



Weigh to go

by Richard Stokes, Central Weighing Ltd. UK

Weighbridges are a crucial weapon in the battle against road damage caused by overloaded vehicles. When offenders are caught, they need to be dealt with swiftly and accurately to claw back fines to go into the road repair fund

Few transport professionals would doubt the severity of the consequences of overloading. With most countries now imposing heavy fines to help prevent abuse of the regulations, Central Weighing Ltd has found an increased demand for its Supaweigh system.

The ability to weigh trucks of all sizes 'in motion' removes the need for careful positioning of the truck and consequently speeds up the weighing process. The axle weighing platform may be small but with a capacity of 40,000 kgs per axle it can weigh even the heaviest of trucks in a matter of seconds. Most conventional weighbridges have a capacity of 50,000 to 80,000 kgs where as the axle weigher can cope with up to 240,000 kgs on six axles, making it virtually indestructible even in developing countries where overloading is an everyday occurrence.

Conventional weighbridges are frequently outgrown as vehicle dimensions and weights increase. This is not so with the in-motion weigher, one size accommodates with all current and future requirements. The axle weigher is fast, durable and increasingly accurate.

Some years ago, axle weighbridges could only be used for checkweighing with an accuracy of 3 to 5 per cent. Advanced microprocessor technology combined with the latest loadcell systems enables the new generation of axle weighers to meet 'trade' standards of better than 0.5 per cent on test. Supaweigh is now both UK and EC approved Class 111 and it recently gained OIML R134 Class 1 approval.

The company has installed over 4,000 weighers in 40 countries and has a worldwide sales and service network. One recent order for 31 systems in 6 sites in the Middle East demonstrates the product's capabilities. The application is to weigh over 9,000 vehicles per day, most weighing in excess of 100,000 kgs, without causing traffic bottlenecks and unnecessary delays for drivers.

While weighing, the system also captured the driver, vehicle, operator and load details which were automatically transmitted with the net weights by modem every hour to a central processing unit where invoices were generated daily.

The use of in-motion products reduced the hardware requirement by nearly 30 per cent compared with con-



Supaweigh weight enforcement is incorporated into Asian toll plazas



Installing four of 30 lanes of Supaweighs, weighing over 9,000 vehicles a day in the U.A.E.

ventional weighbridges, dramatically reducing capital equipment costs without compromising vehicle throughput. Central's Securitag automatic vehicle identification system was incorporated into the design to provide fast and accurate identification of every truck.

Up, up and a weigh

In another application in Asia, Supaweigh has been successfully integrated into a toll plaza to detect and calculate the overload on every truck passing along the highway.

Supaweigh is integrated into a local language computer which records all details of fines given and payments received together with a wealth of statistical data for future road planning. Supaweigh is at the head of law enforcement technology in the fight against overloading which is a worldwide problem.

In the UK alone over £70m (Euro100m) per year is spent repairing the damage to roads prematurely worn out by overloaded trucks, imagine the costs in countries where there are no overloading laws or enforcement in place.

Central Weighing allocates over £100,000 (Euro140,000) every year to the education and training of enforcement and technical staff around the world and has established training centres in the UK, Dubai, Thailand and Malaysia.

The same advanced weighing technology and innovative software has now been incorporated into advanced

portable weigh in motion systems launched this year. Cheklode and Freeweigh are lightweight, low profile and incorporate both cabled and cable free (rf) designs.

The cable free designs are particularly interesting as they allow the capture of data at distances up to 30m from the weighing plates, enabling continuous operation in the most difficult of climatic conditions. The portable console not only

currency applicable in any country.

Compliance of science

The system is highly portable with no component weighing more than 30 kgs and the dual carrying handles ensure compliance with all health and safety regulations.

Unique roll out levellers are an added feature and balance out the compensating axle arrangements. This ensures accurate

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prints and stores weighing data but can compare all weights found with those legally permitted in any country to produce an instant overload ticket and a detailed report.

The system works from internal rechargeable batteries allowing up to 8 hours operation, after which operation can be continued using an external battery or car cigarette lighter. This is ideal for remote areas. The data stored from a day's weighing can be easily downloaded into a PC using the integral USB port. Software programmes are available for any PC to analyse and report statistical information produced by these systems.

It is also a simple matter to introduce a fines calculation which can be added to the weighing ticket. This calculation is based on the current legal regulations and

weighing of the individual axles. The whole system fits easily into a light van or car and can be set up by one man in a matter of minutes.

Portable weighing is vitally important in countries where the road infrastructure makes fixed weight control points easily avoidable. Many drivers take alternative routes and the portable equipment allows officers to be flexible and improve detection levels.

The portable systems are also ideal for inner city enforcement, where overloading of light vans and trucks is a problem. Surveyed sites can be selected throughout the city and used by any officer who sees an obvious overload situation. Set up is fast and there is no need for any costly infrastructure for the weighing location. ■