

# WEICHAI MARINE ENGINES

GLOBAL LEADING FULL SERIES WHOLE FIELD ENGINE SUPPLIER

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## Weichai Group Introduction

Long history, excellent products, leading technology, innovation consciousness, first-class management systems, top service quality, worldwide customers and partners——this is Weichai Group.

"We aim to your maximum satisfaction, our confidence comes from our products' perfect quality, you will enjoy our ideal for perfection when using our products.

Weichai, established in 1946, with more than 50,000 staff, and general assets of 70.2 billion and 98 billion RMB sales 2011, is one of the biggest manufacturer of vehicle and equipment, ranks the 77th in 2012 China top 500 enterprises, the 39th in 2012 China top 500 Manufacturers enterprises, the 7th in 2012 China top 100 Machinery enterprises.

Weichai Group business covers engine, gear box, axle, vehicle, construction machinery, and parts, creating a complete golden industry chain of machinery. Weichai Power co.,Ltd, with more than 13,000 staff, with 750,000 units sales volume and 102% growth in 2011, is one of the most famous, professional diesel engine manufacturers and saler of China. Fast Gear company, with sales income 12 billion, with 850000 units sales volume, is the first gear box manufacture of sales revenue more than 10 billion RMB. Hande Axels company, with 400,000 units sales volume and 165% growth in 2010, is the top one of axles manufacture in China. Commercial vehicle business—Shacman Co., with 100,000 units sales volume and 118% growth in 2010, gets the first growth rate in China. Components business sales revenues reach to 7 billion RMB. Construction machinery business like Shantui Construction Machinery Co.,Ltd, bus business like Yaxing Motor Coach Co.,Ltd, they all are going toward the good direction. Now, Weichai Power is with a more high-spirited attitude, leading the world, moving the world.





## Weichai R&D

### First-class R&D Center

Weichai has a national-level R&D center and lab, with a professional R&D team of 1069 researchers. 681 of them are senior and middle-level engineers. More than 150 are technical experts and 136 have Ph.D.



### R&D Ability:

- State-qualified Technical Center;
- State-qualified Product Laboratory;
- Postdoctoral workstation;
- State-qualified physical and chemical index measuring enterprise;
- Weichai takes on R&D programs of the National 10th and 11th five-year plans. Weichai launches strategic cooperation relations with world famous R&D organizations, such as AVL, FEV and BOSCH.
- National Commercial Vehicle Powertrain Engineering Research Center.



## The most advanced manufacturing base of diesel engines in the world

Weichai has an Industrial Park covering 220 hectares. Phase I invested 150 Million USD and 200,000 engines are produced per year. Phase II invested 140 Million USD and 150,000-ton castings are produced per year. All facilities are imported from world famous companies such as Heller of Germany, ATLAS and ABB of Switzerland and TOYOTA of Japan.

All facilities on the product line are connected by LAN, which manages production in realtime. The lines include 50 machining centers, 8 robots, 5 fine finishing centers and CMM. All equipment is imported from Heller of Germany and TOYOTA of Japan.



Weichai Power Industrial Park



# Certification

Honour →



System →



Emissions →



China Classification Society

Bureau Veritas

Register Italiano Navale

Russian Maritime Register of Shipping

Germanischer Lloyd

European CE Authentication

## Marine Engine Introduction

As one of the earliest diesel engine manufacturers in China, Weichai Power has been keeping a permanent leading position in middle-speed and high-speed engine market and is the main supplier for the power of commercial vehicle, engineering machinery, generating equipment and vessel, etc.

For the half past century, Weichai Power has devoted itself to tracing the bandwagon of diesel engine development as well as exploring engine technology of application and improvement. Sticking to the principle of market-oriented, satisfaction of the customers and surpassing customers value as its persistent goal, Weichai Power is providing its customers with advanced, stable and high quality marine power (20kW-4500kW). A worldwide service network offers comprehensive, timely and thoughtful service to customers.

While manufacturing high quality products, Weichai Power, guided by the design conception of humanization, commits itself to the recruiting of high-level talents, increasing research financing and enhancing its R&D ability so that it can concern for ecological environment with a more positive attitude and promote the fast development of economy. By constantly perfecting the service system, Weichai Power has established the largest service network in China and come up with a whole set of power solution, which is from product development to production, from sale to maintenance service.

Weichai Power, on the march to a world famous brand name, is your ideal supplier for all-orientation power service.





## Product Catalogue

### Marine High-speed Diesel Engine

Power (kW)

IMO Tier II

Model	Power (kW)	IMO Tier II
M26	330 - 808	Mechanical Pump
WP12	258 - 405	Mechanical Pump
WD12	220 - 294	Mechanical Pump
WD10	125 - 240	Mechanical Pump
WP6	90 - 168	Mechanical Pump
WP4	60 - 88	Mechanical Pump
226B-3C	35 - 55	Mechanical Pump
WP2.1-WP3.9	20 - 45	Mechanical Pump

### Marine Medium-speed Diesel Engine

Power (kW)

IMO Tier II

Model	Power (kW)	IMO Tier II
L32/40	3000 - 4500	Mechanical Pump
L27/38	2040 - 3060	Mechanical Pump
CW250	1103 - 1470	Mechanical Pump
CW200	450 - 1760	Mechanical Pump
8170	441 - 601	Mechanical Pump
6170	300 - 456	Mechanical Pump
6160	164 - 360	Mechanical Pump

All of Weichai engine fulfill the requirement of IMO Tier II. Most of products have got the type approval certificates awarded by world ten classification societies such as LR, GL, DNV, BV, ABS, CCS, NK, RS, RINA and KR.

## Marine High-speed Diesel Engine

### WP2.1-WP3.9 Series Marine Diesel Engine

WP2.1-WP3.9 series marine engine is modified based on international advanced technology. According to the standard, rule and customers' requirements, we improved combustion system, inlet and outlet system, cooling system and power output system. As power used for small yacht, short sea fish boat and short sea or inland river transport ship. The products are mainly produced in Weichai Power Yangzhou Diesel Engine CO.,LTD.



#### Technical Parameters

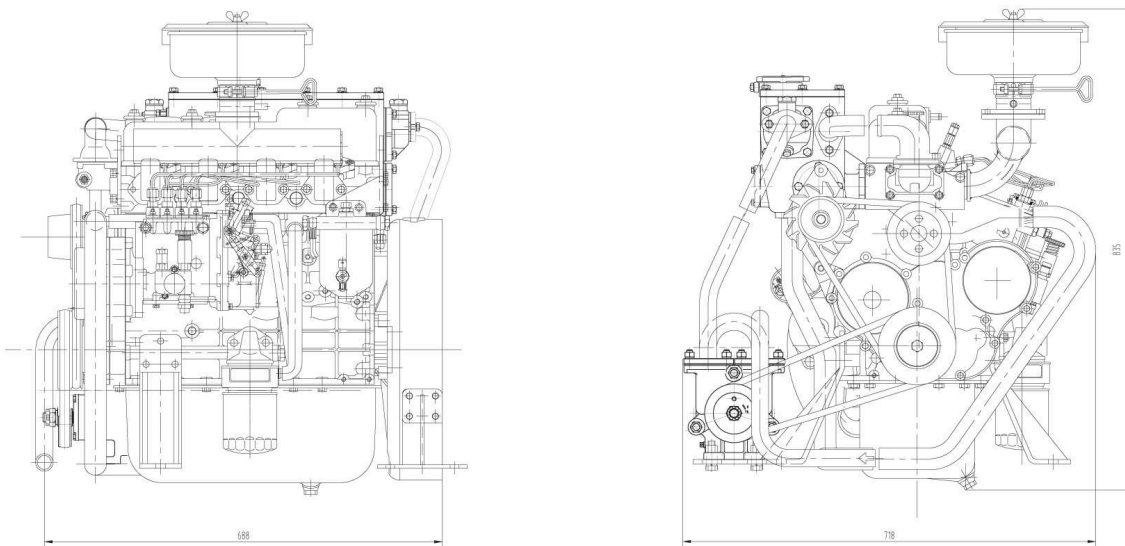
Model	WP2.1	WP3.9
Type	In line, direct injection, 4 strokes, double-circulation water cooled	
Cylinder numbers	4	4
Bore(mm)	85	102
Stroke(mm)	92	118
Displacement(L)	2.088	3.86
Compression ratio	18:1	17.5:1
Min. steady idling speed(r/min)	830	650
Min. fuel consumption(g/kW.h)	≤215	≤235
Oil consumption(g/kW.h)	≤0.8	
Smoke intensity(Bosch)	≤3.5	
Emission	IMO Tier II	
Noise[dB(A)]	≤106	≤109
Crankshaft rotating direction (face to flywheel)	Anticlockwise	
Fire Sequence	1-3-4-2	
Starting method	Electrical	
Net weight(kg)	220	450
Overhaul life(h)	> 6000	



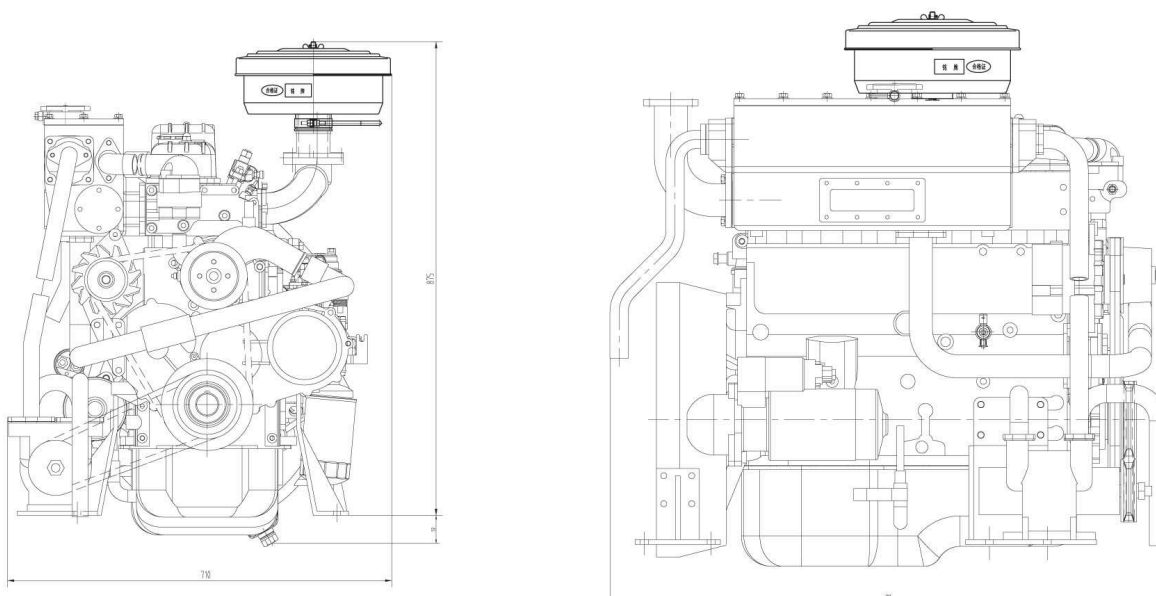
## Model List

Model	Rated power Ps ( kW )	Rated speed r/min	Intake method	Power output type	Application
WP2.1C27E1	27(20)	2000	Natural aspirated	SAE3/10	Marine main engine
WP2.1C35E1	35(26)	2700	Natural aspirated	SAE3/10	Marine main engine
WP3.9C53E1	53(38)	2000	Natural aspirated	SAE3/10	Marine main engine
WP3.9C61E1	61(45)	2400	Natural aspirated	SAE3/10	Marine main engine

## Overall Dimensions of WP2.1 Series



## Overall Dimensions of WP3.9 Series



## DEUTZ WP4/6 Series Marine Diesel Engine

226B series engine is a kind of high-speed diesel engine manufactured by the joint venture company established by Weichai Power and DEUTZ AG. Based on the 226B series engine, WP4/6 series engine was developed by enlarging the stroke and optimizing design. It is characterized by compact structure, reliable performance, advanced economic, simple operation and convenient maintenance, etc. It is mainly used as the main engine or the auxiliary engine of the ship.



### ■ Technical Parameters

Model	226B-3C	WP4	WP6
Type	In line, direct injection, 4 strokes, double-circulation water cooled		
Cylinder numbers	3	4	6
Bore(mm)	105		105
Stroke(mm)	120		130
Displacement(L)	3.12	4.5	6.75
Compression ratio	16		18
Min. steady working speed(r/min)	675		675
Min. steady idling speed(r/min)	600		650
Min. fuel consumption(g/kW.h)	≤200		≤200
Oil consumption(g/kW.h)	≤1.36		≤0.5
Smoke intensity(Bosch)	≤1.5		≤1.0
Emission	IMO Tier II		IMO Tier II
Noise[dB(A)]	≤111		≤117
Crankshaft rotating direction (face to flywheel)		Anticlockwise	
Fire Sequence	1-3-2	1-3-4-2	1-5-3-6-2-4
Starting method		Electrical	
Oil sump capacity(L)	7.25	10	18
Net weight(kg)	400	600	750
Overhaul life(h)		12000	

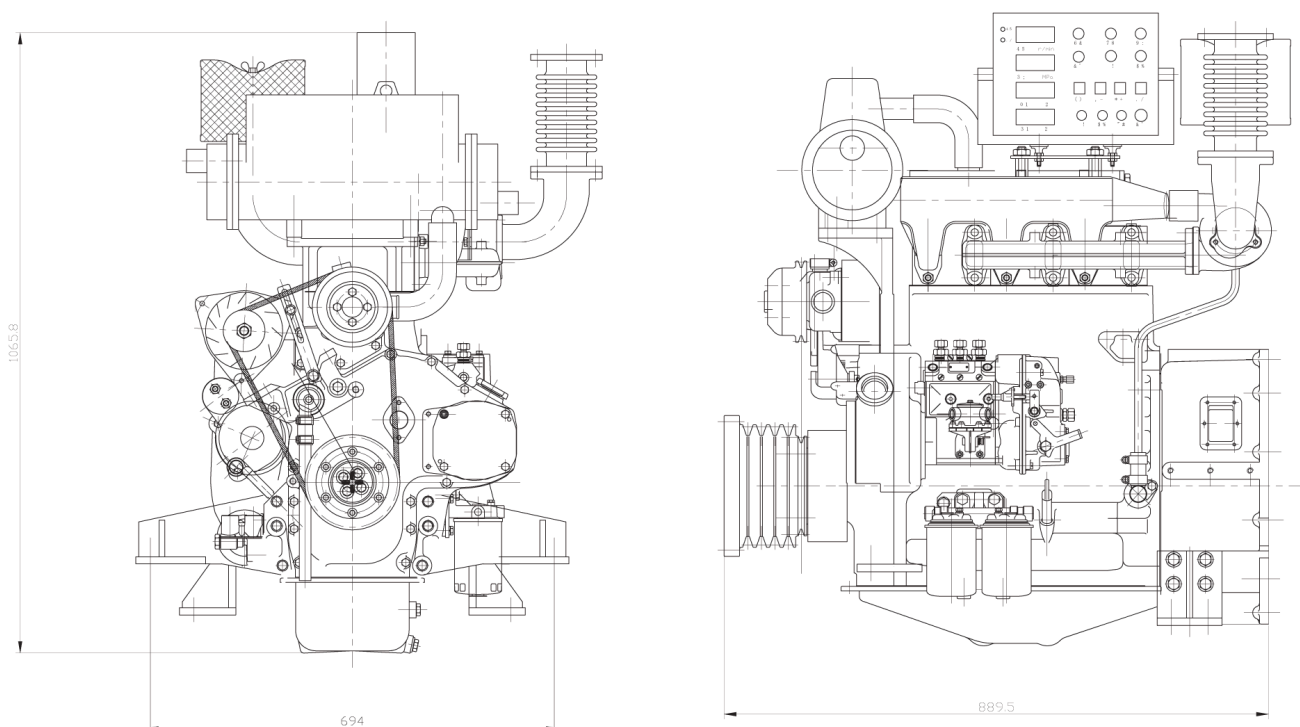


Model List

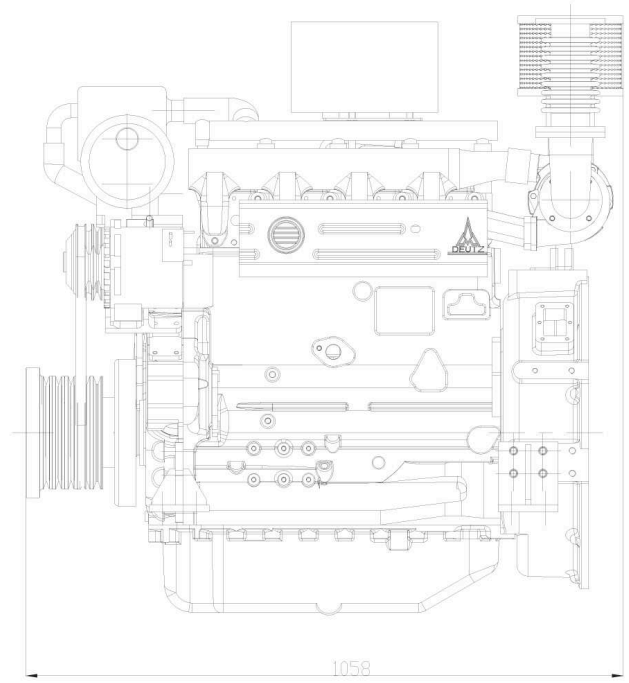
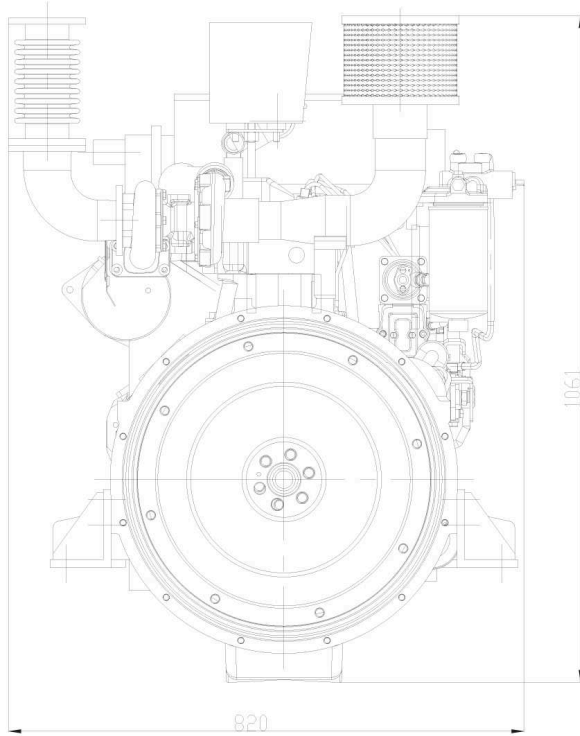
Model	Rated power Ps ( kW )	Rated speed r/min	Intake method	Power output type	Application
D226B-3C1	48(35)	1800	Natural aspirated	SAE3/11.5	Marine main engine
TD226B-3C	54(40)	1500	Turbocharged	SAE3/11.5	Marine main engine
TD226B-3C1	68(50)	1800	Turbocharged	SAE3/11.5	Marine main engine
WP4C82-15	82(60)	1500	Turbocharged	SAE1/14	Marine main engine
*WP4C95-18	95(70)	1800	Turbocharged	SAE1/14	Marine main engine
WP4C102-21	102(75)	2100	Turbocharged	SAE1/14	Marine main engine
*WP4C120-18	120(88)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
WP6C122-15	122(90)	1500	Turbocharged	SAE1/14	Marine main engine
*WP6C142-18	142(105)	1800	Turbocharged	SAE1/14	Marine main engine
WP6C156-21	156(115)	2100	Turbocharged	SAE1/14	Marine main engine
WP6C150-15	150(110)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
* WP6C165-18	165(122)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
WP6C185-21	185(136)	2100	Turbocharged and intercooled	SAE1/14	Marine main engine
WP6C140-23	140(103)	2300	Turbocharged	SAE1/14	yacht
WP6C163-23	163(120)	2300	Turbocharged	SAE1/14	yacht
WP6C198-23	198(145)	2300	Turbocharged and intercooled	SAE1/14	yacht
WP6C220-23	220(162)	2300	Turbocharged and intercooled	SAE1/14	yacht
WP6C250-25	228(168)	2425	Turbocharged and intercooled	SAE1/14	yacht

\* Recommend Models

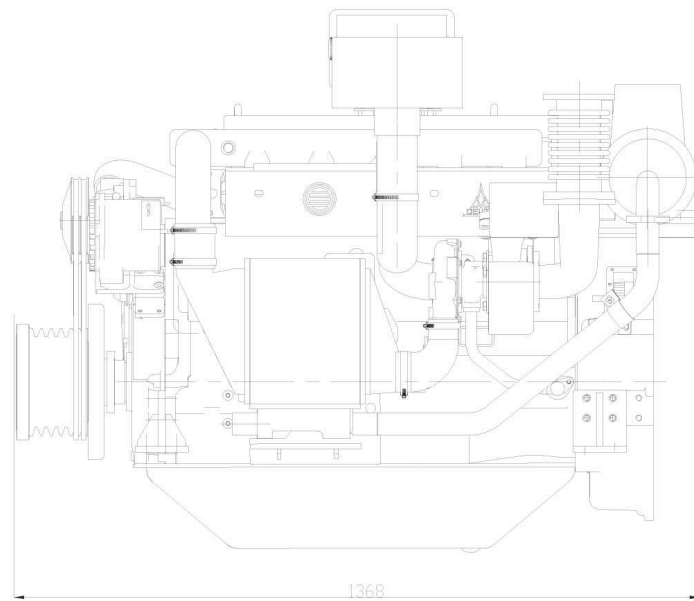
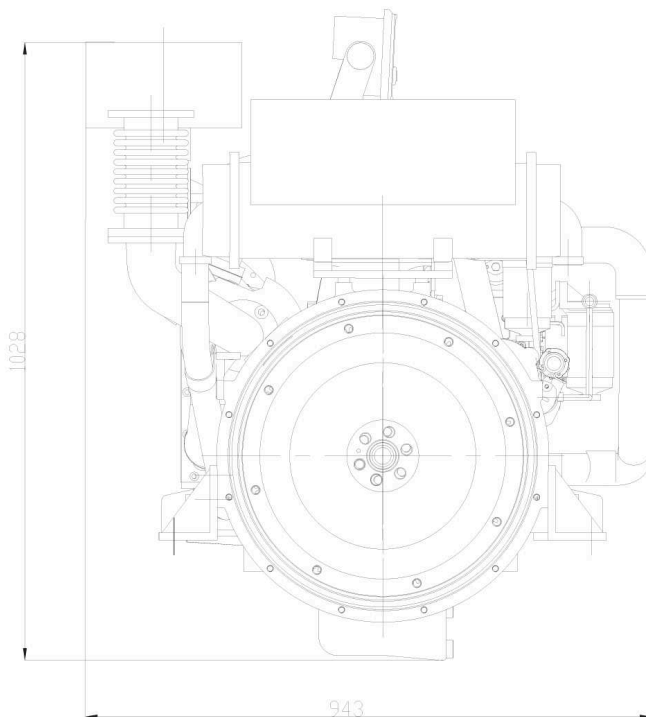
Overall Dimensions of TD226B-3C Series



## Overall Dimensions of WP4 Series



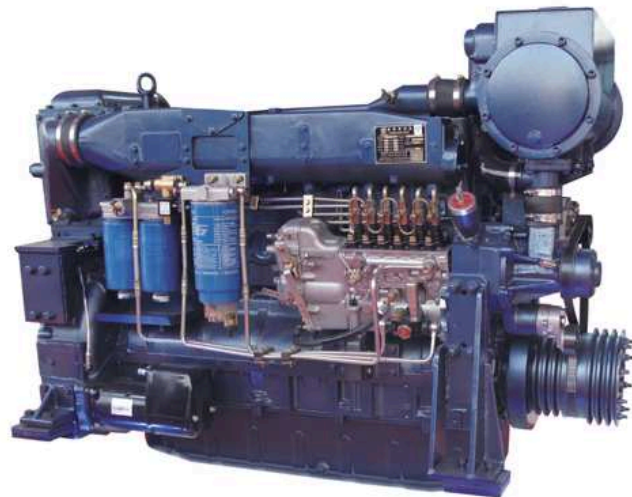
## Overall Dimensions of WP6 Series





## WD10/12/WP12 Series Marine Diesel Engine

Weichai WD10/12/WP12 series marine diesel engine has inherited the high-configure strategy of vehicle diesel engine, based on the characteristics and use for marine power configuration and requirements, with a new design optimized for the special dedicated design and development of marine energy saving diesel engine. It is the river shipping, fishing, boats and other vessels the best match official power.



### Technical Parameters

Model	WD10	WD12	WP12
Type	In line,direct injection,4 strokes,double-circulation water cooled		
Cylinder numbers	6	6	6
Bore(mm)	126	126	126
Stroke(mm)	130	155	155
Displacement(L)	9.726	11.596	11.596
Compression ratio	17	17	17
Min. steady working speed(r/min)	675	675	675
Min. steady idling speed(r/min)	650	650	650
Min. fuel consumption(g/kW.h)	≤ 198	≤ 198	≤ 194
Oil consumption(g/kW.h)	≤ 0.5	≤ 0.5	≤ 0.5
Smoke intensity(Bosch)	≤ 1.0	≤ 1.0	≤ 1.0
Emission	IMO Tier II		
Noise[dB(A)]	≤ 117	≤ 117	≤ 119
Crankshaft rotating direction (face to flywheel)	Anticlockwise		
Fire Sequence	1-5-3-6-2-4		
Starting method	Electrical		
Oil sump capacity(L)	24	24	36
Net weight(kg)	1056	1100	1200

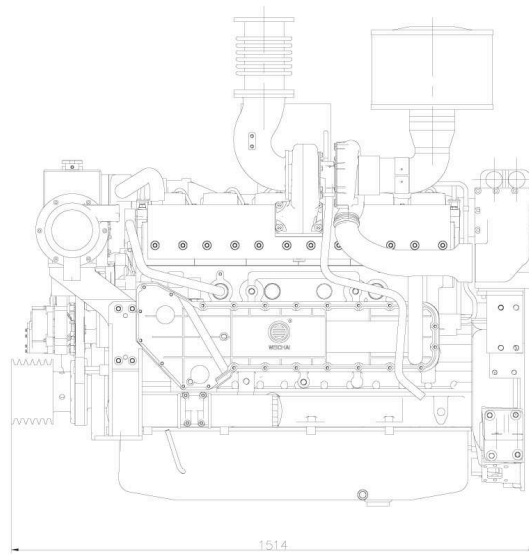
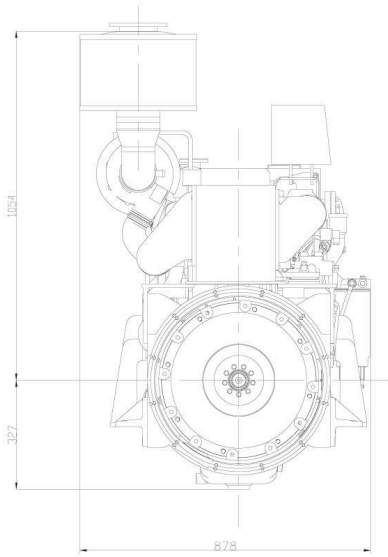
## ■ Model List

Model	Rated power Ps ( kW )	Rated speed r/min	Intake method	Power output type	Application
WD10C170-15	170(125)	1500	Turbocharged	SAE1/14	Marine main engine
WD10C190-15	190(140)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C218-15	218(160)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C240-15	240(176)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C258-15	258(190)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C278-15	278(205)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C190-18	190(140)	1800	Turbocharged	SAE1/14	Marine main engine
*WD10C200-18	200(147)	1800	Turbocharged	SAE1/14	Marine main engine
*WD10C240-18	240(176)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
*WD10C278-18	278(205)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
*WD10C312-18	312(230)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C200-21	200(147)	2100	Turbocharged	SAE1/14	Marine main engine
WD10C278-21	278(205)	2100	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C300-21	300(220)	2100	Turbocharged and intercooled	SAE1/14	Marine main engine
WD10C326-21	326(240)	2100	Turbocharged and intercooled	SAE1/14	Marine main engine
WD12C300-15	300(220)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
WD12C327-15	327(240)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
WD12C300-18	300(220)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
WD12C327-18	327(240)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
*WD12C350-18	350(258)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
WD12C375-21	375(275)	2150	Turbocharged and intercooled	SAE1/14	Marine main engine
WD12C400-21	400(294)	2150	Turbocharged and intercooled	SAE1/14	Marine main engine
WP12C350-15	350(258)	1500	Turbocharged and intercooled	SAE1/14	Marine main engine
*WP12C400-18	400(295)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
WP12C450-21	450(330)	2100	Turbocharged and intercooled	SAE1/14	Marine main engine
WP12C500-21	500(368)	2100	Turbocharged and intercooled	SAE1/14	yacht
WP12C550-21	550(405)	2100	Turbocharged and intercooled	SAE1/14	yacht

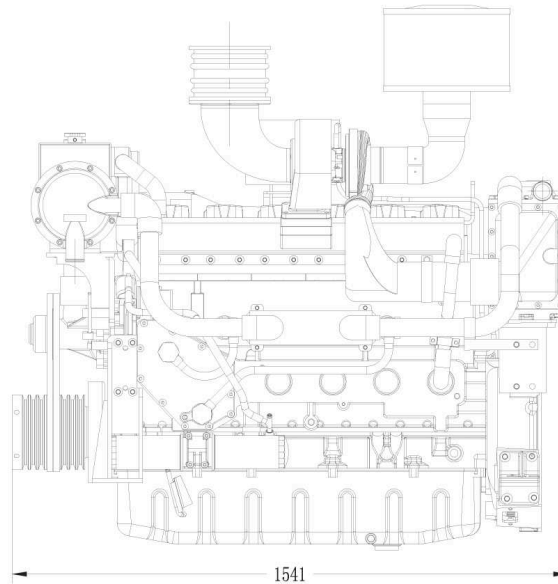
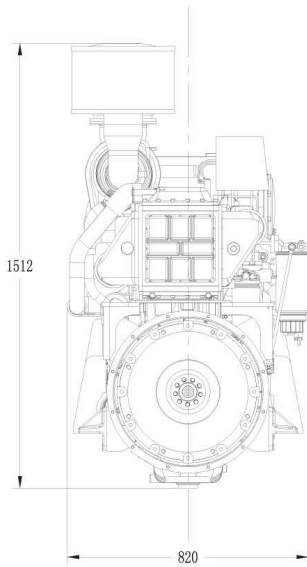
\* Recommend Models



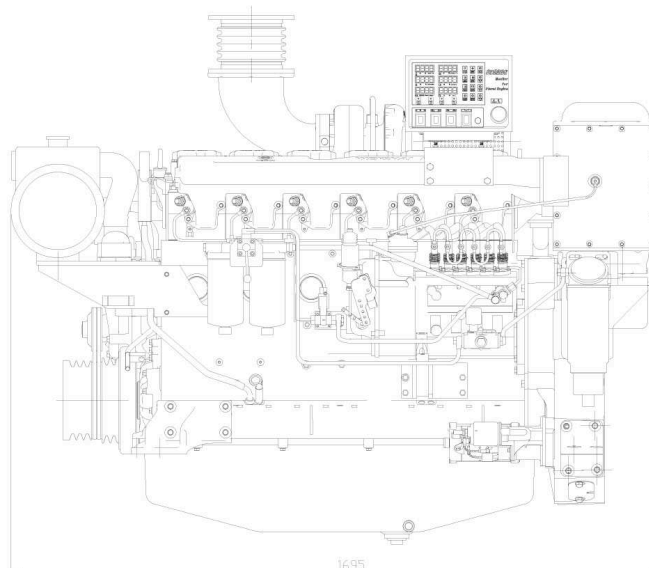
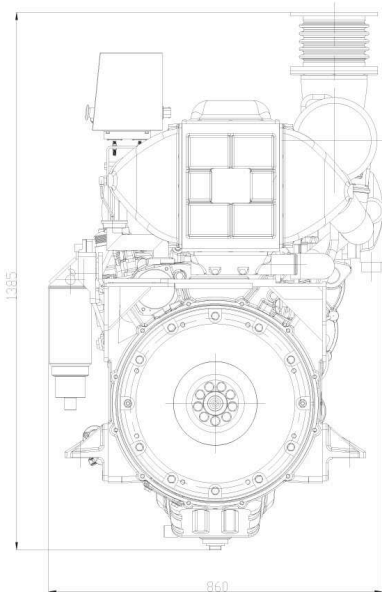
Overall Dimensions of WD10 Series



Overall Dimensions of WD12 Series



Overall Dimensions of WP12 Series



## M26 Series Marine Diesel Engine

Baudouin company has the excellent solutions for marine powertrain system. Baudouin company became the WEICHAI wholly-owned subsidiaries at the end of 2008. The Baudouin products are imported with original packaging to China in 2010. We can provide perfect power for worldwide customers, with perfect match of Baudouin company's excellent solutions for marine powertrain system and professional efficient service network of Weichai.

MOTEURS  
**Baudouin**



6M26



12M26



## Model List

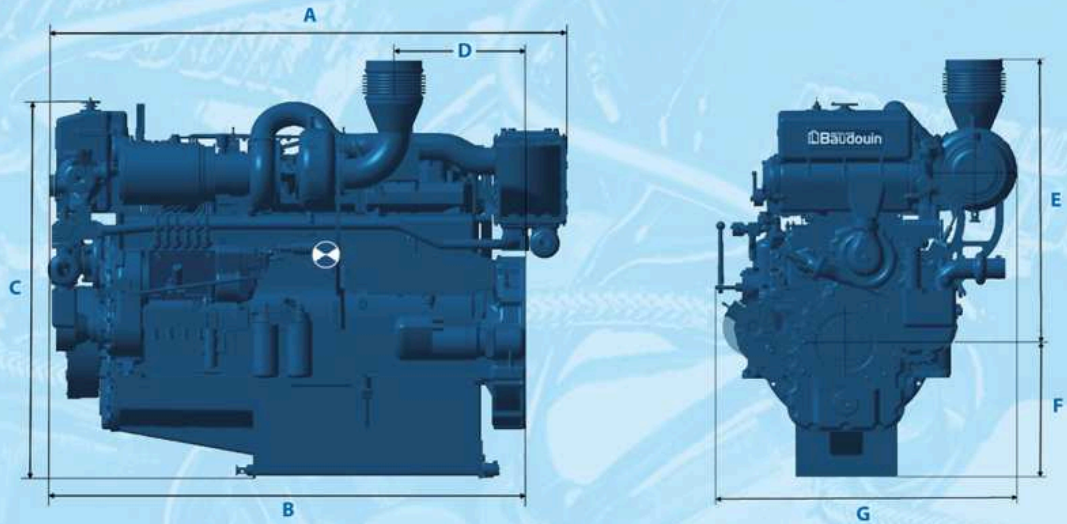
Model	Rated power Ps ( kW )	Rated speed r/min	Intake method	Power output type	Application
6M26C450-18	450(330)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
6M26C500-18	500(368)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
6M26C550-18	550(405)	1800	Turbocharged and intercooled	SAE1/14	Marine main engine
8M26C650-18	650(478)	1800	Turbocharged and intercooled	SAE0/14	Marine main engine
8M26C700-18	700(515)	1800	Turbocharged and intercooled	SAE0/14	Marine main engine
8M26C750-18	750(551)	1800	Turbocharged and intercooled	SAE0/14	Marine main engine
12M26C900-18	900(662)	1800	Turbocharged and intercooled	SAE0/18	Marine main engine
12M26C1000-18	1000(736)	1800	Turbocharged and intercooled	SAE0/18	Marine main engine
12M26C1100-18	1100(808)	1800	Turbocharged and intercooled	SAE0/18	Marine main engine

## Technical Parameters

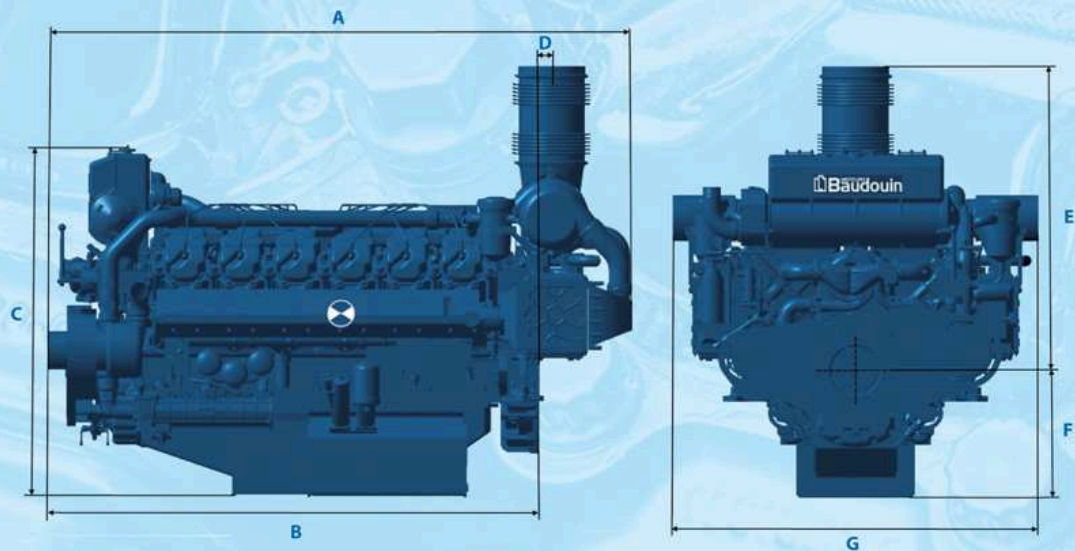
Model	6M26	8M26	12M26
Type	direct injection,4 strokes,double-circulation water cooled		
Cylinder numbers	L6	L8	V12
Bore(mm)	150	150	150
Stroke(mm)	150	150	150
Displacement(L)	15.9	21.2	31.8
Compression ratio	14	14	14
Min. steady working speed(r/min)	810	810	810
Min. steady idling speed(r/min)	700	700	700
Min. fuel consumption(g/kW.h)	≤213	≤213	≤213
Oil consumption(g/kW.h)	≤1.0	≤1.0	≤1.0
Smoke intensity(Bosch)	≤1.0	≤1.0	≤1.0
Emission	IMO Tier II		
Crankshaft rotating direction (face to flywheel)	Anticlockwise		
Fire Sequence	1-5-3-6-2-4		1-8-5-10-3-7-6-11-2-9-4-12
Starting method	Electrical start		
Oil sump capacity(L)	70		133
Net weight(kg)	1870		3180

## Overall Dimensions of M26 Series

6 M26



12 M26



	A	B	C	D	E	F	G
6M26	1870	1722	1385	500	913	497	1095
8M26	1934	1583	1464	135.5	999	533	1468
12M26	2433	2044	1462	49	1276	534	1521

## Connections

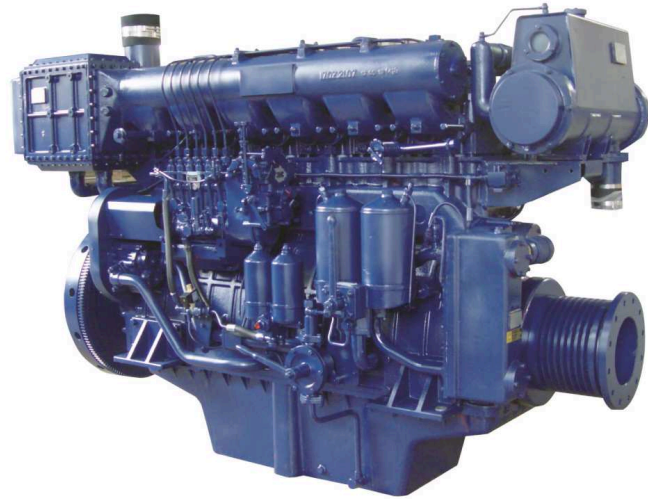
	seawater inlet (mm)	seawater outlet (mm)	Exhaust (mm)
6M26	int $\phi$ 63.5	int $\phi$ 50	int $\phi$ 194/ext $\phi$ 205
8M26	int $\phi$ 76.1	int $\phi$ 76.1	int $\phi$ 260/ext $\phi$ 278
12M26	int $\phi$ 76.1	int $\phi$ 76.1	int $\phi$ 260/ext $\phi$ 278



## Marine Medium-speed Diesel Engine

### R6160/X170 Series Marine Diesel Engine

R6160,X170 series marine diesel engine is a new generation engine which is developed by Weichai Power to meet the requirement of market. This product integrates the internationally-advanced engine design conception with the 50-year-long engine manufacturing experience of Weichai, boasting wide power range, low fuel consumption, excellent emission targets and rapid starting, etc. The engine can widely be used in various shipping.



#### Technical Parameters

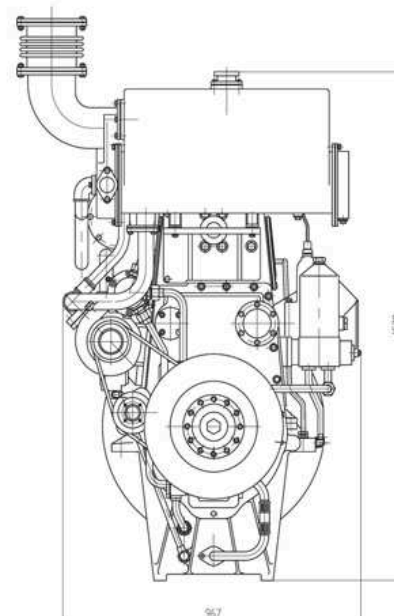
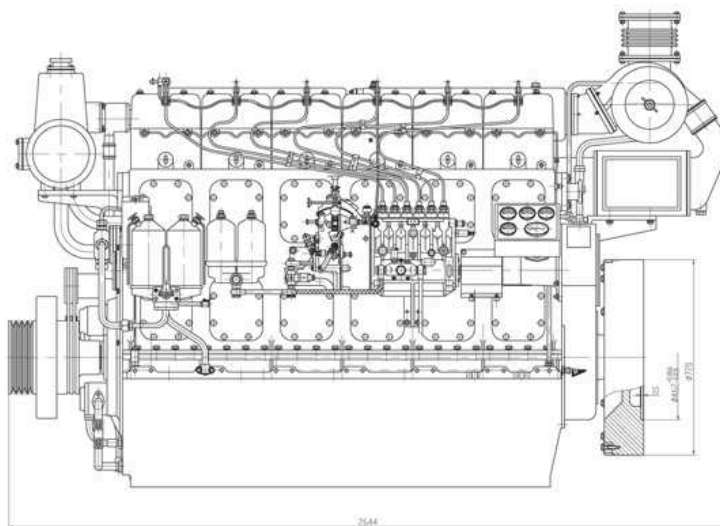
Model	R6160	X6170	8170
Type	In line,direct injection,4 strokes,double-circulation water cooled		
Cylinder numbers	6	6	8
Bore(mm)	160	170	170
Stroke(mm)	225	200	200
Displacement(L)	27.14	27.24	36.32
Compression ratio	14.5:1	14.5:1	14.5:1
Min. steady working speed(r/min)	400	400	400
Min. steady idling speed(r/min)	450	450	450
Min. fuel consumption(g/kW.h)	≤200	≤200	≤200
Oil consumption(g/kW.h)	≤1.36	≤1.36	≤1.36
Smoke intensity(Bosch)	≤1.5	≤1.0	≤1.0
Noise[dB(A)]	≤115	≤116	≤116
Emission	IMO Tier II		
Crankshaft rotating direction (face to flywheel)	Anticlockwise		
Fire Sequence	1-5-3-6-2-4	1-5-3-6-2-4	1-6-2-4-8-3-7-5
Starting method	Electrical/Air start		
Oil sump capacity(L)	90	65	80
Net weight(kg)	3350 ( < 202kW)、3400 ( ≥202kW )	3100	4200
Overhaul life(h)	12000	12000	12000

## Model List

Model	Rated power Ps ( kW )	Rated speed r/min	Intake method	Power output type	Application
R6160ZC223-1	223(164)	1000	Turbocharged	none/local	Marine main engine
R6160ZC250-1	250(184)	1000	Turbocharged	none/local	Marine main engine
R6160ZC275-1	275(202)	1000	Turbocharged and intercooled	none/local	Marine main engine
R6160ZC300-1	300(220)	1000	Turbocharged and intercooled	none/local	Marine main engine
R6160ZC350-1	350(255)	1000	Turbocharged and intercooled	none/local	Marine main engine
R6160ZC380-1	380(280)	1000	Turbocharged and intercooled	none/local	Marine main engine
R6160ZC408-1	408(300)	1000	Turbocharged and intercooled	none/local	Marine main engine
R6160ZC450-1	450(330)	1000	Turbocharged and intercooled	none/local	Marine main engine
R6160ZC490-2	490(360)	1200	Turbocharged and intercooled	none/local	Marine main engine
X6170ZC408-1	408(300)	1000	Turbocharged and intercooled	SAE0/16	Marine main engine
*X6170ZC450-1	450(330)	1000	Turbocharged and intercooled	SAE0/16	Marine main engine
X6170ZC450-2	450(330)	1200	Turbocharged and intercooled	SAE0/16	Marine main engine
X6170ZC480-2	480(353)	1200	Turbocharged and intercooled	SAE0/16	Marine main engine
*X6170ZC500-2	500(368)	1200	Turbocharged and intercooled	SAE0/16	Marine main engine
X6170ZC520-2	520(382)	1200	Turbocharged and intercooled	SAE0/16	Marine main engine
*X6170ZC540-2	540(397)	1200	Turbocharged and intercooled	SAE0/16	Marine main engine
X6170ZC580-3	580(426)	1350	Turbocharged and intercooled	SAE0/16	Marine main engine
X6170ZC620-4	620(456)	1500	Turbocharged and intercooled	SAE0/16	Marine main engine
8170ZC600-1	600(441)	1000	Turbocharged and intercooled	SAE0/18	Marine main engine
*8170ZC720-2	720(530)	1200	Turbocharged and intercooled	SAE0/18	Marine main engine
8170ZC818-3	818(601)	1350	Turbocharged and intercooled	SAE0/18	Marine main engine

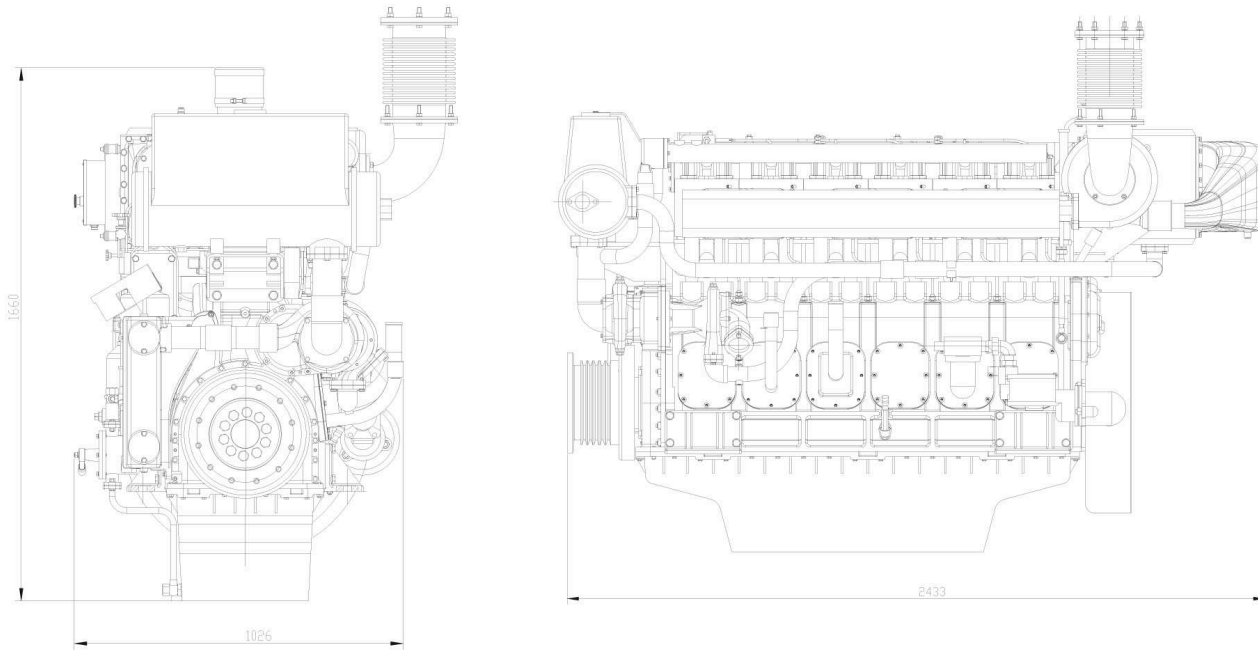
\* Recommend Models

## Overall Dimensions of R6160 Series

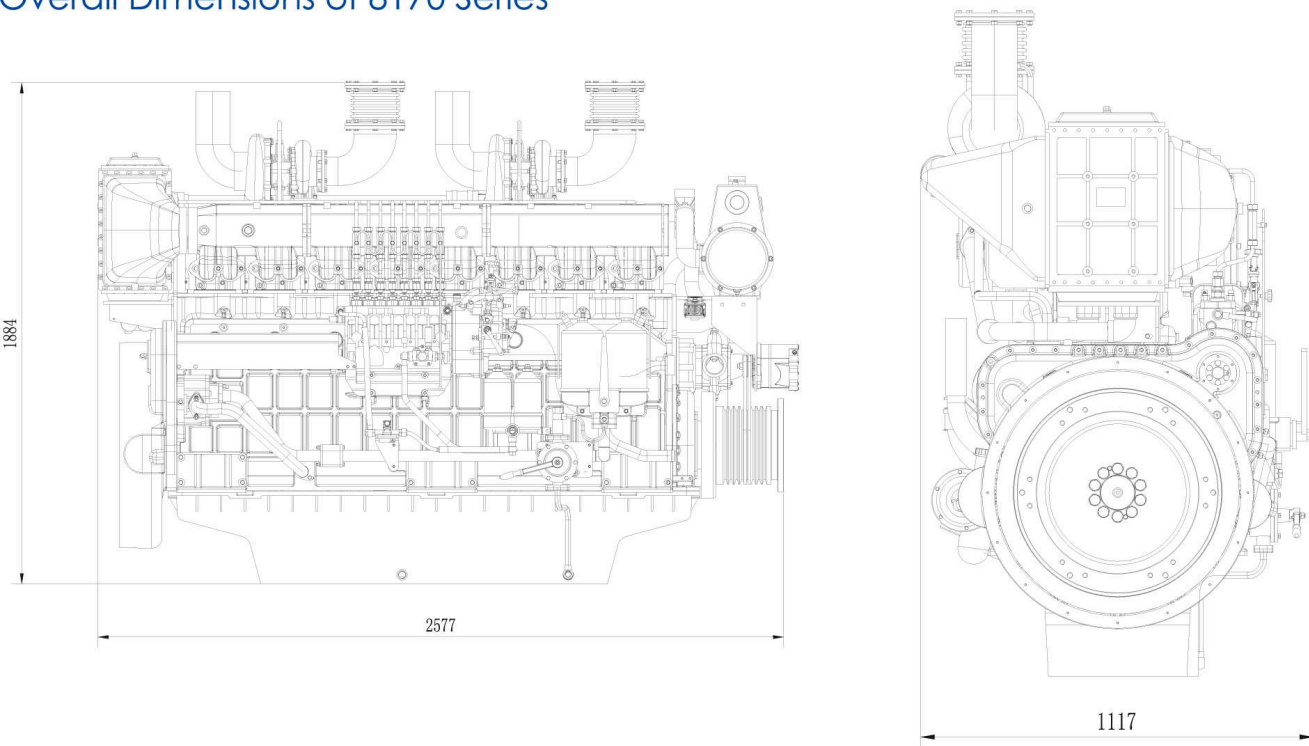




### Overall Dimensions of X6170 Series



### Overall Dimensions of 8170 Series



## CW200/250 Series Marine Diesel Engine

CW200/250 series marine diesel engines are products with mid-speed and high power developed independently by Chongqing Weichai Engine Works on the basis of advantages of like products both in China and foreign countries. It is characterized by rational construction, advanced performance index, reliable running operation and easy maintenance, etc. It can burn diesel oil and Redwood 1000-1500s heavy duty oil. It is an optimum power source for passenger liner, fishing ship, containership and also used for generating set for ship.



### ■ Technical Parameters

Model	CW6200ZC/ XCW6200	CW8200ZC/ XCW8200	CW12V200ZC/ XCW12V200	CW16V200	CW6250	CW8250
Type	direct injection, 4 strokes, double-circulation water cooled, Turbocharged and intercooled					
Cylinder numbers	L6	L8	V12	V16	L6	L8
Bore(mm)	200	200	200	200	250	250
Stroke(mm)	270	270	270	270	300	300
Displacement(L)	50.89	67.856	101.784	135.68	88.36	117.81
Compression ratio	13.37	13.37	13.37	13.37	13	13
Min. steady idling speed(r/min)	300-400					
Min. fuel consumption(g/kW.h)	≤200				≤200	
Oil consumption(g/kW.h)	≤1.0				≤1.0	
Smoke intensity(Bosch)	≤1.0				≤1.0	
Noise[dB(A)]	≤110					
Crankshaft rotating direction (face to flywheel)	Clockwise					
Fire Sequence	1-4-2-6-3-5	1-3-5-7-8-6-4-2	A1-B1-A4-B4-A2-B2-A6-B6-A3-B3-A5-B5	A1-B1-A3-B3-A5-B5-A7-B7-A8-B8-A6-B6-A4-B4-A2-B2	1-4-2-6-3-5	1-3-2-5-8-6-7-4
Starting method	Air start					
Emission	IMO Tier II					
Net weight(kg)	6500	7800	11800	13680	12000	15300



## Model List

Model	Rated power Ps ( kW )	Rated speed r/min	Fuel	Configuration	Application
CW6200ZC-7	612(450)	750	LDO/MGO/HFO	OIP/IIP	Marine main engine
CW6200ZC-5	734(540)	900	LDO/MGO/HFO	OIP/IIP	Marine main engine
CW6200ZC	816(600)	1000	LDO/MGO/HFO	OIP/IIP	Marine main engine
XCW6200ZC-5	734(540)	750	LDO/MGO/HFO	OIP/IIP	Marine main engine
XCW6200ZC-6	704(518)	720	LDO/MGO/HFO	IIP	Marine main engine
XCW6200ZC-51	816(600)	750	LDO/MGO/HFO	IIP	Marine main engine
XCW6200ZC-4	881(648)	900	LDO/MGO/HFO	OIP/IIP	Marine main engine
XCW6200ZC-1	979(720)	1000	LDO/MGO/HFO	OIP/IIP	Marine main engine
XCW6200ZC-2	1126(828)	1000	LDO	IIP	Marine main engine
CW8200ZC-9	979(720)	900	LDO/MGO/HFO	OIP/IIP	Marine main engine
XCW8200ZC-4	1175(864)	900	LDO/MGO/HFO	OIP/IIP	Marine main engine
CW8200ZC	1088(800)	1000	LDO/MGO/HFO	OIP/IIP	Marine main engine
XCW8200ZC-1	1306(960)	1000	LDO/MGO/HFO	OIP/IIP	Marine main engine
XCW8200ZC-2	1501(1104)	1000	LDO	IIP	Marine main engine
CW12V200ZC-2	1469(1080)	900	LDO/MGO/HFO	IIP	Marine main engine
CW12V200ZC	1632(1200)	1000	LDO/MGO/HFO	IIP	Marine main engine
XCW12V200ZC-4	1763(1296)	900	LDO/MGO/HFO	IIP	Marine main engine
XCW12V200ZC-1	1958(1440)	1000	LDO/MGO/HFO	IIP	Marine main engine
CW16V200ZC-8	1958(1440)	900	LDO	IIP	Marine main engine
CW16V200ZC-6	2176(1600)	1000	LDO/MGO/HFO	IIP	Marine main engine
CW16V200ZC	2394(1760)	1000	LDO	IIP	Marine main engine
CW6250ZLC-1	1500(1103)	750	LDO/MGO/HFO	IIP	Marine main engine
CW6250ZLC	2000(1470)	1000	LDO/MGO/HFO	IIP	Marine main engine
CW6250ZLC-2	1800(1323)	900	LDO/MGO/HFO	IIP	Marine main engine
CW8250ZLC-1	2000(1470)	750	LDO/MGO/HFO	IIP	Marine main engine

Remarks: Light diesel oil and HFO  $\leq 1500s$  ( 50°C, 120–180cst ) according to different configuration

OIP:one-piece injection pump

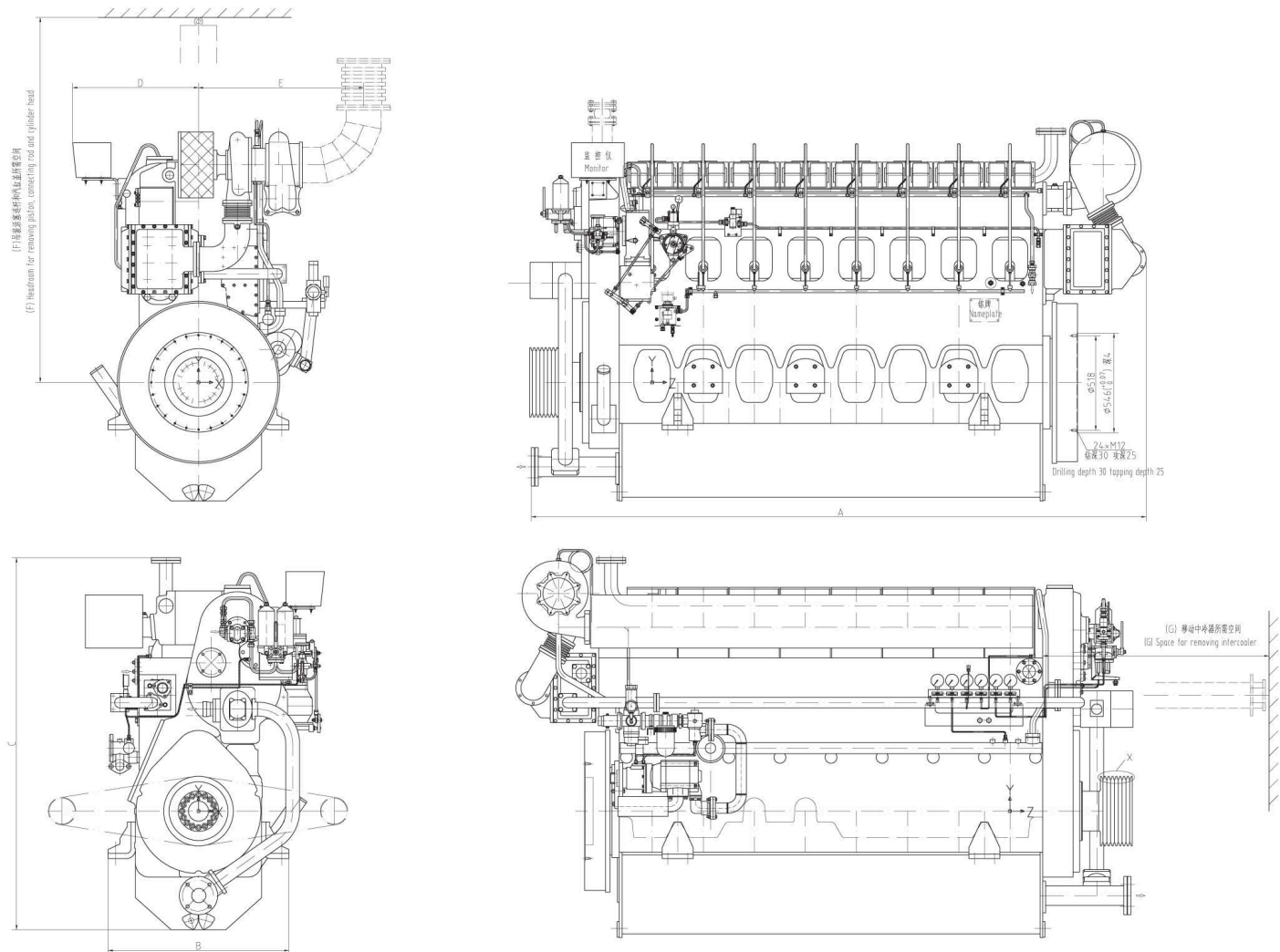
IIP:individual injection pump

LDO:light diesel oil

MGO:marine gas oil

HFO:heavy fuel oil

## Overall Dimensions of CW6200 /8200 Series

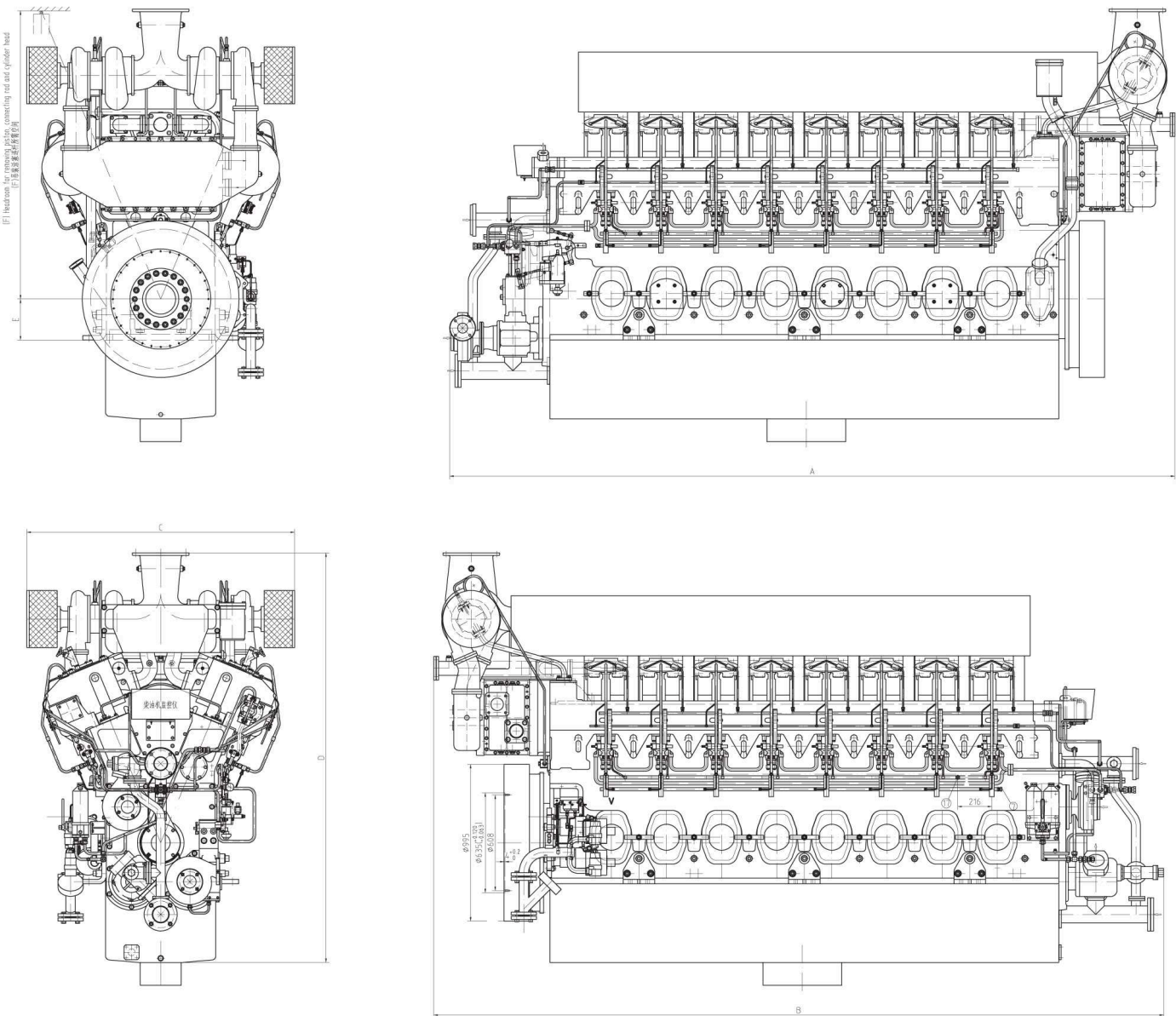


### Main Dimensions

Engine model	O'ty of cylinders	Overall dimensions ( mm )						
		A	B	C	D	E	F	G
CW6200	6	2816	990	2039	689.5	904.5	2000	1840
CW8200	8	3368	990	2039	689.5	904.5	2000	1400



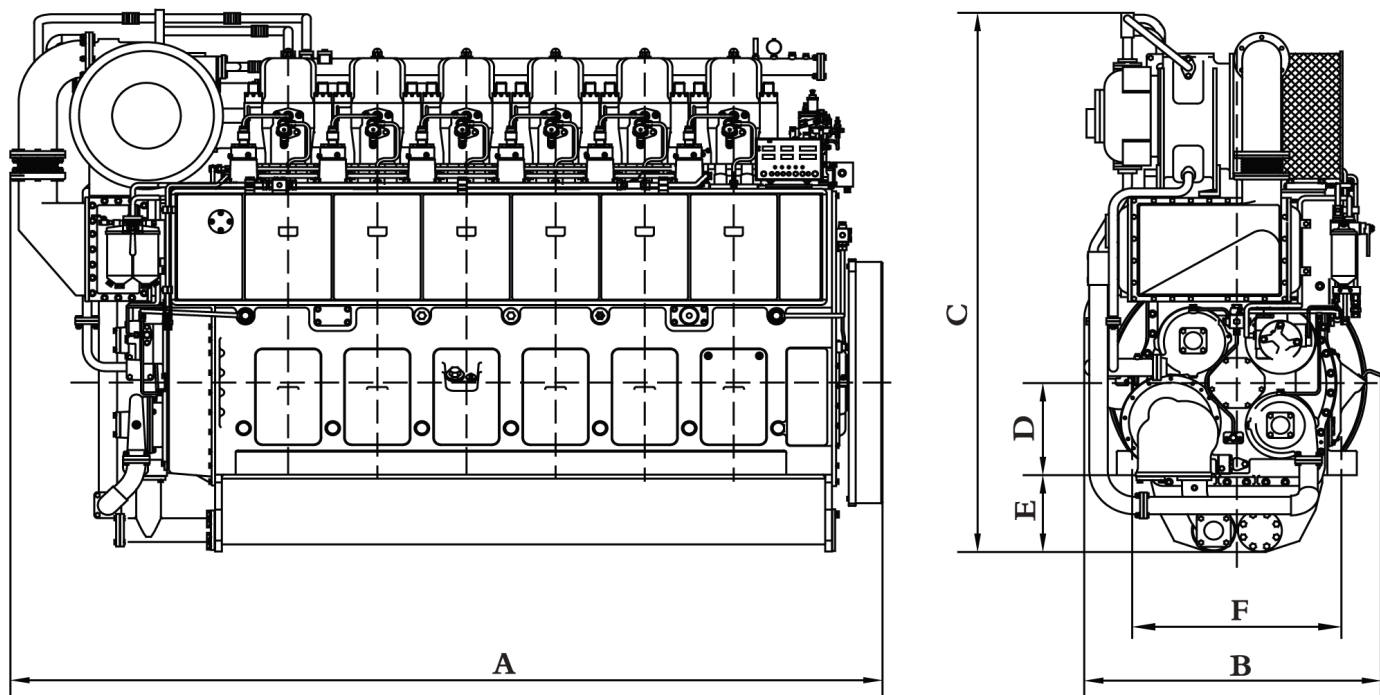
Overall Dimensions of CW12V/16V200 Series



Main Dimensions

Engine model	O'ty of cylinders	Overall dimensions ( mm )					
		A	B	C	D	E	F
CW12V600	12	3900	3933	1700	2600	260	1830
CW16V600	16	4603.5	4633	1700	2600	260	1830

## Overall Dimensions of CW250 Series



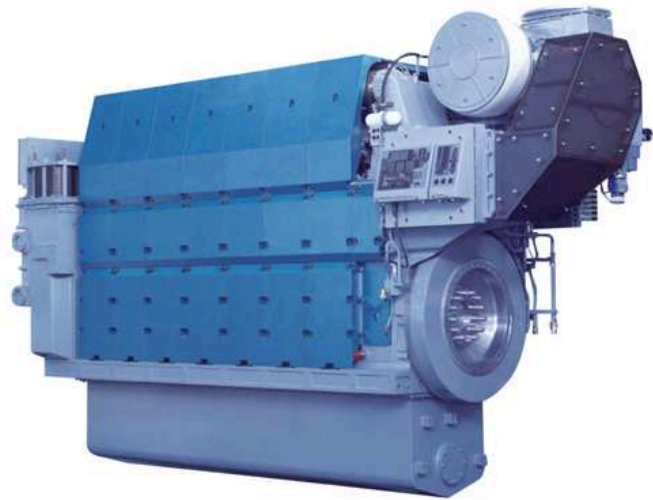
## Main Dimensions

Engine model	O'ty of cylinders	Overall dimensions ( mm )					
		A	B	C	D	E	F
CW6250ZL-1	6	3820	1400	2460	420	350	906
CW6250ZL	6	3820	1400	2460	420	350	906
CW8250ZL-1	8	4600	1400	2460	420	350	906



## L27/38,L32/40 Series Marine Diesel Engine

In April of 2008, Weichai signed L27/38,L32/40 marine diesel engine licensed production agreements with MAN, the world's first brand of marine diesel engine manufacturer. The product has 6, 7, 8, and 9 cylinders, power range from 2040 kW to 4500 kW.



### Technical Parameters

Model	6L27/38	7L27/38	8L27/38	9L27/38	6L32/40	7L32/40	8L32/40	9L32/40
Type	direct injection,4 strokes,double-circulation water cooled, Turbocharged and intercooled							
Cylinder numbers	6	7	8	9	6	7	8	9
Bore(mm)	270	270	270	270	320	320	320	320
Stroke(mm)	380	380	380	380	400	400	400	400
Displacement(L)	130.8	152.6	174.4	196.2	193.02	225.19	257.36	289.53
Compression ratio	16.5			14.5				
Fuel consumption(g/kW.h)	183			179				
Oil consumption(g/kW.h)	≤0.8			≤0.5				
Smoke intensity(mg/m3)	57-98			57-98				
Emission	IMO Tier II							
Noise[dB(A)]	Meet the ship rules				≤108			
Crankshaft rotating direction (face to flywheel)	Clockwise and counterclockwise							
Starting method	air starter							
Oil sump capacity(L)	1600	1800	2000	2200	drytype oil sump			
Net weight(kg)	31000	34000	37000	40500	38000	42000	47000	51000

## Low-noise-Flange pump technology--- Flange connect high-pressure pump

◆ Using high-pressure pump via flange connection, improve the oil pump connection stiffness, Reduced high vibration problems because connect by coupling, improve reliability, reduce noise.



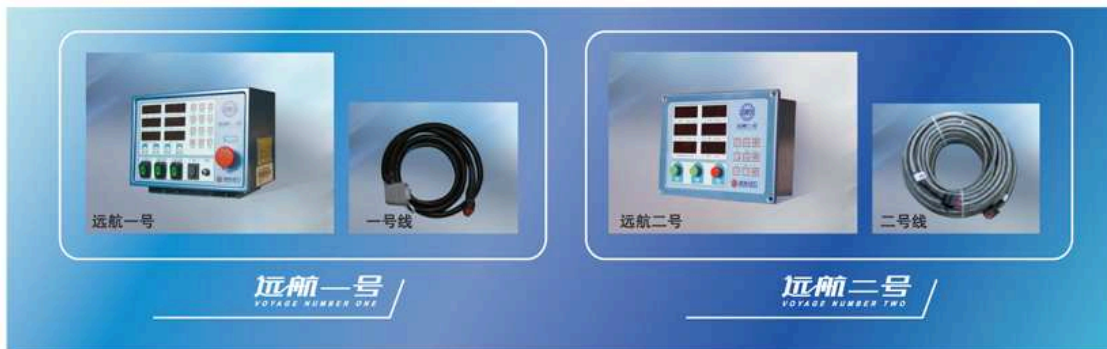
## Convenient-Non-stop filter technology-Non-stop to replace the filter can be realized

◆ According to Ship regulations design, replace diesel, oil filter without downtime can be realized in the course of engine operation, convenient maintenance.



◆ Reduced shutdown diesel engine and another abnormal failure occur because of filter clogging in the course of operation of the ship.

## Voyage safeguard monitor



### ◆ High adaptability

1. Much wider voltage range: DC 16V ~ 36V;
2. Much wider temperature range: -25°C ~ +70°C;
3. Much higher degrees of protection: IP55(dustproof/waterproof) —degree of deck machinery protection;
4. Can work well at extreme environment, such as high temperature, humidity, salt spray and strong vibration, electromagnetic Interference etc.

### ◆ High reliability

1. To use imported BOSCH sensor that is designed for resistant shake and corrosion and can measure accurately.
2. To use AMP connector that can be connected directly and reliably and can be against dust/water/corrosion and vibration.
3. To adopt advanced space technology and parts that can control and display accurately.
4. To use high-performance shield wiring harness that can be against abrasion high temperature and corrosion, and can transfer the signal accurate in time.



## Marine Set

Weichai marine engine match with gearbox of renowned brand in China ,make stronger power and higher reliability.It is widely applied on various containerships, fishing boats and so on, being the best choice for oversea customers.



### Model List

Marine Set		Diesel Engine			Gear box	
Model	Model	Power Ps(kW)	"Speed r/min"	Starting Method	Model	Ratio
W316CS*	X6170ZC450-1	450(330)	1000	Electrical/Air	WHG400	3-6
X316CS*	X6170ZC450-2	450(330)	1200	Electrical/Air	WHG400	3-6
W353CS*	X6170ZC500-2	500(368)	1200	Electrical/Air	WHG400	3-6
W366CS*	X6170ZC520-2	520(382)	1200	Electrical/Air	WHG400	3-6
W381CS*	X6170ZC540-2	540(397)	1200	Electrical/Air	WHG400	3-6
W408CS*	X6170ZC580-3	580(426)	1350	Electrical/Air	WHG400	3.5-6
W438CS*	X6170ZC620-4	620(456)	1500	Electrical/Air	WHG400	4-7
W425CS*	8170ZC600-1	600(441)	1000	Electrical/Air	WHG600	3-8
W508CS*	8170ZC720-2	720(530)	1200	Electrical/Air	WHG600	3-8
W577CS*	8170ZC818-3	818(601)	1350	Electrical/Air	WHG600	3.5-8

Note:CS—the output rotation direction of gearbox is clockwise,CN—anticlockwise,\* instead of ratio

## Weichai Marine Engine Technology

Relying on state-level technology center, and joint R&D center in Europe in France, With reliable, security, environmental, low consumption design concept, in allusion to marine power characteristics and matching requirements, The WP4/6, WD10/12, WP12 series marine diesel engine use of five special technical, to professional design, match, have high reliability, good security, strength dynamic and low fuel consumption features.

### Reliable- Marine dedicated sump technology--- Flat sump

#### ◆ Improve reliability

Use the marine special flat sump of overall stamping design, and reasonable arrangement of the ribs, improve the strength; no welding line on the surface, forming one time, put an end to leakage failure, improve reliability.



#### ◆ Convenient maintenance

Reduce the overall height, increase the distance to the bottom of the cabin, facilitate the replacement of oil.

### Security-Protection technology to prevent burning--- Low-pressure steel pipeline+ Water jacket exhaust pipe

#### ◆ Low-pressure steel pipeline

Optimize the layout of fuel pipeline, use steel low-pressure pipeline, improve security and reliability, At the same time to make the shape more beautiful, meet the requirements of shipping regulations.



#### ◆ Water jacket exhaust pipe

Use water jacket exhaust pipe cooling by freshwater, reduce the cabin temperature because of surface radiation, improve the comfort and security.

### Efficient-poly V-belt transmission technology

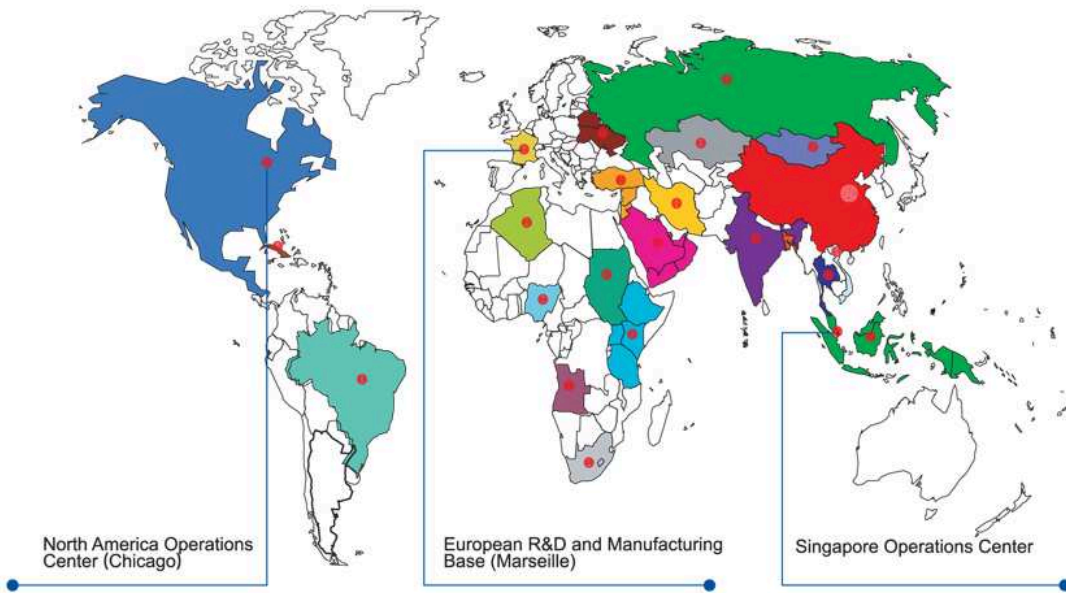
◆ High transfer efficiency and smooth operation, Effectively reducing the "Turn belt phenomenon" because of the beating of the original V-belt.

◆ Through the automatic tensioner, can be achieved belt automatic tensioning in the process of diesel engine operation, maintenance free.



## International Service Network

Weichai Power has a broad market in 97 countries and regions in five continents. Recently, it has had an international service network covering the global operations with 28 overseas institutions and 150 service agencies, which proves that Weichai Power has the initial ability to provide services to worldwide uses.



Service concept of Weichai Power:

***Wherever you are, you are always within Weichai service***

### Weichai Power 5P Service Project





# International Service Network

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Technical parameters are subject to change without notice

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