NUMBER 1 2013

IN ACTION

DAF PRESENTS
COMPLETE EURO 6
PRODUCT RANGE

PACCAR MX-11:
MAXIMUM PERFORMANCE AND EFFICIENCY

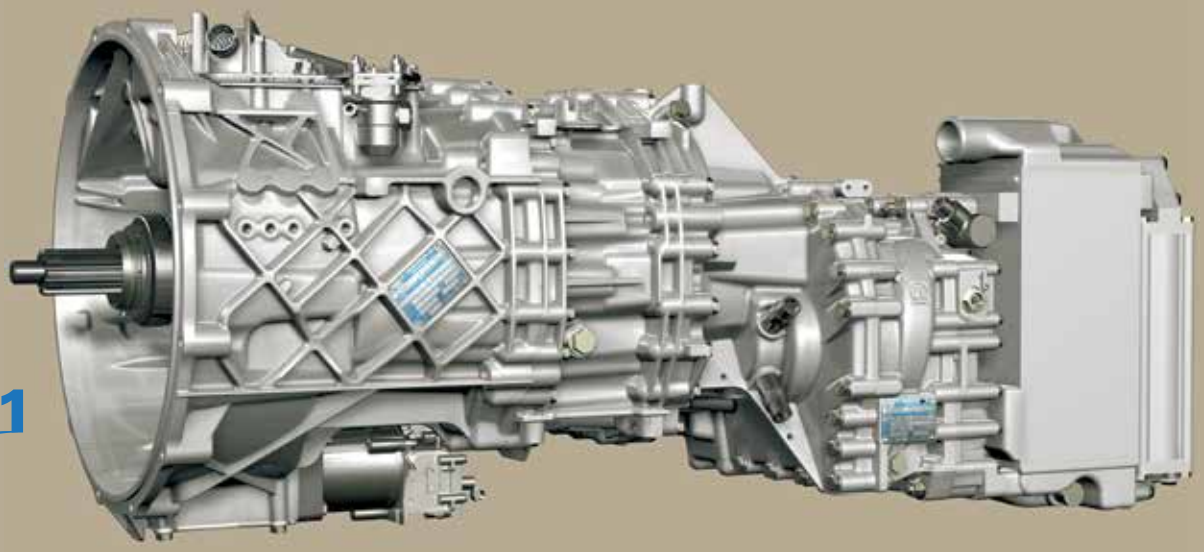
DRIVEN BY QUALITY

MAGAZINE OF DAF TRUCKS N.V. WWW.DAF.COM

DAF
A PACCAR COMPANY

ZF technology – the intelligent choice.

Automatically efficient with AS-Tronic + Intarder on board.



Nº 1

www.zf.com/trucks

For long-distance transport, distribution traffic, or special vehicles – trucks drive ahead of the pack with the N° 1 automatic transmission. The DAF AS-Tronic + Intarder automatically make trucks more efficient, lowering costs for fuel and service. DAF AS-Tronic + Intarder. Automatically N° 1

Driveline and Chassis Technology

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Editing: Corporate Communications department
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THE SUCCESS CONTINUES

Over the past year, DAF’s market share in the European Union grew to as much as 16% in the heavyweight class, a record in the 85-year history of the company. This makes DAF the second largest truck brand in the EU in the over 16 tonne class, whilst maintaining its market leadership in the popular and demanding tractor segment. Outside Europe the success also continues: in Russia, the Middle East, Africa, Australia, New Zealand, Taiwan - more and more hauliers worldwide are choosing DAF.

The secret behind this success? It starts with our class leading LF, CF and XF trucks, designed for maximum efficiency and maximum driver comfort. Equally important are the services behind the products: a leading parts supply by PACCAR Parts, MultiSupport repair and maintenance contracts for extra confidence, the professional services from PACCAR Financial and not forgetting DAF's unparalleled 24-hour roadside assistance, ITS. Services you can rely on.

And the same goes for the extensive dealer network of independent entrepreneurs, for whom it is a given to go the extra mile to deliver the highest possible quality and customer satisfaction. Partners who know what’s important for you as a road-haulage company: maximum vehicle availability and the lowest costs per kilometer. Partners to help you make the right choices: new or used, buy or lease, repair or replace. In the end, it’s all about your company’s efficiency. Important, especially in the current challenging economic environment.

In this new DAF in Action, we proudly present to you the new state-of-the-art PACCAR MX-11 Euro 6 engine. An engine that fully fits the brief of achieving high efficiency at lower displacement volumes. In addition, we introduce you to our new Euro 6 LF and CF vehicles. Following the introduction of the Euro 6 XF last year in Hannover, DAF is now one of the first truck manufacturers to have presented the entire Euro 6 product range. Cleaner than ever and with fuel consumption figures at the same low level as our ultra-efficient Euro 5 ATe vehicles. Whatever choice you make, as long as the DAF badge is on the grille, you’ll know that there are professionals behind it who understand more than anyone what drives you. A comforting thought in these challenging times.

Harrie Schippers
President

1928 – 2013 **85 YEARS 'DRIVEN BY QUALITY'**

On 1 April 2013 it was exactly eighty-five years ago that the brothers Hub and Wim van Doorne founded DAF, nowadays a 'PACCAR Company' and one of the leading truck manufacturers in Europe.

What in 1928 began as a small engineering plant and blacksmiths, developed in 1932 into a trailer producer. In 1949, the first DAF truck was produced. A year later, a new truck factory was built and the production of truck chassis started. In the fifties, DAF also decided to produce its own engines.

Leader in engine development In 1959, DAF was one of the first European truck manufacturers to apply turbo-charging to diesel engines. In 1973, DAF was ten years ahead of the European competition with the introduction of turbo intercooling. DAF's latest innovations in engine technology are the 12.9 litre PACCAR MX-13 engine and the 10.8 litre PACCAR MX-11 engine, both of which already meet the Euro 6 emission standards that come into force in 2014 in Europe.

New standards Also in the development of comfortable cabs, DAF has always been ahead. With the 2600, DAF introduced in the early sixties the first cab that was developed specifically for international transport. DAF expanded its position in this area even further with the introduction of the Super Space Cab concept, which again set the standard in international transport for interior space and driver comfort.

DAF Trucks today Today DAF is a technology company and a leading manufacturer of commercial vehicles in Europe. DAF is a wholly owned subsidiary of PACCAR Inc., the world's quality leader in the development and production of light, medium and heavy commercial vehicles. DAF manufactures trucks in its manufacturing facilities in Eindhoven (Netherlands), Westerlo (Belgium) and Leyland (UK). DAF's engine factory, sheet-components factory and the final assembly line for CF and XF models are located in Eindhoven. Axles and cabins are produced in Westerlo.

DAF products are sold and serviced by a network of more than a thousand independent dealer locations throughout Europe and also in the Middle East, Russia, Africa, Australia, New Zealand and Taiwan. DAF is expanding its presence outside Europe even further, for example in South America. There the construction of the new DAF assembly plant in Brazil is on schedule. Production in Brazil is scheduled to start before the end of the year.

DAF GERMANY **ON THE MOVE**

The construction of the new headquarters of DAF Trucks Germany recently began in Frechen with a ground breaking ceremony. A stone's throw from the current office close to the A4 motorway (junction Köln-West), a completely new, two-floor building is being built with a total floor area of 1,800 square meters. In October, the move will become a reality.

"Our current building is too small and we need the extra space," said Jan van Keulen, Director of DAF Trucks Germany. "DAF will continue to grow in Germany and also PACCAR Financial Germany will benefit from the new building: space is also being made available for the finance company's employees."

The ground breaking ceremony. From left to right: Frank Schöddert, Frechen Council, Hans-Willi Meier, Mayor of Frechen, Jan van Keulen, Managing Director of DAF Trucks Germany, Günther Kruse, investor, Uwe Wilberg, architect.

DAF LAUNCHES FIRST CHOICE **NEW PROGRAMME FOR YOUNG USED DAF TRUCKS**

First Choice is a completely new programme for young used DAF trucks offered exclusively by European DAF dealers. Trucks with the DAF First Choice label are less than five years old, have a maximum of 500,000 kilometres on the clock and have a full service history. The trucks are in top condition, thanks to the checkup that dealers carry out on First Choice vehicles, which cover almost 200 separate points. For maximum assurance of vehicle quality, a DAF dealer delivers the First Choice truck with a six-month warranty on the drive line. Supplementary repair and maintenance contracts are available as an option, as well as competitive financing programmes via PACCAR Financial. The complete range of First Choice trucks, along with a detailed description and photographs, are available via the renewed *www.dafusedtrucks.com* website.

DAF WINS **PACCAR CHAIRMAN'S QUALITY AWARD**

For the fourth time, DAF Trucks N.V. has won the PACCAR Chairman's Quality Award. Of all PACCAR companies, DAF achieved the best delivery quality in 2012. The award is a valued recognition for DAF's continuous focus on quality, throughout the whole organisation. In 2012 new records were established in terms of delivery quality. A fantastic achievement, the more so because these records were set in a period in which the whole production process was gearing up for Euro 6. All these efforts in reaching for the highest possible quality were reason for Mark Pigott, chairman and chief executive officer of PACCAR, to award DAF the 'PACCAR Chairman's Quality Award'.

FASC ASSEMBLES **FIRST LF IN TAIWAN**

The first locally assembled DAF LF recently came off the production line at FASC—Formosa Automobile Sales Corporation—in Taiwan. The LF trucks are assembled in Taiwan using "SKD" (Semi Knocked Down) packages that are shipped from Leyland to Taipei. In addition to the LF, Formosa has also been assembling the DAF CF85 series since 2006. DAF has been active in Taiwan since 2006, where it is market leader among the European brands.

EXPANSION TRP PROGRAM

By adding a complete range of parts for air brakes, support gear and LED lights for trailers, the total product range of TRP now includes more than 75,000 parts. This represents a leading range of parts for all makes of trucks, trailers and workshop supplies. PACCAR Parts introduced its Truck and Trailer Parts TRP program in 1995 as part of the 'One Stop Shop' strategy whereby a haulier can find anything for his entire fleet at one location. The 75,000 articles from the TRP program can be found in the digital catalog at *www.daf.com/trp*. A new printed version of the TRP catalog is also available. TRP products are available exclusively through the DAF dealer organization and come with an comprehensive warranty as standard.

DAF INTRODUCES NEW EURO 6 LF AND CF SERIES

NEW AERODYNAMIC VEHICLES ESTABLISH NEW QUALITY AND EFFICIENCY STANDARD

At the Birmingham Truck Show DAF introduced its new Euro 6 LF and CF models, which have been developed for maximum transport efficiency, market-leading low operational costs and optimum vehicle performance. The new Euro 6 LF and CF set a new standard in their class, offering the ideal, most efficient vehicle for any transport application.

CF

DAF'S VERSATILE ALL-ROUNDER: THE NEW CF EURO 6. THE IDEAL TRUCK FOR A MULTITUDE OF APPLICATIONS

"With the launch of the new LF and CF models, DAF has introduced a complete new range of efficient Euro 6 vehicles", shared Harrie Schippers, president of DAF Trucks. "The considerable investments involved in the Euro 6 products are an integral part of the company's strategic growth plan. The Euro 6 project is the largest investment and development programme in DAF's 85-year history."

The new Euro 6 LF and CF obviously build on the exceptional reputation that previous models have established among both transport operators and drivers. The LF in the demanding distribution segment from 7.5 to 19 tonnes and the CF with unrivalled versatility from 18 tonnes to combination weights of 44 tonnes and more.

ATTRACTIVE DESIGN When developing the new LF and CF, DAF was clearly inspired by the qualities of the highly acclaimed Euro 6 XF. This is illustrated by the attractive exterior design. The prominent and nicely integrated upper and lower grille create a clear family resemblance, which is enhanced by the centrally positioned chrome panel with DAF logo. The new LF and CF also feature attractive new headlights. The CF headlights have integrated daytime running lights as standard for excellent visibility during the day, with DAF's unique LED main lighting available as an option. Also new are the optional cornering lights in the bumper, which shine in the driving direction when manoeuvring and turning, thereby offering increased safety.

The cab of the DAF LF and CF are renowned for their spacious interiors and unsurpassed comfort. To start, the new Euro 6 LF and CF offer any driver an exceptionally comfortable sitting position, thanks to a new generation of seats with even more adjustment options. Also new is the steering wheel, which the new LF and CF share with the XF as well. It is fully adjustable and integrates a wide range of ▸

LF

THE DASHBOARD OF THE NEW LF HAS BEEN COMPLETELY REDESIGNED.

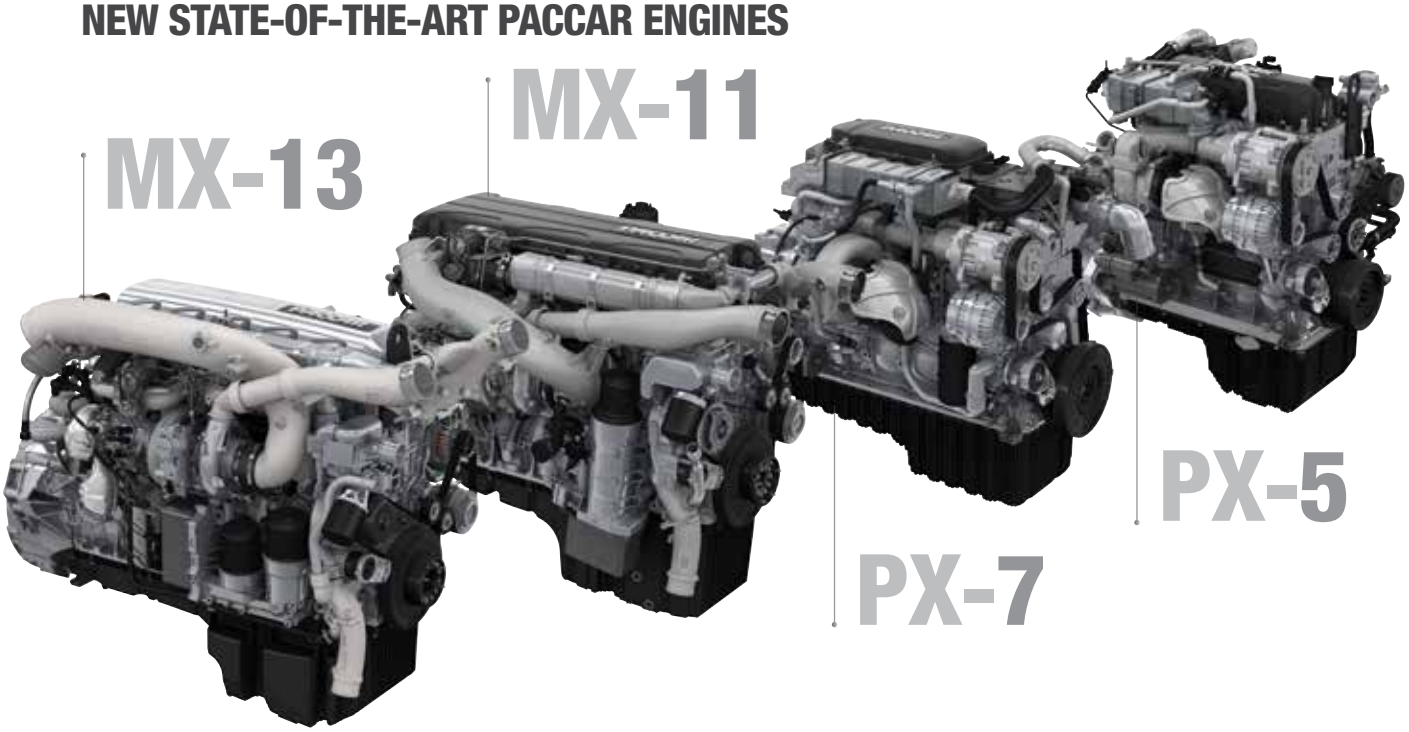
operating buttons: on the left which are the controls for infotainment (radio and telephone) and on the right are all the speed-related functions, such as cruise control and downhill speed control. The new fully integrated telephone system (DAF Truck-Phone), available as an option, can also be operated from the steering wheel.

DRIVER PERFORMANCE ASSISTANT

The dashboard of the new LF has been completely redesigned and the dashboard in the CF has been given a whole new layout, providing perfect access to all controls. Switches have been grouped by function for maximum ease of operation. The new LF and CF have been given the same electronic instrument panel as the XF series, including the stylish aluminium finish of the dials. In the centre of the dashboard sits a 5-inch bright colour display that provides information in 32 languages about all vital vehicle and engine functions, and which also helps the driver to drive as economically as possible.

EFFICIENT DRIVE LINES The new Euro 6 LF and CF series offer a tailor-made vehicle for any application, as illustrated by the wide range of efficient drive lines with new state-of-the-art PACCAR engines (PX-5, PX-7, MX-11 and MX-13), with ratings of 112 kW (150 hp) to 375 kW (510 hp). The new PACCAR engines have a completely new engine block and are equipped with ultramodern common rail technology, a turbo with variable geometry and a number of advanced controls for maximum efficiency. In order to comply with the stringent Euro 6 emissions requirements while achieving highest fuel efficiency, the LF and CF use exhaust gas recirculation together with SCR technology and a soot filter that is designed for maximum passive regeneration.

NEW STATE-OF-THE-ART PACCAR ENGINES



THE DASHBOARD IN THE CF HAS BEEN GIVEN A WHOLE NEW LAYOUT, PROVIDING PERFECT ACCESS TO ALL CONTROLS.

CF

The new PACCAR engines are ultra clean and at the top of their class when it comes to performance, fuel efficiency, reliability and durability. Fuel consumption of the Euro 6 models is as low as that of the very competitive Euro 5 (ATe) models. The large oil pans allow for long service intervals (LF: max 60,000 km, CF: max. 150,000 km) for maximum uptime.

MANY INNOVATIONS Although the new PACCAR PX-5, PX-7, MX-11 and MX-13 engines all differ in terms of their design, they have several important innovations in common. All engines are fitted with a single poly-V belt and a fan that is mounted directly on the crankshaft without an intermediate drive, saving on maintenance costs, improving reliability and reducing weight and fuel consumption. The oil sump is made of synthetic material, which reduces weight and noise. On the PACCAR MX-11 and MX-13 engines, the fuel filter and water separator with automatic drainage have been combined into a single unit, which is mounted directly on the engine for maximum ease of maintenance. Additionally, the oil cooler - combined with the oil filter to form a single module - is made of stainless steel to make it even more robust. The foam wiring harnesses, designed to ensure maximum reliability, are unique in the truck industry.

HIGH PERFORMANCE The new Euro 6 PACCAR engines deliver exceptional performance, with high torque available even at low speeds and across a wide rpm range.
The new Euro 6 LF and CF come with 5, 6, 9 or 12-speed manual transmissions as standard, depending on the model. For the CF, a 16-speed manual gearbox is available as an option, which also goes for the AS Tronic automated transmissions with 6, 12 and 16-speeds. The 12 and 16-speed AS Tronic gearboxes feature a number of specific functions unique to DAF, such as EcoRoll (which allows controlled downhill driving on a disengaged clutch, making maximum use of natural momentum) and Fast Shift for faster switching between upper gears for maximum efficiency.

OPTIMISED WEIGHT FOR HIGH LOAD CAPACITIES A new, lighter rear axle is available on the Euro 6 CF for combination weights of up to 44 tonnes and engine torques of up to 2,300 Nm. The use of a Stabilink construction is a new feature. Integrating the anti-roll stabiliser function in the suspension of the rear axle creates optimum stiffness and stability and provides a substantial weight saving. The new fifth wheel mounting plate, the smart way in which the battery boxes have been fitted and the new steering system also result in weight savings.

With a view to achieving maximum efficiency, DAF focused on providing the best possible layout of the completely redesigned CF chassis. The standard 65-litre AdBlue tank is cleverly positioned under the sleeping cab and the batteries can be positioned at the rear of the chassis. This smart positioning of components makes it possible to provide fuel tank capacity of up to 1,500 liters for a maximum operating range. Additional enhancements include new rear mudguards and a redesigned closing cross-member for the chassis.

The chassis of the Euro 6 LF has also been fully redesigned for maximum stiffness and excellent driving characteristics, a low kerb weight and ample room for positioning components. The most significant innovation is that the chassis is a single-wall construction, which keeps kerb weight as low as possible — high-quality steel is used for maximum strength. For extra load capability, the 18 and 19-tonne models can be fitted with a new 13-tonne rear axle, which is important in countries where loads exceeding 11.5 tonnes are permitted on the driven axle.

DAF will commence production of the new DAF Euro 6 CF with PACCAR MX-13 engine in June 2013, followed by models equipped with the PACCAR MX-11 engine in the autumn. A version featuring the PACCAR PX-7 engine will be added to the CF range at the start of 2014. The new Euro 6 LF will enter production in the fourth quarter of 2013.

BRITISH ROAD TRANS ON THE WRONG SIDE OF THE ROAD?...

There's no height limit in the UK, which explains why there are so many tall trailers in Britain – and so many double-deck trailers too.

With no State-owned railway or Government subsidies for dominant means of carrying goods.

What makes the British so different to the rest of Europe? Just like the famous headline in 'The Times' newspaper that read: "Heavy fog in Channel… Continent cut off!" we're quite happy being 'out-of-step', not least when it comes to road transport. Take the UK's maximum weight limit for trucks, for example-four-tonnes more than the EU harmonised limit. A typical British 44-tonner also has six-axles and a 10.5-tonne drive axle. Why? Because we Brits have never liked the 11.5-tonne drive-axles found on '2+3' Continental 40-tonners (we think they're too 'road-wearing'), and reckon the extra axle on a Great British 3+3 artic makes it more 'road-friendly'. That's not to say we don't have 40-tonne artics in Britain, we do. It's just we financially 'discourage' UK operators from running them. The annual road tax for a six-axle 44-tonne tractor is £1,200 or €1,392 in Euros, (which is another thing we don't have!) and £1,850/€2,146 for a five-axle 40-tonner–that's 35% more tax for having one less axle…

While some Continental operators may pay more in road tax, UK hauliers pay more for their diesel than anyone else. We have, and always have had, the most expensive fuel in Europe – in Holland around 25% of a transport operating costs are fuel, for us it's 40%. And that's driven our high levels of efficiency, especially the need to cut down on empty running, which has halved since 1970 when it was 34%, to 18% today.

There's no height limit in the UK, which explains why we run so many tall (up to 4.9m high) trailers in Britain – and so many double-deck trailers too. OK so a truck in Britain has still got to get under a motorway bridge, which is 16ft 6in high, or 5.02m in metric, but having no height limit is probably also why there isn't much enthusiasm for 25.25m LHVs amongst British operators. If they need more volume they go higher, rather than longer!

The British cling proudly to 'Imperial' measurements, even if they mix-and-match with the rest of Europe. For example, we Brits buy diesel in litres, but still measure our fuel economy in 'miles-per-gallon'. And although UK speed limits are in 'miles-per-hour', truck top-speed limiters are set to the same 88km/h maximum as the rest of Europe. Only, just to confuse things, the legal speed limit for a truck on British motorways is 60mph, or 96km/h! Which means you can drive a truck downhill in the UK at 60mph – even though your EU-certified digi-tach may show an over-speed warning!

With no state-owned railway or government subsidies for rail-freight in the UK,

PORT:

UK International Truck of the Year Jury member Brian Weatherley considers why Britain marches to its own distinctive tune, unlike the rest of Europe…

rail-freight in the UK, road transport is by far the

UK hauliers pay more for their diesel than anyone else, which explains this streamlined, fuel saving superstructure on this DAF LF.

road transport is by far the dominant means of carrying goods. Some 83% of all freight goes by road measured on tonne-miles. The last time rail carried more freight than road transport was back in 1953. It now carries a tenth of what goes by road. We also have the most 'open' roads in Europe for truck drivers. There are no weekend truck-bans as in other European countries, we only have one major toll motorway (around Birmingham) and barring the odd local weight limit, and the Low Emission Zone in London that requires a minimum of Euro-4 particulates if you want to travel through it for no-charge, you're pretty much free to take a truck anywhere you like in Britain – and at any time too, without having to worry about Euro-Vignettes or motorway Toll 'Mauts'.

Look at the make-up of the UK transport industry and it's clear it's dominated by a small number of big logistics companies. Around 3% of all the operators in the UK are running 50% of all the vehicles in the country. We have more than our share of large, very efficiently-run big fleets compared to the rest of Europe. And that's because fuel is expensive and the market is highly-competitive. What's more, less than 5% of trucks on our roads are bought by the guys who drive them – we've far fewer owner-drivers than Spain or Italy. And the average British fleet operator is more likely to have a relationship with a manufacturer, rather than his local dealer. Moreover, the UK is without doubt the most mature market in Europe when it comes to truck finance and ways of acquiring a vehicle. The same goes for contract maintenance too.

So what else is different about the UK? Thanks to our own operator licensing requirements most UK hauliers have safety inspections of their trucks every six weeks. We also have more roundabouts than any other country in Europe.

But the thing that bemuses just about everyone is the fact that we continue to drive on the 'wrong' side of the road as far as Europe is concerned. It's said to be connected with the highwaymen in Britain who used to rob travellers in the 18th Century. With most people being right-handed, it became common for people to pass each other on the left side of the road, because it was a lot easier to pull a pistol out from under your jacket, or draw a sword, if you needed to defend yourself. And we just stuck with it! It's as good as any reason we've ever heard…and something to remember the next time you visit Britain! ■

EURO 5 OR EURO 6 THAT IS THE QUESTION

At the IAA Commercial Vehicles Show in September last year, DAF introduced its new XF Euro 6, which a few weeks ago (April 3, to be exact) went into series production. Well before 1 January 2014, when the new Euro 6 legislation takes effect. Road hauliers across Europe are faced with the question: should I already invest in Euro 6, or is it wiser to continue purchasing Euro 5 vehicles? DAF in action spoke with Ron Bonsen, Member of the Board of Management, who is responsible for Marketing and Sales.

At the IAA Commercial Vehicles Show in September last year, DAF introduced its new XF Euro 6, which a few weeks ago (April 3, to be exact) went into series production.

For those for whom Euro 6 is not yet an option, DAF's Euro 5 ATe trucks are an excellent alternative.

Throughout 2012 there were fewer than 4,000 Euro 6 vehicles registered in the EU + 2 market. "That's less than 2% of the total EU + 2 truck market," says Ron Bonsen. "This is of course partly due to the previously limited availability of Euro 6 vehicles. And that is due to the still limited demand: many road hauliers are not yet convinced that they now have to invest in Euro 6, which is quite understandable. The margins in the road transport industry are under pressure, while Euro 6 vehicles, due to the additional technology, are considerably more expensive than existing Euro 5 vehicles."

MORE STILL And there is more: "The incentives of the various governments to get Euro 6 vehicles on the road before 1 January 2014 are less or lower than previously assumed," says Ron Bonsen. "EU countries such as Switzerland, Germany, Netherlands, France and Austria stimulate the sales of Euro 6 vehicles before 1 January

2014 somewhat by giving a discount on tolls, or road-fund licenses, or by subsidizing purchase prices. But in other countries it remains very quiet."

30% OR THREE MONTHS To make matters even more complicated, EU countries also have different criteria for the registration data of Euro 5 vehicles. "Many hauliers naturally want to know how long they can order Euro 5 vehicles," says Ron Bonsen. "The EU directive of the European Parliament gives member states two options: the 30% rule and the three months scheme. In the former, 30% of the volume of Euro 5 vehicles from the previous year can be registered after the implementation date of Euro 6. For the three months scheme, Euro 5 vehicles produced after 30 September 2013 must be registered before the end of 2013; Euro 5 vehicles produced up to and including 30 September may continue to be registered until the end of 2014. As it looks now, only the Netherlands and the United Kingdom are going for the three month rule, while the other countries are going for the 30% rule. This ambiguity doesn't make it any clearer for the customer, while from the second half of this year the manufacturers are likely to face additional demand for Euro 5 vehicles, which may affect availability."

ECONOMY CHAMPION While the above explains the cautious attitude of the market regarding Euro 6, it does not mean that the trucks that already meet the new emission standard would not be a good alternative. "On the contrary," says Ron Bonsen firmly. "There is already significant interest from the market for our new XF Euro 6. With the new XF we succeeded in developing a truck that once again sets the benchmark in the field of driver comfort and has the same low level of fuel consumption as our ATe Euro 5 vehicles. The same applies to our LF and CF Euro 6 models, which were recently introduced in Birmingham. And for those for whom Euro 6 is not yet an option, our previously mentioned Euro 5 ATe trucks are an excellent alternative. In this context, I quote a Belgian journalist, who after a test drive arrived at the following conclusion: 'The XF 105.460 ATe leads the economy champions. Low consumption, plenty of comfort on-board and a perfectly balanced driveline. With ATe, DAF possesses a truck concept that exactly answers the questions and meets the requirements of today's carriers.' "And I have nothing more to add."

Ron Bonsen: "From the second half of this year the manufacturers are likely to face additional demand for Euro 5 vehicles, which may affect availability."

ROAD TRANSPORT TO THE UNITED KINGDOM:

UNACCOMPANIED IS STILL GROWING

Weak economic times or not, with over 60 million inhabitants, the United Kingdom remains an attractive market in which to trade. Every year millions of truckloads from all over Europe make the leap to the other side and back. But increasingly without a driver.

The number of road freight crossings to England is enormous. Between Calais and Dover alone about 3.5 million trucks ply back and forth annually.

The number of road freight crossings to England is enormous. Between Calais and Dover alone about 3.5 million trucks ply back and forth annually. About 60 per cent of these sail via 67 daily crossings made by three ferry companies. The remaining 40 percent use the Channel Tunnel, which - besides being a relatively inexpensive passage – has the advantage that a truck only spends a maximum of 90 minutes between checking in and out of the continent to England or vice versa. The trip itself between the time that the tachograph stops and when the truck is driven again takes just over 45 minutes. This allows each driver to take the mandatory three quarters of an hour rest. Disadvantages are the increased risk of stowaways and frequent security checks especially on the English side. Many transport companies therefore have the motto “do not stop in Belgium” and drive in one go to the secure part of the terminal.
Of all the routes to England, the 33 km wide Channel (or The Straits of Dover, depending on which side you are), is the most famous crossing. And it is the most important for freight. Almost every hour you can grab a ferry. Moreover, in recent years the roads from Belgium to Calais have improved enormously.

MORE AND MORE UNACCOMPANIED Yet more and more cargo goes unaccompanied to England. This has everything to do with the price and the digital tachograph. Although you may take a truck on the ferry or drive off, you still have to have an eleven hour rest, whereas the crossing

TRANSPORT

takes no longer than seven or nine hours. Incidentally, you can also sail further inland. Cobelfret, which sails from Zeebrugge and Rotterdam, continues up the Thames to Tilbury and even to Purfleet in central London. In the Humber Corridor, DFDS Seaways does the same between Vlaardingen and Immingham. All major ferry companies also sail to Felixstowe, the largest container port in England. Further north, the P&O ferry crossing between Europort and Teesport can also be interesting. And DFDS Seaways also sails from Zeebrugge to Rosyth. In other words, there are many more crossings than merely to the well-known ports of Dover, Harwich, Hull or Newcastle.

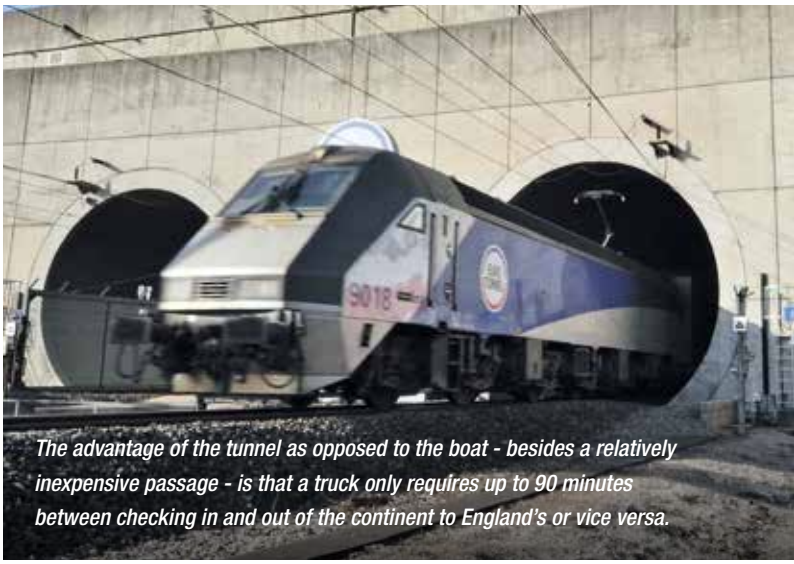
INCREASINGLY MULTIMODAL Adrie Visbeen, director of Visbeen Transport, has seen the ferry traffic change dramatically in recent years. “Together with DailyFresh Post Kogeko we account for about 40,000 crossings per year. We also go 26,000 times through the tunnel,” he explains. “Already 80 per cent of our ferry crossings are unaccompanied. Otherwise, it’s too expensive. This is mainly due to the hours you lose because of the regulations concerning the digital tachograph, which make short journeys unnecessarily expensive.”

ALONE THROUGH THE TUNNEL However, Henk Swinkels of Legro Transport in the Dutch town of Helmond lets his drivers travel about 2,000 times a year through the tunnel. The company transports substrates, which is a collective name for all kinds of humus for growers. “For us, there is added value in letting our own drivers deliver a load personally,” he says. “Moreover, Sangatte is reached within 4.15 hours from Helmond. The driver drives directly onto the train and then rests for exactly the prescribed three quarters of an hour, which is perfect.” Swinkels also urges his people not to stop while on the road. “With us, it’s impossible to get into the trailer, but one of my drivers once heard something on the roof of the cab. When he went to look there was a stowaway tucked away under the roof spoiler. How do you beat that?” ■

By: Bert Roozendaal

Henk Swinkels of Legro Transport in the Dutch town of Helmond lets drivers use the tunnel about 2,000 times a year.

Together with DailyFresh Post-Kogeko, Visbeen makes 40,000 crossings per year via the ferry.



The advantage of the tunnel as opposed to the boat - besides a relatively inexpensive passage - is that a truck only requires up to 90 minutes between checking in and out of the continent to England’s or vice versa.

LEYLAND:
A TRADITION IN HIGH TECH

As you enter the British town of Leyland the signs read, 'Building Trucks Since 1896'. The residents are clearly proud of the pioneering spirit of James Sumner, who founded the 'Lancashire Steam Motor Company' 117 years ago. And visitors to the ultra-modern factory of Leyland Trucks in 2013 understand why that pride is just as strong today.

Like DAF, Leyland Trucks is part of PACCAR. Every day here about sixty trucks leave the production line, all featuring a shiny DAF badge. About forty of them are LF and the remainder CF and XF105 types, mainly intended for the United Kingdom. "We export to more than fifty countries worldwide," says Ron Augustyn, Managing Director of Leyland Trucks. "Besides production, we also carry out development activities, especially for the LF."

THE SECRET Whoever visits the factory can't help being impressed: it is light and open, the floors sparkle, and the noise level is low. Quality is clearly the central theme here. What is the secret of Leyland? "There are many, but our 'Team Enterprise' philosophy is one of the most important," says Augustyn. "Training, teamwork, involvement and 'empowerment' of employees in the workplace play a leading role and the great thing is that this philosophy also complies with the principles of World Class Manufacturing and PACCAR's own PACCAR Production System. All of these emphasize quality and continuous improvement and a major role for the employee in the workplace." Examples of this approach can be seen everywhere in the plant: employees are continuously informed (via large boards and monitors) on topics such as quality, safety, absenteeism, the environment, but also about the charities supported by a team of volunteers who call themselves 'The Helping Hand'. The boards also show many photos of employees who have been rewarded for an idea that they have submitted, and it is never a single person that's on the picture. "A good idea is often the result of teamwork," explains Augustyn.

NO QUALITY INSPECTORS Another consequence of Leyland's approach to continuous improvement and 'empowerment' is the absence of quality controllers in the production process. Augustyn: "Employees control their own work. They receive computerised work instructions via a display and tasks are ticked off electronically." The success of this method doesn't alter the fact that every day four vehicles leave the production line to be turned virtually inside out by a team of product auditors.

The history of Leyland Trucks goes back to 1896 when James Sumner founded the 'Lancashire Steam Motor Company'.

Example of efficiency: computerised work instructions.

"Any deviation is an opportunity for us," says Augustyn. "Because any defect shows us how to do it even better, and as every production step is documented, it is often easy to trace it back to the origin."

A wall full of awards and plaques adorn the main entrance of Leyland Trucks. Among them are several copies of the 'Chairman's Award for Quality Manufacturing'. "The most prestigious award within our parent company PACCAR," says Augustyn proudly. "It's the result of our ongoing commitment to quality and continuous improvement." Down the hall is a showcase, which is also full of awards. Which one is Leyland most proud of? "Without doubt the Shingo Bronze Medallion," Augustyn says. "The Shingo Prize is recognized as the most important distinction in the field of manufacturing quality and production processes. Business Week Magazine even described it as the 'Nobel Prize in the field of manufacturing'. In 2011 Leyland took part for the first time and promptly won bronze, becoming only the third British company to win the award." Yet winning is not the most important thing for Augustyn: "A team of auditors spends weeks doing their research throughout the whole company. It's very thorough and demanding. It's not about winning, it's about the results of their study: because with their conclusions and recommendations we can continue to improve ourselves. In 2011, we won bronze, so now we aim ultimately for Shingo's highest accolade, the Shingo Prize."

Ron Augustyn: "There is no department in the factory that's not involved in the introduction of Euro 6."

Leyland Trucks was the first truck plant in the world with a robotic chassis paint-spray shop on a moving production line. Meanwhile, other PACCAR factories acquired the concept.

Daily in Leyland around sixty DAFs leave the production line.

EURO 6

The introduction of Euro 6 has introduced a number of changes at Leyland Trucks. Augustyn: "There is no department in the factory that's not involved in the introduction of the new types. The Euro 6 LF, CF and XF don't replace an existing type, but are additions to the product range. This means that we have to produce them in parallel with the existing Euro 5 types. So we have to be even more flexible and to make that possible we have invested tens of millions in new production facilities." The PACCAR Production System (PPS) plays a major role in the changes that have taken place in the factory. "PPS is the only way to realize such a complicated process," says Augustyn. "Our employees in the workplace are at the heart of PPS. Through PPS techniques and methods, the employees determine how the new types can best be integrated into the production process."

A BRAND NEW DEVELOPMENT FOR EURO 6
WITH OUTPUTS OF 290 TO 440 HP:

PACCAR MX-11:
MAXIMUM PERFORMANCE AND EFFICIENCY

DAF Trucks is announcing a brand new generation of engines. The new state-of-the-art PACCAR MX-11 engine will be available in the new DAF Euro 6 CF and XF series.

"The new PACCAR MX-11 engine fits completely in the trend towards achieving high efficiency at lower displacement volumes", explains Ron Borsboom, member of the Board of Management of DAF Trucks with responsibility for Product Development. "11 litres is the ideal displacement volume for achieving outputs of 290 hp to 440 hp within the requirements of the Euro 6 legislation and using reliable single-stage turbo technology."

DOUBLE OVERHEAD CAMSHAFTS

The PACCAR MX-11 engine block is a completely new design, made of strong compact graphite iron. As with the 12.9-litre PACCAR MX-13 engine, function integration has been optimized for highest reliability and durability. Pipes, for example, have been cast into the cylinder block and instead of a separate common rail pump, the two high-pressure pump units have been smartly worked into the block. The timing gear case and the pre-separator of the crankcase ventilation system have also been

Ron Borsboom: "The new PACCAR MX-11 engine fits completely in the trend towards achieving high efficiency at lower displacement volumes"

nicely integrated into the engine block. The double overhead camshafts are a key feature of the new cylinder head, which has four valves per cylinder and an integrated inlet manifold. "This configuration offers significant advantages", explains Ron Borsboom. "Firstly, the cylinder head can be configured in a smarter and more robust manner, which optimizes durability. Direct valve control also has a positive effect on fuel consumption, since it provides accurate and consistent valve timing. What's more, the double overhead camshafts ensure that the integrated MX Engine Brake delivers an outstanding brake performance. And because they are hollow in design, the overhead camshafts also help to reduce weight — saving a total of 15 kilograms."

COMMON RAIL AND TURBO WITH VARIABLE GEOMETRY The new MX-11 engine features the same common rail system as the PACCAR MX-13. The common rail allows high injection pressures of up to 2,500 bar, and provides the opportunity to use pre- and post-injection, or a combination of both. "This results in finer fuel atomisation and many more opportunities to optimise combustion", explains Borsboom. "The fact that the temperature of the exhaust gases can be controlled so effectively also means that the engine can be perfectly integrated with the exhaust gas after-treatment system. We use a turbo charger with variable turbo geometry (VTG), which ensures that the engine can call on the best turbo settings at all times and across its entire speed range in order to deliver maximum performance. All this technology is controlled optimally and accurately by three actuators: the Back Pressure Valve, the VTG turbo and the EGR valve. The compact design of the PACCAR MX-11 is also a key feature of the engine, making it ideal for use in the DAF CF series."

EXHAUST GAS AFTER-TREATMENT FOR EURO 6 In order to meet the stringent Euro 6 emission requirements, DAF is using an SCR catalytic converter and a diesel particulate filter. "Just as with the 12.9-litre PACCAR MX-13 engine, the aim is not only to achieve the right exhaust gas composition, but also the right temperature in the soot filter", explains Borsboom. "The basic principle is to have as much passive regeneration of the soot filter as possible by getting the engine to create the ideal circumstances for this to happen. That is why the exhaust manifold, as well as the key parts of the exhaust system, have been encapsulated." In addition to maximising efficiency, excellent vehicle availability was an important criterion when developing the exhaust gas after-treatment system. Soot filter cleaning intervals of up to 500,000 kilometres are achievable, depending on the truck application.

SMART SOLUTIONS The new PACCAR MX-11 engine features numerous solutions for highest reliability and fuel efficiency, such as a single poly V-belt and a fan that is mounted directly onto the crankshaft without an intermediate drive — saving on maintenance costs, improving reliability and reducing weight and fuel consumption. To achieve optimum fuel efficiency, minimising parasitic losses was a primary focus during the development process. Examples include EGR with low back pressure, the two stage cooling water pump and the hydraulic efficiency of the common rail system. During deceleration of the vehicle, the intelligent air compressor brings the air system up to maximum pressure, which means that it can often remain switched off on level roads. To maximise reliability and durability, the wiring harnesses are encapsulated. The alternator and compressor pump for the air conditioning are mounted on the engine as a single unit, and the fuel module with integrated heating and automatic moisture separator are located directly on the engine.

GREATER CHOICE OF PTOS A wide range of PTOs will be available for the PACCAR MX-11 engine. On the rear, in addition to the familiar one o'clock engine PTO, an 11 o'clock version will be made available with a torque of 250 Nm. Another new option is a generator that is fitted directly on the engine, specifically for refrigerator bodies. In addition, there is an option at the front of the engine for driving a hydraulic pump.

DISTRIBUTION AND HEAVY-DUTY APPLICATIONS The new 10.8-litre Euro 6 PACCAR MX-11 engine will go into series production after the summer of 2013, with no less than five different ratings available for two main application areas. The 210 kW/290 hp, 240 kW/330 hp and 271 kW/370 hp versions with maximum torques of 1,200, 1,400 and 1,600 Nm respectively (at 1,000–1,650 rpm) are perfect for urban, regional and national distribution applications. For heavy-duty use, 291 kW/400 hp and 320 kW/440 hp ratings are available with maximum torques of 1,900 and 2,100 Nm respectively (at 1,000–1,450 rpm). The new PACCAR MX-11 engine will be one of the key engines for the versatile new CF Euro 6 series. The PACCAR MX-11 engine is also a valuable addition to the DAF Euro 6 XF range. The fuel consumption of the 10.8-litre PACCAR MX-11 engine is up to 3% lower on average than that of the already highly efficient 12.9-litre PACCAR MX-13 engine, and the weight reduction of over 180 kilograms presents another opportunity to further increase efficiency, particularly in bulk and tank transport. ■

Kevin Hopper: "Our DAFs are helping us to maintain our high standard as well as making a very positive contribution to the bottom line."

BRIAN YEARDLEY CONTINENTAL

"SETTING THE HIGHEST STANDARDS"

In today's crowded and highly competitive transport market success comes from positioning your business just where you want it to be and not trying to be all things to all men.

For British haulier Brian Yeardley Continental Limited (BYCL) that position is at the quality end of the market. And that's reflected in the premium trucks and trailers operated, in the young age of the fleet, in high standards of care for the welfare of drivers and for customers' cargoes, and in the fact that the company has a dedicated quality director.

PICK OF THE CROP Managing Director Kevin Hopper believes that it's all about setting and maintaining the highest standards. "Our customers include some of the leading chemical, white goods and automotive parts manufacturers in Europe," he explains. "And when it comes to choosing companies to transport their products across the Continent they have the pick of the crop and their expectations are high. So we need to meet those expectations with the best vehicles and trailers driven by committed, well trained and well motivated drivers. And whilst cost is an important factor for these customers, quality and dependability of service usually have the highest priority." Recent investment in 100 cubic metre refrigerated curtain-sided

▲ *The good performance of the trial XF105 led to orders for a further four.*

Mega trailers is a good example of the lengths to which the company goes to meet those expectations. These are being used to transport water based chemicals that can be affected by variations in temperature but which are now carried in the precise conditions that will ensure their delivery in perfect condition whatever the prevailing weather conditions.

PREMIUM MARQUE Since the company began operating in 1975 it has always operated premium marque trucks. In 2011 it put a DAF XF105 Super Space cab tractor into the fleet as it wanted to test the market in terms of quality of build, on-road performance – particularly fuel, driver acceptability and service support. From the company's Yorkshire base and depot in Kent, the truck was used on runs across Europe including deep into Italy and to Portugal and the south of Spain, so it would be a thorough evaluation. The results more than met the company's requirements for reliability and driver comfort and excelled them on fuel, with returns that at 27.2 litres per 100 km were over 10 per cent better than the best performing trucks in the fleet on the same work. When it came to service support, that wasn't put to the test as the truck performed impeccably with no downtime.

ORDERS Drivers liked the big DAF too. Living in the truck for several weeks at a time they found the generous dimensions of the Super Space cab and the high quality trim and fittings provided a very comfortable environment. The good performance of this trial XF105 led to orders for a further four, of which three are left hand drive. And with estimates put at 6000 litres of fuel saved for each truck, every year, this means a significant financial benefit over the four years that the company keeps its trucks. Good residual values also enhanced the whole vehicle life cost equation.

EURO 6 Beyond 2013 any future DAFs bought by BYCL will need to meet Euro 6 emissions standards. It's not a prospect that concerns Kevin Hopper unduly and in one way he welcomes it. "We have had to cope with legislative and technological changes in the transport industry for a long time now," he says, "and this is just another one. Many of our customers – particularly those in the chemical industry – are setting the benchmark for cleaner more environmentally acceptable operating standards and they expect us also to be less polluting. In this respect our industry has got a lot to be proud of, with particulates, NO_x and CO_2 emissions that are now massively lower than just a few years ago and which will get better still with Euro 6."

OPTIMISTIC Looking ahead Kevin Hopper is expecting a tough year in 2013 as the economic uncertainty across Europe continues. But he remains optimistic and continues to invest in new trucks and trailers and to pitch for those contracts where quality of service is the paramount decision factor.

"We pride ourselves on the quality standards that we work to and our reputation, brand and image," he says. "And our DAFs are helping us to maintain that standard as well as making a very positive contribution to the bottom line." ■

SARLAT: SWISS QUALITY

Based at Plan-les-Ouates, near the Swiss capital of Geneva, the Swiss haulage company SARLAT specializes in the transportation of frozen foods. Since its founding more than forty years ago, the company has become a leader in this market segment, as Director Bruno Marquet explains.

Bruno Marquet: "Low fuel consumption and low operating costs have always been very important purchasing arguments for us."

Bruno Marquet's office reflects the 'hands on' mentality of SARLAT: his desk is simple and there are no frills to be found anywhere. "I would rather spend my money on perfecting our services," he says. And that's exactly what they do at SARLAT: "In all our three locations we have our own cold storage warehouse, so that the temperature chain is not interrupted," continues Bruno Marquet. "All our trucks are equipped with a system that continuously monitors the temperature in the trailer and immediately warns of deviations. In our business, quality is of paramount importance and each degree warmer or colder can make all the difference. Therefore we keep all links of the chain in our own hands."

PHILOSOPHY This philosophy is a key factor in the success of SARLAT. And the company's no-nonsense approach is also reflected in the composition of its fleet: for over thirty years the company has owned DAFs. That DAF should be the first choice of truck for a Swiss transport company in the early eighties was at that time far from the norm: DAF was still relatively unknown. "Nevertheless it was a very conscious choice," says Bruno Marquet. "Low fuel consumption and low operating costs have always been very important purchasing arguments for us, even when it might not have been so high on the agenda for others. In the beginning we did have other brands in our fleet, but our own comparison tests showed repeatedly that DAF was the best: the trucks from Eindhoven are economical and maintenance costs are low. For 15 years, we have had an exclusively DAF fleet: 44 trucks to be exact, divided into LF, CF and XF."

PREFERENCE The company's preference for DAF is also reflected in another area: in the workshop of SARLAT is a beautiful DAF from the sixties. "Restored it myself," says Bruno Marquet proudly. The love for DAF also runs deep with the drivers. "Our drivers are very loyal," Marquet says. "The first three drivers employed by us in 1974 still work here. And I think that has a lot to do with the brand of truck that they drive: the drivers love their DAF. Moreover, with every new DAF I also order a number of comfort options for the driver, which also helps. Each of them has his own vehicle, so they are extra careful with them. Ultimately, this is also reflected in the cost of ownership."

EURO 6 Of course, the entire SARLAT fleet comprises Euro 5 vehicles. Bruno Marquet: "The toll in Switzerland (LSVA) encourages the use of the cleanest possible trucks: the cleaner they are, the less toll you pay." What's his opinion on Euro 6, which applies European wide from the 1st of January 2014? "Switzerland is always at the forefront when it comes to environmental legislation," says Bruno

For 15 years, Sarlat have an exclusively DAF fleet.

Marquet. “And this is reflected in the LSVA. Already last year, Switzerland decided to give Euro 6 vehicles a 10% toll discount. Thus, companies are encouraged to renew their vehicles more quickly, thereby further reducing particulate emissions. We are looking at whether it is beneficial for us to purchase Euro 6 DAFs now. Meanwhile, I have looked at the new Euro 6 XF and I’m pretty impressed. I am amazed that the DAF developers in Eindhoven have managed to limit the extra weight inherent in Euro 6 to just 90 kilo. And also in terms of driver comfort, the XF sets new standards. I am very sensitive to both of these arguments.” ■

This beautiful DAF from the sixties was restored by Bruno Marquet himself.

SPIERINGS,

TECHNICAL EXCELLENCE WITH DAF POWER

Spierings of Oss in the Netherlands is the global leader in mobile folding cranes. The impressive machines, which can weigh more than 80 tons, are powered by an engine that is just as Dutch: a PACCAR MX Engine, developed and built by DAF.

In 1987, when Leo Spierings developed the first mobile folding crane, the market was extremely sceptical. The only way to convince the conservative crane world was to hold lots of demonstrations and that was not without success. A Spierings folding crane does the same work as a much heavier telescopic crane, only faster and more efficiently. A folding crane stands upright beside the work instead of having a heavy hydraulic cylinder mast at a large angle. This means a folding crane uses much less space on a construction site or in a city centre. Based on the principle that the load is borne by the vertical mast, a Spierings folding crane is also much lighter than a comparable telescopic crane. A further advantage is that no additional trucks are needed with ballast because a Spierings takes that along itself.

WORLDWIDE The concept of mobile folding cranes eventually got a foothold and now this type of crane is known throughout the world. Spierings works globally and 80 per cent of the total production is exported. Annually, about 50 machines leave the factory in Oss. Reconditioned cranes are a part of that. If required, exchanged machines are completely rebuilt and equipped with many new technologies, making them virtually impossible to distinguish from new. Thanks to this concept, a Spierings folding crane is never actually worn out and that means new customers can be introduced to the concept relatively cheaply.

▼ *Annually, about 50 machines leave the factory in Oss.*

PACCAR MX All Spierings cranes feature a DAF developed and built PACCAR engine. “We have been using engines from DAF since the start in 1987,” says Philipe Chavernac, Director Marketing & Sales at Spierings. The cranes run from 78 to 263 tonne-meter on three to seven axles. The heaviest Spierings weighs up to 84 tons. “For us, the MX engine is an extremely reliable – and maybe even more important - compact power source,” says Chavernac. “That’s important, because there is little room in our chassis. Furthermore, the global network of PACCAR / DAF is very important for us. Downtime due to technical problems is unacceptable for our customers, and the network is crucial for that. Furthermore, our clients achieve a low consumption with the PACCAR engines and that is also very important. The technical excellence of the MX engine and the power of the DAF-organization are a perfect combination.” ■

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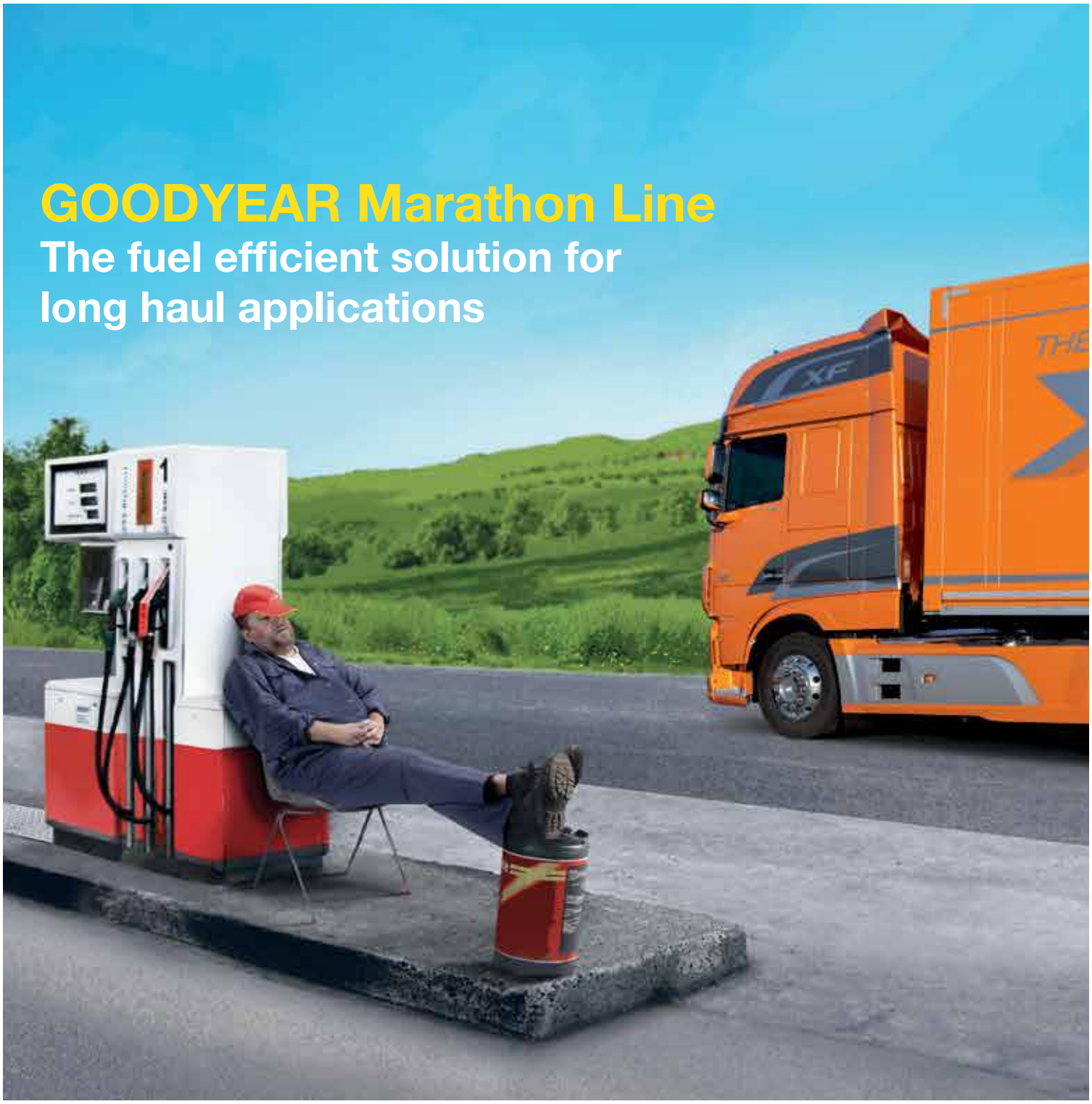

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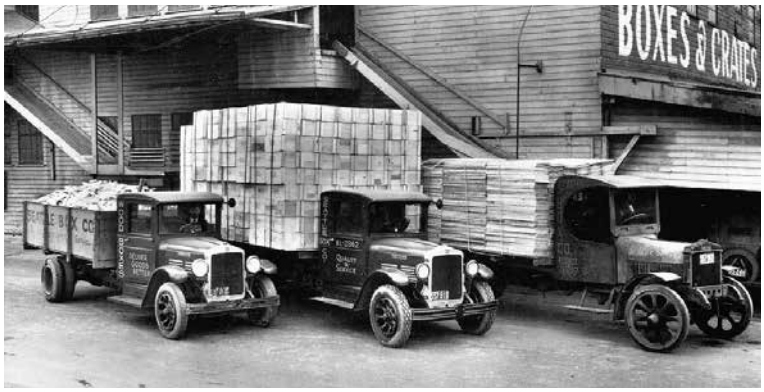

KENWORTH CELEBRATES **90TH ANNIVERSARY IN 2013**

Kenworth Truck Company is celebrating its milestone 90th anniversary during 2013. In its first year, the small Seattle truck manufacturer produced 78 six-cylinder, gasoline-powered trucks. Since then, Kenworth has produced more than 900,000 trucks. Kenworth was the first truck manufacturer to install diesel engines as standard equipment in 1933 and sold the first sleeper cab in 1936. The Kenworth T600A transformed the industry as the first truly aerodynamic Class 8 truck in 1985. A year later, the Kenworth T800 was introduced and is widely recognized for serving productively in applications such as dump truck, mixer, logger, and extreme heavy haul. The milestone 250,000th T800 was produced and celebrated last year.

At the 2012 Mid-America Trucking Show, Kenworth significantly pushed aerodynamics ahead again with the introduction of the all-new Kenworth T680, the company's most aerodynamic truck in its history. Equipped with the PACCAR MX-13 engine, it was named the 2013 Heavy Duty Commercial Truck of the Year by the American Truck Dealers (ATD) at the annual ATD Convention and Expo in Orlando, Florida.

▲ *The all-new Kenworth T680.*

TMC TRANSPORTATION TAKES DELIVERY OF FIRST MODEL 579 **PLACES ORDER FOR ADDITIONAL 1,500 TRACTORS**

Peterbilt Motors Company announced the delivery of the first Model 579 to TMC Transportation of Des Moines, Iowa. The Model 579, Peterbilt's newest SmartWay® designated product, was designed to optimize fuel efficiency, increase vehicle reliability, and enhance operator comfort.

In addition to commemorating the first delivery of the Model 579, TMC Transportation placed an order for an additional 1,500 units, citing the product's fuel efficiency design characteristics and early driver feedback upon reviewing comfort and amenities inherent in the cab and sleeper interior.

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