
Is your

A BRITISH COMPANY DEDICATED TO RIDER SAFETY, CHAMPION HAS BEEN AT THE FOREFRONT OF RESEARCH AND DEVELOPMENT IN PROTECTIVE RIDING WEAR FOR OVER THREE DECADES. WE SPOKE TO TONY PALKOWSKI, DESIGN ENGINEER AT CHAMPION MANUFACTURING, ABOUT SAFETY STANDARDS, TESTING AND MODERN RIDING HAT DESIGN.

You have probably seen either video footage or pictures of Oliver Townend's horrific fall at Rolex Kentucky back in 2010 and we are all so thankful that Oliver did not suffer more serious injury. Without doubt, such footage reminds us all about the important part that our safety gear plays in helping to protect us in the event of a fall from a horse, as we all know that riding is a risky sport. And while every hat manufacturer would recommend that a hat be replaced after a fall, Oliver's fall at Kentucky should also remind us that even though a hat may look fine on the outside, it may have suffered severe damage, which is not always evident at first glance.

Oliver sent the Champion Ventair helmet that he was wearing at Kentucky back to the Champion factory in Cardiff, so that their technical experts could evaluate the extent of the damage. While the internal damage was described as 'extensive', on the outside the only evidence of damage to the helmet is a slight scuff mark. When the hat was stripped apart however, the shock absorbing polystyrene liner of Oliver's damaged helmet was shown to have been crushed at the front left side down to 11mm, while the pictures taken of the stripped helmet also clearly show a crack on the opposite side where the liner has been crushed to 17mm. A new undamaged liner is approx 21mm at these points, a difference of up to 10mm. Further examination of the helmet also showed a large indent in the rear left lower side of the liner, which technical experts believe was made by the impact with the

hat still safe?

"NEVER BUY A SECOND HAND HAT, the hat could have been involved in an accident or have been dropped and you would never know from the external appearance, not even a tiny scratch or scrape may be visible. The same could be said of buying safety items and having them posted to you – packages do get thrown around and dropped don't they! If you have a fall, get kicked on your head, or hit a fence, in fact any trauma that involves your head – always replace your hat." - Alan's Ark
www.alansarkcambridgeshire.co.uk



BONNIE FISHBURN'S LUCKY ESCAPE:

Bonnie Fishburn is an amateur event rider who competes from British Eventing BE90 up to Intermediate and International two* level. Bonnie had a horrible rotational fall cross country at Cholmondeley Castle in July of this year where her horse *San Francisco II* landed on top of her and Bonnie received a serious head injury, sustaining a fractured skull and bruising on her brain. After her fall, Bonnie sent the Champion Ventair helmet that she had been wearing back to Champion for analysis. When Tony took the helmet apart, the impact it sustained was quite evident. "The shock absorbing polystyrene liner of Bonnie's helmet had been reduced from 20mm to 15mm in thickness and had become soft at the bottom edge where it had been crushed by the impact on the inside and outside. This is exactly what the internal structures of the hats are supposed to do – absorb the impact in the event of a fall and in so doing protect the rider's head from more serious injury."

Bonnie commented, "It appeared from where the mud was on my helmet that I must have landed face first and slightly to the left, which would be the reason that I had bruising to the front of my brain on the left hand side. Looking at the surface of the helmet, you couldn't really tell I'd had a fall as the shell had not been damaged, so when the report came back from Champion on the severity of the internal damage, I realised just how lucky I was. My injuries could have been far worse and I think the results prove just how important it is to be wearing a good hat while riding, because the impact your head can receive in a heavy fall is huge. I'm so glad I was wearing my Champion Ventair."



With several different standards of riding hat available, the most important current standards to be aware of are BS EN 1384, PAS 015 and Snell E2001, with PAS 015 and Snell E2001 providing a higher level of protection than that provided by BS EN 1384. Many hat manufacturers also submit their products for further testing by the British Standards Institute, where the tried and trusted Kitemark is awarded. What this means is that a Kitemarked riding hat offers additional safety reassurance as it is tested on a continual basis, with every batch produced passing through the BSI's rigorous testing system for each of the four main areas of testing: penetration, shock absorption, harness strength and stability. Many riding organisations, such as British Eventing and the Pony Club, require that riders wear hats that carry the BSI Kitemark, so this is important to look out for when buying a new hat.

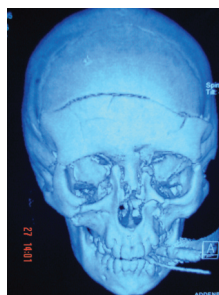
log, with measurements showing the liner had been crushed at this point to 13mm, which compares again to the 21mm thickness of a new liner.

No one can dispute the fact that Oliver's fall at Kentucky was horrific and that his helmet should undoubtedly be replaced. What Champion's technical examination makes clear, however, is the fact that you should not rely on the outward appearance of a helmet to assume it's in good condition. In Oliver's case, although his helmet looked almost perfect after the fall, it was clear from structural analysis that it had done its job well – a job which was to absorb impact to help protect him from a more severe injury. As Oliver's case clearly demonstrates, it's not always obvious when your hat should be replaced. Therefore, if your hat has suffered a severe impact, even if this is having been dropped off the top tack room shelf, Champion recommends that it should be thrown away and replaced, even if there is no outward sign of damage. After all, it's easy to replace your hat.

Horses are unpredictable animals and whatever your discipline and the activities you undertake with your horse, it's crucially important to always wear an up to standard riding hat. If you're not certain which standard or model is right for you, talk to your local retailer who will have trained hat fitters on hand to help you choose the best one for you,



Ark Equestrian



Kelly-Ann Challinor had a horrendous riding accident in 2005. She suffered multiple small skull fractures and one large one right across the front of her forehead, all the fractures were below the hat line. Kelly-Ann's mother Carol commented at the time, the surgeon said the hat prevented the force and weight of the horse from crushing her brain.

This scan image demonstrates how vitally important it is that any safety wear you purchase meets all the current safety standards and fits correctly, and emphasises the importance of buying your safety wear from a reputable retailer, who is a qualified and experienced hat fitter.

At Alan's Ark we stock a variety of manufacturer hats in various styles – each style fits differently; for example your head may measure 58cms, however it could be an oval shaped 58cms or a round shaped 58cms, that's where an experienced fitter can advise, they will endeavour to fit the right size and more importantly the right shape to your head.

Recently, Kelly-Ann was in shopping (pictured right) for a new riding hat, her second hat since the accident. As you can see she is fit and well, and looking at her now you would never know!



Buy Your Safety Wear With Confidence
BETA Trained Fitters

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