



Technical Specifications

WP10D200E201

WEICHAI

WEICHAI POWER CO., LTD.
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Brief Description

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

WP10 series diesel engine was developed based on STEYR series diesel engine .

WP10D200E201 is one type of turbocharger centering structure generating diesel engine, which developed in 2012.

Manufactured by the WEICHAI POWER CO. , LTD.



WEICHAI

Authorized Distributor and
Spare Parts Center for
Ecuador / Southamerica





二、柴油机主要技术参数 (Main technical parameters)

柴油机型号： Diesel Model	WP10D200E201
柴油机型式： Type	直列、4冲程、干式缸套、直喷、水冷、 In-line、4-Stroke、Dry-cylinder liner、direct injection、 Water cooled、
气缸数/气阀数： No. of cylinders / valves	6/12
缸径/行程： Bore/Stroke	126mm/130mm
压缩比： Compression Ratio	17 : 1
排量： Displacement	9.726L
额定功率： Rated Power	182kW
超负荷功率： Overload Power	200kW
额定转速： Rated Speed	1800r/min





怠速 \boxtimes 速: Idle Speed	650 \pm 50 r/min
\boxtimes 火循序: Fire Sequence	1-5-3-6-2-4
曲 \boxtimes 旋 \boxtimes 方向 Crankshaft Rotating Direction	逆 $\boxtimes\boxtimes$ (从 $\boxtimes\boxtimes$ 端看) Counterclockwise facing flywheel
$\boxtimes\boxtimes$ 方式: Starting method	DC24V $\boxtimes\boxtimes\boxtimes$ DC24V Electrical Start
起 \boxtimes 机功率/ $\boxtimes\boxtimes$: Starting motor Power/voltage	5.4kW/24V
\boxtimes 速方式: Governing control	\boxtimes 子 \boxtimes 速/机械 \boxtimes 速 Electrical / Mechanical speed governor
冷却方式: Cooling mode	水冷 water cooled
允 \boxtimes 机体 \boxtimes 行的最低冷却液温度: Min. coolant temperature of engine working	40
$\boxtimes\boxtimes$ 机本身冷却液容量: Coolant capacity	22L





油底容量： The capacity of oil sump	24L (以油尺为准) 24L(follow the oil dipstick)
机重 (kg)： Net weight	875
外形尺寸 (长×宽×高) (mm)： Size of shape (length× width× height)：	2088× 1040× 1493 (外形图) 2088× 1040× 1493 (outline drawing)

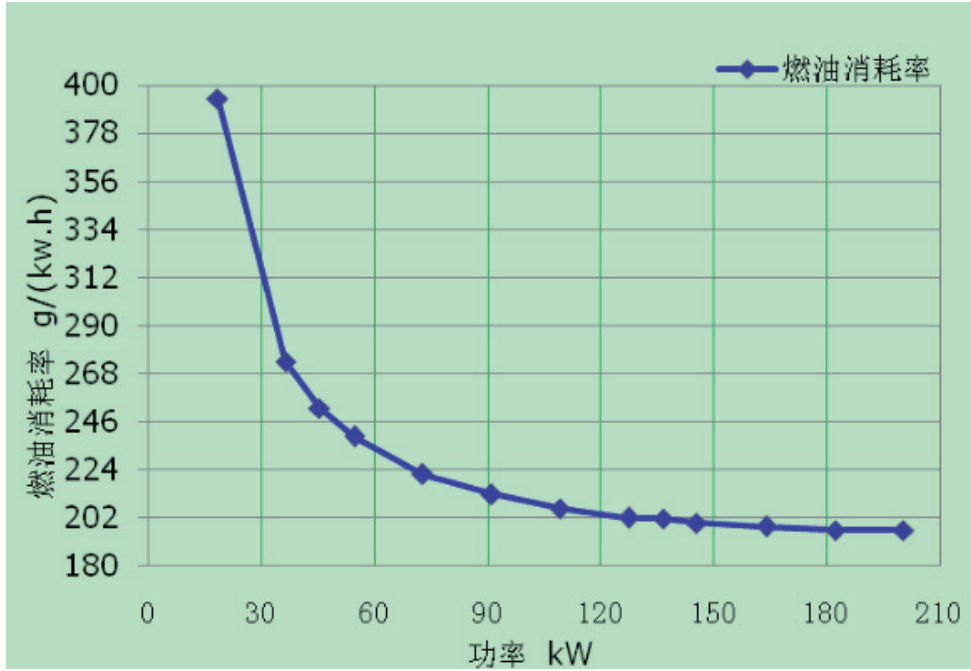
三、柴油机主要性能参数(Main performance parameters)

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	≤ 215g/kW· h
机油燃油消耗比： Consume ratio of oil and fuel	≤ 0.2%

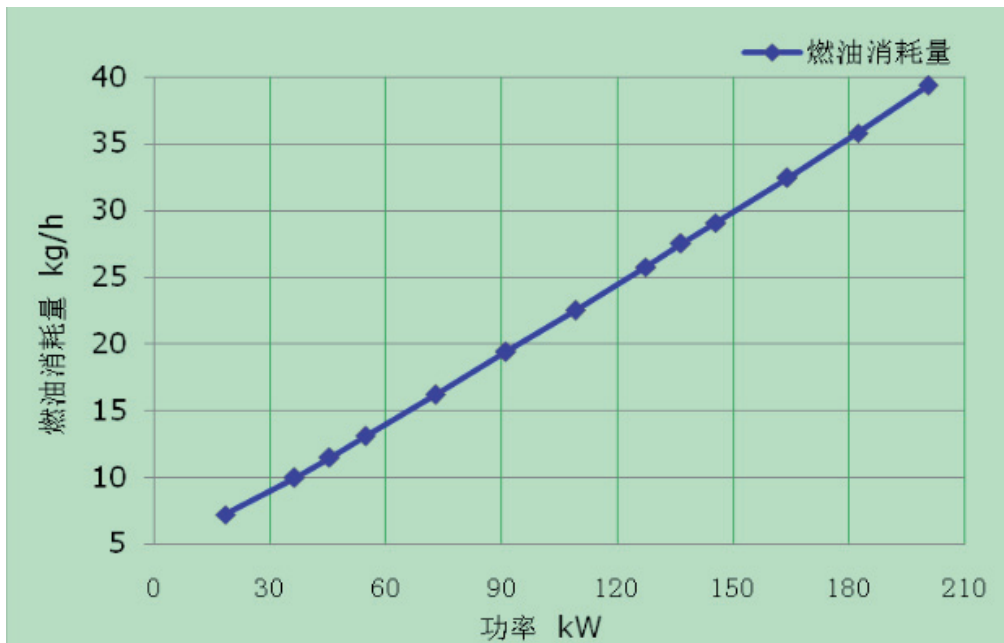




燃油消耗率/specific fuel consumption



燃油消耗量/fuel consumption





四、 推荐柴油机配套使用参数 (Recommended used diesel engine parameters)

力出口: Power output:	SAE1 号/11.5 # SAE1 flywheel housing /11.5 # flywheel
空器流量: Air filter flow	$\geq 1327\text{kg/h}$
最小气管直径: Min. diameter of intake pipe	100mm
排气管最小直径: Min. diameter of exhaust pipe	100mm
允最大排气背: Max. exhaust back pressure	$6 \pm 0.5\text{kPa}$
最大排气温度 (后): Max. exhaust temperature (After the turbocharger)	600
增器法允的最大弯矩: Max. bending moment of turbocharger flange	$10\text{N} \cdot \text{m}$





机油压力低报警: Alarm value of low oil temperature	80 kPa
机油压力高报警: Alarm value of high oil temperature	1000kPa
出水管水温报警温度: Alarm value of water outlet temperature	98± 2
高速报警: Alarm value of high speed	110%额定速度 110% rated speed
机油压力低停机: Stopping value of low oil pressure	40kPa
高速停机: Stopping value of high speed	115%额定速度 115% rated speed
燃油进油管最小直径: Min. diameter of fuel inlet pipe	12mm
燃油回油管最小直径: Min. diameter of fuel return pipe	12mm
柴油机外部允许的冷却系统阻力(额定工况): Cooling system resistance of engine external (Rated working condition)	50kPa





热平衡试验数据（环境温度：试验测量值 42.0℃）		
发动机进出水压力 (kPa)	额定工况	进水压力：5.3\出水压力：21.7
	超负荷工况	进水压力：5.7\出水压力：21.4
冷却液流量 (m ³ /h)	额定工况	17.1
	超负荷工况	17.0
发动机进出水温度 (℃)	额定工况	进水温度：77.2\出水温度：73.4
	超负荷工况	进水温度：78.5\出水温度：74.5
中冷器前后温度 (℃)	额定工况	中冷前气温：122.0\中冷后气温：52.4
	超负荷工况	中冷前气温：131.1\中冷后气温：51.5
中冷器前后压力 (kPa)	额定工况	中冷前气压：99.5\中冷后气压：98.2
	超负荷工况	中冷前气压：112.7\中冷后气压：111.2
冷却液带走的热量 (kJ/s)	额定工况	76.2
	超负荷工况	79.4
中冷器散热量 (kJ/s)	额定工况	20.9
	超负荷工况	25.4
排气带走的热量 (kJ/s)	额定工况	126.2
	超负荷工况	138.3
发动机总散热量 (kJ/s)	额定工况	414.3
	超负荷工况	454.9

Data of thermal equilibrium(environment temperature:4 2.0)		
the pressure of water into and out of diesel (kPa)	Declared working condition	5.3/21.7
	Overload working condition	5.7/21.4
flux of cooling fluid (m ³ /h)	Declared working condition	17.1
	Overload working condition	17.0
thetemperatureofwaterinto and out of diesel (℃)	Declared working condition	77.2 / 73.4
	Overload working condition	78.5 / 74.5
thetemperatureofwaterinto and out of intercooler (℃)	Declared working condition	122.0 / 52.4
	Overload working condition	131.1 / 51.5
thepressureofwaterintoand out of intercooler (kPa)	Declared working condition	99.5 / 98.2
	Overload working condition	112.7 / 111.2
calorie brought out by cooling fluid (Kj/s)	Declared working condition	76.2
	Overload working condition	79.4
calorie brought out by intercooler (Kj/s)	Declared working condition	20.9
	Overload working condition	25.4
Calorie brought out by exhaust system (Kj/s)	Declared working condition	126.2
	Overload working condition	138.3





total calorie brought out (Kj/s)	Declared working condition	414.3
	Overload working condition	454.9

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) 环境温度：下限 -30 ，上限 50 ；

Range of ambiance temperature: $-30 \leq T \leq 50$ ；

b) 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)工作区域如有任何特殊的危险条件（如爆炸大气环境和易燃气体）用客户提前加以说明。

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)

发电机/Generating Diesel engine	1 台
空滤器/ Air filter	1 件
发动机安装支架/ Bracket	4 件
充电发电机/ Charging alternator	1 件
起动机/ Starter	1 件
消音器 /Muffler	1 件
散热器 /Radiator	1 件



