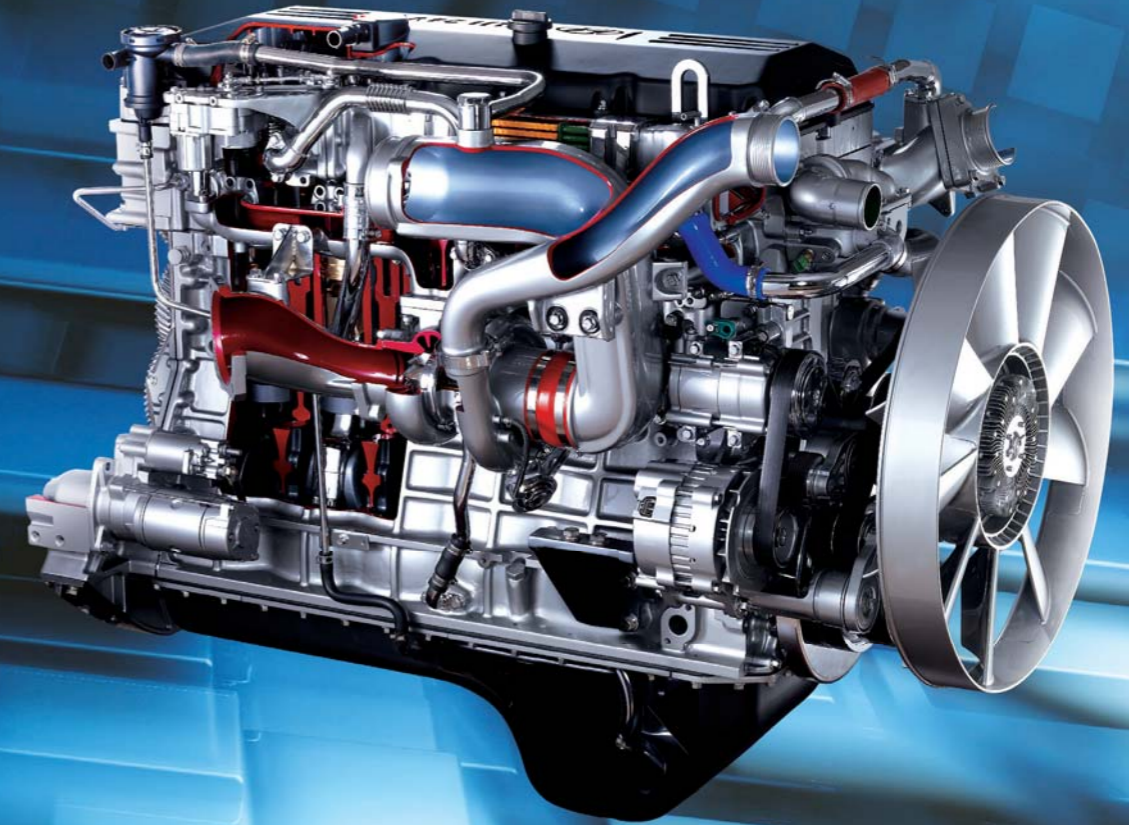


NEW THINKING. NEW POSSIBILITIES.

People's expectation toward individual mobility requires more than just a convenient means of transportation. The old understanding of cars has become outdated. A car represents individuals' lifestyles, and it became an integral part of their lives. At the same time, the automobile industry has experienced seismic change. Hyundai Motor Company has grown rapidly to become one of the largest automakers, backed by world class production capability and superior quality. We have now reached a point where we need a qualitative approach to bring bigger ideas and relevant solutions to our customers. This is an opportunity to move forward and we have developed a new brand slogan that encapsulates our willingness to take a big leap. Led by our new slogan and the new thinking underlying it, we will become a company that keeps challenging itself to unlock new possibilities for people and the planet.

 **HYUNDAI** | NEW THINKING.
NEW POSSIBILITIES.

HYUNDAI ENGINE

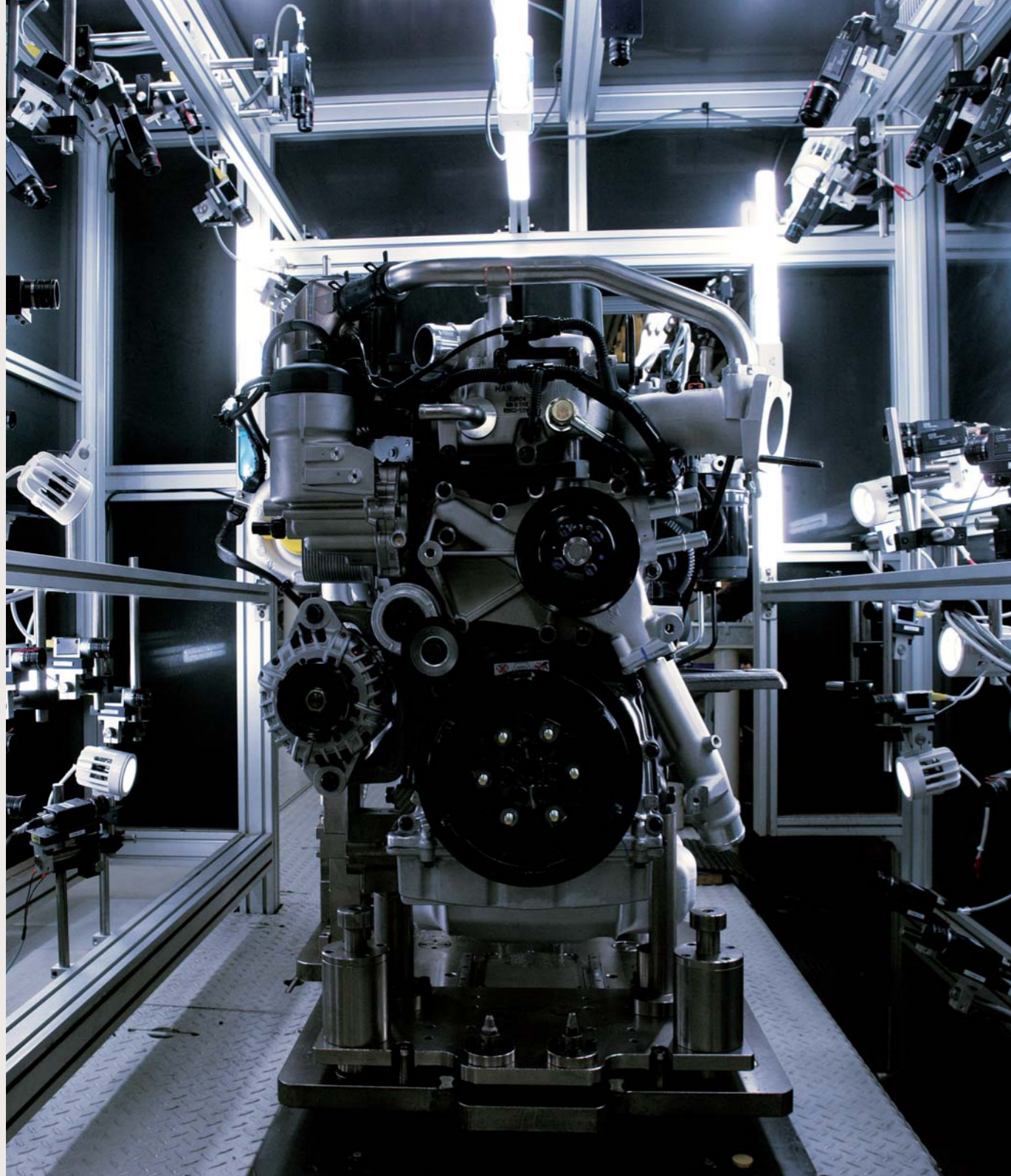


 **HYUNDAI** | NEW THINKING.
NEW POSSIBILITIES.

Hyundai Motor Company
12,Heolleung-ro, Seochogu, Seoul, Korea 06797, Special Vehicle Team
Tel : 82-2-3464-3321~3324 | Fax : 82-2-3464-3502

This catalog images may be different from the real engines and the specifications and features may be changed without prior notice in order to improve the products.

www.hyundai.com
2016.12 CP / ENG



The Strengths of HMC Industrial Engines

When it comes to the strengths of HMC's industrial engines, one can easily list the following three points. HMC has accomplished economies of scale with manufacturing capacity of over 5 million units per year. This allows stable supply of engines at competitive prices. HMC engines are of the best quality and performance. Behind the positive ratings of Hyundai Motors by JD Power,

AutoPacific and many other automotive rating organizations lie the high-quality engines. The strength of HMC engine is the diverse engine line-up ranging from gasoline engines (53~375hp), diesel engines (40~530 hp), to CNG engines that can easily meet our clients' various needs. In addition, HMC's engines are also eco-friendly and conform to all the international standards that are getting tougher and tougher.

HYUNDAI ENGINE IS YOUR PARTNER TO SUCCESS



World's largest scale commercial vehicle production plant-Jeonju Plant

The Jeonju Plant occupies a total of 400,000 pyong (317 acres) of land and has 4.3 million sq. ft. in production space. It specializes in producing mid to large-sized buses, trucks and specialty vehicles.

The Jeonju Plant is capable of producing 100,000 vehicles per year and in terms of the plant's scale, it is deemed to be the world's largest commercial vehicle production plant.

In order to facilitate the development of eco-friendly new products that can satisfy the demands of the international export markets in the 21st century and the development of environmentally-conscious management systems, the Jeonju Plant is making an all-out effort.



The Ulsan Plant-the world's single largest automobile plant in the world

The mammoth-sized Ulsan complex sits on a 1,200 acres site and it is Hyundai's main production plant comprised of five independent plants capable of producing 1,392,000 vehicles per year. This plant has over 35,000 employees and its annual average production capacity is 1,392,000 vehicles. The plant also has its own port where up to three 50,000 ton ships can anchor at the same time. Being the world's largest in scale of its kind, the Ulsan plant is the birth place of the Korean automobile industry and is a self-contained facility that operates its own fire station, hospital and security vehicles. The Ulsan Plant is also equipped with cutting-edge facilities to protect the environment, such as a waste water and sewage treatment plant securing Hyundai's position as a green-minded company.

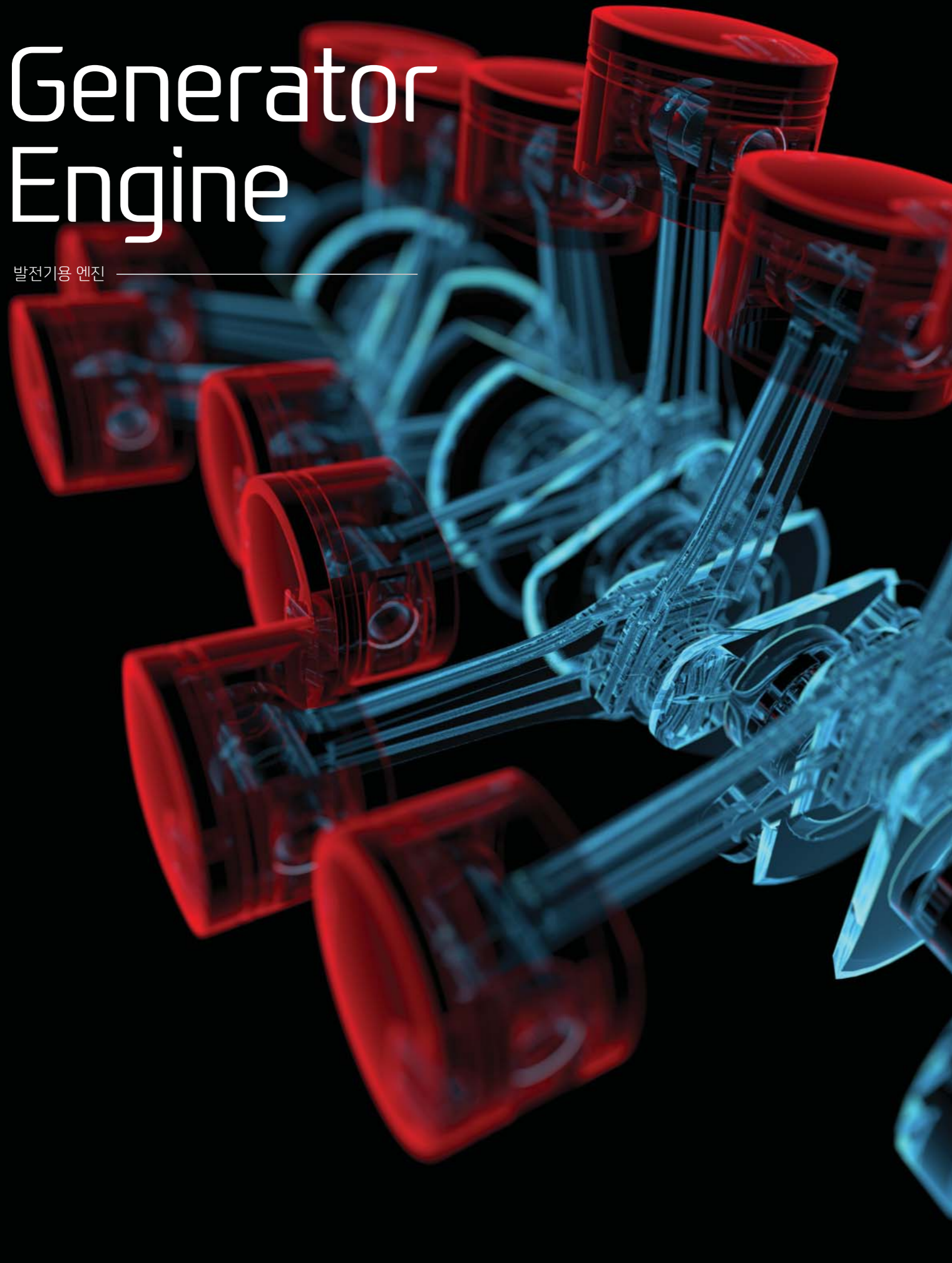


A Facility of the Future Focusing on export strategy-Asan Plant

The Asan Plant, which mainly produces passenger vehicles for export, rests on a 440 acres site with a 4 million sq. ft. building that consists of production lines for machine press, auto frame, paint, assembly, engine and a materials plant. It is an entirely self contained independent automobile production complex that is capable of an output of 300,000 mid to large size passenger vehicles annually. The Asan plant was established with the grand proposition of creating a safety-first work environment which is people oriented all the while putting into practice our management philosophy of eco-friendliness.

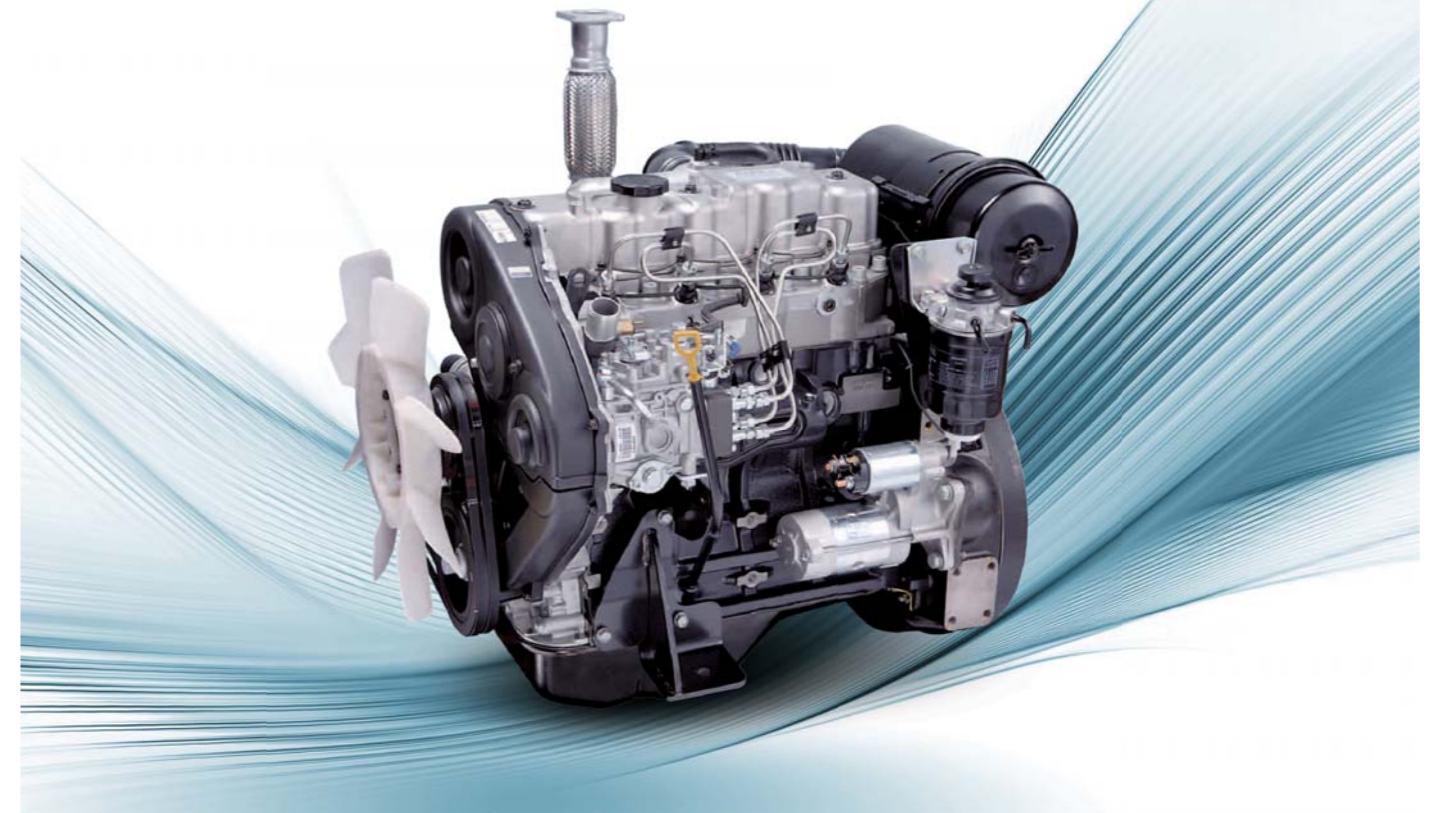
Generator Engine

발전기용 엔진



D4BB-G1, G2

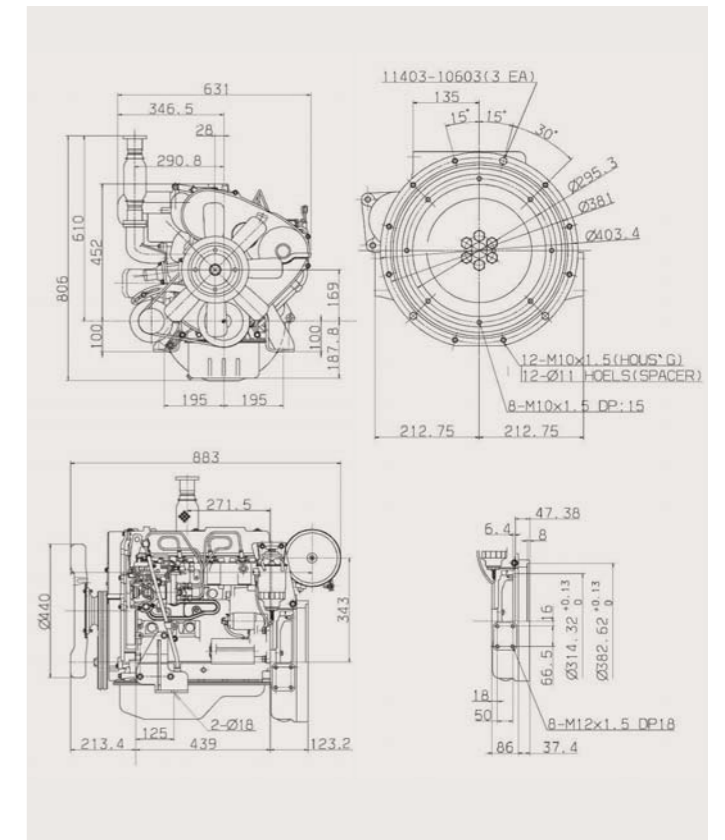
20kWe, 26kWe Grade



Specifications

Engine model	D4BB-G1(AG31)	D4BB-G2(AG39)	
Engine type	4 Cycle, water cooled		
Injection type	Indirect injection		
No. of cyl. And configuration	4-in line		
Aspiration	N.A		
Displacement (cc)	2,607		
Bore × stroke (mm)	91.1 × 100		
Compression ratio	22 : 1		
Dry weight (kg)	210		
Dimension	Length (mm)	883	
	Width (mm)	631	
	Height (mm)	806	
rpm	1,800	1,800	
Stand-by power	PS	28	45
	kW	21	33
Prime power	PS	25	41
	kW	19	30
Governor	-		
Flywheel	SAE #10		
Flywheel housing	SAE #4		
Alternator	12V - 65A		
Starting motor	12V - 2.2kW		

General View of Engine



D4AF-G

40kWe Grade

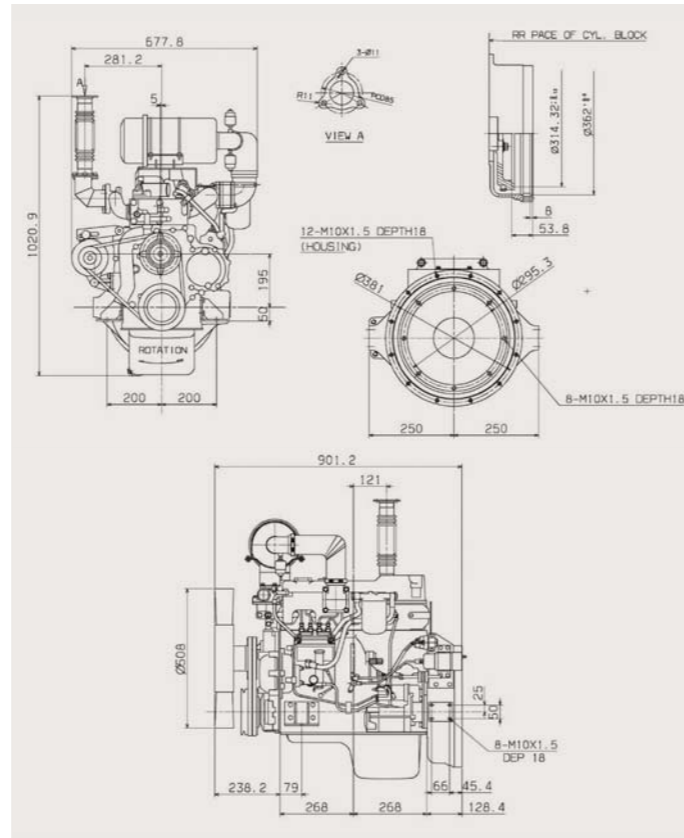
Generator Engine



Specifications

Engine model	D4AF-G(EM68)		
Engine type	4 Cycle, water cooled		
Injection type	Direct injection		
No. of cyl. And configuration	4-in line		
Aspiration	N.A		
Displacement (cc)	3,568		
Bore × stroke (mm)	104 × 105		
Compression ratio	17.5 : 1		
Dry weight (kg)	324		
Dimension	Length (mm)	901	
	Width (mm)	678	
	Height (mm)	1,021	
rpm	1,500	1,800	
Stand-by power	PS	50	60
	kW	37	44
Prime power	PS	45	54
	kW	33	40
Governor	Bosch RSV type		
Flywheel	SAE #10		
Flywheel housing	SAE #4		
Alternator	24V - 50A		
Starting motor	24V - 5.0kW		

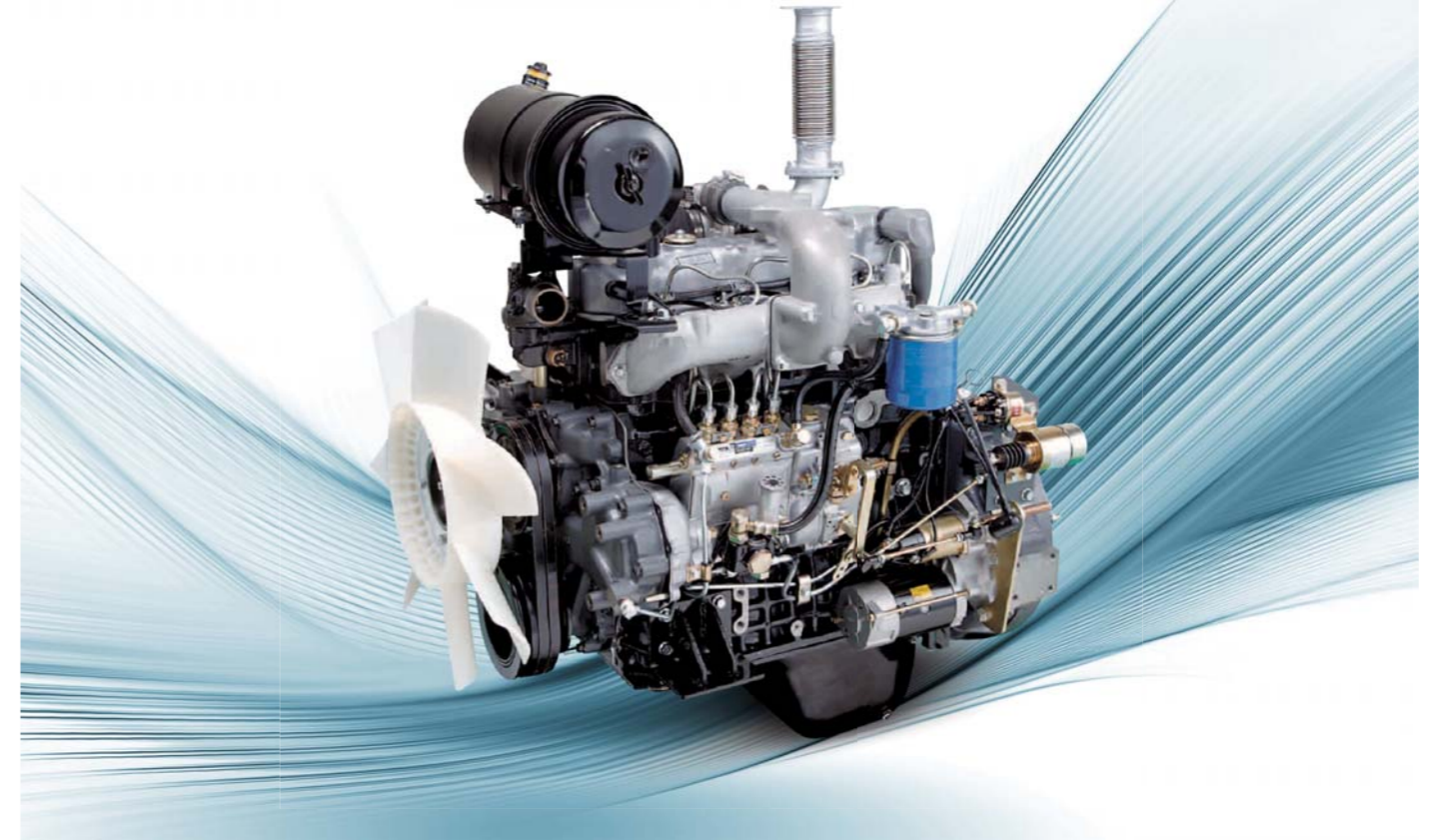
General View of Engine



D4AK-G

55kWe Grade

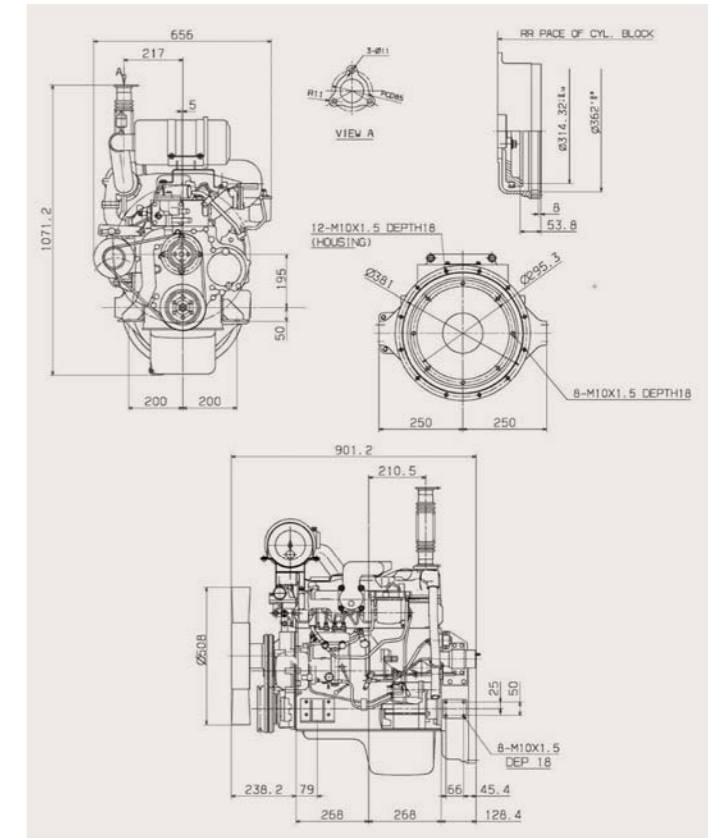
Generator Engine



Specifications

Engine model	D4AK-G(EM69)		
Engine type	4 Cycle, water cooled		
Injection type	Direct injection		
No. of cyl. And configuration	4-in line		
Aspiration	T.C		
Displacement (cc)	3,298		
Bore × stroke (mm)	100 × 105		
Compression ratio	16 : 1		
Dry weight (kg)	334		
Dimension	Length (mm)	901	
	Width (mm)	656	
	Height (mm)	1,071	
rpm	1,500	1,800	
Stand-by power	PS	60	82
	kW	44	60
Prime power	PS	54	74
	kW	40	54
Governor	Bosch RSV type		
Flywheel	SAE #10		
Flywheel housing	SAE #4		
Alternator	24V - 50A		
Starting motor	24V - 5.0kW		

General View of Engine



Generator Engine

Engine model	D4BB-G1	D4BB-G2	D4BB-G4	D4BB-G5	D4AF-G	D4AK-G	D4DA-G
Engine code	AG31	AG39	AG41	AG49	EM68	EM69	EM2D

General

Fuel	Diesel				Diesel			
Injection type	Indirect injection				Direct injection			
No. of cyl. And configuration	4-in line				4-in line			
Aspiration	P.A		T.C		P.A	T.C	T.C	
Displacement (cc)	2,607				3,568	3,298	3,907	
Bore x Stroke (mm)	91.1 x 100				104 x 105	100 x 105	104 x 115	
Compression ratio	22 : 1				17.5 : 1	16 : 1	16.5 : 1	
Dry weight (kg)	210		215		324	334	360	
Dimension (mm)	Length	883		800		901	901	897
	Width	631		604		678	656	673
	Height	806		844		1,021	1,071	1,082

Performance

rpm	1,800	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	
Stand-by power	PS	28	45	26	53	50	60	60	82	85	107
	kW	21	33	19	39	37	44	44	60	62	79
Prime power	PS	26	41	23	48	45	54	54	74	75	95
	kW	19	30	17	35	33	40	40	54	55	70

Lubrication system

Oil capacity (ℓ)	5.4				8.5		
Oil filter	Paper element(cartridge) type				Paper element(cartridge) type		

Fuel system

Governor	-				Paper element type		Electric
Fuel injection pump	Bosch VE type				Bosch PES4A type		
Fuel filter	Paper element type				Paper element type		

Standard equipment

Flywheel	SAE #10				SAE #10		
Flywheel housing	SAE #4				SAE #4		
Air cleaner	Cyclone filter paper type				Cyclone filter paper type		
Alternator	12V - 65A				24V - 50A		24V - 40A
Starting motor	12V - 2.2kW				24V - 5.0kW		24V - 5.0kW

Technical data

Heat rejection (kcal/h)	13,598	22,450	11,903	24,012	23,700	30,400	49,700
Intake air flow rate (m³/min)	1.9	1.9	1.6	3.5	2.9	3.6	5.0
Exhaust gas flow rate (m³/min)	5.4	5.4	4.5	5.4	8.5	10.5	16.0
Cooling water capacity (ℓ)	3.9				8.3	8.3	8.3
rpm	1,800	1,800	1,500	1,800	1,800	1,800	1,800
Fuel consumption (g/ps.h)	185.0	190.0	174.4	172.6	166.5	157.4	154.0

Application	Generator		Pump	Generator		
-------------	-----------	--	------	-----------	--	--

* Power is only for engine without cooling fan.

Engine model	D6AZ-G1	D6AZ-G2	D6AC-G	D6CC-G1	D6CC-G2
Engine code	EH1X	EH2X	BB17	EH9G	EH7G

General

Fuel	Diesel			Diesel	
Injection type	Direct injection			Direct injection	
No. of cyl. And configuration	6-in line			6-in line	
Aspiration	T.C		T.C.I		T.C.I
Displacement (cc)	11,149			12,344	
Bore x Stroke (mm)	130 x 140			130 x 155	
Compression ratio	16.5 : 1			17.2 : 1	
Dry weight (kg)	1,010		1,050		1,210
Dimension (mm)	Length	1,588		1,588	
	Width	938		1,033	
	Height	1,613		1,613	

Performance

rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	
Stand-by power	PS	270	309	235	260	320	350	450	530	400	460
	kW	199	227	173	191	235	257	331	390	294	338
Prime power	PS	243	278	212	234	288	315	405	477	400	460
	kW	179	204	156	172	219	232	298	351	294	338

Lubrication system

Oil capacity (ℓ)	24.0					28.0				
Oil filter	Paper element type with by-pass filter					Paper element type with by-pass filter				

Fuel system

Governor	Electric	Bosch RSV type	Electric	ECU		
Fuel injection pump	Bosch PE6A type	Bosch PE6AD type	Bosch PE6P type	Electric unit injector		
Fuel filter	Paper element type			Paper element type		

Standard equipment

Flywheel	SAE #14			SAE #14		
Flywheel housing	SAE #1			SAE #1		
Air cleaner	Cyclone filter paper type			Cyclone filter paper type		
Alternator	24V - 70A			24V - 80A		
Starting motor	24V - 5.5kW			24V - 6.0kW		

Technical data

Heat rejection (kcal/h)	99,000	90,000	120,000	240,000	210,000
Intake air flow rate (m³/min)	14.0	14.0	17.2	29.5	24.2
Exhaust gas flow rate (m³/min)	41.5	38.4	50.4	62.5	52.1
Cooling water capacity (ℓ)	24.0			42.0	42.0
rpm	1,800	1,800	1,800	1,800	1,800
Fuel consumption (g/ps.h)	162.5	154.0	152.6	149.0	148.0

Application	Generator			Generator		
-------------	-----------	--	--	-----------	--	--

* Power is only for engine without cooling fan.