

REMOVING PARTS WITH AN OXYACETYLENE TORCH



When removing parts with an oxyacetylene torch you are at risk from welding fumes, flames, and compressed gases, as well as from sharp edges in the parts and from having to work in an awkward position.

Hazard: Compressed Gases

Details

- Found in acetylene cylinders

Threat

- Leaks, fire and explosion

Safe Work Guidelines

- If you are using a torch that is more than five years old, ensure that it has been retrofitted with a reverse flow check valve for both the oxygen and the acetylene connections
- Close cylinder valves tightly after use
- Store cylinders upright, supported by chains; keep oxygen and acetylene apart

- Do not store cylinders in the same area as oil or volatile liquids
- Do not drop cylinders; transport them on a hand truck
- Keep the valve protection cap in position when the cylinder is not in use

Hazard: Sharp Edges

Details

- Created while removing vehicle parts

Threat

- Cuts, bruises

Safe Work Guidelines

- Wear leather gloves and CSA-approved steel-toed work boots, and approved safety eyewear
- Hold part of the cut-off piece only if you can do so safely (i.e., it is not too heavy or awkward); otherwise, let it fall to the floor

Welding Flame

Details

- Created by an acetylene torch while removing metal vehicle parts

Threat

- Fire
- Burns
- Eye damage

Safe Work Guidelines

Before You Start

- Keep a portable ABC-type fire extinguisher close by; mounting it on the welding cart is a good idea
- Remove all flammable and combustible material from the area

While You Are Working

- Do not cut near explosive liquids or vapours, dirty gas tanks, oil barrels or open drums of flammable liquids
- Use a flame-resistant screen to protect others from flying sparks
- Wear tinted goggles or a helmet with the appropriate filter lens, leather gloves, coveralls, flame-resistant leggings or high boots, an apron made of leather or other flame-resistant material to withstand radiant heat and sparks, and safety boots
- Do not wear an apron with pockets where sparks can get caught
- Do not wear polyester or acrylic clothing
- For overhead work, wear a skullcap of leather or flame-resistant material to prevent head burns; use ear plugs made of mineral wool to prevent sparks from entering your ears

After You Finish

- Maintain a fire watch for at least 30 minutes after you have completed the job to make sure there are no smoldering fires

Hazard: Noise

Details

- Noisy tools such as impact tools can be louder than 90 dB

Threat

- Hearing damage, deafness

Safe Work Guidelines

- Wear appropriate hearing protection and make sure that other workers near you are wearing hearing protection

Hazard: Improper Use and Maintenance of Tools

Details

- Using the acetylene torch incorrectly and not maintaining it properly

Threat

- Burns
- Various injuries

Safe Work Guidelines

Before You Start

- Check the manufacturer's instructions before lighting the torch – not all torches use the same procedures
- Keep threads of the torch lubricated; use beeswax to lubricate threads; do not use oil or petroleum products
- Check for leaks regularly; with the pressure on and the torch valves closed, hold the torch tip under soapy water – bubbles indicate there is a leak
- Check hoses for cuts and make sure clamps are tight

While You Are Working

- Do not loosen the regulators on the tanks too much, otherwise they can blow off at high velocity; just back the regulator off until it is loose

- Before attaching the regulator, blow out any dirt or dust by opening the discharge valve on the cylinder slightly and then closing it immediately; when using a fuel gas cylinder, make sure there is no source of ignition nearby or the gas could ignite the valve
- Do not let the pressure exceed 20-40 psi for the oxygen tank and 0-15 psi for the acetylene tank
- Do not open the acetylene on the torch more than 1/8th inch or the flame will be uncontrolled; then adjust the flame according to the job
- Point the torch tip away from yourself and anyone else when you light it so that no one gets burned when the gas ignites
- Use only a friction lighter to ignite a torch
- If you are standing in one place or in a confined space, use a foot rest, ideally 6-10 inches off the ground (e.g., foot stool, tool box)
- Take frequent, short breaks:
 - For short jobs: 15 second break for every 1-2 min. of work
 - For long jobs: 5 minute break every 15-20 min. of work
- Change to a task that involves moving around or uses a different body part to improve your blood flow

Hazard: Working in a Fixed or Awkward Position

Details

- Muscles tire quickly when you stay in a fixed or awkward position which cause them to be at a higher risk for injury

Threat

- Muscle strain and associated tendon, nerve, disc or joint pain (common areas include low back, shoulder, elbow, and wrist)

Safe Work Guidelines

- Stretch and exercise your body regularly outside of work
- Get help (e.g., another worker, support for the part)
- Keep parts, tools and supplies as close to you as possible
- Use height-adjustable controls on hoists and platforms to place vehicles and parts in the ideal work zone (e.g., if you're standing, between your shoulder and knuckle height)

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