



Using the Arc Welder

1. Wear your protective equipment especially your welding helmet.
2. Care must be taken to avoid electric shock from the welding cables.
3. Work must not be carried out in damp or wet conditions.
4. Check that the welding cables are connected properly. Switch off if any adjustments need to be made including changing rods or the welding current.
5. Uncoil cables completely. A good earth connection must be made on the workpiece close to the part to be welded.
6. Welding rods should always be put down on an insulated surface. If it touches the workpiece or earth, it could strike an arc.
7. Goggles must be worn to protect the eyes when chipping the slag off.
8. The welder may switch itself off if it is overloaded. It should be allowed to cool down before re-starting. If this happens repeatedly check with an electrician or the hire company.
9. Remember any welding will remain hot for some time. Make sure no-one touches it. It should not be cooled with water.
10. The engine should be stopped before leaving the welding machine unattended.
11. If the equipment does not work properly operators should not attempt to repair it – contact the hire company.

Please keep this leaflet safely as it may be required for future reference



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The rules and procedures in force where people are at work
may require the person responsible for this equipment
to carry out a specific risk assessment

1. It is important to read this entire leaflet before using the arc welder.
2. Petrol is highly flammable. Care must be taken not to cause a fire or explosion.
3. Electricity can be hazardous and must always be used with great care.
4. The glare produced by the electric arc during welding is harmful to the eyes and skin.
5. This welder is designed to weld materials like iron and steel. It will not weld non-ferrous metals.
6. This action of this arc welder can cause injury or damage if the machine is not used in a careful and controlled way. It is quite heavy, care must be taken when moving it.
7. If operators have not used an arc welder before, they should practice welding some scrap metal before starting on the main task.
8. The work must be thought out and planned ahead to make sure that it will always be carried out safely.
9. The following items of personal protective equipment must be worn as a minimum:
Dust mask – a minimum of EN149 FFP3(s) protection;
Ear muffs or plugs giving protection for levels up to 94 dB(A);
Welding mask: EN166/EN169/EN175 or BS679/1542;
Impact resistant goggles: EN166 – B or BS2092 grade 1;
Gloves.
10. This machine must not be used by minors or by anyone under the influence of drugs or alcohol.
11. This arc welder is designed for operation by an able bodied adult. Anyone with either temporary or permanent disability must seek expert advice before using it.



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1. The following items of personal protective equipment (ppe) are the minimum that should be worn whenever this machine is used. Particular jobs or environments may require a higher level of protection.
 2. Check the welder, engine, welding cables, and all equipment. Do not use anything found damaged – contact the hire company.
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 4. An appropriate dust mask (with a minimum of EN149 FFP3(s) protection) must be worn if the work produces hazardous fumes.
 5. A welding mask must be worn when using the welder.
 6. The glare and heat from the arc, and the sparks, can burn the skin, canvas gloves, cotton overalls and safety boots or strong shoes must be worn. Rubber or nylon based clothing should be avoided because it burns easily.
 7. Anyone who is working nearby will also need to wear appropriate personal protective equipment. Removed before starting work. The action of the welding current may make them hot.
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 10. The following items of personal protective equipment (ppe) are the minimum that should be worn whenever this machine is used. Particular jobs or environments may require a higher level of protection.
 11. Check the welder, engine, welding cables, and all equipment. Do not use anything found damaged – contact the hire company.
- ### ARC WELDER
1. No smoking.
 2. A fresh mixture of two stroke engine oil with petrol should be used. If the hire company has provided special instructions on how much oil to use these must be followed. Otherwise 1 measure of petrol (40ml per litre) measures of two stroke oil to 25 should be used.
 3. The engine should be stopped and allowed to cool down.
 4. If possible the machine should be moved away from the work area.
 5. The filler cap and area around it should be cleaned to prevent dirt falling into the fuel tank.
 6. Mix the petrol and oil by shaking the fuel can.
 7. A funnel should be used when refuelling.
- ### REFUELLING
1. Operators must make sure that they understand all of the controls. Before starting the machine it must be known how to stop it.
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 7. A funnel should be used when refuelling.
- ### STARTING THE ENGINE
1. Check the fuel and oil levels.
 2. Turn the fuel tap on, close the choke and switch ignition to ON.
 3. Make sure that the machine is held firmly so it will not move when the starter is pulled.
 4. The starter handle should be pulled slowly until it is evident that the starter has engaged with the engine, it should then be pulled quickly and strongly. It shouldn't be pulled too far or it may break.
 5. The cord should be guided back into place so that it recoils correctly.
 6. The choke should be turned off when the engine has warmed up.
- ### STARTING FROM COLD
1. Check the fuel and oil levels.
 2. Turn the fuel tap on, close the choke and switch ignition to ON.
 3. Make sure that the machine is held firmly so it will not move when the starter is pulled.
 4. The starter handle should be pulled slowly until it is evident that the starter has engaged with the engine, it should then be pulled quickly and strongly. It shouldn't be pulled too far or it may break.
 5. The cord should be guided back into place so that it recoils correctly.
 6. The choke should be turned off when the engine has warmed up.
- ### STARTING FROM HOT
1. Check the fuel and oil levels.
 2. Turn the fuel tap on, close the choke and switch ignition to ON.
 3. Make sure that the machine is held firmly so it will not move when the starter is pulled.
 4. The starter handle should be pulled slowly until it is evident that the starter has engaged with the engine, it should then be pulled quickly and strongly. It shouldn't be pulled too far or it may break.
 5. The cord should be guided back into place so that it recoils correctly.
 6. The choke should be turned off when the engine has warmed up.
- ### STOPPING THE ENGINE
1. Turn the fuel tap off.
 2. Close the throttle.
 3. Switch the ignition switch to OFF.



Before Starting Work...

WORK AREA

1. Do not use this welder where there is a danger of explosion. It will ignite fumes from petrol, or gas cylinders.

2. Using this equipment indoors or in confined spaces could cause fatal carbon monoxide poisoning. Never use it in other indoor situations if its suitability and the ventilation required has been fully assessed. Mechanical extraction ventilation will almost always be required.

3. Make sure that the area is clear and safe and that no-one is nearby who could cause a distraction.

4. Protect other people from the noise, glare and from the arc, a welding booth or screens should be used. Others should be warned to keep away, warning signs must be put up.

5. The hot sparks could start a fire; check there is nothing nearby that would burn easily.

6. Operators must not weld petrol tanks containing liquid or gas – it is likely to explode.

7. Check there are no fuel lines or flammable materials where welding is going to take place.

8. Electrical equipment must be kept away from rain and water.

OPERATORS

1. The following items of personal protective equipment (ppe) are the minimum that should be worn whenever this machine is used. Particular jobs or environments may require a higher level of protection.