

shindaiwa[®]

SPECIFICATIONS

Diesel Engine Generator & Welder

DGW500DM-S1

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CHAPTER 1: GENERAL

1. Applications

- (1) Shielded Metal Arc Welding
- (2) Semi-Auto Arc Welding (MIG, MAG, Self-Shielded)
- (3) Gouging and Scratch TIG.
- (4) Power Sourcing for light, electric tools and appliances.

2. Standard

Design and production are in conformity with:

- (1) Japan Industrial Standards: JIS C 9300-1
- (2) Low Noise Type Construction Machinery Standard
- (3) Construction Machinery Gas Emission Regulation Standard by Ministry of Construction
- (4) International Protection (classified by IEC standard 60529)

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: 57dB(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		DGW500DM-S1		
Generating Method		Rotating Field		
Welding Generator	Operation	Single	Dual	
	CC MODE	Rated Current (A)	480	230
		Rated Voltage (V)	39.2	29.2
		Duty Cycle (%)	60	80
		Current Adj. Range (A)	60 – 500 / 65 – 500	30 – 280 / 35 – 280
		Welding Rod (mm)	φ2.6 – φ8.0	φ2.0 – φ6.0
		Gouging Rod (mm)	φ3.2 – φ9.5	φ3.2 – φ5.0
	CV MODE	Rated Current (A)	480	230
		Rated Voltage (V)	39.0	22.5
		Duty Cycle (%)	60	80
		Voltage Adj. Range (V)	14 – 40	14 – 29
		Welding Wire (mm)	φ0.6 – φ2.4	φ0.6 – φ2.0
Rated Speed (min ⁻¹)		3000 / 3600		
No Load Voltage (V)		MAX 85		
AC Generator	Rated Frequency (Hz)	50 / 60		
	Rated Speed (min ⁻¹)	3000 / 3600		
	Phase	1-Phase		
	Rated Voltage (V)	110 / 115	220 / 230	
	Rated Current (A)	15A×2	15A×2	
	Power Factor	1.0		
	Rated Output (kVA)	3.3 / 3.5	6.6 / 6.9	
	Rating	Continuous		
Engine	Model	Kubota V1505		
	Type	Vertical, Water-Cooled 4-Cycle Diesel Engine		
	Displacement (L)	1.498		
	Rated Output (kW/min ⁻¹)	24.5 / 3000 29.0 / 3600		
	Fuel	ASTM No.2 Diesel Fuel or Equivalent		
	Lubricant Oil	API Class CD or better		
	Lubrication Oil Volume (L)	6.0 (Effective 2.0)		
	Cooling Water Volume (L)	5.6 (Sub Tank Capacity 0.8 L included)		
	Starting Method	Starter Motor		
Battery		75D31R(Japanese Industrial Standard)		
Fuel Tank Capacity (L)		63		
Dimension	Length (mm)	1680		
	Width (mm)	700		
	Height (mm)	950		
Dry Weight (kg)		613		

*Specifications subject to change without notice.

CHAPTER 3: EQUIPMENT AND FEATURE

1. Equipment

(1) Generator	
1-Phase Receptacle (110/115V)	2 pcs.
1-Phase Receptacle (220/230V)	2 pcs.
1-Phase Breaker (110/115V)	2 pcs.
1-Phase Breaker (220/230V)	2 pcs.
Earth Leakage Circuit Breaker (ELCB)	2 pcs.
Single/Dual Selector	1 pc.
(2) Welder	
Output Control Dial (with pre-setting function)	2 pcs.
Welding Mode Selector Switch (CV/CC Mode)	2 pcs.
Arc Control Dial	2 pcs.
Welding Rod Capacity	
Single Operation	Φ2.6~8.0
Dual Operation	Φ2.0~6.0
Gouging Rod Capacity	
Single Operation	Φ3.2~9.5
Dual Operation	Φ3.2~5.0
ECO Welding	1 pc.
(3) Safety Device	
Emergency Stop Switch	1 pc.
Guard (to prevent access to the rotating part)	1 pc.
Earth Leakage Circuit Breaker (ELCB)	2 pcs.
1-Phase Breaker (110/115V)	2 pcs.
1-Phase Breaker (220/230V)	2 pcs.
Bonnet Grounding Terminal	1 pc.
Fuel Inlet Cover (with a key locking system)	1 pc.
Wire Feeder Output Control	2 pcs.
Engine Shut-Down Function (water temp./battery charge/oil pressure)	
Error Code Display	1 set
(4) Equipment	
Idle Control Switch (AUTO/HIGH)	1 pc.
Digital Display (Voltage/Current/Frequency)	1 pc.
Starter Switch	1 pc.
Monitor Lamp	1 set
• Water Temp.	
• Battery Charge	
• Oil Pressure	
• Pre Heat	
• Over Heat	
Error Code Display	1 set
Fuel Meter	1 pc.
Hour Meter	1 pc.

2. Feature

(1) Feature

- Sound Level 57 dB(A) at 7m distance under no load.
- Generating Performance 1-Phase
- 2 Way Drive Control HIGH/AUTO
- Environmental Low Noise, Low Emission Level and Efficient fuel economy
- Fuel Tank Capacity 63 Liters
- Dry Weight 613 kg
- Dimensions (LxWxH) 1680 x 700 x 950 mm

(2) Protection Device

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

(3) Fuel Economy

	Criteria	Fuel Consumption	Continuous Operating Hrs
Welding			
No Load	Idle Control Switch at LOW	1.4L/hr. (0.37 gal./hr)	43.9
Loaded		<Duty Cycle: 60%>	
	Rated Current at 480A (SINGLE)	5.2L/hr. (1.37 gal./hr)	12.0
		<Duty Cycle: 80%>	
	Rated Current at 230A x 1 (DUAL)	3.8L/hr. (1.00 gal./hr)	16.4
		<Duty Cycle: 80%>	
	Rated Current at 200A x 2 (DUAL use simultaneously)	4.7L/hr. (1.24 gal./hr)	13.3

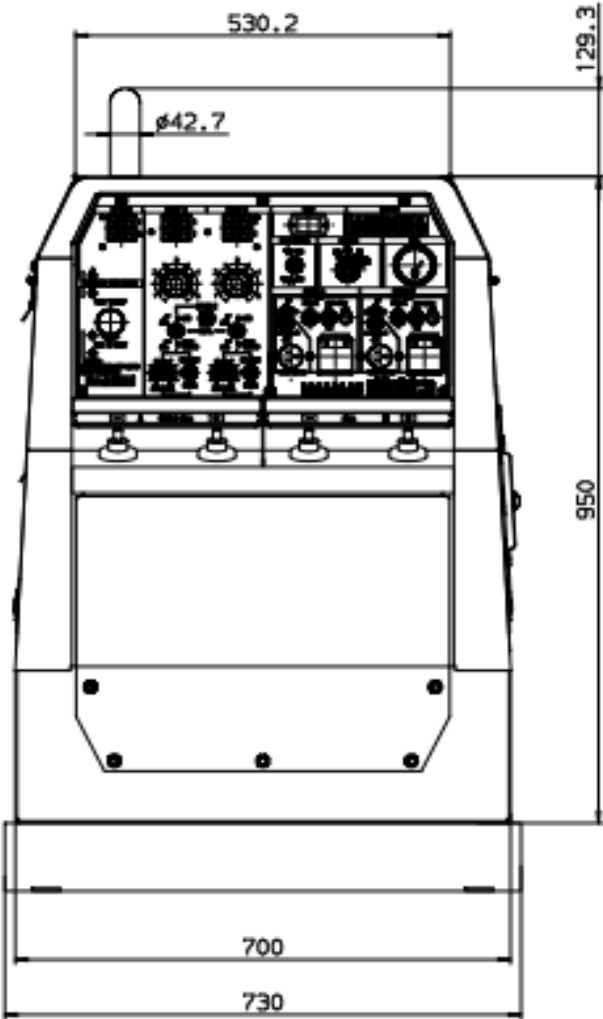
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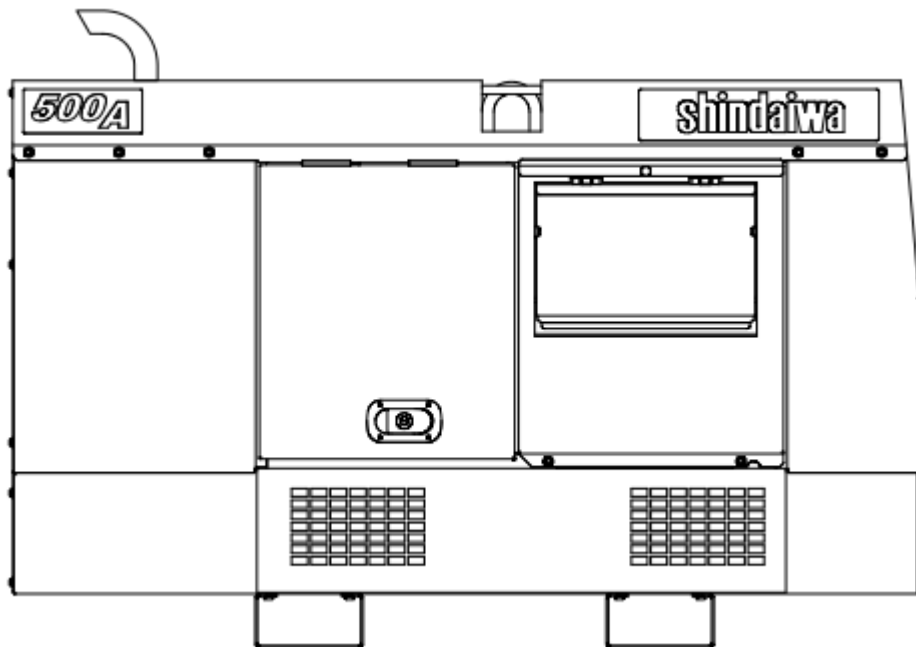
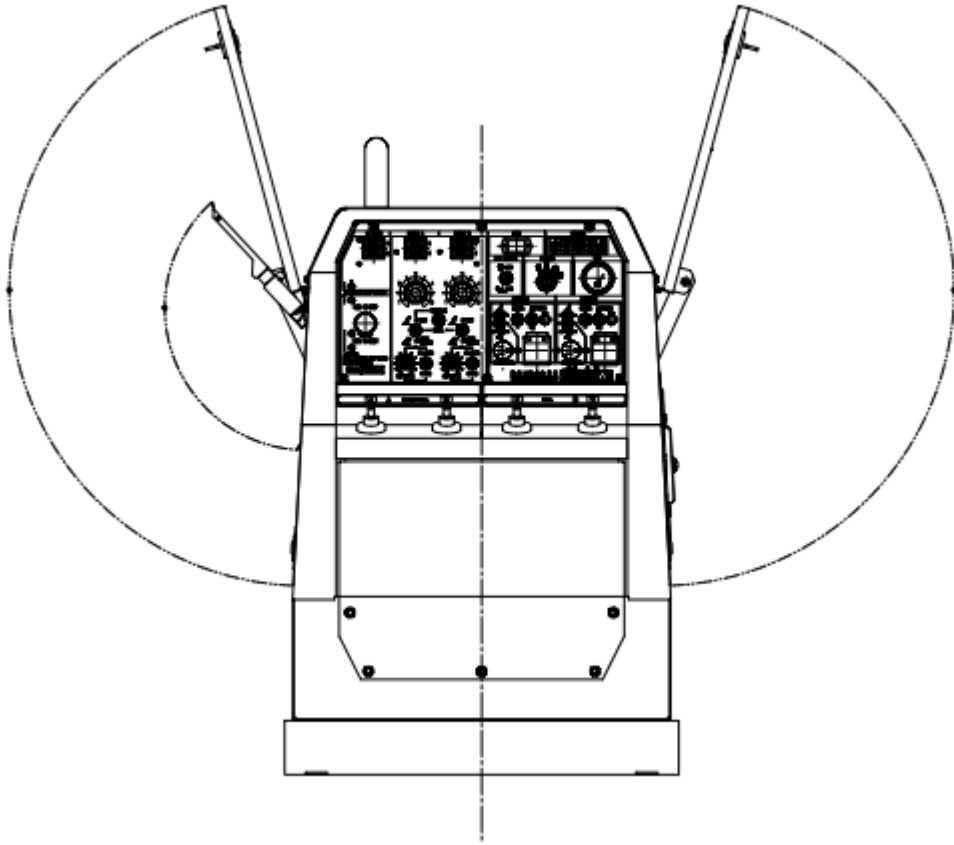
** Above value is per calculation and it differs depending on the condition of the use.

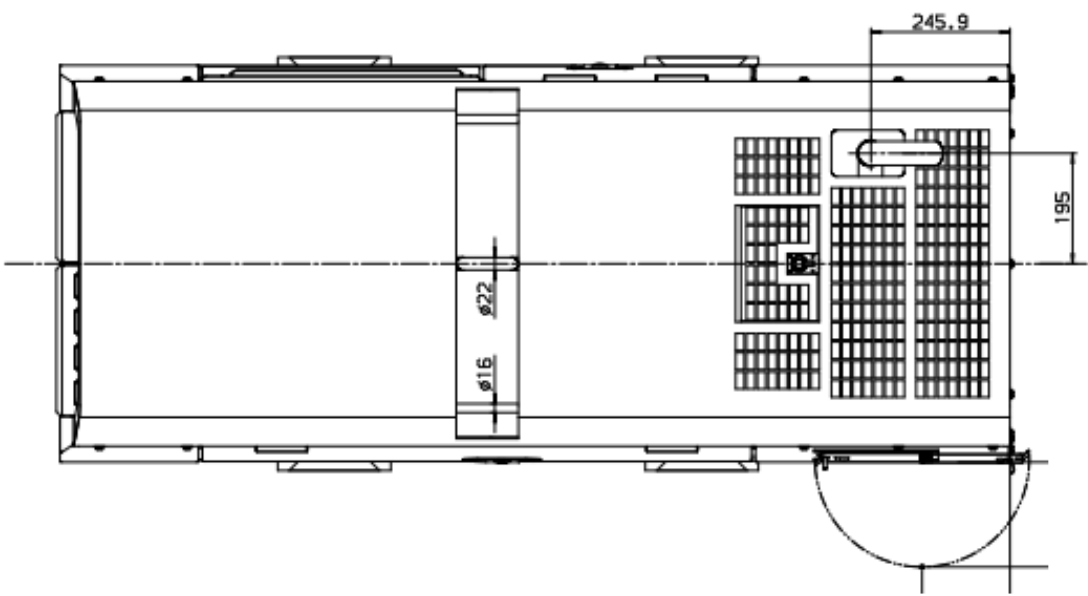
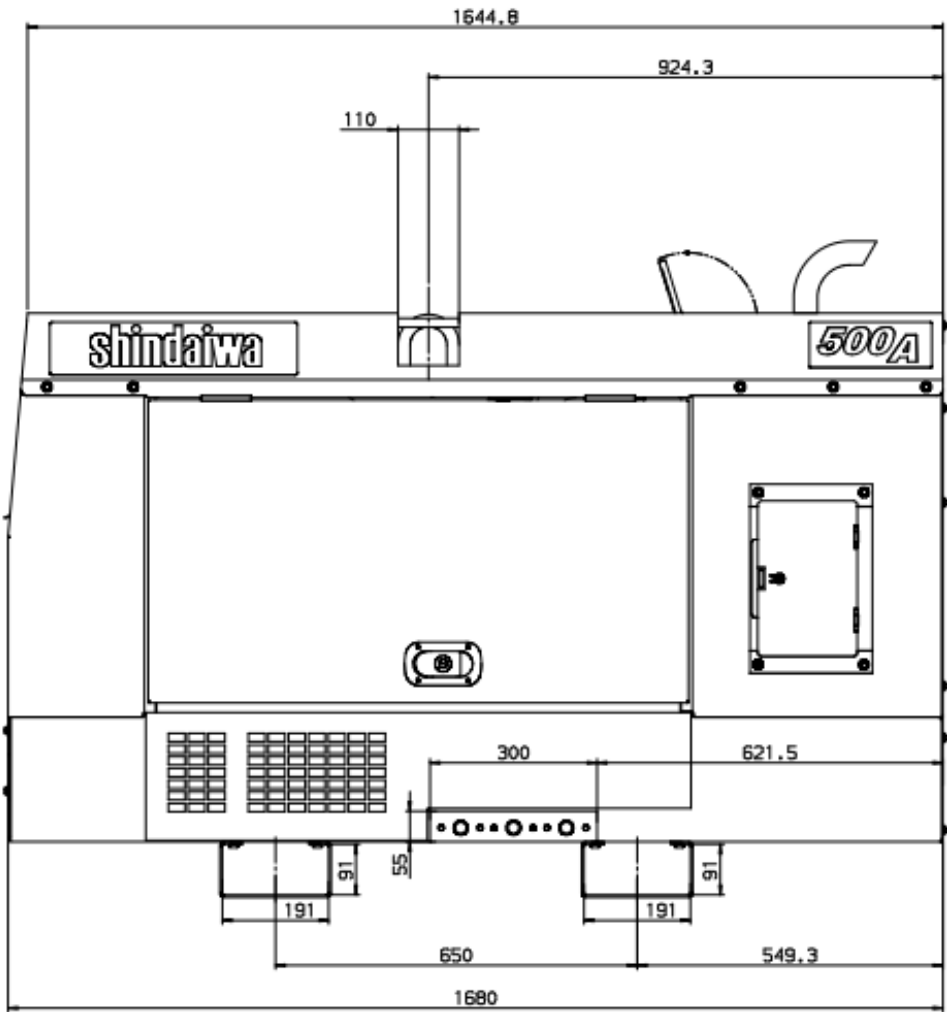
(4) Accessories

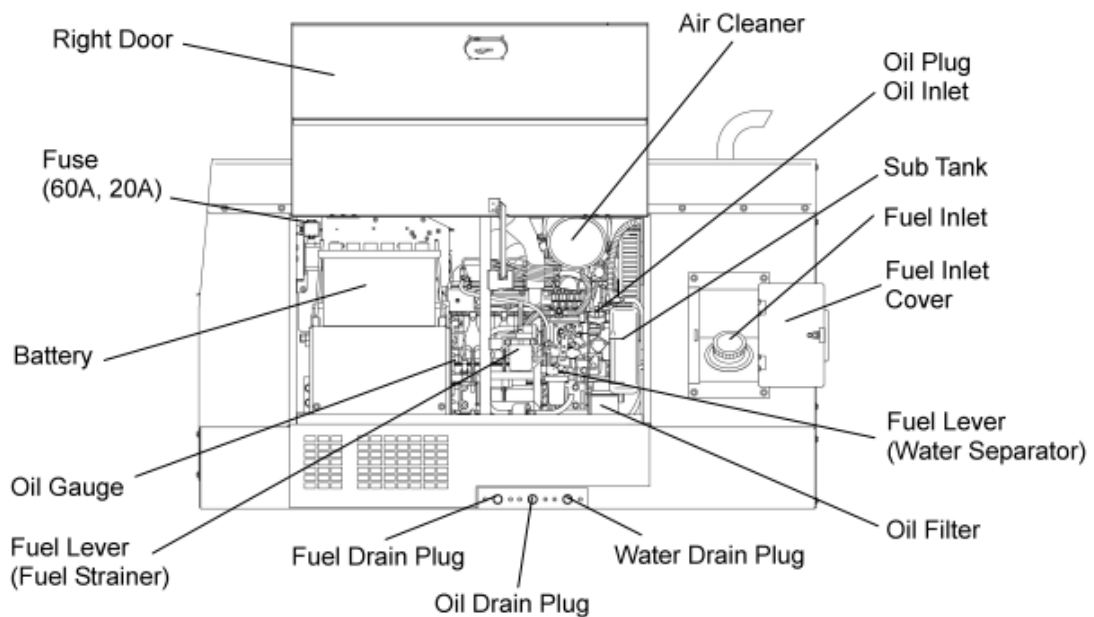
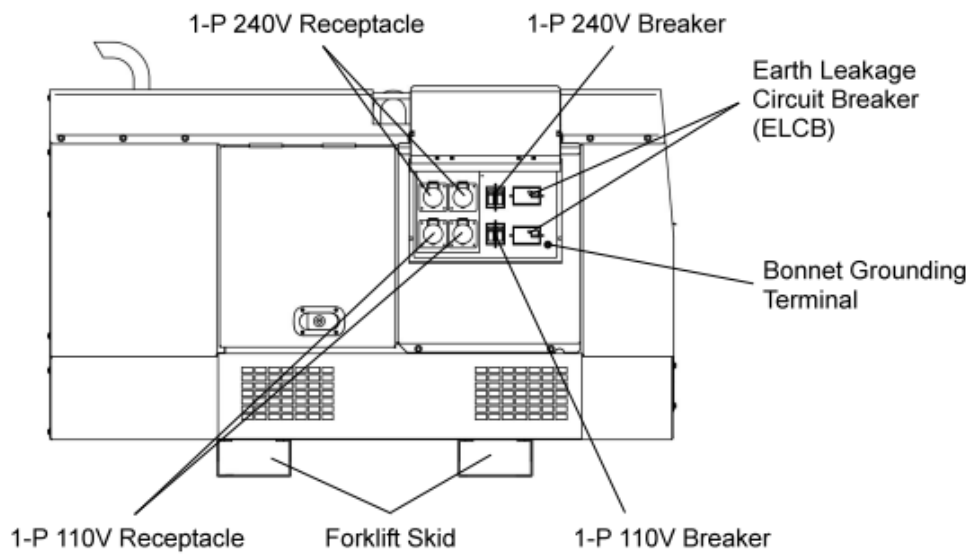
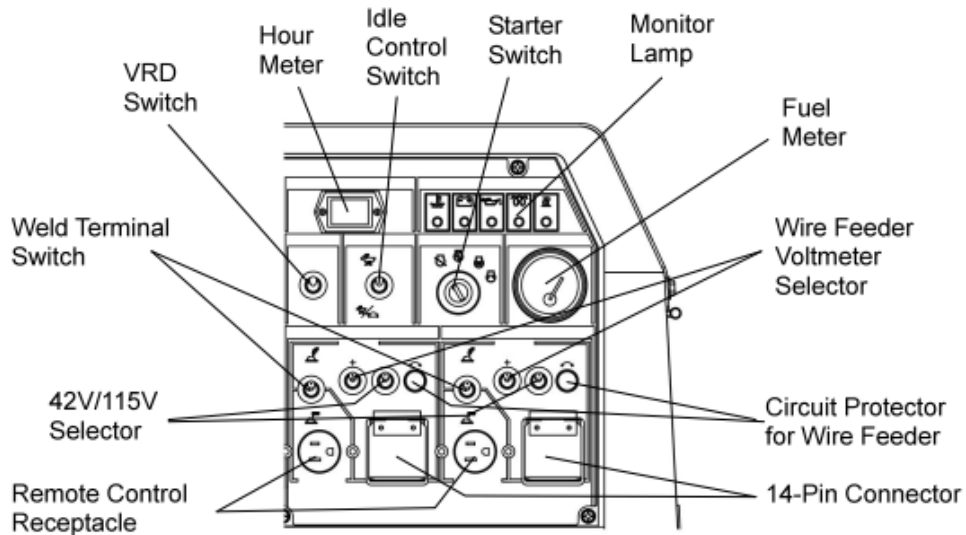
- Owner's & Operator's Manual 1 copy
- Starter Key 2 pcs.
- Door Key 2 pcs.
- Exhaust Pipe 1 pc.
- Tool Kit 1 pc.

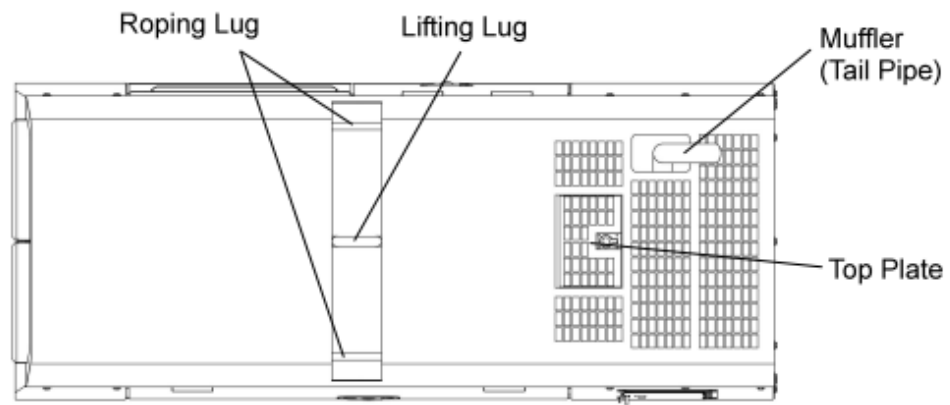
CHAPTER 4: APPEARANCE



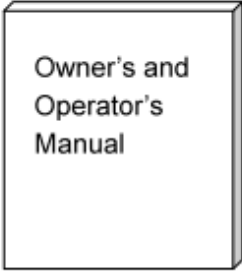













Accessories

 <p>Owner's and Operator's Manual</p>	 <p>Engine Key 1 Set</p>	 <p>Door Key 2 Set</p>
 <p>Tool Kit</p>	 <p>Pipe Band 1 part</p>	 <p>Tail Pipe 1 part</p>

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