Power Fastening Safety and You: Leader's Guide

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A power fastening tool safety-training program presented by:

The International Staple, Nail and Tool Association
512 West Burlington Ave., Suite 203
La Grange, IL 60525-2245
(708) 482-8138

The purpose of this "Leader's Guide" is give you the knowledge and material to help you maintain a workplace free from power fastening tool injuries.

For more information on power fastening tool safety go to the International Staple, Nail and Tool Association's website at www.isanta.org

This "Leader's Guide" was developed in conjunction with:

CONSTRUCTION
SAFETY COUNCIL

(800) 552-7744 www.buildsafe.org

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Background

The International Staple, Nail and Tool Association (ISANTA) was formed in 1966, when a group of manufacturers saw the need for common action and standards of practice within the pneumatically driven fastening systems industry.

ISANTA is committed to working proactively with governmental and voluntary code bodies to effectively meet the needs of its members and the industries they serve. As a result of this commitment, ISANTA had sponsored the creation of ANSI SNT-101, safety requirements for tool manufacturers, purchasers and users in the design, use, repair, installation, and maintenance of portable, compressed-air-actuated, fastener driving tools.

Prior to implementing a pneumatic tool safety program, read and understand the operating and safety instructions provided with each tool. In addition to the topics listed in the "User Guide" and "Toolbox Talk", this leader's guide lists several regulations and other safe operating procedures that should be followed when working with power fastening tools or compressed air.

For more information on the safety requirements for portable, compressed-air-actuated fastener driving tools, see the American National Standard, ANSI SNT-101-2002.

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Four Vital Work Habits for Pneumatic Fastening Tools

1. *Choose a trigger system for your specific needs.* Tools have trigger options that are most effective for particular jobs.

2. *Keep your finger off the trigger.* Don't hold or carry the tool with your finger on or near the trigger unless you are nailing or stapling. Injuries occur inadvertently when people are simply moving about, getting into position to do fastening, climbing up and down ladders or scaffolding, or trying to clear a nail jam with a finger on the trigger.

3. *Always wear safety glasses.* Each day an estimated 1,000 eye injuries will occur. To protect us from these injuries OSHA requires that workers who are exposed to the eye hazards wear safety glasses that meet the requirements specified in American National Standards Institute, Z87.1. The glasses must have "Z87" printed or stamped on them.

4. *Read the manual first.* Working safely means knowing as much about the tool as possible. Simple mistakes, such as trying to use the wrong size and type of fastener, can result in an injury from flying fastener fragments, or from an improperly driven fastener.

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Additional Rules to Follow

- *Use regulated, compressed air only.* Use only regulated compressed air and never exceed the maximum recommended air pressure. Ensure that the compressed air supplied to the tool is clean and dry. Dust, moisture, and corrosive fumes can damage a tool. An in-line regulator filter and lubricator increases tool life. Cleaning with compressed air is dangerous. You should not use the compressed air for cleaning.

- *Keep hands and feet away from the area being fastened.* All body parts should be kept at a 4" radius from the point of entry. Knots, splits, or the grain structure of the wood can cause the nail point to drift to one side or the other as it's driven, and pop out of the board virtually anywhere. When bounce-firing, don't let the rhythmic motion of the tool get ahead of your hands or feet.

- *Work surface considerations.* Don't squeeze the trigger unless the tool's workpiece contact is safety engaged against the work. Be careful to not drive fasteners too close to edges, and stay clear from knots. When working near edges, or trying to achieve precision placement, use guides and tools specifically designed for the application. Never shoot fasteners into the air for any reason.

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- *Disconnect the air supply before servicing the tool.* Before removing a jammed nail or servicing a nail gun, always disconnect it from the air supply. A tool that's been temporarily disabled by a jammed nail or other malfunction will be instantly awaiting your next command at the precise moment the jam or malfunction is fixed.

- *Never modify a tool.* If you alter the design of a tool, you could be creating an unknown hazard that could seriously injure you or someone around you. Qualified individual's who are authorized to do the work must conduct repairs to the tool. Altering any tool is dangerous.

- *Check the tool daily for proper operation.* Before using the tool, inspect it for proper operation. If you find something wrong, do not use the tool. Damaged or unsafe tools must be tagged or labeled as such and taken out of service. Identifying an unsafe tool will prevent it from being used by someone else. Daily tool maintenance will ensure proper operation of the tool.

- *Always keep tool pointed in a safe direction.* The tool should always be treated as if it is loaded. Never point the tool towards the direction of anyone and keep feet and hands away from the workpiece contact. And remember, always disconnect the air hose and remove all of the nails:
    1. When unattended.
    2. Before performing any maintenance or repair.
    3. Before cleaning a jam.
    4. Before moving the tool to a new location.

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Hearing Protection

Prolonged exposure to noise caused by normal operation of pneumatic equipment may lead to hearing disorders. OSHA regulates the maximum sound level to which an operator may be exposed. Hearing protection should be used by anyone operating pneumatic equipment that exceeds OSHA's permissible exposure limit for noise. OSHA's Occupational Noise Exposure standard can be found in 29 CFR 1926.52.

Eye, Face, Head and Foot Protection

Eye protection must be worn at all times when operating pneumatic tools. All others in the immediate area where an air tool is being used must also wear eye protection as well. Eye protectors must meet the following requirements:

- Meet the requirements of ANSI Z87.1.
- Be reasonably comfortable when worn under the designated condition.
- Fit snugly without interfering with the movements or vision of the wearer.
- Be durable.
- Be capable of being disinfected and cleaned.
- Be kept in good working condition.

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Protective helmets that meet the specifications contained in ANSI Z89.1 must protect employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects.

Protective footwear meeting the requirements of the ANSI Z41.1 must be worn at all times where hazards exist by anyone operating pneumatic tools.

Compressed Air Hose Safety

Working with compressed air can be dangerous. Follow these rules to ensure safe use of compressed air:

- Use the proper hose and fittings.
- Use hoses specifically designed to resist abrasion, cutting, crushing and failure from continuous flexing.
- Choose air-supply hoses that have a minimum working pressure of 150 psig or 150% of the maximum pressure produced in the system, whichever is higher.
- Check hoses regularly for cuts, bulges and abrasions. Tag and replace, if defective.
- Blow out the airline before connecting a tool. Hold hose firmly and blow away from yourself and others.
- Make sure that hose connections fit properly and are secure.
- Install pneumatic quick disconnects of a pressure-release type on the tool. Do not attach a female connector to the tool.

- Do not operate the tool at a pressure above the manufacturer's rating.
- Do not carry a pneumatic tool by its hose.
- Avoid creating trip hazards caused by hoses laid across walkways or curled underfoot.
- Do not use compressed air to blow debris or to clean dirt from clothes.

ISANTA Training Materials

Available from ISANTA are training materials for safety professionals, project managers, or foreman to use so as to better educate their workforce on the hazards associated with working with and around power fastening tools. These materials can be downloaded from ISANTA's website at www.isanta.org. A description of each of the training components and how they are to be used on the job is detailed in the following sections.

The training materials that are available from ISANTA are:

- Toolbox Talk for Powered Fastening Safety
- Power Fastening Tool User Guide
- PowerPoint® Presentation
- User Reference Card
- ISANTA Training Video

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Toolbox Talk for Power Fastening Safety

The toolbox talk available from ISANTA is a 15 – 20 minute discussion on the four work habits that are vital to the safe use of power nailers and staplers:

1. Choose a trigger system for your specific needs;
2. Keep your finger off the trigger when not working;
3. Wear safety glasses;
4. Always remember to read and understand all safety instructions.

This toolbox talk also comes with an explanation on how to prepare for and conduct a successful training session. A list of toolbox talk "don'ts" and preparation checklist is included. The toolbox talk comes complete with instructor information and attendee sign-in sheets for accurate safety training documentation.

To enhance the learning experience, combine the use of the toolbox talk with other training materials available from ISANTA, for example, show the ISANTA video or the PowerPoint® presentation. It is also recommended that during this toolbox talk you demonstrate the safe work habits using the actual tool in which the workers will be using.

Note: It is important that the "Toolbox Talk Attendee List" is attached to the "Discussion" part of the toolbox talk. This record of training should then be kept on file and made available for inspection.

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Power Fastening Tool User Guide

The user guide is a handout to compliment either the ISANTA video or PowerPoint® presentation. It is a seven-page pamphlet that educates workers as to the importance of safety and how it's an economic necessity and the right thing to do. The user guide captures images and quotes from the ISANTA video, thus marrying the two sets of training materials.

The overall message the user guide is trying to convey is that safety is the right thing to do, and a disregard to safety could result in legal consequences, higher insurance rates, and low worker moral. The four work habits that are vital to the safe use of power fastening tools are again discussed. Finally, the user guide ends with a two question "Quiz".

Question #1

What are four reasons for making the choice to work safely?

Answers to Question #1

1) Employers have legal responsibilities.
2) Insurance rates go up when accidents happen.
3) Accidents waste money.
4) Safety is the right thing to do.

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Question #2

What are the four vital work habits for power fastening tools?

Answers to Question #2

1) Choose a trigger system for your specific needs.
2) Keep your finger off the trigger.
3) Wear safety glasses.
4) Always remember to read and understand all safety instructions.

Acknowledgement of Training

At the bottom of the "Quiz" located on page 7 of the user guide is an "Acknowledgement of Training". This is to be signed and dated by the employee and then kept on file for proof that safety training has been administered.

PowerPoint® Presentation

The PowerPoint® presentation can be downloaded from ISANTA's website and then used to enhance the toolbox talk, user guide, video, or any combination of all the training materials. The presentation consists of a total of six (6) slides, which include course objectives, a discussion of why safety is important, the four vital work habits, and review. Images from the ISANTA Video are captured and used in the slides to maintain consistency throughout the presentation.

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User Reference Card

The user reference card can be downloaded from ISANTA's website, printed out and then cut to size. The reference card can then be folded up to fit in a pocket or wallet.

Basic Safety for Power Fastening Tools

Four Vital Work Habits:

1) Choose a trigger system for your specific needs.
2) Keep your finger off the trigger when not working.
3) Wear safety glasses.
4) Read and understand all safety instructions.

Do not point the tool toward yourself or anyone else.

Do not operate at a pressure above the manufacturers' rating.

Do not depress the trigger unless the nosepiece of the tool is directed onto a safe work surface.

Do not carry the tool by its air supply hose and/or while the trigger is depressed.

Do not overreach. Keep proper footing and balance.

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ISANTA ®

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Cut ✂ Fold Fold

ISANTA Training Video

This video is a dramatic look at power fastening tool safety. Real contractor testimonials are used to illustrate the importance of safety and that it's the right thing to do. The video also reinforces the four work habits that are vital to power fastening safety.

Total running time approximately 15 minutes.