THE DIFFERENCE BETWEEN HARD HATS AND BUMP CAPS

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1. CONTENTS

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RECORD OF AMENDMENTS

Version	Date Issued	Summary of Changes
Version 1.0 DRAFT	23/1/2018	Draft Issue

2. BACKGROUND

To ensure there is no confusion within New Zealand Workplaces around the difference between workers wearing "Bump Caps" or "Hard Hats" when choosing the correct solution for crane work.

This document is to provide information on the differences between these two forms of PPE to allow PCBUs and Workers to make an informed decision based on the facts.

HSW REGULATIONS

Under the HSW Regulations 2016, an employer has responsibilities that are outlined in regulation 17.

17 Other duties of PCBU relating to personal protective equipment

(1) a PCBU must ensure that any personal protective equipment provided by the PCBU, or that is provided by the worker, is

(a) Selected to minimise risks to health and safety, including by ensuring that the equipment is –
  (i) Suitable, having regard to the nature of the work and any hazard associated with the work; and
  (ii) A suitable size and fit and reasonably comfortable for the worker who is to wear or us it; …….

AS/NZS 1801

AS/NZS 1801 refers only to occupational protective helmets and bump caps are not mentioned within the Standard.

In both AS, AS/NZS and international standards the hard hat is referred to as an industrial helmet.

3. DEFINITION

Wikipedia describes both as follows:

HARD HAT

A **hard hat** is a type of helmet predominantly used in workplace environments such as industrial or construction sites to protect the head from injury due to falling objects, impact with other objects, debris, rain, and electric shock. Suspension bands inside the helmet spreads the helmet's weight and the force of any impact over the top of the head. A suspension band also provides space of approximately 30 mm (1.2 inch) between the helmet's shell and the wearer's head, so that if an object strikes the shell, the impact is less likely to be transmitted directly to the skull. Some helmet shells have a mid-line reinforcement ridge to improve impact resistance. The rock climbing helmet fulfills a very similar role in a different context and has a very similar design.

BUMP CAP

A **bump cap** is a lightweight hard hat using a simplified suspension or padding and a chin strap. Bump caps are used where there is a possibility of scraping or bumping one's head on equipment or structure projections, but are not sufficient to absorb large impacts, such as that from a tool dropped from several stories.

4. DIFFERENCES

Both types of hat undergo rigid testing to determine they are fit for purpose.

HARD HAT

The hard hat is intended to protect a static user from predominantly falling hazards and is tested using a falling mass striker. The striker has a hemispherical surface that is 5kg and is dropped onto the hard hat from 1 metre. The force is measured by a loadcell under a head-form and is recorded onto a graph. To meet the requirements of EN397, the maximum transmitted force cannot exceed 5kN (MSA, 2018). Hard Hats are required by EN397 to have chin strap anchorage. (Health and Safety Executive, 2013)

BUMP CAP

The bump cap is intended to only to protect the wearer from static objects (e.g. walking into low ceilings or hanging obstructions) (Scott Safety, 2108). To meet the requirements of BS/EN 812, testing is carried out using a lower energy level – a 5kg striker is dropped on the helmet from 250mm, with a maximum trasmitted force of 15kN (Health and Safety Executive, 2013).

TESTING

Both types are tested for

- Impact and shock absorption; and
- Penetration

Both types must meet specific design requirements which typically would be:

- Coverage;
- Field of vision; and
- Ergonomics – clearance between the head and the shell.

FURTHER READING

You can view further information at;

http://blog.xamax.co.uk/bump-caps-vs-hard-hats-which-is-best

https://www.youtube.com/watch?v=5g6-jzKv1-U

5. SUMMARY

In summary, the **bump cap** is designed to protect the wearer from static objects and not from falling objects.

Workers **working with cranes** have the potential to be struck by falling objects and therefore should wear an industrial helmet (**hard hat**) when on a site to fulfil the requirements of the HSW Act.

The Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 stipulates that;

a PCBU must ensure that the PPE provided by the PCBU or employee is, selected to minimise risks to health and safety, including by ensuring that the equipment is suitable, having regard to the nature of the work and any hazard associated with the work.

6. REFERENCES

Health and Safety Executive. (2013, January 8). Appendix 1 - European Standards and Marking for Head Protection. London, United Kingdom.

MSA. (2018, January 23). Industrial Helmets according to EN397. London, United Kingdom.

Scott Safety. (2108, January 23). *Technical Data Sheet Pump Protection Hat.* Retrieved from www.scottsafety.com: https://www.scottsafety.com/en/anz/DocumentandMedia1/Scott%20Safety%20First%20Base%20Bump%20Cap%20Tech%20Sheet%20ANZ.pdf