



SAFETY TRAINING LEAFLET 20 PORTABLE PNEUMATIC TOOLS

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1 Introduction

1.1 Safety leaflets

Safety training leaflets summarise the basic operational safety knowledge which needs to be known by employees working in the gas industry.

Refer to EIGA Doc 23 *Safety Training of Employees* for the various combinations of leaflets which define the scope of safety training for a variety of specific jobs.

Each leaflet addresses a specific topic as identified in the title.

1.2 Comprehension tests

There is a comprehension test for each leaflet, included in **Appendix 1**.

Each test comprises several questions. To pass the test it is suggested that the employee should score 75% at the first attempt. Incorrect answers should be discussed to confirm understanding.

Appendix 2 includes the list of correct answers.

2 Portable pneumatic tools

Pneumatic tools are commonly used in our industry for example in cylinder filling or inspection. Improper use of portable pneumatic tools can create hazardous conditions, potentially resulting in severe or permanently disabling injuries. These tools must be operated in accordance with manufacturer's manual and only by personnel who have received appropriate training.

Pneumatic tools are covered by the EU Work Equipment Directive 2009/104/EC and the pneumatic supply system falls under the EU Pressure Equipment Directive 2014/86/EU. These govern design, inspection and maintenance requirements. Users are not competent to maintain or repair pneumatic tools or supply systems.

2.1 Pre-use checks for portable pneumatic tools

- Select the appropriate tool for the task
- Perform a visual inspection before use, report any defects and do not use if unsafe.
- Verify that the pneumatic supply pressure meets the tool's requirements by checking the manufacturer's nameplate and the pressure gauge on the supply line.
- When air is supplied from a cylinder or bundle, ensure that a pressure regulator equipped with an integrated pressure relief device is installed, to maintain safe line pressure. Under no circumstances should air be taken directly from a cylinder or controlled solely by the cylinder valve.
- Inspect all tool components and supply hoses for damage or wear. Hoses must be of adequate length. Report any defects immediately to your supervisor. Do not use faulty equipment.
- Modification or repair of the pneumatic supply system is beyond the scope of users and shall only be performed by a competent person.
- Ensure that all necessary accessories are available before starting work.
- Keep supply hoses as short as practicable. Whenever possible, suspend hoses at least 2 meters above ground level. If hoses must lie on the floor, protect them from damage by vehicles (e.g., pallet trucks, forklifts) and route them to minimize tripping hazards.

- Do not stretch supply hoses; if relocation is required and the hose length is insufficient, stop work. Either reposition the job within hose range or extend the hose using an authorised coupling and re-test before use

2.2 Use of compressed air or other gases

- Only use compressed air for driving pneumatic tools.
- The use of oxygen is strictly prohibited.
- Nitrogen may only be used to drive pneumatic tools where adequate ventilation has been formally verified and approved.

2.3 Proper care when using Pneumatic tools:

- Shut off, release pressure and disconnect the pneumatic supply before exchanging accessories or tools. The tool should be disconnected before changing accessories.
- Ensure that the workpiece is properly secured before starting, using a vice or clamp if necessary.
- Confirm proper body positioning and stable balance before operating the tool. Note that pneumatic tools can generate high torque, which may cause twisting or sudden “kick” movements.
- Keep the supply hose clear of rotating parts (tool, chuck, etc.).
- Loose clothing, jewellery and long hair shall be kept clear of moving parts.
- Select power tools with lowest vibration level. Use of vibrating tools should be assessed and may require specific PPE (gloves) and management of exposure time.

2.4 Completion of work

Once the task is completed:

- Shut off pneumatic supply, release pressure and disconnect the pneumatic supply before detaching the tool.
- Store tool and accessories in a designated safe location.

2.5 Use of personal protective equipment

- Use protective eyewear specified for the task for example safety glasses, goggles or face shield.
- Generally, safety boots are advised when working with heavy tools or work items.
- The selection of gloves requires careful consideration based on the vibration and impact hazards.
- Hearing protection will be mandated when the noise level exceeds 80dB(A).
- Wear suitable work clothing.
- Respiratory protection may be mandated depending on the task.

Appendix 2 – Portable pneumatic tools – Test Answers

1. A
2. B
3. A
4. C
5. A,; C and D