Engine Model 6DWD-275A

POWER RATING

Engine Speed	Type of Operation	Engine Gross Power		
Engine Speed	Type of Operation	kW	PS	
1500 rpm	Prime Power	220	299	
	Standby Power	255	347	
1800 rpm	Prime Power	240	326	
	Standby Power	265	360	

- The engine performance is as per ISO 3046. Type of operation is based on ISO 8528.
- Prime power is available for an unlimited number of hours per year in a variable load application.
- The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

Engine Specifications		Fuel Consumption Data					
						(Liter/Hour)	
 Engine Type 	In-Line type, 4 strokes,	Speed	150	0 rpm	18	00 rpm	
	water-cooled Turbocharged	Rating	Prime	Standby	Prime	Standby	
	air-to-air intercooled		220 kW	255 kW	240 kW	265 kW	
 Combustion type 	Direct injection	100% Load	55.2	64.5	60.5	67.5	
 Cylinder Type 	Wet liner	75% Load	39.5		43.8		
 No. of Cylinders 	6	50% Load	28.2		32.5		
○ Bore × stroke	126 ×130 mm	25% Load	18.5		20.7		
 Displacement 	9.726 liter						
 Compression ratio 	16:1						
 Firing order 	1-5-3-6-2-4	Fuel Syster	n				
 Injection timing 	14.5 °BTDC	 Injection pump 		Direct Injection type			
 Dry weight 	Approx. 980 kg	○ Governor		Elec	Electronic type		
 Dimension(LxWxH) 	1772 × 864 × 1220 mm	 Feed pump 	l pump Med		chanical type		
 Rotation 	Anti-clockwise	○ Injection nozzle Me		Multi	/lulti-hole type		
	(Face to the flywheel)	 Opening pressure 		250 kg/cm2 (3556 psi)			
 Fly wheel housing 	SAE NO. 1	○ Fuel filter		Full Flow, Cartridge type			
 Fly wheel 	SAE NO.14	○ Used fuel		Dies	Diesel fuel oil		
 Ring Gear Tooth 	160 EA						
Mechanism		Lubrication	System				
○ Туре	Overhead valve	Lub. Oil Gra	de	CF-4	oil		
 Number of valve 	Intake 1, exhaust 1 per	Lub. Oil Pan	Capacity	28 lit	er		
	Cylinder	 Max. allowal 	ble Oil Temp	115	degree C.		
 Valve lashes at cold 	Intake. 0.3~0.4 mm	 Low pressur 	e warning	200	200 kPa		
	Exhaust 0.4~0.5 mm	 Low pressur 	e Shutdown	160	kPa		
		○ Oil Consumple	ption Rate	≤ 0.8	32 g/kWh		

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Cooling System		Engineering	Data				
 Cooling method 	Fresh water forced type			1500 rpm		1800 rpr	n
 Water Pump 	Centrifugal, Belt driven	 Media Flow 		Prime	S/B	Prime	S/B
 Water capacity 	28 liter (engine only)	Combustion Air	m3/min	16.0	18.5	17.5	18.9
 Max. Water Temp 	99 degree C.	Exhaust Gas	m3/min	31.4	36.4	34.2	37.8
 Thermostat 	Open 71°C / Full 82°C	Cooling Fan	m3/min	346	346		
 Water in/outlet Dia 	45 mm						
		○ Heat Rejection					
		to Exhaust	kW				
		to Coolant	kW				
		to Intercooler	kW				
Intake & Exhaust System		to radiation	kW				

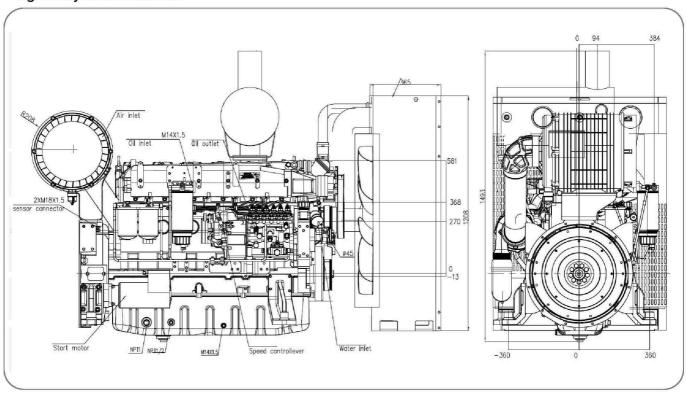
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Clean 2 kPa / Dirty 5 kPa Max air restriction

o Exhaust back pressure Max 6 kPa

Electric System		Conversion Table	
 Charging generator 	28 V × 54 A (1500 W)	in. = $mm \times 0.0394$	$lb/ft = N.m \times 0.737$
 Voltage regulator 	Build-in type IC regulator	PS = kW × 1.3596	U.S. gal = lit. × 0.264
 Starting motor 	24 V ×.7.5 kW	psi = kg/cm2 × 14.2233	kW = 0.2388 kcal/sec
 Battery Voltage 	24 V	$in^3 = lit. \times 61.02$	$lb/PS.h = g/kW.h \times 0.00162$
 Battery Capacity 	200 AH	HP= PS x 0.98635	$Cfm = m3/min \times 35.336$
		$1b = kg \times 2.20462$	

Engine Layout & Dimension



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