

MWM **SERIE 10**



They are the result of an intense research work in the search of solutions for a market in constant evolution. The MWM 10 Series engines have a modern layout, free from piping and hoses, responding with efficiency in the most severe use demands in all the powers sectors. MWM 10 Series accomplishes to the most severe international legislations of environmental control, in the same way that the MWM Sprint family.

M a i n F e a t u r e s

- **high performance**
- **reduced number of parts**
- **accessories moved by gears**
- **individual cylinder heads and removable wet liners**
- **4 or 6 cylinders, respectively 4,3 and 6,4 litres**
- **Low emissions level, in agreement with the international EURO and EPA norms**

- **In natural aspiration, turbo and turbo with after cooler versions, with mechanical and electronic fuel injection**
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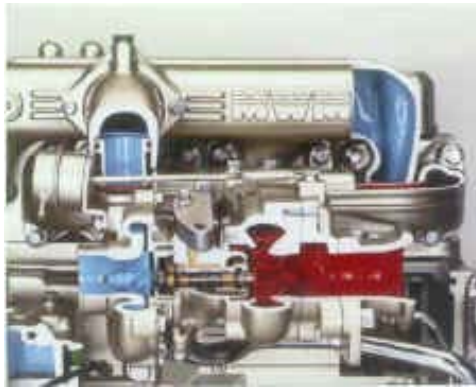
A p p l i c a t i o n s

- **Automotives segments (pick-ups, trucks and buses)**
 - **industrial**
 - **agricultural**
 - **marine**
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Advanced design. Obtained through modern CAE/CAD processes, it allowed optimized dimensions and weights allied to the high robustness and reduced numbers of components. As result, they were born engines of larger lifetime, larger reliability and larger easiness access to the maintenance items.



Turbocharger developed to achieve the requirements of each power level, favors maximum performance with minimum fuel consumption. The version with "waste gate" valve optimizes the air intake so much in low as in high speeds providing better driveability.



The engine main components and accessories are moved by gears as injection pump, water pump, lubricant oil pump, air compressor, hydraulic pump and / or vacuum pump, reduces the risks of equipments idles caused by belts breaks.



Lubricating oil cooler integrated into the block with system of plates. Larger efficiency and compact dimensions.



High torque and power and low fuel consumption are occasioned by an efficient combustion system and high technology that includes: last generation pistons and rings, high pressure fuel injection system with mechanical or electronic regulators.



The 10 Series engines are capable to accomplish the most rigorous gases emissions and noise norms. The Euro II norm, is already accomplished by MWM's technology with rotary injection pump with mechanical regulator in engines exported to Europe.



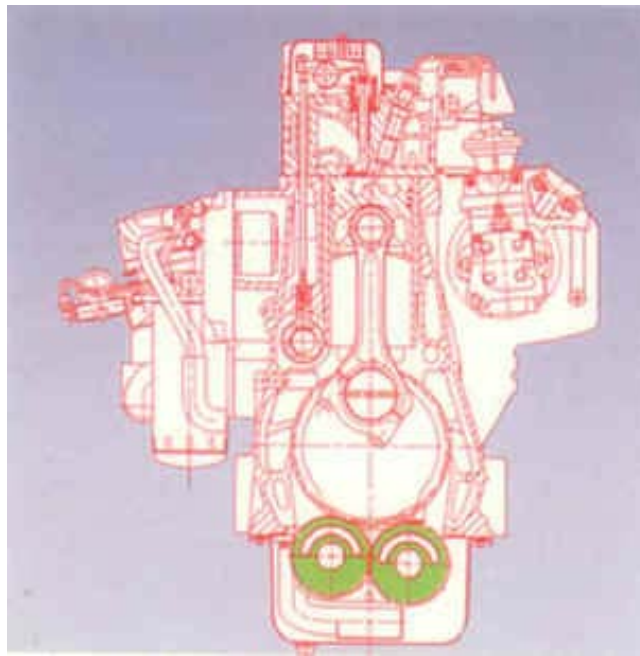
Individual cylinder heads and high level of components changeability between the 10 Series 4 and 6 cylinders engines brings economy at the moment of the maintenance and spare parts stock.



Removable wet liners propitiate reduced thermal deformation and better lubricant oil consumption control under severe use conditions. Characteristic that grants high robustness and extends the engine lifetime.



Masses balancer, available in the 4 cylinders version, eliminates the second order vibrations guaranteeing larger comfort in operation.



Engines noises emissions standard in the same category demonstrates the low levels obtained with the 10 Series engines. The engine block structure guarantees high durability, low noise propagation, besides incorporating several components. The location of the injection pump on the "cold" side of the engine guarantees a better stability during the operation.



Results obtained with the turbocharged aftercooler engine, re-entrant combustion camera and Bosch VP 14 rotary injection

Bore x Stroke	mm	103 X 129										
Displacement	litros	4.3	4.3	4.3	4.3	6.45	6.45	6.45	6.45	6.45	6.45	6.45
Compression Ratio		17:01	16:01	16:01	17:01	17:01	17:01	16:01	16:01	16:01	17:01	17:01
Rated Power	kW(cv)	70(95)	99(135)	88(120)	107(145)	104(142)	108(146)	135(184)	143(195)	151(206)	132(180)	187(254)
Rated Speed	rpm	2.600	2.600	2.600	2.600	2.800	2.800	2.500	2.600	2.600	2.800	2.600
Peak Torque	Nm	284	415	382	500	412	440	630	632	657	569	824
Peak Torque Speed	rpm	1700	1600	1600	1600	1600	1500	1500	1500	1500	1600	1500
Emission Standards		EURO 1	EURO 1	EURO 2	EURO 2	EURO 1	EURO 1	EURO 1	EURO 1	EURO 2	EURO 2	EURO 2
Dry Weight	kg	375	380	380	380	480	480	480	480	480	490	490

DIMENSIONS (mm)	4.10	4.10T	4.10 TCA	4.10 TCA	6.10	6.10	6.10 T	6.10 T	6.10 T	6.10 TCA	6.10 TCA
Height	826	826	826	826	855	855	855	855	855	877	877
Length	787	787	787	787	1118	1118	1118	1118	1118	1162	1162
Width	723	723	723	723	710	710	710	710	710	710	710

* NA = Natural Aspirated

* T = Turbo

* TCA = Turbo Aftercooler

STATIONARY

Engine Model		4.10	4.10 T	4.10 TCA	6.10	6.10 T	6.10 TCA
Aspiration Type		Natural	Turbo	Turbo Aftercooler	Natural	Turbo	Turbo Aftercooler
Disposition / Cylinders		L 4	L 4	L 4	L 6	L 6	L 6
Bore x Stroke	mm	103 X 129					
Displacement	litros	4.3	4.3	4.3	6.45	6.45	6.45

Compression Ratio			17:01	16:01	16:01	17:01	16:01	16:01
Rated Power	A 1500	kW(cv)	45(61)	70(95)	88(120)	-	100(136)	121(165)
		kVA					114	138
	A 1800	kW(cv)	56(76)	88(120)	107(145)	-	121(165)	143(195)
		kVA					138	163
	A 2500	kW(cv)	70(95)	99(135)	103(140)	104(142)/2800	121(165)	143(195)
		Torque	284 / 1800	411 / 1600	431 / 1600	412 / 1600	563 / 1600	632 / 1600
		kVA					125	150
Max. Power locked	A 1500	kW(cv)	45(61)	70(95)	88(120)	-	110(150)	132(180)
		kVA					125	150
	A 1800	kW(cv)	56(76)	88(120)	107(145)	-	132(180)	158(215)
		kVA					150	180
	A 2500	kW(cv)	77(105)	109(149)	113(154)	114(156)/2800	132(180)	158(215)
		Torque	284 / 1800	411 / 1600	431 / 1600	412 / 1600	563 / 1600	632 / 1600

Emission Standards			EPA 98 / EURO 1	EPA 98 / EURO 1	EPA 98 / EURO 1	-	-	-
Dry Weight	kg		375	380	380	620	630	645

DIMENSIONS (mm)		4.10	4.10 T	4.10 TCA	6.10	6.10 T	6.10 TCA
Height		884	844	844	-	-	-
Length		857	857	857	-	-	-
Width		835	765	772	-	-	-

(Radiator if dimensions)

* NA = Natural Aspirated

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The Kva output power has feature instruction aiming the efficiency of generators manufacturer specifications

MARINES

Engine model		6.10 TCA
Aspiration Type		Turbo Aftercooler
Disposition / Cylinders		L 6
Bore x Stroke	mm	102 x 120
Displacement	litros	6.45
Compression Ratio		16:01
Rated Power	kW(cv)	294(400)

Max. Rated Speed	rpm	2.600
Max. Power locked	kW(cv)	323(440)
Peak Torque Speed	rpm	2.600
Dry Weight	kg	505

DIMENSIONS (mm)	6.10 TCA
Height	-
Length	-
Width	-

* TCA = Turbo Aftercooler

MWM doesn't market its products directly to the customer, please seek our Authorized Distributor.

The factory advises a previous consultation to the MWM Authorized Network about the described engines. MWM Motores Diesel Ltda. reserves the right of changing the technical specifications of its products without previous warning, due to its constant technological progresses.