

Sophisticated cameras and sensors, as well as new mirrors, are increasingly making commercial vehicles safer on the road. Keith Read looks at latest developments

Safety

Right: be safe, be seen; industry suppliers are offering solutions that enable trucks to have an all-round view

Dramatic footage of an Arclid Transport tanker pushing a Renault Clio sideways at speed on one of the UK's motorways in 2010 revealed just how dangerous blind spots can be. As a result, and with health and safety-conscious transport operators increasingly concerned about the problem, recent months have witnessed a significant rise in fitment of everything from sensors to cameras and warning systems, all designed to prevent tragedies – such as cyclists becoming trapped by HGVs turning left.

Simon Smedley, MD of truck and trailer parts specialist HGV Direct, confirms the upsurge in demand. "Operators need these systems, partly because some of their large corporate customers now frequently require them to be fitted to all trucks that visit their sites." But additionally, he says, truck drivers worried about accidents caused by poor all-round vision, as well as fleet engineers concerned about damage to their vehicles, are turning to technology to make a difference.

"But the really big growth is for forward-facing video cameras, to record continuously whenever the vehicle is running," continues Smedley. "Research shows that their use can modify driver behaviour, but, more importantly, they can help operators prove their case in non-fault traffic accidents claims. Some insurers are discounting policies for vehicles that have them fitted."

One company experiencing huge demand for its cameras and DVR (digital video recording) technology is Innovative Safety Systems. Co-director Jonathan Thomas says false claims against drivers are not uncommon. "One bogus claim foiled could more than cover the cost of the equipment," states Thomas. "DVR is a huge incentive to drivers to stick to the rules and do everything correctly. Drivers are also very pro the system, which can prevent them from being falsely accused."

Cost of cameras

ISS's systems cost from £2,600 for the RX2 to £2,950 for the RX3, which has the additional facility of an SD card that the driver can remove for showing to his [or her] transport manager. It carries the same recording as the hard disc but is not subject to the same anti-tampering measures. All systems come with four cameras as standard, but can accommodate up to sixteen. The in-cab screen

is normally set up as a reversing monitor – ideal for refuse vehicles, which are already big users of DVR. But the system has many other applications, including on passenger transport vehicles – buses and coaches – and heavy plant, operating, for example, in landfill sites and quarries.

Elsewhere, Reversing Made Easy, based in Uckfield, was formed eight years ago, after Steve Ransom – then a health editor – was held up on his way to work by a truck attempting to reverse into a factory gateway. "Eventually, I got out of my car and asked the driver if he had any aid in his cab. He swore at me and said, 'The bloke who brings out one of those will be a millionaire'.

"So I did the research and I'm not a millionaire yet, but the business is now doing very well," says Ransom, who has seen turnover triple in the past three months. "Corporate manslaughter has brought such devices into sharp focus. Directors of large haulage companies and fleet engineers are saying, 'Let's be proactive, rather than reactive'. They're not waiting for legislation to demand fitment. And we're not talking mega-bucks for these systems – even those designed to be resistant to the most aggressive conditions."

Reversing Made Easy now has a dozen or so systems in its range, designed to reduce the likelihood of accidents, damage and false accusations against drivers. "We're seeing our systems fitted as a standard business decision, because they save more money than they cost, particularly with sensors to avoid nearside step damage," explains Ransom. "One big [repair] company ordered in a large number of replacement nearside steps, because they estimated how many their customer would need during a year.

"But the customer had invested in our sensors for its commercial vehicle fleet and now there's a row brewing at the repair company over who'll pay for the excess steps still on their shelves. For the fleet operator, there was a huge cost saving, because our nearside step kit costs £185 fitted, while a replacement step costs probably £600 when you take into account the parts, labour and taking the vehicle off the road for repair."

The key, according to Ransom, is to fit only kit that drivers can understand and that will withstand the rigours of the haulage industry, particularly for vehicles in the aggregates sector. "It has to be bomb-proof and completely driver-friendly, with no



burst

digital technology, however, has vastly improved picture performance, while another bonus is that wireless eliminates the need for a £152 Suzie cable that takes about two hours to fit. The system's transmitter and receiver cost from £230, with the price of the camera and monitor on top. Also, a repairing button on the receiver allows for interchangeable trailers, making the new system ideal for multi-drop operations.

Incidentally, Brigade will also be showing its new-generation Sidescan at the CV Show, which is faster and has improved reliability and accuracy. The four-sensor ultrasonic system, costing from £520, is fitted along the side of a vehicle to detect cyclists and pedestrians in blind spots. It provides an audible warning to the driver and an optional speech warning to the cyclist – for example, 'Caution, vehicle turning left'. **TE**

Two in one

Integration of dashboard systems can reduce the amount of potentially distracting in-cab equipment for the driver. Runcorn-based Axtec is now offering its on-board vehicle load indicator system, with a combined reversing camera. This means that only one screen is required for both.

When reverse gear is engaged, the screen automatically shows the view behind the vehicle. When a forward gear is selected, it immediately reverts to the load status display. In a further integration move, where a vehicle is fitted with a tracker system it, too, can be incorporated.

As a result, the traffic office is constantly informed about a vehicle's load status, with the benefit that prompt action can be taken to remedy a potential, or actual, overload. Furthermore, the system identifies a vehicle with spare load capacity that may be able to make another collection and delivery in a particular area/route.



buttons to press or driver interactions required," he explains. He also says that the poor reputation of early proximity sensors in the haulage industry may now be fading into the past. "We had to overcome that reputation, but, to be fair, fleet engineers had every right to be cynical about their longevity and practicality," he observes.

However, it's not only about the sensor types: many manufacturers are employing relatively new technologies not only to improve the efficiency of their systems, but specifically also to reduce construction and fitting costs. Kent-based Brigade Electronics, for example, will use the CV Show at the NEC, Birmingham, from 24 to 26 April to launch its new wireless camera-monitor system.

Wireless systems have been on the market for some years, but some have, until recently, delivered poor picture quality, primarily due to electrical interference from other vehicle systems. Brigade's