DIESEL

PORTABLE GENERATOR SETS

OPERATION INSTRUCTION AND PARTS LIST MANUAL

GÜÇBİR GENERATOR

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DISTRIBUTOR

PREFACE

Thank you for purchasing products from our company. We appreciate your business. The following manual is only a guide to assist you and is not a complete or comprehensivemanual of all aspects of maintaining and repairing your generator. The equipment you have purchased is a complex piece of machinery. We recommend that you consult with a dealerif you have doubts or concerns as to your experience or ability to properly maintain or repair your equipment. You will save time and the inconvenience of having to go back to the store if you choose to write or call us concerning missing parts, service questions, operating advice, and/or assembly questions.
Our air-cooled diesel generators have some of the following features:

- Lightweight construction
- Air cooled
- Four-stroke diesel internal combustion engine
- Direct fuel injection system
- Recoil starter or an optional electric starter
- Large fuel tank
- Automatic voltage stabilizer
- NFB circuit protector
- AC and DC outputs
- Low oil pressure alarm

The air-cooled diesel generators are widely used when electrical power is scarce. Our welders provide a portable mobile solution in supplying power for field operations during project construction. Some other known applications include pipeline construction and metal welding when electrical power is not available.

This manual will explain how to operate and service your generator set.

If you have any questions or suggestions about this manual, please contact your local dealer or us directly. ***Consumers should notice that this manual might differ slightly from the actual product as more improvements are made to our products, Some of the picturesin this manual may differ slightly from the actual product as well. We reserves the right to make changes at any time without notice and without incurring any obligation.***

GUCBIR GENERATOR

MODEL	STANDBY	PRIME	PHASE	TYPE	ENGINE MODEL	NET WEIGHT	DIMENSIONS
	kVA	*kVA*				*kg*	*mm*
GJD7000H	7	6	1	Open Type	188FAE	110	720x492x655
GJD7000H-3	7	6	3	Open Type	188FAE	115	720x492x655
GJD7000S	7	6	1	Soundproof Canopy	188FAE	171	930x530x740
GJD7000S-3	7	6	3	Soundproof Canopy	188FAE	176	930x530x740
GJD8000H	8	7	1	Open Type	192FAE	115	720x492x655
GJD8000H-3	8	7	3	Open Type	192FAE	120	720x492x655
GJD8000S	8	7	1	Soundproof Canopy	192FAE	175	930x530x740
GJD8000S-3	8	7	3	Soundproof Canopy	192FAE	180	930x530x740
GJD10000H	10	9	1	Open Type	1100FAE	130	720x492x655
GJD10000H-3	10	9	3	Open Type	1100FAE	135	720x492x655
GJD10000S	10	9	1	Soundproof Canopy	198FAE	210	1100x760x860
GJD10000S-3	10	9	3	Soundproof Canopy	198FAE	210	1100x760x860
GJD16000S	15	13,5	1	Soundproof Canopy	292FAE	320	1300x700x955
GJD16000S-3	15	13,	3	Soundproof Canopy	292FAE	320	1300x700x955

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Overall view of the generator

CHAPTER 1.TECHNICAL SPECIFICATIONS AND DATA

1-1Technical specifications and data

	MODEL		GJD7000H	GJD7000H-3	GJD7000S	GJD7000S-3	GJD8000H	GJD8000H-3
GENERATOR SET	FREQUENCY	Hz.	50	50	50	50	50	50
	VOLTAGE	v	220	230/400	220	230/400	220	230/400
	MAXIMUM POWER	KVA	7	7	7	7	8	8
	POWER	KVA	6	6	6	6	7	7
	AMPERE	A	31	10	31	10	36	11
	PHASE		1	3	1	3	1	3
	VOLTAGE REGULATION		AVR	AVR	AVR	AVR	AVR	AVR
	POWER FACTOR		1	0,8	1	0,8	1	0,8
ENGINE	ENGINE MODEL		188FAE	188FAE	188FAE	188FAE	192FAE	192FAE
	PISTON & STROKE	mm	88X75	88X75	88X75	88X75	92X75	92X75
	MAX. POWER / SPEED	HP/rpm	12HP/3000	12HP/3000	12HP/3000	12HP/3000	13HP/3000	13HP/3000
	STARTING SYSTEM		Electric Start	Electric Start	Electric Start	Electric Start	Electric Start	Electric Start
	OIL CAPACITY	Litre	1,7	1,7	1,7	1,7	1,7	1,7
	FUEL CAPACITY	Litre	13,5	13,5	15	15	13,5	13,5
	FUEL CONSUMPTION	gxkW/h	280	280	280	280	242	242
PACKAGE	WEIGHT	kg	110	115	171	176	115	120
	DIMENSIONS	mm	720x492x655	720x492x655	930x530x740	930x530x740	720x492x655	720x492x655
	20FT (SET)		76	76	72	72	76	76
	40HQ(SET)		152	152	144	144	152	152

	MODEL		GJD8000S	GJD8000S-3	GJD10000H	GJD10000H-3	GJD10000S	GJD10000S-3	GJD16000S	GJD16000S-3
GENERATOR SETS	FREQUENCY	Hz.	50	50	50	50	50	50	50	50
	VOLTAGE	v	220	230/400	220	230/400	220	230/400	220	230/400
	MAXIMUM POWER	KVA	8	8	10	10	10	10	15	15
	POWER	KVA	7							
	AMPERE	A	36	11	45	14	45	14	68	21
	PHASE		1	3	1	3	1	3	1	3
	VOLTAGE REGULATION		AVR	AVR	AVR	AVR	AVR	AVR	AVR	AVR
	POWER FACTOR		1	0,8	1	0,8	1	0,8	1	0,8
ENGINE	ENGINE MODEL		192FAE	192FAE	198FAE	198FAE	198FAE	198FAE	292FAE	292FAE
	PISTON & STROKE	mm	92X75	92X75	98x82	98x82	98x82	98x82	2-92x75	2-92x75
	MAX. POWER / SPEED	HP/rpm	13HP/3000	13HP/3000	14HP/3000	14HP/3000	14HP/3000	14HP/3000	19,5/3000	19,5/3000
	STARTING SYSTEM		Electric Start	Electric Start	Electric Start	Electric Start	Electric Start	Electric Start	Electric Start	Electric Start
	OIL CAPACITY	Litre	1,7	1,7	2	2	2	2	4	4
	FUEL CAPACITY	Litre	15	15	13,5	13,5	30	30	45	45
	FUEL CONSUMPTION	gxkW/h	242	242	230	230	230	230	330	330
PACKAGE	WEIGHT	kg	175	180	130	135	210	210	320	320
	DIMENSIONS	mm	930x530x740	930x530x740	720x492x655	720x492x655	1100x760x860	1100x760x860	1300x700x955	1300x700x955
	20FT (SET)		72	72	54	54	30	30	24	24
	40HQ(SET)		144	144	108	108	96	96	54	54

CHAPTER 2 OPERATING THE DIESEL GENERATOR

2-1 General main points of safety during operation of the generator set.

In order to operate the generator set safely，please follow all the instructions provided in this manual carefully. Doing so otherwise may lead to accidents and or equipment damage.

2-1.1 Fire prevention

The proper fuel for the diesel generator set is light diesel fuel. Do not use gasoline. kerosene and or other fuels other than light diesel fuel. Keep a11 flammable fuels away from the generator as the generator may spark and ignite these gases. In order to prevent fires from occurring and to provide enough ventilation for people and the machine，keep the diesel generator at least 1.5meters away from buildings or other equipment. Always operate your diesel generator on a level site. If the generator is operated on an incline，the lubricating system within the engine will not perform well and may lead to failure of the engine.

2-1.2 Prevention from inhaling exhaust gases

Never inhale exhaust gases emitted by the engine. The exhaust gases contain toxic carbon monoxide.Do not operate your generator in places with poor ventilation. In order to operate this machinery indoors.

2-1.3 Prevention from accidental burns

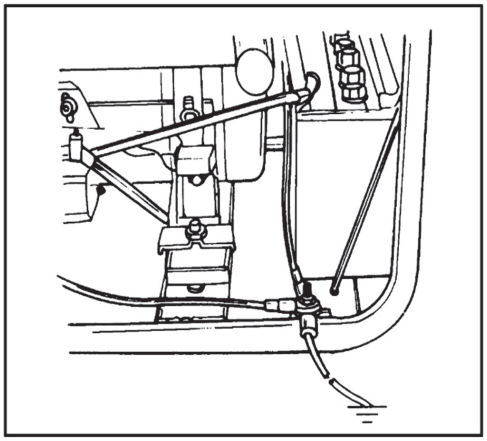
system for the building is required to draw the Never touch the muffler and its cover when the diesel engine is running. Do not touch the muffler and cover after the diesel engine has been used，as the muffler remains hot for a good period of time.

2-1.4 Electric shock and short circuits

Never touch the generator if the generator is wet. And do not touch the generator if your hand is wet. Do not operate generator if the weather conditions call for any type of precipitation such as rain，snow or fogetc. To prevent electrical shocks，the generator should be grounded. Use a lead to connect the grounding end of the generator to the grounding surface of choice. Please refer to Fig.2-1 and Fig.2-2 before beginning to use the electric generator.

Fig.2-1

Fig. 2-2



2-1.5 Other safety points

Before operating this generator, all operators should have a good knowledge of how to break the circuit if any accidents occur. Also, all operators should be familiar with all the swRches and functions of the generator before using this machine. While operating the generator, wear safe shoes and suitable clothes during operation. Always keep children and animals away from the generator.

2-1.6 Battery

The electrolytic liquid of the battery also known as battery acid contains sulfuric acid. Inorder to protect your eyes, skin and clothing, wear protective gear when working with the battery. If you come in contact with the electrolytic liquid, wash it immediately with cleanwater. Also, if the electrolytic liquid comes in contact with your eyes, see a doctor immediately.

2-2 Preparation before operation

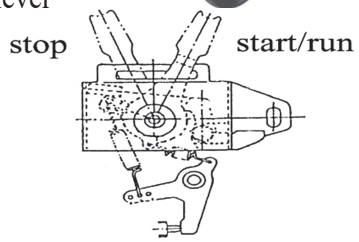
2-2.1 Fuel choices and fuel treatment

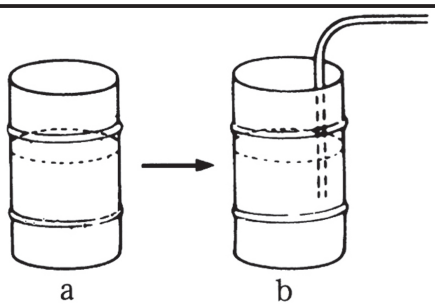
Fuel tank
Use only light diesel fuel. The fuel should be filtered clean. Never let dust and Water mix with fuel in the fuel tank. Otherwise it will clog the fuel lines and oil nozzles. It may also damage your pressure pump.
Note: It is dangerous to overfill the fuel tank. Never exceed the red piston in the filter.

Type / Volume	GJD7000H GJD7000H3 GJD8000H GJD8000H3	GJD7000S GJD7000S3 GJD8000S GJD8000S3 GJD1000H GJD1000H3	GJD10000S GJD10000S3	GJD16000S GJD16000S3
The effective volume offueltank: (L)	12.5	14.5	30	45

Air filter element
Do not wash the air filter. The element is madeof dry material, which does not permitwashing. When the output of the diesel engine is bad or the color of the exhaust gas isabnormal, replace the air filter element. Never start the diesel engine without the air filter.

gearlever





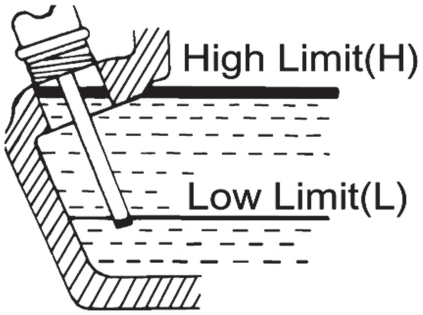
a. After purchasing fuel, put it into a drum and let it sit for 3-4 days.
b. 3-4 days later, insert half of the fuel sucker into the drum (water and impurities stay in the lower portion of the drum)

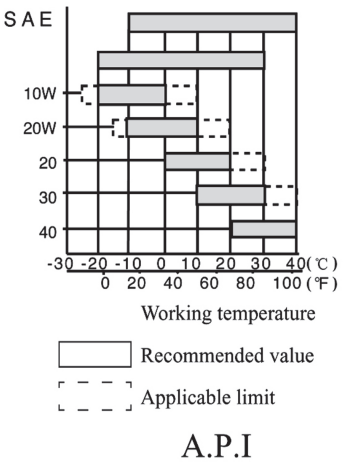
Note:
Never smoke near the opening of the fuel tank. Do not let sparks get near the fuel or fuel tank and do not overfill tank.After filling, tighten the fuel cap.

2-2．2 Filling engine oil

Pouring inlet of lubricating oil

Put the generator set at level state，Fill the lubricating oil to it till the inlet．At the same time．Check the oil level with dipstick．It is neecessary only toinsert the dipstick lightly．Caution：don't ratate the dipstick．



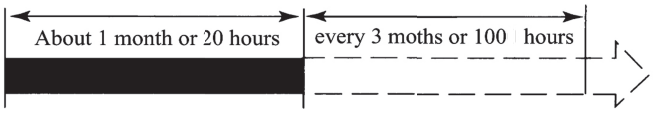


A.P.I

Classification of maintenance for diesel engine
The lubricating oil should be CC or CD grade．

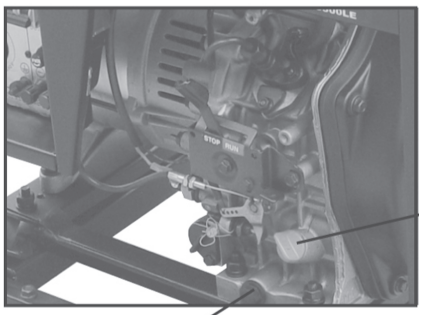
Type / Volume	KDF2500X(E)	KDF2500X(E)	KDF6700X(E) KDF7500X(E) KDF8500X(E) KDF6700Q KDF7500Q KDF8500Q
Volume(L)	0.75	1.1	1.65
England gallon	(0.16)	(0.24)	(0.36)

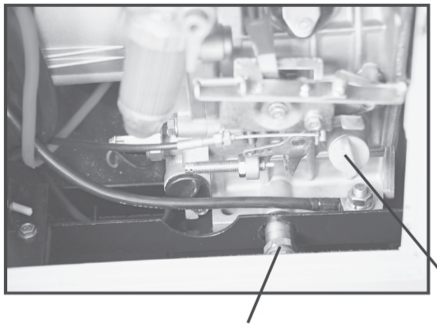
Engine oil is the most important factor in determining the life of your generator engine．If you use poor engine oil or if you don't change the oil regularly,the piston and cylinder will wear easily or seize up．Also，the life of the other parts in your engine such as bearings，and other rotating parts will shorten considerably．



Time to change engine oil

Although there is an alarm system to check for low oil pressure，it is always a good idea to check the amount of oil inside the engine．If the oil level is low，fill it before starting the engine．A good time to drain the oil from the engine is when the diesel engine is still hot．If the engine is fully cooled，it is more difficult to drain all the oil out or some impurities will remain in the engine．

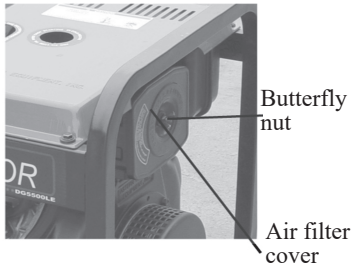




Warning：Don't fill engine oil when diesel is operating

2-2.3 Check the air filter

(1)Loosen the butterfly nut，take the cover ofthe air filter off and take the air filter element out.

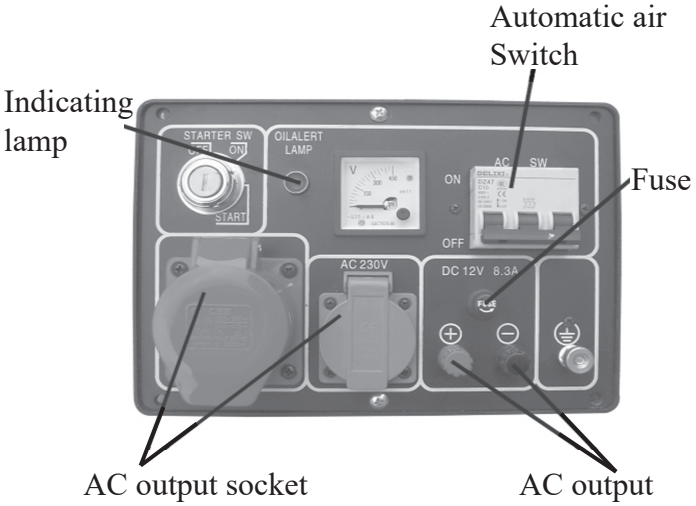


Do not use detergent to wash the air filter element. When the performance ofthe engine decreases or when the color of the exhaust gases is bad，exchange the filter element. Never start the engine without the air filter as foreign obj ects may enter the intake and damage the engine.

Filter core

(2)After replacing the air filter element，replace the cover and tighten the butterfly nut firmly.

2-2.4 Checking the generator



(Note：Only certain welder generator sets have an electricfan incorporated on them.)

Before starting the generator，make sure the air switch is in the“off”position. Starting the generator with the switch in the“on” switch is very dangerous.

The generator should be grounded in order to prevent electric shock.

Use dry compressed air(with pressure about 1.96×105 Pa)to blow the dust out in the electric control cabinet and at the surface of the generatonCheck to see how clean the surface of the sliding ring is. Check the pressure of the carbon brush. Also，check whether the position of the carbon brush at the slide rig is correct and the fixture is reliable with a good contact.

According to the electric wiring diagram，check to see whether the connecting wire is correct and the connected place is firm.

Use a 500 MΩ meter to measure the insulation resistance of the electrical part. The resistance should be no less than 5MΩ. When measuring devices，make sure the capacitor is turned off. Otherwise,it will burn the capacitor. (For the low noise set，the inspection may not be performed).

2-2.5 The fuel and oil in a new engine is drained before sold. Before you start the engine, please fill the fuel tank and engine oil first. Then. check to see if there are air bubbles in the engine. If there are, follow these procedures. Loosen the connecting nut between the oil inj ection pump and oil pipe. Bleed the air from the system until there are no more bubbles. Then replace the connecting nut and tighten it.

2-3 Checking the operation of the diesel engine

2-3.1 Low-pressure alarm system.

The diesel engines have a low-pressure sensor system where if the oil pressure drops to low. the sensor will shut the engine off. Thepurpose ofhavingthis system is to ensure that the engine does not seize up. If there is not enough oil in the engine, the temperature of the oil will be raised too high. On the contrary, if there is too much oil in the engine, the engine oil can slow the engine down considerably.

2-3.2 Engine break in

(1)Avoid overloading the engine when brand new.

(2)Change the engine oil according to specifications. An oil change for a brand new engine is about 20 hours or every month, an older engine, the oil change is about 100 hours or three months.

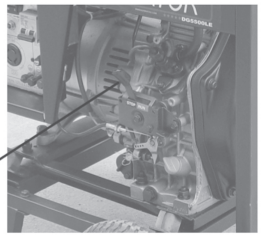
2-4 Starting the generator set

2-4.1 Manual starting.

Start the engine in accordance with procedures below:

(1)Put the fuel switch in the“ON”position.

(2)Turn the handle of the engine to the “RUN”position.



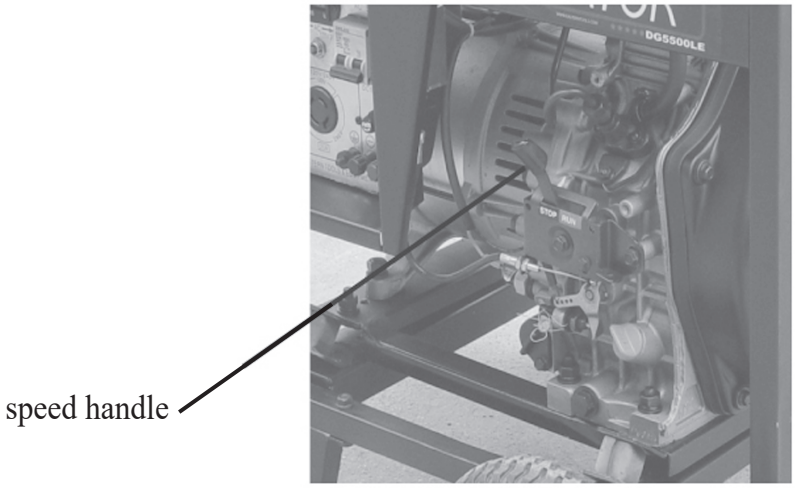
(3)Pull the recoil starter handle out until you feel resistance. It will reset to its original position automatically. The handle should be reset into its recoil device slowly to prolong the life ofthe life ofthe engine starter.

(4)In cold climate, it iS difficult to start the engine. To remedy this, pull the rubber plug out from the rocker of the diesel en—gine and fill 2 ml of engine oil. Before starting, put the rubber plug back in place. If you don’t put the rubber plug back in place, rain, dust and other dirt can enter into the diesel engine. It will cause the parts inside the diesel engine to wear quickly and lead to engine failure.

2-4.2 Electric starting

The procedures for preparing to start eh engine are the same as the manual starting engine.

1. Insert key into ignition and put it in the“off ”position.
2. Put the speed handle in the “Run”position.
3. TuITI the start switch clockwi~to the ‘‘START”position; to set the silent type, first turn it clockwise to the “RUN”(ON)position for 1-2 seconds. The electromagnetic iron will be triggered, now turn it clockwise to the“START”position.
4. After the diesel engine is started, remove your hand from the switch handle; the switch will automatically reset itself t0 the“ON”position.
5. If the engine is not starting after 10 seconds of cranking, wait about 15 seconds before trying it again. If you crank to long, the voltage of the battery will drop. This can lead to improper ignition. When the diesel engine is operating, let the ignition retain on the “ON”position.

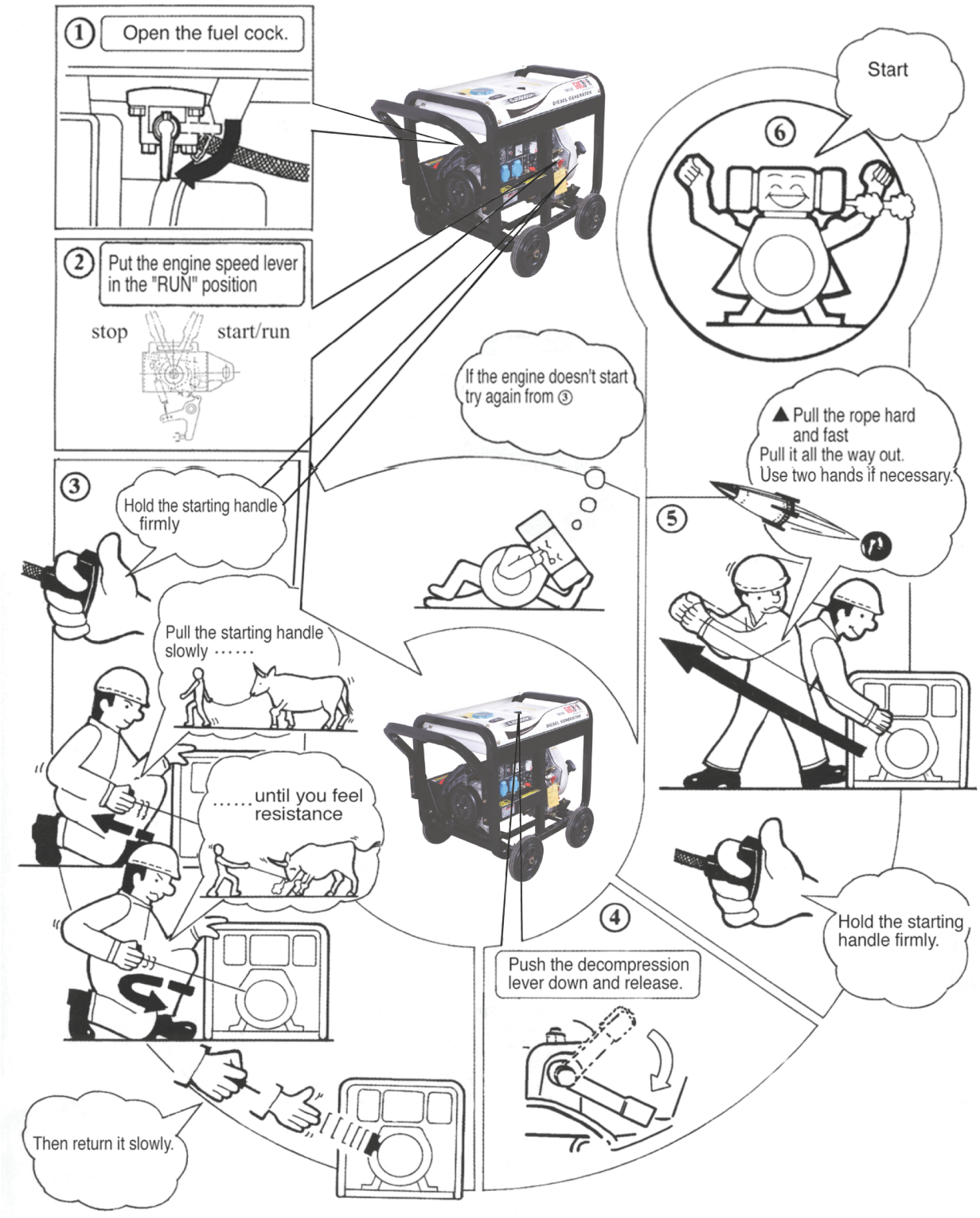


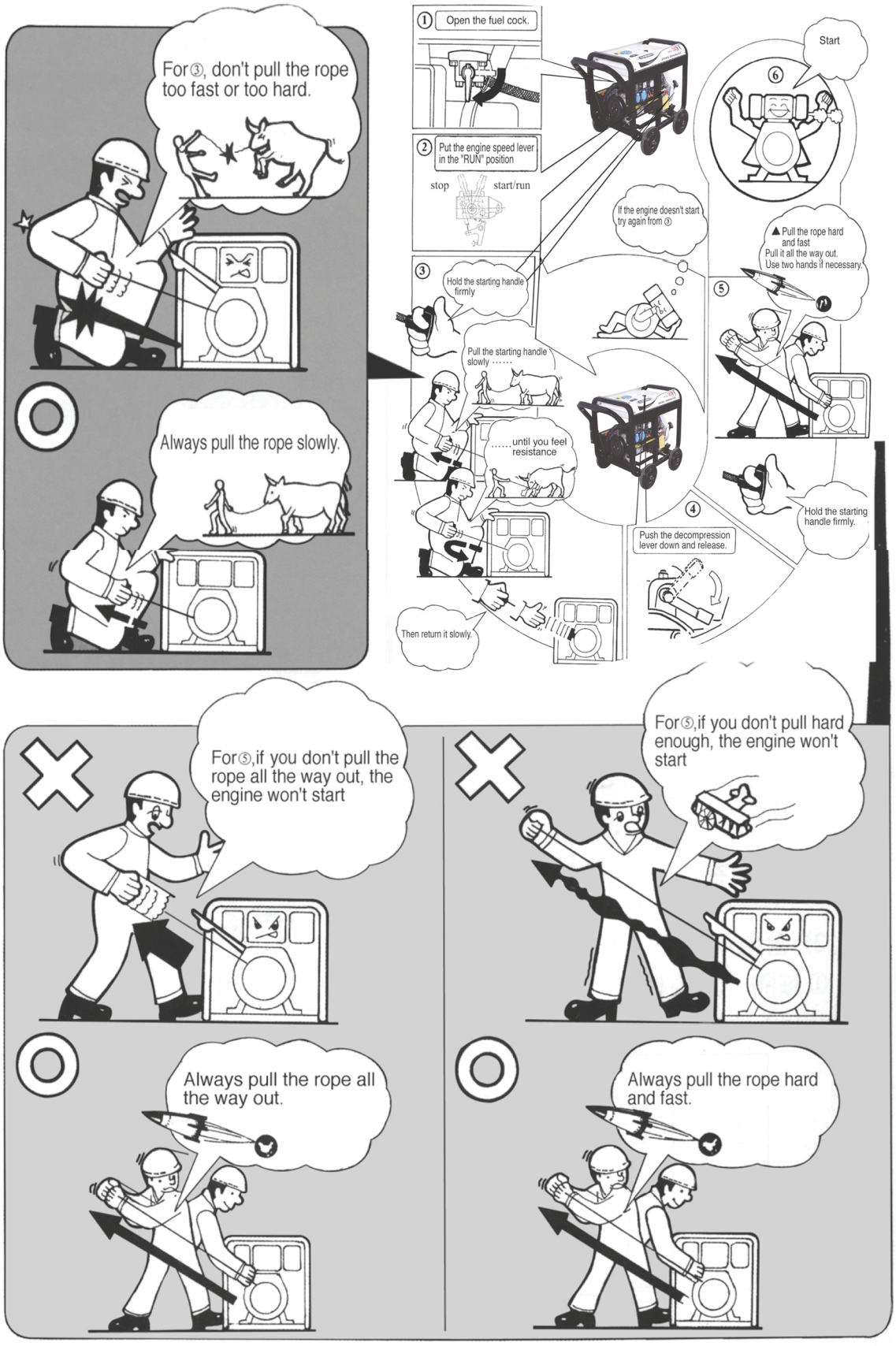
2-4.3 Battery

Important Notice: SOME OF OUR UNITS DO NOT COME WITH A BATTERY FOR SHIPPING SAFETY PURPOSES. In order to get your generator started for the first time; the battery must be purchased at a local hardware or automotive supply store. Please verify the dimensions of the generator battery tray with the size of battery to be purchased. Also, all diesel generators need to have a battery with a minimum of 36～38 amp hours. If you purchase a dry battery and fill it with acid, please verify the acid level of the battery once a month.

2-5 Procedures for starting the generator set

This procedure applies to the GJD series recoil starting style models




For③, don't pull the rope too fast or too hard.
Always pull the rope slowly.
① Open the fuel cock.
② Put the engine speed lever in the "RUN" position
stop
start/run
③ Hold the starting handle firmly
Pull the starting handle slowly ……
……until you feel resistance
Then return it slowly.
④ Push the decompression lever down and release.
⑤ ▲Pull the rope hard and fast
Pull it all the way out.
Use two hands if necessary.
⑥ Start
If the engine doesn't start try again from ③
Hold the starting handle firmly.
For⑤,if you don't pull the rope all the way out, the engine won't start
Always pull the rope all the way out.
For⑤,if you don't pull hard enough, the engine won't start
Always pull the rope hard and fast.

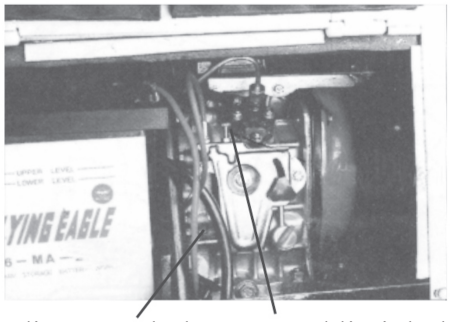
2-6 Proper operation of the generator set

2-6.1 Operating the diesel engine

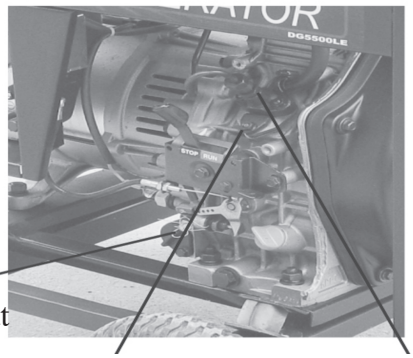
1.Pre-heat the diesel engine for 3 minutes under no load conditions.

2.First check the height of the lubricating oil level, if it is low, refill it. Our diesel engines are equipped with an alarm system that will notify you if the oil pressure is too low. The alarm system will shut down the engine if the oil pressure is too low.

3.Do not adjust the speed limit regulation bolt or the fuel adj ustment bolt. These bolts have been set by the factory already, changing them will affect the porpertie s of the engine performance.



Fuel adjustment bolt Speed limit bolt



High-pres fuel pipe nut

Fuel adjustment bolt Fuel adjustment bolt

2-6.2 Checks during engine operation

1. Check to see if there are abnormal noises.
2. Check to see if the performance is good or bad.
3. Check the color of the exhaust gases (whether it iS too black or too white). If any of these conditions exist, stop the engine and find the cause of the problem. If no problems are found, please contact your local dealer or our nearest company branch.

2-7 Loading

2.7.1 Load conditions

Exert loads in accordance with the specified parameters.

2.7.2 Output of electricity

1.Raise the revolutions per minute(turn the speed handle to the max setting) of the generator to get the maximum power out of the generator. If not, the automatic voltage regulator device will excite and doing this for long periods of time will cause the capacitor to burn. For the rated speed of the generator, please refer to Chapter 1, item 1-1 technical specification and data.

2. Observe the pointerofthe voltmeter,it shouldpointto 230V/400V±5％(50Hz). (For 60Hz set,itwill be 240V±5％). Meanwhile putthe switchinthe GEN(genemtor)position. The AC voltage from the socket of the power supply canbe output.
3. When connecting devices to the generator, make sure to connect these devices in order. Connect the large loads onto the generator first. If everything is functional, smaller loads can then be added. If the generator shuts off,it may be because the load being drawn by all the various devices are too high. In this event, decrease the number of small devices until everything is functional. The total drawn power should not exceed the maximum output power of the generator. Please see Table 1-1 for technical specifications of what the generator can output. In order to reset the generator after overdrawn power, let it sit for several minutes. If the indication of the voltmeter is too high or too low, adjust the speed accordingly. If there are problems, stop the generator immediately and fix the issue.
4. During operation, the generator should be in a place that has very good ventilation. Never cover the engine to solve a ventilation problem, as this will damage your equipment.

Note: Do not start more than two devices simultaneously. Each device should be started one by one to prevent overloading the generator.
The generator should be running at 3000/3600 revolutions per minute in order to achieve the(50/60Hz)fequenty. The speed of the engine can be adjusted from the speed governor.

2-7.3 Charging the battery

1. For the electric starter on the generator, the 12V battery is automatically charged through the regulator on the side of the engine when it is running.
2. If the generator is not used for long periods of time, the battery should be disconnected to avoid energy loss from the battery.
3. Do not connect the negative and positive terminals of the battery together at any time. Doing so will damage the battery.
4. Do not reverse the polarities when attaching the battery cables to the battery. Doing so will damage both the battery and the electric starter.
5. When charging the battery,the battery produces flammable gases. Do not smoke, let flames, and sparks far away the battery while it is charging as this may cause a fire.

To avoid sparking while connecting the cables to the bakery,first, connect the cables to the battery then to the motor, To disconnect battery cables, first disconnect the motor end of the cable.

2-8 Stopping the generator

1. Take the electrical load off the generator.
2. Putthe speedhandle inthe“RUN”position and let the engine run for 3 minutes after unloading. Do not stop the diesel engine immediately let it warm down. Stopping the diesel engine suddenly may raise the temperature of the engine abnormally and lock the nozzle and damage the diesel engine.

Note:
1.If the speed handle is in the “Stop” position and the engine is switch running, turn the fuel switch to the “Off” position or loosen the high pressure oil pipe nut. The engine could be stopped more than one-way other than the speed handle way.
2.If you cannot stop the engine with a 1oad on it. then remove the load first than stop the engine.

3. Press down on the brake handle.
4. Ifequipped with an electric starter, turn the key to the“ Off ”position.
5. Put the fuel handle to the“Stop”position.
6. Finally, pull slowly on the recoil handle until you feel resistance(this is when the piston is on the compression stroke, where the intake and exhaust valves are closed). What this does is prevent the engine from rusting when not in use.

CHAPTER 3 MAINTENANCE

3-1 Maintenance schedules

Kepping your generator well maintained will prolong the life of your generator. Everything needs to be checked including the diesel engine, welder, generator, control cabinet, and frame. For overhauling procedures, please refer to the instruction manual of the relative subassembly. If you need these manuals, plsaes call our company and we will send you one.

Before starting the maintenance, make sure the diesel engine is off.
Pleaes refer to the Table 3-1 for the proper maintenance schedule.

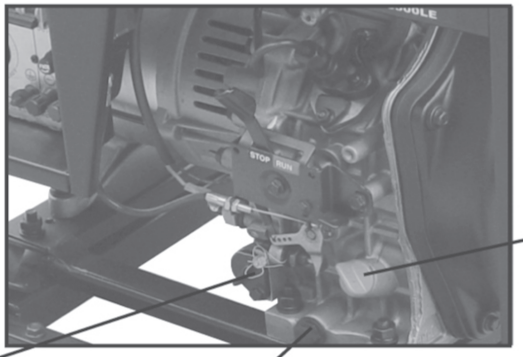
Table 3-1. Maintenance schedulefor diesel generator set

Interval of / maintenance Item	Every time	1st month or after 20 hours	3rd month or 100 hours	6th month or 500 hours	Every year or 1000 hours
Check and fill enough fuel	○				
Discharge fuel		○			
Check and fill enough engine oil	○				
Check whether it leaks oil	○				
Check and screw each fastened part	○			● Screw the boll of cylinder head firmly	head firmly
Exchange engine oil		○ (1st time)	○ (2 nd time late)		
Clean filter of engine oil				○ (Exchange)	
Exchange air filter element	If operated at dusty region the period of maintenance should be shorten			○ (Exchange)	
Clean filter of fuel				○	● (Exchangel)
Check high pressure oil pump				●	
Check nozzle				●	
Check fuel pipe				● (If necessary,exchange it)	
Adjust the gaps of air intake and air exhausted gate		● (1st time)		●	
Grind air intake and air exhausted gate					●
Exchange piston ring					●
Check electrolytic solution of accumulator	(each month)				
Check electric brush and slide ring				●	
Check insulation resistance	The time of stop is over 10 days. ○				

Note:"●" mark indicates that it needs special wrench,please contact with dealer.

3-1.1 Changing the engine oil(every l00 hours)

Take the oil cover out. Remove the oil drain plug when the diesel engine is still hot. Be careful of hot oil and hot engine as you may get burned. The bolt is located at the bottom of the cylinder. After draining the oil, put the bolt back and tighten it. Then fill with the proper engine oil to the proper level.



3-1.2 Air filter maintenance schedule

1. Clean air-filter every 6 months or 500 hours of operation.
2. If necessary. exchange it.
3. Do not use detergent to clean air filter element.

Note:
Never start the engine without the air filter. This can cause serious damage to the engine if foreign objects enter the intake system. Always change the air filter on time.

3-1.3 Fuel filter maintenance

1. The fuel filter should be cleaned often to keep the engine running at maximum performance.
2. The recommended time period for cleaning the fuel filter is 6 months or 500 hours of operation.
   a.To do this, first drain the fule from the fuel tank.
   b. Loosen the small screws on the fuel switch and remove the fuel filter form the port. Use diesel fuel to clean the fuel filter. Also,remove the fuel injector and clean the carbon deposit around it. The recommended time period for this is 3 months or l00 hours.

3-1.4 Cylinder head bolt tensions

The cylinder head bolts should be tightened to specifications please refer to the diesel engine manual for specifications and the special tools reuired to do this.

3-1.5 Battery check

Make sure the battery acid is full. The engine uses a 12V battery. Due to numerous starting cycles, the battery acid may be used up. Also, before filling, verify that the battery is not damaged in any way. Add distilled water to the battery when filling. Perform checks on the battery once a month.

3-2 Storing for long periods of time

If your generator needs to be stored for long periods of time, the following preparations should be made.

1. Start the diesel engine for 3 minutes then stop it.
2. When the engine is still hot, change the engine oil with new engine oil of the proper grade.
3. Pull the rubber plug out of the cylinder head cover and put 2CC of lubricating oil in it, then cover the plughole up again.
4. For manual starting generator welders, press the decompression handle down and pull the recoil handle 2 or 3 times. This pushes the intake out. (Do not start the engine)
5. For electric started generator, press the decompression handle down and crank the engine for 2-3 seconds. To do this, put the starter switch in the“Start”position. (Do not start the diesel engine)
6. Finally, pull the recoil starter until you feel resistance; this is when the piston is on the compression stroke where the intake and exhaust valves are closed. Having the intake and exhaust valves closed will prevent rust, as moisture cannot get inside the combustion chamber.
7. Clean the engine and store it in a dry place.

CHAPTER 4 TROUBLE SHOOTING

4-1 Troubleshooting procedures

Causes of malfunction		Remedy
Diesel cannot be started	Not enough fuel	Add enough fuel
	The switch of fuel is not at “OPEN”position High-pressure pump and nozzle do not inject	Turn the switch of fuel to“OPEN” position
	fuel or the injected amount is less	Disassemble the nozzle and adjust it at test table
	Speed control lever is not at “RUN”position	Tum speed control lever to“RUN” position
	Check level of lubrication oil	The standard oil amount of lubricating oil should be between high graduation“H”and low graduation“L”
	It is not quick and powerful to pull reactive starter	Start diesel engine in accordance with the requirements of“start operation procedures”
	Nozzle exists dirt	Clean the nozzle
	The Battery is lower power	Charge the battery or exchange it
Generator cannot generat electricity	Master switch is not be switched on	Turn capacity switch handle to“ON”position
	Carbon brush of generator was worn,The contact is not good	Exchange the carbon brush
	The contact of socket is not good	Adjust the contact feet of socket
	The electric switching	Make it reach to the rated revolution in accordance with the requirements
	AVR automatic governor is damaged	Exchange it
	The fuse is not work	Exchange it

If you are still having trouble，please contact with your nearest dealer or with our company directly if necessary.

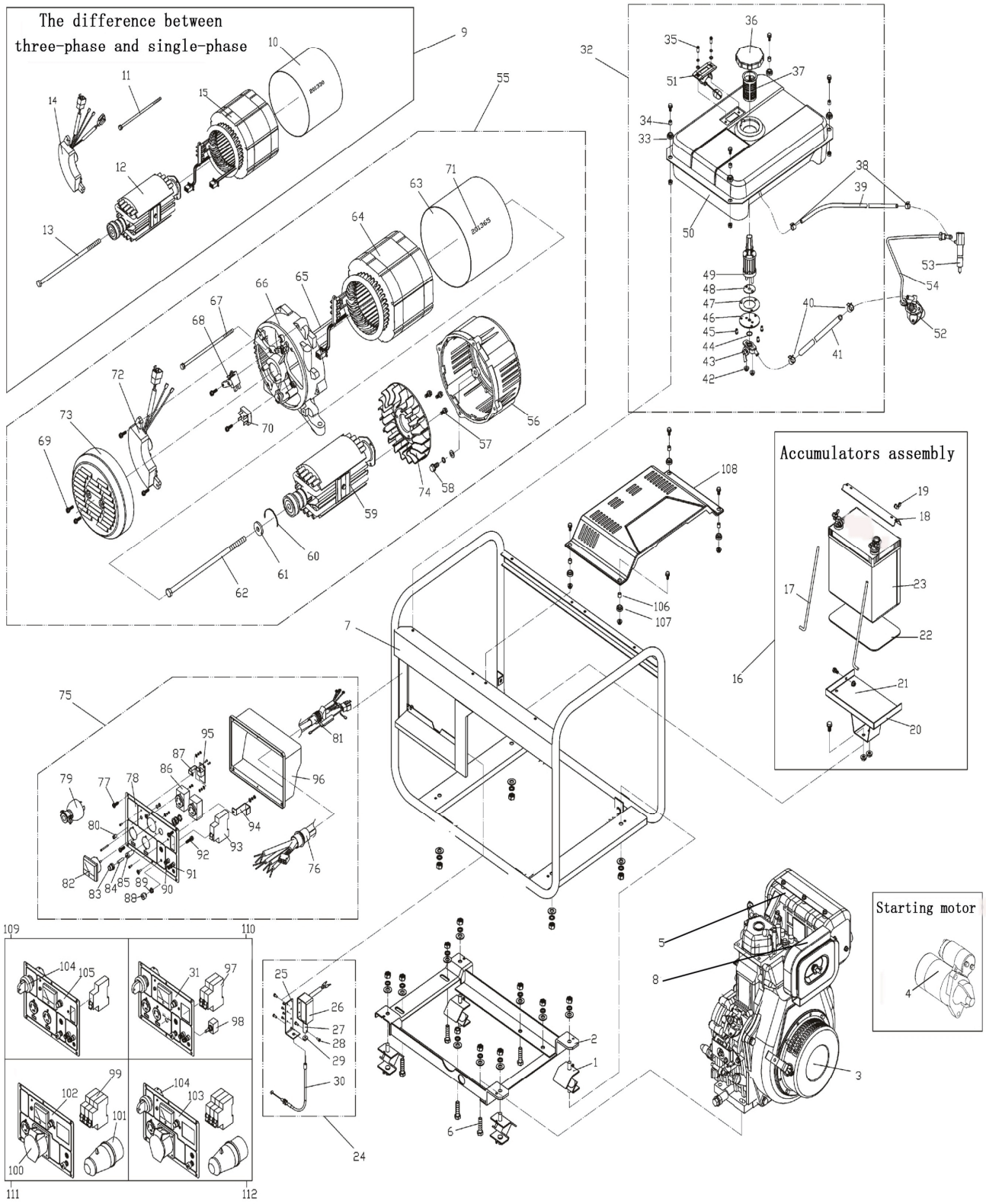
4-2 Questions and doubts

If you do not understand anything or have any questions，please feel free to contact your local dealer or with our company directly. Below is a list of some information you should have ready before contacting your local dealer or us.

1. Model of diesel engine generator and engine model number.
2. State of residency
3. Number of hours of operating equipment along with the problem that occurred.
4. A detailed condition and time when the problem occurred，in other words，climate and atmosphere

Chapter 5 Part Listings

Open Frame Series unit



NO.	Part Number	Part Description	Qty
1	KDF2500-07000	Cushion 2500	4
	KDF6700-07000	Cushion 4000	4
2	KDF6700-04100	Bracket 6700	1
	KDF7500-04100	Bracket 7500	1
	KDF8500-04100	Bracket 8500	1
3	KD170F.178F.186 FA.188FA.192F	Air-cooled Diesel Engine	1
4	KD186F-12000	Starting Motor	1
5	KD170F-08200	2500 Muffler (Open Frame Type)	1
	KD178F-08200	4000 Muffler (Open Frame Type)	1
	KD186F-08200	6700,7500 Muffler (Open Frame Type)	1
	KD192F-08200	8500 Muffler (Open Frame Type)	1
6	GB/T5783-1986	Bolt M1 0X 45	6
7	KDF2500-04200	Round Pipe Frame 2500	1
	KDF2500-04201	25mm Square Pipe Frame 2500	1
	KDF2500-04202	35mm Square Pipe Frame 2500	1
	KDF4000-04200	Round Pipe Frame 4000	1
	KDF4000-04201	25mm Square Pipe Frame 4000	1
	KDF4000-04202	35mm Square Pipe Frame 4000	1
	KDF6700-04200	Round Pipe Frame 6700,7500,8500	1
	KDF6700-04201	25mm Square Pipe Frame 6700,7500,8500	1
	KDF6700-04202	35mm Square Pipe Frame 6700,7500,8500	1
8	KD170F-07000	Air Filter Assembly 2500,4000	1
	KD170F-07100	Air Filter Element 2500,4000	1
	KD186F-07000	6700,7500 Air Filter Assembly	1
	KD192F-07000	8500 Air Filter Assembly	1
	KD186F-07100	6700,7500 Air Filter Element	1
	KD192F-07100	8500 Air Filter Element	1
9	KDF6700-3-02001	6700 Alternator Assembly 220/380	1
	KDF7500-3-02001	7500 Alternator Assembly 220/380	1
	KDF8500-3-02001	8500 Alternator Assembly 220/380	1
	KDF6700-3-02002	6700 Alternator Assembly127/220	1
	KDF7500-3-02002	7500 Alternator Assembly 127/220	1
	KDF8500-3-02002	8500 Alternator Assembly 127/220	1
10	KDF6700-3-02006	Three-phase Machine Safeguard Plate6700	1
	KDF7500-3-02006	Three-phase Machine Safeguard Plate7500	1
	KDF8500-3-02006	Three-phase Machine Safeguard Plate8500	1
11	GB/T5787-1986	Bolt	4
12	KDF6700-02100	Rotator 6700	1
	KDF7500-02100	Rotator 7500	1
	KDF8500-02100	Rotator 8500	1
13	KDF2500-02002	Pull-through Shaft Bolt 2500	1
	KDF4000-02002	Pull-through Shaft Bolt 4000	1
	KDF6700-02002	Pull-through Shaft Bolt 6700	1
	KDF7500-02002	Pull-through Shaft Bolt 7500	1
	KDF8500-02002	Pull-through Shaft Bolt 8500	1

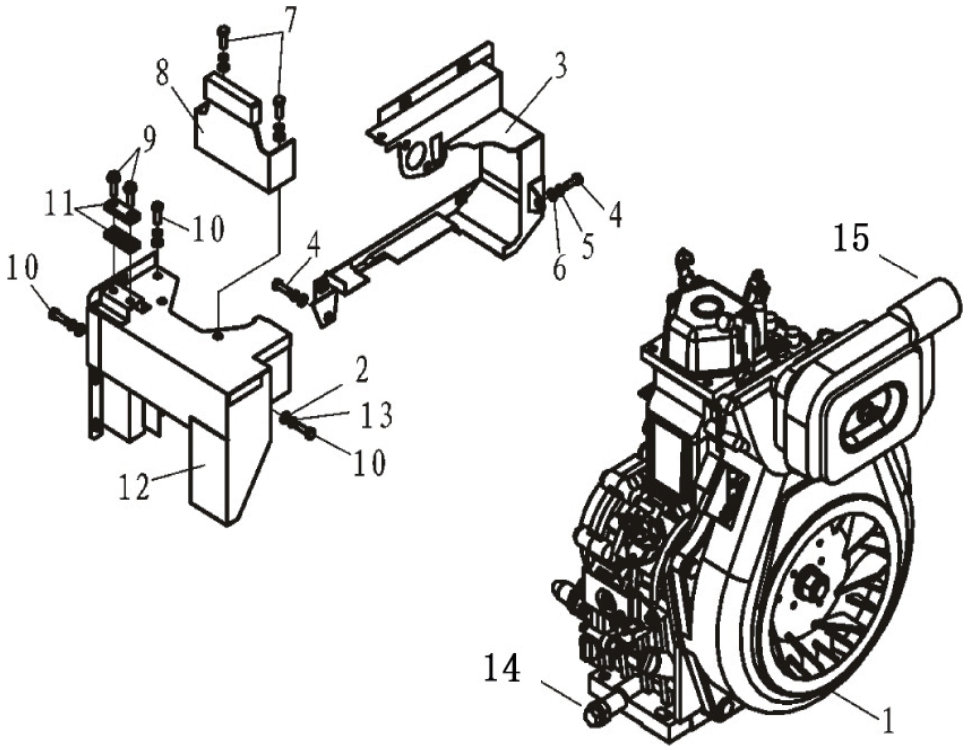
14	KDF6700-3-02003A	Three -phase AVR 6700,7500,8500 220/380	1
	KDF6700-3-02003B	Three -phase AVR 6700,7500,8500 127/220	1
15	KDF6700-3-02201	Stator 6700 3-Phase 220/380	1
	KDF7500-3-02201	Stator 7500 3-Phase 220/380	1
	KDF8500-3-02201	Stator 8500 3-Phase 220/380	1
	KDF6700-3-02202	Stator 6700 3-Phase 127/220	1
	KDF7500-3-02202	Stator 7500 3-Phase 127/220	1
	KDF8500-3-02202	Stator 8500 3-Phase 127/220	1
16	KDF2500-08000	Battery Assembly 2500,4000	1
	KDF6700-08000	Battery Assembly 6700,7500,8500	1
17	KDF6700-08001	Screw Rod	2
18	KDF2500-08002	Battery Pressure Plate 2500 4000	1
	KDF6700-08002	Battery Pressure Plate 6700 7500 8500	1
19	G B /6177.1-2000	Nut M6	2
20	KDF2500-08003	Battery Bracket Weldment Assembly	1
	KDF6700-08003	Battery Bracket Weldment Assembly	1
21	G B /6177.1-2000	Nut M6	1
22	KDF6700-08004	Battery Pad	1
23	22Ah	Battery 12 V	1
	36Ah	Battery 12 V	1
24	EM-001	Electromagnet Assembly	1
25		Electromagnet Setting Plate	1
26		Electromagnet	1
27		Iron-corn	1
28		Screw M5X 8	2
29		Electromagnet Washer	1
30		Flexible Shaft Unit	1
31	KDF2500-03004A	Instrument Panel 2500 Recoil Starter,Dual Voltage	1
	KDF2500-03004B	Instrument Panel 2500 Electric Starter Dual Voltage	1
	KDF4000-03004A	Instrument Panel 4000 Recoil Starter Dual Voltage	1
	KDF4000-03004B	Instrument Panel 4000 Electric Starter Dual Voltage	1
	KDF6700-03004B	Instrument Panel 6700 Electric Starter Dual Voltage	1
	KDF7500-03004B	Instrument Panel 7500 Electric Starter Dual Voltage	1
	KDF8500-03004B	Instrument Panel 8500 Electric Starter Dual Voltage	1
32	KDF6700-05000	Fuel Tank Assembly	1
33	KDF6700-07003	Sheath	4
34	KDF6700-07002	Cushion	4
35	GB/T819.1-2000	Bolt M5 X 12	2
36	KDF6700-05100	Fuel Tank Cap Joint Assembly	1
37	KDF6700-05200	Fuel Filler Screen	1
38	C20140616	Fuel Return Pipe Clip	2
39	KDF6700-05001	Fuel Return Pipe	1
40	13 Clip	Fuel Filler Pipe Clip	2

41	KDF6700-05002	Fuel Filler Pipe	1
42	GB/T6170-2000	Nut M6	2
43	KDF6700-05300	Fuel Tank Switch Assembly	1
44	GB/T3452.1-1992	O-Ring	1
45	GB/T819.2-2000	Screw	3
46	KDF6700-05003	Seal Plate	1
47	KDF6700-05004	Seal Washer	1
48	KD168F-01007	Seal Washe r	1
49	KDF6700-05400	Element Assembly	1
50	KDF6700-05500	Fuel Tank Weldment Assembly	1
51	KDF6700-05600	Oil Mark Assembly	1
52	KD186FA-13000	Injection Pump	1
	KD186FA-13000A	Injection Pump	1
53	KD186FA-12000	Injector	1
54	KD186FA-10500	H igh-Pressure Fuel Pipe	1
55	KDF2500-02000	Single-phrase Alternator Assembly 2500	1
	KDF4000-02000	Single-phrase Alternator Assembly 4000	1
	KDF6700-02000	Single-phrase Alternator Assembly 6700	1
	KDF7500-02000	Single-phrase Alternator Assembly 7500	1
	KDF8500-02000	Single-phrase Alternator Assembly 8500	1
56	KDF2500-02001	Alternator Front Cover 2500	1
	KDF6700-02001	Alternator Front Cover 4000,6700,7500 8500	1
57	GB/T5789-1986	Bolt M5x12	3
58	GB/T5783-1986	Bolt M8x35	4
59	KDF2500-02100	2500 Rotator Single Phase	1
	KDF4000-02100	4000 Rotator Single Phase	1
	KDF6700-02100	6700 Rotator Single Phase	1
	KDF7500-02100	7500 Rotator Single Phase	1
	KDF8500-02100	8500 Rotator Single Phase	1
60	6204DU	Clip Ring	1
61	GB/T97.1-1985	Flat Washer M12	1
62	KDF2500-02002	Pull-through Shaft Bolt 2500	1
	KDF4000-02002	Pull-through Shaft Bolt 4000	1
	KDF6700-02002	Pull-through Shaft Bolt 6700	1
	KDF7500-02002	Pull-through Shaft Bolt 7500	1
	KDF8500-02002	Pull-through Shaft Bolt 8500	1
63	KDF2500-02001	2500 Alternator Safeguard Plate	1
	KDF4000-02001	4000 Alternator Safeguard Plate	1
	KDF6700-02001	6700 Alternator Safeguard Plate	1
	KDF7500-02001	7500 Alternator Safeguard Plate	1
	KDF8500-02001	8500 Alternator Safeguard Plate	1
64	KDF2500-02200	2500 Stator	1
	KDF4000-02200	4000 Stator	1
	KDF6700-02200	6700 Stator	1
	KDF7500-02200	7500 Stator	1
	KDF8500-02200	8500 Stator	1

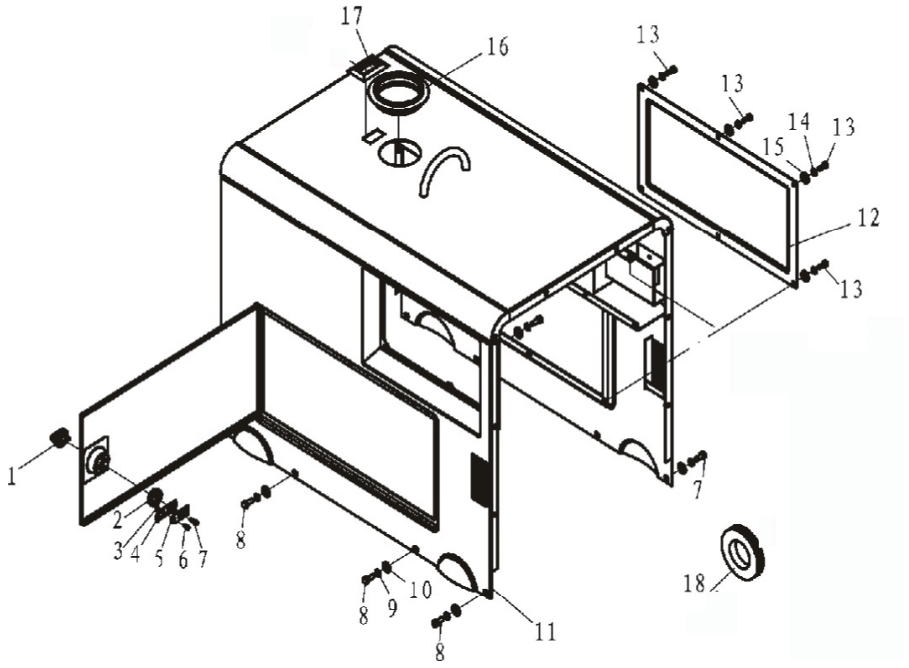
65	GB/T5787-1986	Bolt	2
66	KDF2500-02002	Alternator Rare Cover 2500	1
	KDF6700-02002	Alternator Rare Cover 4000,6700,7500,8500	1
67	GB/T5787-1986	Bolt M6X12	4
68	D104	Carbon Brush	1
69	GB/T5789-1986	Screw M5X 12	2
70	140616	Gratz Rectifier	1
71	SN001	Generator Serial Number	1
72	KDF2500-02003	2500 AVR Open Frame, Single Phase	1
	KDF6700-02003	4000,6700,7500,8500 AVR,Open Frame, Single Phase	1
73	KDF2500-02004	Alternator Booting Air Cover 2500	1
	KDF6700-02004	Alternator Booting Air Cover 4000,6700,7500,8500	1
74	KDF6700-02004	Alternator Fan	1
75	KDF6700-03000	Panel Assembly	1
76	KDF6700-03100	Wiring Harness Setting Sheath	1
77	GB/T5789-1986	Bolt M6X 1 6	4
78	KDF6700-03001	Instrument Panel	1
79	KDF6700-03002	Single-phrase Pin	1
80	KDF6700-03003	Oil Pressure Alerting Lamp	1
81	KDF6700-03200	Circuitry S etting Sheath	1
82	MV52. 5 0-3 00V	Voltmeter 300V	1
	MV52. 5 0-450V	Voltmeter 450V	1
83	KDF6700-03004	Fue Box	1
84	630-10A	Fuse	1
85	KDF6700-03005	Fuse Plastics Bottom Case	1
86	250V -30 A	Single-phrase Socket	2
	450V-16A	Three-phase Socket	1
87	KDF6700-03006	Setting Plate	1
88	KDF6700-03007	Grounding Screw Cap	1
89	GB/T6177.1-2000	Nut M6	1
90	910A	Red DC Terminal Unit	1
91	910B	Black DC Terminal Unit	1
92	GB/T5789-1986	Bolt M6 x20	1
93	DZ47-63 C25	Air Switch	1
94	KDF6700-03008	Air Switch Setting Plate	1
95	GB/T5789-1986	Bolt M5 x8	4
96	KDF6700-03009	Instrument Box Rare Cover	1
97	DZ47-63 C25	Air Switch	1
98	202-250V/25A	Knob Switch	1
99	DZ47-63 C10	Air Switch	1
100	S16A001	Socket 5 Pin,16A	1
	S32A002	Socket 5 Pin,32A	1
101	P16A001	Plug 5Pin 16A	1
	P32A002	Plug 5Pin 32A	1
102	KDF6700-3-03003A	Instrument Panel 6700T,Electric Starter 220/380,Recoil Starter	1
	KDF6700-3-03004A	Instrument Panel 6700T,Electric Starter 127/220 Recoil Starter	1
	KDF7500-3-03003A	Instrument Panel 7500T,Electric Starter 220/380,Recoil Starter	1
	KDF7500-3-03004A	Instrument Panel 7500T,Electric Starter 127/220 Recoil Starter	1
	KDF8500-3-03003A	Instrument Pane 8500T,Electric Starter 220/380,Recoil Starter	1
	KDF8500-3-03004A	Instrument Panel 8500T,Electric Starter 127/220,Recoil Starter	1

103	KDF6700-3-03003B	Instrument Panel 6700T,Electric Starter 220/380,E-Starter	1
	KDF6700-3-03004B	Instrument Panel 6700T,Electric Starter 127/220,E-Starter	1
	KDF7500-3-03003B	Instrument Panel 7500T,Electric Starter 220/380,E-Starter	1
	KDF7500-3-03004B	Instrument Panel 7500T,Electric Starter 127/220,E-Starter	1
	KDF8500-3-03003B	Instrument Pane 8500T,Electric Starter 220/380,E-Starter	1
	KDF8500-3-03004B	Instrument Panel 8500T,Electric Starter 127/220,E-Starter	1
104	JK 425	Starting key	1
105	KDF2500-03003A	Instrument Panel 2500 Recoil Starter	1
	KDF2500-03003B	Instrument Panel 2500 Electric Starter	1
	KDF4000-03003A	Instrument Panel 4000 Recoil Starter	1
	KDF4000-03003B	Instrument Panel 4000 Electric Starter	1
	KDF6700-03003B	Instrument Panel 6700 Electric Starter	1
	KDF7500-03003B	Instrument Panel 7500 Electric Starter	1
	KDF8500-03003B	Instrument Panel 8500 Electric Starter	1
106	KDF6700-04002	Sheath	4
107	KDF6700-04003	Cushion	4
108	KDF6700-04001	Decora ting board Assembly	1
109	KDF2500-03001A	Instrument Panel 2500 Recoil Starter Assembly	1
	KDF2500-03001B	Instrument Panel 2500 Electric Starter Assembly	1
	KDF4000-03001A	Instrument Panel 4000 Recoil Starter Assembly	1
	KDF4000-03001B	Instrument Panel 4000 Electric Starter Assembly	1
	KDF6700-03001B	Instrument Panel 6700 Electric Starter Assembly	1
	KDF7500-03001B	Instrument Panel 7500 Electric Starter Assembly	1
	KDF8500-03001B	Instrument Panel 8500 Electric Starter Assembly	1
110	KDF2500-03002A	Instrument Panel 2500 Recoil Starter,Dual Voltage,Assembly	1
	KDF2500-03002B	Instrument Panel 2500 Electric Starter Dual Voltage Assembly	1
	KDF4000-03002A	Instrument Panel 4000 Recoil Starter Dual Voltage, Assembly	1
	KDF4000-03002B	Instrument Panel 4000 Electric Starter Dual Voltage Assembly	1
	KDF6700-03002B	Instrument Panel 6700 Electric Starter Dual Voltage Assembly	1
	KDF7500-03002B	Instrument Panel 7500 Electric Starter Dual Voltage Assembly	1
	KDF8500-03002B	Instrument Panel 8500 Electric Starter Dual Voltage Assembly	1
111	KDF6700-03000A	Panel Assembly	1
112	KDF6700-3-03001B	Instrument Panel 6700T Electric Starter Assembly 220/380	1
	KDF6700-3-03002B	Instrument Panel 6700T Electric Starter Assembly 127/220	1
	KDF7500-3-03001B	Instrument Panel 7500T Electric Starter Assembly 220/380	1
	KDF7500-3-03002B	Instrument Panel 7500T Electric Starter Assembly 127/220	1
	KDF8500-3-03001B	Instrument Panel 8500T Electric Starter Assembly 220/380	1
	KDF8500-3-03002B	Instrument Panel 8500T Electric Starter Assembly 127/220	1

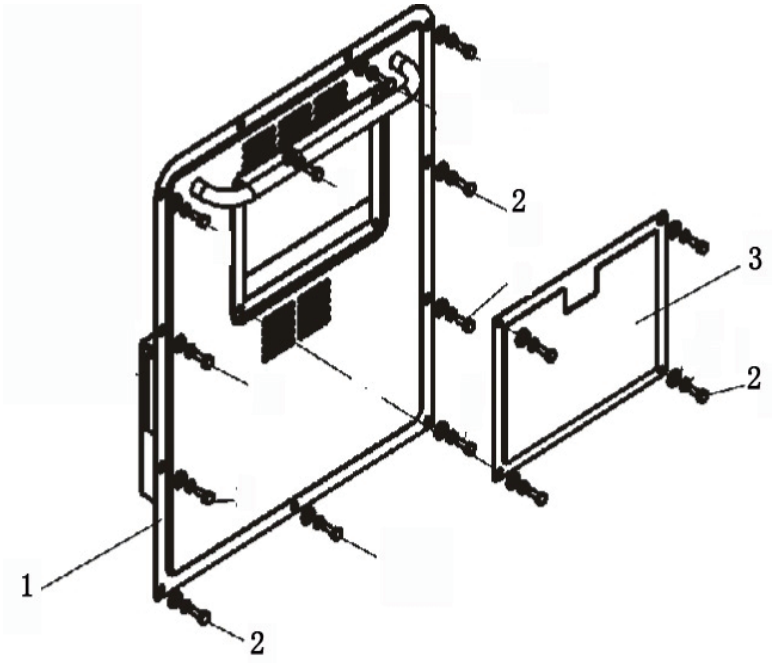
Low-noise units Series



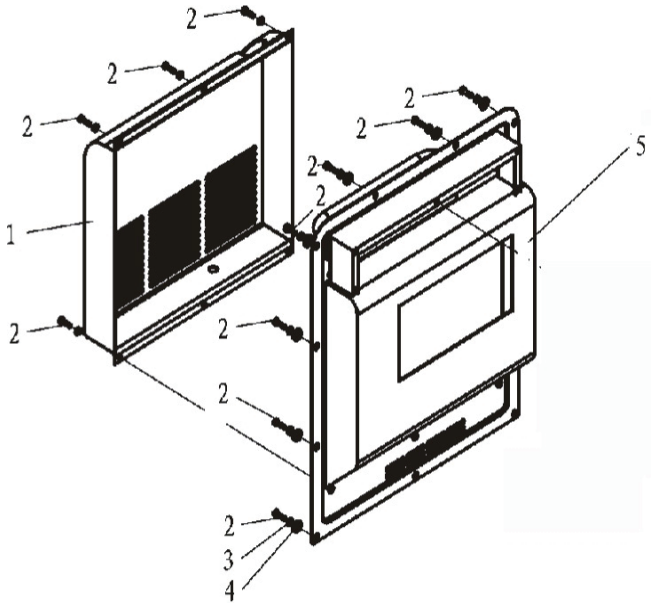
No.	Part Number	Part Description	Qty
1	KD186FA 188FA 192F	Air Cooled Diesel Engine	1
2	GB/T97.1-2000	Gasket 6	2
3	KDF6700-01001	Front Air Guide Plate 6700.7500	1
	KDF8500-01001	Front Air Guide Plate 85000	1
4	GB/T5783-2000	Bolt M8x16	2
5	GB/T93-1987	Elastic Washer 8	2
6	GB/T97.1-2000	Flat Gasket 8	2
7	GB/T5783-2000	Bolt M8x16	2
8	KDF6700-01002	Buffer Bracket Unit 6700,7500	1
	KDF8500-01002	Buffer Bracket Unit 8500	1
9	GB/T5783-2000	Bolt M6X30	2
10	GB/T5783-2000	Bolt M6X20	2
11	KDF6700-01003	Fuel Pipe Pressure Plate Unit	1
12	KDF6700-01004	Rear Air Guide Plate Weldment 6700,7500	1
	KDF8500-01004	Rear Air Guide Plate Weldment 8500	1
13	GB/T93-1987	Elastic Washer6	2
14	KDF6700-01005	Oil Drain Bolt(Longer)	1
15	KD186F-07000B	Air Filter Assembly(Silent Diesel generator)	1
	KD186F-07100	Air Filter Element 186.188	1
	KD192F-07100	Air Filter Element 192	1



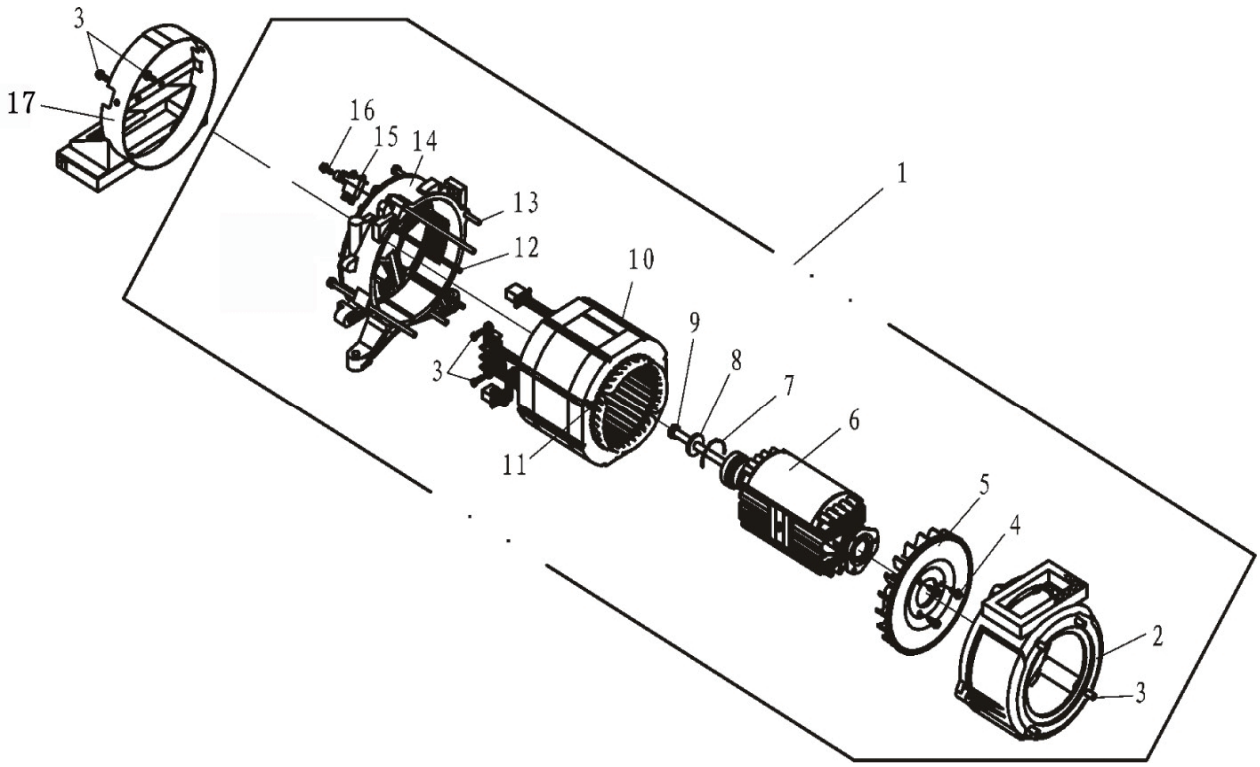
No.	Part Number	Part Description	Qty
1	KDF6700-05100	Door Lock Assembly	1
2			1
3			1
4			1
5			1
6			1
7			1
8	GB/T5783-2000	Bolt.M620	8
9	GB/T93-1987	Elastic Washer 6	8
10	GB/T96.2-2002	Big Gasket 6	8
11	KDF6700-05200	Casing Weldment	1
12	KDF6700-01001	Rear Plate Weldment	1
13	GB/T5783-2000	Bolt.M616	6
14	GB/T93-1987	Elastic Washer 6	6
15	GB/T96.2-2002	Big Gasket 6	6
16	KDF6700-05002	Damping Cushion of the Fuel Tank	1
17	KDF6700-05003	Buoy Window	1
18	KDF6700-05004	Window Mount Sheath	1



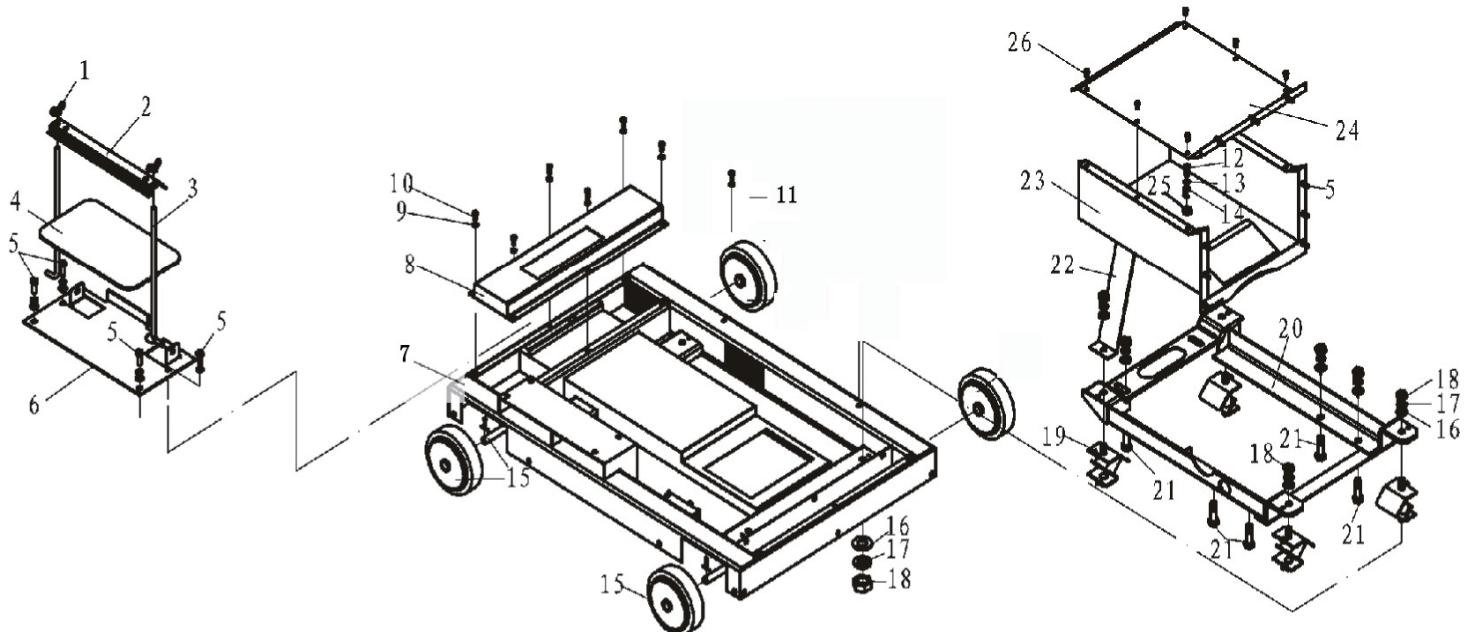
No.	Part Number	Part Description	Qty
1	KDF6700-06100	Right Side Plate Weldment	1
2	GB/T5783-2000	Bolt.M6x16	15
3	KDF6700-06001	Air Cleaner Cover Plate	1



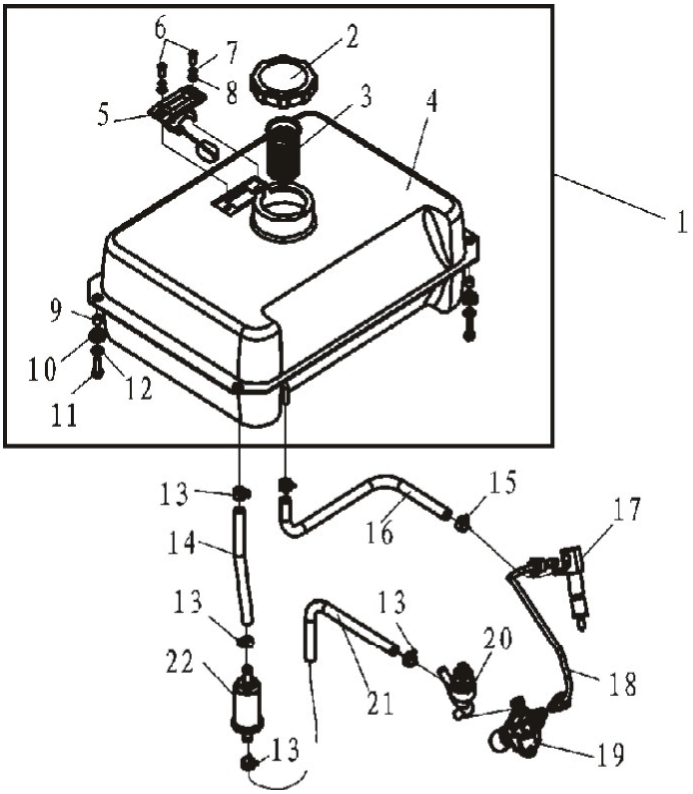
No.	Part Number	Part Description	Qty
1	KDF6700-04100	Radiating Plate	1
2	GB/T5783-2000	Bolt.M6x16	17
3	GB/T93-1987	Elastic Washer 6	17
4	GB/T96-1985	Big Gasket 6	11
5	KDF6700-04200	Left Side Plate Weldment	1



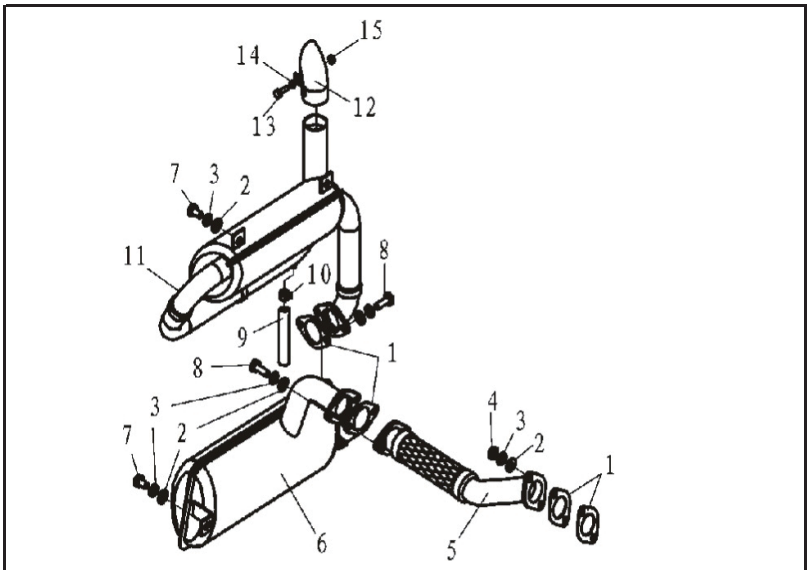
No.	Part Number	Part Description	Qty
1	KDF6700Q-02000	6700 Alternator Assembly,Single Phase	1
	KDF7500Q-02000	7500 Alternator Assembly,Single Phase	1
	KDF8500Q-02000	8500 Alternator Assembly,Single Phase	1
	KDF6700Q-3-02001	6700 Alternator Assembly,Three Phase 380T	1
	KDF7500Q-3-02001	7500 Alternator Assembly,Three Phase 380T	1
	KDF8500Q-3-02001	8500 Alternator Assembly,Three Phase 380T	1
	KDF6700Q-3-02002	6700 Alternator Assembly,Three Phase 220T	1
	KDF7500Q-3-02002	7500 Alternator Assembly,Three Phase 220T	1
	KDF8500Q-3-02002	8500 Alternator Assembly,Three Phase 220T	1
2	KDF6700-02001	Front Cover of Motor	1
3	GB/T5783-2000	Bolt M8x30	4
4	GB/5786-2000	ScrewM5x12	7
5	KDF6700-02002	Motor Fan	1
6	KDF6700-02100	Rotator 6700,Single Phase	1
	KDF7500-02100	Rotator 7500,Single Phase	1
	KDF8500-02100	Rotator 8500,Single Phase	1
7	6204DU	Clip	1
8	KDF6700-02003	Gasket	1
9	KDF6700-02004	Bolt (Locking Rotor)	1
10	KDF6700-02200	Stator 6700,single Phase	1
	KDF7500-02200	Stator 7500,single Phase	1
	KDF8500-02200	Stator 8500,single Phase	1
	KDF6700-3-02201	Stator 6700,Three Phase 220/380V	1
	KDF7500-3-02201	Stator 7500,Three Phase 220/380V	1
	KDF8500-3-02201	Stator 8500,Three Phase 220/380V	1
	KDF6700-3-02202	Stator 6700,Three Phase 127/220V	1
	KDF7500-3-02202	Stator 7500,Three Phase 127/220V	1
	KDF8500-3-02202	Stator 8500,Three Phase 127/220V	1
11	GB/810-1988	Round Nut M5	2
12	GB/T5783-2000	Bolt M5(Locking Stator)	2
13	GB/T5783-2000	Bolt M6(Locking front Cover)	4
14	KDF6700-02002	Rear Cover of Alternator	1
15	D104	Carbon Brush	1
16	GB/5786-2000	ScrewM5x14	2
17	KDF6700-02100	Air Guide Cover of Motor Weldment	1
	KDF8500-02100	Air Guide Cover of Motor Weldment	1



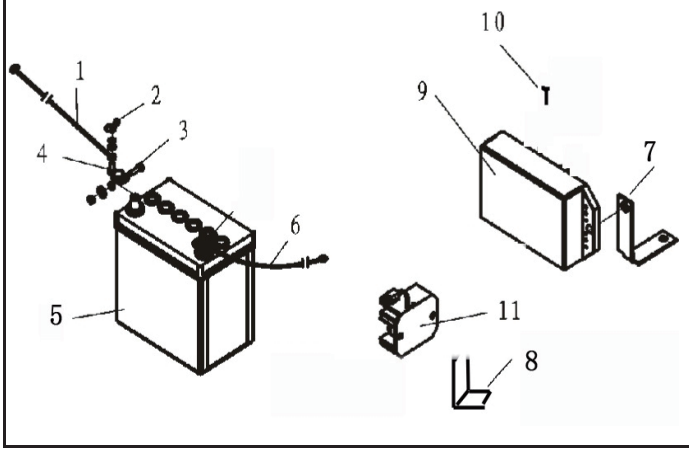
No.	Part Number	Part Description	Qty
1	GB/62-1988	Nut M6	2
2	KDF6700-08002	Pressure Plate of Batteryer 6	1
3	KDF6700-08001	Fasten rod of Battery	2
4	KDF6700-08004	Base Plate of Battery	1
5	GB/T5783-2000	Bolt M6x20	13
6	KDF6700-03001	Support Plate of Battery	1
7	KDF6700-03200	Chassis Weldment	1
8	KDF6700-03002	Tailstock Air Hole of Motor	1
9	GB/T93-1987	Elastic Washer 5	6
10	GB/T5783-2000	Bolt M5x12	6
11	GB/T5789-2000	Bolt M6x12	1
12	GB/T5783-2000	Bolt M6x20	4
13	GB/T93-1987	Elastic Wash	4
14	GB/T97.1-2002	Flat Gasket 6	4
15	KDF6700-03004	Castor	2
16	GB/T97.1-2002	Flat Gasket 10	14
17	GB/T93-1987	Elastic Washers 10	14
18	GB/T6170-2000	Nut M10	14
19	KDF6700-07000	Damping Block	4
20	KDF6700-03100	Weldment of Frame Base seat 6700,7500	1
	KDF8500-03100	Weldment of Frame Base seat,8500	1
21	GB/T5783-2000	Bolt M10x45	6
22	KDF6700-03005	Bracket of Heat Insulation Box Weldment	1
23	KDF6700-03006	Lower Body of Heat Insulation Box Weldm	1
24	KDF6700-03007	Cover Plate of Heat Insulation Box	1
25	GB/T6170-2000	Nut M6	2
26	GB/T818-2000	Bolt Screw M6x12	6



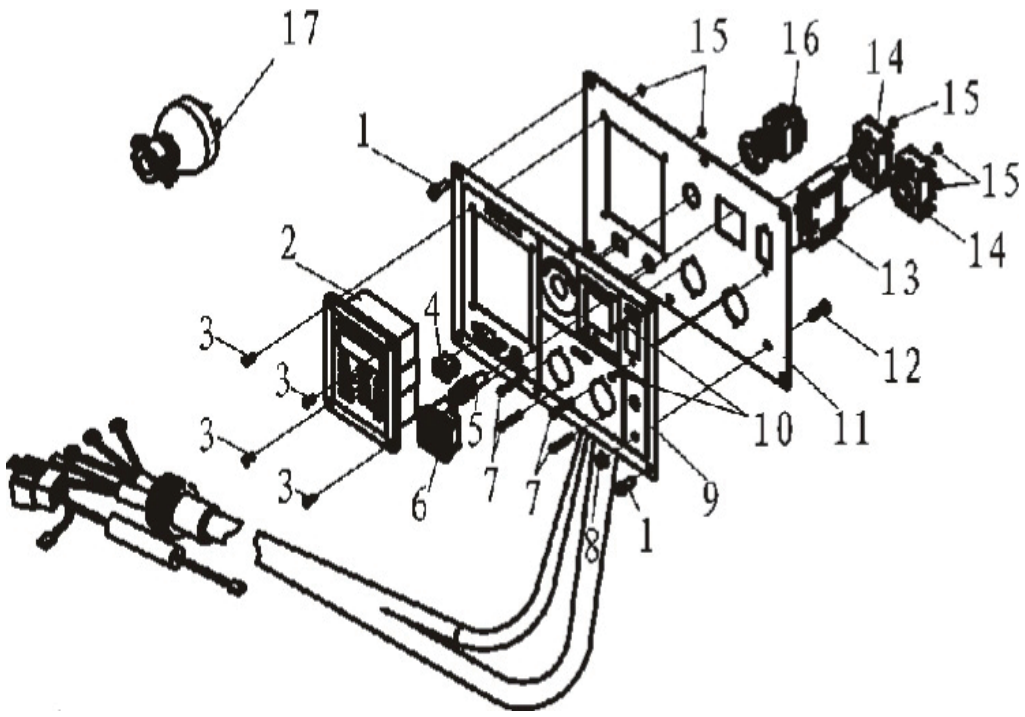
No.	Part Number	Part Description	Qty
1	KDF6700-07000	Fuel Tank	1
2	KDF6700-07200	Fuel Tank Cover	1
3	KDF6700-07001	Filter Screen of Filling	1
4	KDF6700-07100	Fuel Tank Weldment	1
5	KDF6700-07300	Oil Indicator	1
6	GB/T818-2000	Screw.M5x12	2
7	GB/T93-1987	Elastic Washer 5	2
8	GB/T97.1-2000	Flat Gasket 5	2
9	KDF6700-07002	Sheath	4
10	KDF6700-07003	Damping Sheath	4
11	GB/T5783-2000	Bolt.M6x30	4
12	GB/T97.1-2000	Flat Gasket 6	4
13	13 Clip	Clip I	4
14	KDF6700-07004	Fuel Delivery Pipe I	1
15	9 Clip	Clip II	2
16	KDF6700-07005	Oil Return Pipe	1
17	KD186FA-12000	Nozzle 6700,7500,8500	1
18	KD186FA-10500A	High Pressure Fuel Pipe	1
19	KD186FA-13000	Fuel Injection Pump Unit6700,7500,8500	1
20	KD186FA-13000A	Fuel Control Valve Unit	1
21	KDF6700-07006	Fuel Delivery Pipe II	1
22	KDF6700-07400	Fuel Filter	1



1	KD186F-02015	Exhaust Pipe Washer6700、7500	4
	KD192F-02015	Exhaust Pipe Washer8500	4
2	GB/T97.1-2000	Flat Gasket 8	9
3	GB/T93-1987	Elastic Washer8	9
4	GB/T6170-2000	Nut M8	2
5	KDF6700-08100	Exhaust Pipe Unit6700、7500	1
	KDF8500-08100	Exhaust Pipe Unit8500	1
6	KDF6700-08200	Silent GeneratorMuffler Assembly	1
11	KDF6700-08300		1
7	GB/T5783-2000	Bolt.M8x16	3
8	GB/T5783-2000	Bolt.M8x30	4
9	KDF6700-08001	Outlet Tube of Tail Air Particle	1
10	φ13 Clip	Clip I	1
12	KDF6700-08400	Return Outlet of Tail Air Weldment	1
13	GB/T5783-2000	Bolt.M630	1
14	GB/T97.1-2000	Flat Gasket 6	1
15	GB/T6170-2000	Nut M6	1



1	KDF 6700-10001	Battery Positive Wiring (Red)	1
2	GB/62-1988	Wing Nut M6	2
3	GB/T5783-2000	Bolt M6X25	2
4	KDF 6700-10002	Battery Positive Wiring Clip	1
5	12V 36Ah	12V36AH Battery	1
6	KDF6700-10003	Battery Ground Wire (Black)	1
7	KDF6700-10004	AVR Bracket	1
8	KDF6700-10005	Bracket ofRegulator	1
9	KDF 6700-10006	6700,7500,8500 AVR(Single Phase)	1
	KDF6700-3-10006	6700,7500,8500AVR(Three Phase)	1
	KDF6700 -3D-10006	6700,7500,8500 3D AVR	6
10	GB/T5789-2000	Bolt M6X20	1
11	KD186F-12100	Charging Adjustor	1



No.	Part Number	Part Description	Qty
1	GB/T818-2000	Screw M6x12	6
2	CP001	Digital Control Panel	1
3	GB/T819.1-2000	Screw M4x12	4
4	SW01000	Boat shaped Switch	1
5	ACV02001	AC Voltmeter	1
6	DCS03001	DC Socket	1
7	GB/T818-2000	Screw M4x30	4
8	GB/T6177.1-2000	Nut.M6	1
9	PL01	PVC Label	1
10	GB/T818-2000	Screw.M4x10	2
11	KDF6700-09001	Control Panel	1
12	GB/T5783-2000	Bolt M4x20	8
13	SW01001	Breaker	1
14	SC02010-1	Socket	2
15	GB/T6170-2000	Nut M4	8
16	EM1001	Quick-Stop Button	1
17	SP02010-2	Plug	2