Engine Model 6DWD- 235A

POWER RATING

Engine Speed	Tune of Operation	Engine Gross Power kW PS	
Engine Speed	Type of Operation		
1500 rpm	Prime Power	186	253
	Standby Power	206	280
1800 rpm	Prime Power	195	265
	Standby Power	215	292

- 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 Specification	S	Fuel Consun	nption Data				
						(Liter/Hour)	
 Engine Type 	e Type In-Line type, 4 strokes,		Speed 1500 rpr		18	00 rpm	
	water-cooled Turbocharged	Rating	Prime	Standby	Prime	Standby	
	air-to-air intercooled		186 kW	206 kW	195 kW	215 kW	
 Combustion type 	Direct injection	100% Load	47.5	51.5	51.0	55.5	
 Cylinder Type 	Wet liner	75% Load	33.0		35.5		
 No. of Cylinders 	6	50% Load	24.0		26.0		
 Bore × stroke 	126 ×130 mm	25% Load	15.5		16.5		
 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 		Dire	Direct Injection type		
 Dry weight 	Approx. 980 kg	 Governor 		Electronic type			
 Dimension(LxWxH) 	1772 × 864 × 1220 mm	 Feed pump 		Mec	Mechanical type		
 Rotation 	Anti-clockwise	 Injection noz 	zzle	Mult	Multi-hole type		
	(Face to the flywheel)	 Opening pressure 		250	250 kg/cm2 (3556 psi)		
 Fly wheel housing 	SAE NO. 1	 Fuel filter 		Full	Full Flow, Cartridge type		
 Fly wheel 	SAE NO.14	O Used fuel		Dies	Diesel fuel oil		
 Ring Gear Tooth 	160 EA						
Mechanism		Lubrication	System				
○ Type	Overhead valve	 Lub. Oil Gra 	de	CF-4 oi		oil	
 Number of valve 	Intake 1, exhaust 1 per	 Lub. Oil Pan Capacity 		28 lit	28 liter		
	Cylinder	Max. allowa	ble Oil Temp	115	degree C.		
 Valve lashes at cold 	Intake. 0.3~0.4 mm	 Low pressur 	e warning	200	kPa		
	Exhaust 0.4~0.5 mm	Low pressur	e Shutdown	160	kPa		
		 Oil Consum 	ption Rate	≤ 0.8	32 g/kWh		

Cooling System		Engineering	Doto				
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	15.0	16.6	15.7	17.3
 Max. Water Temp 	99 degree C.	Exhaust Gas	m3/min	29.5	32.6	31.0	34.1
 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 Sys	stem	to radiation	kW				

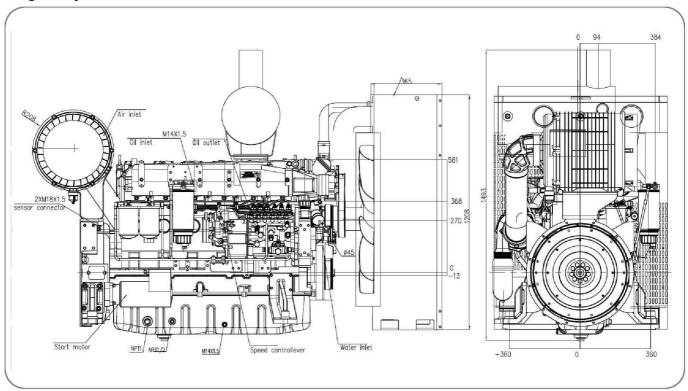
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Clean 2 kPa / Dirty 5 kPa Max air restriction

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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