



STEYR MONOBLOCK DIESEL MARINE ENGINE SERIES



WHY TO CHOOSE

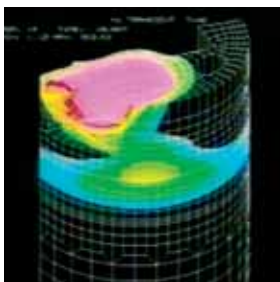
The STEYR MONOBLOCK engine family consists of several design solutions which are the key for highest power density, reliability and safety in operation under all operational profiles and environments. The engines are built for special applications like Military and Light Commercial vehicles, Marine applications and Stationary power plants. Due to the exceptional robust cooling behaviour and the reliable operation even with poor fuel qualities the STEYR MONOBLOCK engines achieve a unique image with vehicle manufacturers and operators around the world.

The STEYR MONOBLOCK is a highly efficient single casting from special high tensile alloy. The design shows a "free liner", with a uniform and most effective cooling jacket, valve seats from "Stellit" material, inserted valve guides. Due to the fact that the design is free from high torque cylinder head bolts and cylinder head gasket there is no deformation to the roundness of the cylinders, no extra stress from different temperature levels.

Only a MONOBLOCK design offers an unlimited flow of cooling water to provide a uniform and effective cooling in the most critical upper section of the cylinder line, while conventional cylinderblock / cylinder-head – design always result in "hot spots" and extra stress due to different temperature levels and cylinderhead bolts.

Durability, Safety, robust Cooling behaviour were the guidelines of the design and led us to this unrivalled product range of compact High Speed Diesels.

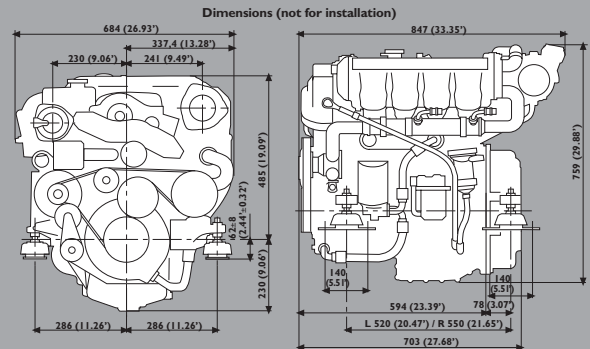
The STEYR MONOBLOCK engine family is equipped with a high pressure STEYR Unit Injector with two stage injection nozzle and up to 2000 bar injection pressure. Design and material selection have been specifically matched to operate the engines with many types and qualities of diesel fuels like Diesel (F54, EN 590ff), Kerosene (JP8 / F34) or Maritime Diesel fuel.



4-CYLINDER

TECHNICAL DATA

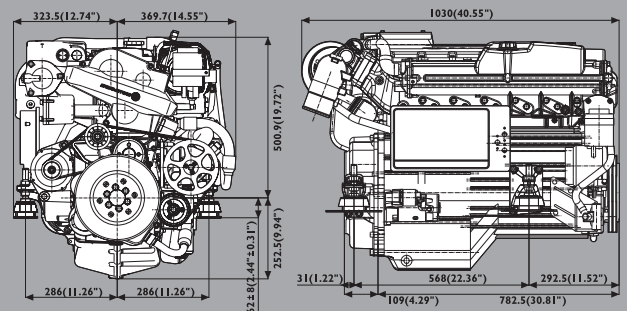
Engine type	54	84	94	114	144	164	174
Displacement l (cu. in.)	2.13 (130)						
Bore/Stroke mm (inch)	85/94 (3.35/3.7)						
Max. power kW/HP	40/54	55/75	66/89	81/110	106/144	120/163	125/170
at speed rpm	3300	3200	3300	3300	3800	4000	4000
Max. torque Nm (lbf ft)	130 (96)	190 (140)	210 (154)	255 (188)	315 (232)	320 (236)	320 (236)
at speed	2000	2050	2800	2500	2300	2800	2000
Weight dry kg (lb)	210	243 (535)	243 (535)	255 (562)	258 (568)	258 (568)	258 (568)
Bodensee II				X	X		
Amended by: EC/2003/44	X	X	X	X	X	X	X
US-EPA Tier 2				X	X	X	X



6-CYLINDER

TECHNICAL DATA

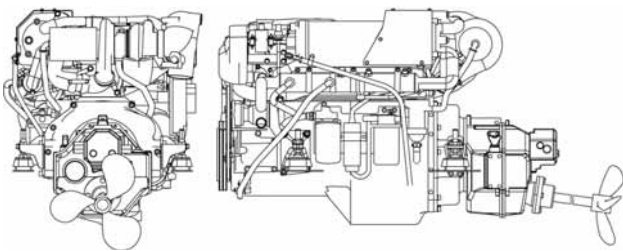
Engine type	126	156	196	236	256	286	306
Displacement l (cu. in.)	3.2 (195)						
Bore/Stroke mm (inch)	85/94 (3.35/3.7)						
Max. power kW/HP	88/120	110/150	140/190	170/230	184/250	205/279	215/292
at speed rpm	2500	2500	3500	4200	4500	4300	4300
Max. torque Nm (lbf ft)	425 (313)	450 (331)	430 (317)	440 (325)	500 (368)	570 (420)	530 (391)
at speed	1800	1550	2800	3300	2800	2500	3800
Weight dry kg (lb)	325 (716)	325 (716)	305 (672)	305 (672)	322 (709)	332 (709)	332
Bodensee II	X	X	X	X	X		
Amended by: EC/2003/44	X	X	X	X	X	X	X
US-EPA Tier 2	X	X	X	X	X	X	X



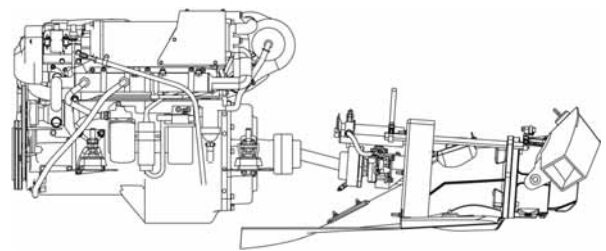
Dimensions (not for installation) –
MO286H43 for jetdrives and
surface drives

WIDE PROPULSION SYSTEM RANGE

INBOARD

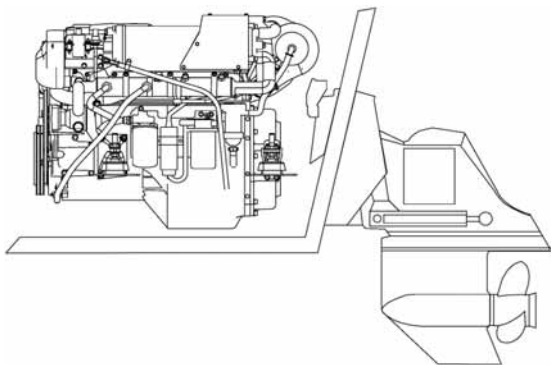


JET DRIVE



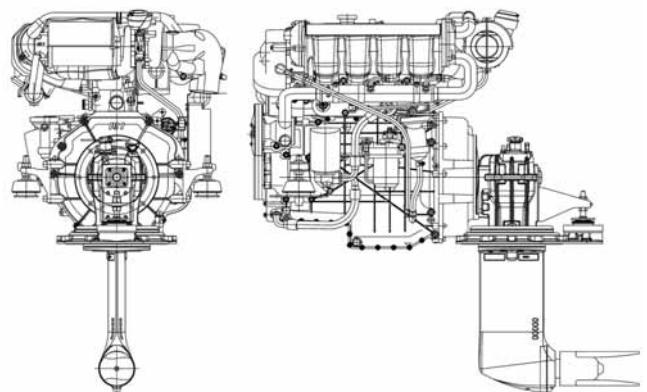
STERN DRIVE

STEYR Marine Diesel package available with BRAVO I, II, III



Repower Kits available for most common Stern Drives

SAIL DRIVE



HIGHLIGHTED APPLICATIONS

TAXIBOATS VENICE 2.000 hours/year ...

WATERJET FAST RESCUE BOATS, China, Norway & Germany ...

PARASAILING BOATS, Turkey & Croatia ...

RESCUE & TENDER BOATS for Coast Guards and for Cruise ships on all seven seas ...

SCC – STEYR CONTROL CENTER

REPRESENTS THE STATE OF THE ART

Engine Interface and Multipurpose Touch Screen-Display
based on SAE J1939 CAN2.0 Databus

Features are:

- intuitive and logical user interface
- integrated Engine Diagnostic
- electronic switches for external inputs / outputs
- GPS speed / position / course / time
- Online Computing of fuel consumption / load / driving range / propeller slip
- Metric, British & US values
- 5,5" transfective polarized TFT Screen
- comes with GPS-Sensor, Installation, brackets, cables



HYBRID PROPULSION

MADE IN AUSTRIA

WORLDWIDE FIRST SERIALIZED HYBRID PROPULSION SYSTEM FOR PLEASURE BOATS

The environmentally friendly HYBRID SOLUTION marks a new chapter in the history of pleasure boat propulsion systems. It not only assures zero emission and low speed manoeuvring in harbours, noiseless drive on inland waters and nature reserves, but also eliminates the need for separate generator units for other onboard equipment. The "zero emission" electric drive mode allows a speed of 5 knots using solely electric propulsion and switches to the combustion engine with an easy turn of the ignition key.

The ingenious propulsion then gets "boosted" by the electric drive and enables quicker acceleration, lowering fuel consumption, improving response and dynamics. Significantly reduced maintenance costs and improved ease of service are further irrevocable arguments that STEYR MOTORS is introducing a serious technological novelty.



4 THE ELECTRIC MOTOR OPERATES IN 4 MODES:

STARTER MODE

The conventional starter motor can be eliminated.

GENERATOR MODE

In Generator Mode, the extended battery pack is optimised and charged.

ELECTRIC CRUISE MODE

No emission, no noise.

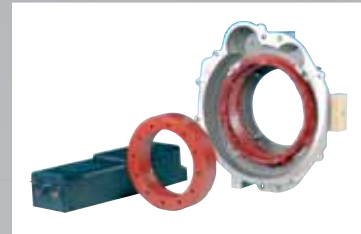
BOOST MODE

An improved response of the drive unit occurs through the boost mode.

STEYR IFG POWER SYSTEM

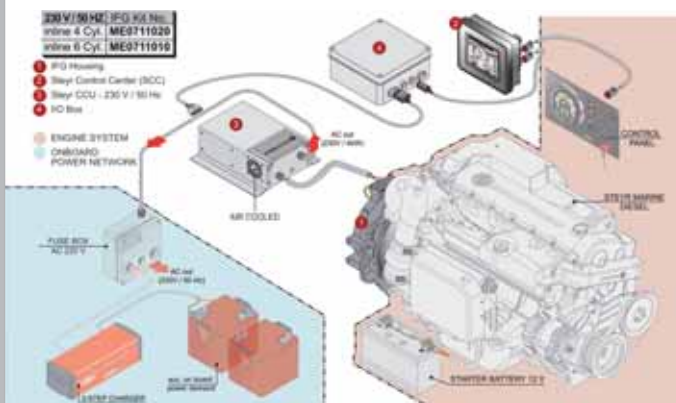
COMFORT AND FEATURES

- SAFE BOATING:** no gas on board necessary
- MORE COMFORT:** because low speed part time generating
- LOW COSTS:** no extra installation required, no extra service required
- MORE SPACE:** integrated compact (30 mm / 1,18") solution
- MORE RELIABILITY:** brushless permanent magnet technology
- ADAPTABILITY:** simple adaptation for gel-batteries
- SUITABILITY:** easy application with off-the-shelf inverters up to 4,2 / 4,5 kW AC output (only for DC models)

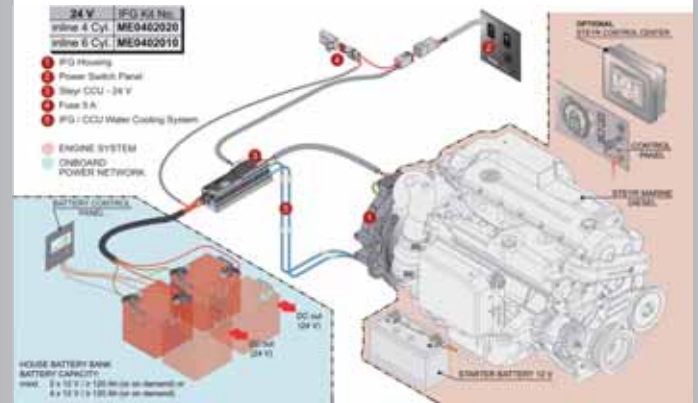


INSTALLATION SCHEME

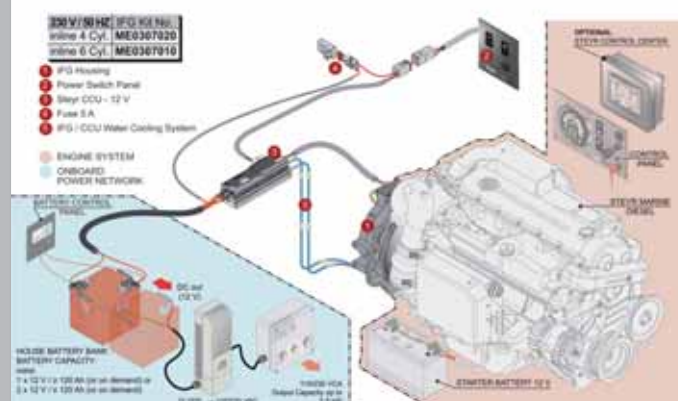
230 V / 50 Hz / 4,0 kW - INTEGRATED FLYWHEEL GENERATOR (IFG) LAYOUT



DC 24 V / 4,5 kW - INTEGRATED FLYWHEEL GENERATOR (IFG) LAYOUT



DC 12 V / 4,2 kW - IFG LAYOUT - WITH INVERTER





APPLICATIONS



PLEASURE BOATS



CATAMARANS



RIB's



GOVERNMENTAL AGENCIES



SAILING BOATS





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