



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