

Trucker

Career | Technology | Passion



DAF XF 480 Record drive!

Efficient Dutchman

DAF submits its latest XF to TRUCKER test for the first time. The 480 proves economical – but at the expense of emotion. ▶

ON TEST: DAF XF 480

Model: DAF XF 480 Space Cab
Displacement: 12,900 cm³
Horsepower (kW): 483 (355) at 1600 rpm
Torque (Nm): max. 2500 at 900 - 1365 rpm
Unladen weight: 7480 kg (400 l diesel, 65 l AdBlue)





SUPERTEST DAF XF 480 SPACE CAB



The DAF lags behind its competitors in terms of steering wheel adjustment



The brown synthetics are part of the 'Exclusive' pack, and are purely a matter of taste



Definitely recommended: Night-Lock door locking. No manual gear-shifting is possible in Eco mode



The elderly sometimes take a bit longer to do things. That is true of the DAF XF too. Its basic design concept originates from 1987, making it by far the longest-serving model on the market. And the Dutch have certainly taken their time submitting this latest extensively facelifted version, released in the middle of last year, to the TRUCKER Supertest.

In purely visual terms, the update is not so extensive. The slightly modified front end and a new sun visor are the only new styling features, so it's hard to distinguish the new XF from the old one on the road. A little tip: the best way to spot the latest edition is by its new side lines (giving it what we would describe as a chubby-cheeked look) either side of the DAF badge.

MUCH MODIFIED ENGINE AND ZF TRAXON TRANSMISSION

There are a lot more changes that you can't see. DAF has finally, like other manufacturers, switched its power distribution to the state-of-the-art Traxon fully automated transmission from ZF. The company's developers also focused heavily on updating the time-honoured MX13 six-cylinder engine. New fuel injection software with higher compression, lower-friction pistons, new injectors and a more efficient turbocharger are just some of its features that have been

upgraded. Its power and torque have also been boosted. The test vehicle was powered by the middle rating at exactly 483 horsepower and a maximum of 2500 Newtonmeters of torque – 21 hp, and above all 200 Nm – more than the comparable predecessor engine.

That encouraged DAF's engineers to configure tall ratios for the rear axles. One of the most extreme is the 2.21 axle fitted in the test vehicle, which reduces the revs to just 1000 rpm at a cruising speed of 85 km/h. But we can allay any concerns that this might arouse: the very low revs do not make things harder for the driver, or entail any other disadvantages. Firstly, because the Traxon shifts down quickly and smoothly; and secondly, because the XF has been made much quieter than its predecessor and there is no engine vibration even at low revs. The only indication of a down-shift in most cases is the visual one on the tachometer.

The same is true when driving downhill, where the transmission control system immediately shifts down two gears while still on the crest of the hill so as to provide enough revs for the 490 hp output of the MX engine brake. On steep down-slopes, however, the enhanced engine brake still needed the service brake to keep the vehicle's speed within the legal limit even with our only part-loaded test trailer. As so often, that means we recommend choosing the more assured ZF Intarder option.

DOWN-SHIFTING ONLY STARTS AT 900 REVS

By contrast, when driving uphill the transmission control software doesn't immediately resort to a gear-shift. At least with our Krone light 24 tonne test trailer hitched to the fifth wheel, 12th gear is maintained relentlessly down to below 900 revs. The system seeks to utilise the increased torque in the highest gear for as long as possible. In the subsequent ▶



The facelift includes new dials for the instruments and new features for the on-board computer



Just 1000 revs at 85 km/h



Narrow steps, small door opening angle: The climb into the XF's cab is tight

The front steps can easily snap shut accidentally



ENGINE PROS AND CONS



- +** Cultured six-cylinder in-line engine, smooth running even at low revs; pleasingly subtle combustion noise
- Dynamic Cruise does not allow the full power to develop, so uphill the engine is unable to show what it can do

SUPERTEST DAF XF 480 SPACE CAB

lower gears, 'only' 2350 Nm is then transmitted to the rear axle.

However, the engine/gearbox tuning alone indicates that the tested XF is not exactly high-spirited for a truck in the 480 horsepower class. That's true, but it's not so much to do with the lower revving. Nor is it to do with the GPS cruise control system, which we as ever set to a realistic +5/-5 km/h during the test drive. The predictive system works unobtrusively and satisfactorily, but nowhere near as precisely as the ones coming out of Södertälje or Wörth.

As in the case of the Daimler, we don't like the Eco-roll tuning; more specifically, when it cuts out as the vehicle starts going uphill: it only happens when the exact pre-set cruise control speed has been reached again. By the time traction has been restored, valuable momentum has been lost, which the engine has to laboriously recover – if the electronics would let it. Because in addition to the GPS cruise control, DAF features another fuel-saving system – namely 'Dynamic Cruise'. It prevents the full engine power from being utilised on hills in cruise control mode. Instead of a potential 85 km/h, the control unit limits the speed to 83, and when rolling even drops below the -5 km/h setting of the GPS cruise control. That might well save a few drops of diesel, but it makes the XF less responsive, which is why it feels slower than a vehicle in this power class should. Many drivers will doubtless find it hard to resist over-

riding the XF's economy drive by stepping on the gas to provide a more dynamic uphill thrust.

DAF NO LONGER ALLOWS MANUAL GEAR-SHIFTING

Dynamic Cruise does at least offer a choice. With the fully automatic transmission, the DAF does not allow manual gear-shifting. We can understand that when shifting down, but not when you want to shift up. You can only induce an up-shift by pressing the accelerator, though admittedly it does work quite well. Otherwise, the driver has to cancel the Eco programme by pushing the right-hand control stalk. Manual shifting is then possible, and the transmission also stretches the ratios. But after just a few seconds the control unit takes back command – by reactivating Eco mode.

While the XF might feel slow in that mode, seen purely rationally it's no more than half a kilometre per hour slower over 100 kilometres than competitors with comparable engines.

And they can't match this vehicle's consumption figures: On our standardised test drive – as always compared against a reference vehicle – the 480 DAF consumed just 24.33 l/100 km, placing it at the top of our fuel economy rankings for the time being (see chart on page 50). It might sometimes take a bit longer to get there, but an older model can still prove that it's far from over the hill. **JB**

At first glance, the latest XF is hard to distinguish from its predecessor



The hatches of the big lockers are too small







There is nothing wrong with the big Dutchman's chassis and steering

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Achim R. DAF has sold big volumes to road hauliers in recent years. I'd be interested to know how the Dutchman performs in terms of durability and quality. Does the DAF only sell because it's cheaper than the competition? The design divides opinion.

Solo Y. The transmission is better than on the predecessor model, as is the quietness. Otherwise it's actually pretty much the same – sadly also with that rubbish Eco mode, which means you can't change gear yourself. So I don't get to feel much of the 480 horsepower to be honest. Any

400 will pass it easily on a hill. But, on the other hand, my boss says the fuel economy is good.

Thomas W. I have the new DAF 480. I'm totally happy with it. I had the predecessor model before. The gearbox is now much improved, and it's much quieter running. I've not had any problems so far – and nor should I have after 30,000 kilometres. But I certainly wouldn't be without my big Super Space cab.

Andi H. The small Space Cab would be too small for me as well. There's just not enough headroom because of the engine tunnel.

Fidel W. I'm keen to see how many DAFs actually make it to the specified 200,000 km service interval. All the trucks (of various makes) that I've

had before had shorter intervals, around 120,000 km, but still needed work doing earlier.

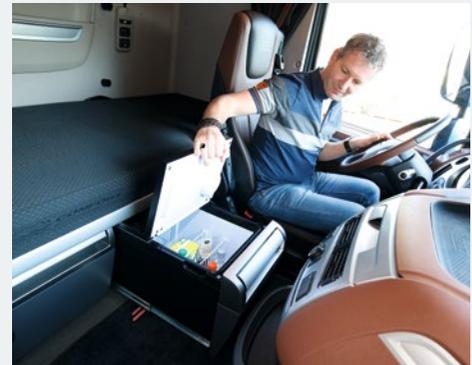
Martin W. The Super Space Cab makes the DAF a great truck for drivers. I wouldn't change it now. The bed is top-rate too. My only criticisms are about small things: the steering wheel adjuster knob is fiddly, and there are not enough steering wheel adjustment options. Also, visibility is pathetic due to the small windscreen and the big fascia. And I think the exterior mirrors are too small. But otherwise it's a super truck.

Kevin Sch. DAF is just good at selling good trucks at a good price. I really don't care how old the design is, it just has to be comfortable and reliable. And the XF is. Better than the so highly praised makes from Gothenburg or Södertälje!

CAB RATING



The bed is one of the plus-points of the XF's cab



Enough for long runs: large cool-box

With a maximum headroom of 1.88 metres, the Space Cab is more something for domestic transport routes. Especially since the full height is only usable in the front passenger footwell. But to achieve that, DAF has reduced the size of the passenger-side locker above the windscreen, meaning the capacity of the overhead cubbies is average at best. But the 54 litre capacity drawer under the bed does hold a lot. Between the seats, the 15 cm high engine tunnel reduces the headroom to

1.73 metres. The only way to create more headroom is to open the roof hatch. In other ways the Space Cab is pleasing: well finished, in homely materials, and featuring practical equipment. Examples include the very comfortable maximum 81 centimetre wide bottom bunk, and the 38 litre fridge – big enough to hold plenty of supplies. The basic design shows its age in the restricted visibility through the narrow windscreen. The field of view of the exterior mirrors is also quite narrow, though their housings are compact.

CUBBIES

Capacity in litres (l)

Above windscreen, right, with cover	37
Above windscreen, centre, with cover	80
Above windscreen, left, with cover	59
Under bed, left	55
Under bed, stowage box	18
Fridge (under bed)	37
Drawer (under bed)	68
Under bed, above outside cubby	81
At head end, bottom bunk	9
Door pockets, left/right	4 each
Outside cubby, right	155
Outside cubby, left	168

Deficiencies in visibility and system control

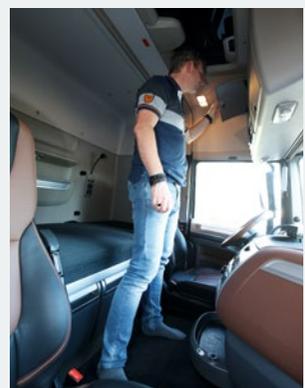
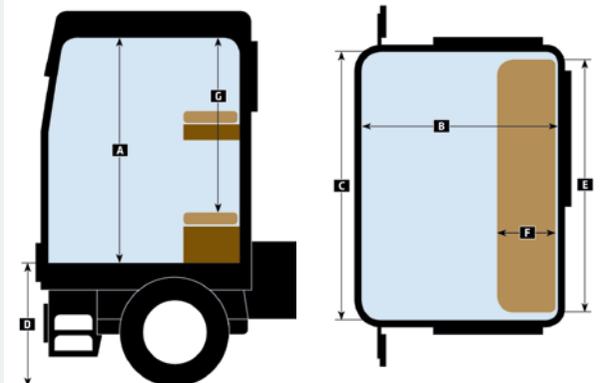
The XF has improved markedly. It is quieter, shifts gear more quickly, and the six-cylinder MX13 engine runs at lower revs. But it's no rocket. It's purposely designed to be slower so as to save fuel. The boss will like it; the stressed driver less so. I like the DAF's steering a lot. Despite the wide 385 size tyres fitted on the test vehicle, it is more manoeuvrable at low speed. But I think the control system doesn't provide enough steering lock. The poor visibility through the narrow windscreen is an outdated feature. And the heater, air-conditioning and ventilation controls are very low down, causing distraction for the driver when operating them. Also, the rather small, angled screen of the navigation system reflects in the side window.



TRUCKER tester Wolfgang Obermaier

CAB DIMENSIONS

	(cm)		(cm)
A Cab, interior height*	188	E Bed, length	210
B Cab, length	225	F Bed, width	81
C Cab, width	249	G Bed, headroom	No data
D Entry, height	153	Steering wheel adjustment range, height	8
Seat adjustment range, height	14	Steering wheel adjustment range, tilt	30°-50°
Seat adjustment range, depth	20	*On engine tunnel	173



Limited headroom

SHELVES

Length x width (cm)

Low, above engine tunnel	36 x 53
High, on fascia	31 x 33-55
Pull-out table	28 x 29

Two clothes hooks, cup holder on bottom bunk, bottle compartment next to driver's seat, bottle holders in right and left door pockets, fold-out cup holders in centre console, large ashtray in centre console, 24 and 12 Volt power sockets, rotating spotlight above driver, twin light above driver, red light

TECHNICAL SPECIFICATIONS

ENGINE

Water-cooled six-cylinder in-line engine; single turbocharger, intercooler, four valves per cylinder, SCR exhaust gas cleaning, exhaust gas recirculation, particulate filter, Euro 6

Type.....Paccar MX-13 355
Displacement.....12900 cm³
Bore x stroke.....130 x 162 mm
Compression ratio.....18.5:1
Fuel injection.....Common-Rail
Nominal power output.....483 hp (355 kW) at 1600 rpm
Max. torque.....2350 Nm (in 12th gear 2500 Nm) at 900 - 1365 rpm

TRANSMISSION

Clutch

Pneumatically operated ZF-Sachs single-plate clutch, 430 mm

Transmission

ZF-Traxon, synchronised three-speed basic transmission (ZF 12 TX 2010 TD), Range and Split group, 12 forward gears, 2 reverse gears

Crawler: none

Ratio spread – Forward gears: 16.69 / 12.92 / 9.93 / 7.67 / 5.90 / 4.57 / 3.66 / 2.83 / 2.17 / 1.68 / 1.29 / 1.00

Reverse gears: 15.54 / 12.03

Rear axle: i=2.21

CHASSIS

Front: Type 163N, 100 mm vertical offset; 8.0 t; two-leaf parabolic spring with anti-roll bar

Rear: Type SR1344, single reduction driven axle; 13.0 t; four-bellow air spring with anti-roll bar

Tyres (on test): Front 385/55 R 22.5; Rear 315/70 R 22.5

Wheels (on test): 9.00 x 22.5 aluminium (option; standard: steel)

BRAKE SYSTEM

Front: Dual-circuit compressed air Brake system with disc brakes, EBS

Rear: Disc brakes, EBS

Engine brake.....MX engine brake (360 kW at 1200 - 1500 min)

Retarder.....ZF Intarder (option)

STEERING

Transmission ratio.....19.1:1

Steering wheel diameter.....450 mm

MASS + WEIGHTS

Wheelbase.....3600 mm

L x W x H.....5720 x 2550 x 3530 mm

Unladen weight.....7480 kg (ready to drive, with driver)

FILL QUANTITIES

Engine oil.....34.0 l (incl. filter)

Tank.....400 l diesel; 65 l AdBlue

Coolant.....47.0 l

Rear axle fluid.....23.5 l

Gear oil.....21.5 l

PRICES

(NET, DEALER QUOTES)

Base price of DAF XF.....**on request**

Price of test vehicle.....**on request**

Standard equipment / Optional extras

Fully automatic transmission, Bremsomat brake control, Hill-holder, Eco-Roll, on-board computer/diagnostic system, electric roof hatch, electric windows, automatic air-conditioning system, comfort mattress (bottom bunk), fleet management system, heated electrically adjustable mirrors, frame cover, central locking, fog headlights



Smart detail: fold-out additional sun visor

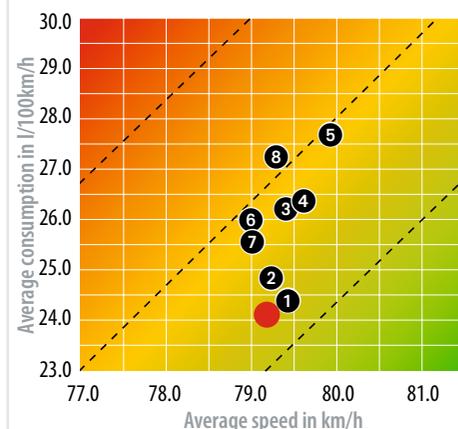
TRUCKER recommends:

Lighting pack: LED headlights with impact-resistant Lexan lens glass, adaptive headlights, LED work light behind cab, LED rear lights.....Price on request

Aerodynamics pack: Winder adjustable roof spoiler, side collars, side skirts.....Price on request

'Exclusive' pack: Leather steering wheel, leather door coverings, interior in 'Exclusive' trim, luxury driver's seat with leather and air-conditioning.....Price on request

CONSUMPTION COMPARED



- 1 Scania New R 450
- 2 Mercedes Actros 1845
- 3 Iveco Stralis XP 480
- 4 MAN TGX 18.460
- 5 Volvo FH 460
- 6 Volvo FM 450
- 7 Iveco Stralis XP 420
- 8 Renault T 460
- DAF XF 480

SERVICE AND MAINTENANCE

As part of last year's facelift, DAF extended the model's service intervals to a maximum of 200,000 kilometres – though that is of course only possible using expensive synthetic oils. Only time will tell whether the service computer will actually allow that distance to be driven, or order the Dutchman into the workshop earlier. Anyone changing the oil themselves will be pleased to find that the oil filter is easy to replace without major



DAF installs the AdBlue tank in a raised position

dripping. The oil filler neck is located in an easily accessible spot under the grille, along with the coolant and windscreen washer fluid reservoirs. There is a dipstick mounted on the engine block. All fluid levels are monitored by the on-board computer. One thing that's not ideal: you have to tip the cab in order to top up the steering fluid or change the air filter. The optional LED headlights cast a pleasing light on the road ahead, and are an advisable add-on. The LED rear lights should last the lifetime of a truck without failing.

COMPETITION



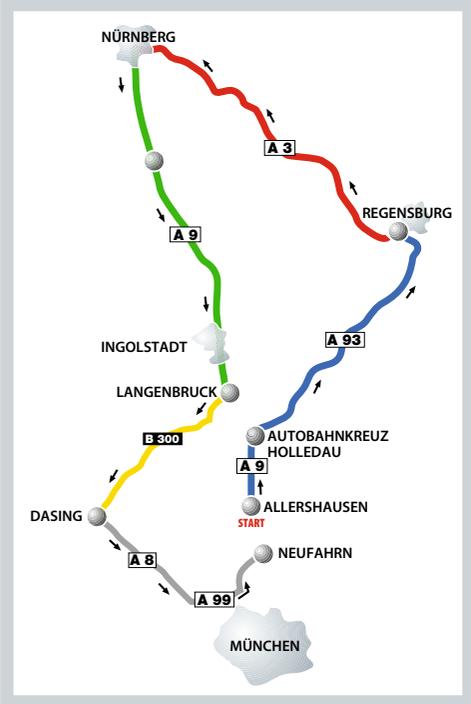
DAF XF 480	
Driver rating	806
Economy	588
Consumption (with AdBlue) l	24.3
Speed km/h	79.2
Points	1394
Overall rating	Excellent

IVECO STRALIS XP 420	
Driver rating	792
Economy	566
Consumption (with AdBlue) l	25.6
Speed km/h	79.0
Points	1358
Overall rating	Very good

RENAULT T 460	
Driver rating	797
Economy	543
Consumption (with AdBlue) l	27.3
Speed km/h	79.3
Points	1340
Overall rating	Very good

MB ACTROS 1845	
Driver rating	810
Economy	579
Consumption (with AdBlue) l	24.9
Speed km/h	79.2
Points	1389
Overall rating	Excellent

TEST ROUTE



CONSUMPTION AND SPEED

Tonnage 40 t each	1st leg 74.3 km Medium	2nd leg 80.8 km Hilly	3rd leg 100.2 km Rolling leg	4th leg 50.5 km Country road	5th leg 52.7 km Easy	Total 358.5 km
Litres/100 km	23.38	27.30	23.77	21.90	24.44	24.32
km/h	83.75	82.80	83.07	60.64	85.13	79.22

HILL RATINGS

	Gradient/length	Time	Gear at rpm	v _{min}	Consumption
1	max. 5 %, 1.5 km	No measurement	-	-	-
2	max. 6 %, 1.5 km	1.12 min	11 at 1130 rpm	74 km/h	79.3 l/100 km
3	Kindingen hill on A9	3.33 min	11 at 1100 rpm	71 km/h	74.4 l/100 km

Why we run a reference truck

Every test is accompanied by our 38 tonne reference vehicle, an MB Actros 1845 pulling a Schmitz-Cargobull curtainsider. We have gathered consumption data under good conditions with this combination. If the data changes during the test, we know that the test truck was subject to different conditions. By calculating the ratio of deterioration to improvement, we are able to analyse the data of the test truck on a standardised basis. The advantage: our data is comparable. We think it would not be legitimate to compare data



gathered with no reference on different days under varying conditions. We are the only trade journal to test using a reference truck. It's also the method practised by the industry – because it's the most accurate! AdBlue consumption is calculated into the individual leg results on a pro rata basis.

TRUCKER tests using premium fuels from Shell

ClimatePartner
 klimaneutral
 Fahrzeugtest | ID: 11232-1306-1001

Setting a good example: TRUCKER compensates for the CO₂ emissions of its testing by means of certificates. The compensation is fed into a wind power project through the contractor 'Climate Partner'. We owe that to the environment – even when we are driving to help you save!

NOISE MEASUREMENTS COMPARED

Measurement in dB(A)	Engine on Idling	85 km/h Roof hatch closed	85 km/h Roof hatch open	Engine off Driver/bed
DAF XF 480	50	62	64	54/54
Best in test *3	49	61	64	48/47
	Uphill	Full throttle	Engine brake running	
DAF XF 480	64	64	61	
Best in test *3	62	62	60	

*3: Scania S 730

SCORES

Engine/drive system (max. 140)...	118	Seats (max. 40).....	32
Transmission/dutch (max. 140)...	118	Fascia/instruments (max. 50)	40
Brakes (max. 120).....	98	Windscreen wipers (max. 30)	24
Steering (max. 40).....	34	Cab (max. 240).....	194
Pedals (max. 20).....	16		
Handling (max. 60).....	53		
Visibility (max. 50).....	39	Total points:	806
AC/ventilation (max. 50).....	40	(maximum	980)

+ Very economical drive train, quiet running, high level of ride comfort, active suspension, much improved transmission

- Sluggish-feeling performance; MX engine brake offers limited options, cab visibility

DRIVER RATING/OVERALL RATING 806/VERY GOOD

Overall rating Excellent



The seat belt is of course always fastened during the test drive

CONCLUSION

480 PS economical in operation



TRUCKER tester Jan Burgdorf

The DAF XF 480 achieved a new record for fuel economy on our test route. Major factors in that achievement were the GPS cruise control and Dynamic Cruise systems. The latter system, especially, helps save those last few drops of diesel, but impedes the Dutchman's performance on hills. That makes it something of a bore for many drivers – which is why they are likely to override the system by hitting the gas.