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T: 0845 094 0707**FORCED AIR HEATER (Propane & 110/230v)****SAFETY PRECAUTIONS & WARNINGS**

It is in the interests of those operating this equipment, and for the safety of others, that these **SAFETY PRECAUTIONS & WARNINGS** are carefully read and understood before operating this equipment.

**PURPOSE**

1. This equipment is designed to generate blown heated air for large buildings (factories, warehouses, building sites, etc.) and other large open spaces.

**PERSONAL SAFETY**

2. This type of heater uses butane bottled gas; which is highly flammable – use carefully and safely (see section on 'PROPANE GAS' below). It is also powered by electricity (110/230v), see section on 'ELECTRICAL SAFETY' below.
3. This equipment is designed for operation by an able bodied adult. Anyone with either temporary, or permanent disability must seek expert advice before using it. It must not be operated by minors, or by anyone under the influence of drugs or alcohol.
4. Before attempting to operate this equipment you must familiarise yourself with the equipment, its controls and operating characteristics.
5. Before starting your work, think and plan ahead to ensure you, and others around you, will be working in a safe environment.

**PROPANE GAS****GENERAL SAFETY**

6. Always keep gas cylinders in an upright position (whilst in use, being store or moved).
7. Gas cylinders (full or empty) must not be stored inside buildings.
8. Keep gas cylinders away from naked flames and heat at all times.
9. Handle gas cylinders with care – do not drop them. They are heavy, seek assistance when handling or moving them.
10. Suspected gas leaks must not be searched for with a naked flame, use soapy water.
11. If a cylinder is suspected, or found to be leaking, evacuate the area and call the fire brigade. Never attempt to repair the leak.
12. In cold (frost and icy) weather, a layer of frost may form around the cylinder. This indicates that the cylinder capacity is insufficient to provide an adequate supply of gas. Do not attempt to remove the frost with any source of heat.

**CHANGING GAS CYLINDERS**

13. Turn the gas cylinder control handwheel clockwise to the 'OFF' position.
14. Wait until the gas flames have fully extinguished and allow the fan to run-on and the heater to cool down for a few minutes before attempting to disconnect the cylinder. Now switch the fan 'OFF'.
15. Unscrew and remove the gas regulator coupling from the gas cylinder – **NOTE: THIS HAS A LEFT-HANDED THREAD.** Remove the empty gas cylinder to a safe storage location.
16. Check that the gas regulator connection on the replacement gas cylinder is of the same type as the one it is replacing. If not, do not attempt to fit

the gas regulator coupling – inform the hire company.

17. Carefully fit the regulator coupling to the replacement cylinder by hand - **NOTE: THIS HAS A LEFT-HANDED THREAD.** Finally tighten the regulator coupling with the correct size spanner.

**TURNING THE GAS CYLINDER 'ON'**

18. Turn the gas cylinder control handwheel anti-clockwise to the fully 'ON' position to release the gas.
19. Check for the presence of any gas leaks. If any is found, or suspected, turn the gas cylinder control handwheel clockwise to the 'OFF' position immediately – inform the hire company.

**ELECTRICAL SAFETY**

20. The operating voltage of this heater may be either 110v (yellow industrial plug connector) or 230v (square pin or blue plug connector).

**110v HEATERS (Yellow Plug)**

21. Only use a portable transformer and only plug the transformer directly into the 230v socket.
22. Only suitably rated, heavy-duty 110v extension cable, not longer than 50m (160ft), must be used between the transformer and the equipment. Do not use 230v extension cables.
23. When routing the extension cable, avoid immersion in liquids and trapping the cable in windows, doorways and other areas that could cause damage to the cable. Avoid laying the cable in areas that are subject to site traffic. Ensure all connections are kept dry.

**230v HEATERS (Square Pin or Blue Plug)**

24. To safeguard against electrical shock, always connect the equipment into a residual current device (RCD) that in turn is connected to a 230v socket.
25. Before using the equipment, press the 'RED' test button on the RCD to ensure that it is working. Re-set the RCD according to the instructions provided.
26. Only suitably rated, heavy-duty 230v extension cable, not longer than 50m (160ft), must be used between the mains (RCD) and the equipment.
27. When routing the extension cable, avoid immersion in liquids and trapping the cable in windows, doorways and other areas that could cause damage to the cable. Avoid laying the cable in areas that are subject to site traffic. Ensure all connections are kept dry.

**OPERATING AREA SAFETY**

28. Before commencing using the equipment, ensure that the area you are to operate the equipment in is a safe environment.
29. Make sure that the area is clear of obstructions and hazards (projections, cables, pipes, etc.).
30. The equipment must be sited on firm, level ground and as far away from people as possible, do not allow people stand in front of the equipment.
31. The area the equipment is to be used must be well ventilated.
32. Do not use this equipment where there is a danger of igniting fumes from petrol, or gas cylinders.

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## BEFORE OPERATING THE EQUIPMENT

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### SAFETY CHECKS

33. This type of heater is not suitable for use in occupied domestic areas or small rooms.
34. Visually inspect the equipment for serviceability (completeness, signs of damage, undue wear, etc.). Do not use the equipment if found damaged or worn - contact the hire company immediately.
35. Before attempting to operate the equipment, familiarise yourself with the equipments controls. Make sure you understand their purpose and function.
36. The heat generated from this equipment may cause burn damage or form a fire risk. Therefore ensure that it is kept at a safe distance from flammable materials (e.g. clothes, paint, paper, flammable liquids, etc.), other similar objects and people. If necessary, place a safety fire screen in front of the heater.
37. Site the heater away from walls facing the area to be heated. It must be sited in a well-ventilated area. Ensure that the rear of the heater is debris free and has sufficient space in which to draw clean air.
38. Before you start the equipment, you must know how to switch it 'OFF' in an emergency.
39. Do not attempt to move the equipment whilst it is alight. Switch it 'OFF' before moving.
40. Do not attempt to use this equipment in raining or wet environment.
41. Do not cover, or place anything on top of the heater.
42. As an extra safety precaution, place an additional fireguard in front of the equipment.

## OPERATING THE EQUIPMENT

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### LIGHTING THE HEATER

**Note: If the hire company has issued special instructions for this particular heater, follow them. If not, follow the instructions below.**

43. Connect the electrical power lead to an electrical socket and switch 'ON'.
44. Turn the electric fan to the 'ON' position. Allow the fan to reach its optimum working speed.
45. Turn the gas cylinder control handwheel anti-clockwise to the fully 'ON' position .
46. To ignite the heaters pilot light, push the igniter button in and hold down approximately 30secs until the heaters safety cut-out has warmed-up. Now release igniter button and the heater should light.
47. Should the heater not ignite the first time, repeat step 46, after waiting one minute.

### SWITCHING THE HEATER 'OFF'

48. Turn the gas cylinder control handwheel clockwise to the fully 'OFF' position.
49. Wait until the gas flames have fully extinguished and allow the fan to run-on and the heater to cool down for a few minutes. Now switch the fan 'OFF'.

### SECURITY & MAINTENANCE

50. Visually check the condition of the equipment (the heater, hose, regulator, gas cylinder, electrical cable and connections) at the start of each day.
51. If the equipment operates erratically, or incorrectly, do not use and do not attempt to repair it. Inform the hire company.
52. Periodically clean the equipment to ensure it is free from dust, dirt and other debris.
53. When the equipment is left unattended for long periods (i.e. overnight), ensure it is made secure to prevent unauthorised use or loss.

### COLLECTION & PICK-UP

54. For safety reasons this equipment requires you to use a **VAN** or an **ESTATE**.

