

12 Before connecting the torch, the pipes should be bled to clear any foreign matter. Ensure one line is bled and closed prior to proceeding with the other.

13 The longer the length of hose, the greater the time required to purge it.

LIGHTING UP AND SHUTTING DOWN PROCEDURES

14 Lighting Up

- **ENSURE** that both regulators are closed with the adjusting knobs fully unwound in the anti-clockwise position.
- **CHECK** that the blowpipe valves are closed.
- Slowly open both cylinder valves a 1/4 of a full turn and ensure that sufficient gas for the job is recorded on the contents gauges.
- **ENSURE** that the cutter or cutting attachment and shank valves are all closed.
- Open the Oxygen regulator by turning the pressure adjusting knob clockwise until the required pressure is recorded on the working pressure gauge.
- Open the Oxygen valve on the cutter or the cutting attachment, also on the shank and adjust until it gives the correct flame setting.
- Once sufficient gas has been allowed to flow to purge the system, the torch may be lit.
- Depress the cutting Oxygen lever and if necessary re-adjust the heating Oxygen valve so that a neutral flame is retained while the torch is cutting.

15 Purging is important. It removes flammable gas mixtures from the hoses and equipment, which could result in explosions and fires when the blowpipe is first lit. It should be carried out in a well ventilated area, and it may take from several seconds to a minute or more depending on the length of hose and gas flow rates.

NOTE

The torch should be lit with the head facing upward if the fuel gas is **ACETYLENE**, as it is lighter than air, and downwards if **PROPANE**, as it is heavier than air.

16 Shutting Down

- Release the cutting Oxygen lever.
- Close the fuel gas valve at the blowpipe
- Immediately close the oxygen valve at the blowpipe.
- Close the cylinder valves or gas supply point isolation valves for both oxygen and fuel gas.
- Close the outlets of adjustable pressure regulators by winding out the pressure adjusting screws.
- Open both blowpipe valves to vent the pressure in the equipment.
- Ensure all gauges register zero, then wind out anti-clockwise both regulator pressures adjusting knobs.
- Close all valves down stream of the regulators.
- This is not necessary when the equipment is to be used again in the immediate future

NOTE

If a backfire occurs, identified by a rapid machine gun effect, followed by a screaming noise, black soot and sparks, it is essential that the fire be starved of oxygen immediately.

17 Close the oxygen valve first followed by the fuel gas valve.

- These are colour coded **BLUE** for oxygen, **RED** for fuel gas.

18 The torch should be plunged into a bucket of water to cool and thoroughly checked before re-using.

19 Remove the nozzle from the head and check the seating.

20 Once the cause of the backfire has been discovered the fault rectified and the blowpipe cooled down, the blowpipe may be re-lit.

21 If the backfires keep repeating, the system is to be fully shut down and the fault rectified.

22 **DO NOT** attempt repairs. Contact the Hire Company.

ACETYLENE CYLINDERS INVOLVED IN FIRES

There is always a risk of cylinder explosion in any fire involving an acetylene cylinder. An emergency procedure should be established to prevent this and therefore reducing the risk. Action to deal with acetylene cylinders involved in a fire is always best left to the emergency services.

Some initial response may be appropriate:

- Cool the cylinders by spraying with water.
- Always call the emergency services, even if it is possible to close the cylinder valve(s) to control the fire.
- Evacuate the building and do not re-enter until it has been declared safe to do so.
- **DO NOT** attempt to move any cylinder(s) that have been involved in the fire, it could lead to the cylinder(s) exploding if it has not cooled for a long period.

The emergency services will advise on any further action to be taken once the incident has been dealt with.