

**shindaiwa®**

# **SPECIFICATIONS**

Diesel Engine Generator

# **DGK60D**

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# CHAPTER 1: GENERAL

## 1. Application

- (1) 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) Voluntary Emission Regulations for non-road engines in Japan by LEMA. (Tier 3)
- (4) EPA Tier 3 Emission

\*LEMA stands of Japan Land Engine Manufacturers Association.

## 3. Design Condition

- (1) Installation Place: Outside Only.
- (2) Ambient Temperature: -15 to +40°C (5 to 104°F)
- (3) Humidity: Less than 80%
- (4) Altitude: Less than 300 meters (984 ft.) above sea level.

## 4. 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

## 5. Painting

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

## 6. 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: 61dB(A) @7m distance under no load, 1800 min<sup>-1</sup>.
- (3) Fuel Tank  
A steel fuel tank is equipped and incorporated with the electrical level gauge.

## CHAPTER 2: SPECIFICATIONS

Model		Unit		DGK60D
Alternator	Generator Type	-		Revolving Field Brushless AC Simultaneous 3 Phase-120V/240V 1 Phase
	Rated Frequency	Hz		60
	Rated Output	Three phase	kVA	60
			kW	48
		Single phase	kVA	36/ [18] *1
			kW	36/ [18] *1
	Rated Voltage	Three phase	V	208/240/ [480] *1
		Single phase	V	120/139/240/[277] *1
	Rated Current	Three phase-208V	A	144
		Three phase-240V	A	144
		Three phase-480V	A	72
		Single phase-120V	A	150×2 [75 x 2]*1
		Single phase-240V	A	150 [75]*1
	Power Factor	-		Three phase 0.8, Single phase 1.0
Insulation class	-		F	
Excitation	-		Self Excitation (brushless)	
No. of Poles	-		4	
Engine	Type	-		Vertical Water-Cooled 4-Cycle Diesel
	Model(Manufacturer)	-		Kubota V3800DI-TI
	No. of Cylinders (bore × stroke)	(in./mm)		4 (3.94×4.72/100×120)
	Continuous Rated Output	hp		77
	Rated Speed	rpm		1800
	Displacement	cu.in./liters		230/3.769
	Combustion System	-		Direct Injection (Turbo-charged)
	Cooling Method	-		Radiator
	Lubricating Method	-		Forced Lubrication
	Starting Method	-		Electric
	Fuel	-		No. 2-D EPA regulation
	Lubricating Oil	-		CF class or higher
	Fuel Tank Capacity	gal./liters		111/420
	Lubricant Volume	gal./liters		3.5/13.2 (including filter 0.1/0.4)
	Cooling Water Volume	gal./liters		3.3/12.5 (including sub-tank 0.4/1.6)
	Starting Motor Capacity	V-kW		12-3.0
	Charging Alternator Capacity	V-W		12-960
	Battery Capacity	-		12V-92AH
Unit	Length	in./mm		78/1970
	Width	in./mm		35/880
	Height	in./mm		64/1630
	Dry Weight	lbs./kg		2843/1290
	Installed Weight	lbs./kg		3703/1680

\*Outputs shown in above \*1 are measured when the voltage selector switch is set at 240V.

\*\*Specifications subject to change without notice.

# CHAPTER 3: EQUIPMENT AND FEATURE

## 1. Equipment

### (1) Generator

AC Output Receptacle	
● 1-Phase Receptacle (120V) .....	2 pcs.
● 1-Phase Receptacle (240/120V) .....	3 pcs.
Circuit Breaker (120V) .....	2 pcs.
Circuit Breaker (240/120V) .....	3 pcs.
1-Phase Breaker .....	1 pc.
3-Phase Breaker .....	1 pc.

### (2) Safety Device

Terminal Cover with locking structure .....	1 pc.
Fuel Inlet Cover with a locking key .....	1 pc.
Protection Monitor with automatic engine shutdown feature .....	1 set.

### (3) Equipment

Electronic Display .....	1 set
● Oil Pressure	
● Water Temp.	
● Engine Speed	
● Output (kVA)	
● Fuel Level Meter	
Warning Monitor .....	1 set
● Battery Charge	
● Oil Pressure	
● Water Temp.	
● Over Speed	
● Air Filter	
● Spill Containment	
● Engine	
Volt Meter .....	1 pc.
Amp. Meter .....	1 pc.
Frequency Meter .....	1 pc.
Breaker Trip Selector .....	1 pc.
Hour Meter .....	1 pc.
Slow-Down Switch .....	1 pc.
Display Selector .....	1 pc.
Voltage Regulator .....	1 pc.
Amp. Meter Selector .....	1 pc.

## 2. Feature

### (1) Feature

- Sound Level 61dB(A) at 7m distance under no load, 1800 min<sup>-1</sup>.
- Generating Performance 1-phase & 3-phase (Simultaneous)
- 2 Way Drive Control High/Low Speed
- Environmental EPA Phase 3 Compliance, Low Sound Level
- Fuel Tank Capacity 420 Liters (111 gal.)
- Dry Weight 1,290 kg (2,843 lbs.)
- Dimensions (LxWxH) 1970 x 880 x 1630 mm (78 x 35 x 64 in.)

### (2) Protection Device

Item	Set Value	Engine Shut-Down
Water Temp.	230°F	○
Oil Pressure	7 psi	○
Over Speed	2070 min <sup>-1</sup>	○
Low Battery Charge	8V	○
Air Filter	Clogging Up	-
Spill Containment	10 gal.	-
Engine Malfunction	-	-

### (3) Fuel Economy

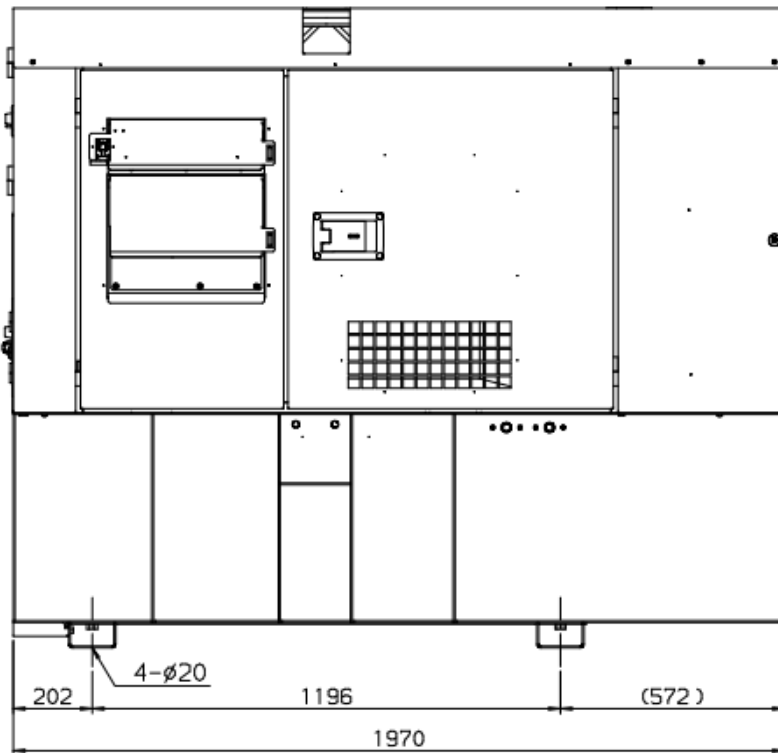
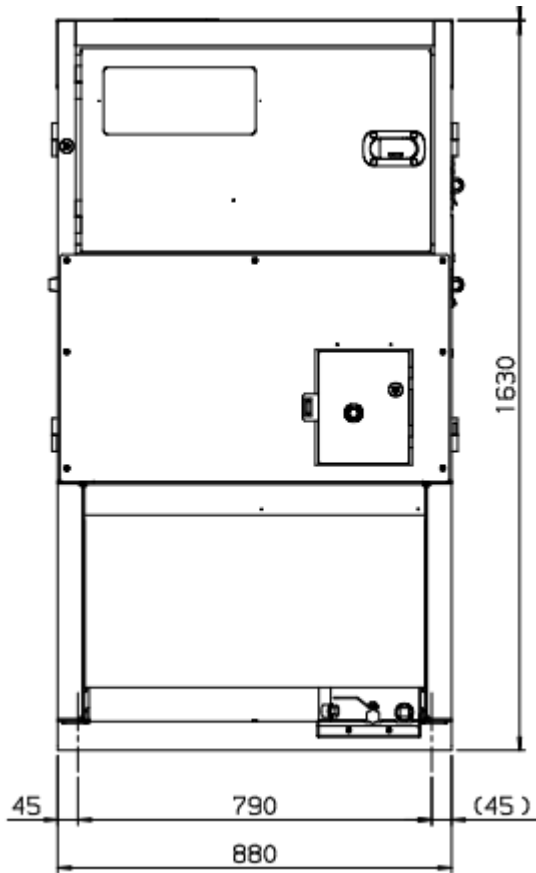
Load	Fuel Consumption
Full load	14.0L/hr. (3.69 gal./hr)
3/4 load	10.2L/hr. (2.69 gal./hr.)
1/2 load	7.2L/hr. (1.9 gal./hr.)
1/4 load	4.5L/hr. (1.18 gal./hr.)

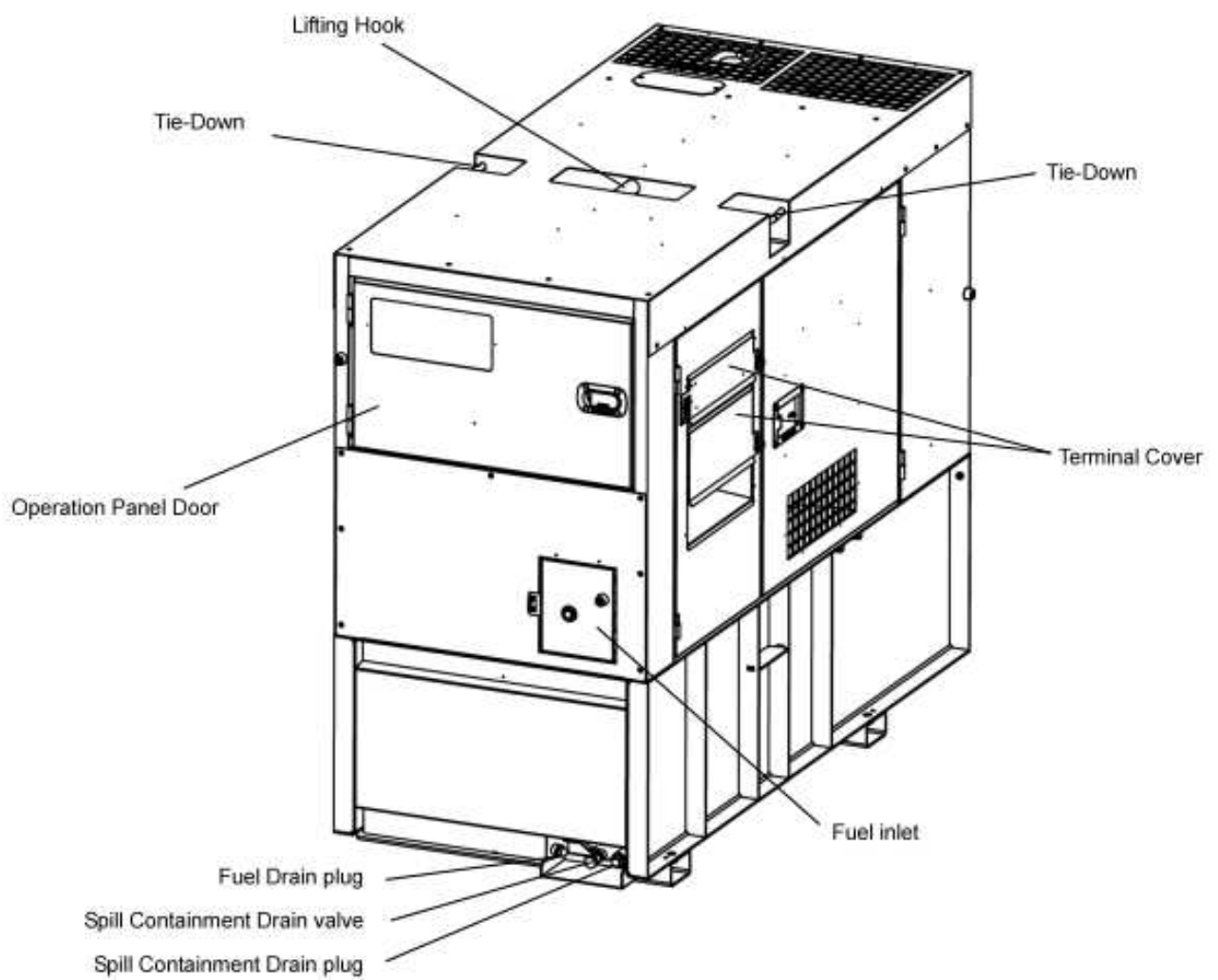
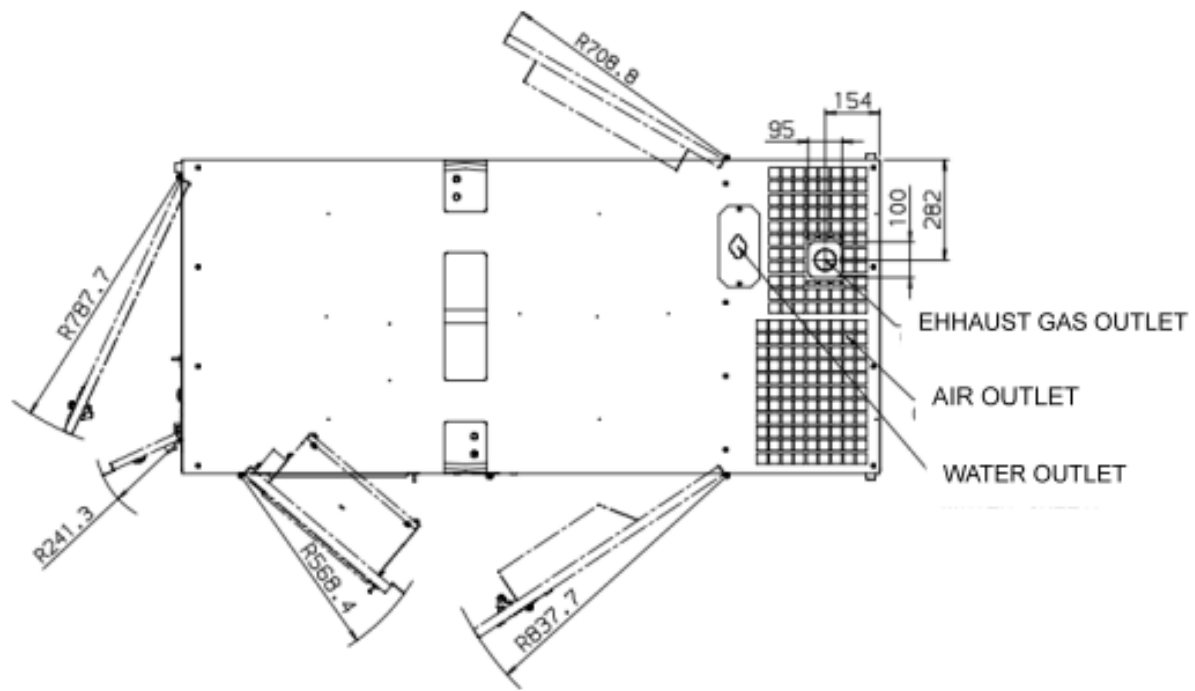
For reference only.

### (4) Accessories

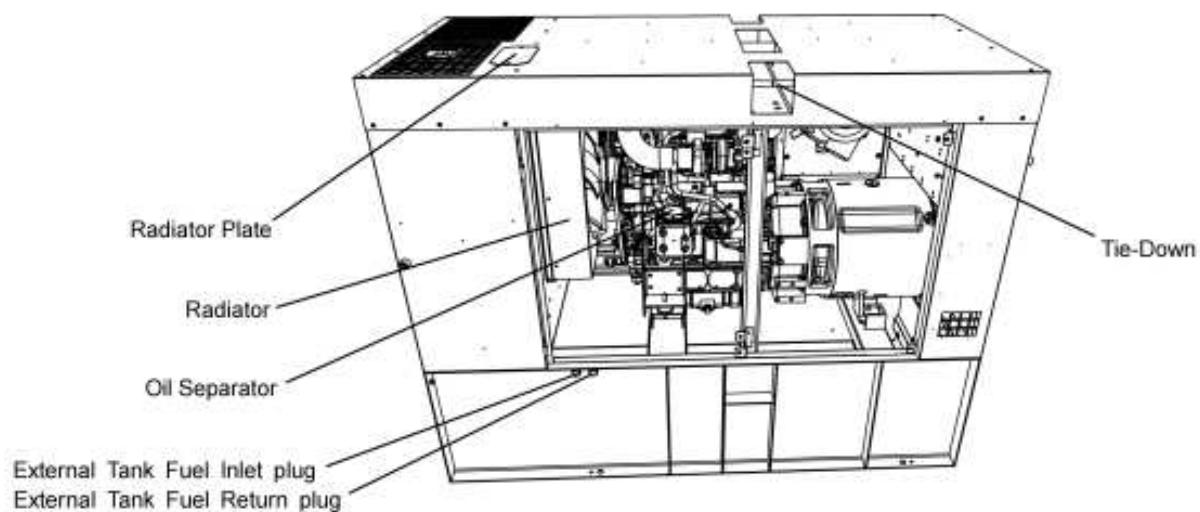
Owner's & Operator's Manual	1 copy
Engine Warranty Statement	1 copy
Starter Key	1 set (2 pcs.)

# CHAPTER 4: APPEARANCE

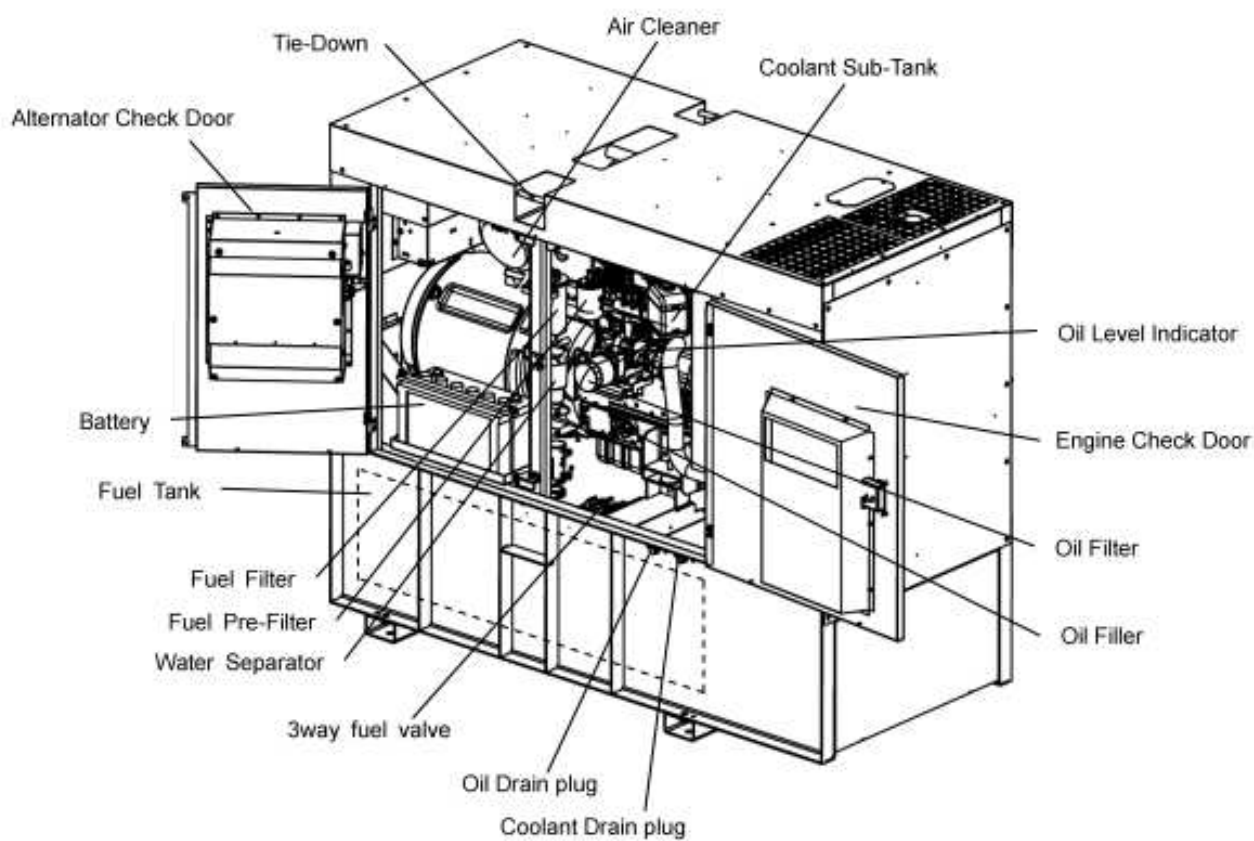








\* Shown with side-plate removed.



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