

HYUNDAI

HIREFRO™

POWERED BY HYUNDAI

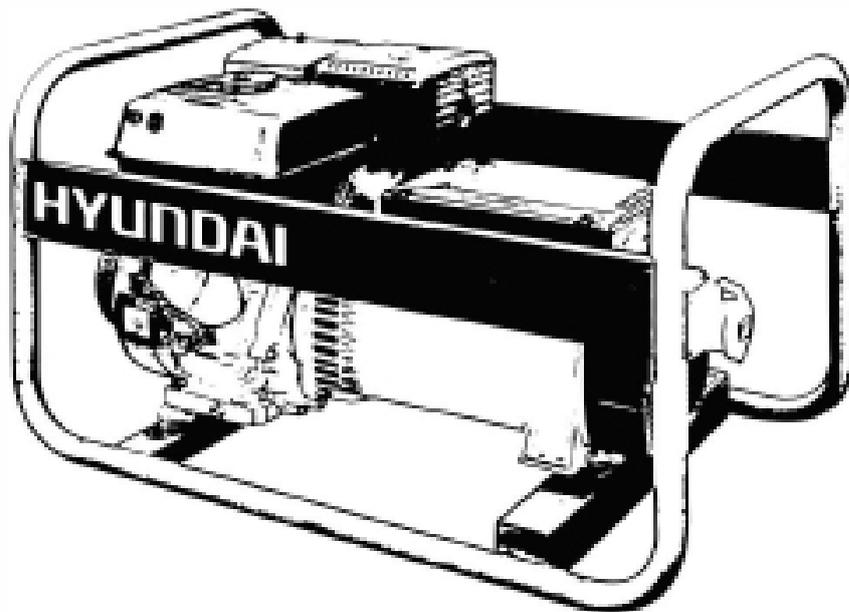
Operator's Manual
Portable Petrol
Generator

LINZ
ELECTRIC
The Electric Generation

LINZ Alternator Series

 **nsm**
generators

HY3400
HY8500
HY10000
HY220DC



WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for your purchase.

SAVE THIS MANUAL FOR FUTURE REFERENCE

www.hyundaipowerequipment.co.uk

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INTRODUCTION

Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

1. SAFETY INFORMATION

1) EXHAUST FUMES ARE POISONOUS

- Operate the engine in a well ventilated area. Never operate the engine in a closed area or it may cause unconsciousness and death within a short time.

2) FUEL IS HIGHLY FLAMMABLE AND POISONOUS

- Always turn off the engine when refueling
- Never refuel while smoking or in the vicinity of an open flame.
- Take care not to spill any fuel on the engine or muffler when refueling.
- If you swallow any fuel, inhale fuel vapor, or allow any to get in your eyes, see your doctor immediately. If any fuel spills on your skin or clothing, immediately wash with soap and water and change your clothes.
- When operating or transporting the machine, be sure it is kept upright. If it tilts, fuel may leak from the carburetor or fuel tank.

3) ENGINE AND MUFFLER MAY BE HOT

- Place the machine in a place where pedestrians or children are not likely to touch the unit.
- Avoid placing any flammable materials near the exhaust outlet during operation.
- Keep the machine at least 1 m (3 ft) from buildings or other equipment, or the engine may overheat.
- Avoid operating the engine with a dust cover.

4) ELECTRIC SHOCK PREVENTION

- Never operate the engine in rain or snow.
- Never touch the machine with wet hands as this increases the risk of an electrical shock.
- Be sure to ground (earth) the generator.

NOTE:

Use a ground (earth) lead of sufficient current capacity. Ground (earth) Lead

Diameter: 0.12mm (0.005 in)/ampere

EX: 10 Ampere --1.2mm (0.055 in)

5) CONNECTION NOTES

- Do not connect the generator a mains power socket.
- Do not connect the generator in parallel with any other generator.

6) BATTERY (IF APPLICABLE)

- No smoking while handling the battery.
- The battery emits flammable hydrogen gas, which can explode if exposed to electric arcing or open flame.
- Keep the area well ventilated and keep open flames / sparks away when handling the battery.

2. CONTROL FUNCTION

1) OIL WARNING SYSTEM

When the oil level falls below the lower level, the engine stops automatically. Unless you refill with oil, the engine will not start again. Do not rely on this please check oil level daily.

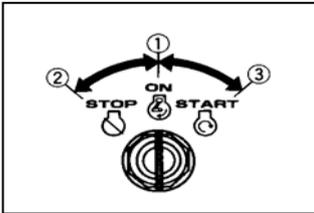
2) ENGINE SWITCH

The engine switch controls the ignition system.

① "ON"(run)

Ignition circuit is switched on.

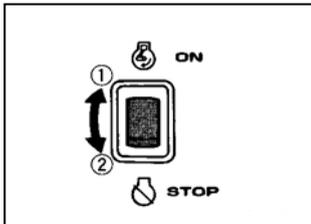
The engine can be started.



② "OFF"(stop)

Ignition circuit is switched off.

The engine will not run.



3) OVERLOAD PROTECTION

Each socket has an individual overload breaker. If the breaker overloads (out position), reduce the load and reset the breaker (in position).

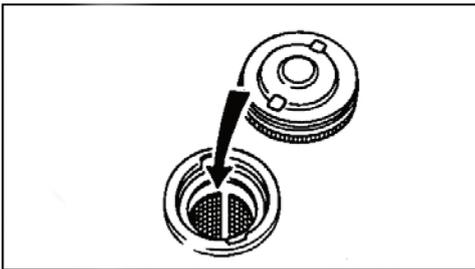
3. PRE-OPERATION CHECK

NOTE:

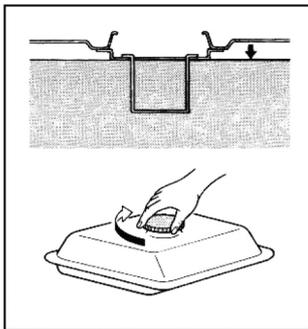
Pre-operation checks should be made each time the generator is used.

1) CHECK ENGINE FUEL

- Check fuel level.



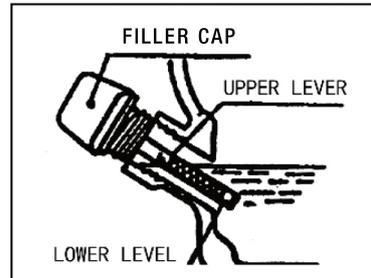
- If fuel level is low, refill with unleaded petrol.
- Be sure to use the fuel filter screen on the fuel filter neck.
- Recommended fuel: Unleaded petrol.



WARNING:

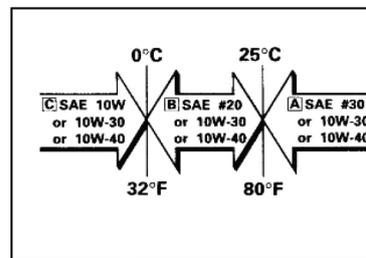
- Do not refill tank while engine is running or hot.
- Close fuel cock before refueling with fuel.
- Be careful not to admit dust, dirt, water or other foreign objects into fuel.
- Wipe off spilt fuel thoroughly before starting engine.
- Keep open flames away.

2) CHECK ENGINE OIL



Before checking or refilling oil, be sure the generator is put on a stable and level surface with engine stopped.

- Remove oil filler cap and check the engine oil level.
- If oil level is below the lower level line, refill with suitable oil to upper level line. Do not screw in the oil filler cap when checking oil level.
- Change oil if contaminated.
- Recommended engine oil: SAE10W30 or 15W40 API Service "SE" or "SF", if not available, "SD".



3) GROUND (Earth)

Be sure to ground (earth) the generator.

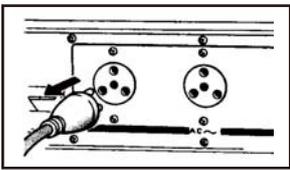
4. OPERATION

NOTE:

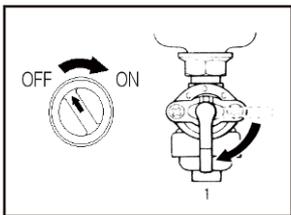
The generator has been shipped without engine oil. Fill with oil before use; 390,420,460cc engines: 1200ml

1.STARTING THE ENGINE

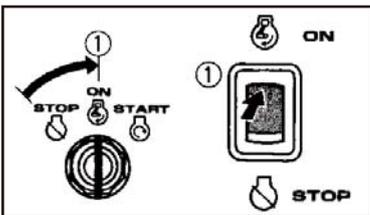
NOTE:



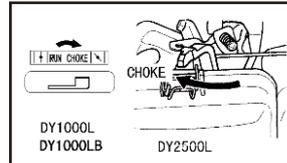
- Before starting the engine, disconnect all the electric apparatus.



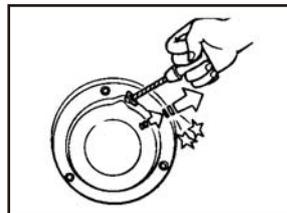
1. Turn the fuel cock lever to "ON".



2. Turn the engine switch to "ON"

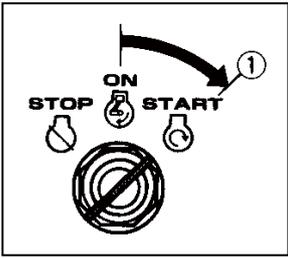


3. Turn the choke lever to the RUN " |🐦| " position. This is not necessary if the engine is warm.



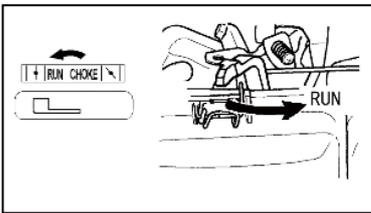
4. Pull the starter handle slowly until resistance is felt. This is the "Compression" point. Return the handle to its original position and pull swiftly. Do not fully pull out the rope. After starting, allow the starter handle to return to its original position while still holding the handle.
5. Turn the choke lever back to the RUN position.
6. Warm up the engine without a load for a few minutes.

2) USING ELECTRIC POWER

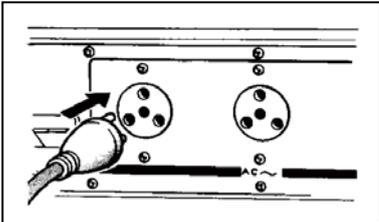


1. AC APPLICATION

(a) Check the voltmeter or pilot lamp for proper voltage.



(b) Turn off the switch(es) of the electrical appliance(s) before connecting to the generator.



(c) Insert the plugs of the electrical appliance(s) into the socket(s).

CAUTION:

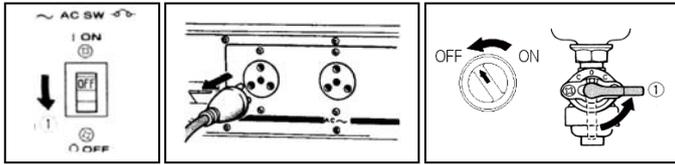
- Be sure the electric apparatus is turned off before plugging in.
- Be sure the total load is within generator rated output.
- Be sure the socket load current is within socket rated current.

2. AC APPLICATION (DUAL VOLTAGE TYPE)

(a) Select the voltage using the AC OUTPUT SELECT SWITCH in accordance with the electrical appliance. Do not switch between 115 and 230V if there is a load on the generator.

3) STOPPING THE ENGINE

1. Turn off the power switch of the electric apparatus or unplug the cord from socket of the generator.



2. Turn the engine switch to “OFF”.

3. Turn the fuel cock lever to “OFF”.

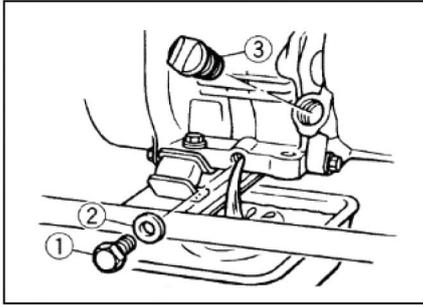
5.PERIODIC MAINTENANCE

1) MAINTENANCE CHART

Regular maintenance is most important for the best performance and safe operation.

| Item | Remarks | Pre-operation check (daily) | Initial 1month or 20 Hours | Every 3 months or 50 Hours | Every 6 months or 100 Hours | Every 12 months or 300 Hours |
|-----------------------|--|-----------------------------|----------------------------|----------------------------|-----------------------------|------------------------------|
| Spark Plug | Check condition adjust gap and clean. Replace if necessary. | | | ● | | |
| Engine Oil | Check oil level | ● | | | | |
| | Replace | | ● | | ● | |
| Air Filter | Replace | | | | ● | |
| Fuel Filter | Clean fuel cock filter. Replace if necessary | | | | ● | |
| Valve Clearance | Check and adjust when engine is cold. | | | | | ● |
| Fuel Line | Check fuel hose for crack or damage. Replace if necessary. | ● | | | | |
| Exhaust System | Check for leakage. Retighten or replace gasket if necessary | ● | | | | |
| | Check muffler screen. Clean / replace if necessary. | | | | ● | |
| Carburetor | Check choke operation | ● | | | | |
| Cooling system | Check fan damage. | | | | | ● |
| Starting system | Check recoil starter operation. | ● | | | | |
| Decarbonization | More frequently if necessary. | | | | | ● |
| Fittings Fasteners | Check all fittings and fasteners correct if necessary. | | | | ● | |

2) ENGINE OIL REPLACEMENT

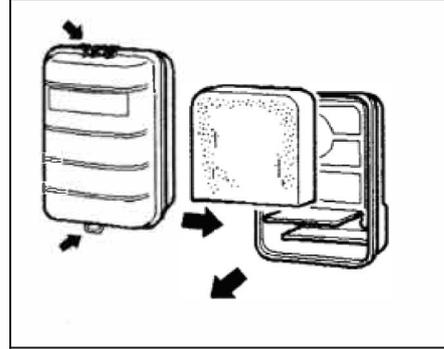


1. Place the machine on a level surface and warm up the engine for several minutes. Then stop the engine.
 2. Remove the oil filler cap
 3. Place an oil pan under the engine. Remove the oil drain plug so that the oil can be completely drained.
 4. Check the oil drain plug, gasket, oil filler cap and O-ring. If damaged replace.
 5. Reinstall the oil drain plug.
 6. Add engine oil to the upper level.
- Recommended engine oil: SAE10W30 or 15W40 API Service "SE" or "SF", if not available, "SD".

CAUTION:

Be sure no foreign material enters the crankcase.

3) AIR FILTER



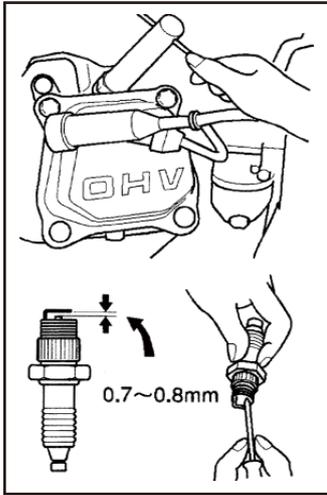
Maintaining an air cleaner in proper condition is very important. Dirt induced through improperly installed, improperly serviced, or inadequate elements damages and wears out engines. Keep the element clean.

1. Take out the air cleaner and replace every 100hrs.

CAUTION:

The engine should never run without the element; excessive piston and/or cylinder wear may result.

4) CLEANING AND ADJUSTING SPARK PLUG

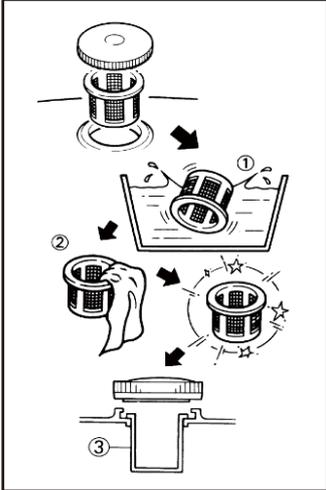


Standard electrode color: Tan

Standard Spark Plug: BPR6ES (NGK)

Spark Plug Gap: 0.7-0.8 mm (0.028-0.031 in)

6) FUEL TANK FILTER



- ① Clean with solvent.
- ② Wipe off.
- ③ Fuel tank filter.

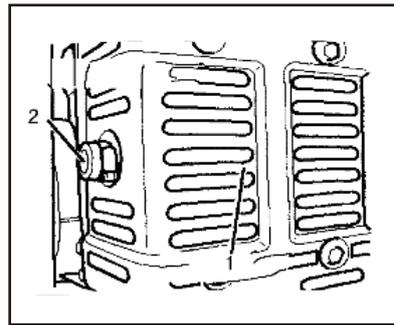
WARNING

Be sure the tank cap is tightened securely.

7) MUFFLER SCREEN

WARNING

- The engine and muffler will be very hot after the engine has been run.
- Avoid touching the engine and muffler while they are still hot with any part of your body or clothing during inspection or repair.

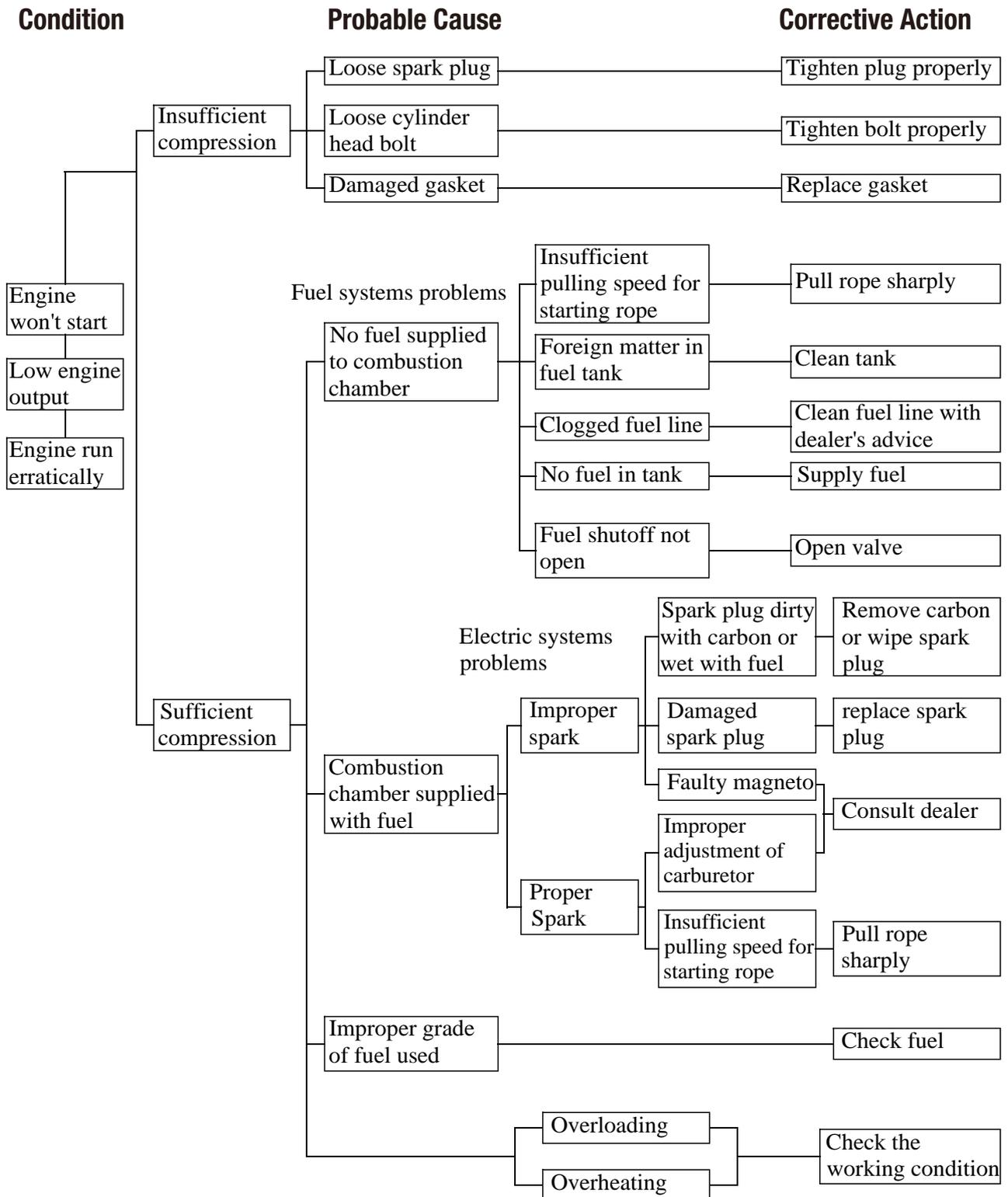


1. Remove the muffler protector and muffler screen.
2. Clean the carbon deposits out of the muffler screen using a wire brush.
3. Check the muffler screen. Replace it if damaged.
4. Install the muffler screen and muffler protector.

- ① Muffler protector
- ② Muffler screen

6. TROUBLE SHOOTING

ENGINE TROUBLE SHOOTING



6. TROUBLE SHOOTING

GENERATOR TROUBLE SHOOTING

| Condition | Probable Cause | Corrective Action |
|--|---|---------------------------------|
| Indicator light ON No AC output | Tripped circuit breaker | Reset |
| | Poor Connection or faulty lead | Check and Repair |
| | Broken Receptacle | Check and Repair |
| | Faulty circuit breaker | |
| Indicator light OFF No AC output | Generator problem | Consult Dealer |
| Indicator light OFF No DC output | Tripped circuit breaker | |
| | Poor Connection or faulty DC power cord | Check and Repair |
| | Generator problem | Consult Dealer |
| Output power available abnormality exists | Engine RPM set too high or low | No load for 50Hz Set 3150rpm |
| | Loose component | Locate and tighten |
| | Internal generator problem | Consult Dealer |

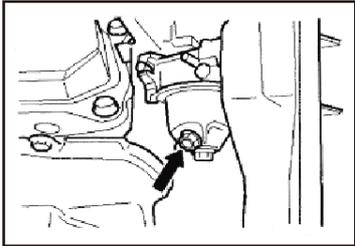
Note: Not all generators in this range have an indicator light.

1) Engine won't start

1. Fuel systems



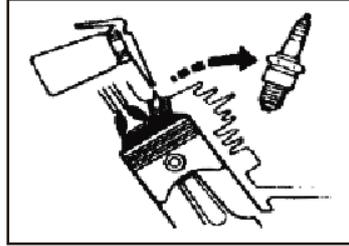
- No fuel supplied to combustion chamber.
- No fuel in tank....Add fuel.
- Clogged fuel line....Clean fuel line.
- Foreign matter in fuel tap....Clean fuel tap.
- Clogged carburetor....Clean carburetor.



2. Engine oil system - Insufficient

- Oil level is low....Add engine oil.

3. Electrical systems - Poor spark



- Spark plug dirty with carbon or wet....Remove carbon or wipe spark plug dry.
- Faulty ignition system....Consult dealer.

4. Compression insufficient

- Worn out piston and cylinder....Consult dealer.
- Loose cylinder head nuts....Tighten nuts properly.
- Damaged gasket....Replace gasket.

7. STORAGE

Long term storage of your machine will require some preventive procedures to guard against deterioration.

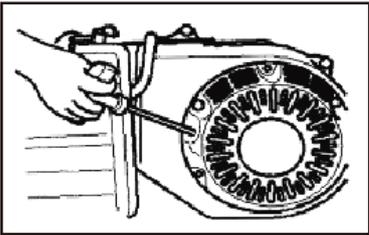
1) DRAIN THE FUEL

1. Drain the fuel tank, fuel tap, and carburetor float bowl.



2) ENGINE

5. Pour in about one tablespoon of SAE 10W30 or 20W40 motor oil.



6. Use the recoil starter to turn the engine over several times (with ignition off).
7. pull the recoil starter until you feel compression.
8. Stop pulling.
9. Clean exterior of the generator and apply a rust inhibitor, like WD40

10. Store the generator in a dry, well-ventilated place, with a cover placed over it.



11. The generator must remain in a horizontal position.

8. Specifications (subject to change without prior notice.)

| | | | | |
|---|------------------------------------|---------------|---------------|-------------|
| Model | HY3400 | HY8500 | HY10000 | HY220DC |
| Frequency (Hz) | 50 hz | 50 hz | 50 hz | 50hz |
| Rated Power (kVA) | 2.75 | 7 | 8 | 5 |
| Max. Power (kVA) | 3.12 | 7.7 | 8.8 | 5.5 |
| Voltage (V) | 115 / 230 | 115 / 230 | 115 / 230 | 115 / 230 |
| Socket | 2 x 16A | 1x16A + 1x32A | 1xPCE5p+1x16A | 2 x 16A |
| Fuel tank capacity (L) | 3.6 | 6.5 | 6.5 | 6.5 |
| Running time (hr) | 4 h | 6 h | 5.5 h | 6 h |
| Engine model | IC210 | IC425 | IC460 | IC425 |
| Engine type | Petrol OHV | Petrol OHV | Petrol OHV | Petrol OHV |
| Displacement (cc) | 212 cc | 420 cc | 460 cc | 420 cc |
| Power output [HP] | 7 hp | 15 hp | 16 hp | 15 hp |
| Start method | Manual | Manual | Manual | Manual |
| Engine oil volume | 600ml | 1100ml | 1100ml | 1100ml |
| Oil type | SAE10W30 or 15W40 | | | |
| Power factor (Cos Φ) | 1 | 1 | 1 | 1 |
| Excitation mode | Self Excitation & constact Voltage | | | |
| N.W(kg) | 38 | 75 | 80 | 80 |
| Products size LxWxH (mm) (without wheels and lifting hook) | 592x437x422 | 882x552x532 | 882x552x532 | 882x552x532 |

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