Volume 4 – Issue 29 July 16th, 2017

Head Protection

Hardhats are commonly used in many types of workplaces to protect employees from head trauma caused by falling objects, striking one's head against an object, or electrical hazards. The hard hat is a piece of personal protective equipment designed to individually protect an employee when all other methods of protection cannot. Often, its use has been required on many work sites since all hazards cannot be eliminated.

Most head injuries are caused by flying or falling objects, or by bumping your head against something. Hard hats must resist penetration, absorb the shock of a blow, and provide protection against electrical shock. The prevention of head injuries is an important factor in every safety program. Controlling the hazards that lead to head injuries are usually difficult to anticipate, so hard hats must be used to eliminate these risks.

A recent Bureau of Labor Statistics survey showed that most workers who suffered impact injuries to the head were performing their normal jobs, at their regular work-sites, but were not wearing head protection. Most of those injured were not required to wear a hard hat.

Federal OSHA regulations state:

Helmets for the protection of employees against impact and penetration of falling and flying objects shall meet the specifications contained in the ANSI/ISEA Z89.1 Safety Requirements for Head Protection.

Employees must ensure that they wear head protection if any of the following apply:

- Objects might fall from above and strike them on the head.
- They might strike their head against fixed objects.
- There is a possibility of accidental head contact with electrical hazards.

Hard hat types:

Type I - Hard hats are intended to reduce the force of impact resulting from a blow only to the top of the head. This form of impact, for example, may result from a hammer or nail gun falling from above.

Type II - Hard hats are intended to reduce the force of lateral impact resulting from a blow that may be received off-center, from the side, or to the top of the head.

Hard hat classes:

Class C – Conductive hard hats differ from their counterparts in that they are not intended to provide protection against contact with electrical conductors. On the contrary, Class C hard hats may include vented options, which not only protect the wearer from impact, but also provide



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increased breathability through their conductive material (such as aluminum) or added ventilation.

Class E - Electrical hard hats are designed to reduce exposure to high voltage conductors, and offer dielectric protection up to 20,000 volts (phase to ground). This amount of voltage protection, however, is designated to the head only and is not an indication of voltage protection allocated to the user as a whole. Class E hard hats may also be considered to have a Class G (General) rating, as their increased level of voltage protection surpasses the (lower) required standards of the Class G testing procedure.

Class G - General hard hats are designed to reduce exposure to low voltage conductors and offer dielectric protection up to 2,200 volts (phase to ground). As is the case with Class E hard hats, this amount of voltage protection is designated to the head only and does not account for voltage protection allocated to the user as a whole.

Markings:

According to the ANSI/ISEA standard, hard hats must also contain user information such as instructions pertaining to sizing, care, and service life guidelines. Every hard hat conforming to the requirements of ANSI Z89.1-2014 must be appropriately marked to verify its compliance. The manufacturer's name or identifying mark must be marked inside the hard hat, as well as:

- Date of Manufacture;
- The legend, "ANSI Z89.1-2014;"
- The Type and Class Designation; and
- The approximate head size range.

Hard hat tips:

- 1. Never drill ventilation holes in a hard hat.
- 2. Do not alter the shell or suspension in any way.
- 3. Do not wear or carry anything in between the shell and the suspension of your hard hat.
- 4. Only use a suspension that is made specifically for the shell. Hard hats should never be worn on top of everyday hats or caps (with the exception of winter liners made specifically for the hat) since they interfere with or eliminate the shock absorbing effect of the suspension.
- 5. Hard hats should be replaced every five years (check manufactures recommendations). Hard hats exposed to heat or ultraviolet light may need to be replaced every two years. Never store a hard hat in the back window of a vehicle or other place where it is exposed to ultraviolet light.
- 6. Keep coverage with stickers to a minimum so the hard hat can still be seen and inspected.



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- 7. Hard hats can only be worn backwards if the manufacturer states explicitly that the hat has been tested and passed in that manner, and that the suspension is positioned as required by that test.
 - o Hard hats marked with a "reverse donning arrow" can be worn frontward or backward in accordance with the manufacturer's wearing instructions. They pass all hard hat testing requirements, whether worn frontward or backward.
- 8. If a hard hat has been dropped more than 8 to 10 feet or has been struck forcibly, it should be replaced immediately.

Inspection:

Inspect hard hats to maintain their protective ability. Inspect your hat daily for cracks or dents. Replace a headband that's stretched or worn, the whole hat if the outer shell is cracked, broken or punctured, or if it has taken a heavy blow, whether it shows visible damage or not.

Summary:

Make sure your protective head gear is appropriate for the risks you may encounter on the job. Your hard hat should fit properly, and be cleaned, maintained, and inspected regularly. If for any reason you suspect the safety values of your hard hat were compromised in any way, replace it immediately. Avoid the risk of a head injury; your hard hat does you no good if it is not worn.

Falling objects can be brutal if you don't protect your noodle!!



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Safety Meeting Sign-In Sheet

Supervisor:	Subject:
Location:	Date:
Conducted By:	Trainer Signature:

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests

