



A DIVISION OF WESCO DISTRIBUTION, INC.

Head Protection Ready Reference

Updated 10/2018

1. [The Law](#)
2. [The Essentials](#)
3. [Don't Forget](#)

1. The Law

A. OSHA requires the use of ANSI compliant head protection when...

[1910.135](#) or [1915.155](#)

...working in areas where there is a potential for injury to the head from falling objects.

The employer shall ensure that a protective helmet designed to reduce electrical shock hazard is worn by each such affected employee when near exposed electrical conductors which could contact the head.

[1926.100](#)

...working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns, shall be protected by protective helmets.

B. All current OSHA standards refer to ANSI Z89.1-2009 for product specifications, testing, and labeling. The most recent ANSI standard is Z89.1-2014.

Hard Hat Types

- Type I are intended to reduce the force of impact resulting from a blow only to the top of the head.
- Type II are intended to reduce the force of lateral impact resulting from a blow which may be received off-center, from the side, or to the top of the head. Type II hard hats are lined on the inside with a thick high density foam.

Electrical Classes

- Class E hard hats (Electrical) are tested to withstand 20,000 volts (formerly Class B).
- Class G hard hats (General) are tested to withstand 2,200 volts (formerly Class A).
- Class C hard hats (Conductive) not intended to provide electrical protection.

To identify the type and class of hard hat, refer to the ANSI label on the inside of the shell.

NOTE: Vented hard hats would never be allowed a Class E (electrical) rating.

C. The old standards are ANSI Z89.1-1997 and ANSI Z89.1-1986.

- Customers should look at date code on the brim to verify age of a hard hat.
- Most manufacturers suggest shell replacement after 5 years (1 year for suspension).

2. The Essentials

A. When Should a Hard Hat Shell Be Replaced?

Many hard hat manufacturers allow up to 5 years of use once a hard hat is put into service. However, regular inspection will be the determining factor if the hard hat should be replaced. Here are some signs that the shell should be replaced:

- Cracks, nicks, dents, or gouges to shell.
- Stiffness or brittleness. Hold the hard hat in both hands and compress the shell from the sides, approximately 1", and then release pressure, being careful not to drop the hard hat. The shell should return to its original shape immediately. It may be necessary to compare the used hard hat to a new one. If the hard hat does not return to its original shape quickly or if it exhibits cracking, then replace the hard hat IMMEDIATELY.
- Fading, dull color, or a chalky appearance.

If exposed to high levels of sunlight, replace more frequently.

A hard hat's service life starts when it is placed in service. This date should be recorded in the helmet, either on the ANSI label or with the use of a date of service label. The "date code" stamped on the inside of your hard hat refers to the date of manufacture, not the starting date for useful service.

Hard hats should never be painted. It is permissible to use pressure-sensitive stickers or tape with self-adhesive backing; refer to the owner's manual for details.

B. When Should a Suspension Be Replaced?

Most manufacturers indicate annually. Here are some signs that the suspension should be replaced:

- Cracks, tears or loss of pliability
- Frayed or cut straps
- If not attached to the shell or slots properly
- Replace only with the **same brand**

C. What is the Difference Between a Ratchet and Pinlock Suspension?

Different vendors sometimes have different names for the following:

- Ratchet suspensions feature a small knob that can be turned to adjust quickly.
- Pinlock suspensions feature pins and holes like a baseball cap, more economical.

- One-touch suspension adjusts by squeezing and sliding the suspension to best fit. Can quickly be adjusted with one hand.
- Swing Ratchet Suspension use a reversible ratchet.

This depends on the manufacturer of your hard hat. If the suspension attachment points on your hard hat are the same from front to back, the suspension can be reversed and the cap worn with the brim facing the rear and still meet the requirements of the applicable protective headwear standard. Be sure that the suspension has been reversed so that the nape strap is in the rear. Many hard hat manufacturers now offer swing-style suspensions that allow you to quickly reverse the direction of your hard hat.

D. What is the Difference Between a 4-Point, 6-Point, and 8-Point Suspension?

The more points of attachment to the shell, the more the impact force is spread out. Therefore, an 8-point suspension will absorb the most impact force. A 4-point suspension is normally less expensive than a 6 or 8-point.

E. What is the Difference Between [Hard Hats and a Bump Caps](#)?

Hard hats are OSHA-required, ANSI-compliant head protection. Bump caps are not. Bump caps are more lightweight than hard hats, making them more comfortable and proving to be less stressful on the neck, head, and back of the user. Bump caps are also well ventilated, providing more air flow than hard hats do.

Hard hats offer more protection than bump caps. They have an outer shell that is hard and durable to deflect potential head blows. Inside, hard hats have a suspension that is shock absorbing. Also, some hard hats can provide protection from electric shocks (Class E and G).

Bump caps are ideal in situations where it is not required to wear a hard hat, but injury could still occur. They are often used in warehouses and food processing plants.

3. Product Reference

- A. Replacement Suspensions – Most require annual replacement
- B. Winter Liners – Based on the season
- C. Sweat Bands – As environmental conditions dictate
- D. Faceshields – Attach by slots or band
- E. Heat Stress Items – As environmental conditions dictate
- F. Traffic Safety Vests
- G. Safety Glasses

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