

## 12 HEAD PROTECTION

Requirements for head protection are specified in section 22 of the Construction Projects regulation (O. Reg. 213/91).

Under this regulation, hard hats are mandatory for every worker at all times on a construction project in Ontario. The hard hat must protect the wearer's head against impact and against small flying or falling objects. It must be able to withstand an electrical contact equal to 20,000 volts phase-to-ground.

### Standards

Hard hats that meet the minimum criteria established by the Canadian Standards Association (CSA) and the American National Standards (ANSI) are:

#### CSA

- Z94.1-05: Class E, Type 1
- Z94.1-05: Class E, Type 2 (Note: CSA Type 2 is recommended for construction work because it provides extra protection against side impact.)
- Z94.1-1992: Class E

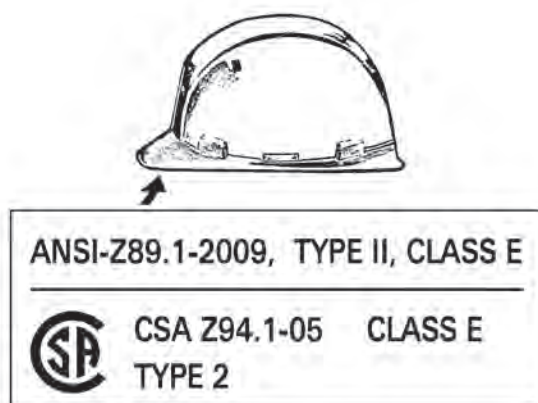
#### ANSI

- ANSI Z89.1-2009: Class E, Type I
- ANSI Z89.1-2009: Class E, Type II
- ANSI Z89.1-2003: Class E, Type I
- ANSI Z89.1-2003: Class E, Type II

### Labels and Markings

The "Type" and "Class" of hard hat can be identified by the CSA or ANSI label. Some manufacturers also stamp the CSA or ANSI classification into the shell of the hard hat under the brim (Figure 12-1). Hard hats that comply with the CSA and ANSI standards must contain other information marked inside the hard hat such as:

**Figure 12-1: Type 2 Class E Hard Hat**



- manufacturer's identity
- model
- class and type (e.g. Class E, Type 2)
- reverse orientation mark if applicable
- year and month of manufacture
- size or size range
- the following wording,  
*This protective headwear is designed to absorb some of the energy of a blow through destruction of its component parts and, even though damage may not be apparent, any partial protective headwear subjected to severe impact should be replaced.*

*This protective headwear must not be painted or cleaned with solvents. Any decals applied to the protective headwear must be compatible with the surface material and known not to affect adversely the characteristics of the materials used in the protective headwear.*

*Any addition or structural modification may reduce the protective properties afforded by this protective headwear.*

### Styles

Class E hard hats come in three basic styles:

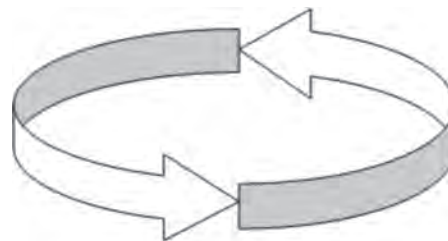
- 1) Standard design with a front brim, rain gutter, and attachment points for accessories such as hearing protection
- 2) Standard design with a front brim and attachment points for accessories, but without a rain gutter
- 3) Full-brim design with attachment points for accessories and a brim that extends completely around the hat for greater protection from the sun.

### Reversible Hard Hats

You should normally wear your hard hat facing forward. A hard hat should be worn in reverse only if

- 1) The hard hat has a reverse orientation mark (Figure 12-2).
- 2) The job, task, or work environment necessitates wearing it backward (e.g., when wearing a face shield or welding helmet).

**Figure 12-2: Reverse Orientation Mark**



## Use and Care

Always consult the manufacturer's instructions for use and care instructions of your hard hat. You may also need to know which components of the hard hat must be inspected before each use.

- Inspect the shell, suspension, and liner every day before you use it. Look for cracks, dents, cuts, or gouges.
- If a hard hat is struck by an object, do not keep using it.
- Don't store your hard hat in direct sunlight—it will age quicker and can become brittle.
- Clean the shell, suspension, and liner regularly with mild soap and water.
- Never alter your hard hat by painting it, making holes in it, etc.
- Don't carry things inside your hard hat.
- Don't wear a baseball cap under your hard hat.
- Check the service life of your hard hat by contacting the manufacturer or reading the manufacturer's instructions.