

Enhancing Blind Spot & Left Turn Warnings for Cyclists

1. Background

We regularly read in the press of collisions between cyclists and heavy goods vehicles (HGVs) on the congested streets of London. Whilst there has been an overall drop in killed or serious injury collisions in London⁽¹⁾, cycling fatalities are still happening all too often. From the 1st January 2015, to the 24th June 2015 (the time of writing this case study), 8 cyclists had already died in the Capital, 7 of whom were involved in collisions with HGVs.

Crossrail, its Principal Contractors and their supply chains have quite literally led the way for the construction industry since early 2010 by fitting additional safety systems to HGVs, including blind spot proximity sensors and external 'left turn' warning alarms to make London safer for cyclists. This case study is focussed on a Crossrail haulage contractor and the safety enhancements to their vehicles that go above and beyond Crossrail requirements and demonstrate best practice.

2. New Rear LED Warning



Warton Freight is a family run haulage company who work on Crossrail and have taken left turn warning alarms to the next level by fitting innovative new devices to their vehicles. The devices were developed/fitted by 'Brite Sparks', a small company who specialises in making HGVs safer and to meet Crossrail standards. Inventor and owner of Brite Sparks, Paul Saywell, has taken one of the new devices from concept, through design and onto manufacture. The new LED panel can be fitted to the rear of HGVs and provides cyclists with advanced warning that they are approaching a blind spot. The new LED panel displays a permanently illuminated bike symbol which can be seen by the cyclist as he/she approaches the lorry. Additionally, when the driver indicates the lorry is turning left, flashing LEDs are activated around the bike symbol and a spoken warning 'blind spot take care' provides the cyclist with enhanced audible and visual warnings about the potential risks of cycling along the near side of the HGV.

3. Enhanced Spoken Left Turn Alarm

In addition to the above rear LED panel a hi-visibility version of the left turn spoken warning alert has also been fitted to Warton Freight vehicles. The innovative device made by Amber Valley⁽²⁾ called 'Alarma Light' and fitted by Brite Sparks announces to cyclists 'warning this vehicle is turning left, it also has an array of LEDs on the unit providing both a visible and audible warning that a left turn manoeuvre is about to commence by the lorry.



4. Benefits to Cyclists



Benefits for the cyclist come from an effective combination of an enhanced rear LED blind spot visual and audible alert, integrated with the 'Alarma Light' the high visibility spoken left turn alarm. This provides the optimum warning of the risks associated with both the blind spot and left turn manoeuvre. The blind spot and left turn jointly pose a significant hazard to cyclists so the clearer early warnings provided by these enhanced safety features could prevent collisions in future. Both audible spoken warnings alerts are synchronised not to overlap during operation to provide 2 clear warning to cyclists about the blind spot and lorry turning left.

5. Operational Benefits

How has fitting the Enhanced Blind Spot and Left Turn Warnings benefited Warton Freight?

George Barclay Operations Manager says:

“We have fitted this kit to 14 of our vehicles so far and are adding it to more vehicles every week. The response has been better than we could have ever imagined. We have received many phone calls and emails from cyclists, various sites around the city, and random members of the public and even other professional drivers all with positive feedback. Our drivers are happy to have them fitted and have all



commented on how effective it is and how many cyclists recognise it and have pulled up next to the driver and complimented the rear led warning light and voice announcements around the vehicle. The light itself is clearly visible and can be seen from a great distance on approaching the vehicle, as soon as the vehicle is indicating both the side strobe light and rear cycle light begins to flash and announces ‘blind spot take care’ followed by ‘stand clear, this vehicle is turning left’. It doesn’t cause any offence to anyone; it is direct and put across in a very effective manner.”

George goes on to say:

“We trusted that this would be effective and make a big difference in cycle safety. Already the response has been fantastic and we are proud to have this kit fitted to our vehicles, We are always looking at ways to improve vehicle safety and when it comes to pedestrian/cycle safety that is a huge priority and the fact that something so small makes such a big difference is truly amazing.”

Here is just one of the many comments Warton Freight has received from members of the public.

Hello Steve

On my way to work this morning I happened to be behind one of your vehicles. Can I say how great the cycle warning signage on the back of the lorry made me feel? It really stood out and I kept thinking what a great idea and one that I haven’t seen before. It sets a standard and I hope to see many more of them.

Please pass my thanks on to all concerned.

Kind regards, D McCarthy, Business and Economics Teacher

6. More Information

For more information contact:

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(1) Transport for London Press Release 9th June 2015 ‘Mayor takes action to halve road casualties by 2020’

(2) Brite Sparks are official Amber Valley installers covering the south of England region.