



# Preparing Vehicles for Body Work or Repainting

Preparing vehicles for body work or repainting involves many hazards to eyes, skin, hearing, breathing, etc.

## HAZARD

## SAFE WORK GUIDELINES

### ► Compressed Air

#### Details

Powers equipment.

A blast of air at 40 psi (pounds per square inch) can cause blindness and deafness or both. Even a blast at 4 psi can be harmful.

#### Threat

Eye irritation or injury

Painful or fatal injuries if it penetrates the skin

#### Before You Start

- Change the compressor oil every 2 to 3 months
- Make sure there is an adequate supply of oil in the machine as well as in stock
- Inspect compressed air hoses regularly and replace any that are cracked, worn or frayed
- Wear safety glasses or a face shield

#### While You Are Working

- Use the recommended air pressure for the job as outlined in the supplier's technical bulletins
- Do not point the nozzle at yourself or anyone else
- Do not use compressed air to clean dust off clothing or skin
- Use proper measures—not your hands—to seal leaks in the air lines or at joints

#### After You Finish

- Turn off the air supply
- Let the ventilation system or dust extractor run for several minutes
- See a doctor about any injury caused by compressed air; the seriousness of the injury may not be obvious

### ► Compressed Gases

#### Details

Found in oxygen and acetylene cylinders and mixed gases.

#### Threat

Leaks, fire and explosion

- Store cylinders upright, separately from each other and supported tightly by wall chains
- Close cylinder valves tightly after use
- Ensure that the tanks are not top heavy

**HAZARD****SAFE WORK GUIDELINES****▶ Noise**

**Details**  
Sandblasting usually occurs at 100–105 decibels.

**Threat**  
Hearing damage, deafness

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

**▶ Sand and Grit**

**Details**  
Found in the abrasive material used in sandblasting and expelled at 65–120 psi.

**Threat**  
Eye irritation or injury  
Cuts and bruises to exposed skin

- Wear the appropriate personal protective equipment (hard hat, impact-resistant face-piece, safety glasses with side shields, heavy gloves, impervious coveralls)
- Use a commercially available portable dust extractor

**▶ Sanding Dust**

**Details**  
Exposure can occur while fine-sanding topcoats and primers, many of which contain heavy metals such as lead, chromium IV and cadmium that can become airborne during sanding.

**Threat**  
Difficulty breathing  
Irritation to nose and throat  
Prolonged exposure could cause permanent lung damage

- Use local exhaust; consult an occupational hygienist or a ventilation engineer to make sure that you have the proper exhaust system
- Wear a dust mask
- Use sanders (rotary, orbital or straight-line) equipped with local exhaust ventilation as part of the tool's design

**▶ Silica**

**Details**  
Found in the sand used for sandblasting old paint off metal vehicle parts. Inhaling silica releases enzymes that destroy lung tissue and eventually cause emphysema (difficulty with breathing).

**Threat**  
Lung damage (silicosis)  
Emphysema

- Before You Start**
- Consult the joint health and safety committee's silica assessment for information about exposure in your workplace
  - Consider using a silica-free abrasive; ask your supplier for suggestions
  - Ask your safety supply company for the proper equipment and training in its use

- While You Are Working**
- Blast only in a well-ventilated area that has local exhaust
  - If you do your sandblasting in one area, use an air line respirator (supplied with bottled air or an air source well away from where you work)
  - If you move around your site in a truck to do your sandblasting, wear a NIOSH-certified dust mask or cartridge-type respirator
  - Use a vacuum with a special high-efficiency filter or wet the dust thoroughly and then scrape it up; don't use brushes to sweep it up

See Regulation 845: Designated Substance—Silica

**HAZARD****SAFE WORK GUIDELINES****▶ Sharp Edges****Details**

Created while removing and replacing damaged vehicle parts.

**Threat**

Cuts, bruises

- Take the time to use the right tools for the job at hand
- Wear leather gloves

**▶ Vibration****Details**

Created while grinding and hammering.

**Threat**

Circulatory and vascular disorders (e.g., Raynaud's disease [tingling, numbness and discomfort in the fingers when they are exposed to cold])

- When operating vibrating equipment, use anti-vibration gloves with rubber pads on the fingers and palms (e.g., Sorbothane) or tool wraps
- Take regular breaks (e.g., every 10–15 minutes) and shake out your hands or change tasks for 5 minutes
- Avoid tools that vibrate at low-frequency (20–130Hz)

**▶ Welding Flame****Details**

Created by a welding torch while removing damaged metal vehicle parts or attaching replacement metal parts.

**Threat**

Fire, burns

Eye damage through radiation

- Remove all flammable liquids from the area
- Keep a fire extinguisher close by in case sparks ignite combustible material in the vehicle
- Use a welding hood with the correct protective filter, welding gloves, coveralls and heat-resistant safety shoes

**▶ Welding Fumes****Details**

Created by a welding torch while removing damaged metal vehicle parts or attaching replacement metal parts. Can contain poisonous heavy metals.

**Threat**

Lung damage through inhalation

Nervous system damage due to exposure to hot metal fumes

- Use a welding helmet
- Use a portable fume extractor and portable welding screen
- Wear a NIOSH-approved air-purifying respirator or a NIOSH-approved dust mask for fumes: see the material safety data sheet

**▶ Working in a Fixed Position****Details**

Muscles tire quickly when you stay in a fixed position, placing them at a higher risk of injury.

**Threat**

Muscle strain and associated tendon, nerve, disc or joint pain. Common areas at risk include your lower back, shoulder, elbow and wrist

**Before You Start**

- Whenever possible, keep fit: stretch and exercise your body regularly outside of work
- Get help (e.g., another worker, support for the part)

**While You Are Working**

- Keep parts, tools and supplies as close to you as possible

**▶ Working in a Fixed Position** *(continued)*

- Use height-adjustable controls on hoists and platforms to place parts and tools in the ideal work zone (e.g., if you're standing, between shoulder and knuckle height)
- If possible, use two hands to support hand tools
- If you are standing in one place or in a confined space, use a foot rest, ideally at 15-25 cm off the ground (e.g., foot stool or tool box)
- Take frequent, short breaks:
  - for short jobs: 15 second break for every 1–2 minutes of work
  - for long jobs: 5 minute break every 15–20 minutes, working or resting in a different position

**After You Finish**

- Change to a task that involves moving around or uses a different body part to improve blood flow