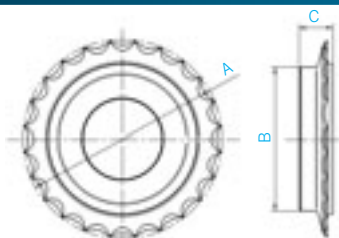


TABLE OF DIMENSIONS AND PART NUMBERS

Ø (mm)	A	B	C	Model	Anode ^(A)	Rope cutter ^(B)	Set ^{(A)+(B)}
38	120	76.5	11	YANMAR SD20 / SD31	40039092.1	40039025.1	40039023
38	120	76.5	11	VOLVO 120S	40039092.2	40039025.1	40039022
38	120	76.5	11	VOLVO 130S	---	40039025.1	40039025
32	140	76.5	12	SPROP-60 (TechnoDrive)	24813500.84	40039024.1	40039024



Made of Stainless steel AISI-316L.
There are several models available depending on shaft diameter, from 22mm to 70mm. This rope cutter cuts nylon ropes, plastic nets and flexible cable (maximum 7mm), freeing the propeller and thus avoiding further damage. Easy assembly. (Use gloves, cutting edges).

TABLE OF DIMENSIONS
AND PART NUMBERS

Ø(in)	A	B	C	Part number
1"	Ø80	Ø53	17	400.25.023
1 1/4"	Ø80	Ø53	17	400.32.023
1 1/2"	Ø100	Ø72	17	400.38.023
1 3/4"	Ø120	Ø92	17	400.44.023
2"	Ø120	Ø82	17	400.51.023
2 1/4"	Ø120	Ø92	17	400.57.023

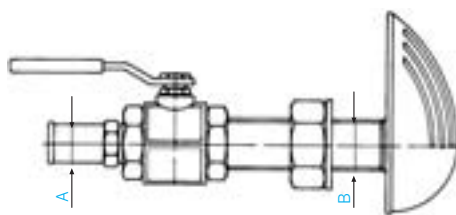
Dimensions in mm.

TABLE OF DIMENSIONS
AND PART NUMBERS

Ø(mm)	A	B	C	Part number
22	Ø80	Ø53	17	400.22.022
25	Ø80	Ø53	17	400.25.022
30	Ø80	Ø53	17	400.30.022
35	Ø100	Ø72	17	400.35.022
40	Ø100	Ø72	17	400.40.022
45	Ø120	Ø92	17	400.45.022
50	Ø120	Ø92	17	400.50.022
60	Ø150	Ø110	30	400.60.022
70	Ø180	Ø128	31.5	400.70.022
75	Ø200	Ø128	32.5	400.75.022



Cooling sea water intake made of brass.
The assembly consists of a water intake with filter screen and hull transom, ball valve and connecting sleeve. Must be installed with the filter facing the stern.

TABLE OF DIMENSIONS
AND PART NUMBERS

Ø (in)	A	B	Válvula	Part number
Ø13		Ø21	1/2"	601.21.000
Ø19		Ø21	1/2"	601.32.000
Ø25		Ø26.5	1"	601.51.000
Ø32		Ø33	1"	601.46.000
Ø38		Ø47.8	1/2"	601.67.000

Dimensions in mm.

WATER FILTERS

TYPE A

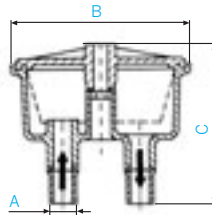


TYPE B



Water filters prevent pump and heat exchangers from becoming blocked. Transparent plastic cover facilitates service and washing of the element. Must be installed over the waterline.

TYPE A



TYPE B

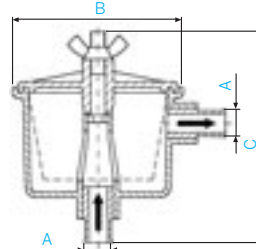


TABLE OF DIMENSIONS AND PART NUMBERS

Ø (in)						
A	B	C	Capacity	Part number	Type	
Ø12 - 1/2"	Ø130	160	60 l/min	603.38.000	A	
Ø16 - 5/16"	Ø130	130	90 l/min	603.38.000	A	
Ø19 - 3/4"	Ø160	230	135 l/min	603.71.000	A	
Ø25 - 1"	Ø160	190	225 l/min	603.71.000	A	
Ø32 - 1 1/4"	Ø160	160	345 l/min	603.71.000	A	
Ø38 - 1 1/2"	Ø145	215	375 l/min	603.67.100	B	

Dimensions in mm.

COOLING WATER PUMP

SALT WATER PUMP



REPAIR KIT

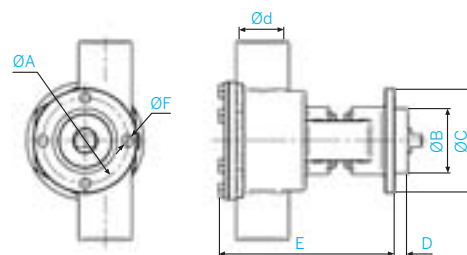


TABLE OF DIMENSIONS AND PART NUMBERS

Ød	Q (l/min) 1500 r.p.m.	Q (l/min) 2500 r.p.m.	ØA	ØB	ØC	D	E	ØF	Ref	Part number repair kit
1/2"	18	29	63,5x63,5	50.8f7	---	3	95	4xØ9	334.11.000	33411000K
3/4"	31	56	64	35H7	75	---	85	4xØ7	352.11.000	35211000K
1"	75	122		48e8	78	10	132	4xØ7	365.11.000	36511000K

Dimensions in mm.

COOLING PUMP IMPELLER



TABLE OF DIMENSIONS AND PART NUMBERS

Ød Pump	Part number Pump	ØA	No. Blades	Width	Part number Impeller
1/4"	321.11.000	40	6	20	321.11.008
1/2"	334.11.000	52	6	25	312.11.008
3/4"	352.11.000	57	12	31	351.11.008
1"	365.11.000	65.5	10	50	347.11.008
1"	394.11.000	65.5	10	68	394.11.008

Dimensions in mm.



Rubber hose. Supplied in linear meters. The physical properties of the hose give it an optimum level of flexibility and resistance.

Ø Int	Part number
Ø19	M87501927
Ø25	M87502535
Ø30	M87503040
Ø32	M87503242
Ø38	M87503848
Ø40	M87504050
Ø42	M87504252

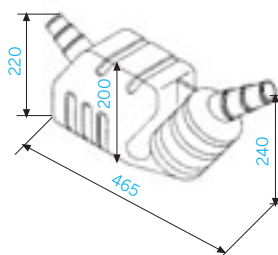
Dimensions in mm.



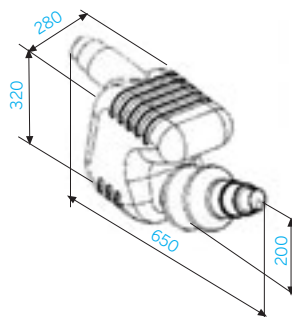
High resistance fabric reinforced rubber hose with steel spiral wire. Supplied in linear meters. The hose's mechanical properties provide an optimum level of flexibility and resistance to engine exhaust.

Ø	40 mm	45 mm	50 mm	60 mm	75 mm	90 mm	102 mm	127mm
Part number	M88504052	M88504557	M88505062	M88506072	M88507587	M885090102	M8850102114	M8850127139

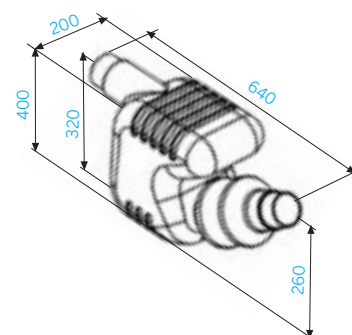
TYPE A



TYPE B



TYPE C



The waterlock/muffler performs the task of collecting the water from the exhaust hose after the engine stops, thereby preventing water from entering it. The waterlock has a built-in muffler.

Part number	Ø (mm)	V (lit.)	Type
60700.040	40/45/50	7	A
60700.041	55/60/65	20	B
60700.042	75/90	33	C

GOOSE NECK

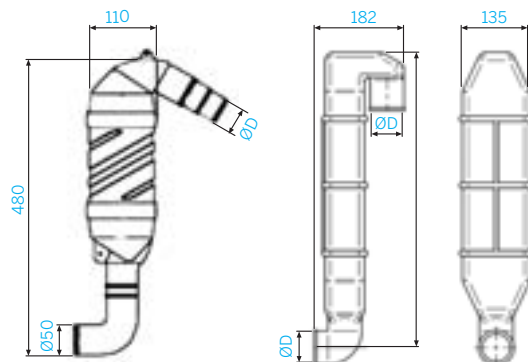
TYPE A



TYPE B



The goose neck prevents seawater from entering the engine.



TYPE A

TYPE B

TABLE OF DIMENSIONS
AND PART NUMBERS

Part number	ØD (mm)	Type
607.00.241	40/50/50	A
607.00.260	60	B

Dimensions in mm.

AIR VENT

TYPE A



TYPE B



If the injection point of the cooling water in the exhaust system is situated at a height less than 15 cm above the waterline there is a risk that when the engine is stopped the cooling water may enter the engine due to the siphoning effect. This problem can be solved by installing an air vent in the cooling water duct, about 40 cm above the waterline (max. height 2 metres). The air vent is connected by means of tube and hull transom (always mounted above the waterline), to vent to the outside. The air vent comes without hoses.

TABLE OF DIMENSIONS
AND PART NUMBERS

Ø (mm)	Part number	Type
16 - 19 - 25 - 32	607.30.013	A
38	607.30.011	B

Dimensions in mm.

TRANSOM EXHAUST CONNECTION

TYPE A

Plastic transom exhaust connection. Assemble above the waterline.



TYPE B

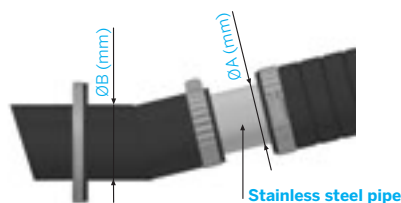
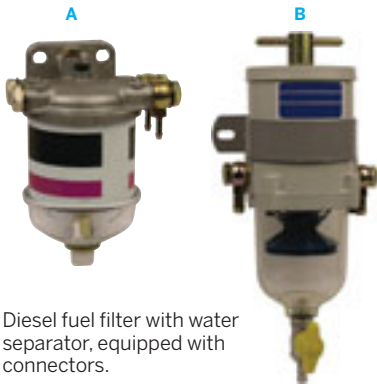


TABLE OF DIMENSIONS AND PART NUMBERS

Type	ØA (mm)	ØB (mm)	Part number
A	40 / 45 / 50	Ø60	607.00.145
A	60	Ø68	607.00.152
B	75	Ø10	607.00.176
A	---	Ø125	607.00.182
B	---	Ø90	607.00.177

Dimensions in mm.



Diesel fuel filter with water separator, equipped with connectors.

TABLE OF PART NUMBERS

Type	Flow	Hose inside diameter	Part number
A	50 l/h (max.)	Ø 5	603.00.120
		Ø 6	603.00.110
		Ø 8	603.00.101
		Ø 10	603.00.125
		Ø 12	603.00.130
B	240 l/h (max.)	Ø 8	603.00.220
		Ø 10	603.00.210
		Ø 12	603.00.230

9. FUEL SYSTEM

FUEL HOSE



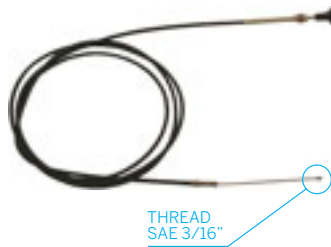
Black rubber fuel hose according to norm ISO-7840A1. Supplied in meter lengths.

TABLE OF DIMENSIONS AND PART NUMBERS

Ø Int (mm)	Ø Ext (mm)	Part number
Ø 6	Ø 16	M81510616
Ø 8	Ø 17	M81510817
Ø 10	Ø 19	M81511019
Ø 12	Ø 22	M81511222

CONTROL SYSTEM

SHUT-DOWN CABLE



THREAD
SAE 3/16"

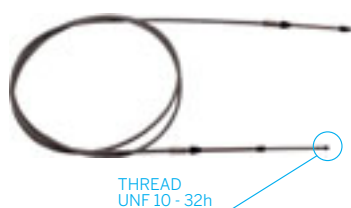
Made of steel cable with plastic sheath and brass tips.

TABLE OF PART NUMBERS

L(m)	Part number
0.50	609.00.405
1.00	609.00.410
1.50	609.00.415
2.00	609.00.420
2.50	609.00.425
3.00	609.00.430
3.50	609.00.435
4.00	609.00.440
4.50	609.00.445
5.00	609.00.450
6.00	609.00.460

10. CONTROL SYSTEM

PUSH-PULL CABLE



THREAD
UNF 10 - 32h

Stainless steel cable with plastic sheath.
No maintenance required.
Thread type UNF 10 - 32h.

TABLE OF PART NUMBERS

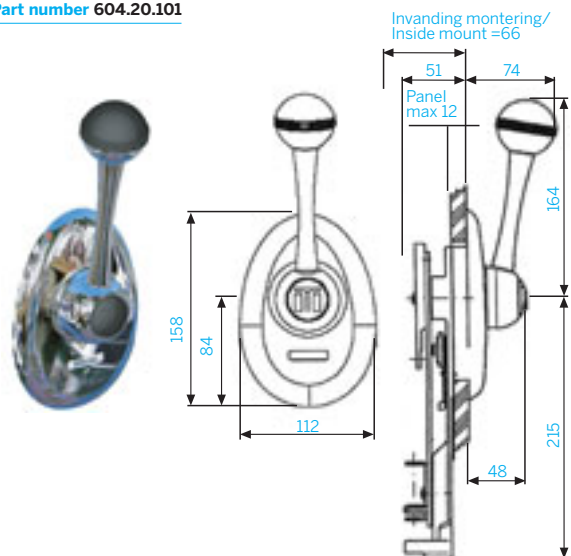
L(m)	Part number	L(m)	Part number
1.50	604.00.015	7.00	604.00.070
2.00	604.00.020	7.50	604.00.075
2.50	604.00.025	8.00	604.00.080
3.00	604.00.030	8.50	604.00.085
3.5	604.00.035	9.00	604.00.090
4.00	604.00.040	10.0	604.00.100
4.50	604.00.045	11.0	604.00.110
5.00	604.00.050	12.0	604.00.120
5.50	604.00.055	13.0	604.00.130
6.00	604.00.060	14.0	604.00.140
6.50	604.00.065		

Other lengths available, query the commercial department.

REMOTE CONTROL LEVERS

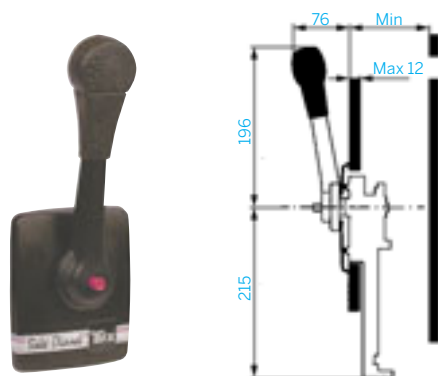
SIDE MOUNTING FOR SAILING YACHTS. Stainless Steel

Part number 604.20.101



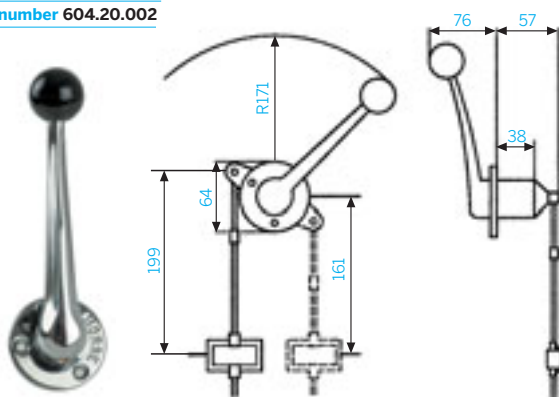
SIDE MOUNTING FOR SAILING YACHTS.

Part number 604.00.001



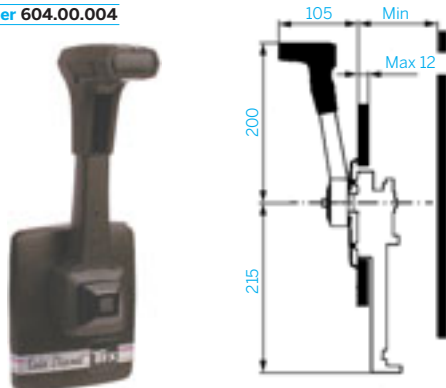
SIDE ASSEMBLY FOR IDLE VALVE

Part number 604.20.002



SIDE MOUNTING

Part number 604.00.004



TOP MOUNTING

Part number 604.00.002



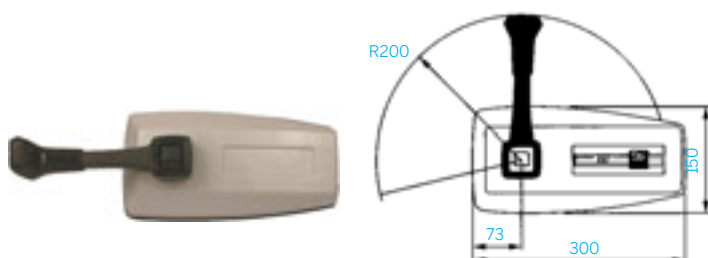
TOP MOUNTING FOR TWO ENGINES

Part number 604.00.003



MOUNTING FOR OUTBOARD ENGINES

Part number 604.00.005



RPM COUNTER ELECTRONIC 4000 RPM

Operates with all the engines, regulating each model. No transmitter needed. Directly connected to the alternator. 86 mm mounting diameter.



TABLE OF PART NUMBERS

Standard	Part number
12V	609.00.910

WATER TEMPERATURE GAUGE

This instrument operates with all the engines. The mounting diameter is 52mm. Temperature transmitter may be supplied.



A



B

TABLE OF PART NUMBERS

Standard	Part number A	Part number B
12V	609.00.915	609.00.980

OIL PRESSURE GAUGE

This instrument operates with all engines. The mounting diameter is 52 mm. Can be supplied with the oil pressure transmitter.



A



B

TABLE OF PART NUMBERS

Standard	Part number A	Part number B
12V	609.00.920	609.00.985

VOLTMETER

This instrument operates with all engines. 52 mm mounting diameter.



TABLE OF PART NUMBERS

Standard	Part number
12V	609.00.925
24V	609.00.926

FUEL LEVEL GAUGE

This instrument operates with all engines. 52 mm mounting diameter.



TABLE OF PART NUMBERS

Standard	Part number
12V	609.00.950

HOUR COUNTER

This instrument operates with all engines. 52 mm mounting diameter.

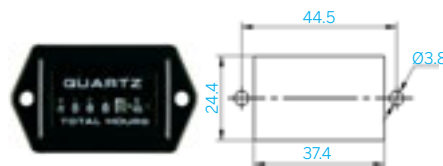


TABLE OF PART NUMBERS

Standard	Part number
12V	609.00.918

FUEL LEVEL SENSOR

For 4" to 24" tanks



TABLE OF PART NUMBERS

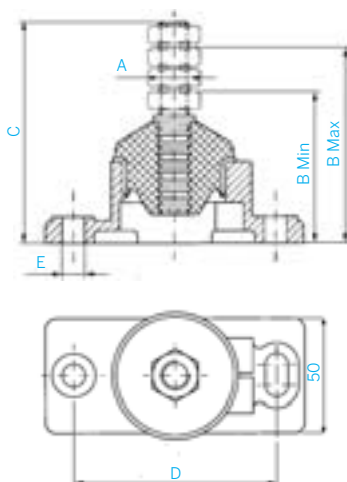
Standard	Part number
12V	609.00.952

Dimensions in mm

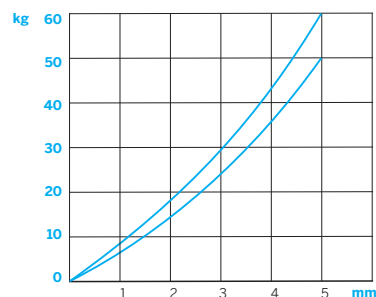
TYPE A



Anti Vibration Mounts of synthetic rubber and metal, able to absorb propeller's thrust. SOLÉ DIESEL engine mounts are designed to eliminate engine vibrations and noise. Also provide an easy alignment.



GRAPHS



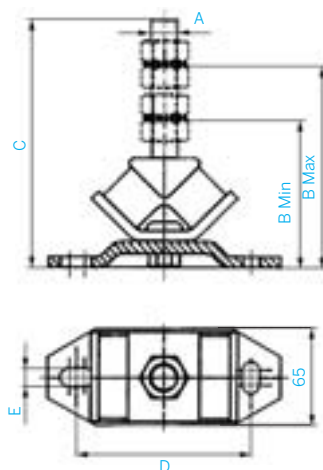
TECHNICAL CHARACTERISTICS AND PART NUMBERS

Load	Hardness A		B Min.	B Max.	C	D	E	Part number
50 kg	50 Sh A	M14 x 1.5	75	86	108	98	11	616.31.100
60 kg	60 Sh A	M16 x 1.5	75	100	125	98	11	616.51.000

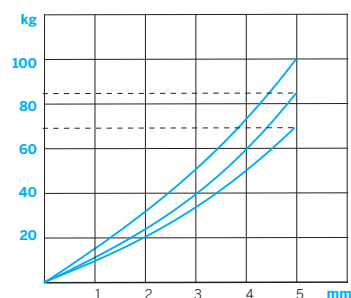
TYPE B



Anti Vibration Mounts of synthetic rubber and metal, able to absorb propeller's thrust. SOLÉ DIESEL engine mounts are designed to eliminate engine vibrations and noise. Also provide an easy alignment.



GRAPHS



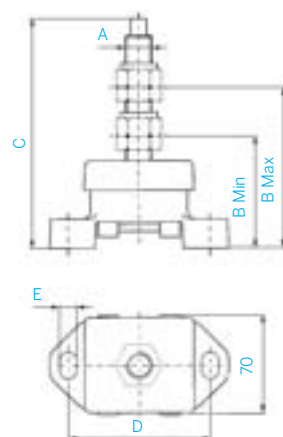
TECHNICAL CHARACTERISTICS AND PART NUMBERS

Load	Hardness A		B Min	B Max	C	D	E	Part number
70 kg	40 Sh A	M16 x 1.5	93	115	136	127	13	616.70.000
85 kg	45 Sh A	M16 x 1.5	93	115	136	127	13	616.53.000
85 kg	45 Sh A	M20 x 1.5	93	115	136	127	13	616.65.100
100 kg	63 Sh A	M16 x 1.5	93	115	136	127	13	616.85.000

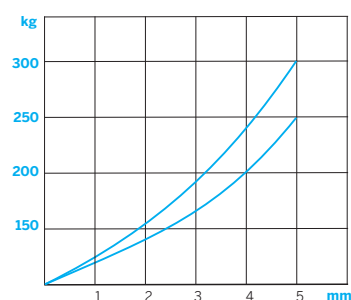
TYPE C



Anti Vibration Mounts of synthetic rubber and metal, able to absorb propeller's thrust. SOLÉ DIESEL engine mounts are designed to eliminate engine vibrations and noise. Also provide an easy alignment.



GRAPHS



TECHNICAL CHARACTERISTICS AND PART NUMBERS

Load	Hardness	A	B Min.	B Max.	C	D	E	Part number
250kg	65 Sh A	3/4" UNF	80	115	164	101	12	616.90.000
300kg	75 Sh A	3/4" UNF	80	115	164	101	12	616.91.000

Dimensions in mm

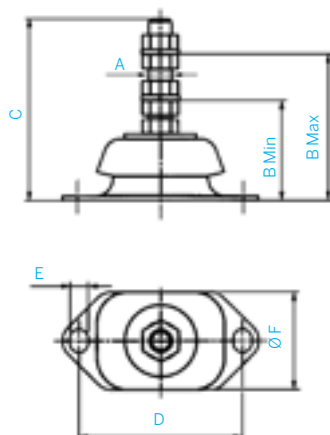
12. ANTI VIBRATION MOUNTS ENGINE MOUNTS



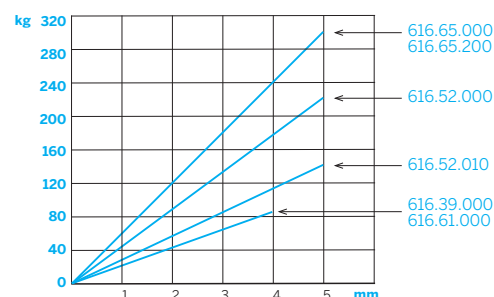
TYPE D



Anti Vibration Mounts of synthetic rubber and metal, able to absorb propeller's thrust. SOLÉ DIESEL engine mounts are designed to eliminate engine vibrations and noise. Also provide an easy alignment.



GRAPHS



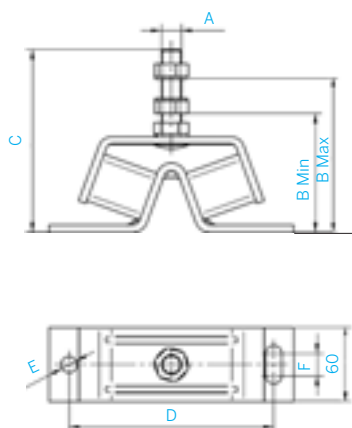
TECHNICAL CHARACTERISTICS AND PART NUMBERS

Load	Hardness	A	B Min.	B Max.	C	D	E	F	Part number
90 kg	65 Sh A	M14 x 1.5	55	75	95	98	11	61	616.39.000
90 kg	65 Sh A	M16 x 1.5	75	86	108	98	11	61	616.61.000
225 kg	55 Sh A	M16 x 1.5	62	75	105	140	13	75	616.52.000
150 kg	45 Sh A	M16 x 1.5	62	75	105	140	13	75	616.52.010
300 kg	65 Sh A	M20 x 1.5	65	75	120	140	13	75	616.65.000
300 kg	65 Sh A	M16 x 1.5	62	75	110	140	13	75	616.65.200

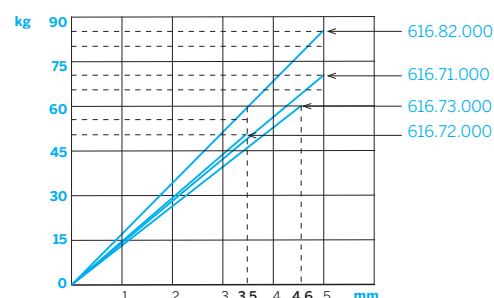
TYPE E



Anti Vibration Mounts of synthetic rubber and metal, able to absorb propeller's thrust. SOLÉ DIESEL engine mounts are designed to eliminate engine vibrations and noise. They also provide an easy alignment.



GRAPHS



TECHNICAL CHARACTERISTICS AND PART NUMBERS

Load	Hardness	A	B Min.	B Max.	C	D	E	F	Part number
70 kg	67 Sh A	M16 x 1.5	90	105	145	175	13	18	616.71.000
50 kg	55 Sh A	M16 x 1.5	90	105	145	175	13	18	616.72.000
60 kg	60 Sh A	M16 x 1.5	90	105	145	175	13	18	616.73.000
85 kg	75 Sh A	M16 x 1.5	90	105	145	175	13	18	616.82.000

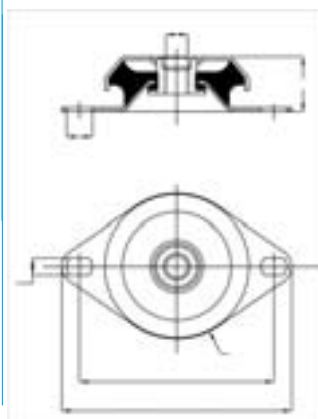
Dimensions in mm

12. ANTI VIBRATION MOUNTS - GENERATOR SET GENERATOR SET MOUNT

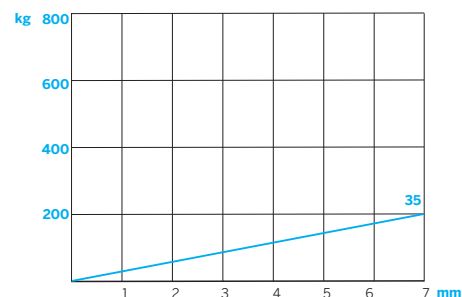
TYPE F



Anti Vibration Mounts of synthetic rubber and metal, able to absorb the propeller's thrust. SOLÉ DIESEL engine mounts are designed to eliminate engine vibrations as well as noise. They also provide for easy alignment.



GRAPHS



TECHNICAL CHARACTERISTICS AND PART NUMBERS

A	B	C	D	E	F	G	Part number
34	12	15	10	94	123	150	616.73.001
41	16	19	12.5	107.5	143	169	616.74.001

Dimensions in mm

ORIGINAL SOLÉ DIESEL ENGINE OIL



Multigrade all-season engine oil. Designed for difficult conditions with heavy loads and extreme temperatures. Solé Diesel engine oil provides the following advantages: longer oil change periods, cleaner engine, minimised wear and counteracts cylinder polishing. Suitable for turbocharged or Naturally Aspirated engines.

TABLE OF PART NUMBERS

Litres	Part number
5	A0105000
20	A0125000

Viscosity / SAE 15W-40

Classification / ACEA E5 / E3, API CH-4 / SJ

13. OTHER ACCESSORIES

ORIGINAL SOLÉ DIESEL ENGINE PAINT



200 ML



750 ML

ORIGINAL SOLÉ DIESEL ENGINE PAINT

TABLE OF PART NUMBERS

Capacity	Colour	Part number
200 ml	Blue	PINES 200
200 ml	Shop Mono	PININ 200
750 ml	Blue	MPINA 0750
750 ml	Grey	MPING 0750

ORIGINAL SOLÉ DIESEL METALLIC ENGINE PAINT

TABLE OF PART NUMBERS

Capacity	Colour	Part number
200 ml	Primer	PINIM 200
400 ml	Blue	PINES 400
1000 ml	Blue	MPINA 1000
400 ml	Varnish	PINES 400B

13. OTHER ACCESSORIES

OIL EXTRACTION PUMP



Manual engine oil suction pump made of brass.

TABLE OF PART NUMBERS

Type	Part number
A	147.14.001
B	147.14.101

13. OTHER ACCESSORIES

ATF OIL



1l



5l

The ideal oil for automatic gearboxes or transmissions that require this type of oil. This oil contains additives that increase its anti-wear properties, excellent power transmission, and increase service life with superb resistance to ageing and deposit formation.

TABLE OF PART NUMBERS

Litres	Part number
1	A0201000
5	A0205000

Name: _____
 Company: _____
 Address: _____
 Tel: _____ Fax: _____
 E-MAIL: _____

1° PRINCIPAL FEATURES OF THE BOAT

Brand and model: _____
 Shipyard: _____

HULL TYPE



☐ Displacement ☐ Semi-displacement ☐ Sail boat ☐ Planing hull ☐ Catamaran ☐ Barge

HULL MATERIAL

☐ Steel ☐ Fibreglass
☐ Aluminium ☐ Wood

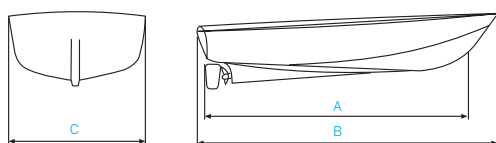
SERVICE

☐ Passenger - pleasure
☐ Heavy duty - commercial
☐ Towing

USE

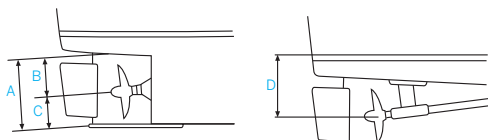
☐ Offshore
☐ Lake

2° DIMENSIONS



A: Length waterline _____ ☐ m ☐ Feet
 B: Length overall _____ ☐ m ☐ Feet
 C: Beam _____ ☐ m
 Full load displacement _____ ☐ Tm ☐ kg

3° STERN GEOMETRY



(Ø max.) A _____ mm
 B _____ mm
 C _____ mm
 D _____ mm
 Shaft angle: _____ °

4° ENGINE DATA - GEARBOX

N° motors _____ Brand _____ Model _____ Power _____ Rating _____ Gearbox red. _____ : 1

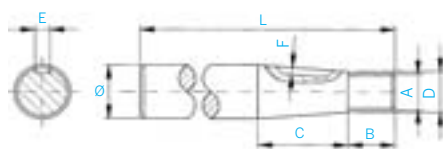
5° PROPELLER DATA

CURRENT PROPELLER

N° blades _____ Spin LH ☐ RH ☐ Diameter _____ Pitch _____

PROPELLER DESIRED

N° blades _____ Spin LH ☐ RH ☐ Ø _____ mm



A _____ mm
 B _____ mm
 C _____ mm
 D _____ mm
 E _____ mm
 F _____ mm

SOL, S.A.
 C-2435, km 2
 Apartado 15
 08760 Martorell (Barcelona)

Tel. 93 775 14 00
 Fax. 93 775 30 13

[http:// www.solediesel.com](http://www.solediesel.com)
 e-mail: tec.dpt@solediesel.com

ORDER FORM, DOUBLE TAPERED SHAFTS

Name: _____

Company: _____

Address: _____

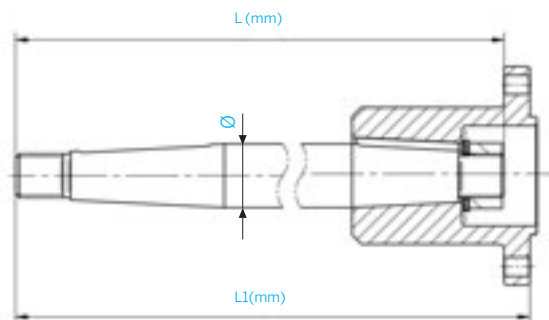
Tel: _____

Fax: _____

E-MAIL: _____

@ _____

1° SHAFT SPECIFICATIONS



L1: _____ mm

L1= DISTANCE BETWEEN THE COUPLING GEAR BOX AND THE END OF THE SHAFT.

MARK Ø Ø (mm):

☐ 35 ☐ 40 ☐ 45 ☐ 50 ☐ 60

MATERIAL

QUANTITY

☐ Standard AISI☐ AISI-329

SHAFT SPIN Mark material and shaft spin

☐ LH☐ RH

2° GEARBOX SPECIFICATIONS

TYPE

- ☐ In line
☐ Angled
☐ V-shaped

Manufacturer: _____

Model: _____

SOLÉ DIESEL advises mounting a flexible coupler to solve possible problems with poor shaft alignment.

SOL, S.A.
 C-2435, km 2
 Apartado 15
 08760 Martorell (Barcelona)

Tel. 93 775 14 00
 Fax. 93 775 30 13

[http:// www.solediesel.com](http://www.solediesel.com)
 e-mail: tec.dpt@solediesel.com



DEFINITION OF SERVICE TYPES

Recreational craft service:

Very intermittent use, with a broad range of demands placed on the engine. The maximum rated power indicated is understood to be only for personal use of craft with a planing hull for which the operating time at the maximum rating is less than 10% of the total time. For the remaining time, the craft must be operated at a level equal to or less than 80% of its maximum rating. Mean limit of engine operating hours:

- 500 hours/year for hydraulic gear boxes (TM).
- 300 hours/year for mechanical gearboxes (TMC).

Typical applications: Private, non-charter use, sporting/recreational activities.

Intermediate service:

Intermittent use, with a broad range of demands placed on the engine.

Mean limit of engine operating hours: 2000 hours/year.

Typical applications: Private and charter use, sporting/recreational activities. Planing, semi-displacement and displacement hulls.

Continuous service:

Continuous use, with little or no variation in the power demands placed on the engine. Unlimited hours per year.

Typical applications: Intensive use in fishing or commercial craft.

IMPORTANT INFORMATION ABOUT THE APPLICATION

- Transmission ratios are based on the use of the gearbox in a system that is torsionally compatible with a torque coupler of suitable input.
- The ratio applies to diesel engines.
- Enquire with the factory about ratios that are applicable to petrol engines or other applications not included in the definition of a given service class.
- The ratios apply to right-turning engines (anticlockwise rotation of the flywheel when viewing the motor from the stern).
- The ratios are for full power in forward and reverse, unless otherwise indicated.
- The transmission ratios must be equal to or greater than those published for the engine for a given application.
1 kW = 1.34 HP.
- The data provided may be modified or corrected with no previous notice.

RESPONSIBILITIES

Responsibility for assuring that the torsional compatibility of the propulsion system is satisfactory lies with the installer of the propulsion equipment. Twin Disc Technodrive accepts no liability for noise or malfunctioning in the gear box, in the flexible coupling or in the transmission parts that may be caused by this type of vibration.

For further information and assistance, contact Twin Disc Technodrive.

MECHANICAL GEARBOXES PLEASURE

Model	Reduction ratios		Power rating/rpm		Max. power rating -kW (Hp)						Max	(*) Weight		Adaptors/comments
	Forward	Reverse	kW	Hp	@2800 rpm		@3000 rpm		@3600 rpm			kg	lb	
TMC40P	1,45	2,13	0,0099	0,0133	18	(24)	23	(31)	26	(35)	4500	9	20	SAE 5, BW
	2,00	2,13	0,0073	0,0098	13	(18)	17	(23)	19	(25)	4500			Max input power 26 KW
	2,60	2,13	0,0052	0,0070	9	(13)	12	(16)	14	(18)	4500			Max power in reverse: 33% of listed ratings
TMC60E	1,55	2,00	0,0126	0,0169	23	(30)	29	(39)	33	(44)	5000	14	31	SAE 4, SAE 5, BW
	2,00	2,00	0,0115	0,0154	21	(28)	26	(35)	30	(40)	5000			Max input power 60 KW
	2,45	2,45	0,0094	0,0126	17	(23)	22	(29)	24	(33)	5000			Max power in reverse: see note
	2,83	2,45	0,0078	0,0105	14	(19)	18	(24)	20	(27)	5000			
TMC 60 A	2,00	2,17	0,0094	0,0126	17	(23)	22	(49)	24	(33)	4500	14	31	SAE 4, SAE 5, BW
	2,45	2,17	0,0094	0,0126	17	(23)	22	(49)	24	(33)	4500			Max input power 52 KW Max power in reverse: 33% of listed ratings
TMC 260	1,54	2,00	0,0199	0,0267	36	(48)	46	(61)	52	(69)	5000	18	40	SAE 4, SAE 5, BW
	2,00	2,00	0,0199	0,0267	36	(48)	46	(61)	52	(69)	5000			Max input power 84 KW
	2,47	2,47	0,0147	0,0197	26	(35)	34	(45)	38	(51)	5000			Max power in reverse: see note
	2,88	2,47	0,0115	0,0154	21	(28)	26	(35)	30	(40)	5000			
SPROP 60	2,15	2,15	0,0105	0,0140	46	(62)	49	(66)	38	(51)	3000	35		SAE 7" BW (ref. / part no. 24813501)

MECHANICAL GEARBOXES INTERMEDIATE SERVICE

Model	Reduction ratios		Power rating/rpm		Max. power rating -kW (Hp)						Max	(*) Weight		Adaptors/comments
	Forward	Reverse	kW	Hp	@2800 rpm		@3000 rpm		@3600 rpm			kg	lb	
TMC40P	1.45	2.13	0.0108	0.0145	26	(35)	26	(35)	26	(35)	4500	9	20	SAE 5, BW
	2.00	2.13	0.0080	0.0107	21	(30)	24	(32)	26	(35)	4500			Max input power 26 KW
	2.60	2.13	0.0064	0.0085	17	(24)	19	(25)	22	(30)	4500			Max power in reverse: 33% of listed ratings
TMC60E	1.55	2.00	0.0151	0.0202	42	(57)	45	(61)	54	(73)	5000	14	31	SAE 4, SAE 5, BW
	2.00	2.00	0.0133	0.0178	37	(50)	40	(53)	48	(64)	5000			Max input power 60 KW
	2.45	2.45	0.0116	0.0155	32	(44)	35	(47)	42	(56)	5000			Max power in reverse: see note
	2.83	2.45	0.0090	0.0121	25	(34)	27	(36)	32	(43)	5000			
TMC 60 A	2.00	2.17	0.0117	0.0156	32	(43)	35	(47)	42	(56)	4500	14	31	SAE 4, SAE 5, BW
	2.45	2.17	0.0117	0.0156	32	(43)	35	(47)	42	(56)	4500			Max input power 52 KW Max power in reverse: 33% of listed ratings
TMC 260	1.54	2.00	0.0231	0.0310	65	(87)	69	(93)	83	(111)	5000	18	40	SAE 4, SAE 5, BW
	2.00	2.00	0.0231	0.0310	65	(87)	69	(93)	83	(111)	5000			Max input power 84 KW
	2.47	2.47	0.0187	0.0251	52	(70)	56	(75)	67	(90)	5000			Max power in reverse: see note
	2.88	2.47	0.0160	0.0214	45	(60)	48	(64)	57	(77)	5000			
SPROP 60	2.15	2.15	0.0090	0.0121	38	(52)	40	(55)	32	(43)	3000	35		SAE 7" BW (ref. / part no. 24813501)

Notes

(*) Weight without oil.

(1) The power rating given refers to forward gear. For reverse:

- (2.1) TMC 60 E red. 1.55: 80% of the reduction ratio 2.00
- (2.2) TMC 60 E red. 2.00 and 2.45: 80% of the value indicated
- (2.3) TMC 60 E red. 2.83 : 80% of the reduction ratio 2.50
- (2.4) TMC 260 red. 1.54 and 2.00: 80% of the value indicated
- (2.5) TMC 260 red. 2.47 and 2.88: 80% of the reduction ratio 2.47

MECHANICAL GEARBOXES CONTINUOUS SERVICE

Model	Reduction ratios		Power rating/rpm		Max. power rating -kW (Hp)						Max	(*) Weight		Adaptors/comments
	Forward	Reverse	kW	Hp	@2800 rpm		@3000 rpm		@3600 rpm			kg	lb	
TMC40P	1,45	2,13	0,0099	0,0133	18	(24)	23	(31)	26	(35)	4500	9	20	SAE 5, BW
	2,00	2,13	0,0073	0,0098	13	(18)	17	(23)	19	(25)	4500			Max input power 26 KW
	2,60	2,13	0,0052	0,0070	9	(13)	12	(16)	14	(18)	4500			Max power in reverse: 33% of listed ratings
TMC60E	1,55	2,00	0,0126	0,0169	23	(30)	29	(39)	33	(44)	5000	14	31	SAE 4, SAE 5, BW
	2,00	2,00	0,0115	0,0154	21	(28)	26	(35)	30	(40)	5000			Max input power 44 KW
	2,45	2,45	0,0094	0,0126	17	(23)	22	(29)	24	(33)	5000			Max power in reverse: see note
	2,83	2,45	0,0078	0,0105	14	(19)	18	(24)	20	(27)	5000			
TMC 60 A	2,00	2,17	0,0094	0,0126	17	(23)	22	(49)	24	(33)	4500	14	31	SAE 4, SAE 5, BW
	2,45	2,17	0,0094	0,0126	17	(23)	22	(49)	24	(33)	4500			Max input power 52 KW Max power in reverse: 33% of listed ratings
TMC 260	1,54	2,00	0,0199	0,0267	36	(48)	46	(61)	52	(69)	5000	18	40	SAE 4, SAE 5, BW
	2,00	2,00	0,0199	0,0267	36	(48)	46	(61)	52	(69)	5000			Max input power 61 KW
	2,47	2,47	0,0147	0,0197	26	(35)	34	(45)	38	(51)	5000			Max power in reverse: see note
	2,88	2,47	0,0115	0,0154	21	(28)	26	(35)	30	(40)	5000			

HYDRAULIC GEARBOXES PLEASURE

Model	Reduction ratios		Power rating/rpm		Max. power rating -kW (Hp)						Max	(*) Weight		Adaptors/comments
	Forward	Reverse	kW	Hp	@2600 rpm	@2800 rpm	@3300 rpm			kg		lb		
TM345	1,54	1,54	0,0361	0,0484	94	126	101	135	110	147	4500	25	55	SAE 3, 4, 5, BW max input power 110 kw
	2,00	2,00	0,0293	0,0393	76	102	82	110	97	130				
	2,47	2,47	0,0220	0,0295	57	77	62	83	73	97				
TM345A (8°)	1,54	1,54	0,0361	0,0484	94	126	101	135	110	147	4500	25	55	
	2,00	2,00	0,0293	0,0393	76	102	82	110	97	130				
	2,47	2,47	0,0220	0,0295	57	77	62	83	73	97				
TM93	1,51	1,51	0,0534	0,0716	139	186	150	200	176	236	4500	53	117	SAE 3, 4, YANMAR LH, BW max input power 184 kw
	2,09	2,09	0,0461	0,0618	120	161	129	173	152	204				
	2,40	2,40	0,0408	0,0547	106	142	114	153	135	180				
	2,77	2,77	0,0356	0,0477	93	124	100	134	117	157				
TM93A (8°)	1,51	1,51	0,0492	0,0659	128	171	138	185	162	218	4500	53	117	
	2,09	2,09	0,0408	80,054	106	142	114	153	135	180				
	2,40	2,40	0,0356	0,0477	93	124	100	134	117	157				
TM485A1 (8°)	1,51	1,51	0,0500	0,0670	130	174	140	188	165	221	4500	36	79	SAE 3, 4, YANMAR 1 LH, BW max input power 210 kw
	2,09	2,09	0,0500	0,0670	130	174	140	188	165	221				
	2,40	2,40	0,0438	0,0587	114	153	123	164	145	194				
TM170	1,50	1,50	0,0785	0,1052	204	273	220	295	257	344	4000	75	165	SAE 3, 4, YANMAR LH, BW max input power r 1,50 / 2,04 257 kw r 2,50 / 2,94 220 kw
	2,04	2,04	0,0785	0,1052	204	273	220	295	257	34				
	2,50	2,50	0,0628	0,0842	163	219	176	236	207	278				
	2,94	2,94	0,0534	0,0716	139	186	150	200	176	236				
TM170A (10°)	1,53	1,53	0,0785	0,1052	204	273	220	295	157	344	4000	75	165	max input power r 1,53 / 2,08 257 kw r 2,60 220 kw
	2,08	2,08	0,0785	0,1052	204	273	220	295	157	344				
	2,60	2,60	0,0628	0,0842	163	219	176	236	207	278				
TM880A (10°)	1,53	1,53	0,0921	0,1234	239	321	258	346	295	395	4000	54	119	SAE 3, 4, YANMAR LH, BW max input power 295 kw
	2,08	2,08	0,0921	0,1234	239	321	258	346	295	395				
	2,60	2,60	0,0628	0,0842	163	219	176	236	207	278				
TM265	1,17	1,17	0,1109	0,1486	288	386	311	416			3000	165	364	SAE 1, 2, 3
	1,50	1,50	0,1109	0,1486	288	386	311	416						
	2,09	2,09	0,1109	0,1486	288	386	311	416						
	2,82	2,82	0,1109	0,1486	288	386	311	416						
TM265A (7°)	1,44	1,44	0,1109	0,1486	288	386	311	416			3000	165	364	
	2,00	2,00	0,1026	0,1375	267	357	287	385						
	2,30	2,30	0,0932	0,1249	242	325	261	350						
TM200	3,60	3,60									3000	235	518	SAE 1, 2, 3
	4,48	4,48												
TM360	3,00	3,00									2600	415	915	SAE 1, 2, 3
	3,50	3,50												
	4,00	4,00												
	5,00	5,00												
TM1200A (7°)	1,44	1,44	0,1461	0,1957	380	509	409	548			3200	115	253	SAE 1, 2, 3
	2,00	2,00	0,1461	0,1957	380	509	409	548						
	2,30	2,30	0,1250	0,1675	325	435	469	469						

HYDRAULIC GEARBOXES INTERMEDIATE SERVICE

Model	Reduction ratios		Power rating/rpm		Max. power rating -kW (Hp)						Max	(*) Weight		Adaptors/comments
	Forward	Reverse	kW	Hp	@2100 rpm	@2500 rpm	@2800 rpm					kg	lb	
TM345	1.54	1.54	0,0225	0,0302	47	63	56	75	63	84	4500	25	55	SAE 3, 4, 5, BW
	2,00	2,00	0,0225	0,0302	47	63	56	75	63	84				
	2,47	2,47	0,0167	0,0224	35	47	42	56	47	63				
TM345A (8°)	1.54	1.54	0,0225	0,0302	47	63	56	75	63	84	4500	25	55	
	2,00	2,00	0,0225	0,0302	47	63	56	75	63	84				
	2,47	2,47	0,0167	0,0224	435	47	42	56	47	63				
TM93	1.51	1.51	0,0443	0,0594	93	125	111	148	124	166	4500	53	117	SAE 3, 4, YANMAR LH, BW max input power 184 kw
	2,09	2,09	0,0383	0,0513	80	108	96	128	107	144				
	2,40	2,40	0,0339	0,0454	71	95	85	114	95	127				
	2,77	2,77	0,0295	0,0395	62	83	74	99	83	111				
TM93A (8°)	1.51	1.51	0,0377	0,0505	79	106	94	126	106	141	4500	53	117	
	2,09	2,09	0,0314	0,0421	66	88	79	105	88	118				
	2,40	2,40	0,0272	0,0364	57	77	68	91	76	102				
TM485A1 (8°)	1.51	1.51	0,0386	0,0517	81	109	96	129	108	145	4500	36	79	SAE 3, 4, YANMAR 1 LH, BW
	2,09	2,09	0,0386	0,0517	81	109	96	129	108	145				
	2,40	2,40	0,0329	0,0440	69	92	83	110	92	123				
TM170	1.50	1.50	0,0636	0,0852	134	179	159	213	178	239	4000	75	165	SAE 3, 4, YANMAR LH, BW
	2,04	2,04	0,0636	0,0852	134	179	159	213	178	239				
	2,50	2,50	0,0509	0,0682	107	143	127	171	143	191				
	2,94	2,94	0,0441	0,0591	93	124	110	148	123	165				
TM170A (10°)	1.53	1.53	0,0597	0,0800	125	168	149	200	167	224	4000	75	165	
	2,08	2,08	0,0597	0,0800	125	168	149	200	167	224				
	2,60	2,60	0,0471	0,0631	99	133	118	158	132	177				
TM880A (10°)	1.53	1.53	0,0700	0,0938	147	197	175	235	196	263	4000	54	119	SAE 3, 4, YANMAR LH, BW
	2,08	2,08	0,0700	0,0938	147	197	175	235	196	263				
	2,60	2,60	0,0471	0,0631	99	135	118	160	132	179				
TM265	1.17	1.17	0,0985	0,1320	207	277	246	330	276	370	3000	165	364	SAE 1, 2, 3
	1,50	1,50	0,0985	0,1320	207	277	246	330	276	370				
	2,09	2,09	0,0985	0,1320	207	277	246	330	276	370				
	2,82	2,82	0,0985	0,1320	207	277	246	330	276	370				
TM265A (7°)	1.44	1.44	0,0984	0,1319	207	277	246	330	276	369	3000	165	364	
	2,00	2,00	0,0911	0,1221	191	256	228	305	255	342				
	2,30	2,30	0,0827	0,1108	174	233	207	277	232	310				
TM200	3.60	3.60									3000	235	518	SAE 1, 2, 3
	4,48	4,48												
TM360	3.00	3,00									2600	415	915	SAE 1, 2, 3
	3,50	3,50												
	4,00	4,00												
	5,00	5,00												
TM1200A (7°)	1.44	1.44	0,1284	0,1721	269	361	320	430	359	482	3200	115	253	SAE 1, 2, 3
	2,00	2,00	0,1284	0,1721	269	361	320	430	359	482				
	2,30	2,30	0,1096	0,1469	230	308	274	367	307	411				

HYDRAULIC GEARBOXES CONTINUOUS SERVICE

Model	Reduction ratios		Power rating/rpm		Max. power rating -kW (Hp)						Max	(*) Weight		Adaptors/comments
	Forward	Reverse	kW	Hp	1800 rpm	2100 rpm	2400 rpm					kg	lb	
TM345	1,54	1,54	0,0194	0,0260	35	47	41	55	47	62	4500	25	55	SAE 3, 4, 5, BW
	2,00	2,00	0,0194	0,0260	35	47	41	55	47	62				
	2,47	2,47	0,0147	0,0197	26	35	31	41	35	47				
TM345A (8°)	1,54	1,54	0,0194	0,0260	35	47	41	55	47	62	4500	25	55	
	2,00	2,00	0,0194	0,0260	35	47	41	55	47	62				
	2,47	2,47	0,0147	0,0197	26	35	31	41	35	47				
TM93	1,51	1,51	0,0408	0,0547	73	98	86	115	98	131	4500	53	117	SAE 3, 4, YANMAR LH, BW
	2,09	2,09	0,0356	0,0477	64	86	75	100	85	114				
	2,40	2,40	0,0319	0,0427	57	77	67	90	77	103				
	2,77	2,77	0,0277	0,0371	50	67	58	78	66	89				
TM93A (8°)	1,51	1,51	0,0261	0,0350	47	63	55	73	63	84	4500	53	117	
	2,09	2,09	0,0216	0,0289	39	52	45	31	52	69				
	2,40	2,40	0,0189	0,0253	34	46	40	53	45	61				
TM485A1 (8°)	1,51	1,51	0,0328	0,0439	59	79	69	92	78	105	4500	36	79	SAE 3, 4, YANMAR 1 LH, BW
	2,09	2,09	0,0328	0,0439	59	79	69	92	78	105				
	2,40	2,40	0,0289	0,0387	52	70	61	81	69	93				
TM170	1,50	1,50	0,0576	0,0772	104	139	121	162	138	185	4000	75	165	SAE 3, 4, YANMAR LH, BW
	2,04	2,04	0,0576	0,0772	104	139	121	162	138	185				
	2,50	2,50	0,0461	0,0618	83	11	97	130	111	148				
	2,94	2,94	0,0398	0,0533	72	96	84	112	96	128				
TM170A (10°)	1,53	1,53	0,0416	0,0557	75	100	87	117	100	134	4000	75	165	
	2,08	2,08	0,0416	0,0557	75	100	87	117	100	134				
	2,60	2,60	0,0333	0,0446	60	80	70	94	80	107				
TM880A (10°)	1,53	1,53	0,0583	0,0781	105	141	122	164	140	187	4000	54	119	SAE 3, 4, YANMAR LH, BW
	2,08	2,08	0,0583	0,0781	105	141	122	164	140	187				
	2,60	2,60	0,0333	0,0446	60	82	70	95	80	109				
TM265	1,17	1,17	0,0869	0,1164	156	210	182	245	209	279	3000	165	364	SAE 1, 2, 3
	1,50	1,50	0,0869	0,1164	156	210	182	245	209	279				
	2,09	2,09	0,0869	0,1164	156	210	182	245	209	279				
	2,82	2,82	0,0869	0,1164	156	210	182	245	209	279				
TM265A (7°)	1,44	1,44	0,0588	0,0788	106	142	123	165	141	189	3000	165	364	
	2,00	2,00	0,0544	0,0729	98	131	114	153	131	175				
	2,30	2,30	0,0494	0,0662	89	119	104	139	119	159				
TM200	3,60	3,60	0,0639	0,0856	115	154	134	180	153	206	3000	235	518	SAE 1, 2, 3
	4,48	4,48	0,0639	0,0856	115	154	134	180	153	206				
TM360	3,00	3,00	0,1235	0,1655	222	298	259	348	296	397	2600	415	915	SAE 1, 2, 3
	3,50	3,50	0,1235	0,1655	222	298	259	348	296	397				
	4,00	4,00	0,1235	0,1655	222	298	259	348	296	397				
	5,00	5,00	0,1235	0,1655	222	298	259	348	296	397				
TM1200A (7°)	1,44	1,44	0,0949	0,1272	170	228	199	267	228	305	3200	115	253	SAE 1, 2, 3
	2,00	2,00	0,0949	0,1272	170	228	199	267	228	305				
	2,30	2,30	0,0801	0,1073	144	193	168	225	192	257				

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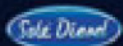
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