

628



Tailored Power Systems and Service from DEUTZ MWM

DEUTZ MWM power systems provide the required power on duty by taking account the loads of generators – reliable and environment-friendly, with high availability and minimal maintenance.

DEUTZ MWM Product Support covers all phases of operation, from supply through production to the installation and commissioning of the complete power plant. In consultation, with knowledge and experience, it is available for you.



Innovative technology and high environmental standards of engines and power plants, with economical use of energy ranging from emergency generating sets to flexible diesel power plants for base load operation, to fuel energy systems, and plant or marine main and auxiliary engines.

Complete maintenance is provided for the user's staff. After commissioning, we guarantee service staff are available throughout the world around the clock.

The 628 Series in Detail

Construction

The new steel cylinder head is manufactured from a high-strength alloy steel, which is quenched and tempered to maximize its strength and rigidity.

Construction

The displacement head is designed to provide high intake and exhaust flows. The valves, head, and rings are made with precision manufacturing techniques.

The general service cylinder design is designed to meet every application by means of individual service cylinder options.

Cylinder Head

The designed displacement is an important factor in selecting the head for the pump and engine. The figure below shows typical valve lift and bearing area requirements for the 628 series.

Notes

Method of oil seal groove for valve stem (1) is used with the figure below. The oil seal groove part is a precision deep compression ring groove in the valve guide (2) groove in the steel pipe, and the oil seal groove is the groove around the valve guide, and the figure below is the figure below.

The cylinder head is made of steel and is quenched and tempered to maximize its strength and rigidity. The figure below shows the typical valve lift and bearing area.

Cylinder Head

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The G28 Series in Detail



Injectors

Two sets of two injectors each can control the flow of air and fuel to each cylinder. The fuel injectors are made of stainless steel, which allows for longer life, as the stainless-steel fuel injectors do not corrode. Each set of two injectors is fuel-metering both the fuel-air ratio in the cylinder. With the injectors, fuel flow varies the cylinder speed with varying air, in order to control speed.

Control

The engine control system is controlled by a microprocessor. The engine control system is located in the engine and controls the engine's fuel injection.

Relay gear

A characteristic feature of the engine is the use of a gear relay gear. The gear relay gear is used to control the engine's fuel injection. The gear relay gear is located in the upper part of the cylinder.

Injection equipment

The engine injection system consists of two injectors per cylinder. The injectors are made of stainless steel, which allows for longer life, as the stainless-steel fuel injectors do not corrode. Each set of two injectors is fuel-metering both the fuel-air ratio in the cylinder. With the injectors, fuel flow varies the cylinder speed with varying air, in order to control speed.

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Engine fueling system

The fuel injection system consists of two injectors per cylinder. The injectors are made of stainless steel, which allows for longer life, as the stainless-steel fuel injectors do not corrode. Each set of two injectors is fuel-metering both the fuel-air ratio in the cylinder. With the injectors, fuel flow varies the cylinder speed with varying air, in order to control speed.

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Airflow system

The exhaust system controls only a minimal number of air mass flow relative to the air mass that enters the cylinder. The intake system is designed to provide the maximum amount of air to the cylinder. The intake system is designed to provide the maximum amount of air to the cylinder. The intake system is designed to provide the maximum amount of air to the cylinder.

Substitution system

The intake system is designed to provide the maximum amount of air to the cylinder. The intake system is designed to provide the maximum amount of air to the cylinder. The intake system is designed to provide the maximum amount of air to the cylinder.

Cooling water system

Different cooling systems are available depending on the engine and the engine's operating conditions. The cooling system is designed to provide the maximum amount of air to the cylinder.

- **Water-cooled cooling system**
A common cooling system for most engines. The cooling water is pumped through the engine and the radiator.
- **Oil-cooled cooling system**
A common cooling system for most engines. The cooling oil is pumped through the engine and the radiator.
- **Water-cooled cooling system**
A common cooling system for most engines. The cooling water is pumped through the engine and the radiator.
- **Oil-cooled cooling system**
A common cooling system for most engines. The cooling oil is pumped through the engine and the radiator.

Starting system

The engine can start by itself, but it is usually started by the starter motor through the ignition system.



Excellence in Engines and Logistics



*Proved Storage –
Engine Sales and
After-Sales Service*

- **2012 Global Automotive Sales** – 2012 was a record year for the company of the VW group.

Our experienced service for private customers for the company group of VW, FIAT and VW Commercial and more parts.

- **Our service network** extends all over the globe. In total, over 1000 service centers in 100 countries with 10000 employees are serving customers for various applications.

For management success, the great success is achieved from high production when manufacturing systems. The structure requires complex & clear workflow models in both the sales activities as well as in the service, manufacturing and spare part supply chain. The VW Commercial staff is ready to accompany customers and to provide the highest of service quality. Complete part solutions.

- **Private customers** benefit from VW, FIAT, VW Commercial & VW Commercial group's distribution.

The manufacturing and spare services in an emergency are made available a special team (Service emergency service). The "Top Job" is a commitment. These teams ensure the customer with our emergency staff in 24 hours emergency care at the destination. Sales, Service, Technology – worldwide, round the clock.

Efficient and low cost.



Innovative quality is

- Service for VW, FIAT and VW Commercial groups
- Service personnel and fleet parts
- Best service in the original manufacturer's service network
- Network of a worldwide service network



Engine Series 628 Diesels for Sets



E

Series / Stroke	mm	240 / 260				
		14.8L			17.0L	
Number of cylinders		6	6	6	12	12
Maximum torque	200°	170	197.5	194	210	235.5
Engine type		SD16V628E	SD16V628E	SD16V628E	SD17V628E	SD17V628E

Application	Cylinder stroke mm	Fuel in L/hour	Service power D				
			kW				
A B C	140/140	SD16V	160	170	174	180	190
			160	170	174	180	190
D E F	140/140	SD17	160	170	174	180	190
			160	170	174	180	190

All speeds for maximum torque (2000 rpm) Max. torque (2000 rpm) Max. torque (1500 rpm) Max. torque (1200 rpm) Max. torque (900 rpm)	Fuel consumption	All speeds for maximum torque (maximum torque) g/kWh				
		2000	1500	1200	900	750
160	160	164	168	170	172	
170	170	174	178	180	182	

Series	Max. torque speed	Life of maximum torque	Max. torque constant at the same maximum torque
rpm	rpm	g/kWh	g/kWh
SD16	1400	1	21.2
SD17	1400	1	21.2

1) Max. torque at 2000 rpm (SD16/SD17) per 1°

SD16: Maximum net torque performance available for 10 full 1 hour shifts or other international equivalent of 10 hours of operation.

SD17: Maximum net torque performance available for 10 full 1 hour shifts or other international equivalent.

2) The engine performance (SD16/SD17) per 1° is determined under the operating conditions of the manufacturer's test and will therefore be the following reference conditions:

Reference altitude	1000m
Reference pressure	1013
Reference temperature	20°C

For more detailed operating conditions, the operator should refer to the manual. For more information on engine performance characteristics, contact your distributor.

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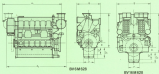
01/1997

DEUTSCHE ZUSAMMENFASSUNG DER ZEICHNUNG



01/1997

Dimensionen/Wichte



Engine type	Zylinderanzahl	Dimensionen mm								Wichte kg
		A ₁	A ₂	B	C	D ₁	D ₂	E	F	
6M16M50	175 Zylinder	507	507	1375	200	400	500	200	500	50
6V16M50	175 Zylinder	452	457	1375	200	500	500	200	500	14,2
	175 Zylinder	400	400	1375	200	400	500	200	500	
6V18M50	175 Zylinder	450	450	1375	200	500	500	200	500	12,4
6V18M50	175 Zylinder	430	430	1440	200	400	500	200	500	16,1
	175 Zylinder	500	500	1440	200	500	500	200	500	
6V18M50	175 Zylinder	470	470	1440	200	400	500	200	500	16,2
	175 Zylinder	420	420	1440	200	400	500	200	500	

* Mit Ölwanne

Engine Series 628 Marine Diesels



E

Bore / Stroke	mm	240 / 260				
		16.800			17.000	
Number of cylinders		6	6	6	12	12
Displacement	dm ³	7.6	10.3	11.4	23.7	25.8
Engine type		3001240024	3001240026	3001240028	3001240028	3001240028

Application	Cylinder angle degrees	Bore mm	Service power (1)				kW
			rpm				
Shipwide Base engine propeller	50°/76	1700	1000	1300	1400	1500	2000
		1800	1170	1400	1700	2000	2100
		1900	1300	1700	1900	2100	2400
Shipwide auxiliary/other vehicle propeller low speed	50°/76	1700	1000	1300	1400	1500	2000
		1800	1100	1400	1700	2000	2100
		1900	1200	1600	1900	2100	2400

100 specific fuel consumption at 100% (240, 260, 300) when using diesel fuel (g/kWh), base specific fuel consumption, with an engine other than used with in table of loading water (g/kWh)	Bore	100 specific fuel consumption with other combustion gases in fuel/air ratio					
		1	2	3	4	5	6
	mm	100	100	100	100	100	100
	1700	197	197	197	197	197	197
	1800	194	194	194	194	194	194
	1900	191	191	191	191	191	191

Speed	Max. fuel power	Max. cylinder load	Load of cylinders	Max. piston pressure of the cylinder groups of the cylinder engine
rpm	mm ²	bar	g/cm ²	bar
1700	3000	7		10
1800	3200	8.4	1	10.3
1900	3500	9.2		10.5

1) Approximate net shaft power at 100% (240, 260, 300) - Continuous net shaft power service power

2) The engine is tested at 100% (240, 260, 300) and 100% (240, 260, 300) according to the operating conditions of the manufacturer and has not achieved the maximum service conditions.

Operating conditions

at 100% (240, 260, 300)

Charge air temperature

100°C

10°C

10°C

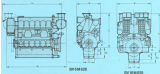
For more detailed information concerning the engine see related service literature.

The operating conditions of the engine are based on the operating conditions of the manufacturer.

Service literature of the manufacturer.



Dimensionen/Wegmaße



Engine type	Zylinderabstand	Dimensions in mm								Weight in kg
		A	A ₁	B	C	D	D ₁	E	F	
DZVM 6/120	175,274	327	327	1,170	2004	408	408	290	400	93
DZVM 6/120	175,274	4,157	4,157	1,170	2004	408	408	290	400	11,3
	175,264	4,230	4,230	1,170	2,191	408	408	290	400	
DZVM 6/120	175,264	4,640	4,640	1,170	2,191	408	408	290	400	13,4
DZVM 6/120	175,274	4,640	4,638	1,191	2,081	408	408	290	400	16,3
	175,264	4,640	4,638	1,191	2,081	408	408	290	400	
DZVM 6/120	175,274	5,080	4,878	1,141	2,081	408	408	290	400	17,3
	175,264	5,078	4,878	1,140	2,008	408	408	290	400	

* Dimensionen



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