

INFORMED PRAGMATISM

Getting trailer specifications right for the longer term requires up-to-date knowledge of available technologies, but also a dose of informed pragmatism, says Brian Tinham

Having established that semi-trailer technologies – some high profile, others less so – are progressing way beyond the headlines of aerodynamics, advanced braking systems, etc (*Transport Engineer*, November 2015, page 25), in part two of this examination, it's time to take another tack. Let's turn our attention to what works well and what, in the longer term, doesn't always stack up – remembering that, as stated last month, the devil is invariably in the detail.

First up, it's well worth taking advice from Tyrone Lanaway, engineering manager of Nagel Langdons, who won the refrigerated fleet manager of the

year award at the 2015 TCS&D (Temperature Controlled Storage and Distribution) event. Aside from making the point that continental Europe and the UK are not always aligned in their thinking over trailers (and tractors) and that workshop experience and preferences shouldn't just be ignored, Lanaway suggests that sometimes it makes sense to go back to basics.

FOCUS ON WHAT MATTERS

"For instance, I've now made Knorr-Bremse braking systems and Daimler axles standard across all new trailers in our fleet," he explains. Previously, Nagel Langdons' trailer fleet was largely based on Haldex with SAF axles plus some BPW and Meritor RoR. "But if you're going to standardise, you need to focus on what really matters and, in this example, that's your experience of what delivers robustness and reliability. Our choice costs us about £400 more across three axles, but we never have problems and we're well looked after."

Looking at the bigger picture, Lanaway says he's gradually moving over to Chereau refrigerated box trailers following a benchmarking exercise two years ago. Why? "They're half a tonne lighter than other trailers in the fleet, but still apparently as robust, because of the



way the floor and beams are structured. And they're thermally efficient, even with thinner side walls. But there are other great little features – such as the rear compression buffers and plexiglass lights and light brackets, which simply deflect, if they strike something, and then spring back." And he adds that, partly because of the euro exchange rate, they're also several thousand pounds cheaper – and residuals look very healthy.

Meanwhile, contract hire, leasing and rental giant Dawsonrentals' managing director John Fletcher contributes a slightly different perspective. Current focus points for his fleet of around 6,500 trailers (mostly dry freight curtainsiders, with some boxes and 1,600 reefers) include load security, braking safety and,





in due course, also telematics.

Making the point that technical and operational specifications have to be to the highest standard for all customers, large and small, Fletcher says everything is now EN 12642-XL load containment rated. Additionally, since 2013 all new trailers have been equipped with Haldex's TrCM safe parking system to prevent runaways. As for telematics, he states that when customers see the benefits - from diagnostics to brake performance monitoring and even tracking - as worth paying for, Dawsonrentals will be ready. "For now, we're working closely with suppliers to achieve a common standard."

Fletcher is equally pragmatic about aerodynamics, noting that there is a balance to be struck between

anticipated fuel/carbon savings - "although, with lower cost diesel, that's gone off the boil at the moment" - and maintenance costs. "For example, there's no doubt that side skirts offer some fuel saving - and, with a careful operator and one driver for the combination, you'll see a return. But if trailers are side loaded and the sides are effectively the forklift brakes, the repair costs mean you'll never get a payback."

So for him, it's all about simplicity, with an overriding requirement to maximise floor space. "We focus on what we can do without compromising the volume or capacity of our trailers. And that means working with the manufacturers - in our case Lawrence David and SDC, with Chereau for the refrigerated fleet - to cant the trailer front down to meet the tractor airflow, and adding diffusers and fluting at the rear to make the back end slippery."

Boil all that down and the overarching watchwords for success are 'informed pragmatism'. And who better to turn to for a dose of that than Gary Bulley (pictured left), managing director of contract trailer maintenance specialist Bullwell Trailer Solutions, now part of Ryder. With a mobile technician-led (not workshop manager rationalised) database, detailing R&M requirements for thousands of semi-trailers, he's able to tap into one of the most powerful resources on the planet for assessing what makes sense and what doesn't.

"We have a unique insight into trailer maintenance costs," confirms Bulley, adding that the firm can analyse right down to brake lining types at one extreme and trailer structures at the other. "We also monitor innovations to help our customers make good decisions."

So where does he stand on aerodynamics? "One customer was spending 16% of his total maintenance budget fixing aero kits - nose cones,

deflectors and side skirts. That was £100,000 on below-the-chassis-line repairs. How do you justify that cost against the fuel-saving benefits? And I'm not just talking about distribution operations where wind resistance is less of an issue anyway."

PERCEPTION VS REALITY

Bulley worries that some aero uptake is due to the triumph of perception over reality. "People are sold the concept, but the consequences can be much less obvious. One of our larger customers has now removed all side skirts, for example, and our data shows he's not only saving the repair costs but also reducing brake wear, since cooling has been improved, and seeing fewer problems around rear junction boxes, because water is no longer channelled around the rear cross members."

And he offers similar observations on box body material choices. "People don't always consider the cost of repairing lightweight blade and similar body sides. And what about aluminium side panels? You can't repair them so you have to replace the whole panel. How is that helping the environment?"

How about moving deck trailer technology choices? Which are most cost effective? "We look after more than 500 moving decks. You can go for



“Double decks start showing corrosion after five years, with the lightweight floor bearers suffering seriously by year seven. If you are looking for longevity then a galvanised chassis is the solution”

Gary Bulley

modern, sophisticated, more expansive systems – claimed to cut loading time and improve reliability – or cheap and cheerful designs. But, either way, ram-type decks, driven by electric motors, offer best overall performance because, unlike hydraulically-driven pulley and rope systems, they don’t jam. So we don’t get called out at 3.00am and have to charge customers £500 for a repair.”

Before closing, let’s get the Bulley lowdown on some of the basics. Best advice for trailer chassis, he says, is always to apply the best possible corrosion protection at production. “Trailers typically run well over 10 years and in some cases up to 15. The double decks start showing corrosion after five years, with the lightweight floor bearers suffering seriously by year seven. If you




are looking for longevity then a galvanised chassis is the solution.”

GO LIGHT ON LIGHTWEIGHT

Meanwhile, on floors he cautions against going too far on lightweighting. “Everyone wants lightweight floor bearers to allow for heavier payloads. They install more at the back to accommodate forklifts – but then they drive over the full length. Even Wisadeck will only take so much hammering.”

And running gear? “Many operators have put everything back on BPW ECO2s, SAF and similar, and moved back from discs to drums. That’s great for longevity but don’t forget the importance of OE replacement parts. On brake linings, we’ve seen lining life doubled by going for genuine OE, and on discs we’ve seen 14–15 week pad replacement periods improved to 52–54 weeks.

“Incidentally, bear in mind that with discs, not only do you get far better EBS response but also, if the bearings fail, your hub won’t come off. With drums, the whole hub assembly and wheel is at risk. And a 44-tonne artic kerbing at 30mph puts a lot of energy into that bearing, so even if it’s perfectly lubricated, it can fail.” 

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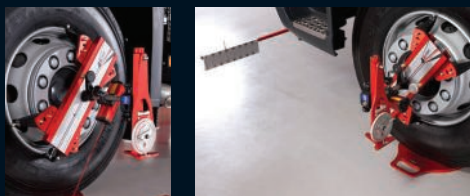
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