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CUSTOMIZATION CONTINUES

Once again DAF expands its product range with new truck models that further increase transportation efficiency. With the new CF Silent, evenings and overnight distribution becomes possible in urban areas where noise restrictions apply. Thanks to a fifth wheel height of only 91 centimeters, the new CF and XF Lowdeck tractors offer the opportunity to take even more volume. DAF provides a customized solution for every application!

Customization goes far beyond pure product. Each operator has its own specialties; each customer is unique. Therefore PACCAR Financial offers solutions that are tailored to your specific needs and requirements; the same is true for the repair and maintenance contracts of MultiSupport. These are all premium services behind the product that will provide the highest return on your fleet. Low 'total cost of ownership', that's what it's all about.

To achieve the lowest possible operational costs, many European carriers are now consciously switching to Euro 6, not only because of legislation. Everyday experience shows that the new DAF Euro 6 trucks are 5 to 8 percent more fuel efficient than older Euro 3, 4 and 5 vehicles. That quickly translates into a saving of thousands of Euros, per truck, per year. In addition, transport companies who drive a lot in and through Germany will probably pay two cents MAUT toll per kilometer less starting January 1st. This would generate even more savings.

Customers who have already switched to Euro 6 are very enthusiastic about the high quality, good fuel economy, excellent driving dynamics and high driver comfort. Whether it's the new LF for distribution, the versatile CF, or the top of the range XF. We supply them in a wide variety of different versions, matched in detail to your specific needs and requirements. And as I mentioned before: this also applies to the services behind our trucks.



Colophon:

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P.O. Box 90065, 5600 PT Eindhoven, The Netherlands
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Harrie SchippersPresident DAF Trucks N.V.





DAF WESTERLO MANUFACTURES 1,000,000TH CAB

The 1,000,000th cab left the production line at DAF Westerlo (Belgium) early July. "This is a tremendous milestone in the history of DAF's axle and cab factory", said Harrie Schippers, President of DAF Trucks N.V. The DAF XF Space Cab was handed over symbolically to Louis De Wael, Managing Director of 'Vervoer Van Dievel' from the Belgian town of Mechelen. By the time you read this, this company will be the owner of the truck with the 1,000,000th DAF cab.

DAF opened its production facilities in Belgium in 1966, starting with the manufacturing of cabs, followed by the production of axles in 1971. The cabs that leave the production line are destined for the popular DAF CF- and XF-series.

Major investments

Major investments have been made in the cab factory in the past for the introduction of the newest generation of DAF Euro 6-vehicles. Over the last ten years approximately half a billion Euros were invested in the axle and cab factory.

"The milestone of 1,000,000 manufactured cabs is a wonderful recognition of the 2,000 employees of DAF Westerlo", said Harrie Schippers. "Thanks to their effort and dedication, we are able to supply cabs that are market leading in terms of interior space, comfort and fit-and-finish. Essential elements that contribute to the high driver appreciation for which DAF trucks are known."

WWW.DAF.COM COMPLETELY UPDATED

The internet site www.daf.com has been completely updated. The new site runs on a much more flexible platform. DAF.com now works easily on different browsers, such as Explorer, Firefox, Safari and Chrome and various mobile devices, such as the iPhone and Android and Windows phones. And besides this, the site adapts to the search behavior of the user. Another reason for the development of the new site was an even easier access to specific information, such as building guidelines and information about used trucks. Furthermore, it is easier for the user to request information directly from the dealer.



NEW DAF XF EURO 6 ELECTED 'FLEET TRUCK OF THE YEAR 2014' IN NORTHERN IRELAND



The new DAF XF Euro 6 was elected 'Fleet Truck of the Year 2014' by a panel of 12 experts in Northern Ireland's prestigious, annual Export & Freight Transport & Logistics Awards which were announced in Belfast recently.

The judges from the Northern Irish transport and logistic industry gave the DAF XF the top honours thanks to its performance, reliability, driver safety and comfort, fuel efficiency and the aftersales support from the DAF dealer network.

TV personality Adrian Logan hands the trophy to Ray Ashworth, Managing Director DAF Trucks UK. At the right are Mark Cuskeran from sponsor SDC Trailers and Steve Turton, from sponsor BPW.

ORIGINAL DAF ENGINE BACK HOME DAF MUSEUM FINALLY GETS DD 575

In Merksem, near Antwerp in Belgium, Ursine Thielemans (now Mrs. De Beukelaer-Thielemans) was suddenly thrown in at the deep end when at a young age she had to take over the business from her deceased father almost 44 years ago. Under her leadership, the company grew to become a major supplier of pre-stressed concrete: Vibrobeton.



One of her first tasks was to find a truck to move heavy slabs from the production site to the loading location for road transport vehicles. "We found a used DAF V1600 DD tipper," she recalls. "The body was sold and cross-members welded to the chassis."

Surplus

After years of service, it was decided to take the truck out of service and offer the V1600 to the DAF Museum in Eindhoven. This is a very important acquisition for the museum because the engine of this truck is in fact a DD 575, which was the first engine that DAF built. It was based on a Leyland license and production started in 1957. It was precisely this engine that was missing from the collection. The engine will be fully restored and added to the exhibition.

 Mrs. De Beukelaer-Thielemans hands the keys to Rob Kieft of the DAF Museum. From left to right: Barbara de Beukelaer, Jan Rovers, Ursine de Beukelaer, Theo van de Rijt, Rob Kieft, Luc de Waes.

LARGEST ADVERTISEMENT IN THE WORLD?







It could well be the largest advertisement in the world: DAF's Jordanian dealer Manaseer recently ordered 25 DAF CFs and 25 DAF XFs for its own transport company. Along with dozens of Kenworth tractors (Manaseer is also Kenworth dealer) the trucks formed a billboard that was visible only from the air.

This operation was filmed in July and can be seen on YouTube, where it has now been viewed almost 10,000 times. For environmental reasons, the whole operation had to be performed in a single day. View the video for yourself by going to https://www.youtube.com/watch?v=vFmHILIY6sc, or scan the QR code.



FIRST DAFS FOR NÜLLIG & HASS

Road haulage company Nüllig & Haß from the German city of Wuppertal recently took delivery of ten DAF XF trucks. They are the first DAFs in the fleet of about 200 vehicles. All ten DAFs are equipped with the new PACCAR MX-11 engine.

"These are not only the first DAF's in our fleet, but also our first Euro 6 vehicles," says CEO Andreas Nüllig. "The low fuel consumption, low operating costs and long life were important deciding factors in purchasing the new DAFs"



Hanover, 25 September to 2 October. IAA 2014. One of the most important truck and transport exhibitions in Europe. With the overall theme 'Always the right solution' DAF Trucks exhibits its full industry leading product and services range to illustrate that it offers the right solution for every application. A new and extremely quiet CF distribution truck allows deliveries in city areas where noise restrictions apply during evening and night. New CF and XF Low Deck-tractors maximize the highest efficiency within volume transportation. DAF also announces sophisticated technologies like Predictive Cruise Control and Predictive Shifting to further optimize fuel efficiency.

The DAF stand is prominently located in Hall 17 of the exhibition complex. Occupying an area of 2,500 m², it showcases the complete Euro 6 product range, setting the standard in quality, low operating cost and vehicle performance. The DAF trucks on display include the new LF for distribution transport, the versatile CF for a wide variety of applications and the flagship XF model for heavy and long distance transport. The new Euro 6 range has been expanded with a full range of three and four-axle vehicles. There is a perfect DAF truck for every transport task.



PREDICTIVE CRUISE CONTROL & PREDICTIVE SHIFTING

At the IAA 2014 DAF announces Predictive Cruise Control – in combination with Predictive Shifting – to become available as an option as from January 2015 on Euro 6 CF and XF models with automated AS Tronic 12 speed gearbox. Both sophisticated technologies have been developed by DAF in-house and contribute to enhanced vehicle efficiency.

Predictive Cruise Control uses advanced GPS-technology to determine the exact position of the vehicle and to know which driving circumstances have to be taken into account the next 1 to 2 kilometers. In fact, the system 'looks' ahead and anticipates slopes and descents.

The driver sets the desired speed in advance, as well as the permitted deviation above and below this value, with three pre-programmed options available for the permitted downward deviation. Within the specified range, Predictive Cruise Control determines the ideal speed and Predictive Shifting selects the ideal gear.

Starting point of both technologies is to drive as long as possible in the highest gear possible and consequently in the optimal rev range. Is the vehicle nearing the end of a hill climb, then the system strives not to switch back to a lower gear. Is a hill climb immediately followed by a descend, less fuel is injected before the top of the climb, making use of the combination



mass to 'push' the vehicle over the top. A higher gear is selected automatically as soon as the system knows that the gradient of the descend is about to increase.

In some cases, Predictive Cruise Control will permit the speed of the vehicle to fall below the set value; for example when the top of a hill has almost been reached and the system 'knows' that the potential energy will quickly bring the vehicle back up to the desired level on the descent. Predictive Cruise Control can even temporarily permit a speed that is slightly higher than set — within predefined tolerances — also with a view to lowering fuel consumption as much as possible.

The state-of-the-art Predictive Cruise Control and Predictive Shifting functions will contribute to further strengthening DAF's industry leading position in fuel efficiency and low total cost of ownership.



EXTRA QUIET DISTRIBUTION TRUCK: CF SILENT

DAF developed the unique CF Silent for urban distribution during the evenings and at night. When the CF Silent is set to its special 'Silent mode', the noise level is less than 72 dB(A), which means that the CF can be certified as a Quiet Truck and enables goods to be loaded and unloaded in areas where evening, night-time or early morning noise restrictions apply.

The new DAF CF Silent is equipped with the powerful yet efficient 10.8 litre PACCAR MX-11 Euro 6 engine (ratings of 210 kW/286 hp to 320 kW/435 hp) that is already well-known for its low noise levels.

There is a special 'Silent' button on the dashboard. If pressed, the engine software switches to a programme that limits torque and engine speed and gears are changed at lower engine speeds. The encapsulation of the gearbox also contributes to noise reduction.

DAF will supply the extra quiet CF distribution truck from the beginning of 2015 as a 4x2 and 6x2 rigid and tractor, with the choice of a Day Cab, Sleeper Cab or Space Cab and a wide selection of wheel base options.









<u>Internet</u> www.saxas.biz

SAXAS

The last-mile transport pros

Our development and production departments work closely with our customers and business partners to ensure that our product range always meets current needs in the sector. With our three product lines we cover almost the entire spectrum of needs for ,lastmile' deliveries. Whether you need a custom build or products built to stock on a large industrial scale, we are your specialist for every occasion: your onestop source for costeffective all-round solutions.



discover us...









FINANCIAL



NEW CF AND XF LOW DECK: FIFTH WHEEL HEIGHT OF 91 CENTIMETRES

One of the major innovations at IAA 2014 is a Low Deck variant of the popular Euro 6 CF and XF tractors for volume transport.

Fitting low-profile tyres (315/45/R22.5) and adapting the air suspension has enabled the fifth wheel height to be reduced from 96 to just 91 centimetres. This means that, within the maximum vehicle height of 4 metres, trailers with an internal height of 3.00 metres can be used, allowing volumes of more than 100 m³ for maximum transport efficiency. An internal height of 3.00 metres is also particularly valuable for transport operators working in the automotive sector where one-metre high standardised containers are often used, as these can be stacked three high in the semi-trailer.

The new DAF CF and XF Low Deck tractors are available with air suspension on the front axle, while also a new single-leaf parabolic suspension has been developed.

A new roof deflector for the XF Low Deck with Super Space Cab ensures optimum aerodynamics and a 1.5% saving in



terms of fuel and ${\rm CO}_2$ emissions compared to the roof deflector of the existing Lowdeck version.

The new DAF Low Deck tractors become available with a wheel base of 3.60 and 3.80 metres and are powered by the state-of-the-art 10.8 litre PACCAR MX-11 and 12.9 litre PACCAR MX-13 engines.



FULL LEATHER UPHOLSTERY

DAF cabs are setting the standard when it comes to space, quality and comfort. At the IAA, a beautiful full leather upholstery is presented for the Euro 6 CF and XF models. It is available as an option and includes seats, steering wheel and door panels (XF). The leather upholstery is in a chic 'copper brown' colour with red/ orange accents for an extra luxurious expression and an even higher comfort.

SERVICES AROUND THE PRODUCT TAKE CENTRE STAGE

To underline the importance that DAF and its dealers (approx. 1,000 sales and service dealers) attach to excellent services to support their class leading products, PACCAR Financial, PACCAR Parts and TRP have a prominent position at DAF's IAA stand. Also DAF's unrivalled International Truck Service (ITS) is highlighted, as well as the full range of MultiSupport Repair and Maintenance Contracts.

PACLEASE With a fleet of almost 4,000 vehicles, PacLease, just like DAF a PACCAR company, is one of the largest truck and trailer rental companies in Germany, which stands out thanks to its extensive range of vehicles, with tractors, rigids

and a wide variety of (semi-) trailers. The PacLease network in Germany consists of 39 locations.

DAF COMPONENTS DAF Components is the fastest growing independent manufacturers of bus and coach engines in Europe. The product range consists of a wide range of efficient Euro 3, 4, 5 and 6 engines that are well known for their industry leading reliability and service life. For maintenance of these modern engines, customers in Europe can call upon the entire DAF dealer network. A widespread network of dedicated Coach & Bus dealers is in place for servicing specific bus and coach equipment. ■

NEW EU LEGISLATION FOR LONGER TRUCKS IN THE INTERESTS OF FUEL CONSUMPTION AND SAFETY:

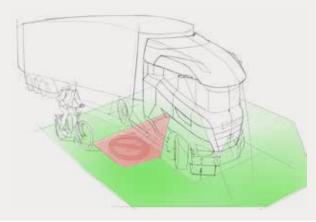
"WE STILL NEED A LOT OF STUDY"

Probably at the end of 2014 / beginning of 2015, there will be a proposal for a new law allowing slightly longer vehicles within the European Union with the aim of serving the environment and safety. "It will certainly take until 2017 before truck registration requirements are formulated to make registrations possible after 2020," stresses Ron Borsboom, member of the Board of Management of DAF Trucks and responsible for product development. "In order to contribute to a careful decision making process, DAF is examining the opportunities and benefits of longer vehicles, which also includes looking at alternatives."

iven that the new legislation permits a certain maximum elongation, one of the most important questions is how much longer a truck would have to be in the future? What is the optimal choice? How much extra length would be the optimal contribution? Is that 20 or 80 centimeters? Because this leads to substantially different vehicle concepts, with for example different positions for the front axle and the cab entrance. Whatever choice is made, when it comes to further reduction of fuel consumption and CO₂ emissions, it is a missed opportunity that the European Parliament did not vote in April for broad and thus crossborder deployment of the EcoCombi. Ron Borsboom: "The EcoCombi makes a significant impact on efficiency, achieved quite simply by carrying roughly a third more cargo per trip. Per tonne / kilometer, this can result in a fuel and CO2 saving of over 20%. That's much more than can be achieved by extending the front of a future truck: this may result in a fuel - and CO₂ saving of roughly 2.5% due to the improved aerodynamics. Possibly a few percent more because the extra space can be used to apply various new technologies. Important in the broad debate is not to automatically use CO₂ emissions per vehicle as the starting point, but to look at the actual transport performance, expressed in tonnes / kilometre."

OTHER VEHICLE CONCEPTS That does not mean that Ron Borsboom is not interested in investigating the potential of longer vehicles. "Within ACEA, we as truck manufacturers have stated our commitment for trucks in 2020 – compared to 2005 –





Literally more space benefits the environment and safety due to new legislation in the pipeline. First sketches of the DAF Design Center show how future truck concepts might look.



Ron Borsboom is in favour of studying the possibilities of longer trucks. "There are many facets that need to be thoroughly looked at, quite apart from the financial feasibility and the requirement that transport must remain affordable."

to use 20% less fuel and therefore produce less CO_2 emissions. An integrated approach is needed to achieve this. And it doesn't stop there. The EU is already talking about 30% in 2030. Longer vehicles can contribute to these next steps." In addition to allowing longer cabs for serving the environment, the EU also wants to further increase safety, especially of vulnerable road users such as pedestrians and cyclists. "Think of applying easily deformable materials and airbags on the outside," continues Borsboom. "This will automatically result in smoother shapes, which requires space. A lower windshield and in particular a lower position of the driver can lead to a more direct view, but also to essentially different vehicle concepts and a seemingly unsolvable problem with positioning the engine and its powerful cooling system.

By the way, sensors and cameras could prove to be at least as effective for this."

VIEWING ALTERNATIVES Borsboom stresses that a lot more study is still needed. "There are many facets that need to be thoroughly looked at quite apart from the financial feasibility and the requirement that transport must remain affordable," he emphasizes. "If the approach angle to the front is too low, there will be no truck entering or leaving the docking stations. And what about the infrastructure? You can't just make a truck longer without investigating if the manoeuvrability and turning circle are compromised. Our infrastructure is tailored to the dimensions of current vehicles. It is also important that we take a broad look at alternatives. To make trucks even more efficient, the current focus seems to be on creating more

space at the front, but perhaps it makes more sense to create more space at the section behind the cab, for instance to make room for alternative power and transmission systems and systems that reuse engine heat. It may be that this creates greater gains. And let's also look at what the trailer industry can do."

ONE EUROPE AS A STARTING POINT As it looks now, truck manufacturers could get more design flexibility to take new steps in the field of environment (fuel consumption and CO₂ emissions) and safety. "Even if the legislature would allow an extra length of up to 80 centimeters, it would not automatically mean that we would fully utilize this extra length," concludes Borsboom. "It is about achieving the optimum balance. Whatever the registration requirements will be, it is essential that there is one guideline for the entire European Union and that individual Member States don't come up with national deviations. It would be impossible to develop country specific solutions; the impact of future legislation is much too big for that. And also important to consider in the studies: longer trucks will at a later stage also be operated outside Europe, as is the case with our Euro 3, 4 and 5 vehicles. There is still plenty of food for thought."



A total of fourteen DAF LFs with special bodies are daily en route in the Hamburg region to collect bio waste. The organic waste is used to generate energy in a biogas plant.

TEXT: FRANK HAUSMANN PHOTOS: PHILIPP STURSBERG

ithout the new LF's of BioCycling GmbH it would smell quite unpleasant in Hamburg. Every day the twelve tonners in the Hanseatic city are underway to pick up unsold vegetables and fruit, squeezed oranges, rotten fish and food waste in containers outside restaurants, kitchens and supermarkets. A whole industry can thrive from the massively discarded food. Because since 2006, no kitchen waste and food waste can be turned into animal feed in the EU.

BIOGAS This ban is the basis of the business model of BioCycling. The trucks of this specialist company collect the whole range of organic waste in the Hamburg region and then transport it to the bio-installation of Stellinger Moor. In this special biogas plant, up to 25,000 tons of biowaste is converted into energy-rich methane gas annually. A cogeneration plant then generates electricity and heating for about 2,500 households and the nearby football stadium. The remaining biomass is used on farmers' fields as fertilizer.

COMPACT BUT SPACIOUS The LF's that are used for the transport of the waste containers are equipped with a compact but spacious day cab, a clean Euro 6 engine, a six-speed manual gearbox and rear air suspension. The 4.5-liter PACCAR PX-5 engine delivers 213 hp and develops a torque of 760 Nm, which is available over a wide rev range. The 7.20 meter long plywood body has a tail lift and a reversing camera.

PAYLOAD "DAF has convinced us with the affordable purchase price and excellent service. The drivers are very positive about the LF, the turning circle is short - useful in city traffic - and the truck has a high payload", says commercial director Dennis Eisele in explaining BioCycling's choice for DAF. In total, BioCycling operates about 20 twelve tonners, together with its



streets of Hamburg with his LF every day. His colleague, Dimitriy Yeroteyer, has been driving for BioCycling since 2010 and his route skirts the city of Hamburg. He also drives several hundred kilometers a day. Dimitriy praises the very quiet engine, easy operation and the comfortable driver's seat. The large mirrors and the rear view camera make manoeuvring easier.

Each DAF covers about 50,000 kilometers per year for BioCycling. After three years,

- ▲ Dimitriy Yeroteyer drives several hundred kilometers a day. Dimitriy praises the very quiet motor, easy operation and a comfortable driver's seat. The large mirrors and the rear view camera make manoeuvring easier.
- Every day LFs of BioCycling are on their way to pick up containers with unsold vegetables and fruit, squeezed oranges, rotten fish and food waste from restaurants, kitchens and supermarkets.

transport partner HED Hamburger Entsorgungsdienst. The trucks are deployed on fixed routes in Hamburg and Schleswig-Holstein and call in at thousands of places to either pick up full containers or drop off empty, regularly cleaned and disinfected containers.

BIODIESEL About 100 BioCycling trucks are deployed around the entire country. Besides the retail branch, its customers include restaurants and restaurant chains, hospitals, schools and childcare nurseries. In restaurants, mainly cooking oil is collected, which is made into biodiesel and so ends up in the fuel tank once more.

Founded in 1995, the waste management company belongs to the global Veolia group. Since the collection of organic matter falls under the jurisdiction of Food



and Drug inspectorate, the Hamburg firm follows strict hygiene rules in the transportation of food waste. This places high demands on the vehicle and body. For example, the body is provided with a liquid-tight glass-fibre reinforced plastic floor with a 20 centimeter edge, which makes it is easy to clean and disinfect. Moreover, the front and rear of the body features air vents to prevent possible buildup of gas from the leftovers.

EASIER "Engine and transmission are perfectly matched in the DAF LF. The cab is comfortable and spacious enough for everyday work, with plenty of shelf space. The precise steering and the comfortable suspension with rear air suspension, make our drivers' work in the city a lot easier," says the fifty-year-old David Apassnaba, who travels about 350 km through the

▲ The 7.20-meter-long plywood body has a tail lift and a reversing camera.

the customer trades his trucks in for new ones. Maintenance is carried out at the local dealer, who also delivered the LF fleet to BioCycling last June. BioCycling GmbH has an annual turnover of approximately € 20 million, while the parent company Veolia has a turnover of € 1.9 billion per year in Germany and € 20 billion worldwide. "We want to gain new customers every year," is the simple recipe for success of the 37-year-old entrepreneur from Hamburg. It will therefore come as no surprise if there were soon to be more DAF LF trucks with BioCycling markings in Hamburg helping the city to smell more pleasant.

VDL CONTAINERSYSTEMEN BV

VDL Containersystemen by is part of the VDL group. The company develops, manufactures and sells container handling systems and spreaders, as well as providing After Sales support. VDL Containersystemen's products find their way into many market sectors, such as waste collection, transport, the construction and scrap metal industries, agriculture, defence, local authorities and government. The company is the market leader in its sector within the Benelux. Ninety percent of the systems are exported via an extensive dealer network within and beyond Europe. The range of container handling systems consists of hooklifts, skiploader and cable installations.



The VDL Groep is an international industrial company devoted to the development, production and sale of semi-finished goods and end products. From the head office in Eindhoven, the VDL Groep supervises its operating companies, which function as independently as possible and are responsible for their own results. The group currently includes some 80 operating companies, with more than 10.000 employees.



he cable systems are supplied with a standard capacity of 15 to 30 tons and have a standard ride height of up to 230 mm. The use of high-quality steel achieves a low individual weight, which ensures a high load capacity. Thanks to the newly developed differential drive with integral interlocking and a sophisticated freewheel function, straight hoisting can be carried out even under difficult conditions. Durable thanks to the use of high-quality materials and practical thanks to a low-maintenance hydraulic steering system.

HOOKLIFTS VDL's hooklifts are available with a capacity of 5 to 40 tons and in various models. In the 5 ton model, bending, tipping, lifting and setting down is carried out by just one cylinder, thus reducing maintenance costs.

SKIPLOADER VDL's skiploader are available with capacities of 6-18 tons and can be equipped with a rapid and simple netting system that is able to cover loads via a small wireless remote control.

CONTINUOUS DEVELOPMENT

VDL Containersystemen continuously develops and improves its products. The company is ISO 9001, 14001 accredited and its Lean Manufacturing method not only further increases efficiency but also improves quality as part of a continuous process. In order to guarantee optimum quality, critical components are manufactured in-house.

Would you like more information? www.vdlcontainersystemen.com



LOGISTICS FOR MULTIMODAL VEHICLES

INTELLIGENT BDF SWAP SYSTEMS



ime is money. Increased competition, the ever increasing cost pressures and ever shorter working hours force transport companies to seek more efficient alternatives for carrying freight. This is not new. 80 years ago, pioneering transport companies were already annoyed at the long throughput times for the loading and unloading of their trucks. The solution came with the introduction of standardized swap

bodies and containers, which are used successfully to this day.

DAF PIONEER Less known is that DAF was an important pioneer in this field. In 1938, along with ATO, a subsidiary of the Dutch Railways, the Eindhoven company, which was mainly a manufacturer of trailers in those days, introduced one of the first systems for interchangeable bodies. This so-called DAF Losser system

The most common application for BDF transport in intermodal traffic between truck and train. But swap bodies are also used a lot in the distribution between the factory and distribution centers.

was intended to reduce the transport time between the railway and the end user. The system consisted of a DAF-designed 5-ton container that could be drawn directly off the train hydraulically on a single-axial



container chassis or DAF HD5-trailer. On arrival at the customer, the driver could lower the three-meter long container to the ground without the help of others and – if needed - load an empty container back on the chassis. Once back at the station, the driver independently loaded another container onto the rail wagon, which had room for three of the containers. The system was robust and practical. Besides the Dutch Railways, the German, Belgian, Swedish and Swiss railways also used the system. At the end of 1947 there were 95 Losser Systems in existence. The idea was patented in 13 countries.

ISO CONTAINER However, the first classical swap bodies were introduced in the early 50's when the American carrier Malcom McLean developed the first large closed container shape that was carried both by a truck and a ship. After this the first ISO container soon emerged, which became the standard in sea transportation from the end of the 60s. And thus also in road transport. In Germany, it was the Deutsche Bundespost which in 1949 was ahead of its time with the so-called Weberbehälter designed by them.

BDF EX-FACTORY

To maximize the advantages of the BDF system, DAF now also offers complete BDF solutions ex-factory, including frame, twist-locks, and the entire electrical system. It is possible to select between a variant for swap bodies with a length of up to 7.45 m (parking height 1.32 m) and a variant that is suitable for containers with a length of up to 7.82 metres (parking heights from 1.12 m to 1.32 m).

In addition to DAF's familiar ECAS air suspension on the rear axle, the front axle can now also be fitted with air suspension with extra lift height. Thanks to the new air suspension, the height adjustment at the front of the chassis is no less than 280 millimetres, and even 285 millimetres at the rear. Due to the increased air capacity, this makes it significantly faster to lift and lower the chassis and it is also easier to do this in quick succession. Because time is money after all.

The Weber System was a package container that fitted on a rail wagon and a truck. The small container was easily loaded and could be slid from the train onto a truck, which shortened the loading and unloading time.

SWAP BODY For the first generations of swap bodies, special cranes or forklifts

were required to load the containers. That quickly changed when the German carrier Dachser introduced swap bodies with folding legs in the early 70s. A development made possible by the introduction of air suspension. This allowed the driver to lower his truck so that he could drive beneath the self-standing body. He then locked the body



■ DAF offers ex-factory complete optimized BDF solutions. The customer can purchase a readymade 6x2, whereby the chassis comes complete with frame with twist locks and complete electrical installation.

▼ In 1938, along with ATO, a subsidiary of the Dutch Railways, DAF presented one of the first systems for interchangeable bodies: The DAF Losser.

enabled a transport company to start loading while the previous container was still being driven away. Compared to a classic truck, a lot of loading and unloading and waiting was avoided. However, in order to apply the system universally, a standard had to be agreed. That's where the Bundesverband des Deutschen Güterfernverkehrs, abbreviated BDF (the current Bundesverband Güterkraftverkehr Logistik und Entsorgung - BGL) came in. Together with the industry, a format for the construction of swap bodies and subframes was created. This was named BDF Wechselbrücke. Nowadays, each swap body system is being built according to DIN standards. But the name BDF-stuck and is known to this day in the transport world. The advantage of this standardization was revolutionary. Every truck and every trailer configured according to the BDF standard can pick up, set down and carry any BDF body without any problem.

for 19 pallets. The interlocking between body and chassis is usually done with the same twist locks that are also used in container transport. Also the dimensions are the same as a 20 foot container, so that one BDF truck chassis can take both types. The most common application for BDF transport is intermodal traffic between truck and train. And swap bodies are also used a lot in the distribution between factory and distribution centers.

ADVANTAGES Another advantage of the system is that the swap body of a BDF-vehicle consisting of a rigid and a trailer can take more volume than a tractor-trailer. Moreover the system is more flexible. Besides the usual swap bodies with a tarpaulin, curtain, or a fixed structure, a tank or silo framework, there are also special swap bodies that are isolated and even Jumbo versions with a lifting roof and three-metre interior height clearance.



onto the truck, put the suspension back into the drive position, folded up the legs and could drive away. The delivery was done in the reverse order. It still requires some practice to shunt a coupled trailer under two containers in one attempt. An experienced driver can complete such an operation in about 10 to 15 minutes. The rapid fitting and removal of the body

EUROPALLETS As the swap body, in contrast to the ISO container, is a European development, the dimensions of the system are adapted to the use of Euro-pallets. For use on a drawbar trailer, in particular the C boxes are suitable. These come in four lengths: 7.15 (C 715), 7.45 (C 745), 7.65 (C 765) and 7.82 (C 782) meter, whereby the last has room

Very often, a swap body system is used directly as temporary storage for the manufacturer. He then has no product warehouse at the factory, but loads the product directly into the body. After which they are transported 'just in time' to the customer.

TSM FOCUSES ON DAF

DAFXF N BEVERAGE TRANSPORTATION

Just before the start of the warm season, TSM Transport Service Mäurer GmbH of Grefrath in North Rhein-Westfalia took delivery of three new DAF XF 510 Euro 6 tractors with Super Space Cabs. The company transports mineral water, soft drinks and beer in ultramodern trailers almost throughout the entire state on the Lower Rhine.

TEXT: FRANK HAUSMANN PHOTOS: PHILIPP STURSBERG

oncurrent with the arrival of the three new trucks the scope of the beverage carrier TSM Transport
Service Mäurer is also expanding towards
Bavaria and Austria. TSM has the trucks in operation almost round the clock with a double crew, covering annual mileages of 240,000 kilometers. Besides beer, TSM also carries mineral water, soft drinks

and juices from the Eifel, Sauerland and Westerwald to the Ruhr. Transport Service Mäurer drives especially for the beverage wholesaler Fako-M in Neuss, for whom it is an important logistics partner and service provider. TSM and Fako-M recently extended their cooperation with a new contract.

'DAF ONLY' "We have clear expansion plans in mind, so we need more vehicles. I only want DAF trucks because they have proven themselves to us. They have a low total cost of ownership and are also popular with the drivers, " says Rudolf Mäurer, Director of TSM Transport Service Maurer GmbH.





Rudolf Mäurer:
"We have clear
expansion plans in
mind, so we need
more vehicles. I only
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to us."

NO SURPRISES THANKS TO DAF

is not bad for this type of work."

thing about a DAF is that the 510

badge, but actually come out of the

engine," says the 39-year-old owner.

"And with good fuel economy too.

is at least as good. Depending on

deployment, consumption is between 28 and 34 liters per 100 kilometers, which

Our Euro 5 trucks were already very

economical. And the new Euro 6 engine

horsepower are not only displayed on the

MULTISUPPORT To avoid sudden surprises, Mäurer chose a comprehensive repair and maintenance package from the DAF MultiSupport program. "With the DAF MultiSupport Waranty Plus Driveline package I can calculate the operational costs of my trucks in advance," says Maurer. "For a fixed amount per month, I cover all costs for any potential repairs to the driveline. Moreover, above the normal DAF warranty on the entire truck, I also have a three-year or 500,000 kilometer warranty on the entire powertrain. There's also a year's free breakdown service with DAF ITS. As a result, the cost of my fleet is very transparent and easier to manage. I am also assured of optimum availability. Moreover, a perfectly maintained truck pays for itself in terms of residual value."

TOP EQUIPMENT FOR DRIVER AND TRANSPORTER TSM brought the

equipment of the already richly equipped 4x2 DAF XF Super Space Cab to an even higher level by choosing LED headlamps, an extra comfortable driver seat, a refrigerator, a parking cooler and heater and an automated AS Tronic gearbox with intarder. TSM chose the most powerful version of the 13-liter PACCAR MX-13 engine. Not only to please the driver, but also to reduce fuel costs. Because the MX-13 engine has exceptionally high torque over a wide RPM range and a perfectly matched gearbox, TSM was able to choose a fuel-saving rear-axle ratio of 1: 2.69.

ONE MILLION KILOMETERS "We now have 10 years experience with DAF. In 2004 we bought our first DAF XF95 480 Euro 3 for our drinks service. We still have that truck. It has more than one million kilometers on the clock without a single problem with the powertrain! " says Mäurer, not without a note of pride in his voice. Currently, his fleet comprises of five

DAF tractors with trailer and two DAF rigids with drawbar trailer.

Except for the XF95, all of TSM's beverage trucks have the most powerful PACCAR engine. Mäurer is extremely pleased with the way this engine delivers the horsepower to the asphalt. "The great





LEADING THE WAY AFTER LIBERALISATION IN GERMANY

Liberalisation in Germany of longer distance inter-city and international routes has led to a significant shift in passenger preferences – particularly amongst the young and old – towards travel by coach.

heaper than taking a train or plane and less stressfull than driving these modern, environmental-friendly coaches with reclining seats, generous legroom (70 cm), wi-fi, airco, toilets and catering (including a beer or soda for 1.5 Euros) has led to an emerging number of transport companies more than willing to meet the demands of this brand new market and continually expanding network of services.

VISION Leading the way, in every sense, is Berlin based MFB MeinFernbus GmbH. Set up in June 2011 by Torben Greve and Panya Putsathit, two visionaries who had met as students then followed different career disciplines before re-uniting to bring together considerable experience and expertise in logistics and network planning as well as accountancy, sales and marketing and customer service.

LIBERALISATION MeinFernbus (which translates as 'my long distance bus/ coach') was formed in anticipation of the liberalisation of coach travel in January 2013 that was previously restricted to international routes, short regional services and inter-city lines in and out of Berlin in favour of the national railway company Deutsche Bahn. The concept from the

beginning, which remains to this day, was to operate independently of large commercial corporations and as a partner and catalyst for medium-sized transport and tourism companies that focus on quality and service.

FASTER On 27 April 2012, under the 'old laws', MeinFenbus began operations with three coaches in Freiburg at the main train

As with low-cost air travel the best prices can be obtained by booking in advance.



- ◆ This Van Hool TX17 Acron (PACCAR MX-13) 340 kW Euro 6 engine) began operation with Klein Wiele Reisen on June 5th on a new MeinFernbus return service between Bremen and Amsterdam. It has 61 passenger seats, air-conditioning. two refrigerators, water toilet, three LCD screens and GPS.
- There are 168 service destinations within Germany and extended operations that involves 198 cities, 212 stations and five countries: Austria, Switzerland, France, Luxembourg and the Netherlands.



station as an alternative to an 'ICE-Train' of Deutsche Bahn. The coaches were not new and were not owned by MeinFernbus (which is still the way) but ran faster on a main connection. Significantly, this outcome was to be featured on the popular German TV news show 'Tagesschau'.

GROWTH The resulting impact, among potential passengers and potential partners, led to the introduction of 30 'green' coaches on eight long-distance routes connecting 26 cities in Germany and a collaboration - even before the liberalisation - with respected mid-size operators such as Auto-Hummel, Avanti, Albus München, Verkehrsunternehmen Beer, Der Schmidt, Ohly & Weber, KocherLutz and Elmar Weinzierl Omnibustouristik GmbH.

DYNAMIC The new legislation enabled any new company to enter the market for distances of at least 50 kms and routes with at least one hour between stops. Within the first year inter-city links almost tripled to more than 200 with 10-15 additional players in this very dynamic market. But, because of its preparation and planning, MeinFernbus was very much ahead from the start and since has built upon a platform of trust and quality of service to become market leader with a 40 per cent share (as authenticated by the independent IGES Research Institute).

NIEUWE ROUTE Currently, there are some 272 coaches in MeinFernbus livery operated by 81 transport partners traveling 150,000 kilometres per day and carrying 5.3 million passengers overall.

There are 168 service destinations within Germany and extended operations that involves 198 cities, 212 stations and five countries: Austria, Switzerland, France, Luxembourg and the Netherlands. The latest development occurred in June with the introduction of a new service that runs daily from North Rhine-Westphalia to Arnhem, Utrecht and Amsterdam in the Netherlands.

With an entire jorney time of less than eight hours, prices up to 70 per cent lower than by train (when booked in advance), a Media Centre with free access to movies and - from March to November - the possibility to transport bikes for just nine Euros, it has proved very popular with both Dutch and German customers.

SUSTAINABLE "We are delighted to now offer our sustainable mobility service in the Netherlands," says Torben Greve, founder and CEO of MFB MeinFernbus GmbH. "For passengers from Germany and Holland the direct connection of North Rhine-Westphalia to Amsterdam offers an easy way to travel and explore their neighboring countries."

The service involves three new partners in the Netherlands. These appointments were based on such MeinFernbus criteria as: "chemistry, a good image, service quality, a sustainable and new fleet and a

good commercial conduct."

And so, the final question to this widely respected new transport provider: does expansion into other countries also encourage and develop additional liaisons with 'local' manufacturers such as Van Hool and VDL Bus and Coach as well as service providers including the DAF ITS



▲ This PACCAR/DAF powered VDL Futura is one of 272 coaches now operated in MeinFernbus livery.

24/7 support network of 1,000 service points throughout Europe?

"Very much so, " says Torben Greve. "In Germany, MeinFernbus stays the most well-known and most likeable coach travel provider. After two years on the German market we keep on expanding to several neighbouring countries. We are happy to experience so much positive reception throughout Europe and look forward to developing relationships with all aspects of the industry."

▼ Co-founders of MeinFernbus, Torben Greve (right) and Panya Putsathit.



DAF was the first truck manufacturer to fit Goodyear KMAX and FuelMax tyres as original equipment ex-factory, both for the new CF and LF models as well as the flagship XF series. The Goodyear KMAX is, as the name suggests, designed for high mileage without sacrificing other important criteria such as grip and fuel efficiency. The Goodyear FuelMax series is particularly suitable for transport companies who want to combine optimum fuel efficiency with high mileage.



he CF and LF series DAF Euro 6 are designed for a wide range of uses and are therefore available in many different versions. Also with the choice of tyres, the customers can select the tyre that best suits their specific needs.

GOODYEAR KMAX-LINE

Such as the Goodyear KMAX-line that gives more mileage and better performance throughout the year than previous generations of Goodyear tyres. The series includes KMAX S- steerable-axle tyres, KMAX D-drive-axle tyres and KMAX T-trailer tyres. Tests show that the KMAX S achieves an improvement in mileage of 30% compared to the Goodyear RHS II steerable-axle tyre and the D KMAX an improvement up to 35% compared with the RHD II + drive-axle tyre.

GOODYEAR FUELMAX

Truck tyres from the FUELMAX series with low rolling resistance recently achieved top marks in tests where the rolling resistance was compared with tyres of the main competitors. In these tests, TÜV SÜD Automotive GmbH compared the rolling resistance of the steered-axle and drive-axle tyres from the FUELMAX range with similar tyres of three major competitors.

Based on the results for rolling resistance, Goodyear has calculated that FUELMAX tyres in combination with the fuel-efficient Marathon LHT II trailer tyres achieve savings of approximately € 1200, - * on fuel costs per year per vehicle for an average fleet compared with the second tyre from the test. Compared to the average result of the test, the FUELMAX even saves € 1950, - per year. The Goodyear FUELMAX tyres are leading the pack in terms of fuel economy. The calculations are based on a five-axle tractor-trailer combination with a GVW of 40 tonnes and an annual mileage of 150,000 km, fuel consumption of 34I / 100km and a fuel price of € 1.30 per litre.

ROLLING RESISTANCE -10%

With an improvement in rolling resistance of up to 10% (compared to predecessors), the FUELMAX series saves fuel and reduces ${\rm CO_2}$ emissions. Moreover, the series gives 15% more mileage and improved grip: the FUELMAX D – drive-axle tyre meets the requirements for M + S and Three-Peak-Mountain-Snow-Flake winter tyres, making this truly a tyre that is suitable for all seasons. Due to the potential fuel savings that can be achieved with the FUELMAX series (as tested by TÜV SÜD), ten of the thirteen currently available Goodyear FUELMAX





tyres have a review label of A or B. The 385 / 55R22.5 FUELMAX S-steerable-axle tyre was also the first truck steerable-axle tyre on the market that received an A rating for fuel efficiency.

CLOSE COOPERATION

"The new tyres make an important contribution to the excellent performance of DAF trucks", said Peter Platje, Director OE Sales Truck Tires Goodyear EMEA. We provide the KMAX and FUELMAX tyres as original equipment to DAF. This allows fleets to purchase a new DAF with full advantage of the high mileages and fuel economy of our tyres. An additional advantage is that both drive-axle tyres meet the strict requirements of the 3 PMSF mark, which guarantees the performance of these winter tyres."

* The calculations of fuel by Goodyear GIC * L are approximate and based on a standard tractor-trailer combination of 40 tons and 5 axles with size 315 / 70R22.5 on steerable and drive axles and 385 / 55R22.5 on trailer, assuming an average fuel consumption of 34 I / 100 km, an annual distance of 150,000 km / year and a fuel price of € 1.30 per liter, aware of the fact that actual results may vary due to, but not limited to, weather and road conditions, driving style , wear, tyre, tyre pressure and maintenance.



Germany is famous for its beer and fast cars. But Germany is also well known internationally for its logistical capabilities. Just as in football, the country is also world champion in logistics. But it must be careful that this doesn't cause the infrastructure to crumble under the wheels.

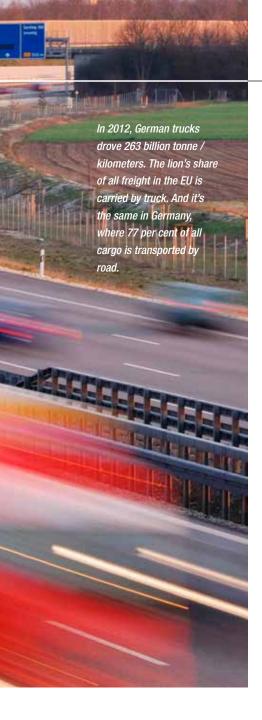
TEXT: FRANK HAUSMANN

ermany is the logistics world champion. At least according to the World Bank, Germany was awarded the title after having interviewed 6000 worldwide logistics entrepreneurs in 160 countries for their Actual Logistic Performance Index 2014. This year the Germans took first place before Singapore, Hong Kong and Finland.

INTEGRAL PART Germany rightly gets the first place. The logistics industry is the third largest employer in the

country, only behind commerce and the automotive industry. The sector employs more than 2.8 million people, which together generated a turnover of € 228 billion in 2012. That's about 8.5 per cent of the gross domestic product in 2012. And the end is not yet in sight: the logistics market in Germany is a very dynamic, fast-growing market. The industry breaks one record after another. As with commerce and industry, the logistics sector has become an integral part of the entire production

chain in recent years. The logistics and transport companies not only ensure the delivery and supply of products, raw materials and equipment, they also play an increasing role in so-called 'logistics added value': the final assembly, packaging, storage and delivery of products. The end user / consumer expects a properly functioning supply chain behind the product. Whether that's while making an Internet purchase or buying it in a supermarket.



11 BILLION TONS 60,000 hauliers account for about a third of all logistics services in Germany. The transport industry consists mainly of medium-sized entrepreneurs, with a limited number of global players, such as mail subsidiary DHL and rail subsidiary Schenker. The German transport fleet currently consists of about 360,000 trucks and tractors above 16 tons. There are more than 440,000 heavy trailers and trailers. Together that amounts to a capacity of nearly 11 billion tons. In 2012, German hauliers transported 263 billion tonne / kilometers. The majority, 77 per cent of all cargo, is transported by road. The share of rail and sea is nine and seven per cent respectively, and inland waterways adds a further five percent.



The German Ministry of Transport wants to pump more money into the improvement and modernization of the entire infrastructure in the short term. For the coming years, the current coalition has only budgetted a step-wise increase from \in 10 to 12 billion.

The percentages of airfreight and pipeline transportation within Germany are negligible.

INDUSTRIAL COUNTRY Compared to neighboring countries, Germany has a lot of industry. From the very nature of their activities, they have a much greater need for transportation and logistics than the services sector for example. The size of the domestic spending also makes Germany an interesting country for logistics service providers. Furthermore, it is the absolute export champion. Foreign trade is currently growing much faster than the gross domestic product, which fell to 2,737 billion last year. An advantage not to be underestimated is the country's favorable geographical location in relation to the rest of Europe and nearby Eastern Europe. That makes Germany the largest transit country and offers good opportunities as a European hub for the transfer of goods. Germany also has a good transport infrastructure, especially compared to neighboring countries. The country has the most dense motorway and railway networks in Europe. The air, sea and inland ports are among the largest and most modern on the continent and the Rhine is by far the EU's most important waterway. German road hauliers have 12,900 km of motorways, 39,700 km of secondary roads and 86,000 km of tertiary

roads at their disposal. Nevertheless, there is a real risk of the infrastructure being left behind. Due to the increasing traffic pressure and the increasing demands on the already heavily loaded roads, gridlock lurks. Especially as the investment in infrastructure remains unchanged.

INNOVATION OR STAGNATION? An innovative country, the question of whether Germany remains prosperous or falls back into stagnation depends largely on the capacity of the infrastructure. In the short-term, the German Ministry of Transport wants to pump more money into improvement and modernization of the entire infrastructure. For the coming years, the current coalition has only established a stepwise increase from € 10 to 12 billion for roads. Currently € 5.1 billion would be needed annually for motorways alone, but according to the employers' organizations there is a gap of € 3 billion per year that is not covered within the current plans. That needs to be filled with a mix of tax measures and an increase of the German road toll (Maut).

ROAD TOLL AND EURO 6 One of the consequences is that Germany is now faced with a toll for passenger cars. And on all roads. As of 2016, more than a quarter of a billion Euros will flow into the state treasury through a vignette.



MEILLER and DAF – an established team!





79 EcoCombis are now driving along fixed routes on German roads as a pilot. The experiment shows exactly the same results as in the Netherlands where 1,000 EcoCombis of 60 tons drive along unfixed routes: the EcoCombi meets all expectations, such as lower fuel consumption and CO₂ emissions.

The government wants to use the revenues exclusively for improving road infrastructure. In contrast, from more than € 4.5 billion raised by the toll for trucks (LKW-Maut), only a part goes to the road network. In addition, the new coalition government wants to lower the proceeds of the HGV toll. In 2017, about €460 million less will be collected. The background to this is that for the years ahead, the cost of construction and maintenance of those roads where the toll applies will be recalculated. For the first time, the cost of air and noise pollution will also be taken into consideration.

As a result, tax adjustments will be made that will at least favour heavy Euro 6 vehicles. They will possibly pay 13.1 cents per kilometer for a truck with four axles upwards. A similar Euro 5 truck possibly pays 15.2 cents. For all vehicles excluding Euro 6 trucks, a surcharge for air pollution will be payable. Moreover, from 2015, the economy and road freight will face even more taxes: from the middle of next year there will be another 1,000 kilometers of roads on which tolls must be paid. And as of October 2015, this also counts for all trucks between 7.5

and 12 tonnes. As of 2018, the Federal

Government wants tolls to be levied on all secondary roads.

ECOCOMBI The growth of freight must

of course also meet the requirements of both the community and sustainability. An important tool for sustainable and more efficient transport is the EcoCombi. A test with 25.25 meter-long, 44 ton trucks in Germany shows that road transport capacity can be improved by simple means. Meanwhile, there are 79 EcoCombis driving around in Germany on fixed routes as an experiment. This test shows exactly the same results as in the Netherlands, where 1,000 EcoCombis of 60 tons drive along unfixed routes: the EcoCombi meets all expectations, such as lower fuel consumption and CO₂ emissions. And no serious incidents. At the end of May, the Federal Constitutional Court ruled that the way is now open for a large trial with EcoCombis on all motorways in Germany. And that means more German states can become involved. ■

Cents / Km	Old rate		Proposed new rate	
	up to 3 axles	from 4 axles	up to 3 axles	from 4 axles
Euro 0/1	27,4	28,8	20,8	21,4
Euro 2	27,4	28,8	19,8	20,4
Euro 3	19,0	20,4	18,8	19,4
Euro 4	16,9	18,3	15,7	16,3
Euro 5 / EEV	14,1	15,5	14,6	15,2
Euro 6	14,1	15,5	12,5	13,1

