

shindaiwa®

SPECIFICATIONS

Diesel Engine Generator
DGK150D/EPA3

CONTENTS

CHAPTER 1: GENERAL.....1

- 1. Standards**
- 2. Design Conditions**
- 3. Test and Check**
- 4. Painting**
- 5. Structure**

CHAPTER 2: SPECIFICATIONS.....2

CHAPTER 3: EQUIPMENT AND FEATURE.....3

- 1. Equipment**
 - (1) Generator**
 - (2) Safety Device**
 - (3) Equipment**
- 2. Feature.....4**
 - (1) Feature**
 - (2) Protection Device**
 - (3) Fuel Economy**
 - (4) Accessories**

CHAPTER 4: APPEARANCE.....5

CHAPTER 1: GENERAL

1. Standards

Design and production are in conformity with:

- (1) Japan Industrial Standards: JIS C 9300-1
- (2) Low Noise Type Construction Machinery Standard
- (3) Voluntary Emission Regulations for non-road engines in Japan by MLIT. (Tier 3)
- (4) EPA Tier 3 Emission

*MLIT stands of Ministry of Land, Infrastructure, Transport and Tourism.

2. Design Conditions

- (1) Installation Place: Outside Only.
- (2) Ambient Temperature: 5 to 104° F (-15 to 40°C)
- (3) Humidity: Less than 85%
- (4) Altitude: Less than 3280 ft. (1000 m) above sea level

3. Test and Check

Test shall be conducted with a complete workable unit of the diesel engine unit.

Check Items:

- (1) Insulation and Dielectric Test
- (2) Starting
- (3) Protection Device Working Test
- (4) Voltage Deviation and Speed Variation: 0-4/4 Load
- (5) Load Test: Welding and Generating 4/4 Load

4. Painting

Painting and color specifications are as per manufacturer's standard.

5. Structure

- (1) Bed and Vibration Proof Device

Alternator is directly coupled with engine and both are installed on the bed through the vibration proof device.

- (2) Low Noise

Low noise structure is put in the inside of the bonnet.

Sound Level: 59dB(A) @7m distance under no load.

- (3) Fuel Tank

A steel fuel tank is equipped and incorporated with the electrical level gauge.

CHAPTER 2: SPECIFICATIONS

Model		Unit	DGK150D/EPA3	
Alternator	Generating Type	-	Rotating Filed, Brushless 3-Phase Synchronous Alternator	
	Rated Output	kVA	150	
		kW	120	
	Voltage – Three Phase	V	208 / 480	
	Voltage – Single Phase	V	120 / 240 / 277	
	Amps	Three Phase – 480V	A	180
		Three Phase – 208V	A	416
		Single Phase – 240V	A	361 (zigzag)
		Single Phase – 120V	A	361 x 2 (zigzag)
	Rated Frequency	Hz	60	
	Winding	-	3-phase, 4-wire Star with neutral / Zig-zag	
	Power Factor	%	80	
	Insulation Class	-	F	
Excitation	-	Self-Excitation (Brushless)		
No. of Pole	-	4		
Engine	Type	-	Vertical Water-cooled 4-cycle Diesel Engine	
	Model (Manufacturer)	-	6HK1 (ISUZU)	
	No. of Cylinder (bore x stroke)	(in. / mm)	6 (4.53x4.92 / 115x125)	
	Rated Output (Continuous)	kW	142	
		HP	190	
	Rated Speed	rpm	1800	
	Displacement	cu.in. / liters	475.4 / 7.790	
	Combustion System	-	Direct Fuel Injection with Turbo Charger	
	Cooling	-	Radiator	
	Lubricating	-	Forced Lubrication	
	Starting	-	Electric Start	
	Fuel	-	Diesel	
	Lubricant Oil	-	CD Class	
	Fuel Tank Capacity	gal. / liters	74 / 280	
	Lubricant Volume (Full)	gal. / liters	10 / 38	
	Cooling Water Volume	gal. / liters	6.3 / 23.8	
	Starting Motor Capacity	V-kW	24 - 5.0	
	Charging Dynamo Capacity	V-A	24 - 50	
	Battery	-	105E41R x 2	
	Battery Capacity	V-AH	12(V) – 100AH	
Unit	Length	in. / mm	135.8 / 3450	
	Width	in. / mm	48.8 / 1240	
	Height	in. / mm	72.8 / 1850	
	Dry Weight	lbs. / kg	6504 / 2950	
	Installed Weight	lbs. / kg	7187 / 3260	

*Specifications are subject to change without notice.

CHAPTER 3: EQUIPMENT AND FEATURE

1. Equipment

(1) Generator

Voltage Meter	1 pc.
Ampere Meter	1 pc.
Frequency Meter	1 pc.
AC Voltage Adjusting Dial.....	1 pc.
Ampere Meter Selector Switch.....	1 pc.
Volt Meter Selector Switch	1 pc.
Voltage Selector Switch.....	1 pc.

(2) Safety Device

Emergency Stop Button	1 pc.
Breaker - with leakage shut off device.....	1 pc.
Protective Monitor	1 set
●Diagnosis	
●Boost	
●Battery Charge	
●Oil Pressure (with auto engine shutdown feature)	
●Over Heat (with auto engine shutdown feature)	
●Over Speed	

(3) Equipment

Throttle Switch	1 pc.
Fuel Filter	1 pc.
Air Cleaner	1 pc.
Air Cleaner Indicator	1 pc.
Fuel Drain Plug	1 pc.
Oil Drain Plug.....	1 pc.
Coolant Drain Hose.....	1 pc.
Preheat Lamp	1 pc.
Hour Meter	1 pc.
Pilot Lamp	1 pc.
Front Panel Light.....	1 pc.
Low Noise Air Flow System	

2. Feature

(1) Feature

- Sound Level 59B(A) at 7m distance under no load.
- Generating Performance 1-Phase & 3-Phase
- 2 Way Drive Control High/Low Speed
- Environmental Quiet Sound System
- Fuel Tank Capacity 74 gal. (280 Liters)
- Dry Weight 6504 lbs. (2950 kg)
- Dimensions (LxWxH) 135.8" x 48.8" x 72.8" (3450 x 1240 x 1850 mm)

(2) Protection Device

Item	Set Value	Engine Shut-Down
Water Temp.	221° F/105°C	✓
Low Battery Charge	1.23	No
Low Oil Pressure	14.5 psi/100kPa	✓
High Boost Temp.	185° F/85°C	No
Over Speed	2070 rpm/60Hz	✓
Diagnosis	-	No (#1)

#1: Functions are still under operation.

(3) Fuel Economy

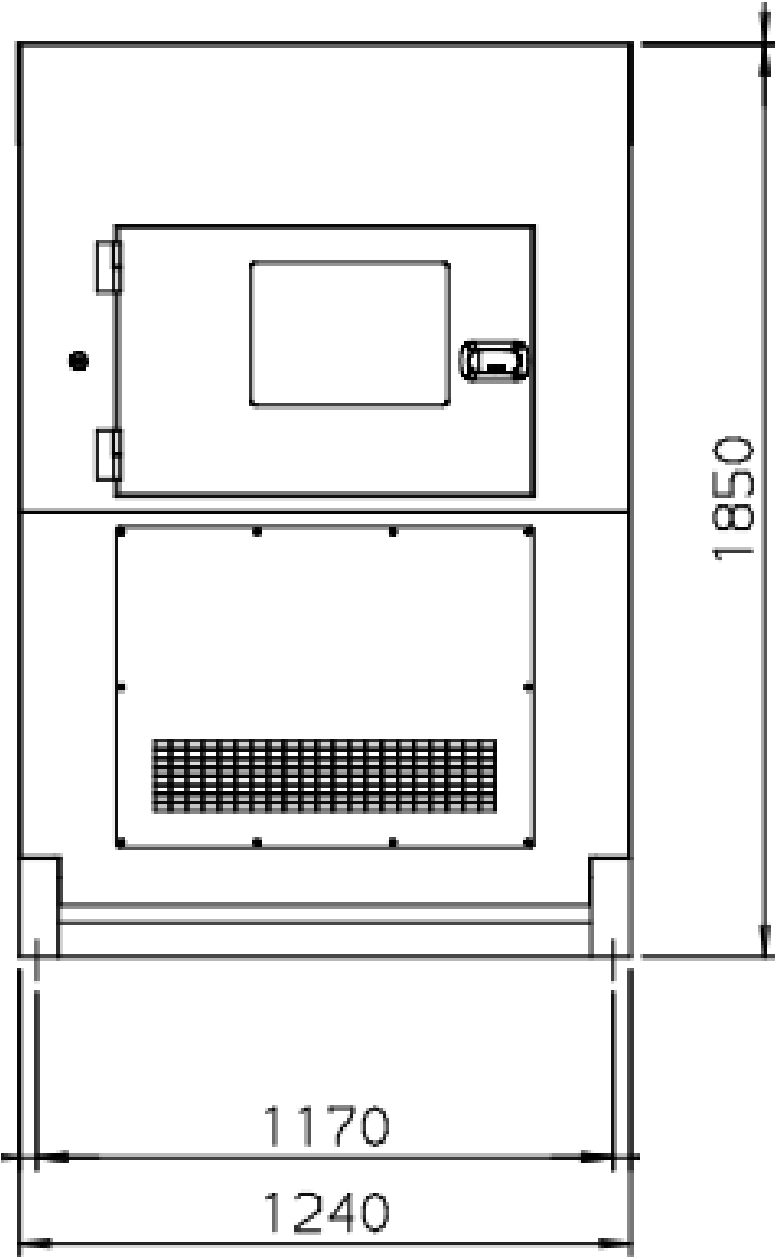
Criteria	Fuel Consumption
Full load	8.5 gal./hr (32L/hr.)
3/4 load	6.6 gal./hr (25L/hr.)
1/2 load	4.5 gal./hr (17L/hr.)
1/4 load	2.6 gal./hr. (10L/hr.)
No Load	1.4 gal./hr. (5.5 L/hr)

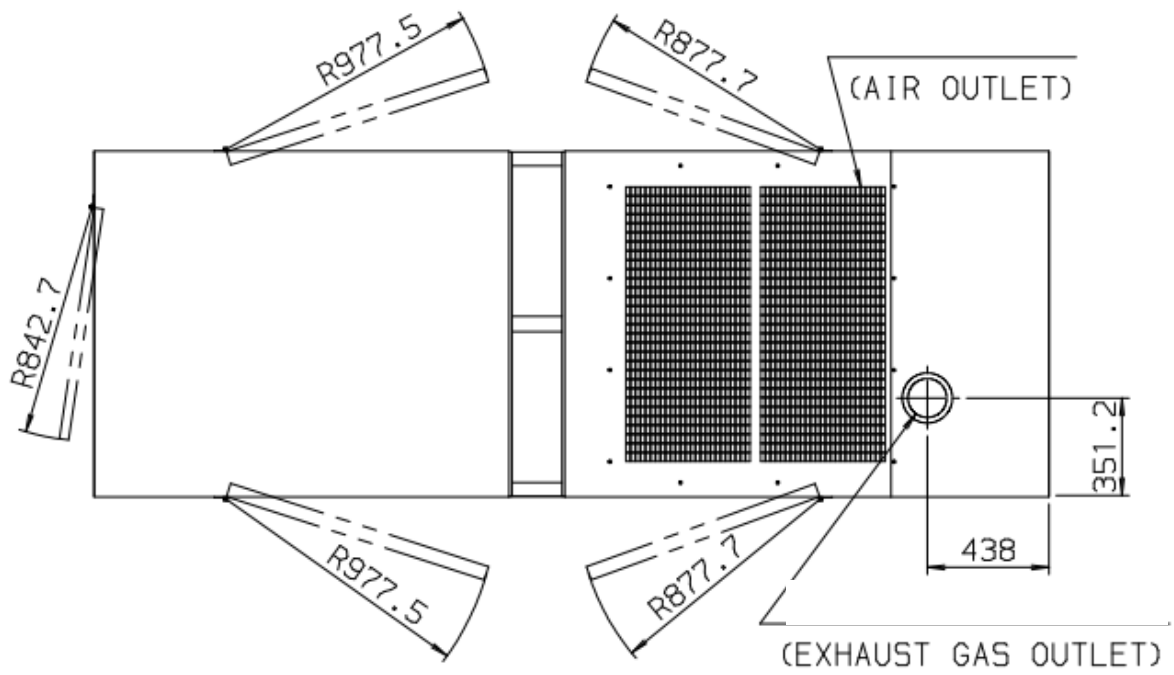
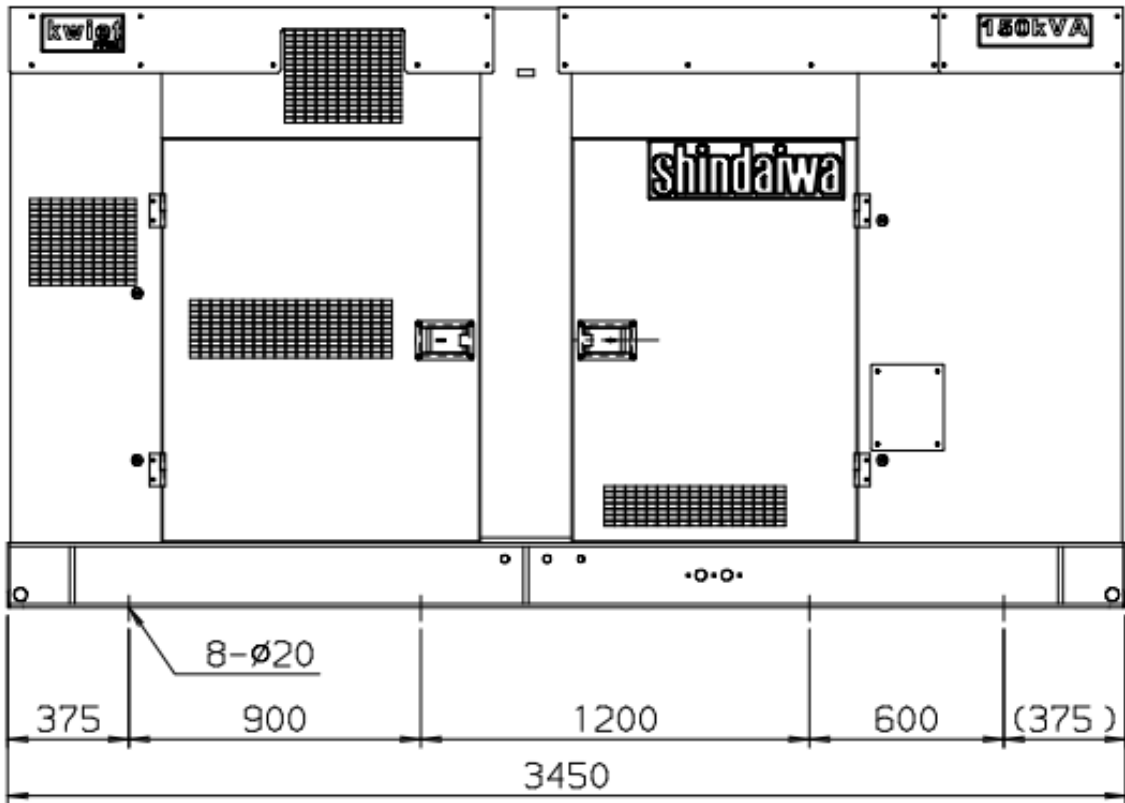
*Above value is for reference only as it may vary depending on the conditions.

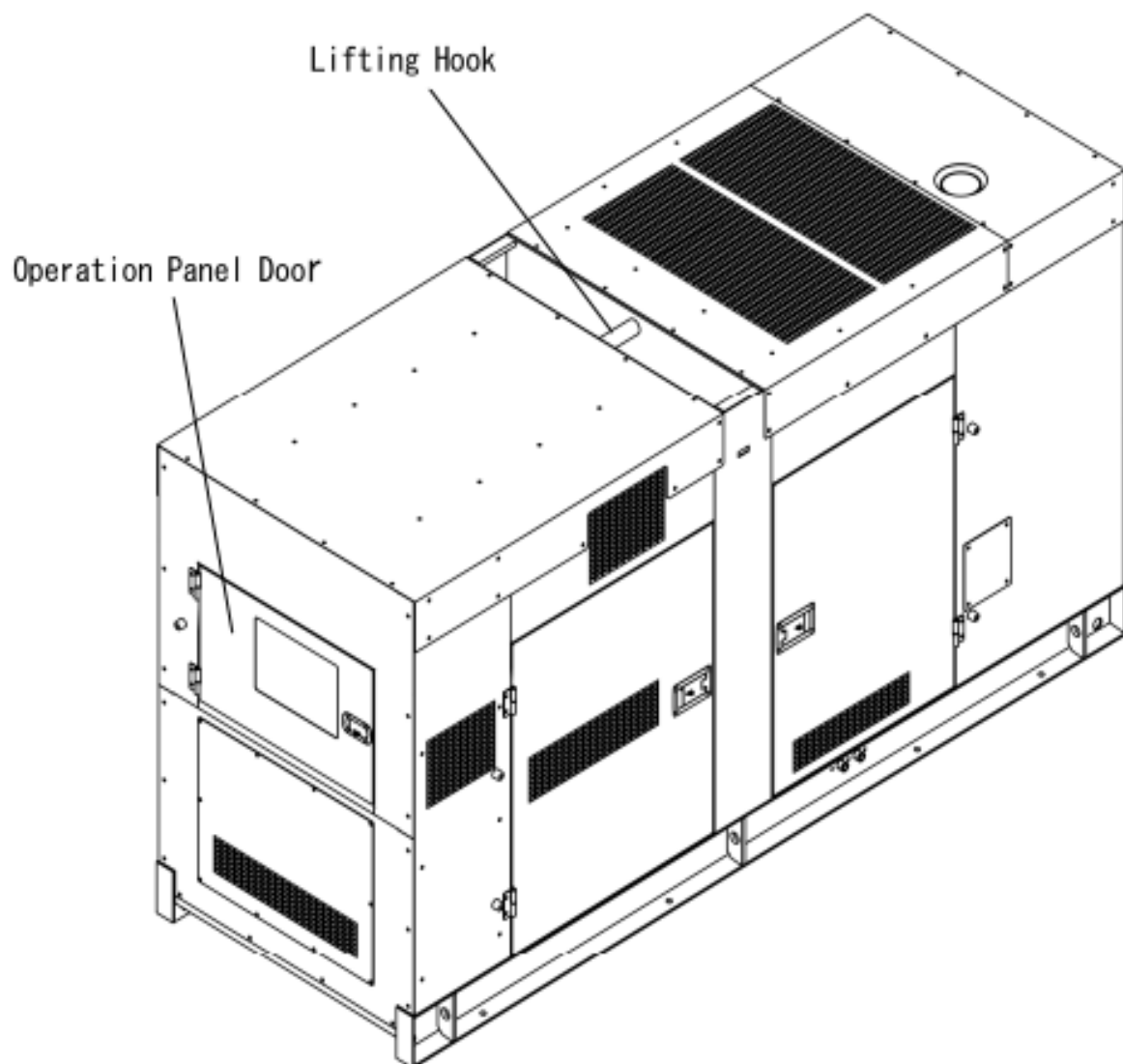
(4) Accessories

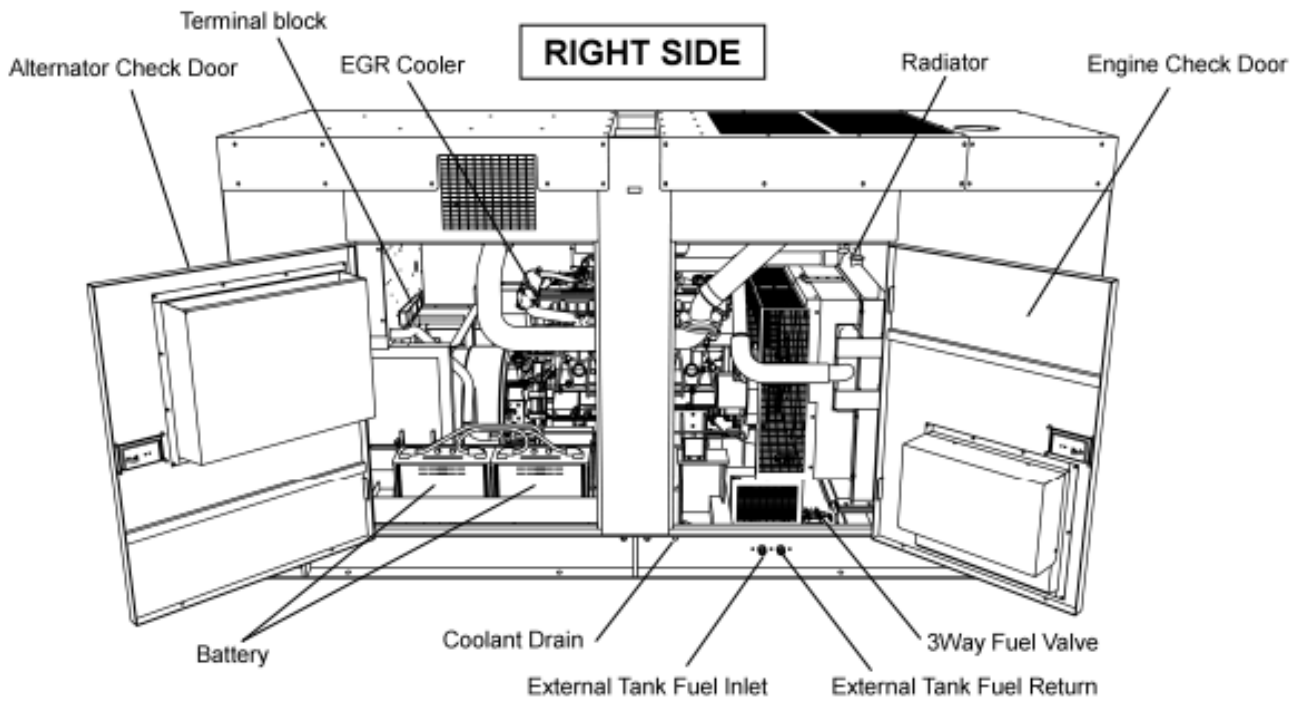
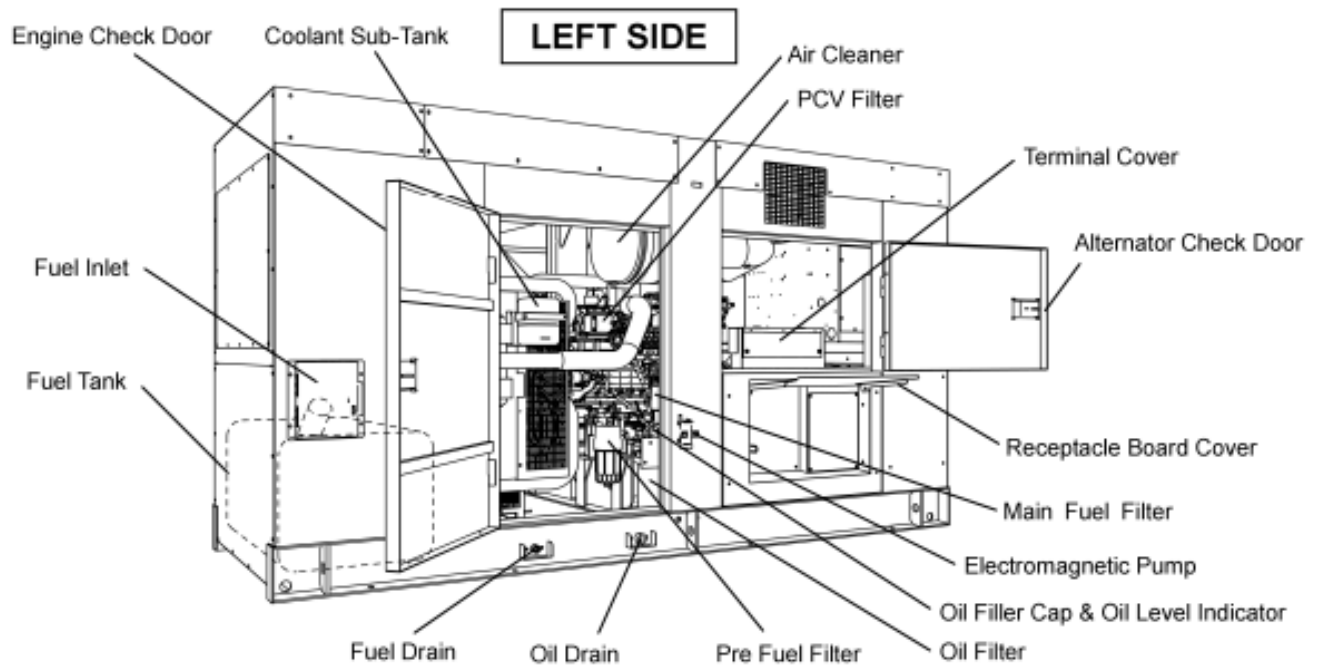
Operator's Manual	1 copy
Engine Instruction Manual	1 copy
Starter Key	2 pcs.

CHAPTER 4: APPEARANCE









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