LEES GROUP
Power Solutions

MARINE ENGINES | INDUSTRIAL | GENERATORS | SOLAR

MARINE Application

4341 SRM87

PLEASURE - Diesel
64 kW(87 HP) @ 3200 rpm (A1)

4000

SPECIFICATIONS

Thermodynamic Cycle	Diesel 4 stroke
Air Handling	TAA
Arrangement	4L
Bore x Stroke (mm)	88 X 90.4
Total Displacement (L)	2.199
Valves per cylinder (n°)	2
Cooling System	liquid
Direction of Rotation (viewed facing flywheel)	CCW
Engine management	mechanical
InjectionSystem	MPI

STANDARD CONFIGURATION

Flywheel housing (type)	SAE
Flywheel size (inch)	7½
Air Filter	dry
Turbocharger	-
Heat Excharger	tube type
Exhaust gas water mixer - Exhaust cooled elbow	stainless steel Ø 75 mm
Water charge tank	included
Fuel filter (n°)	1 - rear side
Fuel prefilter	-
Fuel Pump	included
Lift pump	-
Oil filter (n°)	1 - left side
Oil sump	pressed steel with corrosion inhibiting treatment
Oil vapours blow-by circuit	yes
Oil heat exchanger	yes
Oil filler	on timing cover frontward
Starter	12V - 2.2kW
Alternator	12V - 65A
Engine stop device	electrical excitation
Wiring harness	wiring harness and electrical panel
Painting color	white “ICE”

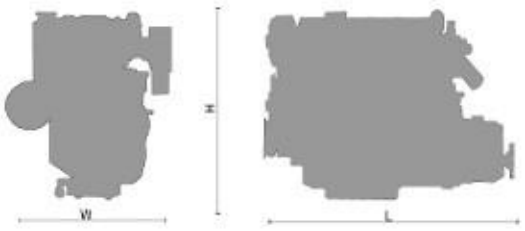
ELECTRICAL SYSTEM

Voltage	12

NOT INCLUDED IN STANDARD CONFIGURATION

Battery - minimum capacity recommended [*] (Ah)	88
Battery - minimum cold cranking capacity recommended [*] (A)	-

WEIGHT AND DIMENSIONS



L = 931
W = 540
H = 642
Dry Weight (without marine gear)= Kg 255

Legend

Arrangement	Air Handling	Turbocharger	InjectionSystem	
L (in line)	TAA (Turbocharged with aftercooler) TC (Turbocharged) NA (Naturally Aspirated)	WG (Wastegate) VGT (Variable Geometry Turbocharger)	M (Mechanical) ECR (Electronic Common Rail) EUI (Electronic Unit Injector)	SD: Stern Drive version PD (POD Drive version)

FOR INFORMATION ON THE AVAILABLE RATINGS NOT LISTED IN THIS DOCUMENT PLEASE CONTACT THE FPT INDUSTRIAL SALES NETWORK OR VISIT OUR SITE WWW.FPTINDUSTRIAL.COM

RATING TYPE	A1	A2	B	C
Maximum power (kW(HP)@rpm)	64 (87) @ 3200	-	-	-
High idle speed (rpm)	3400	-	-	-
Low idle speed (rpm)	± 850	- -	- -	- -
Mean piston speed at rated speed (m/s)	9.6	-	-	-
BMEP at max power (kg/cm)	12.23	-	-	-
Specific fuel consumption at full load (best value) (g/kWh @ rpm)	252 @ 2000	-	-	-
Oil consumption at max rating (% of fuel cons.)		≤ 0.2		
Minimum starting temperature without auxiliaries (°C)		-10 °		
Oil and oil filter maintenance interval for replacement [**] (hours)		250		

* Net Power at flywheel according to ISO 3046/1, after 50 hours running, Fuel Diesel EN 590. Power tolerance 5%.

A1	High Performance Crafts. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 300 hours per year.
A2	Pleasure Commercial Vessels. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 1000 hours per year.
B	Light Duty: Full throttle operation restricted within 10% of use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 1500 hours per year.
C	Medium Duty: Full throttle operation < 25% of use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 3000 hours per year.
D	Heavy Duty

FEATURES	BENEFITS
ENGINE DESIGN FOCS Series - The unit injection pumps, located in the pearlitic grey cast iron cylinder head with the cross flow of the intake and exhaust pipes, allow engine length and weight reduction.CHD Series - The innovative design of the gear train, the injection system design and location and the reducedcylinder pitch allow shortening the engine length.	COMPACTNESS AND LIGHTNESS.
TECHNOLOGICAL INNOVATION FOCS Series - The mechanical pump-injector units provide a better injection timing, resulting in great performanceadvantages.CHD Series - The QLC pump offers high performance on all engine speed. Compared to the conventional injectionpump, QLC features a one-way fl ow and a unique delivery fuel system that prevent unwanted variations oninjection pressure and timing, eliminating gas bubbles.	HIGH PERFORMANCE AND EFFICIENCY IN ANY LOAD CONDITION.
NOISE & VIBRATION REDUCTION FOCS Series - Excellent results have been obtained as of noise emission reduction, thanks to the location of the injection system in the cylinder head, to a ribbing system along all the engine structure and to the complete absence of gears.CHD Series - The innovative design of the fuel injection system, as well as the use of hypereutectic pistons reducing piston slap and of a heavy-duty block, allow a strong reduction of noise levels that are normally associated withthose of diesel engines. The special crankshaft balancing ensures exceptionally low vibrations and an excellent operational performance.	EXCELLENT REDUCTION OF NOISE AND VIBRATION LEVELSNAVIGATION CONFORT
REDUCED EMISSIONS FOCS Series - The injection system has been tested for exhaust emission levels to the lowest limits, thuspositioning these engines well below the EEC requirements.CHD Series - The advanced design of the injection and combustion systems results in reduced environmentalimpact.	REDUCED ENVIRONMENTALIMPACT
ACCESSORIES - MAINTENANCE - NETWORK A wide range of accessories including the sail drive option are available for the 4000 Series.FOCS Series - Components subject to more frequent checking are located in the upper part of the engine, justunder the cover. This allows easy and low cost equipment maintenance.CHD Series - All maintenance operations are easier due to the simple construction of the product. Furthermore,for the QLC pump maintenance the services of a pump specialist are not required, as parts servicing can becompleted by any qualifi ed workshop.	SAIL DRIVE AVAILABILITYEASY & ECONOMICAL MAINTENANCEWORLDWIDE SERVICE NETWORK

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