

**WEICHAI**

# WEICHAI POWER BUS ENGINE



**WEICHAI POWER CO.,LTD**

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Specifications are subject to change without notice  
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**WEICHAI POWER CO., LTD.**

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**WEICHA**

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5.3-8.5m Coach / 5.3-9m City Bus / 5.3-12m School Bus  
8.5-9m Coach / 10.5-12m City Bus  
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# GROUP OVERVIEW

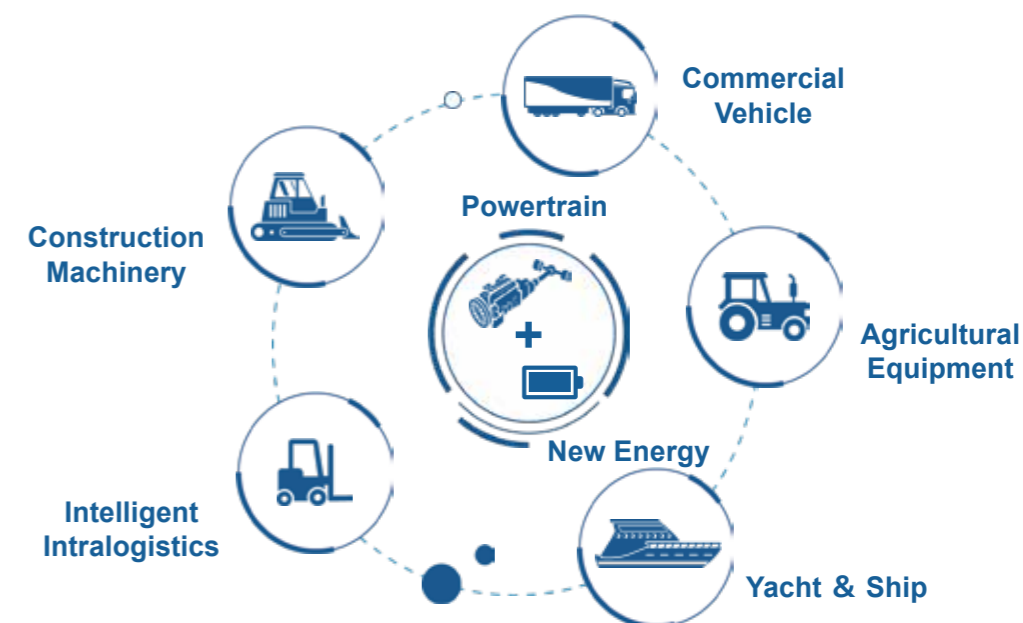
## ABOUT US

Founded in 1946, Weichai Holding Group Co., Ltd. is a leading multinational industrial equipment group in China with significant global influence. The Group has Weichai Power, Shacman Truck, Weichai Lovol Intelligent Agriculture, Fast Transmission, Hande Axle, Torch Spark Plug, Ferretti of Italy, KION of Germany, Linde Hydraulics of Germany, Dematic of the U.S., PSI of the U.S., Baudouin of France, Ballard of Canada and other well-known brands at home and abroad. The Group has 10 stocks from 8 companies listed at home and abroad, a global workforce of 100,000 and an annual revenue of more than 300 billion yuan.

The Group's main business covers powertrain systems, commercial vehicles, agricultural equipment, construction machineries, intelligent logistics, and marine mobility. It has subsidiaries in Europe, North America, Asia and other regions, and its products are exported to more than 150 countries and regions in the world. Its sales volume of heavy-duty engine and heavy-duty transmission is the first in the world; the industrial forklift and luxury yacht are leading the world; the sales volume of agricultural equipment is the first in China; the heavy-duty trucks are leading in China. It has the State key Laboratory of Engine and Powertrain System, the National Fuel Cell Technology Innovation Center, the National Internal Combustion Engine Industry Measurement and Testing Center, the National Internal Combustion Engine Product Quality Inspection and Testing Center, the National Commercial Vehicle Powertrain System Assembly Engineering and Technology Research Center and other national-level platforms. It has established cutting-edge technology innovation centers in many places around the world, and set up global collaborative R&D system.



## BUSINESS SEGMENTS

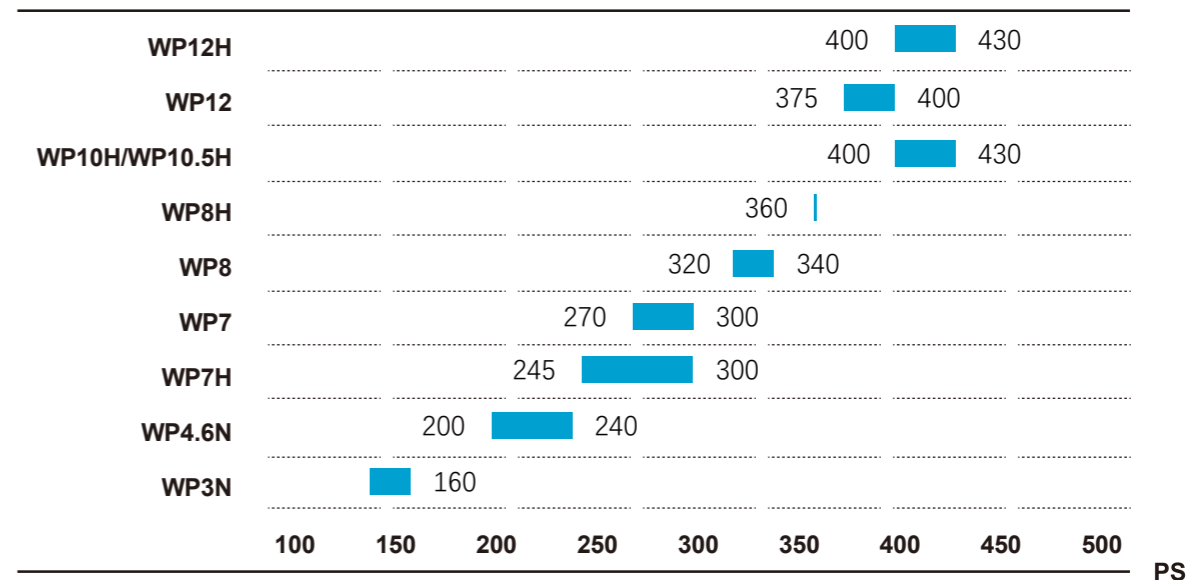




# PORTFOLIO

## Euro V Diesel Engine

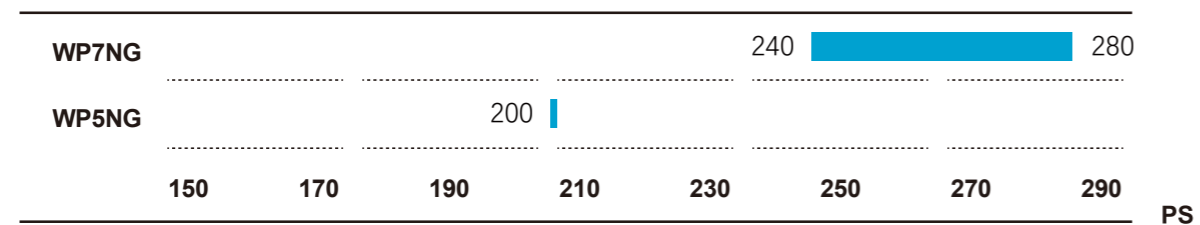
Technical Solution: Common Rail + SCR





### Euro V Gas Engine

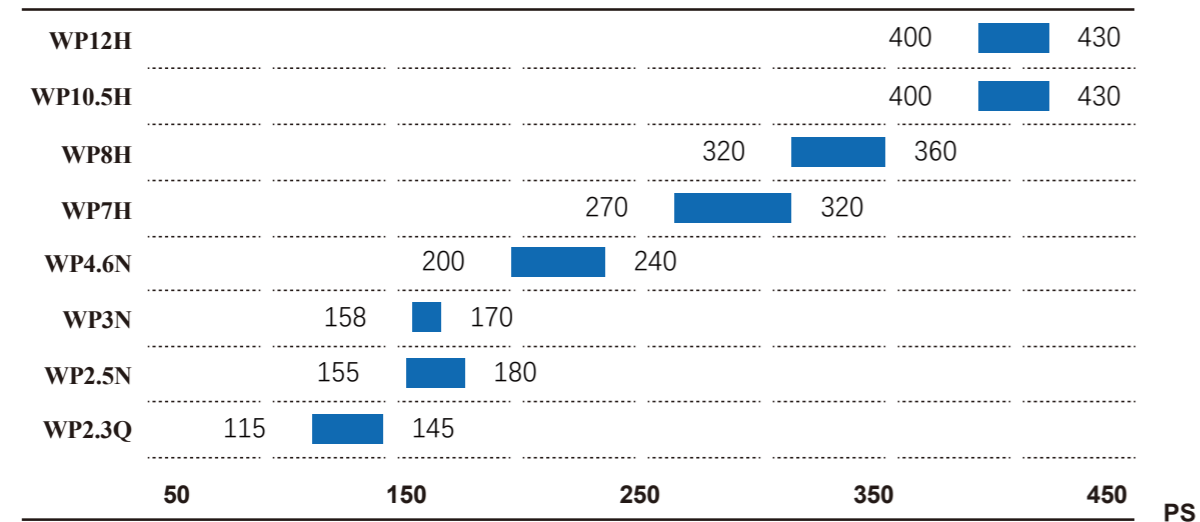
Technical Solution: SPI + Lean Burn + DOC



SPI: Single Point Injection

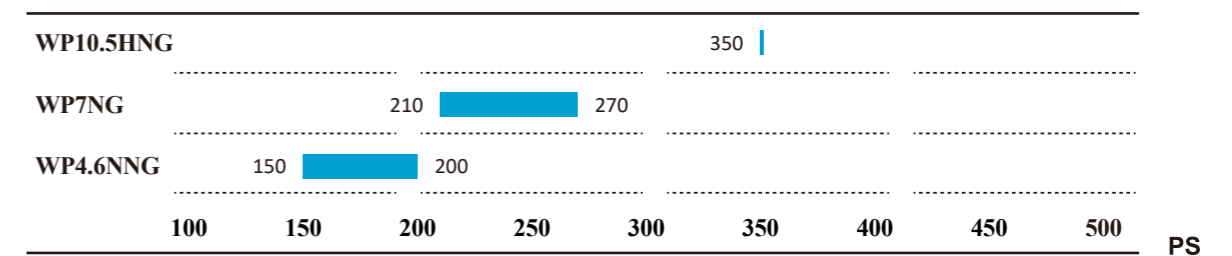
### Euro VI Diesel Engine

Technical Solution: Common Rail + DOC + DPF + Hi-SCR



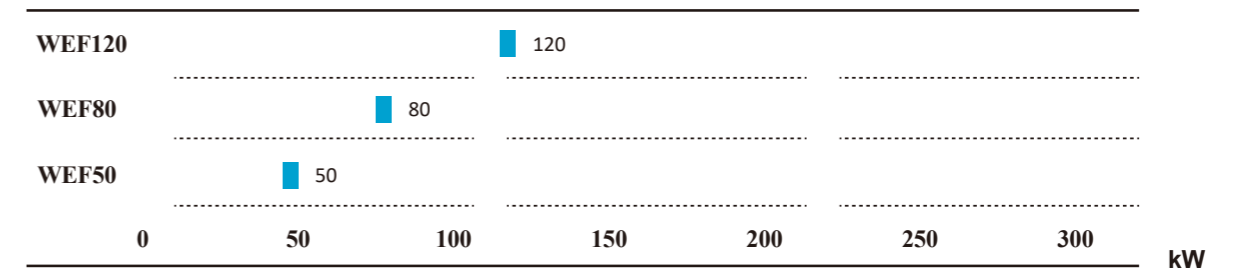
### Euro VI Gas Engine

Technical Solution: SPI+ER+EGR+TWC



SPI: Single Point Injection  
 ER: Equivalent Burn  
 TWC: Three-Way Catalyst

### Fuel Cell



WEICHA POWER

# BUS ENGINE

DIESEL ENGINE



DIESEL ENGINE >>

# DIESEL ENGINE

5.3-8.5m Coach / 5.3-9m  
City Bus / 5.3-12m School Bus



## ■ Typical application



## ■ Specifications

Model	WP2.3Q	WP2.5N	WP3N		WP4.6N	
Type	4-in line, turbocharged & intercooled					
Disp.(L)	2.289	2.493	2.97	2.97	4.58	
Rated Power (PS)	115/145	155/170/180	140/160	158/170	200/220/240	200/220/240
Rated Speed (r/min)	3200	2900	3000	2800	2300	2300
Max. Torque (N·m)	280-340	380-500	380-480	500-520	750-850	750-850
G Weight (kg) <sup>◆</sup> (DIN 70020)	230	230	290	290	393	393
Emission	Euro VI	Euro VI	Euro V	Euro VI	Euro V	Euro VI
L×W×H(mm) <sup>◆</sup>	787×640×720	728×630×762	837×677×790		964×700×837	

◆ Values are subject to final application

# DIESEL ENGINE

8.5-9m Coach / 10.5-12m City Bus



## ■ Typical application



## ■ Specifications

Model	WP7H	
Type	6-in line, turbocharged & intercooled	
Disp.(L)	6.8	
Rated Power (PS)	245/270/300	270/300/320
Rated Speed (r/min)	2100	2100
Max. Torque (N·m)	950-1100	1000-1300
G Weight (kg) <sup>◆</sup> (DIN 70020)	590	590
Emission	Euro V	Euro VI
L×W×H(mm) <sup>◆</sup>	1035×930×911	

◆ Values are subject to final application

# DIESEL ENGINE

9-12m Coach / 11-12m City Bus



## ■ Typical application



## ■ Specifications

Model	WP7	WP8
Type	6-in line, turbocharged & Intercooled	
Disp.(L)	7.47	7.8
Rated Power (PS)	270/300	320/340
Rated Speed (r/min)	2100	2100
Max. Torque (N·m)	1160-1250	1300-1400
G Weight (kg) <sup>◆</sup> (DIN 70020)	700	730
Emission	Euro V	Euro V
L×W×H(mm) <sup>◆</sup>	1222×822×1034	1222×822×1034

◆ Values are subject to final application

# DIESEL ENGINE

11.6-13.7m Coach / 13.7-18m City Bus



## ■ Typical application



## ■ Specifications

Model	WP10H	WP10.5H	
Type	6-in line, turbocharged & intercooled		
Disp.(L)	9.5	10.5	
Rated Power (PS)	400	430	400/430
Rated Speed (r/min)	1900	1900	1900
Max. Torque (N·m)	1800	2000	1900-2000
G Weight (kg) <sup>◆</sup> (DIN 70020)	815	815	815
Emission	Euro V	Euro V	Euro VI
L×W×H(mm) <sup>◆</sup>	1291×856×1069	1291×856×1069	

◆ Values are subject to final application

# DIESEL ENGINE

12m+ Coach / 18m City Bus



■ Typical application



■ Specifications

Model	WP12	WP12H	
Type	6-in line, turbocharged & intercooled		
Disp.(L)	11.596	11.5	
Rated Power (PS)	400/430/460	400/430	400/430
Rated Speed (r/min)	1900	1800	1800
Max. Torque (N·m)	1920-2110	1800-2000	2000
G Weight (kg) <sup>◆</sup> (DIN 70020)	1000	890	
Emission	Euro V	Euro V	Euro VI
L×W×H(mm) <sup>◆</sup>	1449×922×1170	1294×1108×890	

◆ Values are subject to final application





# GAS ENGINE

7-8m Coach / 8m City Bus



GAS ENGINE >>>

### ■ Typical application



### ■ Specifications

Model	WP5NG	WP4.6NNG
Type	4-in line, turbocharged & intercooled	
Disp.(L)	4.98	4.58
Rated Power (PS)	200	150/170/200
Rated Speed (r/min)	2100	2300
Max. Torque (N·m)	665	550-650
G Weight (kg)♦ (DIN 70020)	500	470
Emission	Euro V	Euro VI
L×W×H(mm)♦	897×757×1126	913×763×872

♦ Values are subject to final application

# GAS ENGINE

8.5-9m Coach / 10.5-12m City Bus



## ■ Typical application



## ■ Specifications

Model	WP7NG	
Type	6-in line, turbocharged & intercooled	
Disp.(L)	7.47	
Rated Power (PS)	240/260/280	210/240/270
Rated Speed (r/min)	2100	2100
Max. Torque (N·m)	900-1100	950-1150
G Weight (kg) <sup>◆</sup> (DIN 70020)	650	650
Emission	Euro V	Euro VI
L×W×H(mm) <sup>◆</sup>	1161×916×1075	

◆ Values are subject to final application

# GAS ENGINE

12m Coach / 18m City Bus



## ■ Typical application



## ■ Specifications

Model	WP10.5HNG	
Type	6-in line, turbocharged & intercooled	
Disp.(L)	10.5	
Rated Power (PS)	350	
Rated Speed (r/min)	1900	
Max. Torque (N·m)	1500	
G Weight (kg) <sup>◆</sup> (DIN 70020)	835	
Emission	Euro VI	
L×W×H(mm) <sup>◆</sup>	1250×1026×1170	

◆ Values are subject to final application

# GAS ENGINE

12m+ Coach / 13.7-18m City Bus



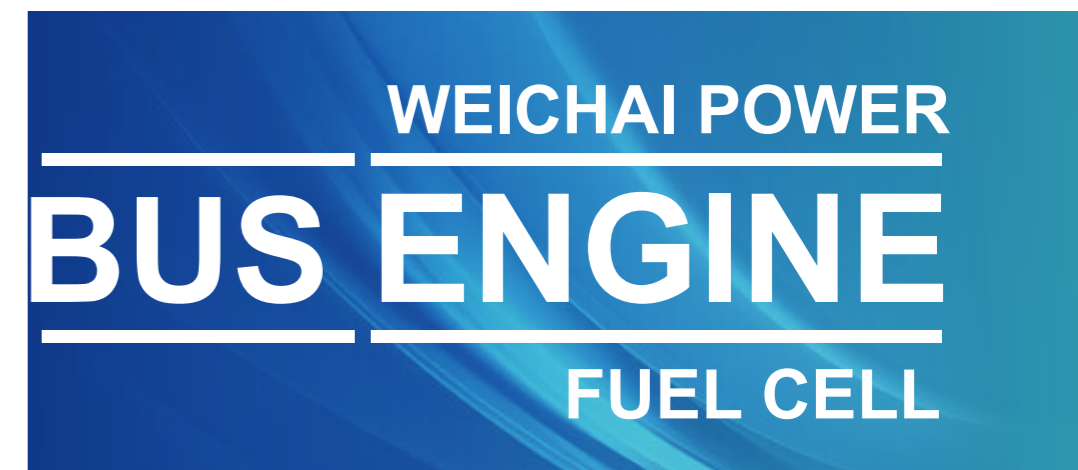
## ■ Typical application



## ■ Specifications

Model	WP12NG
Type	6-in line, turbocharged & intercooled
Disp.(L)	11.596
Rated Power (PS)	350/380/400
Rated Speed (r/min)	1900
Max. Torque (N·m)	1650-1730
G Weight (kg)◆ (DIN 70020)	1000
Emission	Euro V
L×W×H(mm)◆	1323×838×1168

◆ Values are subject to final application



# FUEL CELL

8-10.5m City Bus



■ Typical application



■ Specifications

Model	WEF50
Power (kW)	50
Work current (A)	20~330
DC/DC voltage output (V)	400~750
Working temperature (°C)	-30~50
Lifetime (h)	30000
Max. Efficiency (%)	≥60
L×W×H (mm)	1070×595×395

◆ Values are subject to final application

# FUEL CELL

10-12m City Bus



■ Typical application



■ Specifications

Model	WEF80
Power (kW)	80
Work current (A)	20~360
DC/DC voltage output (V)	400~750
Working temperature (°C)	-30~50
Lifetime(h)	30000
Max. Efficiency (%)	≥60
L×W×H (mm)	1621×777×363

◆ Values are subject to final application

# FUEL CELL

12m Coach



■ Typical application



■ Specifications

Model	WEF120
Power (kW)	120
Work current (A)	20~456
DC/DC voltage output (V)	400~750
Working temperature (°C)	-30~50
Lifetime (h)	30000
Max. Efficiency (%)	≥60
L×W×H (mm)	872×600×760

◆ Values are subject to final application

**WEICHAI POWER**

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**BUS ENGINE**

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**OPTIONAL CONFIGURATION**

# OPTIONAL CONFIGURATION

## Engine Braking System(WCBS)



**Blow down**

Driven by exhaust back pressure (BD)



**Compression release braking**

Driven by solenoid actuator(CRB)

Model	Braking type	Braking efficiency	Braking power (kW/L)	Remarks
WP4.6N	BD	50-60%	16.5	●
WP7H	CRB	80-90%	23.5	
WP8/WP8H	BD	50-60%	15.8	●
WP10H/WP10.5H	CRB	80-90%	26	●
WP12/WP12H	CRB	80-90%	21	●

● standard    ● optional

# OPTIONAL CONFIGURATION

## Alternator Option



Model	Alternator parameters			Remarks
	Single	Dual	Triple	
WP2.3Q	1 × 28V-120A/150A	N/A	N/A	●
WP3N	1 × 28V-120A/150A	N/A	N/A	●
WP4.6N	1 × 28V-120A/150A	2 × 28V-120A/150A	N/A	●
WP7H	N/A	2 × 28V-200A/220A/240A	N/A	●
WP7NG	1 × 28V-80A/120A/150A	2 × 28V/120A/150A	3 × 28V/120A/150A	●
WP8/WP8H	1 × 28V-200A/220A/240A	2 × 28V-200A/220A/240A	N/A	●
WP10H/WP10.5H/ WP10.5HNG	1 × 28V-80A/120A/150A	2 × 28V/120A/150A	3 × 28V/120A/150A	●
WP12/WP12H	1 × 28V-80A/120A/150A	2 × 28V/120A/150A	3 × 28V/120A/150A	●

● optional

## OPTIONAL CONFIGURATION

Air conditioning compressor bracket installed on engine

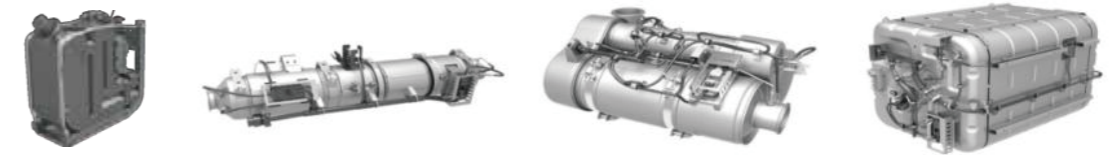


Model	Remarks
WP2.3Q	●
WP3N	●
WP4.6N/WP4.6NNG	○
WP7H	○
WP7NG/WP8/WP8H	○
WP10H/WP10.5H/WP10.5HNG	○
WP12T	N/A

● standard    ○ optional

## OPTIONAL CONFIGURATION

After-treatment  
Diesel Engine



Model	Volume of Urea Tank	SCR (Euro V)	DOC-DPF-SCR (Euro VI)
WP2.3Q/WP3N	20L	Column	Column
WP4.6N	20L	Column	S-shape
WP7H	35L	S-shape	S-shape
WP8/WP8H	35L	Cube	S-shape
WP10H	35L/50L	Column	Cube
WP10.5H	35L/50L	Cube	Cube
WP12/WP12T	35L/50L	Column	Cube

◆ Values are subject to final application

## OPTIONAL CONFIGURATION

Air conditioning compressor  
Gas Engine



Model	Shape of DOC (Euro V)	Shape of TWC (Euro VI)
WP4.6NNG	N/A	Column
WP7NG	Column	Column
WP10.5HNG	N/A	Cube

◆ Values are subject to final application

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**BUS ENGINE**

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**WEICHA OVERSEAS PRESENCE**

