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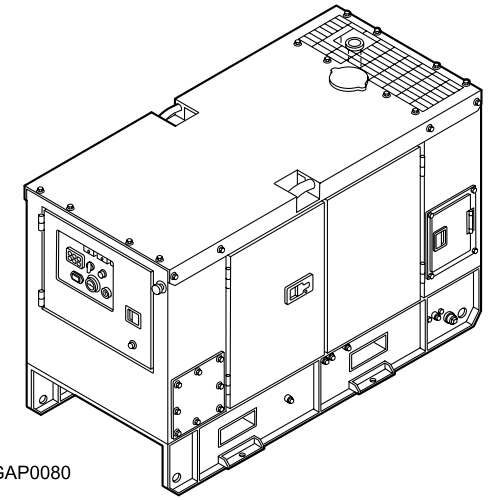
AQ. D. 1-1. 1. K Code No. 1G296-8914-1

SQ-1120~SQ-3300

OPERATOR'S MANUAL

KUBOTA
DIESEL GENERATOR

SQ-1120·SQ-1150·SQ-3140·SQ-3200·SQ-3300



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READ AND SAVE THIS MANUAL

Kubota

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SAFE OPERATION

Careful operation is your best insurance against an accident. Read and understand this operator's manual carefully before operating the generator. All operators, no matter how much experience they may have had, should read this manual and all labels on the generator before operating the generator. It is the owner's responsibility to instruct all operators in safe operation.

Be sure to observe the following for safe operation.

OBSERVE SAFETY INSTRUCTIONS

- Read and understand carefully this OPERATOR'S MANUAL and LABELS ON THE GENERATOR before attempting to start and operate the generator.
- Learn how to operate and work safely. Know your equipment and its limitations. Always keep the generator in good condition.
- Before allowing other people to use your generator, explain to them how to operate and have them read this manual before operation.
- DO NOT modify the engine by yourself. UNAUTHORIZED MODIFICATIONS to the engine may impair the function and / or safety and affect engine life.



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WEAR SAFETY CLOTHING

- DO NOT wear loose, torn or bulky clothing around the generator that may catch on working controls and projections causing personal injury.
- Use additional safety items, e.g. hard hat, safety protections, gloves, etc., as appropriate or required.
- DO NOT operate generator or any equipment attached to it while under the influence of alcohol, medication, or other substances, or while fatigued.
- DO NOT wear radio or music headphones while operating the generator.


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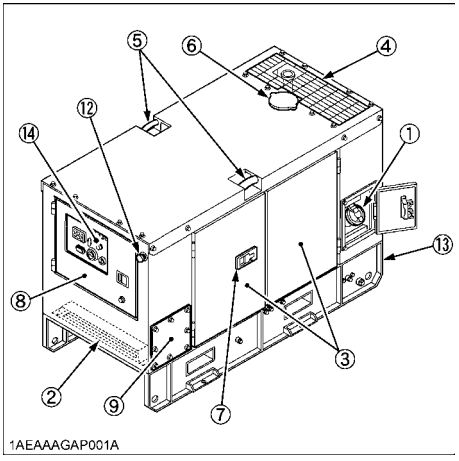
SPECIFICATIONS

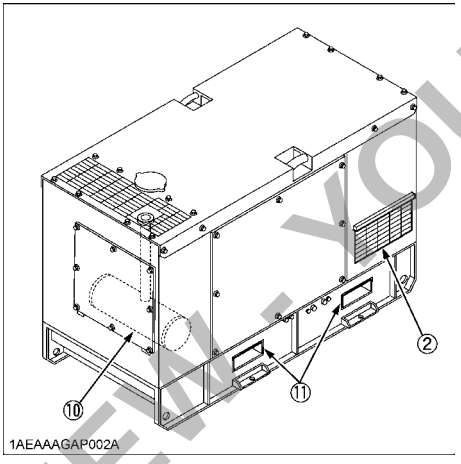
MODEL	Unit	SQ-1120	SQ-1150	SQ-3140	SQ-3200	SQ-3300
GENERATOR						
Model		PX-312KE1	PX-319KE1	PX-312KE3	PX-319KE3	PX-322KE3
Design		Revolving field, self-excited brushless AC generator				
Frequency	Hz	50				
Standby Output	kVA (kW)	11.8 (11.8)	16 (16)	15.4 (12.3)	22 (17.6)	33 (26.4)
Continuous Output	kVA (kW)	11.2 (11.2)	15 (15)	14 (11.2)	20 (16)	30 (24)
Voltage-single phase	V	240		240		
Voltage-3 phase	V	---		415		
Armature connection		Series		Star with neutral		
Phase & Wire		1 Phase & 4 Wires		3 Phase & 12 Wires		
Power Factory		1.0		0.8		
No. of Poles		4-pole				
Insulation		Class H				
Voltage Regulation	%	±1.5 (No load to full load)				
Type of Coupling		Direct coupled				
DIESEL ENGINE						
Model		D1703-EBG	V2203-EBG	D1703-EBG	V2203-EBG	V3300-EBG
Type		Vertical, water-cooled, 4-cycle diesel engine				
No. of cylinders		3	4	3	4	4
Bore x Stroke	mm	87 x 92.4				98 x 110
Displacement	L	1.647	2.197	1.647	2.197	3.318
Engine Speed	rpm	1500				
Continuous rated output	kW (HP)	13.6 (18.2)	18.4 (24.7)	13.6 (18.2)	18.4 (24.7)	26.8 (35.9)
Lubricating oil		API service class CF or higher				
Oil capacity	L	5.6	7.6	5.6	7.6	13.2
Coolant capacity *	L	6.6	7.4	6.6	7.4	9.3
SET						
Fuel		Diesel fuel No.2 (ASTM D975)				
Fuel Consumption At full load	L/h	3.9	5.5	3.8	5.3	7.7
Fuel tank capacity	L	62				68
Continuous operating hours (at 3/4 load)	hrs	20.7	15.1	21.4	15.5	11.5
Battery (Ah/5Hr)		80D26R (55Ah)				130E41R (92Ah)
Starting system		Electric				
L x W x H	mm	1675 x 780 x 1070				1935 x 860 x 1095
Approx. Net Wt.	kg	699	762	699	762	935
Emergency stop system		In case of abnormal : Oil pressure, water temperature, fan belt broken When the side cover and door open with running				
AMPS						
Single phase 240V	A	46.7	62.5	12.5 (3 set)	18.1 (3 set)	27.1 (3 set)
Three Phase 415V	A	---	---	19.5	27.8	41.7

*Including the recovery tank

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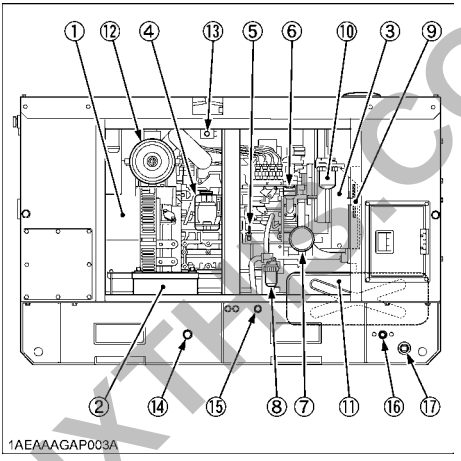
■Part Names



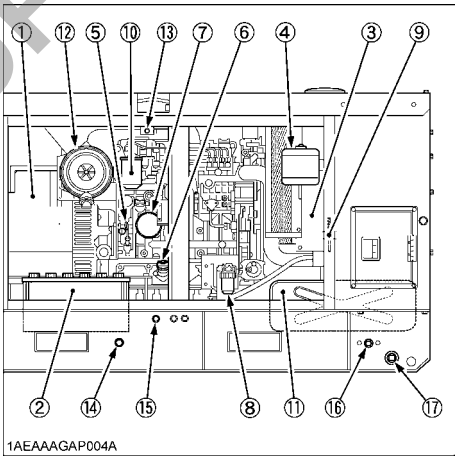


(1) Fuel tank cap-with lockable key
(2) Cooling air inlet
(3) Door
(4) Cooling air outlet
(5) Handling hook
(6) Radiator top cover
(7) Door handle-with lockable key
(8) Panel cover
(9) Load center cover
(10) Muffler
(11) Fork pockets
(12) Emergency stop switch
(13) Fully Bunded (Base bunded to 110% capacity)
(14) Control panel

[SQ-1120, SQ-3140, SQ-1150, SQ-3200]



[SQ-3300]



(1) Generator
(2) Battery
(3) Radiator
(4) Recovery tank
(5) Oil dipstick
(6) Engine oil port
(7) Oil filter cartridge
(8) Fuel sedimenter cartridge (water separator)
(9) Electric fuel feed pump
(10) Fuel filter cartridge
(11) Fuel tank
(12) Air cleaner
(13) Safety switch
(14) Engine oil drain plug
(15) Coolant drain plug
(16) Fuel tank drain plug
(17) Containment drain point (Plug size: 3/4)

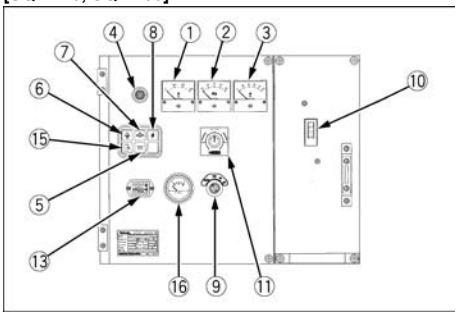
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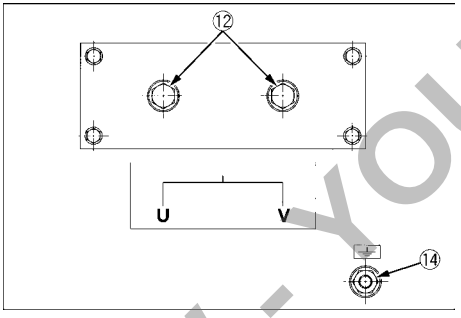
INSTRUMENT PANEL AND PART NAMES

■Control Panel

◆ 1 Phase Type

[SQ-1120, SQ-1150]

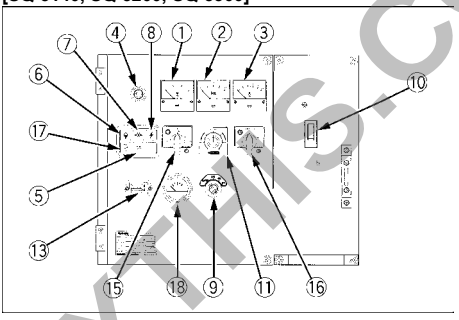


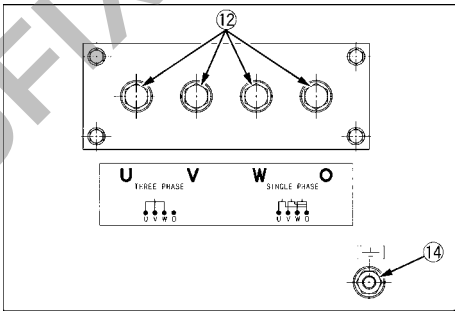


(1) A.C. Voltmeter
(2) Frequency meter
(3) A.C. Ammeter
(4) Pilot lamp (Green lamp)
(5) Glow plug lamp
(6) Water temperature lamp
(7) Oil pressure lamp
(8) Battery charge lamp
(9) Main switch (key)
(10) Circuit breaker
(11) Voltage adjuster
(12) Terminals (output)
(13) Hour meter
(14) Ground terminal
(15) Door open lamp
(16) Fuel gauge

◆ 3 Phase Type

[SQ-3140, SQ-3200, SQ-3300]





(1) A.C. Voltmeter
(2) Frequency meter
(3) A.C. Ammeter
(4) Pilot lamp (Green lamp)
(5) Glow plug lamp
(6) Water temperature lamp
(7) Oil pressure lamp
(8) Battery charge lamp
(9) Main switch (key)
(10) Circuit breaker
(11) Voltage adjuster
(12) Terminals (output)
(13) Hour meter
(14) Ground terminal
(15) Voltmeter change-over switch
(16) Ammeter change-over switch
(17) Door open lamp
(18) Fuel gauge

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STARTING THE ENGINE

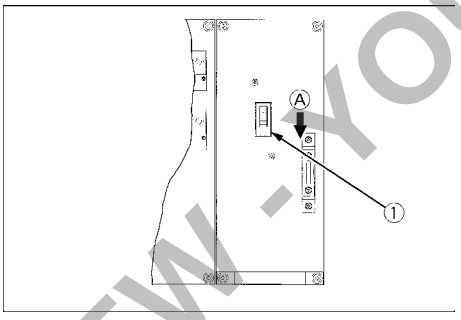
⚠ CAUTION

To avoid personal injury:

- **To prevent contact with live components or rotating parts, the engine automatically stops when load center cover or access door is opened.**
- **While the load center cover or access door remains open, the starter will not activate.**
- **Be sure to stop the engine according to proper procedure before you open the load center cover or access door. Otherwise the power supply will be shut down instantaneously.**
- **DO NOT apply any tape or anything else that would keep the safety switch inactive.**

1. Turn OFF all switches on the electrical devices.

2. Turn OFF the circuit breakers on the control panel.

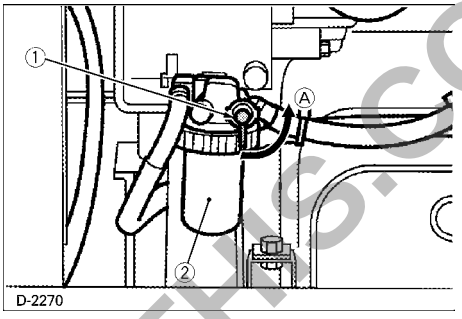


(1) Circuit breaker *(A) "OFF"*

NOTE :

- For the AUS specified models, also turn OFF the load center circuit breaker.

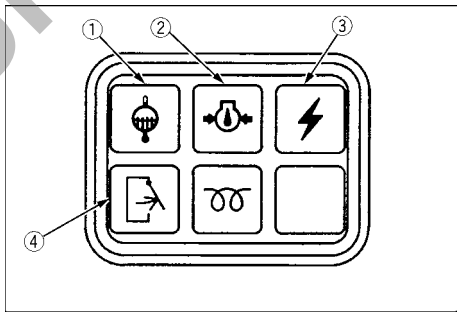
3. Ensure that the fuel lever is set to the "OPEN" Position.



(1) Fuel lever *(A) "OPEN"*
(2) Water separator

4. Insert the key into the main switch and turn it "ON".

5. Check the battery charge lamp and oil pressure lamp are "ON".



(1) Water temperature lamp
(2) Oil pressure lamp
(3) Battery charge lamp
(4) Door open lamp

IMPORTANT :

- Do not use ether or any starting fluid for starting the engine, or severe engine damage will occur.
- To protect the battery and the starter, make sure that the starter is not continuously turned for more than 10 seconds.
- When there is a severe overload or short circuit in the wiring of the generator, the circuit breaker turns OFF. If this happens, eliminate the cause and then turn the circuit breaker ON again.

NOTE :

- The thermal relay does not work if the battery voltage falls below the prescribed level, which will detect overload on the meter. Therefore, be aware of the battery condition.

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SERVICE INTERVALS

Observe the following for service and maintenance.

No.	Check point	Interval					Ref. page	
		First 50 hours	Every day	Every 100 hours	Every 250 hours	Every 500 hours		
1	Check of fuel pipes and clamp bands		○				-	
2	Check and drain bunded base as required		○				35	
3	Change of engine oil	◎	*5		○		11	◎
4	Cleaning of air cleaner element				○		31	*1
5	Check of battery electrolyte level			○			32	
6	Check of fan belt tightness	◎			○		35	◎
7	Check of radiator hoses and clamp bands				○		30	
8	Check of intake air hose				○		31	
9	Replacement of oil filter cartridge	◎				○	27	◎
10	Replacement of fuel filter cartridge or element					○	23, 24	
11	Cleaning of sedimenter (water separator)				○		24	
12	Cleaning of water jacket (radiator interior)						30	
13	Replacement of fan belt						35	
14	Check of valve clearance						-	
15	Replacement of air cleaner element						31	*2
16	Check of damage in electric wiring and loose connections				○		34	
17	Check of fuel injection nozzle injection pressure						-	*3
18	Check of injection pump						-	*3
19	Replacement of fuel pipes and clamp bands						-	*3
20	Replacement of radiator hoses and clamp bands						30	
21	Replacement of battery						32	
22	Change of radiator coolant (L.L.C.)		*5				29	
23	Replacement of intake air hose						31	*4

IMPORTANT :

- The jobs indicated by ◎ must be done after the first 50 hours of operation.

*1 Air cleaner should be cleaned more often in dusty conditions than in normal conditions.

*2 After 6 times of cleaning.

*3 Consult your local KUBOTA Dealer for this service.

*4 Replace earlier if necessary.

*5 Level check.

- When the battery is used for less than 100 hours in a year, check its electrolyte yearly. (for refillable battery's only)

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