

Lightweight truck solves W Rolls problem

W Rolls Transport reports achieving extra capacity on its latest 20-tonne eight-wheeler, thanks to Edbro's CX14 lightweight tipping gear and an Aliweld Highsider aluminium tipper body.

John Bartlett, who owns the Somerset-based firm, says the result is a vehicle capable of making longer distance and larger haulage jobs more commercially competitive.

"You have to have the right rig to maximise payload and offer competitive rates, while remaining profitable," comments Bartlett.

"Lots of specialist hauliers will only deliver locally or offer a competitive rate on short distances. But we specialise in reaching anywhere in the UK 24/7, so the trucks and the tipping equipment we use have to be able to operate reliably over longer distances," he explains.

Add to this a specialisation in moving low density, high volume materials, such as woodchip, and it's easy to see why Bartlett focuses on lightweight and capacity, when



specifying tipper trucks.

And hence Aliweld's 7ft 3in Highsider, with 40m³ capacity and hand welded construction – claimed

to be the lightest bulk volume truck body on the market.

Side ribs also make it one of the strongest – meaning that W Rolls can

also carry heavy materials, such as grain, simply by filling the body to its 20t payload and leaving space on the truck.

Hence also the Edbro CX14 tipping cylinders – specified so that the light weight benefits of the truck body were not cancelled out by heavy tipping gear.

In this case, the body and its tipping gear have been mounted on a new Renault 8x4, the first Renault 460dxi Lander to be sold in the UK. Equipped with a 460hp Volvo engine and running gear dual sourced from Volvo, it's a useful combination, according to Bartlett, who says his entire rig cost £80,000, complete with its Aliweld body.

With this latest vehicle, Bartlett has now bought 15 new trucks in the space of 16 years, and has plans to add more to his fleet.

He already has two Aliweld six-wheelers, but the new Renault is his first eight-wheeler, just giving that extra bit of capacity.

Allison re-gearing is cheaper than OE

Thiess Services in Australia says it has chosen Allison Transmissions to re-gear a front loader-equipped Volvo refuse truck, in a bid to save money and ensure reliability.

Thiess plant manager for New South Wales, Kym Jones, says that it was less expensive to fit a new Allison to its Volvo FM12 than to overhaul the factory-fitted Powertronic transmission.

The switch to a transmission from Allison has also enabled Thiess to extend oil change intervals up to 6,000 hours, using approved TES295 transmission fluids such as TranSynd,

compared with the 500 hour intervals that are required on the truck's original auto box.

Jones points to the fact that Thiess' experience with Allison automatic transmissions in refuse trucks over many years gave it the confidence to re-gear the Volvo truck.

"We have more than 200 trucks in our fleet and around 80% of these are equipped with Allison transmissions. We have had a terrific run out of them over the 18 years that I have been working with Thiess Services," he comments.

"Virtually all of our side loader domestic garbage trucks, which are mostly Iveco Accos, are equipped with Allisons in what is probably the most severe application possible for a small to medium truck," he adds.

"When it came to our Volvo FM 12 front lift, it was simply better value to replace the Volvo transmission than to overhaul it, especially given the Allison had a five-year unlimited kilometre warranty," says Jones.



Volvo's Mean Green hybrid will set record

Mean Green, a hybrid truck built by enthusiasts at Volvo Trucks, will be aiming to beat the world speed record for the standing kilometre next spring, with Swedish truck racing ace Boije Ovebrink behind the wheel.

Volvo engineer Olof Johansson explains the background: "I started building the truck from two half frames that had been earmarked for the scrap yard and the American VN cab came from a crash-tested chassis whose cab was totally intact," he says.

Weight reduction was crucial, so the front axle was milled by experts from Volvo's engine factory in Skövde, Sweden, and reduced from 100kg to 57kg. Then the gear set for first gear was removed, shaving another 7kg off the transmission weight.

"I slit open the wiring harnesses and removed unnecessary wiring. That slashed almost 6kg," adds Johansson. And Ovebrink was ordered to lose weight. "They made me promise to lose 20 kilos and, so far, I'm half way to my target."

Meanwhile, Volvo designer Jonas Sandström re-optimised the truck's aerodynamics. "Our truck differs from a Formula 1 car, because the aerodynamics allow the truck to slice through the air, rather than be pressed down onto the road surface," explains the Swede.

All that was for the last world record-breaking attempt on a



conventional truck in June of this year – which the team successfully achieved with a standing kilometre two-way average set at 166.7km/h and a top speed of 260km/h.

Since then, the truck has been further modified. It already had a standard Volvo 16-litre 700bhp engine with twin turbos from Volvo Penta, together delivering a massive 1,900bhp. That has been retained, but the lightened Powertronic auto-shifter has been replaced with a modified version of Volvo's automated I-Shift gearbox, so that the transmission could interact with Mean Green's newly installed electric motor.

"This gives an additional 200hp and 1,100Nm of torque. The result is a



lightning-speed boost from start-off, without any of the customary diesel-engine lag. It's like a champagne cork, but without the sound effects," says Ovebrink.

"For the first couple of seconds, the truck just makes a slight whistle until the diesel engine, which runs on renewable liquid rosin diesel, starts delivering, with explosive force – by which time the truck is already doing 60km/h and I can engage ninth gear," he adds.

"This winter, we'll test race [the hybrid truck] at Volvo's Hällered proving ground to see what it's capable of. Then, as soon as the snows disappear early next spring, we'll set our record," concludes Ovebrink.

Four-axle DAF offers flexibility for plant hire

Fife firm Robert Purvis Plant Hire is reporting great flexibility from a DAF truck that can be changed from a beavertail to a full flatbed with a high capacity crane.

Craig Purvis, a director of the family-owned firm, says that the four-axle configuration of its FAD CF85 also adds further flexibility, because it provides a stable platform for transporting plant and equipment, while its twin steering axes mean excellent manoeuvrability on restricted access sites.

And he further comments that he's getting good off-road capability from the truck's heavy-duty, dual-drive DAF

HR1355T bogie with hub reduction axles that incorporate cross and inter-axle diff locks.

Much of the DAF's work involves moving portable site buildings for Purvis Group's Thistle Accommodation subsidiary – hence the value of the four foot long beavertail section, which can be hydraulically raised to create a continuous flat deck of 26 feet.

In this position, the rear cheese wedge ramps are folded down flat to allow a rear overhang.

Falkirk firm Outreach built the body and fitted the Palfinger crane, which is the latest PK 5000S-EHD 50 metre/tonne model, with a maximum

outreach of 14.1m, at which it can lift 2.9 tonnes.

Purvis states that this enables precise placing of buildings, even where there are intervening obstacles, and also allows double-stacking – with remote control by a wireless infra-red system.

Then, when for plant carrying with the beavertail down, the angle of approach up the ramps can be further reduced by deflating the air bags. And the crane can also be used to load/unload non-mobile plant, such as generators or disabled equipment.

And with 460bhp, this DAF has an ample 14.4bhp/tonne power to weight

ratio to ensure good journey times, without compromising fuel efficiency. At this rating, the MX engine delivers 2300Nm of torque at between 1,000 and 1,410rpm.

Purvis says he's very pleased with his new DAF and with the support he received from dealer Lothian DAF.

"In the current economic climate, it's particularly important to be as flexible as possible and to optimise the use of every asset.

"Working with Lothian DAF and Outreach we've been able to develop a truck that meets a variety of needs, and which I am sure will serve us well for many years," he comments.