

2015M

210–500 kW (280–670 bhp) at 1500–2100 rpm

The engine company.



Superiority is the sum of all the details.

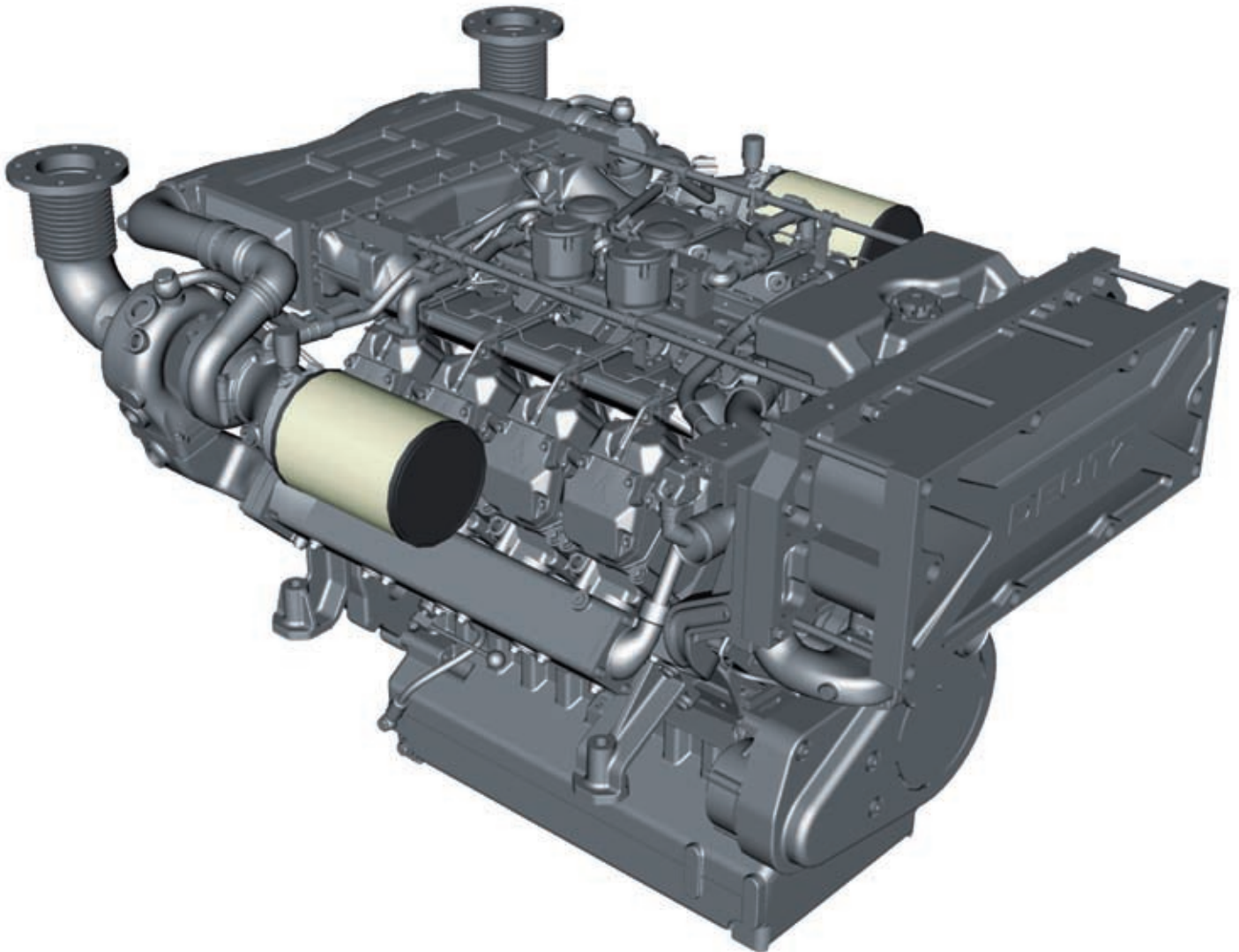
With a long maritime tradition and the sound basis of a leading engine manufacturer DEUTZ engines have an international reputation as reliable, durable and efficient propulsion units for work boats as well as commercial vessels and their auxiliary drives.

The requirements of the engines for the main and auxiliary drives of ships vary. But the key expectations are quite simple: Economy and availability are of the most important for every application.

To the benefit of our customers DEUTZ has focused their long term experience in compact engines combined with the special marine know-how. The result are the compact DEUTZ marine engines.

Technically mature and state-of-the-art in engine development, our engines offer the security and reliability in everyday use that our customers demand.

DEUTZ drives also set high standards where economy is concerned. Because in addition to state-of-the-art engine technology and a practical design our drives also feature an exemplary cost/benefit ratio. Great economic values and excellent exhaust gas emissions for the benefit of the environment are all part of the DEUTZ standard.



Features

Modern water-cooled 6- and 8-cylinder engines in V-configuration with 90° angle | Water-cooled turbocharger and exhaust manifold | Modern injection system controlled by electronic solenoid valves | **Charge air cooling with engine coolant** | **Approved multi-parallel cooling system®** | Compact dimensions | Front and rear end power take-off | Additional gear driven power take-off options for hydraulic pumps and compressors | Classified marine engine including modern control system | In compliance with marine emission standards IMO Tier 2, CCNR Stage II, EU Stage II (2004/26/EG) and US EPA Tier 2 | The particulate matter (PM) emissions are 30% lower than the required limit value

Your benefits

- The modern injection system ensures low fuel consumption and therefore a high level efficiency
- The approved cooling system reduces the fuel consumption and is a further example of the high reliability
- Low maintenance costs due to heat exchanger as plate cooler
- Space-saving design and low noise emissions reduce installation costs
- High reliability and durability due to integrated pipes
- Independently approved safety and quality
- The low PM emission level qualifies the engine for incentive programmes

Engine description

Type of cooling:	Single-circuit mixture cooling as indirect cooling (DEUTZ Multi-parallel cooling system®) at raw water cooling with built-on plate heat exchanger, circulation coolant pump, compensation tank, thermostat and raw water pump. At keel cooling with coolant circulation pump and integrated thermostat. Integrated compensation tank
Crankcase:	Cast iron crankcase with wet liners
Crankcase breather:	Closed-circuit system, vacuum-controlled
Cylinder head:	Individual cross-flow cylinder heads made of grey cast iron
Valve control:	Overhead valves in the cylinder head, four-valve technology, actuated by tappets, pushrods and rockers. Control is driven by a central camshaft
Piston:	3-ring pistons, cooled by cooling oil jets
Connecting rod:	Drop-forged steel
Crankshaft:	Drop-forged steel, with bolted counterweights, V6 with 30° split pins
Crankshaft and big end bearing:	Tri-metal friction shell bearings/sputter shell bearings
Camshaft:	Steel camshaft, driven by gear
Lubrication:	Forced-feed lubrication with gear pump, with integrated oil cooler and oil filter cartridge in the main lubricating oil flow; duplex change over filter optional
Turbocharging:	Two water-cooled turbochargers with charge air cooler on the flywheel side; water-cooled exhaust manifold
Fuel injection system:	DEUTZ MV-system. Single injection pumps (pump-line-nozzle, PLN) with electronic control. Double walled injection lines for high pressure lines as an option
Fuel system:	Mechanical gear pump, exchangeable cartridge for fuel filter, optional duplex change over filter
Alternator:	Three-phase alternator 28 V / 55, 80 or 140 Ampere
Starter:	24 V/5.5 kW
Heating system:	Optional connection possibility for heater or hot water boiler
Range of variants:	Hydraulic pumps, flywheels, SAE connecting housing, oil pans, air filters, engine feet with elastic mounts, starters, alternators, engine control system

Technical data

Engine type		TCD 2015 M V6	TCD 2015 M V8
Number of cylinders		6	8
Bore/stroke	mm in	132/145 5.2/5.7	132/145 5.2/5.7
Capacity	l cuin	11.9 726.2	15.9 970.3
Compression ratio		17.5	17.5

Powers for ship engines		TCD 2015 M V6	TCD 2015 M V8
acc. to power group A*			
at 1800 rpm	kW bhp	315 422	440 590
at 1900 rpm	kW bhp	327 439	450 604
at 2100 rpm	kW bhp	327 439	450 604
acc. to power group B			
at 1800 rpm	kW bhp	350 469	490 657
at 1900 rpm	kW bhp	360 483	500 670
at 2100 rpm	kW bhp	360 483	500 670

Powers for on-board units		TCD 2015 M V6	TCD 2015 M V8
at 1500 rpm – G* (“N”)	kW bhp	280 (300) 375 (402)	382 (420) 512 (563)
at 1800 rpm – G* (“N”)	kW bhp	300 (330) 402 (443)	420 (450) 563 (604)

* classifiable

1 kW = 1.341 bhp

Power group A: Blocked useful power for unlimited continuous operation, SCFN or MCFN according to ISO 3046-1. Utilisation > 80%, operating time > 3000 hours.

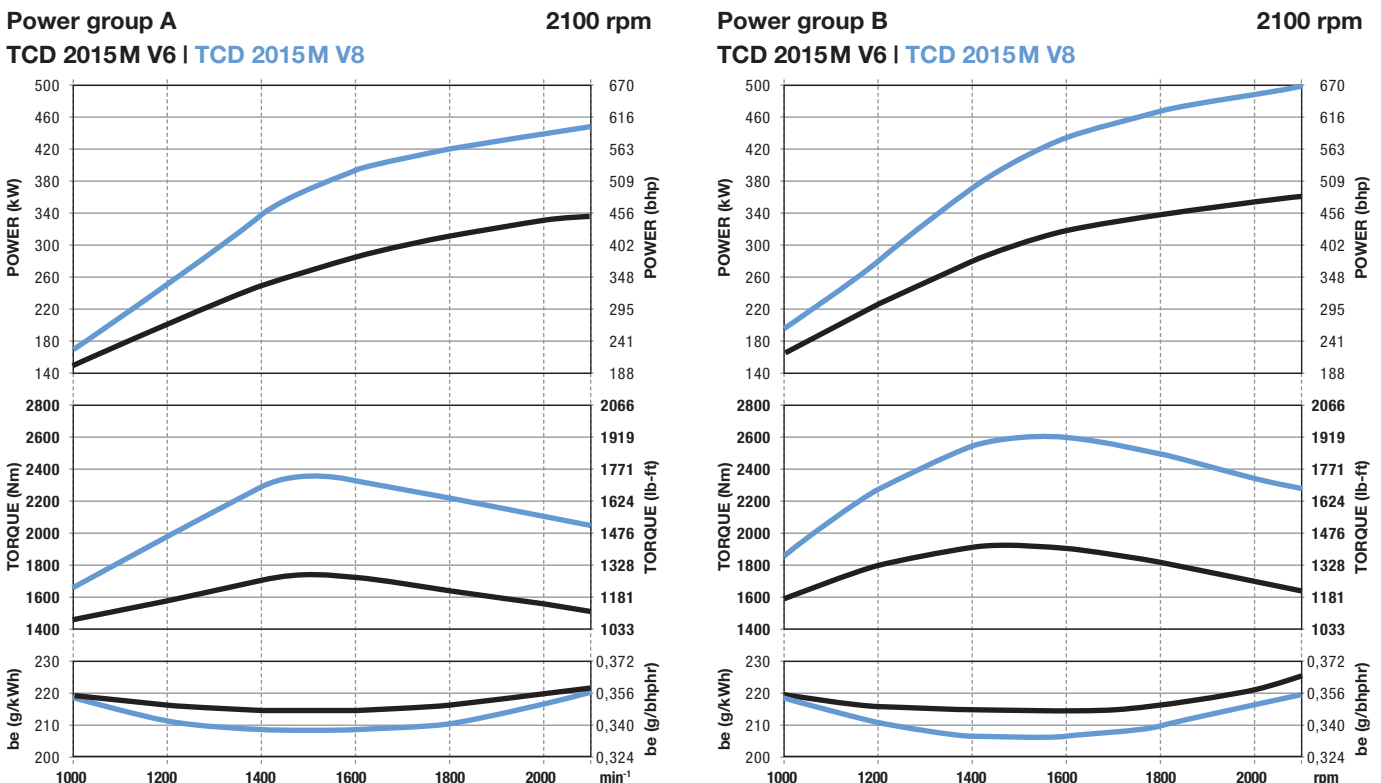
Power group B: Blocked useful power for unlimited continuous operation, SCFN according to ISO 3046-1. Utilisation < 70%, operating time < 3000 hours per year.

Powers for on-board units: “G” continuous power, SCXN or MCXN according to ISO 3046-1. Overloadable by 10% for 1 hour within 12 hour operation.

“N” continuous power, SCXN according to ISO 3046-1. Overloadable by 10% for 1 hour within 12 hour operation. Perm. av. utilisation ≤ 80%.

The data on this data sheet are for information purpose only and are not binding values. The data in the offer is decisive.

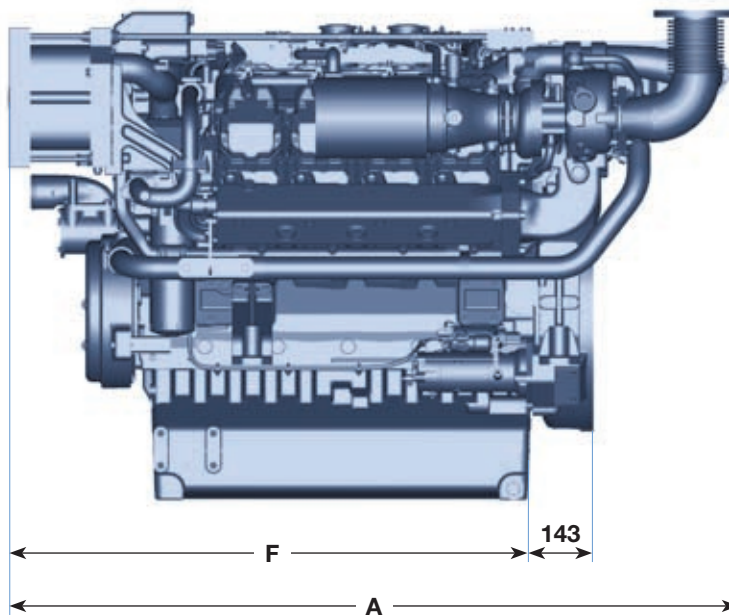
Standard torque curves



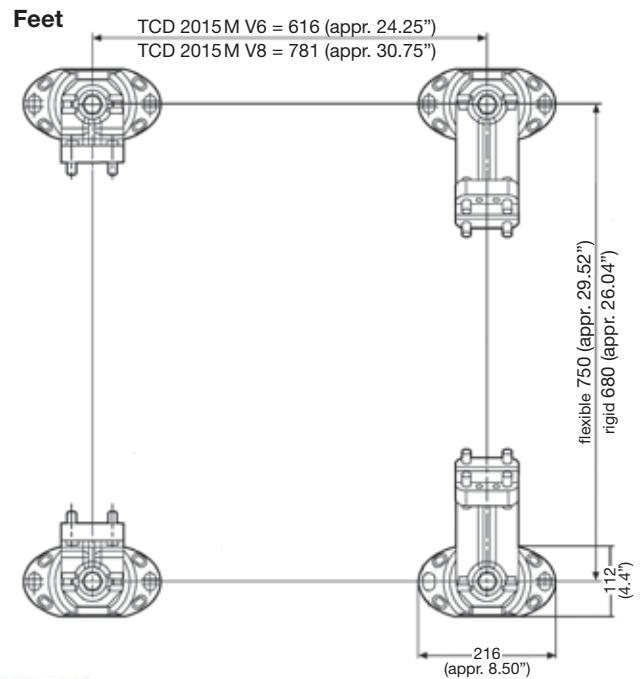
Raw water cooling

Dimensions		TCD 2015M V6	TCD 2015M V8
A	mm in	1510 59.45	1705 67.13
B	mm in	1315 51.77	1330 52.36
C	mm in	1140 44.88	1140 44.88
D	mm in	440 17.32	440 17.32
E	mm in	700 27.56	700 27.56
F	mm in	1035 40.75	1225 48.23

Weight		TCD 2015M V6	TCD 2015M V8
Weight dry incl. heat exchanger	kg lbs	1320 2909	1540 3394



Exhaust flange diam.		6-cyl.	8-cyl.
inside	mm in	ø 68 2.68	ø 105 4.13
outside	mm in	ø 138 5.43	ø 196 7.72
bolt holes	mm in	4x ø 14 0.55	8x ø 14 0.55

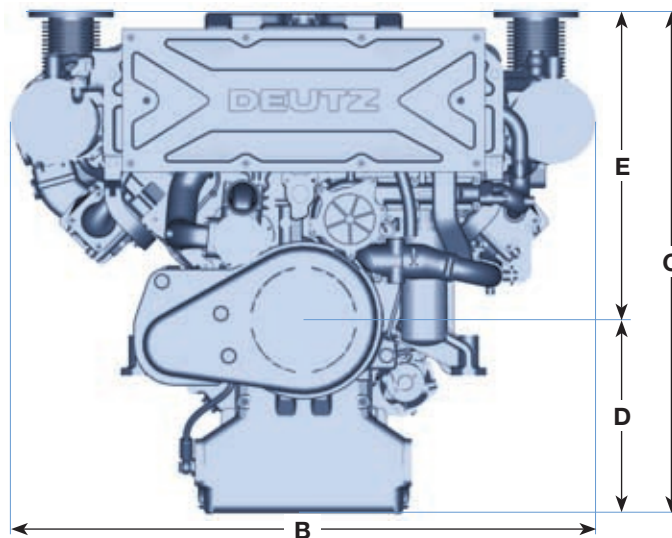


Fuel return tank
internal thread union nut
M18 x1.5

Fuel inlet
internal thread union nut
M18 x1.5

Raw water outlet
ø 70 (appr. 2.76")

Raw water inlet
ø 80 (appr. 3.16")



Keel cooling

Dimensions		TCD 2015M V6	TCD 2015M V8
A	mm in	1520 59.84	1680 66.14
B	mm in	1315 51.77	1330 52.36
C	mm in	1230 48.43	1230 48.43
D	mm in	440 17.32	440 17.32
E	mm in	790 31.10	790 31.10
F	mm in	1045 41.14	1210 47.64

Weight		TCD 2015M V6	TCD 2015M V8
Weight incl. keel cooling	kg lbs	1260 2777	1480 3262

Coolant in
ø 50
(appr. 1.97")

Exhaust flange diam.

		6-cyl.	8-cyl.
inside	mm	ø 68	ø 105
	in	ø 2.68	ø 4.13
outside	mm	ø 138	ø 196
	in	ø 5.43	ø 7.72
bolt holes	mm	4x ø 14	8x ø 14
	in	4x ø 0.55	8x ø 0.55

Fuel supply
internal thread union nut
M18 x 1.5

Coolant out
ø 50 (appr. 1.97")

Fuel return
internal thread union nut
M18 x 1.5

Good service is not a question but the answer.



Our customers demand highest product quality and a clearly predictable performance of our engines economically and ecologically. Everywhere in the world and under all conditions. We are well prepared for this because our service and after-sales departments have a broad, technically sound basis.

More than 800 sales and service partners in 130 countries serve our customers day and night supported by three Logistics Centres in which about 160,000 spare parts items ensure fast repair of the engine in all cases.

This guarantees optimum support of all DEUTZ engines throughout their lifecycle. Our intensively trained and highly motivated service personnel ensures competent consulting and fast assistance for all types of problems.

Individual service and maintenance contracts, quick delivery of spare parts and excellent training offers round off this convincing offer because at DEUTZ you buy more than just the engine.

Rely exclusively on genuine DEUTZ parts because they are specially designed and manufactured for DEUTZ engines as the components upon delivery.

Our parts are tested and optimised continuously and have been designed for your special application in many cases and are not available in this form on the "grey" market by independent third party suppliers. Protect your warranty claims and the performance and life of your DEUTZ engine. Because your DEUTZ only stays a DEUTZ with genuine parts.

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