

Road Collision Investigation Project

Safety Advice Notice SWMB07: Motorcycle Helmets and Safety Standards

Issued: 16 April 2021

1.0 Safety issue

Ease of consumer access to sub-standard crash helmets that do not comply with safety regulations or legal requirements.

2.0 Safety advice

The Office for Product Safety and Standards is encouraged to evaluate and address the availability of sub-standard crash helmets to UK consumers.

3.0 Issued to:

- The Office for Product Safety and Standards

4.0 Background

4.1 Project background

The Road Collision Investigation Project (RCIP) is funded by the Department for Transport and coordinated by the RAC Foundation. The project seeks to establish whether there is a business case for putting more resource into the investigation of road crashes, based on a comparison with the approach to crash investigation used for other modes (Rail, Air and Sea) and safety critical industries (Oil & Gas) which suggests there could be a critical gap in the feedback cycle from the investigation of individual incidents through to the development of policies and strategies to reduce the incidence of crashes and mitigate the severity of those still happening.

[RAC Foundation - Road Collision Investigation Project \(RCIP\)](#)

4.2 Safety issue background

Crash helmets are a proven safety measure, credited with reducing rider fatalities by 40% and head injuries by 60%. In countries with high helmet usage, for every rider fatality almost 60 are injured including 15 who are hospitalised¹.

An in-depth investigation of a motorcycle collision conducted by the Road Collision Investigation Project has identified the following area of concern.

Helmets which do not comply with safety standard BSI 6658:1985 or UNECE 22.05 are available for sale in the UK via online sales platforms. Some fraudulently claim to comply with UNECE 22:05.

5.0 Legislation

5.1 Legislation and safety regulations

[Section 16 of the Road Traffic Act 1988](#) allows the Secretary of State for Transport to make regulations requiring persons driving or riding (otherwise than in sidecars) on motor cycles to wear protective headgear. The relevant regulations are [The Motor Cycles \(Protective Helmets\) Regulations 1998](#).

Regulation 4 sets the requirements to wear a crash helmet.

4(1) Save as provided in paragraph (2) [mowing machines] and (2A) [pushed or electric scooters] every person driving or riding (otherwise than in a side-car) on a motor bicycle when on a road shall wear protective headgear.

protective headgear means a helmet which –

(a) either –

(i) bears a marking applied by its manufacturer indicating compliance with the specifications contained in one of the British Standards (whether or not as modified by any amendment) mentioned in Schedule 2 to these Regulations; or

(ii) is of a type manufactured for use by persons on motor cycles which by virtue of its shape, material and construction could reasonably be expected to afford to the wearer a degree of protection from accidental injury similar to or greater than that provided by a helmet of a type prescribed by regulation 5;

*(b) if worn with a chin cup attached to or held in position by a strap, is provided with an additional strap (to be fastened under the wearer's jaw) for securing the helmet to the head;
And*

(c) is securely fastened to the head by means of straps provided for that purpose;

Regulation 5 prescribes types of recommended helmets.

5(1) The types of helmet hereby prescribed as types of helmet recommended as affording protection to persons on or in motor cycles from injury in the event of an accident are helmets which as regards their shape, construction and other qualities conform –

(a) with British Standard 6658: 1985 as amended by Amendment Slip number 1 published on 28th February 1986 and are marked with the number of that standard,

(b) with any other standard accepted by an EEA State which offers in use equivalent levels of safety, suitability and fitness for purpose and are marked with a mark to indicate that standard,

and in each case are marked with an approved certification mark of an approved body (whether or not they are required to be so marked by the standard in point), or

(c) with ECE Regulation 22.05 including the approval, marking and conformity of production requirements of that Regulation.

[Section 17 of the Road Traffic Act 1988](#) creates an offence of selling a crash helmet that is not of the type prescribed as recommended (by Regulation 5) if it is sold as a crash helmet to

afford such protection. Schedule 1 to the act defines that a person is guilty of this offence if he sells a helmet as affording such protection unless it is sold for export from Great Britain.

5.1.1 Summary of legislation and safety regulations

5.2 Summary of relevant legislation

Legislation requires a rider to wear a crash helmet that complies with one of several BSI crash helmet standards or a crash helmet that could reasonably be expected to provide protection similar to a crash helmet that reaches one of the below standards.

British Standard BS 6658:1985 and carry the BSI Kitemark;

UNECE Regulation 22.05; or

a European Economic Area member standard offering at least the same safety and protection as BS 6658:1985 and carry a mark equivalent to the BSI Kitemark.

Legislation prevents the sale of a crash helmet that does not meet the standards prescribed if offered for sale as a helmet which does meet the standard prescribed.

[UNECE Regulation 22.05](#) (para 5.1.9) requires all approved helmets to have an identification label sewn into their retention system (chin strap).

6.0 Supporting evidence


The RCIP investigated a fatal collision involving a rider who was wearing a sub-standard crash helmet that did not comply with relevant safety standards. The sub-standard helmet was recorded by the RCIP as a causal factor in the rider's death.

To understand ease of consumer access to sub-standard helmets, the RCIP researched the sales platform Amazon. It should be noted that sub-standard helmets are also available on other sales platforms.

On 05 June 2020 a search was completed for a '[vintage style motorcycle crash helmet](#)'. The entries of the first 10 helmets offered for sale (other than sponsored and duplicates) were reviewed. These ten helmets are described below. The seller's descriptions and customer reviews are a direct cut and paste from the website including grammatical errors.


A determination on whether the helmet appears to be UK road legal is based on the balance of probabilities and the professional opinion of a RCIP investigator who has 28 years' experience as a UK police motorcyclist. To prove legality one way or the other, the helmet would need to be purchased and examined.

Figure 1: Helmet Review One

<p>The seller is in the UK.</p> <p>Sellers description:</p> <p><i>“F656 is a lightweight fibreglass helmet aimed to deliver maximum comfort no matter how long your journey. With a suede and leather interior”.</i></p> <p>ECE 22 approved and the label is visible in the images.</p> <p>Viper is a known brand tested by SHARP.</p> <p>Appears UK road legal?: Yes</p>	 <p>Full Face Helmet Adult VIPER F656 VINTAGE Fiberglass Retro Style Motorbike Motorcycle Crash Helmet - Midnight Blue/Cream (L) ★★★★☆ ~ 4 £139⁹⁵ FREE Delivery Only 10 left in stock.</p>
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Source: Authors own & Amazon “[vintage style motorcycle crash helmet](#)’ search findings

Figure 2: Helmet Review Two

<p>Available from £25.19.</p> <p>The seller is in China.</p> <p>Sellers Description:</p> <ul style="list-style-type: none"> • <i>“Perfect for drive Motorcycle, Cruiser, Touring, Motorbike and Scooter.</i> • <i>Head protection: It is a very important tool in your outdoor life all the for security”.</i> <p>There is no reference to safety standards or legality to use on the roads. Multiple images of the helmet do not show any type of safety approval label.</p> <p>A customer review states, <i>“Cheap and nasty not useable in UK got ant certs or ratings for UK.”</i></p> <p>Appears UK road legal?: It seems unlikely that this helmet would provide the same level of protection as a BSI or UNECE approved helmet. Therefore, no.</p>	 <p>KKmoon Motor Motorcycle Helmet Half Open Front Leather Winter Windproof with UV Protection Visor Sunglasses Retro Vintage Style 54... ★★★★☆ ~ 104</p>
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Source: Authors own & Amazon “[vintage style motorcycle crash helmet](#)’ search findings

Figure 3: Helmet Review Three

<p>The seller is in China.</p> <p>Sellers Description:</p> <p><i>“Safety is the first place in the helmet. This helmet has excellent safety performance and is fully in line with the legal standards of the road. It is an important guarantee for your safety”.</i></p> <p>The product description states it is DOT certified. There is a label on the back of the helmet but it cannot be read. It may or may not be DOT certified.</p> <p>DOT certification is a US standard. Whilst a helmet that achieves DOT certification may achieve ECE certification, DOT certification is not a named standard for UK legislation.</p> <p>A customer review states, <i>“If you value your safety buy a different helmet. You have been warned. Can't see this thing being legal on UK roads”.</i></p> <p>Appears UK road legal?: Without examination it is difficult to determine if this helmet would provide the same level of protection as a BSI or UNECE approved helmet. It appears unlikely.</p>	 <p>Full Face Motorcycle Helmet,Vintage Harley Motorcycle Helmet Full Face Protection for Adult Men Women Moped Scoote...</p> <p>★★★★☆ ~ 5</p> <p>£81⁹⁹</p> <p>£10.00 delivery</p>
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Source: Authors own & Amazon [“vintage style motorcycle crash helmet”](#) search findings

Figure 4: Helmet Review Four

<p>The seller is in China.</p> <p>Sellers Description:</p> <p><i>“CERTIFIED BY ECE FOR ROAD USE: Due to its high-quality workmanship, the helmet complies with all regulations of the UNECE and bears the ECE seal, which means that it is approved for all European road traffic”.</i></p> <p>There are numerous photographs of the helmet and chin strap. None show the required UNECE Regulation 22.05 identification label. On the rear of the helmet is a DOT label however it is not clear enough to be read.</p> <p>Appears UK road legal?: The claim that the helmet complies with UNECE 22:05 appears fraudulent. The helmet does not appear to comply with the standards and does not appear to be road legal.</p>	 <p>Half Open Face Motorcycle Helmet, Jet Motorbike Helmet in Crash Helmets Motorcycle Moped Scooter Vintage Style, Seasons Unisex, DO...</p> <p>£62⁸¹</p> <p>Promotion Available</p> <p>£35.00 delivery</p>
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Source: Authors own & Amazon [“vintage style motorcycle crash helmet”](#) search findings

Figure 5: Helmet Review Five

<p>The seller is in China.</p> <p>Sellers Description:</p> <p><i>“ECER 22.05 approved on road legal. ABS SHELL - Impact resistance, sturdy and durable, outstanding anti-drop and anti-collision performance”.</i></p> <p>None of the images of the helmet show the required UNECE Regulation 22.05 identification label which suggests the claim to comply with 22.05 is fraudulent.</p> <p>The make ‘WCX’ is not tested by SHARP.</p> <p>Appears UK road legal?: Without examination it is difficult to determine if this helmet would provide the same level of protection as a BSI or UNECE approved helmet.</p>	 <p>WCX Motorbike Helmet Open Face Jet Motorbike Helmet, Crash Helmets Motorcycle Moped Scooter Vintage Style · ECE Certified (Colo...</p> <p>£68⁹² FREE Delivery</p>
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Source: Authors own & Amazon [“vintage style motorcycle crash helmet”](#) search findings

Figure 6: Helmet Review Six

<p>Available for £83.03. The seller is in China.</p> <p>Sellers Description:</p> <p><i>“Safety: Meets or exceeds US DOT FMVSS 218 safety regulations and features a thick, high-density, well-ventilated EPS lining design that greatly absorbs impact, so you can safely drive your cruiser, helicopter, scooter, moped , ATVs, UTV or street bikes”.</i></p> <p>DOT certification is a US standard. Whilst a helmet that achieves DOT certification may achieve ECE certification, DOT certification is not a named standard for UK legislation. There is a DOT label shown on the back of the helmet in one of the images. It may or may not be certified to DOT standards.</p> <p>There is no reference to ECE standards or legality for use on UK roads. None of the images of the helmet show the required UNECE Regulation 22.05 identification label.</p> <p>Appears UK road legal?: It is unlikely this helmet would provide the same level of protection as a BSI or UNECE approved helmet. Therefore, no.</p>	 <p>Helmet Motobike Half, Skull Cap Vintage Style, DOT Approved Crash Motorcycle, Adjustable Matte Black For Men Women Bike Cruiser...</p>
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Source: Authors own & Amazon [“vintage style motorcycle crash helmet”](#) search findings

Figure 7: Helmet Review Seven

<p>The seller is in China.</p> <p>Sellers Description:</p> <p><i>“Perfect for motorcycle, cruiser, touring, biker, racing and scooter riders. A gift for friends. Made of high quality ABS materials, impact and penetration resistance. Stiffness is twice than normal helmets”.</i></p> <p>There is no reference to safety standards or whether it is legal for use on UK roads. None of the images of the helmet show any certification mark.</p> <p>A UK reviewer states, <i>“Wouldn't trust it in a high speed hit ok for pottering around no UK bs mark so if pulled by plod it's 3 points and 100 quid fine”.</i></p> <p>Appears UK road legal?: It is unlikely this helmet would provide the same level of protection as a BSI or UNECE approved helmet. Therefore, no.</p>	 <p>Vintage German Style Half Open Face Motorcycle Helmet With Goggles Glasses for Men Women</p> <p>★★★★☆ <small>2</small></p> <p>£41²⁷</p> <p>£0.99 delivery</p>
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Source: Authors own & Amazon [“vintage style motorcycle crash helmet”](#) search findings

Figure 8: Helmet Review Eight

<p>The seller is in China.</p> <p>Sellers Description:</p> <p><i>“High quality PU leather, Top Quality ABS Shell GB Approved for Motorcycle Riding, Cycling and Other Outdoor Sport”.</i></p> <p>There is no reference to safety standards or whether it is legal for use on UK roads.</p> <p>None of the images of the helmet show any certification mark.</p> <p>Appears UK road legal?: It is unlikely this helmet would provide the same level of protection as a BSI or UNECE approved helmet. Therefore, no.</p>	 <p>SanQing Summer Handmade Personality Vintage Harley Helmet Motorcycle, German Style Half Helmet Motorcycle Cruiser Scoote...</p> <p>£19⁷⁴</p> <p>£5.00 delivery</p>
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Source: Authors own & Amazon [“vintage style motorcycle crash helmet”](#) search findings

Figure 9: Helmet Review Nine

<p>The seller is in China.</p> <p>Sellers Description:</p> <p><i>“Motorcycle helmets are ideal for motorcycles, cruisers, travel, bicycles and scooter riders. This is a very safe helmet that perfectly protects your head, very sturdy and has a nice chin strap that holds it in place”.</i></p> <p>There is no reference to safety standards or whether it is legal for use on UK roads.</p> <p>None of the images of the helmet show any certification mark.</p> <p>Appears UK road legal?: It is unlikely this helmet would provide the same level of protection as a BSI or UNECE approved helmet. Therefore, no.</p>	 <p>Greyghost Helmets For Motorcycle Retro Half Cruise Helmet Prince Helmet Vintage Motorcycle</p> <p>£33⁹⁹</p> <p>Promotion Available FREE Delivery</p>
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Source: Authors own & Amazon “[vintage style motorcycle crash helmet](#)’ search findings

Figure 10: Helmet Review Ten

<p>The seller is in China.</p> <p>Sellers Description:</p> <p><i>“ABS+ high-density EPS, enhanced shock absorption, super sturdy, excellent cushioning effect, very light to wear. [ECE certification]: The ECE R22.05 motorcycle helmet is legally approved for use in Europe”.</i></p> <p>None of the images of the helmet show the required UNECE Regulation 22.05 identification label.</p> <p>A customer review on the seller’s website states that it does not have ECE certification.</p> <p>Appears UK road legal?: The claim that the helmet complies with UNECE 22:05 appears fraudulent. The helmet does not appear to comply with the standards and does not appear to be road legal.</p>	 <p>Open Face Motorcycle Helmet,ECE certified Retro Style Leather Scooter Sport Motorbike Jet Pilot Visor for bound training Mountain...</p> <p>★★★★☆ ∨ 11</p> <p>£26⁹⁹</p> <p>£10.00 delivery</p>
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Source: Authors own & Amazon “[vintage style motorcycle crash helmet](#)’ search findings

6. References

¹ de Rome, L. (2018). *Stars or Standards? A review of motorcycle protective clothing from the southern hemisphere*. RAC Foundation: London. Accessed 20 July 2020 from https://www.racfoundation.org/wp-content/uploads/Stars_or_standards_a_review_of_motorcycle_protective_clothing_Liz_de_Rome_December_2018.pdf