

FALL 2020/SPRING 2021

# DAF

## IN ACTION



“TRANSPORT  
MANAGEMENT  
**IS KEY”**

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**DAF**



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**GOODYEAR**

# TRANSPORT IS VITAL

If there is one thing we have learned over the past few months, it is that transport is one of our most vital sectors. A sector that supplies our supermarkets on a daily basis, that keeps hospitals supplied with medicines and medical equipment. Without transport everything comes to a standstill.

It is thanks to the transport sector that a whole range of services are able to continue and that tens if not hundreds of thousands of trucks are constantly working to ensure that we are all supplied with everything we need. This is the case day in day out, and I am very proud of the role that we, as a truck manufacturer, have played. By producing the most reliable and efficient trucks around and catering to the needs of others.

We know how important uptime and cost of ownership are for you. That's why we provide the best parts service in the industry through PACCAR Parts; why all DAF dealers offer the best and fastest roadside assistance through DAF ITS; why we place so much emphasis on the importance of having the right kind of finance plan and repair and maintenance contracts. DAF takes care of your worries so that you can concentrate on your key activities. And that is probably more important now than it has ever been before.

At the same time, we are always searching for sustainable solutions for the future. We are at the cutting edge of the industry when it comes to electric trucks. Our new CF Electric has an electric range of 200 kilometres and a battery pack that is 700 kg lighter than its predecessor. And, of course, we continue to explore and develop new technologies in our efforts to ensure even cleaner and more sustainable road transport. Because it is and will remain a vital sector.



**Harry Wolters**  
President DAF Trucks N.V.

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Prof. Lutz Eckstein:

# “THERE’S MORE TO IT THAN WHAT COMES OUT OF THE EXHAUST PIPE”

He may speak with a soft voice but he is frank in his views and never afraid of slaying a sacred cow or two. With well-chosen words, of course. According to Prof. Lutz Eckstein we still have a long way to go before transport – and road transport in particular – can be genuinely labelled sustainable. Because, in his opinion, there is a lot more to sustainability than simply minimizing what comes out of the exhaust pipe. “We need to adopt a more integrated approach.”



According to Eckstein, we need to adopt a more holistic approach to the climate question: we have to look at the complete life cycle of modes of transport.



**B**efore diving into the interview with Lutz Eckstein, Director of the Institute for Automotive Engineering at the University of Aachen, we should take a quick look at the impressive achievements that have already been made with regard to trucks and emissions.

## **95% LESS**

A modern truck with a Euro 6 diesel engine emits up to 95% less nitrogen oxide than trucks did 25 to 30 years ago, while a reduction of no less than 97% has been achieved over the same period in the emission of soot particles. And in terms of CO<sub>2</sub>, the past 20 years have seen emissions per truck fall by 20%. The numbers sound great but they address only one aspect of the whole story: which and how much toxic and climate relevant substances are emitted via the exhaust pipe of a truck (also referred to as ‘tank-to-wheel’). To achieve genuinely sustainable transport, we need to look a lot further than the exhaust gas alone.

## **COMMON THREAD**

The latter statement encapsulates the common thread running through Eckstein’s argument. “We need to develop a more integrated approach, one in which politicians, the public, scientists, the media, industry and each of us all have a role to play,” he says, before giving two concrete examples: “It makes no sense to breed cows in Argentina, use thousands of litres of water to produce 1 kg of meat and then ship it all the way here in ships without any exhaust gas cleaning. Furthermore, cows produce a significant amount of methane, which is even more harmful to our climate than CO<sub>2</sub>. We have to ask ourselves what each of us can easily and individually do in order to limit climate change. Another example is the transport of Dutch shrimps by truck to North-Africa, where they are peeled before being driven back to the Netherlands again. From there they are distributed all over the world and probably end up on supermarket shelves back in Morocco, too. As a society, we appear to find this perfectly normal. As individuals, we have the choice and should make use of this freedom in a responsible manner.”

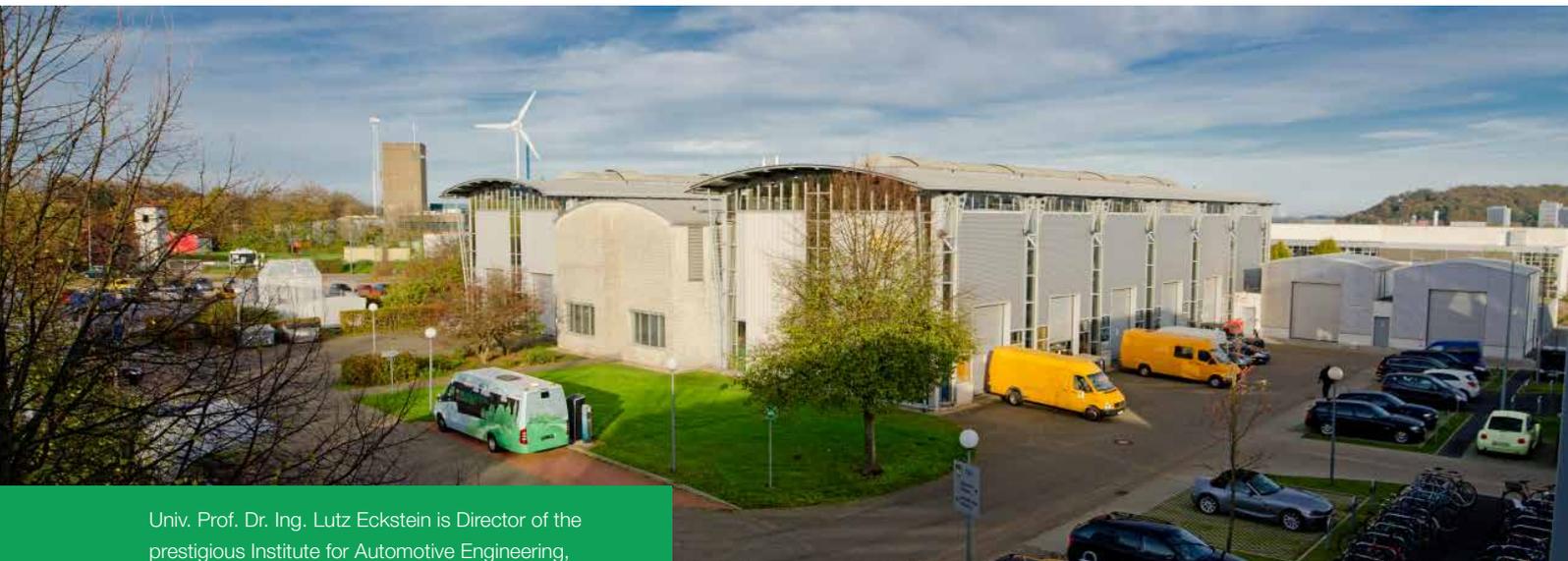
## **HOLISTIC**

According to Eckstein, we need to adopt a more holistic approach to the climate question: we have to look at the complete life cycle of modes of transport. “Let’s be honest, many years ago the European Commission, politicians and industry discussed whether to focus on reducing tailpipe emissions or to quantify emissions using a life cycle assessment (LCA)”, he says. “Back then the agreement was: let’s take the first option, because it is easier to perform. This made sense, too, because back then climate change was not the main topic of discussion. The focus was more on limiting consumption of fossil resources. Today, everyone is talking about climate change, but the regulating principle is still the same and may even cause adverse effects.”





# THERE'S MORE TO IT THAN WHAT COMES OUT OF THE EXHAUST PIPE



Univ. Prof. Dr. Ing. Lutz Eckstein is Director of the prestigious Institute for Automotive Engineering, part of the University of Aachen.

## DISCIPLINES

Eckstein continues: "Scientists are often not great when interdisciplinary problems need to be solved. Science is very structured in terms of disciplines, which presents us with a challenge. I am head of the Institute for Automotive Engineering, so you never heard me talking about food or the CO<sub>2</sub> footprint of food. That's a completely different discipline. If we want to achieve an integrated approach to tackle climate change, we need to bring the various disciplines together and base our arguments solely on facts. That is the way forward."

## SOCKS

Diesel. Battery electric. Hybrid. Hydrogen. Fuel cells. Which of these represents the future of road transport technology in terms of sustainability and tackling climate change? "There is no one single solution, we have to accept the fact that each transport application has different

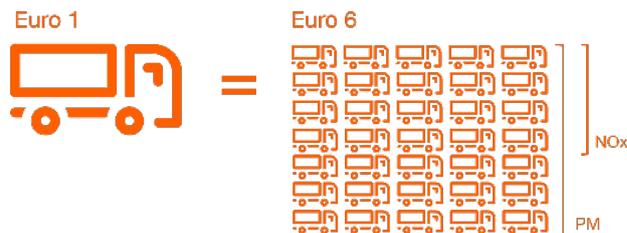
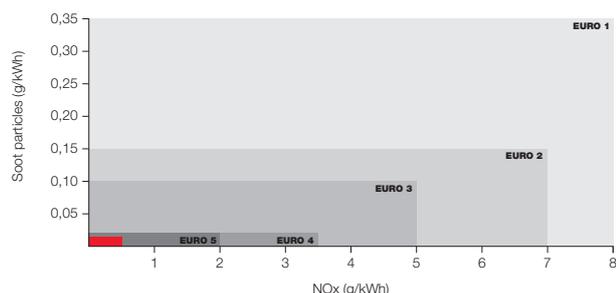
requirements and therefore may require a different type of drivetrain," says Eckstein. "One size fits all' might work for socks but it doesn't work for trucks and drivelines. If cities decide to allow only those trucks into their centres that are locally free of emissions, then the only option at present is a battery electric vehicle. However, for long-distance transport we need to think twice about what the best solution might be. In any event, dragging several tons of batteries around is not the answer, reducing transport efficiency by drastically reducing the payload and neglecting tons of CO<sub>2</sub> emission resulting from today's production of batteries. Not to speak of environmental damage caused by mining the raw materials."

## HYDROGEN

Which brings Eckstein to what some would consider a surprising conclusion: the combustion engine is still a long way from retirement. "In Europe, we have a good

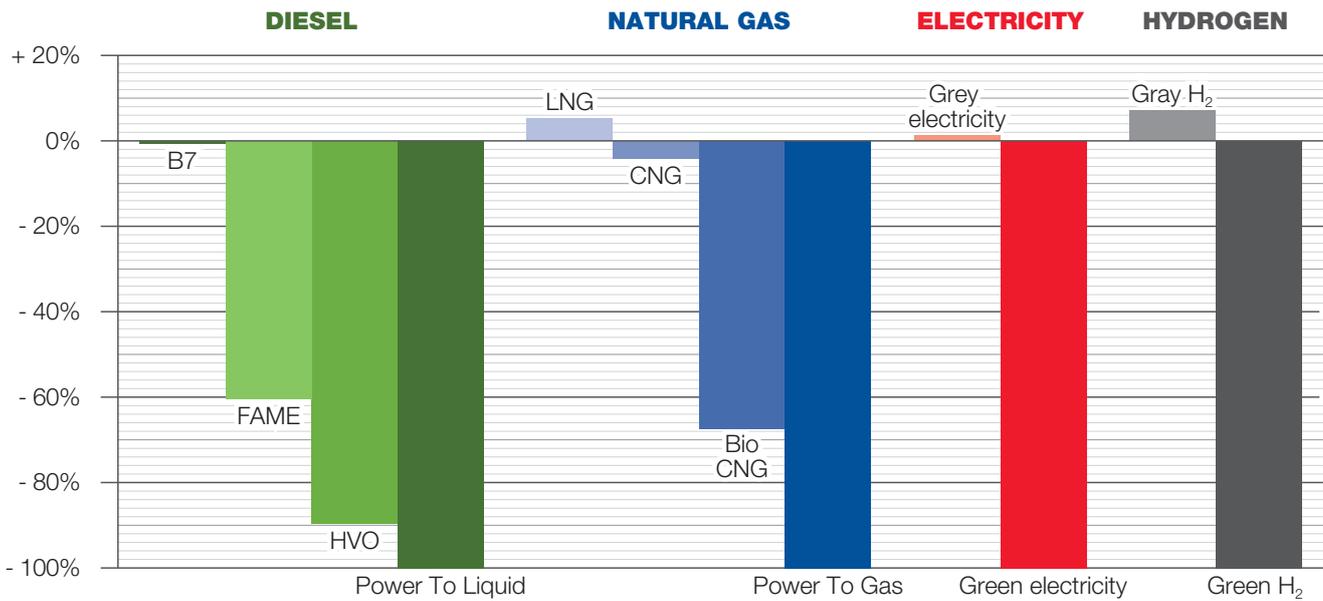
reputation when it comes to developing and building the most efficient drivelines. There are lots of patents and competences in that area here, but we have limited degrees of freedom to decide which ones we should be investing in and how much," he says. "At the European level, there is hardly any funding available for research on further improvement of combustion engines. At the same time, China is increasing its investments into this technology and Japanese companies introduce highly innovative engines into the market. In Europe, industry is being pushed exclusively in the direction of battery electric vehicles and fuel cells." He is keen to explain what he sees as the disadvantages of this trend. "Fuel cell technology based on hydrogen will certainly play a role in road transport," he says. "However, at the moment it is still a very expensive technology, not to mention the costs of the infrastructure that will have to be put in place. Hydrogen is not easy to work with, since it is the smallest element causing a number of technical challenges."

## EU emissions legislation



A modern truck with a Euro 6 diesel engine emits up to 95% less nitrogen oxide (NOx) than trucks did 25 to 30 years ago.

## Well-to-wheel CO<sub>2</sub> emissions from various fuel alternatives



Source: CO2emissiefactoren.nl

It has to be compressed or liquified, a process that uses 10 to 30% of the energy content of hydrogen, which is spent before you even start to use it as a fuel. There is nothing you can do about that either, it's just physics. So while hydrogen is definitely part of the solution, it is not the solution in itself. And when you look at the total efficiency of a fuel cell driveline, it is no better than that using a combustion engine, which may alternatively use hydrogen as fuel – this is a very valid option at least for trucks."

### TRAINS

According to Eckstein, fuel cells may be even more suited to trains than they are to trucks: "40% of the German railway network isn't electrified," he says. "Most of the 2000 diesel-powered trains are old, don't have any particle filters and only comply with emission standards from 1999. Trains with fuel cells would be a much better option. Putting the infrastructure in place is not that difficult either: you can determine exactly where the hydrogen filling stations need to be installed. After all, trains have fixed routes and stations where they stop, unlike trucks."

According to Eckstein, the combustion engine is still a long way from retirement.

### ELECTRIC

And what about electric drivelines? "The electric motor is the perfect engine for a vehicle and radically simplifies the drivelines," says Eckstein. "You don't need any switchable gears, clutch or reverse gear. The main challenge is how to store the energy. We humans are the "product" of thousands of years of evolution. But how do we store our energy? In fat. Fat is very similar to diesel, chemically speaking. Regardless of how quickly the technology develops, batteries will never be able to store as much energy per kilogram as diesel. It's physically impossible. Electric drivelines have advantages in urban environments, but will never be the perfect solution for all transport tasks. Therefore, combustion engines still have a future. Many people don't differentiate between the engine and the fuel – we don't need to burn fossil fuels like diesel and we should move away from doing so. You can also produce fuels comparable to diesel, synthetically. From a climate perspective, the potential of

synthetic fuels should be taken into account by regulations on reduction of CO<sub>2</sub>, which would pave the way for investments of billions of Euros in factories that produce synthetic fuels."

### IMPACT

"What we do now will have an impact on future generations. If we fail to set the boundary conditions including European regulation on CO<sub>2</sub> towards a climate-effective approach, we won't leverage the potential of the variety of technologies", says Eckstein, concluding his appeal for a more integrated approach to sustainability and hence the way in which we tackle climate change. To him, his role as a scientist is crystal clear: "Working for a university gives you the freedom to apply your expertise on a wider scale. By building the bridge between science and industry, we have the chance to make a real contribution to society, like helping to combat climate change." ■



The transport sector is characterised by cooperation. By optimism, resilience and progress. By perseverance, flexibility, creativity and much more. Qualities that have been put to the test over the past few months. Workshops remained open, technicians gave their all and more. Day and night, seven days a week. To keep the trucks moving. To keep supermarkets supplied. To deliver medicines and medical equipment. To keep everything running smoothly.

**The DAF dealer is always there for you. ■**

THE DAF  
IS ALWAYS  
FOR



DEALER  
THERE  
YOU



Oldenburger: DAF Eco Combi running on HVO

# TWO BIRDS WITH ONE STONE

*By: Iep van der Meer*

The Dutch company Oldenburger Transport has been using Eco Combis for the international transport of plants and flowers for almost three years now. Using these 25.25-metre-long combinations guarantees the company a reduction in its CO<sub>2</sub> emissions of around 20%. And when the entire chain (from well-to-wheel) is taken into consideration, the red trucks of Oldenburger Transport are more or less CO<sub>2</sub>-neutral when using HVO. We took a trip a trip to Sweden in one of their impressive and extremely sustainable combinations. Carrying a full load of plants and flowers as well, of course.



The Eco Combi should become the European standard, according to Oldenburger.

**O**ldenburger Transport specialises in the transport of ornamental plants and cut flowers, which are first delivered from all over the Netherlands to its headquarters in Aalsmeer before being shipped to customers in Scandinavia, Germany and Austria. Of the fifty combinations that the company uses on a daily basis, one third are 25.25-metre Eco Combis. Managing Director Frans van Bergeijk: “We were pioneers when we first started using the Eco Combi for international transport and



Frans van Bergeijk, Managing Director of Oldenburger Transport

have been doing so now for two years. We are able to operate within the restrictions of the 40-ton limit because our load consists of plants and flowers and are transported in vehicles that have been optimised with regard to weight and fitted with electric refrigeration units. We would like to use the longer combinations in Austria too, but that is not permitted there yet, so we have to decouple at the border. The tractors stationed there then take the trailers further on into Austria.”

### EVERY EFFORT

Today, customers are demanding more sustainable transport solutions and Oldenburger Transport is eager to rise to the challenge. Van Bergeijk: “The use of Eco Combis is already helping us to reduce CO<sub>2</sub> emissions per ton/kilometre, but we want to go even further. One of the most significant steps we can take is to switch to using HVO, which is made from vegetable oils and waste fats, as a fuel. This would be very advantageous because we could

immediately use all of our DAF trucks, given that they leave the factory ex works ready to be driven on the newest generation of biofuels if required. It also means lower investment costs, an increased range and excellent residual value. One disadvantage is the slightly higher cost of fuel. If there is no HVO available along the route, the trucks can switch to refuelling with diesel at many locations. That is more difficult with LNG. However, we are still considering LNG for pre- and post-transport. The same applies to electric vehicles, which could be an excellent alternative for distribution activities in cities like Stockholm, Copenhagen and Vienna. Electric vehicles still don't fully match our business case requirements, but that is likely to change, too.”

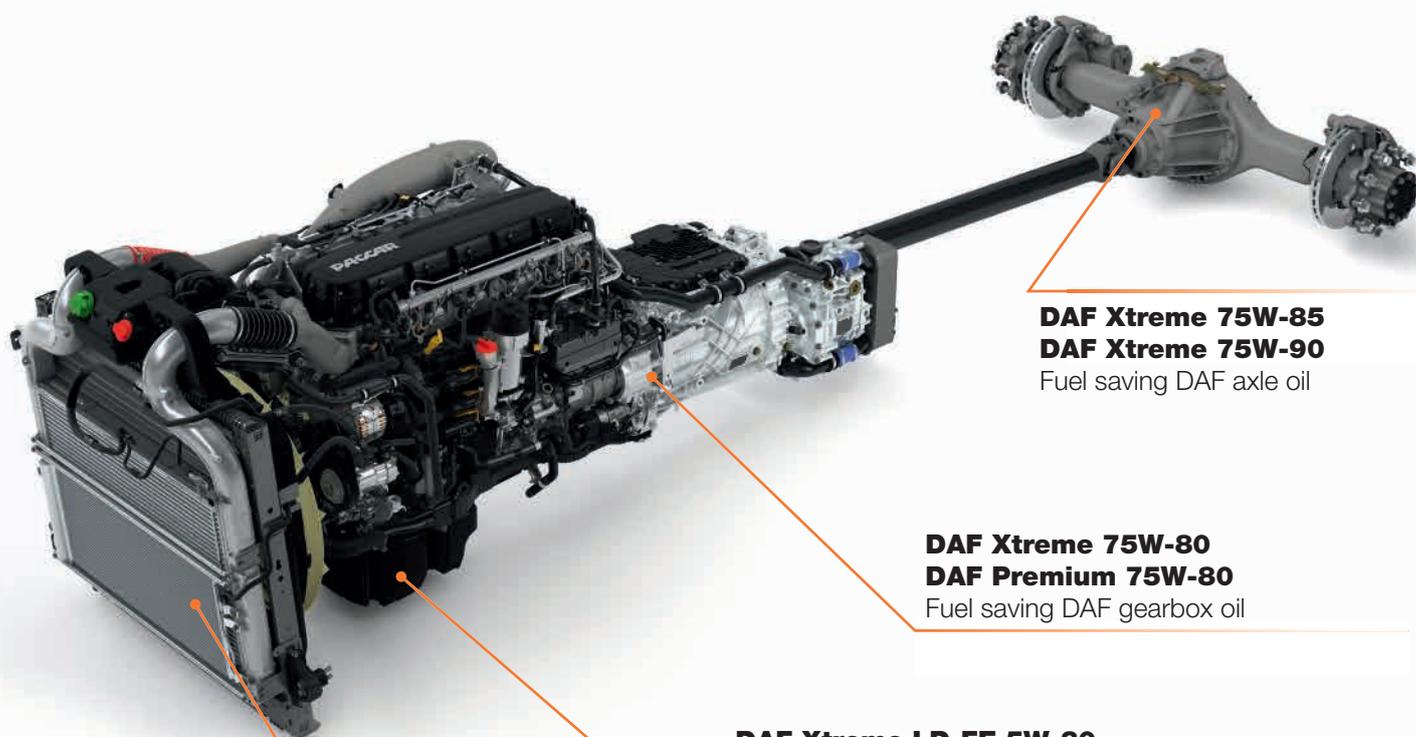
### EUROPE-WIDE

Van Bergeijk is in favour of introducing the Eco Combi on a Europe-wide basis. “We have no problem operating according to the 40-ton maximum weight restriction in Germany, but a higher limit would be a great improvement. In fact, what is really needed is a European standard. If we all want to achieve more sustainable solutions, then this is a very simple step, especially if it would involve the use of HVO as a fuel. The current diesel engine is extremely efficient and reliable, which makes it the most logical option. If countries like Belgium, France and Austria come on board, we will have an efficient and sustainable transport system in Europe that is the best in the world. Truck manufacturers have a major role to play in making this possible.”



# DAF lubricants - save money and time

The Premium and Xtreme ranges have all been designed, developed and tested for DAF Trucks by Chevron Lubricants, one of the largest producers of quality oils in the world. They have been designed with clear objectives. Save operators money and time by delivering optimised protection and performance for all moving parts of the driveline. Resulting in reduced fuel consumption, lower CO<sub>2</sub> emissions and extended drain intervals.



**DAF Xtreme 75W-85**  
**DAF Xtreme 75W-90**  
Fuel saving DAF axle oil

**DAF Xtreme 75W-80**  
**DAF Premium 75W-80**  
Fuel saving DAF gearbox oil

**DAF Xtreme LD-FE 5W-30**  
**DAF Xtreme LD-FE 10W-30**  
**DAF Xtreme FE 10W-30**  
Fuel saving DAF engine oils

**DAF Xtreme Longlife Coolant**





**ARRIVING IN SWEDEN COURTESY OF FINNLINES.**



**A TRIP TO SWEDEN**

We join one of the Eco Combis for a trip to Sweden. The fully loaded combination first travels from the company's head office in Aalsmeer to Hoogeveen in the northeast of the Netherlands, where there is a change of driver. This system of using domestic and international drivers means that the combinations can make the ferry in Travemünde in Northern Germany without worrying about problems like exceeding maximum driving times. From there it's a nine-hour crossing with Finnlines before hitting the road again in Sweden. The Eco Combi is not an unusual sight here; we actually meet a few 'Double-A' combinations pulling two 13.6 m trailers on the road as well. These Super EcoCombis could be the next big thing in Europe, but what we need first, according to driver Robert Harmsen, is full European coverage for the Eco Combi. We have joined Robert on a trip that will see us visit a number of Ikea outlets as well as the

**IMPRESSIVE:  
25.25 METRES LONG AND EIGHT AXLES.**

usual plant and flower dealers. "One of our main strengths is the fact that we can combine lots of smaller customers. We cover a large area of Scandinavia, so we are able to plan our trips very efficiently. And that's important, because the customers always want their plants and flowers delivered as quickly as possible."

**DAF XF480 FAN**

The DAF XF480 Super Space Cab is equipped with all-round air suspension, a feature that makes Robert particularly happy. "The cabin is just fantastic. No other truck offers you so much space

and such a great bed. That extra bit of comfort is really important." Despite the combination's exceptional length, Robert has no trouble manoeuvring the truck around industrial estates and through roundabouts. The docking procedure is a piece of cake too, although he does admit that it took some getting used to at first. "You have to learn how to drive a truck this long but you get used to it pretty quickly. You just need more room, that's all. Fortunately, people in Sweden are used to seeing trucks like this." The combination consist of a DAF XF480 FAN chassis with a tandem axle dolly and a Schmitz Cargobull tri-axle refrigerated trailer. Thanks to the trailing axle and the clever position of the drawbar coupling, the combination complies with the strict German requirements for 'Langfahrzeuge'. Another advantage is that the trailer used is a standard model, meaning that it is also suitable for use with a standard tractor. ■

**HVO: HYDRO-TREATED VEGETABLE OIL**

DAF's modern diesel engines in its LF, CF and XF trucks are suitable for driving on HVO, or 'Hydro-treated Vegetable Oil' without any modification. HVO is the latest generation biofuel made from vegetable oils and waste fats.

When the whole chain is considered - from the production of HVO to what comes out of the exhaust - HVO can lead to 90% CO<sub>2</sub> reduction.

Contargo puts electric DAF CF into service

# HIGHLY CHARGED

By: Frank Hausmann

Photos: Steffen Löffler



Contargo, a company that specialises in container logistics, is aiming to offer all of its services on a fully 'zero emissions' basis by 2050. With this goal in mind, the company recently purchased two electric-driven DAF CF tractors. For the past year, these vehicles have been successfully shuttling containers between the Container Terminal in Duisburg and the German hinterland.

**W**hen the new DAF CFs and their forty-foot trailers drive away from the Duisburg Intermodal Terminal (DIT), they make almost no sound at all. With all the stealth of a cat, the tractors and their cargo slip away noiselessly from the port.

## HEART

The above should come as no surprise, really. Because instead of a diesel engine, these tractors are driven by an electric heart that pumps 210 kW of power from the engine to the wheels. The power is generated using a 700 Volt charge from a 170 kWh Lithium-ion battery, which provides enough energy to cover a distance of 100 kilometres without recharging. Enough, in other words, to service most of Contargo's logistical network in the DIT hinterland.

## UMBRELLA

The two CF Electric tractors have proven their worth over the past twelve months. They are owned by Rhenus Trucking and loaned out to its subsidiary Contargo, which was set up as a result of the decision by Rhenus in 2004 to bring several of its subsidiaries under one umbrella. Contargo is now one of the largest specialists in its sector in Europe. Both companies are firmly committed to ensuring sustainable business practices.

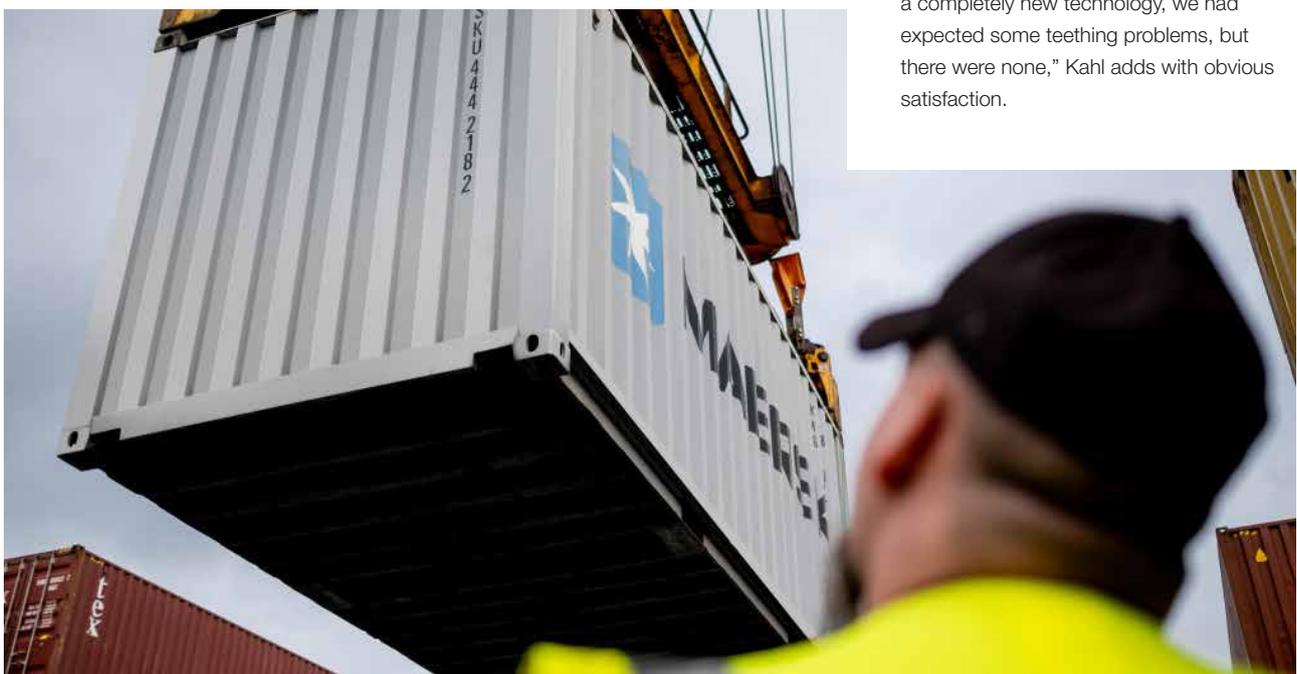


## ZERO EMISSIONS

Contargo provides its international logistics services between European sea ports and the hinterland through its own network. It has 24 container terminals, more than 40 ships, multiple railways and a fleet of 750 trucks at its disposal. "Our foremost objective is to work towards achieving zero emissions. By 2050 at the latest, none of our ships, trains or trucks should be emitting any CO<sub>2</sub>. We have started with our container transport by road, where our two electric DAFs are already helping to reduce our CO<sub>2</sub> emissions," says Kristin Kahl, who manages the Sustainable Solutions portfolio at Contargo. "In addition to the DAF CF, we are also planning to test four E-trucks using different types of battery packs and hence various ranges. This will allow Contargo to identify the specifications and charging infrastructure that best suit our operations."

## FIELD TESTS

There are many different options, each with its own benefits and drawbacks. "The field tests should show us what works best for us. For instance, whether it is more advantageous to use trucks with a larger battery that do not need to stop to recharge or trucks with a smaller and lighter battery pack that can be recharged at two or three intervals. In any case, the use of six E-trucks will result in a reduction of at least 38 percent in our well-to-wheel emissions. And we can even achieve a reduction of up to 89 percent when the trucks are charged using 100 percent green energy," according to Kahl. The two DAF CF Electrics are stationed in Duisburg and are used on a daily basis within the region around DIT to pick up and deliver containers. Since their introduction in 2019, they have covered 12,000 kilometres without any problems. "Given the fact that we were dealing with a completely new technology, we had expected some teething problems, but there were none," Kahl adds with obvious satisfaction.





## HIGHLY CHARGED

**“After 30 minutes the truck was ready to go again and a full recharge took only 90 minutes.”**



### BUMPY

It was only the start that proved a bit bumpy, but it was more the recharging of the batteries that were the problem and not the actual concept behind the CF Electric. Recharging proved troublesome at first because of a breakdown in the communication between the trucks and the charging infrastructure. “After some recalibration work, everything has since been trouble-free,” explains Sascha Hähnke, Managing Director of Rhenus Transport, which also includes Rhenus Trucking. “These are the kinds of teething problems you also see at other truck brands.” And he should know, because his company has been testing the distribution capabilities of hybrid and, later on, electric delivery trucks since 2010. However, fully electric heavy trucks are a new venture for him, too. “We are setting out on a new and innovative road for Contargo. No other logistics company has ventured down that road before here in Germany.

By doing so, we are declaring our belief in this very promising technology,” says Hähnke. “And up until now, DAF has been the only manufacturer capable of achieving serial production of these trucks. The other electric vehicles in our fleet come from manufacturers who convert trucks. This really gives the Dutch a decisive advantage,” adds Hähnke.

### THREE TO FOUR JOURNEYS

The CF Electric has a range of around 100 kilometres, after which the batteries need to be recharged. At the moment, this has to be done overnight at the DIT. Topping up between trips is still not an option because the Duisburg terminal does not have the required charging infrastructure. However, in a recent test, one of the DAFs was charged at the premises in Neus using 150 kW/h. After 30 minutes the truck was ready to go again and a full recharge took only 90 minutes.

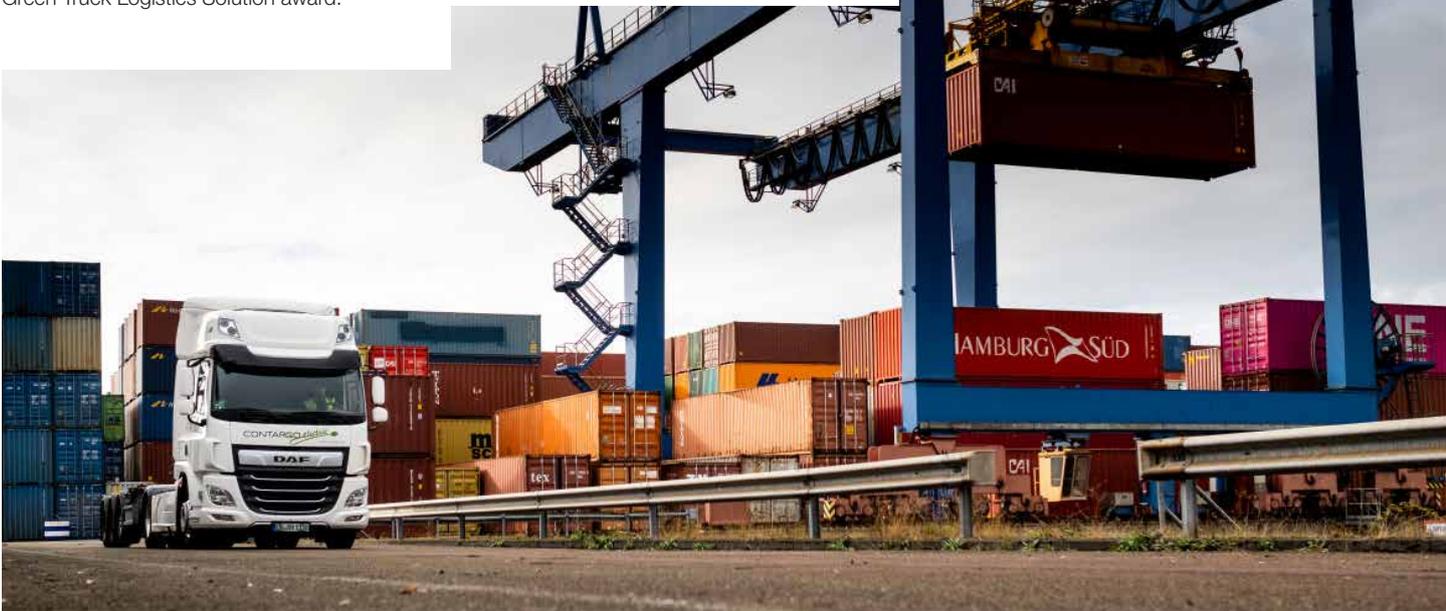


## SUSTAINABILITY

When, where, how often and by whom recharging will be possible, and where the required infrastructure will be installed, are decisions Hähnke only intends to make when all of the data is available. Intelligent charging stations using the right algorithms will also be required. This is the only way Rhenus Trucking can ensure that the battery packs are consistently charged in the correct and most optimal manner. Despite the fact that electric-driven trucks are much more expensive than their diesel-driven cousins, the E-trucks more than pay their way in terms of sustainability. Particularly because of the trail being blazed by Rhenus Trucking and Contargo in their role as pioneers in the market. The efforts of DAF and Contargo were recently acknowledged when they won the prestigious Green Truck Logistics Solution award.

## STRONG AND SILENT

The DAF CF Electric has also managed to win over the drivers at Contargo. They are very impressed with the truck's pulling power, its high torque from a standing start, extremely low noise levels and the absence of vibration in the cabin. "Other drivers are really quite jealous and want to know everything about the electric DAF," says Kristin Kahl. "The drivers are also very happy with the truck's controls, handling and 'refilling' operation. Their DAF CF Electric drives so quietly that sometimes they have to sound the horn to alert other road users to their presence. This is not necessary when they are transporting empty containers, however, because then the rattling and clattering that sounds is as good as any horn." ■



## DOUBLE THE RANGE

The DAF CF Electric trucks that were put into service by Contargo in 2019 have a range of around 100 kilometres. The vehicle is continually being improved, however. DAF Trucks is taking the next step in the development of electric drivelines by doubling the range of the DAF CF Electric with VDL e-power technology to more than 200 kilometres. In addition, the introduction of a new generation of batteries means a weight reduction of 700 kg, which translates directly into greater loading capacity. The CF Electric with increased range went on sale in September. First deliveries are expected early in 2021.



# THE SUN ECO CO

By: Bert Roozendaal



An even more effective weapon  
against CO<sub>2</sub> emissions than  
the Eco Combi

# PER COMBI

P.19 – THE SUPER ECO COMBI



MEER **DE SUPER ECO COMBI**





## THE SUPER ECO COMBI

**The European Commission is anxious to accelerate the process of reducing CO<sub>2</sub> emissions. In that regard, permitting the use of longer trucks would be an effective tool. Accordingly, the European automobile manufacturers' association, ACEA, is recommending that standard guidelines be introduced for the 25.25 m Eco Combi and also that use of the 32-metre Super Eco Combi (SEC) be allowed.**

**T**he Super Eco Combi (SEC) is, in fact, no different from an A-double. A tractor-trailer with an extra trailer attached to a rigid drawbar dolly. Using standard components, this results in a vehicle measuring 31.7 metres in length and with three pivot points. In Australia, drivers never even bat an eyelid when this combination appears around the corner. It has been a common sight there for years. They are also allowed on the road in Finland, even in combinations with a GCW of 76 tons.

### CONCEPT

The rest of Europe is still playing catch-up, however. The concept has been tested extensively in Sweden and Norway, where these 32-metre-long vehicles have been out on the public roads delivering cargo since 2014. Spain has also been running a limited pilot on one specific route since 2018, while in the Netherlands the Dutch vehicle

authority (RDW) is currently conducting tests at a private location. All going well, this should lead to a limited pilot on the public road network in 2021.

### SUPERLATIVE

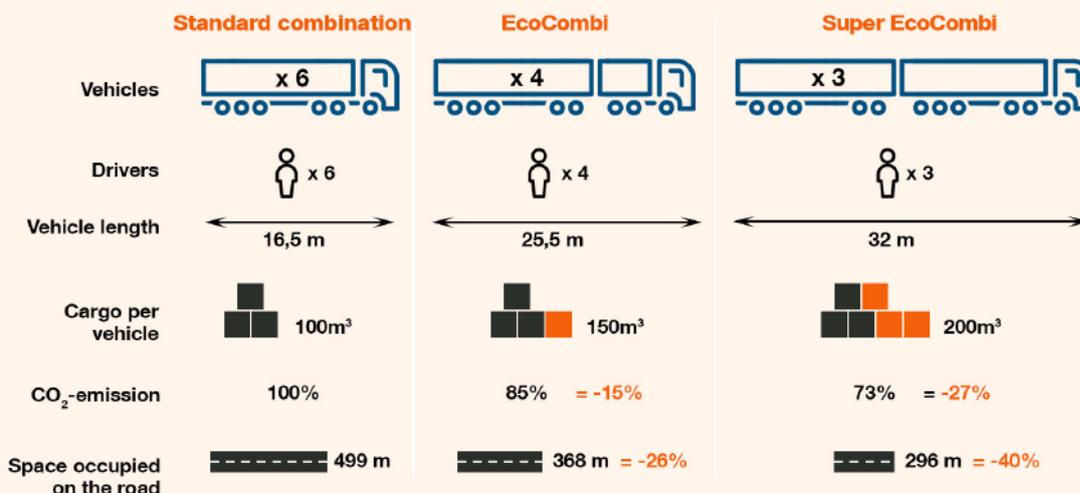
An SEC is the superlative form of a standard Eco Combi. Two Eco Combis can transport the same volume as three standard tractor-trailer combinations, and this is not only interesting in terms of volume. Depending on how you crunch the numbers, it can mean a reduction of up to 11 percent in fuel consumption and a similar drop in CO<sub>2</sub> emissions. One Super Eco Combi, however, can transport the same volume in a single journey as two tractor-trailers. According to the experts, this results in savings of up to 27 percent in fuel consumption per ton/kilometre and the same reduction in CO<sub>2</sub> emissions. In addition, the extra 2 x 13.6 metres of loading length enables the transport of two 40-foot containers in one journey. Not surprisingly, therefore, in the Netherlands there are plans for a pilot between the Port of Rotterdam and Venlo. Imagine one of the largest container ships in the world – the MS Febe – unloading its entire cargo in Rotterdam. Transporting that cargo with Super Eco Combis would mean a reduction of 5,939 in the number of journeys required!

### EASY

Another advantage is that it is quite easy to configure an SEC. Apart from the dolly, everything else is standard equipment, with the obvious requirement that some parts have to meet specific demands. In Finland, the standard weight is 76 tons and the legal limits for axle loads have been adapted accordingly. With a maximum

### Vehicle comparison in Swedish test

Results route Gothenburg – Malmö  
Transport of 600 m<sup>3</sup> goods, with a weight of 150 kg/m<sup>3</sup>



Source: Cider L, Larsson L, HCT DUO2-project Gothenburg-Malmö in Sweden, 2019



## LONG, LONGER, ROAD TRAIN

While European politicians are often quick to raise an eyebrow at the suggestion of trucks measuring almost 32 metres long and weighing over 60 tons, in Australia you won't find a single senator who would balk at the idea. In many Australian states, so-called triple road trains are a regular sight. This does not apply to the city centres of Sydney or Brisbane, of course. But if you drive your pick-up in the Northern Territories, West Australia or New South Wales, you will see trucks over 50 metres long everywhere! Trucks that weigh in at 95 tons or more and can be found thundering down single carriageways and dirt roads at over 100 km/h. Stopping or even just getting out of the way are almost out of the question. Not surprisingly, everyone else on the road is usually happy to give them the right of way. These transport behemoths are there for a reason: they form the backbone of domestic transport in Australia. Because even though the Australian railway network is over 21,000 miles long, there is only one track that runs from north to south, with the rest mainly serving the coastal regions.

*Photo: Jan Houffelaar*

weight of 68 tons, the Swedes are a little more cautious. The Dutch government has yet to publish its guidelines, but proponents of the concept are recommending a limit of 72 tons, which could be implemented swiftly based on current regulations. In the Netherlands, a maximum of 11.5 tons on the drive axle is the standard. The simple equation for calculating the maximum GCW of a vehicle is: 5 x the maximum axle load of the drive axle. In this case  $5 \times 11.5 = 57.5$  tons. Which is nowhere near 72. However, there is another rule that says that when using a 6x2 tractor with a bogie lift, you have to add an extra 25 percent, giving you a figure of 71.875 tons, which you then round up to 72 tons. In this scenario, it means that it is not possible to have an SEC with a 4x2 tractor; it always has to be a 6x2.

## OBVIOUS

The ease of configuration appears to make the use of the Super Eco Combi an obvious choice. Transporters can benefit greatly from the improved transport efficiency, and not just because they can achieve more with fewer drivers (already a scarce resource). Widespread use of longer vehicles can also make an important contribution to easing traffic congestion.

## ENTHUSIASTIC

The Dutch organisation for the road transport sector, TLN, is also enthusiastic, even if spokesperson Ambro Smit does have a few reservations. "In our opinion, the SEC should not be seen as a substitute for but rather as complementary to the standard Eco Combi, of which there are currently 2,000 on the road in the Netherlands. The Super Eco Combi is almost seven metres longer. So we see it being used primarily on important cargo corridors and only on motorways. All loading, unloading and decoupling has to be carried out in the vicinity of such a corridor." TLN does not see the SEC being introduced on a Europe-wide basis in the near future. For now, the one thing that would be of most benefit to

both the road transport sector and the environment is the introduction of uniform European legislation for the Eco Combi. One that would facilitate easy cross-border transport.

## DISTANT

While the Eco Combi has become a part of the landscape in Scandinavia and the Netherlands, the same cannot be said for Great Britain, France or the other Alpine countries. Countries like Belgium and Germany are coming round to the idea, albeit hesitantly. However, uniform legislation and unrestricted cross-border access still remain a distant reality. ■

Warburtons:

# “TRANSPORT MANAGEMENT IS KEY”



**Back in 1870, grocery shop proprietors Thomas and Ellen Warburton opened their doors to the good people of the industrial town of Bolton, in the north-west of England. In 1876 business took a downturn, and to support the family’s shop, wife Ellen took to her kitchen and baked four loaves and six cakes: all sold in under an hour: the rest, as they say, is history.**

**S**ome 144 years later, and under the ownership of the fifth generation of the founding family, Warburtons is Britain’s largest bakery brand, turning over £0.5 billion per year, employing over 4500 people working from 25 sites and without a doubt a national success story.

## **TOASTERS AND SANDWICH BOXES**

Having great products is only part of the story, these scrumptious delights such as the traditional white loaf, a hot-buttered crumpet or soft sliced bagel need to find their way into the toasters and sandwich boxes of the great British people.



## 70 MILLION

To do this, Warburtons operates a fleet of nearly 1000 vehicles split into primary and secondary fleets. The primary fleet are the tractor-units trucking between the company's 11 bakeries and its distribution hubs, while the secondary fleet consists of 800 'bread vans' which are, in fact, mostly DAF LF 14-tonne GVW rigid trucks. The volumes delivered are staggering: each month 70,000,000 items will be produced and delivered to 17,000 locations.

## SPRINKLING

Transport management key to such an intense distribution procedure. This is the responsibility of Steve Gray, National Transport Manager, and his team.

With DAF trucks providing over 90% of the total fleet, Warburtons relies very heavily on the manufacturer's Multi Support package in looking after the vehicles. Traditionally, the 'bread vans' of the secondary fleet, will be in service for 10 years and are bought outright. The LF 14-tonners are chosen for volumetric capacity, rather than payload, and rarely operate at maximum weight, while a sprinkling of physically smaller 7.5-tonne LF's are retained for remote or difficult routes. On average, they cover around 90,000 kms per annum and are supported by a full DAF Repair and Maintenance contract for seven years, then move onto a managed programme from DAF Trucks for the next three and final years of the trucks life with the bakery.



Om de DAF's in optimale conditie te houden, maakt Warburtons gebruik van de diensten van DAF MultiSupport.

## INVALUABLE

In this instance DAF Multi Support becomes an invaluable tool in the asset management process as it gives the operator total transparency into the true operating costs of that vehicle over the course of its life and offers enough historical information to the management team to make an informed decision on any further levels of investment.

In the case of Warburtons, DAF Multi Support gives the company a bespoke solution to managing, controlling and, importantly, consolidating the bulk of the vehicles operating costs, National Transport Manager, Steve Gray, explains that before the introduction of the Multi Support service, he and his dedicated team had to process between 11,000 and 12,000 invoices per year from a multitude of suppliers for maintenance and repair issues related to the day-to-day operation of the fleet, this could be anything from a broken lamp lens to a replacement engine. The introduction Multi Support brought the invoice inventory down to just 12, all managed by DAF Trucks. From an internal resource perspective this massively reduced the administrative workload, helping Steve to manage internal administration in a far more effective way. As a family-owned business Warburtons welcomes partnership arrangements when working with suppliers, and particularly so in the case of DAF Trucks.

## PRODUCT

Warburtons' distribution operation runs a wide variety of regional routes. Every day, the bread vans will be loaded by their drivers and on the road by 4 am following a sequenced route, which is usually completed by lunch time. Each route varies in distance, but on average the trucks carry 48 stacks of

product for delivery to around 25 shops. The variations in distance can cause a problem when it comes to fleet management: older vehicles could get close to or even exceed tightly-controlled distance limitations within the R&M contract.

## BURDEN

So, the transport management team are constantly monitoring and redeploying vehicles to ensure they avoid any potential mileage penalties. However, the burden has been eased by working very closely with DAF Trucks to ensure the full Repair and Maintenance prices are calculated over a fleet average, and not on a vehicle-by-vehicle basis.

## SPENDING AS INVESTMENT

Consistency through the generations is the key to the continued success of this remarkable business: a family-owned enterprise will always plan, a good family business will always look after its staff. Warburtons has a great staff retention record, and in many cases has employed generations of local families at its long-established locations. A successful multi-generational family business never sees spending as expenditure, but rather as investment in the company's long-term future. Such investment must always be with the right partners. ■



**DAF USED TRUCKS:**

# **WE'VE GOT WHAT YOU'RE LOOKING FOR"**

**How do you sell a truck painted bright pink? Or a basic truck with zero optional extras? Or a truck with a unique chassis configuration? There are plenty of used trucks in Europe waiting for new owners and many of them are a far cry from the conventional type of vehicle. Marty van den Dungen, Sales Director DAF Used Trucks, explains how he and his organisation manage to find new buyers for their 'unique trucks'.**

**A**ll over Europe there are used trucks waiting for a new owner to come along. Sometimes they are put on the market by independent sellers who specialise in a specific type of truck. But they are usually found at dealers or at sales outlets set up by truck manufacturers themselves. DAF Trucks also has four specialised DAF Used Truck Centers (see insert) at locations in Europe where relatively new used trucks from the DAF stable wait for a new home. The DAF service locations also offer a wide range of used trucks.

## **UNIQUE SPECIMENS**

Most of the trucks don't have to wait too long. A well-maintained tractor or rigid truck that is only a few years old usually finds a new owner pretty quickly. "The newest



**ALL OVER EUROPE THERE ARE USED TRUCKS WAITING FOR A NEW OWNER TO COME ALONG.**

generations of trucks always sell very easily because of their excellent comfort and low fuel consumption. At least, almost always. Some of the trucks that arrive here are unique specimens, to put it mildly," says Van den Dungen with a laugh.

## **INCREASED RESIDUAL VALUE**

The majority of DAF Used Trucks' vehicles are 4x2 tractors with a Super Space Cab. These are the more 'regular' trucks that are often sold even before the engine has had the chance to cool down. Both their configuration and colour suit the tastes of most buyers – particularly when they have 'German specs', as Van den Dungen puts it himself: "Lots of leather, a Comfort bed, skylights, side skirts, DAF's big fridge and an

engine brake. Kit it out with a new wrap or company logo and a truck like that will be as good as new and last for years. If you want to increase the residual value of your truck, the trick is to choose all the right optional extras when you are buying it new."

## **SOCIAL MEDIA**

Sometimes, however, the trucks looking for a new owner are not exactly what you would call regular. A good example is the fleet of pink DAF tractors that was recently traded in in France. "A series of trucks like that presents a real challenge because having to repaint all the cabins would obviously drive the price up. We decided instead to turn the



Marty van den Dungen:

**“A CUSTOMER WOULD HAVE TO BE LOOKING FOR SOMETHING VERY UNUSUAL INDEED FOR US NOT TO BE ABLE TO FIND WHAT THEY WANT.”**

situation to our advantage and zoom in on the truck's specific colour,” explains the Sales Director at DAF Used Trucks. “We launched a Social Media campaign in which we highlighted the colour instead of trying to hide it. With the result that a large number of these trucks have since found a new home with lady truckers.”

## TRUCKER MAGNETS

What about cabins fitted out to suit a driver's specific tastes? “Drivers who invest heavily in transforming their truck usually look after it very well. That's why many of those trucks still look brand new and that makes selling them an awful lot easier. Features like a great audio system, block heater, roof aircon and atmospheric lighting are also real trucker magnets. In many cases they are even enough to compensate for a bright red interior or a rear wall that has been pimped to the nines.”

## TAILOR-MADE

So how does a transporter find their ideal 'tailor-made' truck? “We have developed a search engine that displays the current inventory at all DAF Used Trucks Centers and a steadily increasing number of dealers. All over Europe,” says Marty van den Dungen. “A customer would have to be looking for something very unusual indeed for us not to be able to find what they want.”

## WARRANTY

Van den Dungen continues: “When the ideal truck has been located via our DAF Used

TruckLocator, the local dealer can have it transported to their premises, where it will be checked and given any maintenance it might require. And then the keys are all yours. Complete with the blanket warranty that DAF provides on all its relatively new used trucks and that applies throughout Europe. We even offer a full-year warranty on a DAF First Choice Truck when the vehicle is no more than five years old and has clocked up less than 600,000 kilometres.” ■

[www.dafusedtrucks.com/daf-used-trucklocator](http://www.dafusedtrucks.com/daf-used-trucklocator)

## NEW DAF USED TRUCKS CENTRE IN PRAGUE

And then there were four: After Budapest, Warsaw and Lyon, Prague is the fourth European city where DAF has opened a Used Truck Centre.

The opening underlines DAF's ambition to achieve further growth in Europe not only with new trucks but with used models as well. Because a used DAF is often literally as good as new but still costs less than a DAF with zero kilometres on the clock.

The new centre is located just off the Prague Ring (D0, exit 19 to be precise) and has a constant inventory of over 200 relatively new used DAF trucks, each one carefully selected and delivered directly from DAF, PACCAR Financial and PacLease.



# 200 DAFs AT MARATHON



And that's just  
for starters...

ON



**On 19 September, in Kostrzyn near Poznań, Marathon International received delivery of its 200th DAF. Vehicles from this Dutch company account for the vast majority of the 230-vehicle-strong fleet of Marathon International, a carrier from the Greater Poland region. And this is not the end of the partners' business adventure, either.**

**T**he history of Marathon sounds a little like a Polish fairy tale come true. It started in 2003 when Emil Lisowski, a 23-year-old fan of transportation with only a few years of experience at a large German logistics company, decided to start his own business. It should be emphasised that his enthusiasm was supported by an in-depth knowledge of the TLS sector gained while working in Germany, where he learned that top quality service is crucial to winning and retaining clients. He added this commitment to quality to what he calls his own innate hyperactivity. "I just have to be active. Logistics and transport is an interesting sector which is constantly evolving, and you have to keep up with the changes," says Emil. "We started with two trucks, two PCs and a leased office of 40 sq. m on Kraszewskiego Street in central Poznań. We quickly ran into trouble with the Municipal Road Administration, however, because our vehicles often blocked the street when drivers came to settle accounts. In 2008, we moved to Wolczyńska Street, where we had more space."

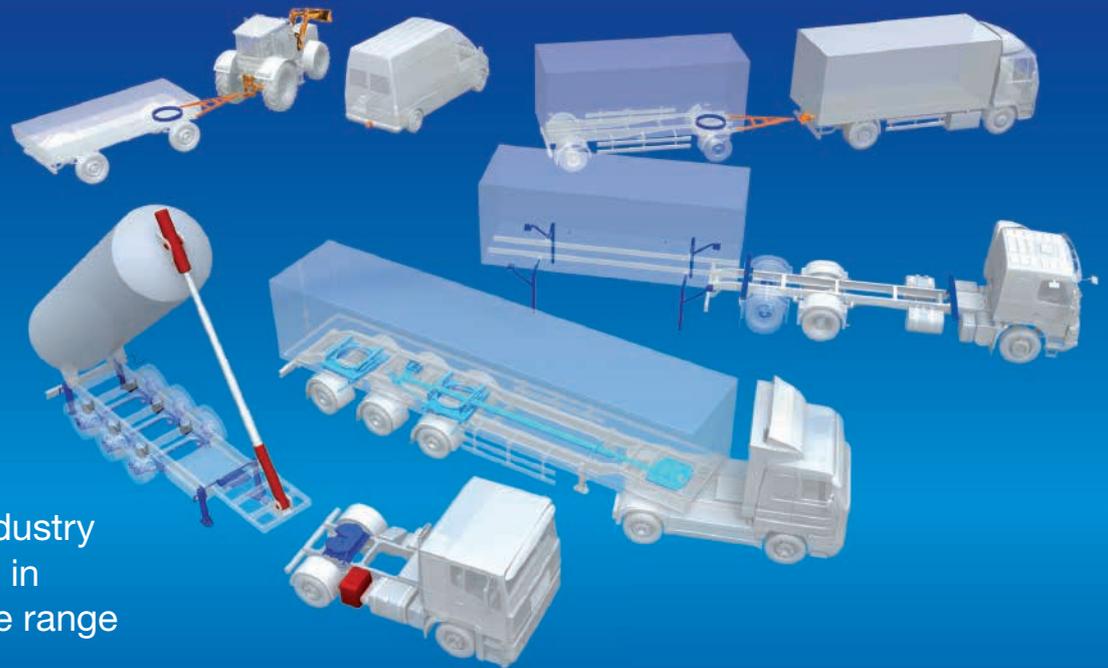
### **CALCULATED RISK**

In 2004, Marathon had 4 trucks and employed 9 people. The company was gradually expanding its fleet and increasing the number of employees, but in 2007 the bank closed its credit line overnight. Emil Lisowski had to quickly change his business model and, above all, convince his drivers to agree to take a pay cut. He succeeded, and the company survived. His continuing commitment to the high quality of customer service also paid off, notwithstanding the fact that it took the transport sector almost four more years to recover from the crisis. So what did our businessman from Poznań do next? While many people questioned his sanity, in 2011 he leased 20 trucks, despite the extremely high interest rate and having no work for them! But fortune favours the brave; the crisis ended and clients started looking for carriers again. Most of them had little to offer, however, while he had 20 new trucks, all ready for work. He also had new ideas for business development. "I dreamt then that we would have 100 trucks. We managed to buy a plot of land from an old lady near Kostrzyn - only 360 sq. m, but located next to the planned S5 expressway from Bydgoszcz to Wrocław, very near to where it crosses the A2 motorway. Over the next few years, we managed to buy almost six hectares of neighbouring land. Our fleet was growing and we started to feel really squeezed in our rented office. So we decided to build a new head office," says the president of Marathon.

“Across the globe:  
JOST keeps us rolling!”



# Trusting the market leader.



Manufacturers of the commercial vehicle industry around the globe trust in JOST's comprehensive range of components.

Customer-orientated solutions, innovative products and a worldwide supply of spare parts make JOST the number 1.



**The state-of-the-art truck service workshop employs six mechanics.**

## A LEAP INTO HYPERSPACE

He followed his instinct. In 2017, the company moved to an impressive facility with a surface area of 25,000 sq. m, which houses not only the offices and rest areas for the crew, but also a state-of-the-art truck service workshop (employing 6 mechanics), a fuel station (Diesel and AdBlue), a manoeuvring area and a parking lot, as well as space for more than 20,000 pallets in a high-bay warehouse. Since 2018, it also houses the largest food truck in Europe, which is able to serve meals to as many as 3,000 people a day! The food truck is painted in the Marathon corporate colours and is installed on a DAF XF chassis.

In the meantime, the fleet continued to grow. In 2016, with 125 trucks it crossed the dreamt-of threshold of 100 vehicles. When German legislation changed, the firm started looking for vehicles larger than the so-called 'mautkillers'. For the past few years, the company has specialised in transports using high-cube tandems with a capacity of almost 120 cubic metres. And it has found the ideal vehicle for its fleet: a

DAF CF chassis. It has a strong and cost-effective 11-litre Paccar MX Euro 6 engine, a spacious cab that drivers love (equipped with a refrigerator, air-conditioning and a parking heater), is easy to adapt to various truck bodies and has unrivalled fuel tanks with a capacity of 1200 litres. These trucks quickly started to dominate Marathon's 'black fleet'. In four years, the company bought 200 DAF vehicles. On 19 September 2020, in the head office of his company, Emil Lisowski accepted the keys to the 200th DAF truck, handed over by the directors of DAF Trucks Polska and ESA Trucks, a DAF dealer from the Greater Poland region. The jubilee CF chassis and trailer has a curtain truck body constructed by Gniotpol. As with Marathon's other vehicles, it is equipped for ADR transport.

## NEW AND OLD

The president of Marathon International does not intend to stop at this. He is also investing in the development of a freight forwarding office. The company has been cooperating with the Higher School of Logistics in Poznań for the last few years

and is paying for a 3-year dual studies programme for the students it employs. The students study for the first nine weeks and then work for the company for the next nine, gaining practical skills. Each student has a guaranteed job after graduation. This is one of the measures that is already bearing fruit in the form of new orders and higher turnover. Plans for the future include the purchase of another 50 vehicles, all of which will be DAF trucks (chassis for high-cube tandems). And the story doesn't end there, either, because the Marathon fleet is forecast to comprise 300 vehicles by the end of next year. In 2022, another 220 vehicles are to be purchased. Of these, one hundred vehicles will replace older ones and the rest will expand the fleet. Speaking of older vehicles: Marathon is reselling them to other carriers – often to its own drivers who want to start out on their own and work for Marathon's forwarding business – and the demand for these beauties is always higher than the supply, as they are very reliable and well maintained.

## FUTURE

When speaking of his development plans for the next two years, Emil Lisowski has so many ideas that in some companies they would suffice for the next twenty years. For example, entering the e-commerce market, expanding the logistics warehouse and mounting photovoltaic panels on the roof. He says that he is a big supporter of hydrogen as a fuel. "I will be the first to buy a truck fuelled by hydrogen cells for international transport, as soon as they become available on the market," he adds. "Could this possibly be a DAF?" Only time will tell... ■



In honor of the delivery of the 200th DAF, the drivers of Marathon International received a DAF EcoDrive training. The voucher was received by Edyta Szczygieł, wife of owner Emil Lisowski.



## LEYLAND TRUCKS EARNS THE QUEEN'S AWARD FOR ENTERPRISE IN INTERNATIONAL TRADE

Leyland Trucks, a PACCAR company, located in Preston Lancashire, earned the prestigious Queen's Award for Enterprise in International Trade 2020 for increasing exports by almost 50% over the last three years. Leyland Trucks manufactures DAF trucks and employs more than 1,000 people at its one million sq. ft. facility. Leyland Trucks produces the award winning DAF XF, CF and LF models for the UK, Europe, North and South America and Asia markets.

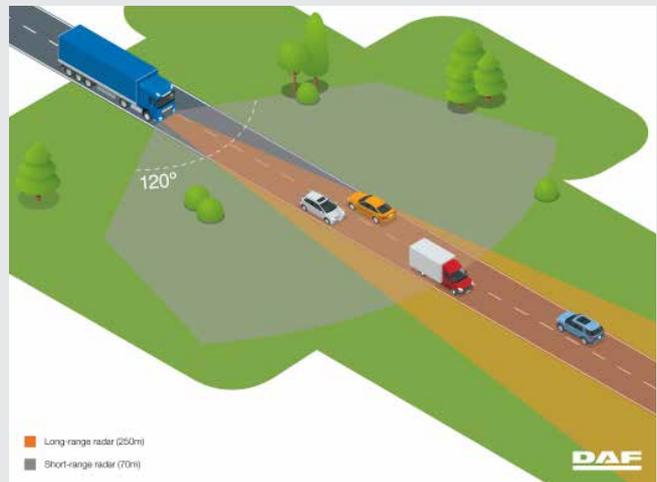
In 2019, Leyland Trucks delivered almost 20,000 trucks while enhancing its industry-leading vehicle quality and manufacturing efficiency. DAF Trucks generates over £1 billion in annual revenue in the UK. DAF vehicles have enjoyed 25 years of commercial vehicle market leadership, achieving a 30.5% market share in the UK 6 – 40 tonne commercial vehicle sector in 2019.



## PURE EXCELLENCE IN SAFETY

To further increase vehicle and road safety, DAF Trucks introduces an improved AEBS system for its complete range of LF, CF and XF models: AEBS-3. This third generation Advanced Emergency Braking System can provide up to full autonomous emergency braking to assist with collision avoidance of both stationary and moving vehicles from a speed of up to 80 km/h. The sophisticated safety system is offered in combination with Adaptive Cruise Control (ACC) and Forward Collision Warning (FCW).

For AEBS-3, DAF Trucks is using a high precision dual radar with 16 antennas (previously: 7) for far and near range detection. It holds the best-in-class long range sensor with the longest detection range in the industry of up to 250 metres (previously: 200). This enables earlier recognition of potentially critical situations. An unparalleled 120° (previously: 50°) near range angle of view enables earlier prediction of cut-in situations – even in harsh weather conditions and in situations with poor visibility such as fog and low sun. AEBS-3 is standard on all DAF LF, CF and XF trucks.



## POWERING THE FIRE FIGHTER

The renowned American fire truck manufacturer, Pierce Manufacturing, recently decided to start fitting its chassis with the DAF PACCAR MX-13 engine. The engines will be produced in the PACCAR engine factory in Mississippi and fitted in the Pierce® Arrow XT™, Enforcer™ and Velocity® chassis. "By bringing two premium brands together, we are underlining our shared commitment to fire fighters," according to the press release issued by Pierce. "It is our way of providing them with the confidence they require to serve their communities."

## SANITATION VEHICLES FOR BELGRADE

DAF has delivered 44 fully-fitted city sanitation vehicles to Belgrade, the capital of the Republic of Serbia. The consignment consists of LF and CF trucks with diverse chassis configurations and superstructures.

DAF vehicles now make up half of the fleet of 200 city sanitation vehicles in Belgrade. The decision to award the most recent tender once again to DAF was based on three key elements: a proven track record on service, the reliability of the trucks and the fact that the Gradska Čistoća city cleaning company can purchase and service the fully-fitted vehicles, including the superstructures, directly at the local dealer Braca Crnomarkovic. In addition to garbage trucks (side loaders, top loaders and rear loaders) the order also included tank trucks for spraying the streets and sweeper trucks that can be easily converted into snow ploughs in the winter.



## 'READY TO GO'

Looking for a brand new, ready-to-go mixer, tipper, curtainsider or other rigid truck? One that is immediately available? With the introduction of DAF Ready to Go, DAF dealers can now offer their customers fully-fitted vehicles. Trucks that are literally 'ready to go'.

To be successful in a seasonal industry, a business often has to react very quickly to changes in market demand. This is why it is important to be able to reinforce a fleet immediately if required. A comprehensive overview of immediately available trucks, complete with superstructures from leading manufacturers, can be found on the DAF websites of individual countries. Or visit [www.daf.com/ready-to-go](http://www.daf.com/ready-to-go)



MS La Coruna was the first inland vessel equipped with a PACCAR MX engine.

## DAF SETS SAIL

For decades, DAF supplied marine engines to inland shipping companies around the world. These engines still enjoy an exceptional reputation for reliability and efficiency. Now, Dutch companies NPS Diesel and Vink Diesel have incorporated the PACCAR MX-11 and MX-13 engines - the cleanest in their class on the market - into marine applications.

The engines emit 98% fewer nitrogen oxides and 99% fewer particles than other diesel engines in marine applications. They also consume 16% less fuel and emit an equal amount less CO<sub>2</sub>.

"The modern PACCAR MX engines have the reliability that we have come to expect from DAF," said Sander Langenberg, Vink Diesel managing director. "What's more, they reduce vibrations and noise levels on board to an absolute minimum."

**DAF CF AND LF** PURE EXCELLENCE

# Built to last



The DAF CF and LF represent a new level of excellence in construction transport. Class-leading manoeuvrability, even with heavy payloads. Built to last, especially in challenging off-road situations. And like all DAF trucks, the DAF CF and LF offer unmatched driver comfort and easy bodybuilder-friendliness. Contact your DAF dealer for the full story or visit [www.daf.com](http://www.daf.com).

**A PACCAR COMPANY** DRIVEN BY QUALITY

**DAF**