

Container transport needn't be a drag says Irish firm

Irish-based Inventiveness (ONE) Limited, owners of the intellectual property related to the Nesflector LoLo Drag Reduction System, have designed a practical solution to reduce fuel burn for container road transport.

When 20ft containers are transported on conventional semi-trailers, there is a large gap between the rear of the tractor unit cab and the front of the container due to regulations based on such parameters as axle loading, weight distribution or turning radius.

However, the resulting void creates turbulence and pressure drag, and this in turn leads to increased fuel burn and, of course, more greenhouse gas emissions (GHGs).

The focus of the Nesflector project is divided into addressing two problematic aspects of box transport.

Firstly, the gap between the rear of the cab and the front of the container. The Nesflector IVEAS (Interchangeable Void Eliminating Aerodynamic Shape) is designed to alter and improve the impact of turbulence and pressure drag caused by this area of inefficiency. This air deflection device is inserted



into the gap to improve air flow across the vehicle and container combination. Aerodynamic studies have shown that every 300mm reduction in the gap between cab and container cuts pressure drag by 2.6% and a 1% decrease in pressure drag roughly equates to a 0.5% decrease in fuel burn.

Most European vehicles transporting 20ft containers have a gap of about 3.8 metres between the rear of the cab and the front of the container, this equates to a 32.5% pressure drag, which, if eliminated, would cut fuel burn by 16.25%.

The other issue is turbulence and pressure drag at the rear of the vehicle. The Nesflector 'boat tail' has been developed to target

turbulence and pressure drag caused by the bluntness of the back end of semi-trailers.

There will be two versions of the Nesflector boat tail device - fixed position and retractable base versions. The retractable base version will enable the Nesflector to be retracted from contact with the container for easy positioning or removal of the container from the semi-trailer. The Nesflector boat tail is designed to be coupled in place using container corner castings and twist locks which form part of the container and semi-trailer. This means there is no requirement for new attachment points.

The boat tail is the result of research and development into the pressure drag created by

the large wake resulting from the bluntness of the back end of semi-trailers and it has been demonstrated adding one to the rear end of semi-trailers can contribute a 6.5% decrease in fuel burn.

By combining the Nesflector IVEAS with a Nesflector Boat Tail, Inventiveness (ONE) says it can reduce fuel burn by up to 22.75%.

It adds that the Nesflector IVEAS concept is unique; there are no other pressure drag-reduction solutions targeting container transport in existence.

The unit cost is relatively low, it adds, because the materials and design are eminently suitable for simple manufacture using standard fabrication and moulding processes. It is also interchangeable between vehicles, and the device is easily handled by a standard forklift truck.

The company anticipates that Nesflectors can be created suitable for specific regions, according to local vehicle construction and use regulations.

Nesflectors have been designed to be handled and stored in a similar manner to the containers they are to be paired with. They can also be allocated 'BIC' identification codes to allow easy allocation to the correct driver.

With governments increasingly conscious of greenhouse gas emissions, the company adds

Le Havre link could be the first of many

Haropa Port - the combined port authority for the ports of Le Havre, Rouen and Paris - said that it was pleased with the progress of the new Brittany Ferries Le Havre-Rosslare service introduced last year. A Haropa spokesman said the port authority had won the new freight-only route in the face of stiff competition with other

European gateways.

He added that he expected that the route was only the start of growth in Haropa's Irish traffic and that it would continue to develop further, saying; "We have a transit time advantage to Ireland compared with other ports. And we also have good collaboration with the port of Rosslare."

XPO starts weekly run but plans for more

US-owned XPO started a weekly train from the port of Waterford to Ballina in 2021 in response to the need move products to and from a Coca Cola plant. The service is currently weekly but there are plans to increase the number of trains.

The Port of Waterford can load containers direct between train and ship and could in fact handle substantially increased

volumes with its existing terminal.

XPO Logistics says that the Waterford-Ballina service has already attracted new business and much interest from potential new customers and predicts that demand and interest will increase in the coming months.

The routing via Waterford avoids the UK land bridge as well as the congested port of Dublin.

that it is not inconceivable that, where practically achievable, the use of Nesflectors could become mandatory.

Transport operators could hire Nesflectors as required from container leasing companies

and they could be sourced from existing container depots.

As fuel costs continue to soar, the commercial justification for use of the Nesflector LoLo Drag Reduction System is becoming more and more compelling, it says.

Cross-border van operators will need O-licences from May

New EU legislation will require companies using vans or other light goods vehicles weighing between 2.5 and 3.5 tonnes for hire and reward to hold a Goods Vehicle Operator's Licence to drive in the European Union, warns compliance specialist TruTac. This includes crossing from Northern Ireland into the Republic of Ireland.

The new rules are part of the UK/EU Trade and Cooperation Agreement.

They will affect light commercial vehicles (LCVs) above 2.5 tonnes (or towing trailers with a combined weight over 2.5 tonnes) travelling across international borders. TruTac says that one of the many conditions of the licence is the appointment of a dedicated transport manager, with a valid Transport Manager Certificate

of Professional Competence (TM CPC). However the UK Government has said some operators may be able to obtain a temporary exemption from the TM CPC requirement if they have "appropriate experience of managing light goods vehicles in the form of temporary transport manager status."

Companies affected will also need to demonstrate financial standing to run the

business with a minimum of £1,600 available for the first vehicle and an extra £800 per additional vehicle. As with HGV operators, assets must also be kept safe and in good condition and all safety inspection and maintenance records must also be retained for a minimum of 15 months.

Operators whose vehicles fall in scope of the changes will also, from 1 July 2026, have to use tachographs and record driving and working time in compliance with the EU drivers' hours rules.

TruTac managing director, Jemma James comments that, until now, operating vehicles under 3.5 tonnes has been fairly

straightforward, "but these new rules introduce an extra layer of complexity, especially for anyone with vans just over the 2.5 tonne mark or for those who tow trailers or semi-trailers."

Jemma James said that TruTac had seen an increase in enquiries for its services from van operators in Northern Ireland through its local reseller and operators of mixed fleets had asked how it can support them with their vans. TruTac is also active in Ireland with a number of large direct truck customers and has a reseller there as well. Jemma James added: "We are seeing a couple of enquiries start to filter through on the vans but it's early stages and they are tentative, seeking information about general compliance requirements, like walk around checks or fleet management."

UK-based (including Northern Ireland) operators of all sizes of vehicles must also now declare journeys within Ireland to the EU's posting declarations portal.

You don't need to be a rocket scientist to trade with Ireland, says Bullet Express

These are uniquely difficult times for Irish traders and the transport industry that serves them; the perceived difficulties of Brexit and Covid-related disruption have prompted many importers to switch from UK to local sourcing. At the same time costs - ferries, fuel, the need for customs clearance - have all gone up. And yet, Scottish-based Bullet Express's business to and from Ireland continues to grow, says managing director, John McKail.

"We have increased our market share, and we have a lot of loyal customers. We remain very buoyant, growing 40% this year alone," he told FBJ. A number of existing operators have suspended their services

to Ireland, creating new opportunities for the Glasgow-based operator.

Bullet Express' success comes from attention to detail and investing in customs clearance, explains John McKail, who joined the company two years ago.

He himself has spent 35 years in international freight. He started his early career with parcels carriers UPS and DPD and spent many years at Maersk group including spells at the head office in Copenhagen and heading up global premier sales at its freight forwarding arm, Damco, based in the Hague in the Netherlands. He also set up pallet network Palletforce's

