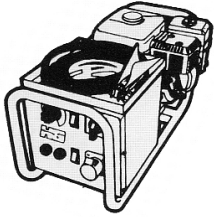




Safety Instructions

THESE INSTRUCTIONS MUST BE READ BY THE OPERATOR
BEFORE OPERATING THE EQUIPMENT.



3.5 Arc or MMA (Manual Metal Arc) Welders

- This equipment is designed to be operated by someone with normal ability. Persons with a disability or injury must assess whether their disability, when using the equipment, will affect their health and safety and the safety of others.
- It should only be operated by someone with experience of similar equipment.
- This equipment must not be used by anyone whose competence is impaired, for example by drink or drugs.

- 1 The welding equipment must be operated correctly according to the manufacturer's or owner's operating instructions, which are available on request if required.
- 2 Only properly trained persons should use welding equipment.
- 3 **CHECK** that all persons and animals are clear of the work area.
- 4 **DO NOT** use the equipment in a hazardous or explosive atmosphere or where fuel has been spilt.
- 5 Treat the electrical output with care, as you would a mains supply.
- 6 **ENSURE** that welding and return leads are insulated, of robust construction and thick enough to carry the current safely.
- 7 Use only the welding and power cables supplied by the hirer.
- 8 **CHECK** that the welding lead and return lead are in good condition and that all connections are made properly and safely. When necessary the workpiece must be earthed.
- 9 Wear protective equipment as conditions determine. A leather apron, overalls, leather gloves, welding visor, and insulated safety footwear is always necessary.
- 10 Remove rings and any other jewellery before starting work.
- 11 Protect the equipment from rain and **DO NOT** operate when standing in water.
- 12 Use an insulating mat to stand on in a damp atmosphere or when the floor is conductive.
- 13 The work area must be clean and cleared of flammable substances before work starts.
- 14 **CHECK** that the work is secure. Hold with clamps or in a vice if necessary before starting welding.
- 15 When other persons are in the area, use welding screens or ensure that their eyes are protected from the electrical arc. They must wear welders green goggles when the watch the work.

WARNING NOTICES MUST BE DISPLAYED AROUND THE WELDING AREA.

- 16 Suspected damage to the eyes by welding (arc eye) must receive immediate attention from a doctor or someone trained in first aid.
- 17 **DO NOT** expose any part of the skin to the radiations from welding. It can cause burns similar to sunburn.
- 18 **DO NOT** ever attempt to move welding equipment by pulling it by its cables.
- 19 **CHECK** that there is adequate ventilation or extraction of fumes.
- 20 In confined spaces such as manholes, tanks, trenches etc, a fume extract system, fresh air supply, harness and safety rope may be necessary.
 - A second person must be in attendance outside, who is trained in first aid, including artificial respiration for anyone suffering electric shock, and who must be able to turn off the welding equipment and be in direct contact at all times.
- 21 **ALWAYS** place the electrode holder on an insulated surface when not in use to avoid contact with other parts of the equipment, which would result in overheating and possible fire.
- 22 If the electrode appears red hot during welding reduce the current output.
- 23 **DO NOT** ever attempt to change electrodes when the holder is live.
- 24 **ALWAYS** remove the power plug from its socket when the welder is not in use.
- 25 **REMEMBER:** Welds remains **HOT** for sometime. Make sure that nobody touches it and **DO NOT** cool by means of water.
- 26 A suitable fire extinguisher should be readily available for use in emergencies.
- 27 **DO NOT** attempt repairs. Contact the Hire Company.

Arc Welders Powered by Petrol or Diesel Motors

All the above precautions are to be adhered to with the additional of those set out below:

- 28 Position the equipment on firm and level ground. Secure if necessary to prevent accidental movement.
- 29 Before starting the engine the operator should familiarise himself/herself on how to stop it.
- 30 **DO NOT** smoke when refuelling. **NEVER** refuel with the engine running.
- 31 When ever possible move the welder away from the work area.
- 32 Replace the fuel caps securely on the engine and fuel container. Wipe up any spillage immediately.
- 33 Fuel containers should be in good condition and leak proof.
- 34 **DO NOT** use the machine in a hazardous or explosive atmosphere, or where fuel has been split.
- 35 **DO NOT** run the equipment in badly ventilated area or where exhaust fumes can sink into a basement or excavation.
- 36 If the engine has to be used in an enclosed area, ducting may be used to discharge exhaust fumes to a safe place.
- 37 **CHECK** that there is no combustible material on or against the exhaust system. The exhaust pipe and silencer get very hot.
- 38 In the event of a leak of fuel or oil developing, switch the engine off **IMMEDIATELY**.
- 39 If warning lights show or gauges register outside normal limits, switch off the engine.
- 40 **DO NOT** top up with coolant while the engine is running. **ALLOW** the radiator to cool before removing the radiator cap and topping up.
- 41 When noise levels are uncomfortably high over 80dB(A), it is advisable to wear hearing protectors.
- 42 If higher noise levels occur regularly when it is necessary to shout to be heard, (85dB(A) and above) the law requires that hearing protectors must be worn.



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This leaflet is one in a comprehensive series of equipment safety instructions available from the CPA