Compressed Air is Dangerous

WHAT'S AT STAKE?

You're struggling to loosen over-tightened lug nuts while fixing a flat tire on a hot, dusty highway. At this moment, you would give anything to hear the high-pitched zing of an air wrench doing the job in seconds at the local tire shop.

But like practically anything else, compressed air can be misused, with painful and sometimes fatal results.

WHAT'S THE DANGER?

Take the case of a supply boat crewman who was fatally struck on the head by a flexible hose that shot onto the boat deck, propelled by a sudden release of compressed air. The accident happened following the transfer of bulk drilling chemicals. Not only had the hose been inadequately secured to prevent it from moving around, but the vent valves in the engine room had been opened in the wrong sequence, leading to the uncontrolled release of pressure.

Also contributing to the fatality was the fact that the crewman had reportedly ignored a warning to clear the area while venting was occurring.

Compressed air has also killed workers who have used it to blow dust from their clothing. Startling coworkers with compressed air in horseplay incidents has proved fatal. Death can easily occur when compressed air enters the bloodstream through broken skin or a body opening, causing an air bubble to block a blood vessel.

Workers have also been killed by excessive air pressure that causes pressurized containers to burst.

HOW TO PROTECT YOURSELF

To prevent incidents such as those mentioned here, it's important to check that air lines and equipment are connected properly and are fully operational before starting to use them.

Any leaks in air lines or joints should be repaired without delay and all hoses, nozzles and associated equipment must be kept in good operating condition.

No one should be using compressed air and air tools unless they have received appropriate training.

Here are four safety tips to remember about compressed air:

- Never use any more pressure than you need to perform a job.
- Never direct compressed air at yourself or any other worker, for any reason.
- Always disconnect a tool from compressed air when making adjustments or changing attachments.
- After you have finished using a tool, always turn off the air supply and bleed off the trap line pressure. Return the tool to its proper place.

CONCLUSION

Regular maintenance of compressors, receiving tanks, pipeline and valves by qualified personnel is very important for your safety.

TEST YOUR KNOWLEDGE

1. Horseplay involving compressed air is harmless fun.
    - True
    - False

2. If your clothing gets dusty, you should blast it with some compressed air.
    - True
    - False

3. Since everyone knows to look out for them, it's okay to run air hoses across the ground anywhere you need to.
    - True
    - False

4. You should always disconnect an air tool before adjusting or changing attachments.
    - True
    - False

5. Compressed air equipment should be inspected and maintained on a regular basis.
    - True
    - False

BEFORE THE TALK – PREPARATION TIPS

Refer to the "Tips For Safety Talks!" for ideas on planning this safety meeting. Read through the article ahead of time to help you with your presentation. Add further questions to those we have provided at the end of this talk.

1. Without the power of compressed air, not much would get done in this industry. Take an inventory of compressed air equipment in your work area, and go over it at the meeting.
2. Have you heard of any incidents involving horseplay with compressed air? Share the stories - and consequences - with your crew.
3. What's the regular inspection and maintenance schedule for your compressed air equipment?
4. How about air tools? Are they inspected before and after each use. Are these attachments stored carefully?
5. Compressed air hoses pose a danger to anyone who works around them. They are common tripping hazards, and out-of-control pressurized hoses can cause eye injuries, head injuries, fractures and other injuries.
6. Speaking of eye injuries, do your workers protect their eyes from possible debris blown around by compressed air?
7. Have you ever seen anyone on your crew using compressed air to clean their skin, clothing or work surfaces? Discuss safe alternatives.

AFTER THE TALK - *CHECKLIST*

The workers who obtained poor results in the questionnaire were followed up.
Name: _____
Date: _____

Observed workers
Task (s):

_____
_____
_____

Date: _____

Refresher training
Topic (s): _____
Date: _____
Others(describe): _____
Meeting Date: _____
Location: _____
Directed by: _____

NOTES

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Meeting material to go:

Safety meeting materials such as presentation tips, PowerPoint presentations, quiz answers and more are downloadable at www.SafetySmart.com

ANSWERS:

1. False
2. False
3. False
4. True
5. true