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# **POWERING GENERATIONS**







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## **ABOUT COMPANY**

Power HF Co.,Ltd. was founded in 1920. The company was initially known as Weifang Huafeng Machinery Co.,Ltd, which was one of the earliest engine manufacturers in China, and was accorded the prestigious title of 'No.1 factory on the North of Yangtze River'.

With nearly a century of development, Power HF has built up rich corporate heritage, and developed strong R&D and manufacturing capabilities. The company has modern engine & generator set assembly line and advanced flexible machining line. Annual production capacity of engine and spares exceed 120,000 units and 100,000 sets respectively.

Power HF has three core business areas: diesel engines, generator sets and engine spare parts. These products are widely used in various sectors such as agricultural equipment, construction machineries, telecommunications, stationary power, power generation, marine vessels. The company's principal markets are China and India and its sales and service network extends to more than 40 countries and regions all over the globe.





In recent years, Power HF has been keeping pace with the global trend of 'environmental protection, resource conservation and less emission by focusing on the reduction of fuel consumption and emissions. Meanwhile, the company is also committed to the research and development of new energy and alternative energy engines, as well as hybrid generator sets. Currently, some of these new generation products have been introduced into the market and are well received by customers.

Power HF will always adhere to the management philosophy of "innovation, progress, harmony, excellence", and strive to becoming the industry leading, world class and well respected company in off-road engines, generator sets and spare parts manufacturing and servicing.



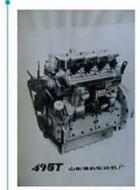




1932



In 1951, Huafeng became the first diesel engine manufacturer to register its "Huafeng" trademark



1971



In 1994, Huafeng merged with Weifang Diesel Engine Factory and renamed as \*Weichai Diesel Engine Factory Plant Two" .

In 1983, Huateng jointly

developed the R series

diesel engine with

Ricardo PLC.

1983

1994



In 2008, Huafeng relocated to its new modern factory.



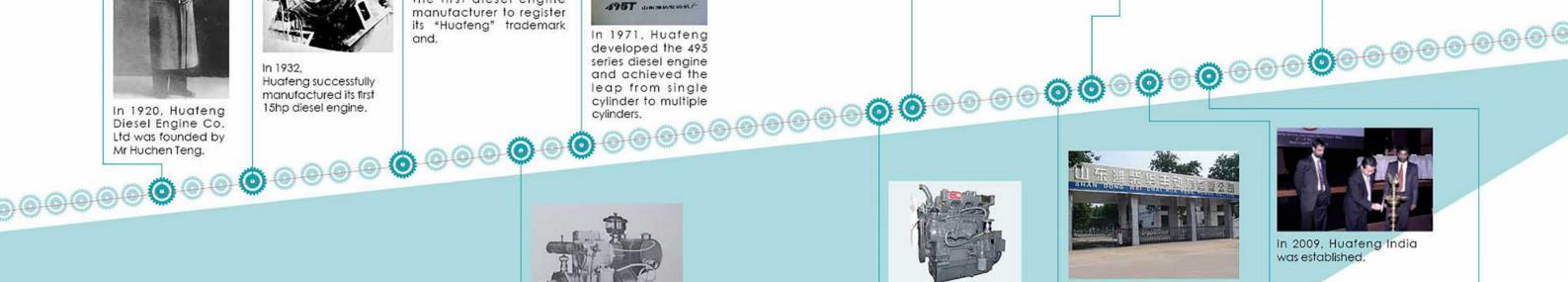
In 2016, Huafeng Myanmar was established.





In 1965, Huafeng developed the 185F series diesel engine.

1965



2004

In 2004, Shandong Weichai Huafeng Power Co. Ltd was established.as a sino-foreign joint venture.



In 2009, Huafeng India was established.

2009



In 2013, Power HF Co., Ltd was established, and marched towards powering generations beyond.

POWER HF CO.,LTD

## **DIESEL ENGINE** AGRICULTURE MACHINERY

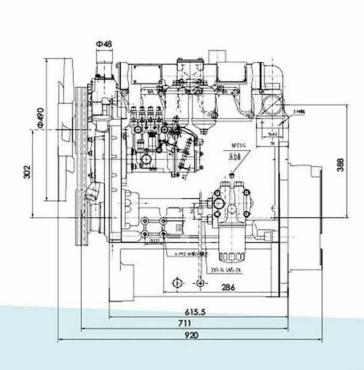


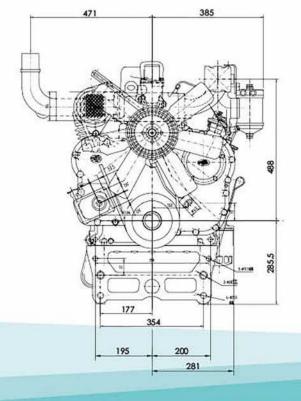
### **FEATURES**

- High interchangeability level of spare parts, makes it easy to maintain & repair;
- Oil sump is made of high strength casting iron, which can be used as girder of tractor chassis, and simplify the chassis structure;
- High power & High torque reservation: gear shifting is not required in different operating conditions. This will reduce driver's fatigue and improve operating efficiency;
- Energy efficient & Eco-friendly: engine provides lowest fuel consumption among similar type of diesel engines in China, the emisson meets off-road state III standardsGB20891-2014
- Flexible in coupling: engine can be connected at various coupling locations such as rear connecting plate, flywheel housing, torque converter, and etc;
- Easy to start at low temperature: engine can start at -10° without starting aid-device;
- Power range:from 40kW to 125kW.

			Technic	al Data She	eet			
Model	4RMT	4RNT	4RMZT	4RNZT	4RMIZT	6RMT	6RMZT	6RMAZT
Number of Cylinder- BoreXStroke(mm)	4-105×125	4-108×135	4-105×125	4-108×135	4-105×135	6-105×125	6-105×125	6-105×130
Displacement(L)	4.33	4.95	4.33	4.95	4.67	6.49	6.49	6.75
Aspiration	Naturally aspirated	Naturally aspirated	Turbo- charged	Turbo- charged	Turbo- charged	Naturally aspirated	Turbo- charged	Turbo- charged
Application				Tractor/Co	ombine			
Color	Black/Green	Black/Green	Black/Green	Black/Green	Black/Green	Black/Green	Black/Green	Black/Green
100% Load Fuel Consumption (g/kW.h)	<205	<205	<200	<200	<200	< 199	< 196	< 196
Net Weight(KG)	530	530	550	550	550	650	670	670
Rated Power/RPM (12h) (kW/r/min)	45-51.5/2200	51.5-62.5/2300	58.8-70/2200	74/2200	58.8-74/2200	81/2200	89/2100	100/2200
Torque At Torque Point/Speed (N.m/r/min)	>235/<1600	>260/<1600	>310/1400-1600	>390/1400-1600	>310/1400-1600	>397/<1500	>478/<1575	>546/<157
Max No Load Speed (r/min)	<2376	<2484	<2376	<2376	<2376	<2376	<2268	<2376
Idling Speed (r/min)	700±30	700±30	750-800	750-800	750-800	<650	<650	800-850
Starter Voltage/ Power (v/kW)	12/3.7	12/3.8	12/3.7	12/3.8	12/3.7	12/3.7	12/3.7	12/3.7
Charging Alternator Voltage/Power(v/W)	14/700	14/700	14/700	14/700	14/700	14/800	14/800	14/800
Emission				Off-road s	tate III			
Remarks								

### STRUCTURE





## **DIESEL ENGINE** CONSTRUCTION MACHINERY

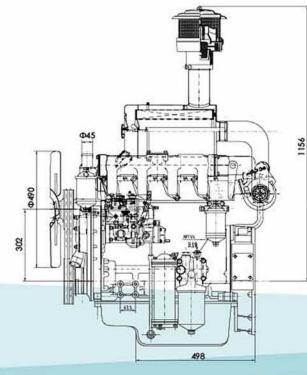


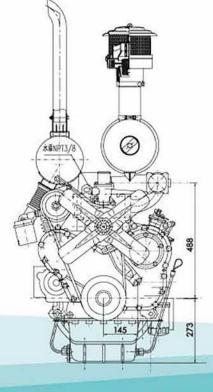
### FEATURES

- Engine can be applied to loaders, forklifts, drilling machines, excavators;
- Easy to maintain & repair: high interchangeability level of spares & sufficient spare stock in market;
- High power & torque: mean effective pressure, power per liter & torque per liter, etc are at the leading level among all similar type of engines in China;
- Low fuel consumption: fuel consumption is at the leading level among all similar type of engines in China;
- Easy to start at low temperature;
- Special configuration for air-inlet system is adopted for harsh environments.
- Emisson meets off-road state III standards GB20891-2014;
- Power range:from 44kW to 100kW.

			Technical	Data She	et			
Model	ZH4100G	ZH4102G	ZH4102ZG	R4105G	R4108G	R4105AZG	R6105G	R6105ZG
Number of Cylinder- BoreXStroke(mm)	4-100×115	4-102×115	4-102×115	4-105×125	4-108×135	4-105×130	6-105×125	6-105×125
Displacement(L)	3.61	3.76	3.76	4.33	4.67	4.5	6,49	6.49
Aspiration	Naturally aspirated	Naturally aspirated	Turbo- charged	Naturally aspirated	Naturally aspirated	Turbo- charged	Naturally aspirated	Turbo- charged
Application				Loader/Exce	avator			
Color	Black	Yellow	Black	Yellow	Black	Gray	Yellow	Gray
100% Load Fuel Consumption (g/kW.h)	<205	<206	<206	<205	<205	<200	<200	<200
Net Weight(KG)	340	380	390	410	410	465	550	560
Rated Power/RPM (1h) (kW/r/min)	44/2400	45/2400	55/2400	59/2400	60/2400	80/2400	84/2600	100/2200
Torque At Torque Point/Speed (N.m/r/min)	>206/1680	>221/1650	>252/1680	>270/1680	>275/1680	>370/1700	>380/1820	>500/1600
Max No Load Speed (r/min)	≤2640	<2640	≤2640	≤2640	≤2640	<2640	≤2860	<2464
Idling Speed (r/min)	700	700	700	700	850	970	700	650
Starter Voltage/ Power (v/kW)	24/4.7	24/4.7	24/4.7	24/5.2	24/5.2	24/5.2	24/5.2	24/5.2
Charging Alternator Voltage/Power (v/W)	28/350	28/350	28/350	28/500	28/500	28/500	28/500	28/500
Emission				Off-road sto	ate III			
Remarks								

### STRUCTURE





## DIESEL ENGINE POWER GENERATOR

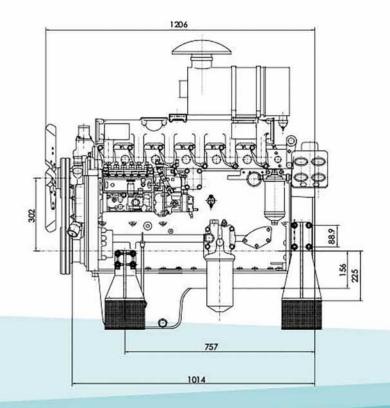


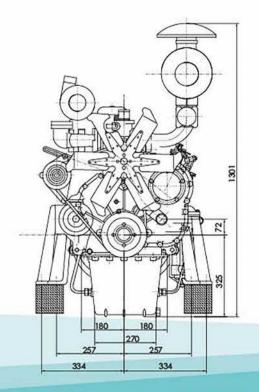
### FEATURES

- Wide power range & flexible in coupling & configuration: engine can be applied to canopy generator sets, open shelf generator sets, trailer generator sets and etc; Engine is capable of connection with disc type & dowel pin type alternators; Turbo charger and air cleaner of engine can both be put at top side & rear side;
- Low failure rate;
- Low fuel consumption;
- Low noise level;
- Advanced cooling system is adopted for high temperature environment;
- Electronic fuel pump is adopted. It enables to achieve zero speed change rate;
- Emission meets both India and China norms;
- Emisson meets off-road state III standards GB20891-2014;
- Power range: from 15kW to 440 kW.

			Technic	al Data :	Sheet				
Model	R2105D	R3105ZD	K4102D	R4105ZD	R4105IZLD	R6105IZLD	PHF6308ZL	PHF14L400	PHF15L440
Number of Cylinder- BoreXStroke(mm)	2-105X110	3-105×120	4-102×115	4-105×125	4-105×135	6-105×135	6-135×150	6-136×165	6-140×165
Displacement(L)	1.9	3.117	3,76	4.33	4.67	7.02	12.88	14.38	15.24
Aspiration	Naturally aspirated	Turbo- charged	Natural aspirated	Turbo- charged	Turbo- charged Intercooled	Turbo- charged Intercooled	Turbo- charged Intercooled	Turbo- charged Intercooled	Turbo- charged Intercooled
Application					Generator Set				
Color	Black	Black	Gray	Gray	Black	Gray	Gray	Gray	Gray
100% Load Fuel Consumption (g/kW.h)	<203	<205	<218	<201	≤198	<195	<203	<195	≤195
Net Weight(KG)	260	400	380	435	435	570	1150	1350	1350
Rated Power/RPM (12h) (kW/r/min)	17/1500	32/1500	33/1500	56/1500	66/1500	132/1500	280/1500	365/1500	405/1500
Rated Power/RPM (1h) (kW/r/min)	18.7/1500	35.2/1500	36/1500	61.5/1500	72.6/1500	145/1500	308/1501	400/1501	440/1501
Max No Load Speed (r/min)	1575	1575	1575	1575	1575	1575	<1575	<1575	<1575
Idling Speed (r/min)	700	750	550	650	650	650	750	750	750
Starter Voltage/Power (v/kW)	12/3	12/3.7	12/2,5	24/5	24/5	24/5	24/8.1	24/8.1	24/8.1
Charging Alternator Voltage/ Power (v/W)	14/350	14/350	14/350	28/350	28/350	28/350	28/1540	28/1540	28/1540
Emission			j	Off-Road state	II / III (India CP	CB II optional	)		
Remarks									

### STRUCTURE





## **DIESEL ENGINE** STATIONARY POWER

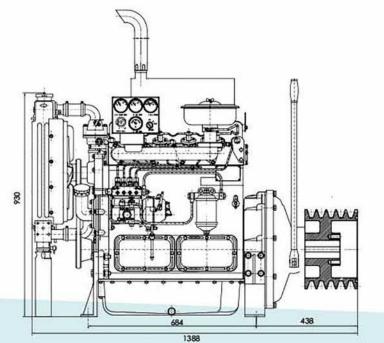


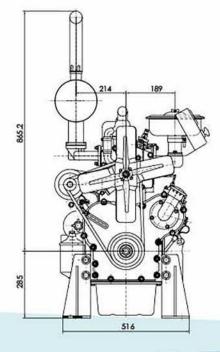
### FEATURES

- Engine can be applied to cement mixer truck, sand pumping ship, water pump;
- Advanced design with low integral engine vibration;
- Flexible in coupling: different power output modes & installation methods can be provided as per customer needs;
- Engine start, engine stop, acceleration, clutch can be operated remotely as per customer needs;
- Low fuel consumption;
- Easy to start;
- Emisson meets off-road state III standards GB20891-2014;
- Power range:from 40kW to 155 kW.

			Technical	Data She	et					
Model	R4105P	ZH4100P	ZH4102P	R4105P	R4105ZP	R4105ZP6	R6105P	R6105ZP		
Number of Cylinder- BoreXStroke(mm)	4-105X125	4-100X115	4-102X115	4-105X125	4-105X125	4-105X125	6-105X125	6-105X125		
Displacement(L)	4.33	3.61	3.76	4.33	4.33	4.33	6.49	6.49		
Aspiration	Naturally aspirated	Naturally aspirated	Naturally aspirated	Naturally aspirated	Turbo- charged	Turbo- charged	Natural aspirated	Turbo- charged		
Application	Cement tanker/Air compressor/Water pump set									
Color	Gray	Gray	Gray	Gray	Gray	Gray	Gray	Gray		
100% Load Fuel Consumption (g/kW.h)	<208	<208	<208	<208	<208	<208	< 208	<208		
Net Weight(KG)	550	450	450	550	580	580	660	680		
Rated Power/RPM (12h) (kW/r/min)	40/1500	40/2000	44/2000	48/2000	58/2200	58.8/2000	72/2000	75/1500		
Max No Load Speed (r/min)	1575	2160	2160	2160	2420	2160	2160	1575		
Idling Speed (r/min)	600-650	600-650	600-650	600	600-650	600	600	600-650		
Starter Voltage/Power (v/kW)	24/4.7	24/4.7	24/4.7	24/4.7	24/4.7	24/4.7	24/4.7	24/4.7		
Charging Alternator Voltage/Power (v/W)	28/350	28/350	28/350	28/350	28/350	28/350	28/350	28/350		
Emission				Off-roa	d state III					
Remarks										

### STRUCTURE





# **PRODUCTS** DIESEL ENGINE MARINE VESSEL

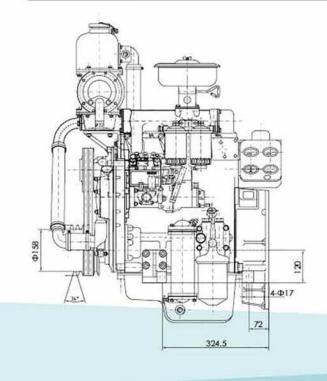


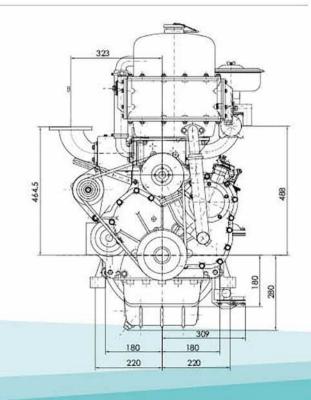
### FEATURES

- Excellent reliability, long life cycle;
- Flexible in coupling, it enables to meet different customer needs;
- Water sleeve cooling method is used on exhaust manifold to keep low temperature in vessel cabin;
- Smart integrated instruments are used to enable digital display, low pressure alarm, and even remote data transfer as per customer needs;
- Starter motor with full protection is used to solve salt mist corrosion issue and prolong service life itself as well as to guarantee electricity supply.

			Technic	al Data Sh	eet			
Model	495C4	495C1	R3105C	R4105C	R4105ZC	R6105C	R6105ZC	R6105ZLC
Number of Cylinder- BoreXStroke(mm)	4-95×115	4-95×115	3-105×120	4-105×125	4-105×125	6-105×125	6-105×125	6-105×125
Displacement(L)	3.26	3.26	3.117	4.33	4.33	6.49	6.49	6.49
Aspiration	Naturally aspirated	Naturally aspirated	Naturally aspirated	Naturally aspirated	Turbo- charged	Naturally aspirated	Turbo- charged	Turbo-charge Intercooled
Application				Ма	ine			
Color	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
100% Load Fuel Consumption (g/kW.h)	≤208	<218	≤206	≤ 209	< 201	< 209	≤209	≤198
Net Weight(KG)	380	380	400	430	435	530	580	630
Rated Power/RPM (12h) (kW/r/min)	24/1500	32/2000	30/1800	43/2000	50/1500	65/2000	88/2000	110.3/1800
Max No Load Speed (r/min)	1620	2160	2040	2200	1575	2200	2266	2040
Idling Speed (r/min)	550	550	600	600	675	600	600	630
Starter Voltage/ Power (v/kW)	24/4.7	24/4.7	24/5.2	24/5.2	24/5.2	24/5.2	24/5.2	24/5.2
Charging Alternator Voltage/Power (v/W)	28/350	28/350	28/500	28/500	28/500	28/500	28/500	28/500
Emission				China Stat	e G815097			
Remarks								

### STRUCTURE





POWER HF CO.,LTD

# **PRODUCTS GAS ENGINE**

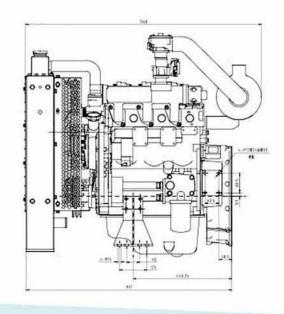


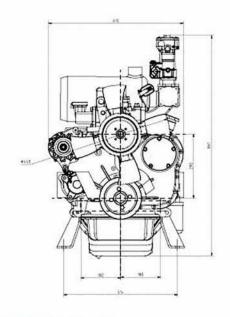
### FEATURES

- Reengineered from heavy duty diesel engine;
- Optimized timing to control exhaust temperature;
- Enhanced cylinder head, piston rings, valves and seats etc.;
- Anti-explosion solution to ensure safety;
- Electrical throttle valve controlled by ECU;
- CNG & PNG versions available;
- Rapid response to sudden load;
- Meeting Indian CPCB gas product emission standard.

		recrimical	Data Sheet		
Model	PHF3014NGD	PHF3017NGD	PHF3027NGD	PHF4034NGD	PHF6050NGD
Number of Cylinder- BoreXStroke(mm)	3-105×120	3-105×120	3-105×120	4-105×125	6-105×135
Displacement(L)	3.117	3.117	3.117	4.33	7.02
Aspiration	Naturally aspirated	Naturally aspirated	Turbo-charged Intercooled	Naturally aspirated	Naturally aspirated
Application			Generator Set		
Color	Black	Black	Black	Black	Black
00% Load Gas Consumption (m <sup>3</sup> /h)	<6.5	<6.5	<7	<b>&lt;</b> 7	<7
Net Weight(KG)	385	385	400	425	525
Rated Power/RPM (12h) (kW/r/min)	14/1500	17/1500	27/1500	34/1500	50/1500
Max No Load Speed (r/min)	1500	1500	1500	1500	1500
Idling Speed (r/min)	750	750	750	750	750
Starter Voltage/Power (v/kW)	12/3.8	12/3.8	12/3.8	12/3.8	24/3.8
Charging Alternator Voltage/ Power (v/W)	14/350	14/350	14/350	14/350	24/350
Emission			India CPCB		
Remarks					

### STRUCTURE





## Diesel Generator Sets



### Silent Generator Set



### **FEATURES**

- 1000L fuel tank as standard supply
- OUItra low noise level 65dBA@1m available for telecom sites;
- 1000h maintenance interval;
- Remote start/stop function.

### **FEATURES**

- Wide power range: from 5KVA to 3000KVA;
- High automation level enables remote control of equipments;
- Advanced technology enables to provide hybrid,gas and new energy generator generator sets;
- Low noise level & vibration;
- Easy to start at both low and high temperature environments;
- Low fuel consumption and emission level;
- Excellent durability and long maintenance interval.

## Gas Generator Set

### **FEATURES**

- Low noise and vibration compared to diesel DG;
- Environment friendly clean energy.



# **PRODUCTS** Hybrid Generator Set

### **Trailer Generator Set**

### **FEATURES**

- All in one solution integrated with DG, battery bank, rectifier system and solar energy;
- Compact size to save lands;
- Optimized control logic to save energy and ensure long life of the system.

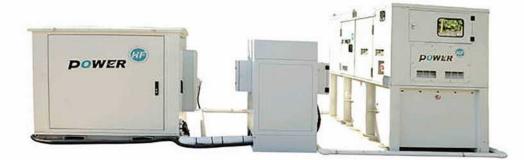




### **FEATURES**

- Low & high speed available;
- Single & dual axles chassis available.

# Hybrid Generator Set



### **FEATURES**

- Variety of DG and rectifier system combination available;
- Higher capacity;
- Easy transportation.

## Container Generator Set



### **FEATURES**

- Customized layout design
- Low noise level on account of optimized exhaust system
- Optimized ventilation system to control the temperature

# **PRODUCTS ENGINE PARTS**



#### **FEATURES**

#### Advanced machining and inspection equipment

Power HF has four precision machining lines equipped with world-class process machining from Japan Makino, Mori Seiki, and other leading international machine makers. Its machining capability can achieve positional accuracy of ≤0.006mm and repeated accuracy of positioning < 0.004mm. Meanwhile, with inspection equipments such as Hexagon 3D Coordinate Measuring Machines (CMM), Zoller Tool Measuring Machines and Renishaw CMMs, the machining process is capable of real-time inspection of work-in-process machine parts for better precision & accuracy.

### Flexible processing methodology

All machining lines adopt flexible processing methodology which can process engine spare parts within the size of  $1400 \times 1200 \times 1350$ mm necessary for the processing of critical engine parts.

### Adequate production capacity

Power HF's precision machining lines are ranked among the top in terms of scale and technology in the engine industry in China. Presently, the company is providing machining services for Weichai Power's WP10/WP12 cylinder blocks and crankcases.

# **MARKETING&SERVICE NETWORK**

Power HF focuses on construction of sales & service network.

In China, the company has set up integrated sales and servicing network of 16 offices, 210 maintenance centers and 10 spare part centers.

In India, the company has set up 18 offices, 174 service centers and 3 spare part centers, providing 24/7 services to customers.

Leveraging on its comprehensive service network in China & India, Power HF will continue with its global market expansion, and strive to establish a worldwide sales and service network when the company celebrates its 100th Anniversary.





# **KEY PARTNERS**





































# **CORPORATE CULTURE**

### **MISSION**

We focus on manufacturing and services of off-road engines, diesel generator and spare parts

### VISION

To be a world-class manufacturer in power industry

### **CORE VALUE**

Commitment

Quality

Alignment

Innovation

Sustainability

Teamwork

POWER HF CO.,LTD

### POWER HF CO.,LTD

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