

**shindaiwa<sup>®</sup>**

# **SPECIFICATIONS**

Diesel Engine Generator & Welder

**DGW500DM-S2V**

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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
- (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-S2V		
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	30 – 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 <sup>-1</sup> )		3000		
No Load Voltage (V)		MAX 85		
AC Generator	Rated Frequency (Hz)		50	
	Rated Speed (min <sup>-1</sup> )		3000	
	Phase		1-Phase	
	Rated Voltage (V)		110	240
	Rated Current (A)		15A×2	15A×2
	Power Factor		1.0	
	Rated Output (kVA)		3.3	7.2
	Rating		Continuous	
Engine	Model		Kubota V1505	
	Type		Vertical, Water-Cooled 4-Cycle Diesel Engine	
	Displacement (L)		1.498	
	Rated Output (kW/min <sup>-1</sup> )		29.0 / 3600 (Gross Intermittent)	
	Fuel		ASTM No.2 Diesel Fuel or Equivalent	
	Lubricant Oil		API Class CD or Higher	
	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 (110V) .....	2 pcs.
1-Phase Receptacle (240V).....	2 pcs.
1-Phase Breaker (110V).....	2 pcs.
1-Phase Breaker (240V).....	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.
VRD (Voltage Reduction Device).....	1 pc.
Guard (to prevent access to the rotating part) .....	1 pc.
Earth Leakage Circuit Breaker .....	2 pcs.
1-Phase Breaker (110V).....	2 pcs.
1-Phase Breaker (240V).....	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 (at abnormal high water temp. and oil pressure)	

### (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.
Dual use (simultaneous)	

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

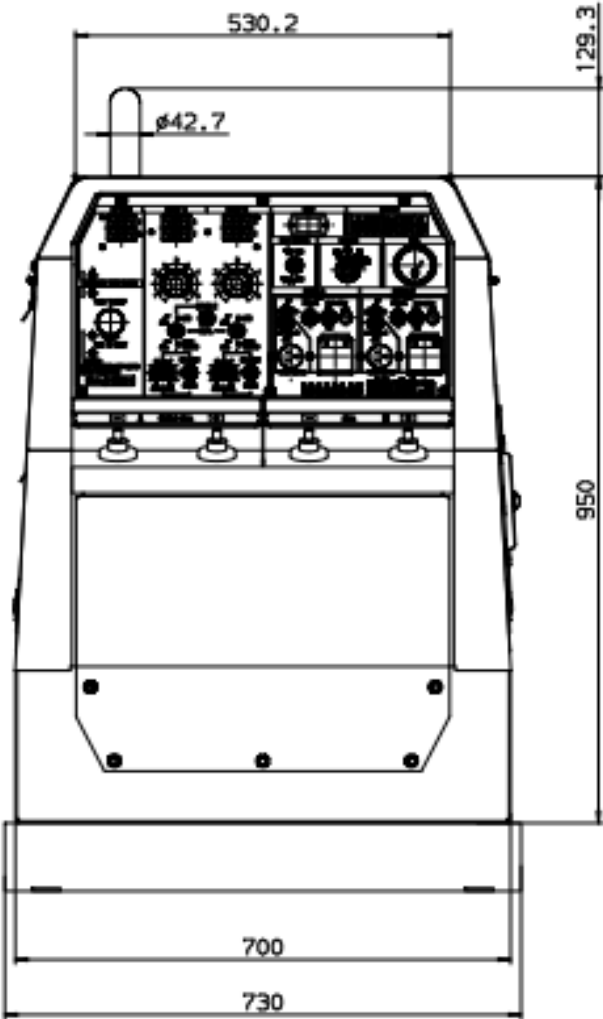
\*Data for the generator is not available.

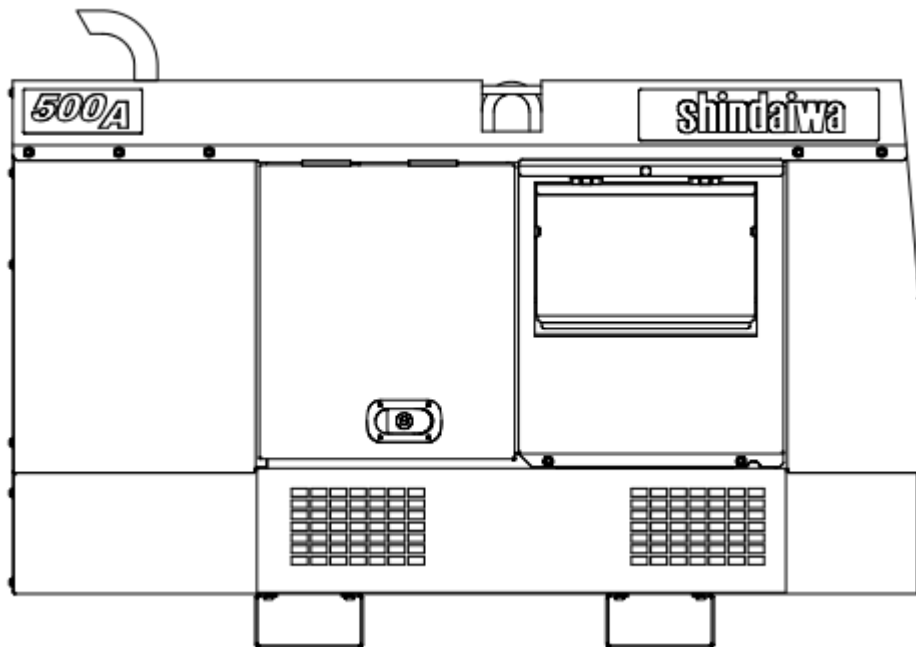
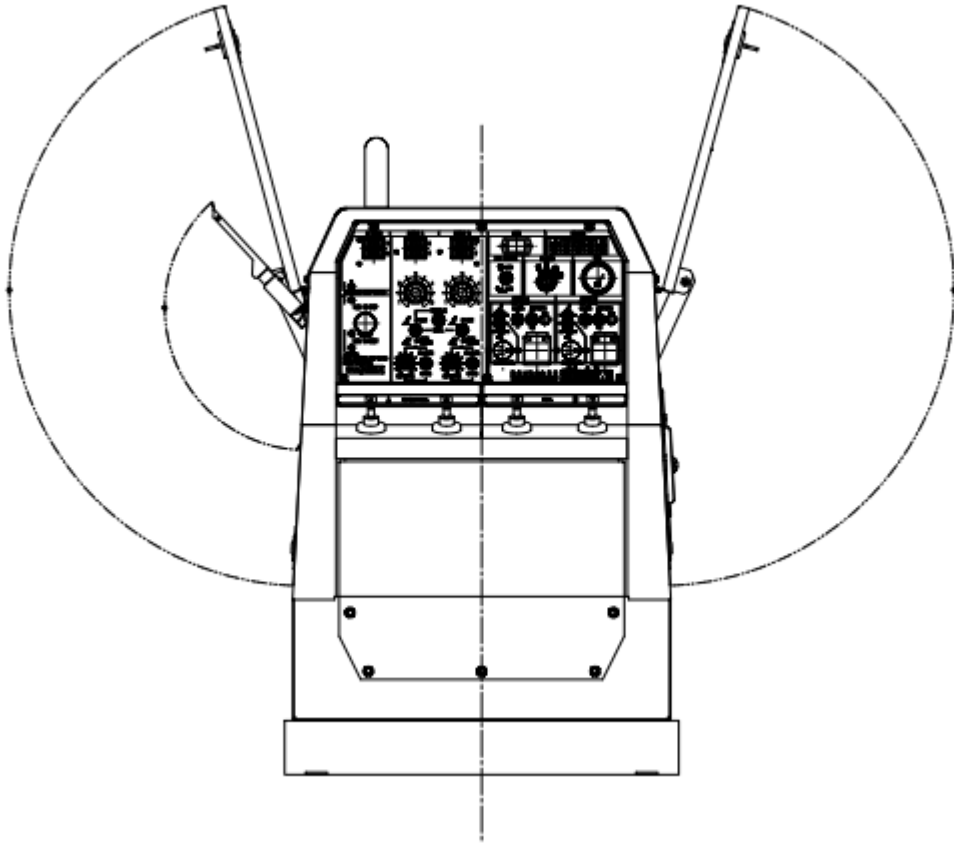
\*\* Above value is per calculation and it differs depending on the condition of the use.

### (4) Accessories

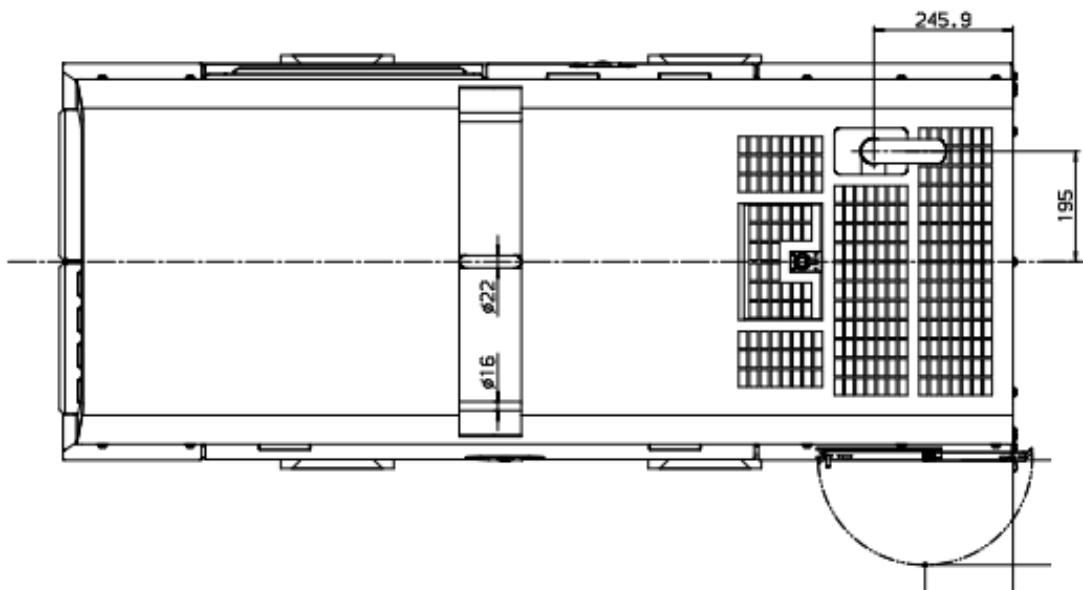
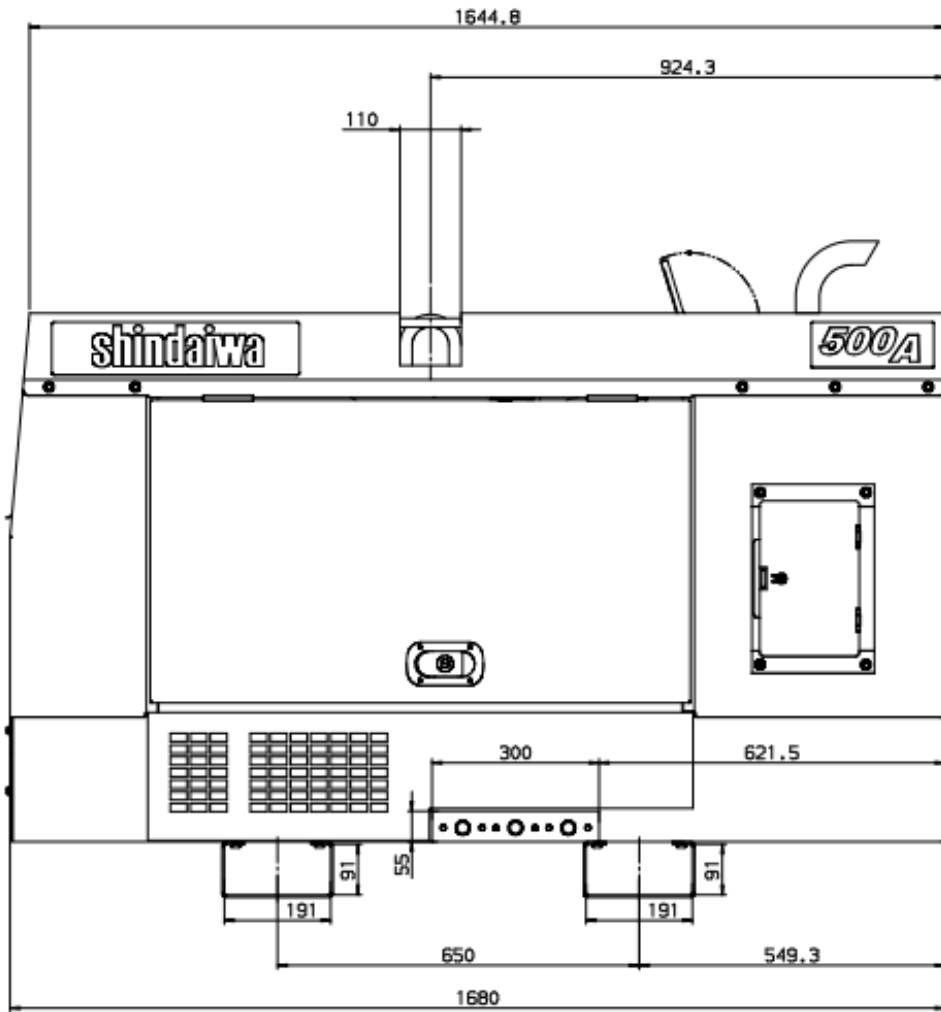
- Owner's & Operator's Manual 1 copy
- Starter Key 1 set
- Door Key 2 sets
- Exhaust Pipe 1 pc.

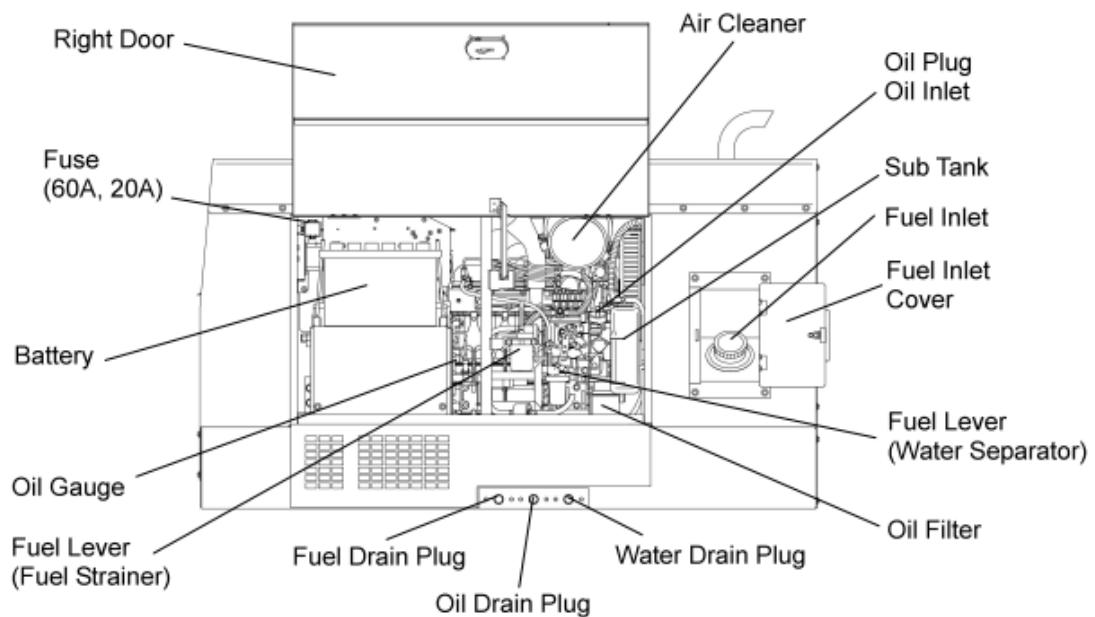
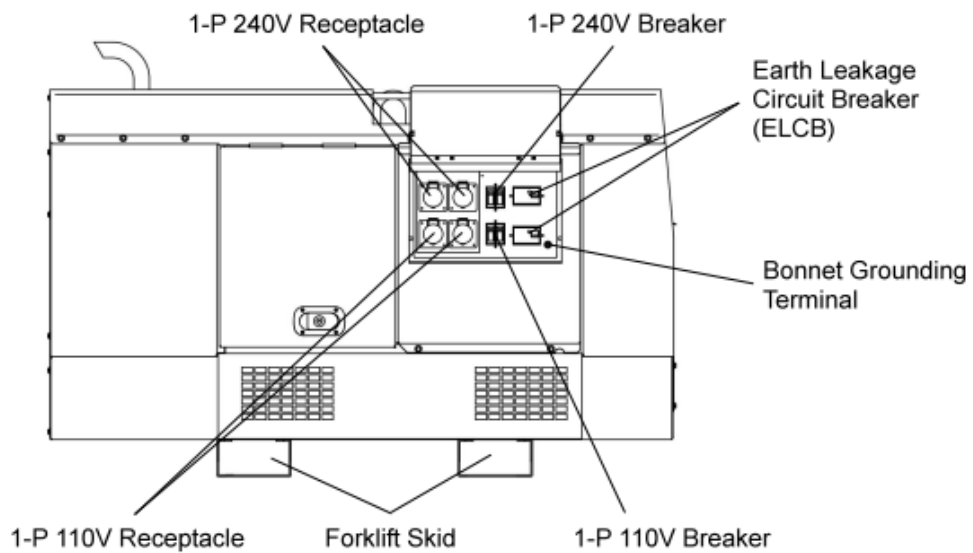
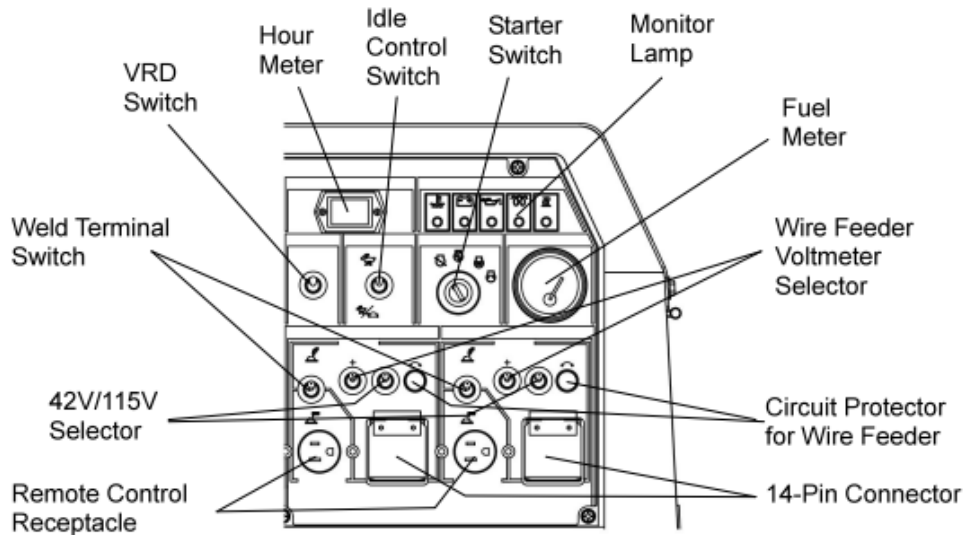
# CHAPTER 4: APPEARANCE

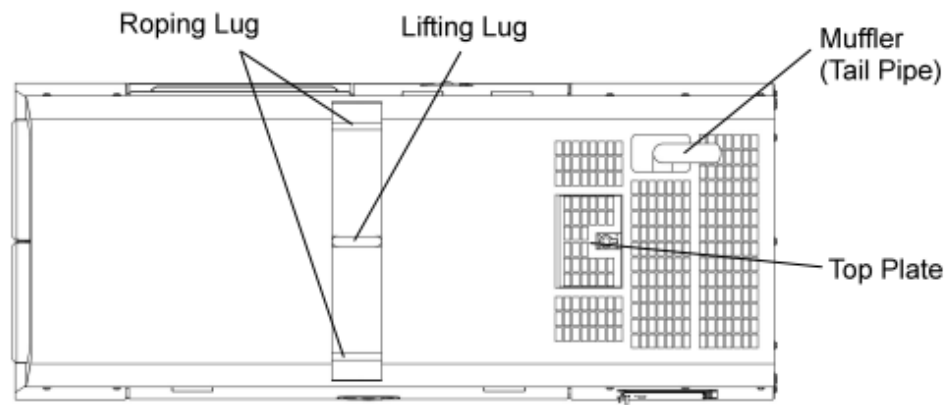




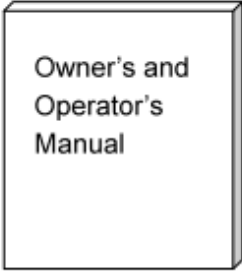













**Accessories**

 <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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