

Published by: The Society of
Operations Engineers

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The Society of Operations Engineers is
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Council

Registered in England:
Company No 3667147
Registered Charity: No 1081753
A Company Limited by Guarantee

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Publisher: Peter Knutton

Transport Engineer is the official
journal of IRTE.
Produced on behalf of IRTE by Findlay
Media Ltd, Hawley Mill,
Hawley Road, Dartford, Kent DA2 7TJ
Tel: 01322 221144
www.transportengineer.org.uk

abc Transport Engineer is
distributed free of
charge to SOE
members, dependent on
membership sector. For non-members,
the annual subscription rate (12
issues) is £75 UK and EU, or £77
airmail outside EU. For other SOE
members, the discounted rate is £30.

Printed by: Pensord Press UK,
ISSN: 0020-3122

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IRTE
engineering success

Get on top of transport at IRTE Conference 2014

Now that Euro 6 emissions compliance is a done deal, other transport technologies – many novel, but some rekindling old-fashioned engineering – are starting to gain a whole new currency. And while the impact of most may not be felt until well into the future, for others that future is practically the here and now.

At one extreme are developments such as: the Dearman liquid nitrogen engine, for buses and temperature-controlled transport (page 33); ultra-compact e-superchargers and compound rotary engine expanders, for plug-in hybrids and electric vehicles (page 22); and F1-style high-speed carbon fibre flywheels – for example those currently being developed by GKN for hybrid buses (page 6).

At the other are: reconfigured suspension and steering systems, designed with safety and comfort in mind; improved braking support, conceived to take advantage of improved electronics and actuator technology for today's traffic conditions; and improved engines, such as those in the new ranges of vans and LCVs launched at last month's CV Show (page 44).

Keep your eyes open and there are developments throughout transport. Malcolm Logistics, for example, launched a new 50-foot container at last month's Multimodal Show, at the NEC, which is set to "revolutionise the way goods will be moved". This Scottish operator's new box can be carried on one of its latest LSTs (longer semi-trailers), built by SDC using a BPW steering-axle on the rear to meet the C&U artic turning-circle requirements. Not only does it provide for 15% more freight per journey over the largest currently available (45-foot) container, but the bigger box is also directly compatible with existing Megafret-type rail wagons. There's green efficiency for you.

At a more general level, there's also a growing rediscovery of the importance of proper transport engineering – for example, specifying vehicles that are fit for purpose yet lowest cost, taking into account maintenance regimes (including using the right engine and transmission fluids) that maximise their productivity and residual value. It's all about challenging received 'wisdom'.

Meanwhile, and in parallel, the compliance juggernaut rumbles on – the latest development being the revised European directive on truck weights and dimensions, allowing additional space on tractor units for fuel-efficient innovations. That may not only mean a move to more aerodynamic truck designs. ACEA (the European Automobile Manufacturers' Association), among others, expects no more than a 1% fuel efficiency improvement through aerodynamic cabs, compared with the best already on the market. So the organisation is rightly calling for the flexibility to use the additional space for innovations likely to have the greatest impact – such as accommodating alternative powertrains, larger fuel tanks for alternative fuels, or waste heat recovery systems.

Staying on top of all this and still expecting to do your day job is a tall order for anyone. That's why it's important, from time to time, to pause and take instruction from people already walking the walk. Sign up for this year's IRTE Conference (www.irte-conference.co.uk), on 17 September, and prepare yourself for a changing, challenging and successful future. See you there.



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