TOOL BOX TALK

POWDER-ACTUATED TOOLS

Powder-actuated tools are used frequently on many jobsites. These tools are designed to fire a cartridge propelling a fastener into concrete, steel and other surfaces. Powder-actuated tools are some of the safest tools in the construction industry. These tools are designed with safety in mind. However, you must remember that a power-actuated tool uses explosive charges to drive studs, nails and pins, just like bullets from a gun. Think of powder-actuated tools as loaded firearms.

OSHA's regulations allow only trained and certified employees to operate powder-actuated tools. There are several makes and models of these tools, and no two are exactly alike. Training and operator certification should be available from the supplier or manufacturer. If you haven't had the appropriate training don't use a powder-actuated tool.

Some of the hazards connected with this type of tool should be quite apparent to you. They include such things as accidental discharge, ricocheting fasteners, flying chips, explosions if used in combustible atmospheres and complete penetration of the work material by the fastener.

Operators need to wear proper personal protective equipment, including approved safety goggles. A hard hat and hearing protection are also recommended. Never point a powder-actuated tool toward anyone. Prior to firing the tool, make sure you know what you are firing into, that no one is on the other side, and that the area is clear. Insert the firing cartridge when you are ready to fire. Tools should never be loaded until immediately before use. In case of a misfire, the tool should be held against the work surface for at least 30 seconds, then try firing again. If the tool misfires a second time, wait another 30 seconds holding it against the work surface; and then remove the cartridge and inspect the tool. Never leave a powder-actuated tool unattended.

Here's a safety checklist:

- ✓ Always keep powder-actuated tools, fasteners and charges in a safe place when they are not in use.
- ✓ Inspect the tool before use to ensure it is clean, all moving parts operate freely and the barrel is not obstructed.
- ✓ Wear appropriate safety equipment including eye protection, hearing protection and head protection.
- ✓ Check the manufacturer's recommendations for disposal instructions in case of a misfire.
- ✓ Powder-actuated tools should not be used on materials that are easily penetrated.
- ✓ Don't fire fasteners into cast iron, high carbon or tempered steel, armor plate, rock, glazed brick, tile or glass.
- ✓ Using a charge that is too strong could shoot the fastener completely through the workpiece.
- ✓ Never try to release a loaded tool that has jammed in the firing position.
- ✓ Hold the tool perpendicular to the work surface.
- ✓ Never point a powder-actuated tool at others whether it is loaded or not.
- ✓ Loaded tools should not be left unattended.

- ✓ All powder-actuated tools must be tested daily and all defects must be corrected.
- ✓ Follow the manufacturer's instructions for maintenance, inspection and cleaning.
- ✓ Never place your hand over the muzzle of a powder-actuated tool.

After use, make sure to clean and lubricate the tool according to the manufacturer's specifications, and then store it properly. If you have any questions about operating a powder-actuated tool, check with your supervisor or contact the tool manufacturer's representative. Never by-pass safety devices on powder-actuated tools, and always dispose of spent cartridges properly.

Like all tools, if you abuse powder-actuated tools or take chances using them, someone is likely to be hurt. Powder-actuated tools save a great deal of time and work, but they can also be very dangerous. Even though you may be certified to use them, take a few minutes to review the operator's manual, then make sure you really understand it.

For more information about powder-actuated tools check the manufacturer's documentation and OSHA standard 1926.302(e).

When the job calls for a powder-actuated tool, be sure you select the correct cartridge for the fastener you are using.