



fleet
TRANSPORT

“One of the main reasons the DAF CF & XF series were crowned ‘International Truck of the Year 2018’ (IToY) was down to their greatly improved driveline that delivers appreciable savings for operators.”

▶ “The improvements allow DAF Trucks to claim a 7% reduction in fuel consumption for on-road transports, and a 5-6% reduction for mixed on/off-road operations. In addition, DAF now offers greater choice of engine power ratings, transmissions, chassis and body building options.”



DAF'S NEW CONSTRUCTION FORCE ‘TIPS ALONG NICELY’

The 410hp CF marked DAF 75 could be described as a road going distribution truck with off-road capabilities. Whereas the 450hp CF Construction marked DAF 78 is one capable of spending more time off-road than on and is clearly the tougher specimen.

The CF series clearly aims to be the truck about town. The interior layout of both models has received a trim and finish update which is comfortable, hardwearing, and suitable to the task. Other new features include improved heating, ventilation and climate controls, and an improved driver information display.

Driveline Enhancements

Running at 32 tonnes, the PACCAR MX-11 rated at 410hp was never troubled. Although DAF Trucks has made significant changes to the engine, it is important not to underestimate how much the driveline has been enhanced by the new 12-speed ZF TraXon automated transmission which is now the standard fitment. For the construction sector TraXon comes with an ‘on/off-road mode’ switch which alters the shift parameters to suit the more demanding terrain. We did activate the off-road mode, though in reality the CF never appeared phased by anywhere we wanted to go on the site.



‘Rarely does a manufacturer make significant progress with what is really a revamp’

More power and less weight define the latest tipper range from DAF Trucks.

Plant & Civil Engineer spent the day in a quarry to see if the revamped aggregate and construction spec trucks deliver, as Kevin Swallow reports.

DAF Trucks offered two eight-wheelers for us to drive, both powered by the MX-11 engine using single reduction drive axles; a lightweight road-friendly CF410 FAD and more heavy-duty CF450 Construction.

First up was the aggregate-spec CF410. Badged 410, it delivers 402hp and 2,000Nm torque that increases to 2,100Nm in the top two gears of the 12-speed ZF TraXon overdrive box makes working through undulating terrain easy. The engine lugs in top gear for longer and switching to manual override stops unwanted changes down

the box on the crest of a hill.

Appealing to the more rural tipper operators who work the peaks, the CF450 Construction was fitted with a 16-speed manual. Those four extra gears offer much greater scope and nuance for day-to-day work.

Rarely does a manufacturer make significant progress with what is really a revamp, and Plant & Civil Engineer was really impressed. That extra oomph from the Multi-Torque coupled with the extra power means the engines are potentially more efficient and definitely more robust. Operators will welcome the driveline improvements and the lower kerbweights is something all operators can successfully tap into.

**PLANT & CIVIL
engineer**

DAF Trucks Limited
Eastern Bypass
Thame
Oxfordshire OX9 3FB
United Kingdom
Tel: +44 (0) 1844 261111
daf.co.uk

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METEOR/CF/FADPRESS/1000/0518

THE NEW CF PURE EXCELLENCE

Reactions from
the press



A PACCAR COMPANY DRIVEN BY QUALITY

DAF

CF

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Food for thought

Hydrotreated vegetable oils (HVO)

In the alt-fuel race, DAF is backing HVO as a clean, easy and efficient diesel substitute. We took two New CF tippers into a quarry to find out how its performance stacks up.

As pressure mounts on operators to make the switch from 'dirty' diesel, HVO offers a raft of environmentally sound benefits — headlined by a whopping 90 per cent reduction in carbon emissions. (The rest are listed at the bottom of the page.)

But how does the fuel fair in terms of performance? The first vehicle we trialled was a CF410 FAD, spec'd with a

day cab, 420 bhp MX-11 engine and DAF's new TraXon 12-speed automated gearbox.

Our time on the quarry site was limited, but we managed to do a fair few laps around the mounds of collected stones, weaving in and out of the stone piles and across varying surfaces. Recent rainfall had made the going wet and soft in places, but the truck soldiered through with no problems at all.

Drivers will completely forget the truck is not running on diesel - in terms of grunt and general get-up-and-go, there's hardly anything in it.

Driver appraisal

manual labourer

The subject for this issue's driver appraisal is a little different. It's a new DAF CF450 8x4 tipper, but it's one of the — now relatively - rare breed of new trucks with a manual gearbox.

A lot of manufacturers either don't offer manual boxes, or if they do, often they don't really shout about it. The fact DAF has put this truck in its demo fleet does kind of suggest that it's actually more than willing to offer the product than other manufacturers.

Off road tipper and muckaway work is one of the last bastions of these boxes, although even here automatic

boxes are now in the majority of new trucks delivered. So, is it any good, and should you plump for it?

The Truck

Our chariot for the day is a CF450FAD 8x4. Under the tilt cab is the MX11 10.8-litre straight six in its most powerful output — 449hp. The truck is plated for 32 tonnes with a 14,200kg front axle combination — both axles being 7,100kg in capacity - and a 19,000kg rear bogie capability, again with each axle equal at 9,500kg. The gearbox is a ZF 16-speed four over four with splitter, but fear not auto fans, the 12 or 16-speed TraXon gearboxes are both options.



“At the end of our day, we were much better disposed to the manual than we had expected to be”

TRUCKING

DAF CF450 FAD 8X4, DAY CAB

Design GVW: 32,000 kg

Chassis: 5700 mm wheelbase

Front axles: 7100 kg, parabolic, 295/80R22.5 tyres

Rear axles: 9500 kg, trapezium, 3.73 rear axle ratio, 295/80R22.5 tyres

Gearbox: ZF 16-speed manual

Engine: 450 bhp MX-11, Euro 6, MX engine brake

DAF CF410 FAD 8X4, DAY CAB

Design GVW: 32,000 kg

Chassis: 5700 mm wheelbase

Front axles: 7100 kg, parabolic, 295/80R22.5 tyres

Rear axles: 9500 kg, trapezium, 3.73 rear axle ratio, 295/80R22.5 tyres

Gearbox: TraXon 12-speed automated transmission

Engine: 410 bhp MX-11, Euro 6, MX engine brake



On The Road

While I am a firm advocate of automatic boxes, I won't shirk the need, or indeed opportunity, to drive a manual. Being a new truck, I was perhaps a little concerned the gearbox might be a bit stiff and hard to move, but it wasn't.

Despite only having 2,000kms on the clock, the gearshift was responsive and relatively easy. Once you get the hang of a manual again — which was not that much of an issue if I am truthful, and you remember when to change from low to high range — then driving is easy. Of course, the more junctions, roundabouts, hills and other topographical features will dictate how many gear changes you will have to make.

You have a split shift button which comes into its own off road, or when you really need the lower range of gears, but it's there if you need to split a gear at any time.

ON TEST

DAF CF: AMT VS MANUAL

The progress of automated manual transmissions (AMTs) has been very well documented.

For the marques that don't make their own transmissions, ZF is the provider of choice, and its new TraXon family offers single and dual clutch variants, as well as hybrids and torque converters. Sophisticated software now makes them intelligent devices too, with the same metalwork able to adopt different personalities to suit seemingly any application. So where does this really leave the manual gearbox?

Buyers' Choice

DAF's New XF, CF and LF ranges were launched about a year ago, and we found the registration figures for the chosen transmissions surprising. During the past year, of the 1,307 XF models registered, 85 took the 16-speed manual. CFs registered were a total of 964, and 164 of those were manuals.

Haulage and Construction

The two chassis we tested were designated as a 'construction' spec, a CF450 8x4, aimed at the more

arduous duty and so-called 'muckaway' market, and a haulage spec, a CF410 8x4 with less of the robust trimmings, and a cab set lower on the chassis. We've tested them before, and they make a good account of themselves.

The on and off road performance was good, and the MX-11 10.8 litre unit from PACCAR delivered enough at both horsepower ratings for 32,000kg operation. The TraXon unit in the haulage spec performed as well as they do elsewhere, smooth and fuss-free. But it was the manual that we were interested in.

Reward and Retention

At the end of our day with these two trucks, or these two transmissions to be specific, we were much better disposed to the manual than we had expected to be. It was a more involving driving experience, and we actually felt that we were deploying some skill.

This is an easy way to reward a driver who wants one, and it will give them a bigger feel of ownership too. If we had a month's tipper work in front of us, which would we chose? To our own surprise, it would be the manual, if only to bring a smile back to what is becoming an anodyne job.

HVO's Advantages and Disadvantages

- + HVO is a 100 per cent 'drop in' fuel - can be used in pretty much any diesel truck
- + 90 per cent potential reduction in carbon emissions
- + Can be used on its own or mixed with diesel
- + No noticeable difference in performance
- + Clean, odourless and easy to store
- Current price of HVO
- HVO's lower energy value per litre results in four per cent increase in fuel use compared with diesel

Conclusions

In short, the DAF CF tipper range really does cover all bases; six outputs from two engines, three cabs and three gearboxes — and that's before you get onto wheelbases, axle options and, of course you can have 8x2 or 8x4 drivelines as well.

You see a lot of CF tippers on the road, and there's good reason for that. And that reason is simple - they are a very good truck and above all, the customer can specify exactly the vehicle they want and need for their own operation.

