Gas cylinders toolbox talk

Fire and electricity · about 5 minutes · read it out, or say it in your own words

SITE OR JOB	DATE	PRESENTER

Small sites use gas every day: LPG for heaters, torches and waterproofing, and oxygen with acetylene for cutting and brazing. A cylinder holds a lot of gas under pressure, so a leak, a knocked-off valve or a cylinder caught in a fire can cause a fire, an explosion or a cylinder flying across the site.

SAY THIS

What is inside

A gas cylinder is a steel bottle packed with gas under high pressure. LPG and acetylene burn easily. Oxygen does not burn by itself, but it makes everything else burn much harder and faster, even oily gloves and overalls. Never use oxygen to blow dust off your clothes or to 'freshen' the air in a tight space. If a valve is knocked off, the escaping gas can push a cylinder like a rocket.

Storing cylinders

Cylinders stand upright, chained or strapped so they cannot fall. They live in a store that is open to fresh air, shaded from the sun, signed, and away from heat, fuel and electrical boards. Keep oxygen apart from LPG and acetylene. Keep full and empty cylinders in separate, marked places, with the valve caps on. Never keep a cylinder inside a site hut, a container or a closed office.

Moving cylinders

Close the valve and take off the regulator, or fit the cap, before moving a cylinder. Use a cylinder trolley. Do not roll a cylinder on its side, drop it, or lift it by the valve. On a bakkie, carry it upright and tied down, never loose and never inside the cab with you.

Using gas safely

Before you light up, check the hoses for cracks, burns and loose clips, and check the regulator is the right one for that gas. Cutting sets must have flashback arrestors fitted. Test joints for leaks with soapy water, never with a flame. Open valves slowly. Use acetylene cylinders standing up. When you stop for a break or finish, close the cylinder valves, not just the torch.

If you smell gas

LPG has a strong smell and leaks often hiss. Close the cylinder valve if you can do it safely. Do not switch lights or tools on or off, and keep all flames and cigarettes away. Move people out and tell your supervisor. If a cylinder is in a fire or getting hot, do not try to be a hero: get everyone well away, sound the alarm and call the fire brigade.

Leave the gas installations to the experts

Only an authorised gas person may install or remove a fixed gas system, test it for leaks and issue its certificate. Only an approved testing station may inspect and test cylinders. We do not refill, repair or swap fittings ourselves.

CHECK ON SITE TODAY

- [ ] Check that every cylinder on site is upright and chained or strapped, with caps on spare cylinders.
- [ ] Look at the gas store: fresh air, shade, signs, no-smoking notice, and oxygen kept apart from fuel gases.
- [ ] Inspect hoses, clips and regulators on cutting sets and torches, and check flashback arrestors are fitted.
- [ ] Make sure full and empty cylinders are kept apart and marked.
- [ ] Check that no cylinders are kept inside huts, containers or vehicles overnight.
- [ ] Confirm a cylinder trolley is available and being used.

ASK THE CREW

- ? Why is oxygen dangerous even though it does not burn on its own?
- ? How do you check a gas hose or joint for a leak?
- ? What would you do if you smelt gas in the store first thing in the morning?
- ? How do we carry cylinders on the bakkie, and what have you seen done wrong?

PROTECTIVE EQUIPMENT FOR THIS JOB

Leather gloves when handling cylinders · Safety boots · Cutting goggles or face shield and flame-resistant clothing when using oxy-acetylene

THE LAW

Pressure Equipment Regulations, 2009, regulation 18: Transportable gas containers; Pressure Equipment Regulations, 2009, regulation 17: Gas reticulation equipment and systems; Construction Regulations, 2014, regulation 29: Fire precautions on construction sites; General Safety Regulations, 1986, regulation 9: Welding, flame cutting, soldering and similar operations. What each one says, in plain words, with links: sitediary.co.za/toolbox-talks/gas-cylinders/

Toolbox talk attendance register

TOPIC

Gas cylinders (LPG, oxygen and acetylene)

DATE

SITE OR JOB

TIME

PRESENTER

COMPANY

PRESENTER SIGNATURE

By signing, I confirm that I attended this toolbox talk, that it was given in a language I understand, and that I could ask questions.

NO.	NAME AND SURNAME	COMPANY OR TRADE	SIGNATURE
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Keep this register in the site health and safety file. Log the talk in today's site diary with a photo of this page.