How to Properly Wear and Maintain Your Hard Hat

Far too often it is identified in the construction and general industry that workers exposed to head injuries lack the basic knowledge of the importance of wear, care, and inspection of their ANSI Z89.1 approved hard hat. Most employees wear their PPE because it is a requirement by their employer, though, without ill intent, fail to understand the fundamental aspect of the core reasons why it's vital to their safety while performing their job tasks in the field.

Hard hats are a vital piece of personal protective equipment (PPE); however, the importance of hard hats and understanding which one is appropriate for the task at hand is typically below standard for many. In many cases it is quite common for employees to remove them due to heat, discomfort, or most dangerously, complacency, but by doing so it puts them in unsafe circumstances and at unnecessary risk of head injury. The most common question that arises is "Do Hard Hats Save Lives?" and the answer to that question is YES! Hard hats are worn in workplaces to protect the head from flying objects, collision impact, debris, and shock among other hazards.

As one of the most resilient types of personal protective equipment, hard hats are proven means of saving lives in the workplace. Simple hard hat use can prevent most traumatic brain injuries, concussions, skull fractures, and other head injuries that can permanently negatively impact or end the life of a worker. Hard hats consist of two parts – the shell and the suspension. Both must be in good working condition to ensure proper head protection. A visual inspection of your Hard Hat is essential to ensure it is safe for use.

Let's review how to properly choose a hard hat for your job and perform an inspection:

"KNOW WHAT TO LOOK FOR"

ANSI Z89.1-1997 standard identifies the following are the three classes of hard hats which are customized to protect workers from a variety of hazards including electrical shocks.

Class C (Conductive) Helmets: These are conductive hard hats and minimize the impact of falling objects but offer no protection against electrical exposure.

Class G (General) Helmets: These helmets are manufactured to reduce the impact of falling objects and exposure to low-voltage electrical conductors. Sample hard hats under this category are proof-tested at 2200 volts of electrical charge.

Class E (Electrical) Helmets: Called electrical helmets, these are also intended to lessen the impact of falling objects; however, they reduce the danger of exposure to high-voltage electrical conductors. Hard hats under this category receive certification only after they pass the test at 20,000 volts of electrical charge.

The following are focal points workers should ensure they verify before each use of their Hard Hat

• Look for physical damage caused by impacts, penetrations, abrasions, or rough treatment such as dents, nicks, cracks, tears, cuts, gouges, or holes.

Damaged hard hats unsafe for use



 Look for brittleness, dullness, flaking, discoloration, chalkiness, fading, or anything else that appears out of the norm, indicating degradation caused by excessive exposure to the sun, chemicals, or temperature extremes. A crazing pattern, or network of fine cracks, is another serious concern. Outdoor workers who rely on hard hats in high-visibility colors to be spotted by colleagues or oncoming motorists should especially monitor signs of fading.

Hard hats exposed to chemicals causing discoloration and brittleness



- Look for frays, tears, cuts, or damaged stitching in suspension straps. Cracks, tears, or loss of pliability throughout the system.
- Make sure all keys in the suspension system fit tightly in their slots. Give a gentle tug to ensure the suspension is securely attached to the shell.

Where to look for keys and slots to attach suspension system



 Verify printed dates on shells and suspensions that have exceeded the maximum life specified by the manufacturer. Depending on the manufacturer, the recommended replacement period is calculated from the day of first use or the date of manufacture.



- Look for stretched out or worn headbands that no longer fit well or comfortably.
- If wearing a hard hat with a chin strap- Look for missing pieces, wear, or damage to a chin strap or its plastic clips. Tug lightly on the chin strap clasps after clipping them together to make sure they don't pull apart.
- Use both hands to squeeze your hard hat's shell inward from the sides about 1." Release pressure but don't
 drop the shell. Repeat the test on a new hard hat and compare its elasticity with your hard hat. If your hard
 hat's shell mimics the new shell and bounces back to its original shape quickly with no residual deformation,
 your equipment is in good condition. If your hard hat does not exhibit similar elasticity to the new shell or
 cracks because of brittleness, it must be replaced immediately.

• ANSI Z89.1 (A5) instructs that any hard hat with worn, damaged, or defective parts must be immediately removed from service. A hard hat resists penetration and absorbs the shock of a blow. The shell is fabricated of a material hard enough to resist an impact while the shock-absorbing lining headband and crown strap keeps the shell away from the worker's head. Never use abrasives, solvents, or harsh detergents on tar, sap, and other materials that aren't removed by soap and water. Chemicals can weaken your hard hat's shell and suspension. Instead, replacing components with dirt and stains that can't be easily cleaned is recommended. It's also important that you don't carry or wear anything inside your hard hat, apart from winter liners specifically designed, approved, and properly used for that purpose. Donning a ball cap under your head protection or using the space as an extra pocket consumes the clearance between the head and shell that enables the suspension system to work correctly.

Now that you've taken the time to educate yourself on proper wear and use of hard hats, know that it is a personal decision for many to choose safety every day. After all, your family depends on YOU to make good safety-conscious decisions.