

# LONGER SEMI-TRAILERS

Is there a future for **LSTs** in the UK?



# Stretching the point

**Six months ago the DfT launched a study into longer semi-trailers. Is this just a sop to the industry after it cancelled trials into LHVs? And who wants longer semis anyway... especially in a recession?**

*Words: Brian Weatherley, additional reporting by Dominic Perry*

**A little over a** year ago, the transport secretary Ruth Kelly officially announced what the road transport industry had already long suspected. UK trials of Longer Heavier Vehicles (LHVs) were dead in the water.

Having cited a whole range of excuses, from fears over increases in emissions to worries over the inability of the infrastructure to cope with 'Super Lorries' (her words, not ours), she preemptorily dismissed all the lobbying from the Freight Transport Association (FTA) and Chartered Institute of Logistics and Transport as well as pro-LHV enthusiasts such as Dick Denby and Stan Robinson.

Was anyone really surprised? For many, the decision was another example of a transport secretary buckling under pressure from the rail lobby. Others simply saw it as the obvious response from a government desperate to avoid further bad publicity. "Negative and blinkered," was how the FTA described it. "Regrettable," said the Road Haulage Association (RHA). "A missed opportunity," was *CM's* verdict.

## New study commissioned

Yet no sooner had Kelly kicked 60-tonne, 25.25m LHVs into the long grass than it emerged, earlier this year, that the DfT was considering allowing artics with longer

semi-trailers – ironically one of the original vehicle combinations considered by the Transport Research Laboratory (TRL) in the department's own report. And in June, it duly commissioned a study into longer semi-trailers (LSTs).

So, is this latest move simply another sop to the 'Bigger is Better' brigade? Or is it a way of acceding to calls for greater vehicle efficiencies – without sending backbench MPs and the 'Great British Public' into a tail-spin?

Officially, the DfT says: "The study is focusing on the benefits and impacts of increasing the length of articulated HGVs by up to 2.05 metres, and will consider the overall CO<sub>2</sub> impacts (including if used by a wide range of operators) and the potential safety impacts."

In terms of a timetable, it adds: "We expect to complete



**Stobart CEO Andrew Tinkler declared longer trailers could result in an average industry load-fill improvement of as much as 10%**



the work during 2009. If the evidence shows significant overall CO<sub>2</sub> benefits (taking into account other impacts including those from modal shift) and acceptable safety implications, we will consult on proposed changes to regulations on vehicle length in 2010."

But who exactly wants longer artics? And what would operators stand to gain, especially in the middle of a recession when thoughts of investing in new equipment are not even in the back of most hauliers' minds?

### Fuller and greener

The Stobart Group is arguably the most high-profile advocate of LSTs in the UK, and has already approached the government to increase artic length laws. Last year, Stobart CEO Andrew Tinkler declared that longer trailers could result in an average industry load-fill improvement of as much as 10%, benefiting hauliers by a total of £9bn a year. To that end, Stobart has already developed a prototype 14.55m long curtainsider with a rear-steer axle which can carry an extra two 1,000x1,200mm pallets (an 8% increase over a normal 26-pallet curtainsider) or up to six more roll cages (a 13% increase).

In engineering terms, the longer Stobart trailer is a relatively straightforward proposition, with few if any issues of fleet inter-changeability; it can easily couple up with an existing Stobart tractor – albeit resulting in a combination longer than the current 16.5m length limit. However, while the trailer's 1,590mm kingpin position stays the same, it would require a change in the regulations from the current 1,200mm kingpin position to 1,590mm.



▲ Kögel Big-MAXX is being trialled in a number of European countries

◀ Silvertip/Don-Bur trailer has attracted interest from supermarkets

## LONGER TRAILERS: WHAT'S HAPPENING IN EUROPE?

The following European countries are already trialling or permit LSTs:

- Germany has been conducting large-scale, countrywide trials with 300 longer semi-trailers since 2006 under a special permit scheme.
- The Czech Government recently agreed to the unlimited use of 'extended trailers' operating on domestic transport under a similar permit scheme. These must be renewed every three months and cost approximately €220 for each three month period.
- The Polish government recently issued special unlimited permits for 300 extended trailers with a length of 14.92 metres for national transport.
- Italy is also testing extended trailers up to 15 metres. In April the Italian Government agreed to a test with 15 vehicles and has issued permits to four Italian trailer manufacturers.
- Interest in LSTs has also been expressed by the Netherlands and Spain.
- Kögel's 14.9m Big-MAXX is also licensed to run in Belarus, Ukraine and Russia without additional costs or restrictions.



ture-controlled trade association Transfrigoroute wants Brussels to increase trailer lengths to 13.8m to ensure adequate cold air circulation around chilled or frozen loads at all times, particularly when 33 euro-pallets are transported in a conventional 13.6m trailer (*CM* 9 October 2008). Graham Millard, fleet engineer at Transfrigoroute UK member Langdons, says: "Since we are a multi-temperature organisation, we support the call for a 200mm increase in trailer length to enhance air flow and improve product temperature control."

**The downside**

However, for every up there is a down. While longer semi-trailers could help

to-rear-of-trailer length to accommodate a 12,950mm measurement.

Supermarket giant Morrisons is also looking at LSTs and in particular the Silvertip Design/Don-Bur 16.0m trailer fitted with a command-steer rear bogie which can carry 32 pallets compared to a 13.6m trailer's 26.

Silvertip Design boss Carl Henderson also reports interest in it from the Post Office. However, he insists, "We're not going to create a lot of enthusiasm until we get a clear sign [from the DfT] that changes will happen in the length laws."

Meanwhile, on the Continent, German trailer-maker Kögel has been heavily promoting the use of longer semis through its 14.9m Big-MAXX concept. First unveiled in 2005, its additional 1.30m load platform can accommodate 37 euro-pallets instead of the normal 33.

Unsurprisingly, Germany was the first country to dip its toe into the water with LSTs – it's already three years into a comprehensive six-year trial, and when the original 300 permits were issued, they were quickly snapped up by 50 hauliers.

With its Big-MAXX, Kögel has been instrumental in the further adoption of LSTs through trials in a number of other European countries and says that one in every eight artics could be taken off Europe's roads if longer semi-trailers were used more widely in other EU states.

Last but not least, on a more modest note tempera-

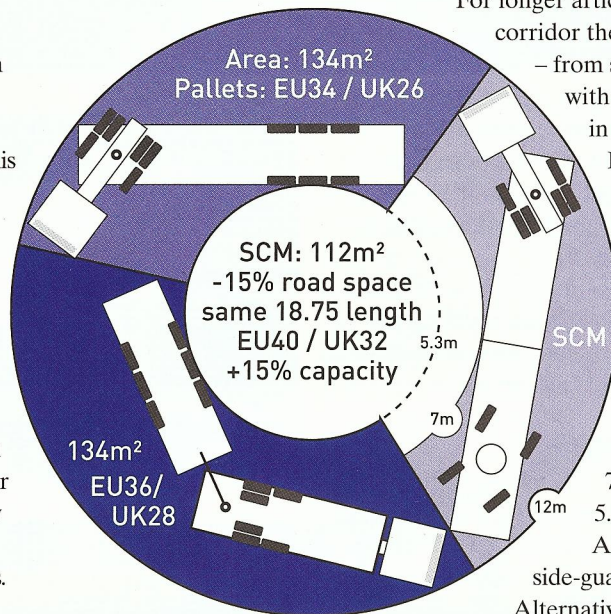
▼ **EU turning circle diagram shows how well Silvertip Design/Don-Bur 16m trailer (above) tracks within the legal 'corridor' compared with a normal artic and drawbar**

reduce CO<sub>2</sub> emissions – the more freight (if not weight) you can get on a single artic the better – however long your trailer it still has to meet the EU (and hence UK) artic turning circle regulations. These stipulate that a combination must be able to negotiate a turning corridor with an outer radius of 12.5m and an inner of 5.3m – a 'regular' 16.5m artic obviously meets this requirement.

For longer artics to stay within that EU corridor there are a number of options – from steering rear axles (as with the Stobart trailer) or, as in the case of the Silvertip/Don-Bur trailer a fully-steerable bogie.

"We're well within the regulated EU turning corridor with our trailer," confirms Silvertip's Henderson, "as we can operate within a very narrow corridor with a 12.5m outer radius and a 7m inner – well within the 5.3m limit without any cut-in. And that's measured to the side-guards not to wheels."

Alternatively, you can adjust the



**LONGER SEMI-TRAILERS – WHERE ARE WE NOW?**

Having rejected full-blown trials of LHVs in late 2008, this June the DfT finally commissioned a six-month study into the use of longer semi-trailers (LSTs) which is being conducted by a group of consultants drawn from WSP, MDS Transmodal, TRL, MIRA and Cambridge University.

However, speaking at the recent Institute of Grocery Distribution's 'Sustainable Distribution 2009' conference, the DfT's head of freight and logistics Stephen Fidler

cautioned: "There's not much point cutting CO<sub>2</sub> emissions through using these trailers if they are going to put more freight on the roads from the railways. I can't promise what ministers will do with the report but we view the carbon agenda as important."

Henderson reckons: "I'm optimistic on longer trailers on the basics of physics – but not that they [the DfT] will do anything about it. It will need a bit of a shake up on climate change or fuel prices before it happens. Yet

there's no reason under the directive I can see why we shouldn't be able to run trials – even if we get things wrong. That's the whole point, we've got to try ideas and pick from those the best ones and try again."

Meanwhile, a DfT spokeswoman says: "Although the number of businesses that the consultants are able to talk to directly will inevitably be limited, any business can indicate their willingness to participate by emailing [freight@dft.gsi.gov.uk](mailto:freight@dft.gsi.gov.uk)

trailer's wheelbase which Kögel has done with its Big-MAXX. The trailer-maker explains: "The wheelbase between the kingpin and the middle axle is 8,000mm instead of the 7,700mm on a normal trailer. So we've added 300mm between the wheels and 1,000mm at the very end of the trailer. All simulations and real life testing proved that the vehicle complies with the EU artic tuning circle requirements, even without using a steered axle."

The extra length on an LST means that there's also a greater amount of trailer swing-out at the rear to contend with. A point noticed by *CM* when we drove the Big-MAXX last year (*CM* 10 April 2008). Similar comments have also been generated after a recent posting on the Big-MAXX on Biglorryblog (<http://bit.ly/duOhv>).

And while most other road users probably wouldn't notice a longer semi-trailer many artic drivers are already struggling to deliver to loading bays that are a tight squeeze with an existing 16.5m artic. ■



## CM VERDICT

Don't hold your breath...

**According to a survey** carried out by the German consultants Kessel & Partner, most heavy trucks work at up to 85% of full capacity (volume), so a longer semi-trailer concept could help reduce traffic congestion by up to 8% where operators are running out of load volume on a single artic.

But what's good for Eddie Stobart isn't necessarily the answer for every UK hire or reward artic operator, especially now when there is little or no appetite (or capital) for buying new equipment. Conversely, many own-account fleets will look at longer semi-trailers with interest, especially those who already cube-out on an existing artic. Whether artic drivers will welcome trying to reverse a longer trailer into already cramped loading bays remains to be seen...

The real question is how long should a longer trailer be? According to Silvertip Design's Henderson, the longer the better: "We should try and use longer trailer configurations to promote great collaboration and consolidation amongst operators. There are lots of trucks running around with unused deck space. When you've got a 13.6m trailer a 'part load' often takes up most of the deck space and the average operator isn't going to think it worth the effort to pick up four to five pallets just to run full. But if it was a matter of taking on an extra 10-12 pallets in a longer trailer that's where there are real opportunities to improve efficiencies."

Naturally all will hinge on the DfT's latest survey. And if there is sufficient support (and more importantly ministerial backing) the next step will be to take it to full industry consultation, in 2010. Only given the recent decision on LHV's, CM's advice is, don't hold your breath just yet.

**"Transfrigoroute wants increased trailer lengths to ensure adequate cold air circulation around chilled or frozen loads at all times"**

