

Assessment Requirements

Unit VF13K – Knowledge of Safe use of Oxy Acetylene in Automotive Applications

Content:

Specific safety precautions when working with thermal cutting equipment, to include:

- a. fire and explosion prevention
- b. protection of others
- c. working in confined spaces
- d. fume control
- e. personal protective equipment
- f. movement of heavy and sharp materials

Gases used in thermal cutting, including:

- a. gas identification and colour codes
- b. particular characteristics
- c. safety procedures

Setting up thermal cutting equipment:

- a. connection of hoses
- b. connection of regulators and flashback arrestors
- c. selection of cutting torch and nozzle size

The procedures for cutting specific materials and features, to include:

- a. pipe sections straight through
- b. female from male cuts
- c. male from female cuts

Checks on equipment to confirm safety and fit for purpose.

- a. Regulators, hoses and valves are securely connected and free from leaks and damage
- b. Correct gas nozzle is fitted to the cutting torch
- c. Flashback arrestor is fitted to gas equipment
- d. Gas pressures are set and maintained as instructed
- e. Correct procedure is used for lighting, adjusting and extinguishing the cutting flame
- f. Hoses are safely routed and protected at all times
- g. Gas cylinders are handled and stored safely and correctly

Specific personal protective equipment

- a. Leather aprons
- b. Gloves
- c. Eye protection
- d. Safety helmet
- e. Skull cap
- f. Flame retardant overalls
- g. Safety boots

Hazards associated with thermal cutting and how they can be minimized

- a. Naked flames
- b. Fumes and gases
- c. Explosive gas mixtures

- d. Oxygen enrichment
- e. Spatter
- f. Hot metal
- g. Elevated working
- h. Enclosed spaces

Safe working practices and procedures for using thermal equipment in line with British Compressed Gas Association (BCGA) codes of practice, to include:

- a. Setting up procedures
- b. Permit-to-work procedures
- c. Emergency shutdown procedures.

Preparations prior to cutting

- a. Checking connections for leaks
- b. Setting gas pressures
- c. Setting up material or work piece
- d. Checking cleanliness of materials used