



SPECIFICATIONS

Diesel Engine Generator & Welder

DGW310MC/ASIANR

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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 LEMA. (Tier 3)

*LEMA stands of Japan Land Engine Manufacturers Association.

2. Design Conditions

- (1) Installation Place: Outside Only.
- (2) Ambient Temperature: -15 to +40°C
- (3) Humidity: Less than 80%
- (4) Altitude: Less than 300 meters above sea level

3. Test and Check

Test shall be done 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: 58dB(A) @7m distance under eco mode.

- (3) Fuel Tank

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

CHAPTER 2: SPECIFICATIONS

Model		DGW310MC/ASIANR	
Generating Method		Rotating Field	
Welding DC Generator	Rated Current (A)	260 / 280	
	Rated Voltage (V)	30.4 / 31.2	
	Duty Cycle (%)	100	
	Rated Speed (min^{-1})	3000 / 3600	
	No Load Voltage (V)	MAX 85	
	ECO	Current Adj. Range (A)	30 – 160
		Welding Rod (mm)	$\phi 2.0 - \phi 4.0$
	NORMAL	Current Adj. Range (A)	35 – 280 / 45 – 310
		Welding Rod (mm)	$\phi 2.6 - \phi 6.0$
AC Generator	Rated Frequency (Hz)	50 / 60	
	Rated Speed (min^{-1})	3000 / 3600	
	Phase	1-Phase	3-Phase
	Rated Voltage (V)	230 / 250	200 / 220
	Rated Current (A)	15A x 2	14.3/13.0
	Power Factor	1.0	0.8
	Rated Output (kVA)	6.9/7.5	9.9
	Rating	Continuous	
Engine	Model	Kubota D722	
	Type	Water-Cooled 4-Cycle Diesel Engine	
	Displacement (cu.in./liters)	43.87/0.719	
	Rated Output ($\text{kW}/\text{min}^{-1}$)	11.7 / 3000	14.0 / 3600
	Fuel	ASTM No.2-D Diesel Fuel or Equivalent	
	Lubricant Oil	API Class CD or better	
	Lubrication Oil Volume (gal./liters)	1.0/3.8 (Effective 0.369/1.4)	
	Cooling Water Volume (gal./liters)	0.79/3.0 (Sub Tank Capacity 0.158/0.6 included)	
	Starting Method	Starter Motor	
Battery		46B24L (Japanese Industrial Standard)	
Fuel Tank Capacity (gal./liters)		9.77/37	
Dimension	Length (in./mm)	55.5/1410	
	Width (in./mm)	22.2/566	
	Height (in./mm)	29.9/760	
Dry Weight (lbs./kg)		734/333	

*Specifications are subject to change without notice.

CHAPTER 3: EQUIPMENT AND FEATURE

1. Equipment

- (1) Generator
 - AC Output Receptacle
 - 1-Phase Receptacle (230/250V)..... 2 pcs.
 - Main Circuit Breaker..... 1 pc.
 - Digital Display 1 pc.
 - AC Voltage
 - Operating Hrs (accumulated)
 - Engine Speed
 - Voltage Adjusting Volume..... 1 pc.
 - Frequency Selector Switch (50/60Hz)..... 1 pc.
- (2) Welder
 - DC Current Adjustment Dial 1 pc.
 - Output Selector Dial (eco/std) 1 pc.
 - Welding Output Terminal..... 1 pc.
- (3) Safety Device
 - Welding Terminal Cover 1 pc.
 - Breaker..... 1 pc.
 - With Leakage Shut off Device: 30mA/0.1 sec.
 - Protective Monitor with auto engine shutdown feature..... 1 set
 - Fuse (10A/50A) 1 set
- (4) Equipment
 - eco Welding Feature..... 1 set
 - Warning Monitor..... 1 set
 - Water Temp.
 - Battery Charge
 - Oil Pressure
 - Digital Display 1 set
 - AC Voltage
 - Operating Hrs (accumulated)
 - Engine Speed
 - Fuel Lamp..... 1 pc.
 - Frequency Selector Switch 1 pc.
 - Output Selector Switch 1 pc.
 - Current Adj. Dial..... 1 pc.
 - 3-Phase Output Terminal 1 pc.
 - AC Voltage Adj. Dial..... 1 pc.
 - Grounding Rod..... 1 pc.
 - Voltage Regulator 1 pc.
 - Ultra-Quiet Air Flow System
 - AC Current Remote Control (Optional)

2. Feature

(1) Feature

- Sound Level 58dB(A) at 7m distance under eco mode.
- Generating Performance 1-Phase & 3-phase
- 2 Way Drive Control High/Low Speed
- Environmental Ultra-Quiet Sound System
- Fuel Tank Capacity 37 Liters (9.77 gal.)
- Dry Weight 333 kg (734 lbs.)
- Dimensions (LxWxH) 1410 x 566 X 760 mm (55.5 x 22.2 x 29.9 in.)

(2) Protection Device

Item	Engine Shut-Down
Water Temp.	○
Low Battery Charge	○
Low Oil Pressure	○

(3) Fuel Economy

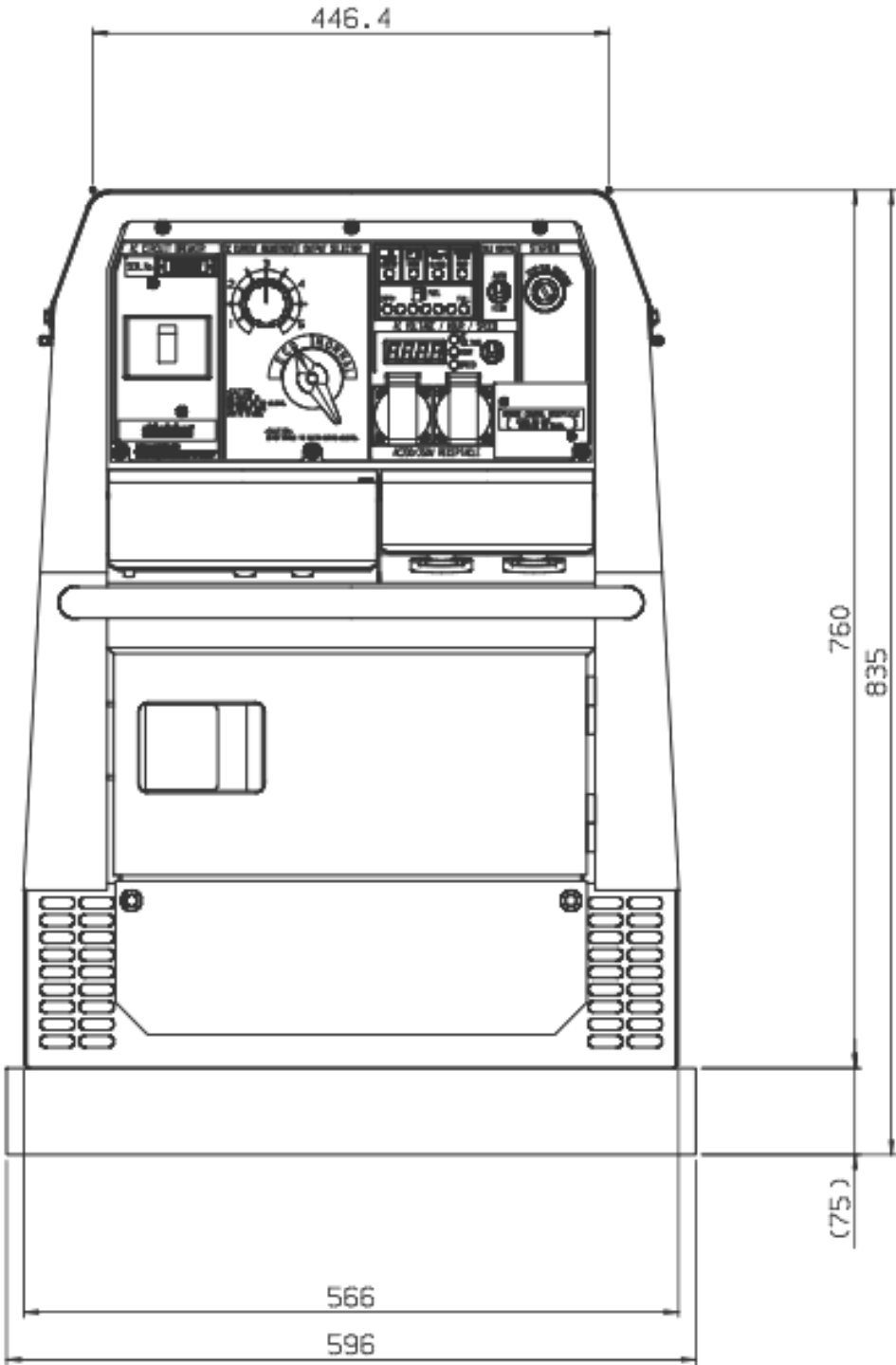
	Criteria	Fuel Consumption (Duty Cycle: 100%)
Welding		
No Load	Idle Control at HIGH	1.7L/hr. (0.44 gal./hr)
	Idle Control at AUTO	0.7L/hr. (0.18 gal./hr)
	Output Selector at eco	
Loaded	Rated Current (60Hz)	4.2L/hr. (1.1 gal./hr)
	Rated Current (50Hz)	3.5L/hr (0.9 gal./hr)
	Output Selector at eco	2.1L/hr. (0.55 gal./hr)
Generating		
Loaded	Rated (60Hz)	3.5L/hr. (0.92 gal./hr)
	Rated (50Hz)	3.2L/hr. (0.84 gal./hr)

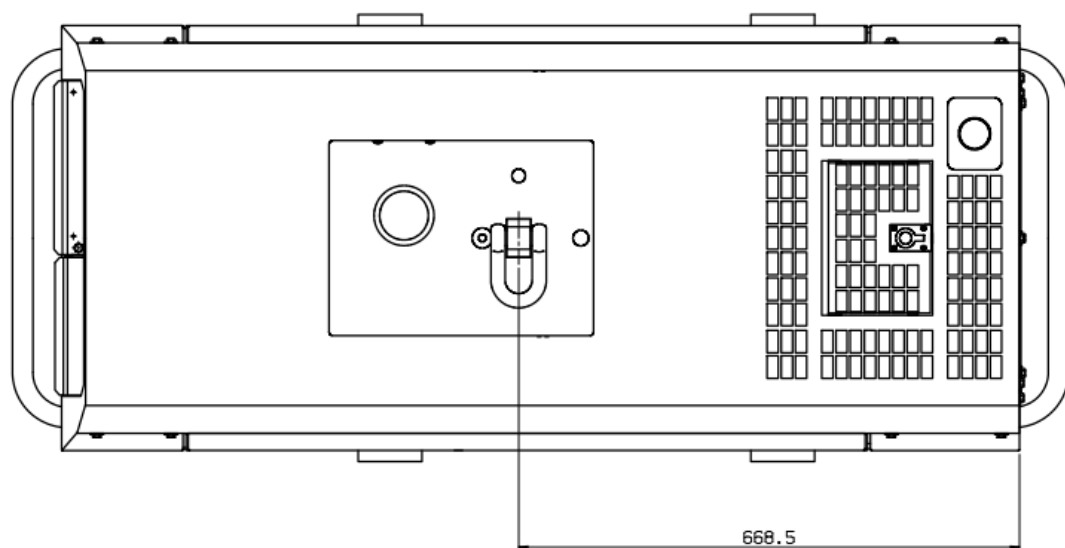
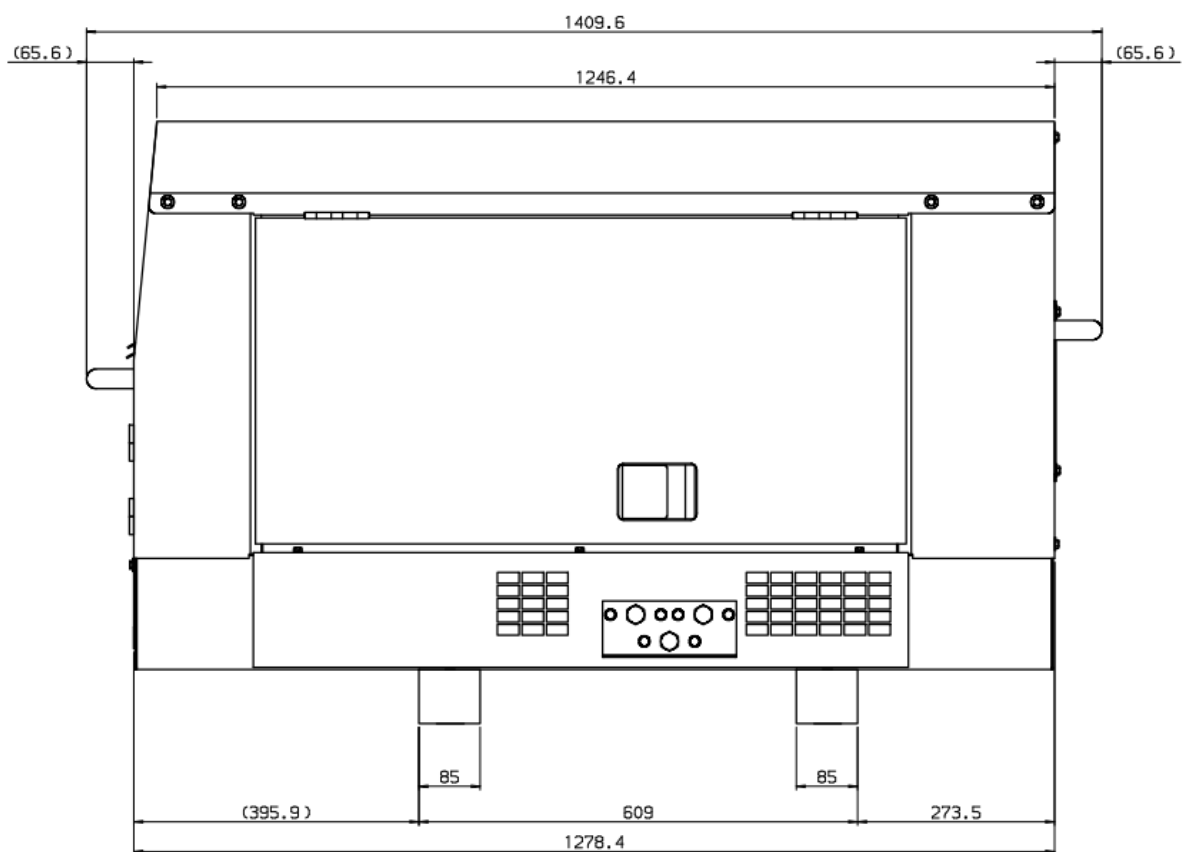
*Above value is for reference only as it may vary depending on the conditions.

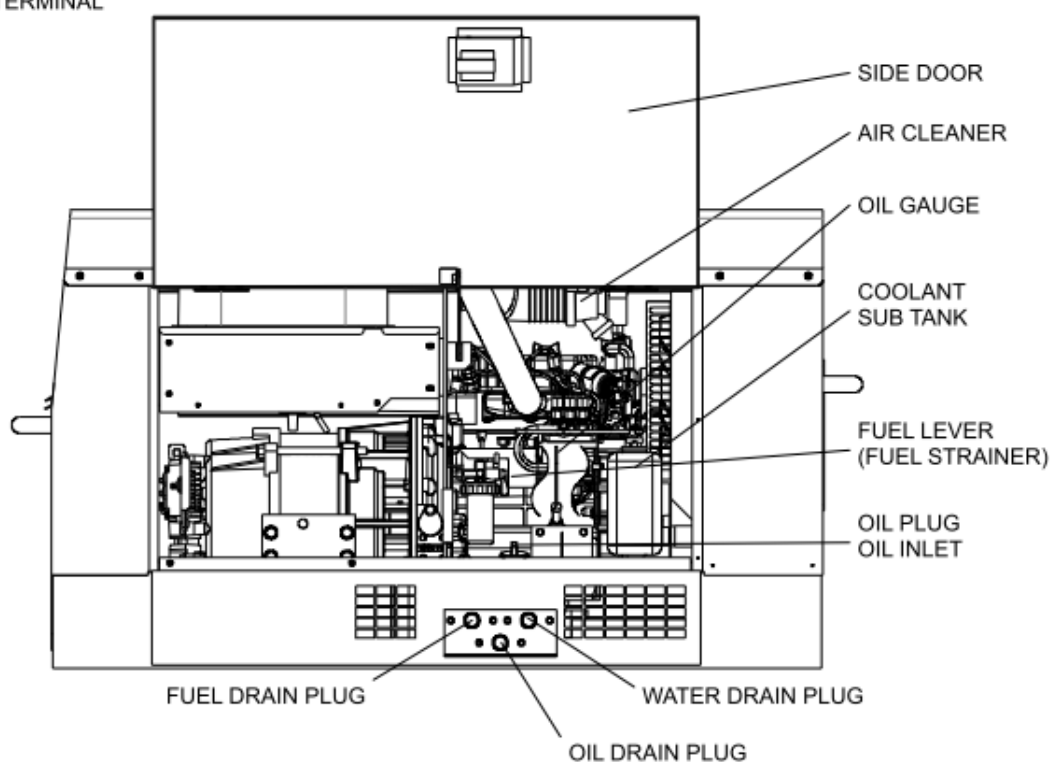
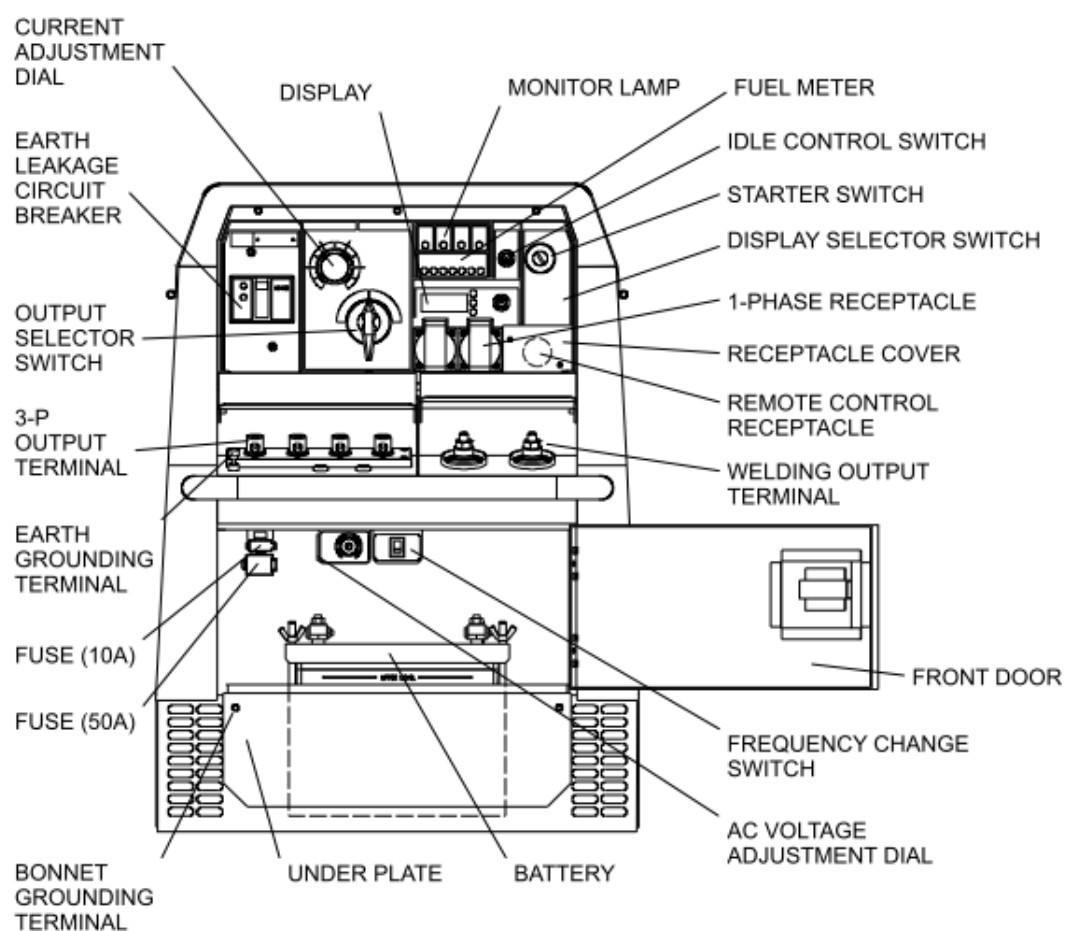
(4) Accessories

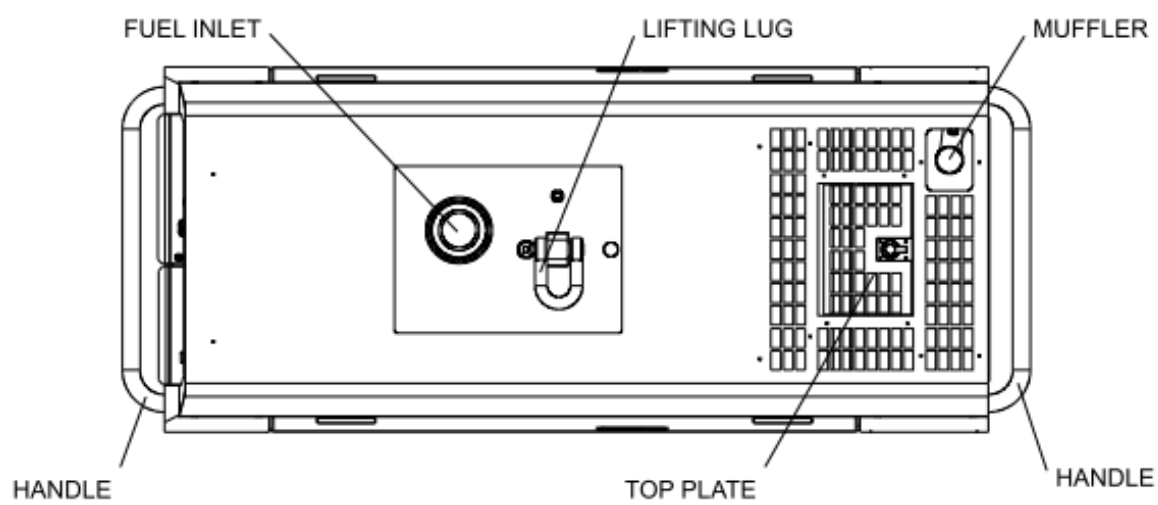
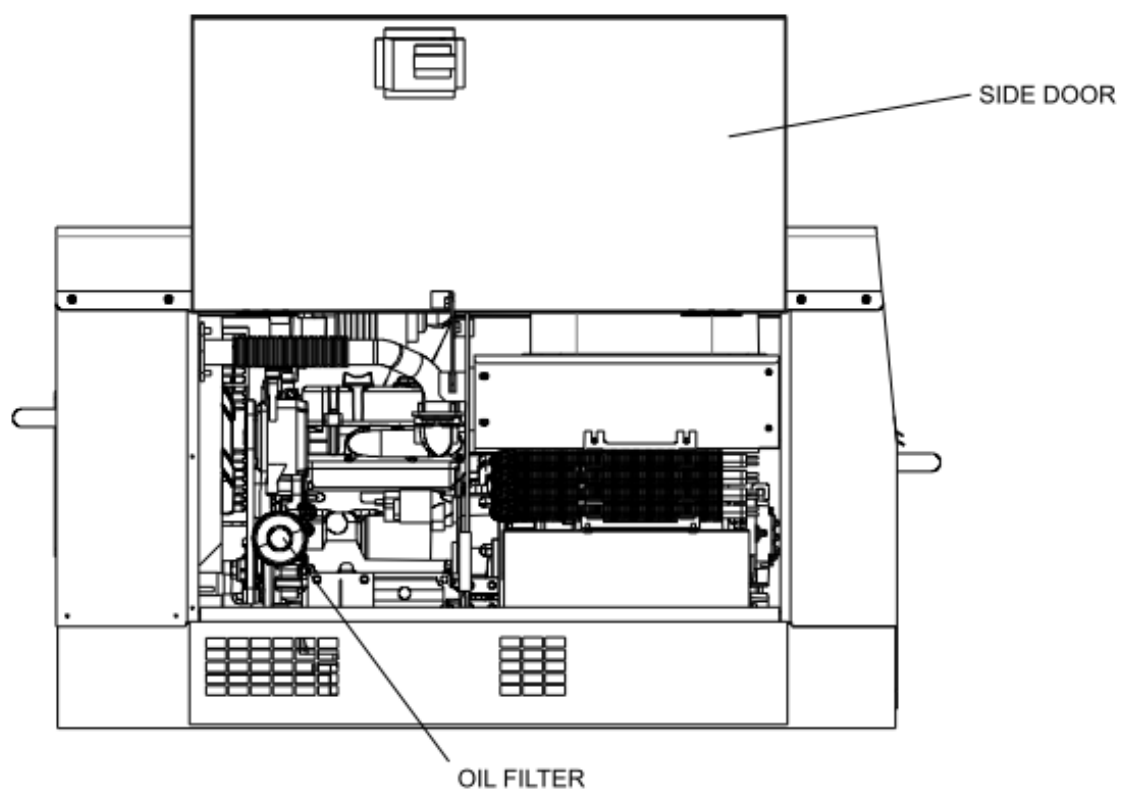
Owner's & Operator's Manual	1 copy
Engine Instruction Manual	1 copy
Engine Warranty Statement	1 copy
Starter Key	1 set (2 pcs.)
Grounding Rod	1 pc.
Tool Set	1 set

CHAPTER 4: APPEARANCE









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