



Technical Specifications

WP4-B60
(WP4D66E201)

WEICHAI



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Brief Description

We compile the technical specifications in order to maximize customer satisfaction.

WP4 series diesel engine was developed based on Germany Deutz 226B series diesel engine .

WP4D66E201 is one type of turbocharger centering structure generating diesel engine, which developed in 2012.

Manufactured by the joint venture company established by Weichai Power and DEUTZ AG.



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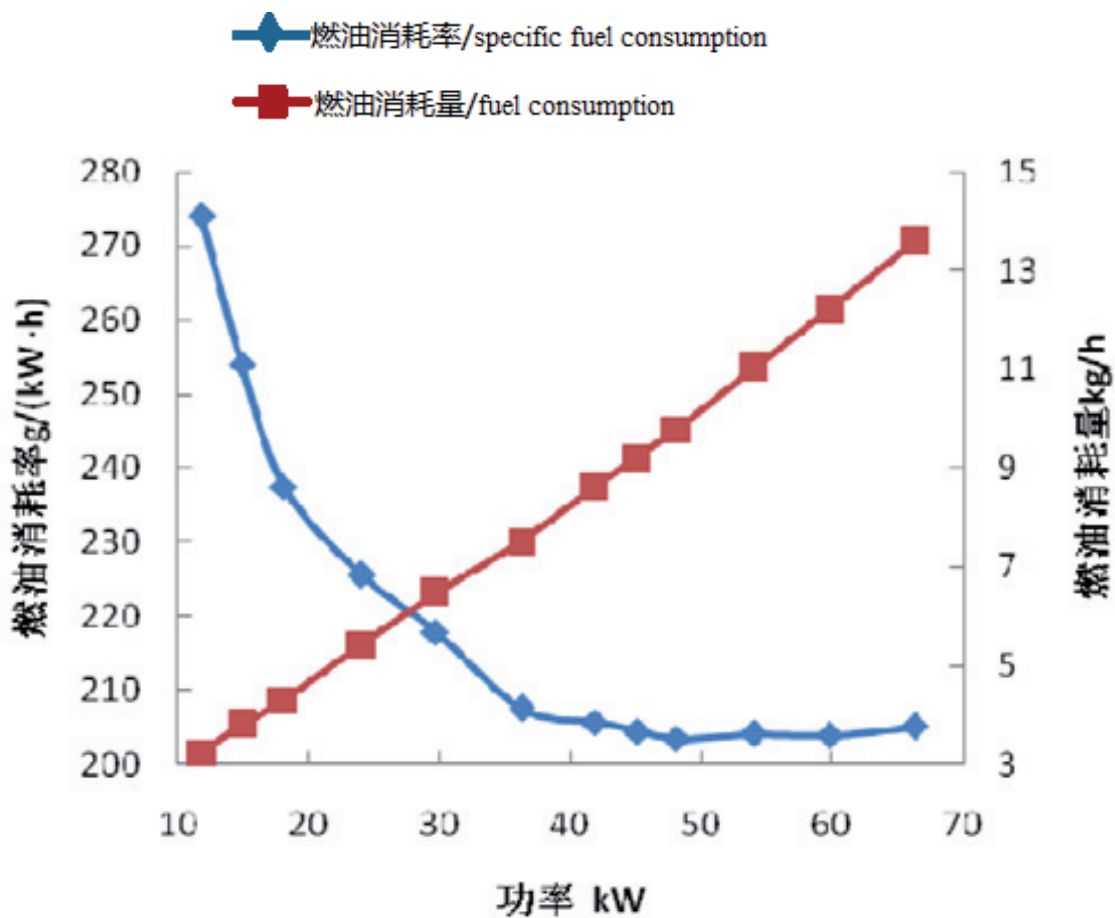
Main technical parameters	
Diesel Model	WP4D66E201 (WP4-B60)
Type	In-line, 4-Stroke, Water cooled, Wet cylinder liner, Turbocharged and Intercooled
No. of cylinders / valves	4/8
Bore/Stroke	105mm/130mm
Compression Ratio	18 : 1
Displacement	4.5L
Rated Power	60kW
Overload Power	66kW
Rated Speed	1800r/min

Idle Speed	650± 25 r/min
Fire Sequence	1-3-2-4
Crankshaft Rotating Direction	Counterclockwise facing flywheel
Starting method	DC24V Electrical Start
Starting motor Power/voltage	6kW/24V
Governing control	Electrical / Mechanical speed governor
Cooling mode	Closed water cooled
Min. coolant temperature of engine working	40
Coolant capacity	5.3L

油底容量： The capacity of oil sump	10L (以油尺为准) 10L(follow the oil dipstick)
机重 (kg)： Net weight	550± 50
外形尺寸 (长×宽×高) (mm)： Size of shape (length× width× height)：	1802× 803× 1264 (外形图) 1802× 803× 1264 (outline drawing)

三、柴油机主要性能参数(Main performance parameters)

稳速率： Steady governing rate	电子：≤ 3%；机械：≤ 5% Electronic:≤ 3%；mechanical≤ 5%
额定转速波动率： Rated speed fluctuation rate	≤ 0.5%
怠速转速波动率： Idling speed fluctuation rate	≤ 2.5%
额定工况燃油耗： Fuel consumption at rated working condition	≤ 210g/kW· h± 3%
机油燃油消耗比： Consume ratio of oil and fuel	≤ 0.2%



功率出口: Power output:	SAE3 号 /11.5 # SAE3 flywheel housing /11.5 # flywheel
空滤器流量: Air filter flow	$\geq 350\text{kg/h}$
最小进气管直径: Min. diameter of intake pipe	60mm
消音器流量: Muffler flow	$\geq 360\text{ kg/h}$
排气管最小直径: Min. diameter of exhaust pipe	65mm
允许最大排气背压: Max. exhaust back pressure	6.5kPa
最大排气温度 (增压后): Max. exhaust temperature (After the turbocharger)	550
增压器法兰允许的最大弯矩: Max. bending moment of turbocharger flange	27N· m

机油力低警: Alarm value of low oil temperature	120 kPa
机油力高警: Alarm value of high oil temperature	800 kPa
在机运行 30s 以后始测机油力 Please measure oil pressure after running 30s	
出水管水温警温度: Alarm value of water outlet temperature	96
机油温度高警 Alarm value of high oil temperature	120
速高警 Alarm value of high speed	110%定速 110% rated speed
机油力低停 Stopping value of low oil pressure	80kpa
速高停 Stopping value of high speed	120%定速 120% rated speed
燃油油管最小直径: Min. diameter of fuel inlet pipe	12mm
燃油回油管最小直径: Min. diameter of fuel return pipe	12mm



柴油机外部允 \square 的冷却系 \square 阻力(\square 定工况): Cooling system resistance of engine external (Rated working condition)	45kPa
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\square 平衡 \square 数据 (\square 境温度：43.1)		
\square 机 \square 出水 \square 力 (kPa/kPa)	\square 定工况	\square 水：1\出水：11.9
冷却水流量 (m ³ /h)	\square 定工况	8.2
\square 机 \square 出水温度 (°C/)	\square 定工况	\square 水 :82.2\出水 :85.8
冷却液 \square 走的 \square 量 (kJ/s)	\square 定工况	35.6
排气 \square 走的 \square 量 (kJ/s)	\square 定工况	38.3
\square 机 \square 散 \square 量 (kJ/s)		86.3

Data of thermal equilibrium(entironment temperature:)		
the pressure of water into and out of diesel(kPa)	Declared working condition	2\11.9
flux of cooling fluid (m ³ /h)	Declared working condition	8.1
the temperature of water into and out of diesel()	Declared working condition	82.2\85.8
calorie brought out by cooling fluid(kJ/s)	Declared working condition	35.6
calorie brought out by exhaust system(kJ/s)	Declared working condition	38.3

total calorie brought out(kJ/s)	86.3
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五、 柴油机使用环境 (Ambiance condition)

1. 柴油机在下列条件下，能输出额定功率：

The diesel engine should be able to output rated power in the following conditions.

a) 大气压力, P_X : 100kPa (或海拔高度 0 米) ；

Atmospheric pressure, P_X :100kPa (or 0 meter above sea level);

b) 环境温度, T_r : 298K (25) ；

Ambiance temperature , T_r : 298K(25) ；

c) 空气相对湿度 Φ_r : 30%。

Relative air humidity Φ_r : 30%。

2. 柴油机在下列条件下，能连续并可靠地工作：

The diesel engine should be able to work continuously and reliably in the following conditions.

a) 海拔高度不超过 1000m ；

The altitude does not exceed 1000 m.

b) 环境温度：下限-10 ， 上限 50 ；

Range of ambiance temperature: $-10 \leq T \leq 50$ ；

c) 空气相对湿度：最湿月平均最高相对湿度 90% (指该月的月平均最低温度 25)

Relative air humidity : the max relative humidity is 90% of the wettest month in a

year(It means that the lowest average temperature of this month is 25)

d)工作环境中无爆炸性气体、无尘埃。

The working environment should be without explosive gas and electric mote.

e)工作现场如有任何特殊的危险条件（如爆炸大气环境和易燃气体）用提前加以说明。

The customer should illuminate in advance if there has any especial and dangerous condition at the working space (for example, explosive and flammable gas).

六、 柴油机供货范围 (Scope of supply of diesel engine)

柴油机/Generating Diesel engine	1 台
空滤器/ Air filter	1 件
柴油机安装支架/ Bracket	4 件
充电机/ Charging alternator	1 件
起动机/ Starter	1 件
风扇/ Fan	1 件
冷却水出水管/ Cooling water inlet/outlet pipe	2 件
消音器 / Muffler	1 件
散热器 / Radiator	1 件

七、 柴油机可选配件 (diesel engine optional accessories)

13021962 停磁阀 (Electromagnetic valve for stopping)

13057165 泄油总成 (Oil Draining Pump)

Notes: