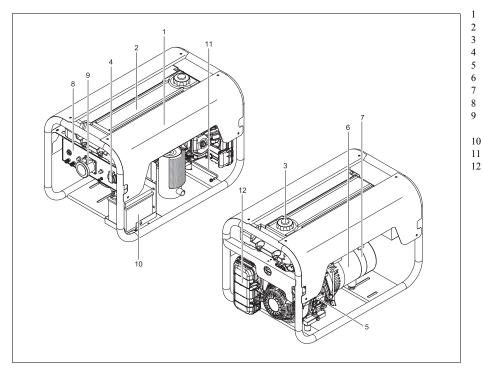
## 2.3 General description QEP R

The QEP R5-6.5-7.5-8-12-14 Hd, QEP R6-7 Yd and QEP R9-10 Ld are portable air-cooled generator sets, built for running at sites where no electricity is available. The generator sets operate at 50 Hz, 230V (single phase model) or 400/230V (three phase models). The QEP R Hd generator sets are driven by an air-cooled petrol engine, manufactured by Honda, the QEP R Yd generator sets are driven by an air-cooled diesel engine, manufactured by Yanmar and the QEP R Ld generator sets are driven by an air-cooled diesel engine, manufactured by Yanmar and the QEP R Ld generator sets are driven by an air-cooled diesel engine, manufactured by Lombardini. An overview of the main parts is given in the diagram below.



Protective cover Fuel tank (large) Filler cap fuel Electrical key start Engine oil protection Alternator AVR Sockets and thermal protection Volt meter, hour meter, differential circuit breaker, connector for remote start and stop Battery Earth pin Air filter



# 4 Operating instructions



In your own interest, always strictly observe all relevant safety instructions.

Do not operate the generator set in excess of the limitations mentioned in the Technical Specifications.

Local rules concerning the setting up of low voltage power installations (below 1000 V) must be respected when connecting site distribution panels, switch gear or loads to the generator set.

At each start-up and at any time a new load is connected, the earthing and protections (GB trip and earth leakage relay) of the generator set must be verified. Earthing must be done either by the earthing rod or, if available, by an existing, suitable earthing installation. The protective system against excessive contact voltage is not effective unless a suitable earthing is made.

### 4.1 Before starting

 With the generator set standing level, check the engine oil level and top up if necessary. The oil level must be near to, but not exceed the high mark on the engine oil level dipstick.



# Running the engine with insufficient oil could cause serious damage.

- Drain any water and sediment from the fuel prefilter. Check the fuel level and top up if necessary. It is recommended to fill the tank after the day's operation to prevent water vapor in a nearly empty tank from condensing.
  - Fuel is highly inflammable and explosive under certain conditions. Refuel in a well ventilated area with the engine switched off. During refuelling do not smoke and do not approach the equipment with an

open flame.

- Check the coolant level in the expansion tank of the engine cooling system. The coolant level must be near to the FULL mark. Add coolant if necessary.
- When starting the generator set for the first time, connect the battery. First connect the positive pole and then the negative pole. Properly tighten the terminal clamps and cover with petroleum jelly.
- Activate the battery: fill the compartments to their maximum level with a 30/40% sulphuric acid solution and wait at least two hours before using.

- Check the air filter: make sure that it is in good conditions and free from dust and dirt.
- Check the generator set for leakage, tightness of wire terminals, etc. Correct if necessary.
- Check that the circuit breakers are switched off.
- Ensure that no appliance is plugged into the generator set or that the load is switched off.
- Check that the differential circuit breaker has not tripped, if installed. Reset if necessary.

## 4.2 Starting

#### Manual start-up

The QEP generator sets are to be started manually:

- Open the fuel valve, by turning it to ON.
- Move the choke lever to the CLOSED position.
- Turn the engine switch to the ON position.
- Pull the start cord handle until a certain resistance is felt and then strongly pull until the full length of the cord is reached. Release the starter handle and let it return slowly.
- As the engine begins to warm up, gradually move the choke lever to the OPEN position.
- Connect the appliance(s) to the generator set.

#### **Electrical start-up**

The QEP R and QEP S generator sets can be started electrically:

- Open the fuel valve, by turning it to ON.
- Move the choke lever to the CLOSED position.
- Turn the engine switch to the ON position.
- Turn the start key to the "START" position and initiate the start-up by turning the key further towards the right. Once the set is started, release the key.
- Once the engine is warmed up, open the choke by pushing the lever.
- Connect the appliance(s) to the generator set.

## 4.3 During operation

Regularly carry out following checks:

Check the analogue meters for normal readings, if applicable.



Avoid to let the engine run out of fuel. If it happened, priming will speed up the starting.

- Check for leakage of oil or fuel.
- When single-phase loads are connected to the generator set output terminals, keep all loads wellbalanced.
- If circuit breakers have tripped during operation, switch off the load and stop the generator set. Check and, if necessary, decrease the load.

## 4.4 Stopping

#### Manual and electrical shutdown

- Switch off or disconnect all appliances powered by the generator set.
- Let the engine run idle for 2-3 minutes to cool down.
- Turn the engine switch to the OFF position.
- Move the choke lever to the CLOSED position.
- Close the fuel valve, by turning it to OFF.



The engine will remain hot even after being switched off. Make sure the generator set is well ventilated even after engine shut down.

