



How low can you go?

With quality, weight and price as its main purchasing criteria, 4R Group bought a Volvo FM11 Lite 6x2 tractor unit to haul a D-Tec tanker last year (pictured above). The vehicle, its first 44-tonner, is collecting liquid waste from anaerobic digestion plants around South Wales and Gloucestershire. In choosing the vehicle, Rick Aldridge, 4R Group's south operations manager, says: "We were governed by the weight of our new tanker trailer's 29,500-litre capacity, and Volvo's FM11, with its lightweight pusher axle, fitted the bill."

This tractor – lightweight but capable of full 44t gw haulage – could in fact come from any of the manufacturers. So, for this article, they were polled for sample truck specifications: see table, p50. Although the tare weights provide interesting reading, few, if any, operators will buy a truck based on one single figure – whether it's tare, fuel economy, price or residual value.

But if maximum payloads are a must, then the sub-8-tonne tares of all seven tractors (without the luxury

Lightweight tractors have a lot to offer payload-hungry hauliers. But they shouldn't only be the preserve of 44-tonne bulk operators. Brian Weatherley considers the benefits of losing weight, and what's available from the manufacturers

of alloy wheels) in our review are certainly attractive. That's particularly true because the average 44-tonne high-roof/full-width sleeper cab tractor now weighs around 8.5 tonnes – with some closer to nine – not least thanks to heavier emission-control systems and all the paraphernalia they involve.

Spec'ing 17.5in or 19.5in wheels on a middle axle can alone save up to half a tonne, while those manufacturers able to offer a narrower 2.3m-wide cab above an 11-litre engine are also well placed. Operators not persuaded by the current trend towards engine downsizing (see <https://is.gd/miwutu>) probably won't be bothered by the heavier 13-litre diesels fitted in the MAN and Scania chassis.

In conclusion, don't let anyone tell you that lightweight tractors with smaller wheels on their middle axle are only for tippers or tankers. While they clearly provide extra chassis space for bigger fuel tanks and other ancillary kit compared with a conventional 6x2, these light tractors also require less diesel to go back down the road when empty. And with the price of derv creeping back up again, that's real fuel for thought.

THE SMALL PRINT

To be sure we were comparing apples with apples, our low-tare tractor must be suitable for 44-tonne work, so a three-axle chassis was the inevitable default. Next, with weight savings in mind, it should ideally have an engine with a nominal 10- to 12-litre displacement pushing out between 430-475bhp.

While we left the transmission choice open, we insisted that all contestants should have a flat roof (or nearest equivalent) sleeper cab without top or side deflectors. Moreover, any quoted kerb weight should be based on a chassis with a 300-litre fuel tank, or the alternative with the closest capacity,

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full of fuel and AdBlue typically fitted to a tractor that returns to base most, if not all, nights. Lightweight fifth wheel couplings are noted, as well as lead-up ramps if fitted. All weight calculations assume an 85kg driver. Finally, our tractor had to come with steel wheels to ensure uniformity. However, alloy fuel and air tanks were permissible. [TE](#)



	DAF CF 450 FTP 6x2	IVECO AT 440S46 TX/P 6x2	MAN TGS 24.460 6x2/2 BLS	Mercedes-Benz Actros 2446 LS
Cab	2.3m wide CF twin-bunk sleeper	2.3m wide High Road low-roof sleeper with single bunk	2.24m wide TGS 'L' sleeper with twin bunk	2.3m wide L-Cab Classic Space sleeper with twin
Engine	443bhp 10.8-l MX-11	448bhp 11.1-l Cursor 11	454bhp 12.4-l D2676LF52	450bhp 10.7-l OM470
Transmission	TraXon 12-speed two-pedal auto	TraXon 12-speed direct drive auto	Tipmatic (ZF) direct-top 12-speed auto	Powershift 3 12-speed direct-drive two-pedal auto
Third axle	Air-sprung, non-steering 4.4t capacity mid-lift	Air-sprung, non-steering 4.6t capacity mid-lift	Air-sprung non-steering 5.0t capacity mid-lift	Air-sprung non-steering 4.3t capacity mid-lift
Third axle wheels	17.5in wheels; 235/75R17.5 tyres	17.5in wheels; 235/75R17.5 tyres	19.5in wheels; 285/70R19.5 tyres	17.5in wheels; 215/75R17.5 tyres
Chassis wheelbase	3.85m	4.0m	3.9m	4.0m
Fluids (litres)	340 diesel; 45 AdBlue	290 diesel; 50 AdBlue	300 diesel; 24 AdBlue	390 diesel*; 60 AdBlue
Fifth wheel	Jost JSK36DV pressed-steel, 40mm mounting plate	SAF FWAL aluminium	Jost pressed steel	Jost JSK 40K
Other	PTO; lead-up ramps; no spare wheel carrier	PTO	PTO; lead-up ramps	PTO
Kerb weight quoted by manufacturer (kg)	7,486	7,220	7,733	7,659
	Renault T460.23 6x2 MML	Volvo FM 11-450 'Lite'	Scania G 450 A6x2/2NA 'Lightweight'	
Cab	2.3-2.5m wide tapering Night and Day single-bunk flat roof	2.5m wide standard roof FM single-bunk sleeper	2.3m wide flat-roof version of twin-bunk G sleeper cab	
Engine	447bhp 10.8-l DTI 11	444bhp 10.8-l D11K	444bhp 12.7-l DC13 SCR-only	
Transmission	Optidriver 12-speed two-pedal auto with aluminium housing	I-Shift auto 12-speed	GRS905 gearbox, 12-speed +2 crawler with Opticruise automation	
Third axle	Air-sprung, non-steering, 4.5t capacity mid-lift	Air-sprung, non-steering, 4.5t capacity mid-lift	Air-sprung, non-steering, 4.5t capacity	
Third axle wheels	17.5in wheels; 235/75R17.5 tyres	17.5in wheels; 245/70R17.5 tyres	17.5in wheels; 245/70R17.5 tyres	
Chassis wheelbase	3.9m	4.0m	3.95m	
Fluids (litres)	330 diesel; 64 AdBlue	330 diesel; 64 AdBlue	300 diesel; 47 AdBlue	
Fifth wheel	Holland FWAL-E Alue aluminium fixed	Fontaine 150SP2 pressed steel	Jost JSK37C-Z	
Other	PTO	PTO	Lead-up ramps; steel wheels	
Kerb weight quoted by manufacturer (kg)	7,510	7,436	7,804	

*Weight based on 351 litres of fuel (90%), which it says is maximum fill