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# The Truck and Driver of the Future

here are several important stories in this issue that look at the future of trucking and where it is going. Indeed, the cover story of Mercedes-Benz Future Truck 2025 gives an insight into the future of the industry. While the focus of that story is on the Mercedes-Benz product a number of companies could, and will, tell of their own developments.

While we see manufacturers dedicated to the values of safety, improving the environment and conditions for drivers there seems to be a bit of a disconnect with fleet owners and drivers who don't seem as committed to these values.

Speaking generally, fleet owners and drivers are often resistant to government efforts to improve safety. Owners and drivers flout weight limits and push drivers to the limit in the number of hours they drive. They seem to look at safety regulations as something to be resisted and only grudgingly accepted when fines become too significant to ignore.

How would you feel if you got on an airplane and the pilot said, "Ladies and gentlemen, we are about to take off, but don't worry about it, feel free to wander about, use the toilets and your phones. I've just flown in and now I'm flying back and want to get home as soon as possible. I'm a little tired, but I'll just put it on autopilot and get some sleep once we're in the air. I recommend the red wine with dinner. I had it with the meal when I came here and will have it on the return flight."

Drivers work crazy hours and owners want to get as much as they can out of their assets – driver and truck. Owners often oppose new regulations arguing the economic impact that will be required.

While we can decry this position, let's switch the focus and look at it from the owner's perspective. The owners are the ones who make the entire industry work. They deal with clients who want to pay as little as possible to move goods. They have ever increasing costs. Owners have to decide how much all this new technology is worth to them. The question they may be asking is "Am I going to improve my bottom line by having a truck that drives itself?"

OEMs need to get a return on their investment so these high tech trucks will certainly be more expensive than the truck that doesn't have all the latest innovations.

While Mercedes-Benz clearly makes the case that the Future Truck 2025 will be safer they also know it will not be foolproof. The legal implications are still unclear, but that will be worked out over time as incidents and accidents happen and laws are tested.

With these issues fresh in my mind I was crossing the exit to a parking lot. Even though I and a pedestrian on the other side were standing still the driver of the truck slowed far before he got to the crosswalk because he anticipated we wanted to cross. While the truck of the future may be able to react to all manners of situations in ways a human never could I don't think it will have the skill to be able to anticipate what a person is thinking and therefore likely to do.

The Future Truck 2025 may be the future of the industry, but cost and unwillingness by owners to bear them may be a drag on developments.

Floyd Cowan

Editor-in-Chief

# **Exciting events around MIBTC 2015 lined up**





Exhibitors and visitors alike can look forward to an exciting event that will have some new fringe events added to the second Malaysia International Bus, Truck and Component Expo.

ith the exhibition space filled with booths from top brands showcasing their products and services, delegates can look forward to an exciting show in May 2015. "We will not stand still in our aim to innovate, to make the exhibition bigger and more exciting" says Stefan Pertz, Organiser of MIBTC. While some fringe events make a comeback, others are added.

#### **Scania Driver Competition - MIBTC Edition**

If you have a valid driving licence for trucks you may head on down to the open air car park space to test your skills in this instalment of Scania's signature competition. Scania prime movers wait for you and once you have strapped in, you may "knock the cones". Each day, Scania will honour the best driver in an awards ceremony on their stand. This competition is open to drivers all any brand truck.

In addition, Scania will bring back their Driver's Lounge. This time it will be located on the Mezzanine floor overlooking the halls.

#### **RC Truck Racing**

Some delegates could not get enough of these and we are bringing them back for your entertainment and viewing. Drivers of these model trucks will battle it out on the purpose built track. While the trucks may be smaller than the prime movers use in the Scania Driver Competition, they are certainly as

nimble. For those without a licence, this may be a challenge to take to see their abilities behind a truck's steering wheel.

#### **Best Booth Design Award**

Many exhibitors put a lot of effort into the design of their booth. We will honour this with a "Best Booth Design Award". The voting will be done by the visitors of MIBTC 2015. The winning booth design



will be honoured with a cash prize, so you may want to get your agency to spruce things up a bit!

#### **Media Round Tables**

Important issues need to be tabled for everyone in the industry to know about them. Each of the three days we will tackle an important topic and discuss them. For this we will invite media and podcasts allow everyone to learn what has transpired. Each of the three Media Round Tables is looking for a sponsor. If you would like to have your name associated with one of the topics, please get in touch with us.



#### **Event Dates**

Title: Malaysia International Bus, Truck and Components Expo 2015, MIBTC 2015

**Venue: MIECC, The Mines** 

Date: 14 - 16 May 2015

### **ZF Keeps the World Moving**



When Floyd Cowan went to Germany he got an inside look at how ZF Group, a global leader in driveline and chassis technology and a leading parts supplier, contributes to keeping the world in motion.

n a church in Aachen, Germany there is a small throne that is believed to be made from slabs of marble from The Church of the Holy Sepulchre in Jerusalem where the tomb of Jesus was believed to be. Charlemagne, who made his home in Aachen, and died there in 814, took these slabs and made the throne for Christ to sit upon when he returned. This is a work of art that could define the word unique. There is nothing else like it.

#### A Leading Company

ZF Group organised and sponsored my trip to Germany, along with journalists from a number of countries to test vehicles and learn about their operations. ZF is a global leader in driveline and chassis technology with 122 production companies in 26 countries. ZF is among the top 10 companies on the ranking list of the largest automotive suppliers worldwide. Founded in 1915 for the development and production of transmissions for airships and vehicles, today the group's product range has expanded to steering systems, chassis components and complete axle systems and modules.

Our hosts put us up in Aachen for a day as it was the closest major centre to the test track where we would get a close up experience with commercial vehicles. We had beautiful weather on the day when we got to explore the town with a local guide. In the evening we enjoyed the introduction dinner where we had the opportunity to meet with the management team and heads of Business Units. Frederik Staedtler, Head of CV Technology Division and Thomas Rosch, Managing Director of Openmatics were on hand and their welcoming speeches gave

us a brief introduction to ZF and what we could expect in the coming days.

#### **Efficient Use of Resources**

We were up early for the drive to the test track where Mr Staedtler hosted a press conference. In his keynote address he stressed the importance of innovation and value add within the commercial vehicle industry. "For fleet operators, commercial vehicles must be economical and reliable. They must use their resources as efficiently as possible.

"There are high cost pressures," Mr Staedtler continued, "but there are also huge opportunities which require innovation. Innovation cycles are getting shorter and shorter with new features growing quickly and more models coming on line."

The head of CV Technology outlined the mega trends that will influence the commercial vehicle industry: The need for reductions in CO2, reliability, connectivity and energy efficiency. "We must reduce emissions while the vehicles must be more economical. Volatile markets strengthen uncertainty."

#### **Economies of Scale**

For ZF to be able to cope with these mega trends it must reduce development costs and time to market. "OEMs (original equipment manufacturers) are using multiple sourcing to meet their needs and they need economies of scale to be competitive. For suppliers they must provide high quantities that are high quality. They also must be close to the market.



ZF Ecomid manual transmissions for commercial vehicles on display at the ZF Trade Press Conference 2014

"ZF is a cost leader and a technology leader," Mr Staedtler added. "We are driving innovation and shaping future technologies. As we have done in the past, we continue to develop innovations."

The company must do two seemingly opposite things at the same time. "Added value comes from volume," Mr Staedtler stated, "but local production must design products for the local market. ZF, around the globe, develops products for the specific regional requirements."

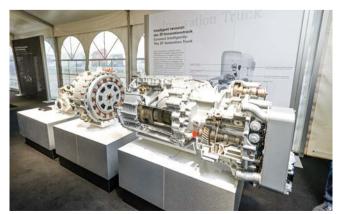
#### A Global Approach

Focussing on new transmissions Mr Staedtler said they have to be lightweight for commercial vehicles and ZF takes a global approach to developing the technology and innovations for trucks and buses, but must still must make adjustments for local markets. "We have made specific design-to-market solutions for the China market."

Following the press conference small groups went off to various stations for more in-depth sessions on specific areas such as a presentation on axel systems by Andreas Moser, VP for CV Technology, and we were given insight into ZF's approach to buses. The long-standing global trend towards urbanisation has given rise to new megacities, with existing cities growing rapidly. Traffic volumes are increasing along with associated noise and pollution.

#### **Bus Rapid Transport**

Recognising that sophisticated concepts for compelling public transport are required, ZF technology uses its resources to



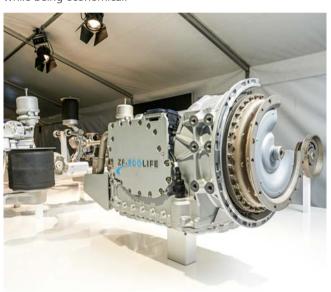
TraXon - The New, Modular Transmission for commercial vehicles from ZF at the ZF Trade Press Conference 2014

provide products and innovations that will meet these needs. For instance, the ZF-EcoLife automatic transmission for buses makes public transport not only more fuel-efficient, but also quieter. Engine speed can be kept low thanks to the intelligent design, six gears and the TopoDyn Life shift control system.

Low floor axles are decisive elements in a special transit concept – Bus Rapid Transit (BRT) systems. ZF chassis technology supports a continuous level, barrier-free floor and low vehicle floor height. As a result, boarding and alighting becomes more comfortable and much quicker for passengers – reducing the time buses spend at stops.

#### Silent Electrification

Then it was out into the rain to experience buses with ZF technology. We took a spin in Mercedes-Benz Citaro – Bus of the Year 2013 – with ZF's low-floor axle systems. Electrification in buses is an important trend and the TCV Sileo is a new player in this field. "A single electric vehicle can ferry hundreds, if not thousands, of passenger within local public transportation," asserts Stephan Rudoph, Sileo Electric Bus project leader. "Electric mobility delivers the greatest gains for quality of life while being economical."



ZF-EcoLifes automatic transmissions for city buses on display at the ZF Trade Press Conference 2014

Sileo, (Latin for silentium, meaning quiet or silence) is a Turkish-German coproduction. The body is from TCV (Turkish Commercial Vehicles) while the drive propulsion system and battery technology are from Germany. The lithium-ion batteries, which are mounted on the roof, provide 200kWh of usable energy. Prototypes have driven thousands of kilometres and its premiere is scheduled for IAA in Hannover.

Every component has been scrutinised and modified where needed to fulfil efficiency, lifecycle and comfort standards. This began with the rear axle, a ZF electric axle type AVE 130 with two asynchronous motors. The drive was designed by BC&C to ensure the best driving comfort, the highest operating efficiency and the ideal system integration. While initial test drives have resulted in high marks for the new bus, there are revisions to come – such as reducing the bus weight as it now is about 1,200kgs heavier than the corresponding diesel variant.



#### TraXon

The TraXon, a modular transmission system, is a world innovation from ZF. With a completely new basic transmission and a modular concept, TraXon meets the demand of the commercial vehicle market for a versatile solution covering a broad range of applications. The innovative transmission combines several contradictions: It offers more torque, without compromising the power-to-weight ratio; it has a higher gear spread while the noise quality was improved; and, depending on the application, it can not only be driven by a dry clutch, but also by a hybrid module, dual clutch module, or a torque converter clutch.

For the new transmission ZF developed the revolutionary PreVision GPS shifting strategy which works in an anticipatory and especially fuel saving way thanks to the GPS connection and an interface to navigation data.

With the new, modular TraXon automatic transmission for commercial vehicles, a dual clutch module for heavy trucks is now available. With this module and the "Top 3" gearshift strategy, most gear changes can be performed under load and are barely perceivable. This is a special advantage for those trucks whose long rear axle ratio keeps the engine in a low speed range.

#### **Test Drives**

We were given the opportunity to drive loaded trucks with the TraXon automatic transmission to see for ourselves how smoothly it works. It does perform as promised.

Throughout the day we climbed in and out of many trucks to sit either behind the wheel or as a passenger. One thing was obvious as we drove many different brands was that some were more comfortable and had better sight lines than others. Good working conditions in commercial vehicles are no longer a luxury, but necessary in order to attract the best drivers, and getting vehicle and goods safely to their destination.



The TraXon hybrid transmission from ZF reduces fuel consumption by up to 15 percent in truck prototypes from Kamaz

As a system provider, ZF develops and produces cabin suspensions for all applications in commercial vehicles – including springs and vibration dampers. For each, ZF offers the optimum solution tailored to the respective requirements. Drivers benefit from a more comfortable workplace with fewer jolts, pitching or rolling motions.

#### **Driver Comfort**

The CV Chassis Modules business unit within the ZF Commercial Vehicle Technology division develops and produces front and rear suspensions for the driver's cab to cover all common cabin designs. The front stabilizers that form part of the entire cabin suspension are delivered to many OEMs in volume production in welded or polygon versions.

For ZF, driver comfort is an on-going issue and they continue to produce new innovations. At the recently held IAA Commercial Vehicles 2014 ZF presented new solutions for the cabin suspension. One new system features an active roll stabilisation system on the front stabilizer. A special control unit, which receives signals on the driving conditions for sensors, controls the cabin suspension by means of a hydraulic actuator. The



respective vehicle conditions are instantly recognised and the driver's cabin is then actively stabilised.

#### **Finger Tip Control**

At the end of a long day in the unrelenting rain, I found myself in the area in the centre of the test track, but this time looking at the truck from the outside. Still in the prototype stage a truck, with a length of over 25m can be easily manoeuvred via a tablet remote control. Backing a semitrailer truck into a loading bay can be demanding, and dangerous.

Even experienced drivers can have problems making this manoeuvre, but I was able to do it at the first attempt. Backing the truck successfully into position is not the only benefit of this system. As the driver is outside the truck he can easily see the whole scene and any hazards around it. Thanks to the hybrid drive it also has zero local emissions.

The ZF Innovation Truck concept illustrated how OEMs, logistics companies and truck drivers could benefit from the integration of advanced transmission, steering and telematics systems. Challenges such as unpredictable waiting times at depots could be eliminated through autonomous steering manoeuvres.

#### A Winning Team

The rain continued on the long drive to Würzburg where we stayed overnight before taking the short drive Schweinfurt where we were to tour the ZF Services Logistics Centre and the ZF South Plant. Before we did that we had the opportunity to watch Germany destroy Brazil 7-1 in the World Cup. Despite the rain, no matter how late they stayed up celebrating, the next day the entire country was smiling.

While the football team would go on to win the championship there was also a feeling of being winners at the ZF plants we visited. Like the sports team there was a high level of efficiency as we witnessed parts being located in the massively big warehouse of the ZF Logistics Centre and moved to their distribution point. The largely automated warehouse was built in 1999. No people required as machinery moved material in and out of the 35m high storage area. Expansion continued in 2010 with another 45m high-bay warehouse coming on line with 26,500 storage spaces.

#### Where it Happens

The system is so efficient that a rush order received before 5:00pm can be delivered within Germany in the same day. There are 270 employees in the warehouse who work with computers that give them all the information they need. Ongoing stock counting happens as parts get shipped and ZF Services Logistics Centre is able to support 700 shipments a day.

We then moved on to the Torque Converter Assembly plant where torque convertor gearboxes are assembled. In 2008, after three years of development, the first line was launched making 1 million torque convertors per year. In 2014 there are now six lines as one has been launched each year and 2.7 million units are now produced. On one line in 40 seconds one torque convertor is assembled.



The highly successful ZF AS Tronic automatic commercial vehicle transmission







Dr Stefan Sommer

In Aachen we saw how one product was valuable because of its uniqueness; at Schweinfurt the value is in the ability to produce exactly the same product a million times over at a very high quality level.

#### A Clean Operation

It is an impressive factory where the parts are even washed before being packed so they go out with less than 10% dirt in the convertor. While automation is essential to the operations the human factor has not been forgotten. One line has been adjusted to make it possible for handicapped people to work. The lunch room was also impressive with its modern feel and a variety of quality food available.

We had an hour in ZF's R&D Centre where we observed such activities as testing power trains, combustion engine testing, component testing, drive line tests, hydraulic test rigs, rotary tests, durability tests, tests that run 24 hours a day for seven days a week, shaking up and down tests, spinning tests, functional testing. We were told about tests of cars under many conditions, tests to check the interaction between components. Chassis noise is a big issue so there is a lot of work put into finding ways to reduce it. There are systems to test the specifics of a wheel under every possible condition. There were things moving so quickly that they looked like a slowly exposed photo – just a blur.

We saw many tests being performed, such as on the durability of clutches for commercial vehicles. Fully automated electronic test rigs operate 24 hours, seven days a week. It takes about 2-3 weeks to go through the entire lifespan of clutches for commercial vehicles. For passenger cars, it is only 3-5 days.

ZF produces millions of shock absorbers and we were shown various tests on the long-term durability of them. One two-week 24-hour test that they are put through is equivalent to a simulation of 200,000 km driven.

#### **ZF Overview**

Part of Dr Ulrich Walz's busy schedule was to brief us. The Member of the Board of Directors ZF Services gave us an



overview of ZF's corporate structure, details of Business Unit ZF Services of which there are more than 2,800 employees and they are located in 77 of ZF's own locations worldwide. ZF has 650 service partners. While ZF already has a presence in Asia-Pacific the company is expanding in the region as it has identified it as a growth market along with North America. ZF sees growth in its product portfolio, greater cooperation with "local stars', the development of new distribution channels and the development of remanufacturing and service activities as part of their long term growth.

Dr Walz noted that the spare parts business is the base of ZF's business. Remanufacturing, maintenance and repair are its strengths in the after sales market along with Workshop Concepts, Trainings, Logistics and Technical Information. For the aftermarket business, driveline and chassis technology, ZF uses well-established brands such as Sachs, Lemförder, Boge, ZF Lenksysteme and ZF Parts.

Speaking to ZF's Services Remanufacturing, Dr Walz noted that 95% recyclable material is used in ZF products and there is a 90% energy saving when remanufacturing a product in comparison with production of a new product. ZF and non-ZF products such as clutches, torque converters, steering systems and transmissions can be remanufactured. Warranty Claim and the inspection processes are the same as with a new part.

#### Impressively Growing

Having seen the operations, listened to management and staff and having the opportunity to see products in real life use, I got the impression of ZF as a very efficient and progressive company. They continue to innovate in the products they make,



ZF's AS Tronic lite automatic transmission system for light and medium commercial vehicles

and innovate with the products and systems that help them produce their products and services.

ZF takes a long-term approach to innovation as Mr Staedtler mentioned at the opening press conference. Referring to the company's 2025 vision he stated, "How do we cope with challenges and face opportunities? We look at global megatrends that influence ZF and develop long-term innovation strategies. We look both at increasing efficiency and fuel economy."

ZF is working towards growing their presence around the world. The company is big and getting bigger and those companies that compete with them will find that ZF is not only growing bigger, but stronger and more influential.

### **DHL Supply Chain Constructing** Largest Warehouse in Malaysia

DHL Supply Chain Malaysia Team unveiling the largest warehouse facility in Malaysia From Left to Right: Danny Wightman, Head of Transport, Ang Kian Beng, Country IT Head, Prakash Rochlani, Managing Director Malaysia, Jassie Ng, Head of Sales, Nick Nelson, Head of FMCG & Retail and Stewart Eng FK, Country Senior Security Manager.



(Kuala Lumpur) DHL Supply Chain, the world's leading logistics company will construct a new mega warehouse in Shah Alam, Malaysia. The Malaysia Integrated Logistics Centre (ILC) is a landmark RM100 million (EUR 24 million) investment. It has a footprint in excess of one million square feet making it the largest warehouse in Malaysia, and will increase DHL Supply Chain's warehouse footprint in the country by over 100%.

#### Impressive Growth

Prakash Rochlani, Managing Director, DHL Supply Chain Malaysia said, "It is a momentous occasion for DHL Supply Chain as we announce the construction of this remarkable facility. The contract logistics market in Malaysia has shown impressive growth in recent years and this trend is forecast to continue. We've therefore identified the country as key to our growth strategy and made the important investment."

Featuring the use of the first doubleramp system in Malaysia, this facility will provide state-of-the-art warehousing and supply chain solutions to cater to the growing demands of their local and global customers in the FMCG, technology, and retail markets. The ILC will also be used to grow DHL's automotive, engineering and manufacturing, and life science and healthcare portfolios.

#### Multi-User Facility

"We plan to create a true multi-user site to support customers across a broad spectrum of industries who will benefit from the synergies created from sharing resources. Warehousing services will be offered with a wide variety of complimentary value-added activities designed to optimise our customer's supply chain activities; including copacking and technical services," added Prakash.

DHL Supply Chain utilized its extensive knowledge and experience to support the design and development of this warehouse. The two-story structure will have 111 loading docks of varying levels to cater for different vehicle types, and will have the ability to provide bonded and environment controlled storage. Security and quality are key elements and the facility will be certified to TAPA Class A standards and Quality Management Standard ISO9001:2008.

#### **Growing Presence**

Once completed, the facility will become the third new facility opened in Malaysia by DHL Supply Chain this year following the new purpose built facilities in Penang and Johor. The two warehouses added an additional 65,000sg. ft. and 210,000sg. ft. of warehousing space respectively, and support customer's logistics operations on the Northern and Southern peninsulas.

Across the next 24 months, DHL Supply Chain aims to grow its presence in Malaysia by opening six branch networks, expanding the current transport fleet by 50 trucks, constructing six additional multi-purpose facilities, as well as hiring close to 500 more supply chain experts. The right infrastructure and the people will ensure that we are ready for the increased growth in Malaysian business.

#### **Local Training**

"DHL Supply Chain Malaysia has also initiated a training management programme for Malaysian graduates, with the aim of hiring and training 100 graduate trainees over the next five years. These graduates will be trained across multi departments using DHL's Supply Chain best-practices and industry expertise and is in line with the nation's vision to create more knowledge-based workers," Prakash added.

The significant investment in Malaysia forms part of DHL's growth strategy for the Asia-Pacific region. The company plans to expand its warehousing footprint by 200% by 2020 in anticipation of the region's increasing logistics requirements.

## Bridgestone Establishes Branch Office in Yangon



**(Singapore)** – Bridgestone Asia Pacific Pte. Ltd. has announced the official opening of its Myanmar branch office in Yangon. The office will focus on gathering information on the truck, bus, car manufacturing industries and tire markets, as well as conduct related activities on behalf of the regional head office.

"The easing of foreign investment laws has attracted many automobile companies to set up a presence in fast-growing Myanmar, where transportation infrastructures such as roads are rapidly improving," said Kunitoshi Takeda,

Member of the Board and COO of BSCAP. "We aim to make Bridgestone the number one tire brand in Myanmar and aspire to drive a better future by supporting the local community and environment in Myanmar."

Bridgestone has been offering its products in Myanmar since the 1990s via local channels. Yuichiro Shirai, (pictured) will be the General Manager of the new office located at : 2nd Floor, Building No. 9, MICT Park, Thamine College Street, Hlaing Township, Yangon, Myanmar 11051.

# FPT Industrial Receives Euro VI Order from Zyle Daewoo Bus



### Daewoo's entire Euro VI Product range

FPT Industrial has also entered into an agreement with South Korea's Tata Daewoo Commercial Vehicle Co. Ltd., a wholly owned subsidiary of Tata Motors headquartered in Gunsan, Jeollabuk-do, South Korea to be Tata Daewoo's sole supplier of Euro VI engines.

The brand will provide NEF (6.7 litre) and Cursor (9, 11 and 13 litre) series Euro VI compliant engines for its entire Euro VI product range. The range will be commercialised for the South Korean market. These Euro VI engines come equipped with the latest generation heavy duty Common Rail injection system. They are characterised by high power, fast load response and high powerdensity, while ensuring lo(Basildon, UK) CNH Industrial's powertrain brand, FPT Industrial, has signed a supply agreement with Zyle Daewoo Bus Corporation, a

leading South Korean bus manufacturer. The agreement sees the supply of Euro VI Cursor 11 engines for coach applications. Established in 1955, the Zyle Daewoo Bus range is primarily used for public transportation. The company's products are sold in South Korea as well as throughout Asia, the Middle East and Latin America .

Representing the most advanced Euro VI solution on the market, FPT Industrial will specially customise its Cursor 11 engine for Zyle Daewoo Bus. The 11.1-litre, six-cylinder in-line engine, is built to run at peak performance without compromising its emission levels. Clean air in the cylinder and the latest generation Common Rail system allow for high combustion efficiency, ensuring excellent fuel consumption.

The engines will comply with the most stringent of emission standards thanks to the brand's patented High-Efficiency Selective Catalytic Reduction (HI-eSCR) after treatment system. This unique and patented solution functions without the use of EGR (Exhaust Gas Recirculation) and guarantees a reduction in emissions such as nitrogen oxide (NOx) and lower Total Cost of Ownership. The combination of the Cursor 11 and the HI-eSCR system results in longer intervals

between maintenance, ensuring that these coaches incur low operating costs.

Industrial brand to power Tata w fuel consumption and long maintenance intervals, thus representing a point of reference in their individual categories.

The NEF and Cursor series engines are both equipped with the HI-eSCR (High-Efficiency Selective Catalytic Reduction) system. This patented after treatment system functions without the use of EGR (Exhaust Gas Recirculation) and guarantees a reduction in emissions such as nitrogen oxide (NOx) and lower Total Cost of Ownership. FPT Industrial's patented engine technologies enable Tata Daewoo's commercial vehicles to comply with extremely stringent Euro VI NOx limits and furthermore respect particulate legislative limits.



### **Industrials Parts & Service Business Launches a Single Genuine Parts Identity**

**B**asildon, UK) CNH Industrial Parts & Service has undertaken an extensive integration process across the Parts & Service businesses of the 12 agriculture, construction, commercial vehicle and powertrain brands, following the creation of CNH Industrial N.V. in September 2013. This process has brought together all Parts entities which were previously managed separately. This is in line with CNH Industrial Parts & Service's three primary objectives of excellent service; the creation of a complete product offering which improves customer satisfaction; and making synergies to generate opportunities throughout the entire distribution chain.

The development of a single, unified 'CNH Industrial Genuine Parts' project will enhance CNH Industrial's visibility globally, whilst drawing on the strength of each of the Company's 12 brands: Case IH, Steyr, Case Construction Equipment, New Holland Agriculture, New Holland Construction, Iveco, Iveco Astra, Iveco Bus, Heuliez Bus, Magirus, Iveco Defence Vehicles and FPT Industrial. Furthermore it will enhance the quality and performance of all genuine parts and contribute to the standardisation and optimisation of the stock management processes of some five million genuine parts references. Visually, all parts marking and packaging across the 'CNH Industrial Genuine Parts' range will be provided with a homogenous identity.

"Each brand's customers benefit from genuine parts that adhere to very strict specifications," said Dino Maggioni President, CNH Industrial Parts & Service. "Strengthening the image of our genuine parts is undoubtedly one of the pillars in our approach to customer loyalty. This is, among other things, also a step to increasing the awareness of CNH Industrial, and the creation of this new identity represents a total quality guarantee for our customers and our dealers "

The new 'CNH Industrial Genuine Parts' identity brings many benefits including better customer service and greater protection against counterfeiting. Further advantages comprise enhanced efficiency from improved availability of parts thanks

to greater flexibility in supply and storage which subsequently drives down logistics costs. Moreover, customers choosing 'CNH Industrial Genuine Parts' benefit from parts of certified quality. CNH Industrial Genuine Parts will be rolled out from September 2014, replacing existing stocks upon replenishment.



### **Bodo Klein New Executive Vice President of Voith Turbo Commercial Vehicles Division**



Effective July 1, 2014 Bodo Klein has taken over the management of the Division Commercial Vehicles at Voith Turbo GmbH & Co. KG. Bodo Klein (53) has over 25 years of experience with internationally renowned companies in the commercial vehicles sector. He graduated with a mechanical engineering degree from Bielefeld University and started his career in 1987 at Daimler AG in the company's commercial vehicles division. In 1992 Bodo Klein began working for the commercial vehicles supplier WABCO in a number of senior functions - among them logistics, engineering and key account management. Before joining Voith he was a member of the management board of WABCO and in charge of the division vehicle control systems.

"We are delighted to have won a proven industry expert for Voith Turbo with Bodo Klein," states Carsten Reinhardt, Chairman of the Management Board of Voith Turbo. "Together with him we intend to strategically realign our commercial vehicle activities and continue to expand them globally."

The Voith Division Commercial Vehicles develops and produces drive and braking systems for buses, trucks, agricultural machines and special vehicles. These include automatic transmissions. retarders, torsional vibration dampers as well as engine components. Voith Turbo supports the processes of customers in the automotive and commercial industry worldwide with its technical services.

### Daimler Trucks launches allnew FUSO trucks in Indonesia

Mitsubishi Fuso Truck and Bus Corporation (MFTBC), part of Daimler Trucks is further pursuing the internationalization of its business activities. At the Indonesia International Motor Show 2014, Daimler's commercial vehicle subsidiary unveiled vehicles of its new truck range FUSO "FJ" and FUSO "FI". As Southeast Asia's largest economy, Indonesia is FUSO's largest export market as well as the second-largest market of Daimler Trucks worldwide. Key to this introduction are the FUSO FJ 2523 and 2528 heavy-duty trucks. They expand the brand's product line-up in a segment that was not previously served by FUSO in Indonesia.

#### A Core Market

"Indonesia is a core market for Daimler Trucks. We will pursue the potential of this market by introducing our new models that are perfectly suited for Indonesian customers", explains Dr. Wolfgang Bernhard, Member of the Daimler Board of Management responsible for Daimler Trucks & Buses. "Our customers, dealers, and business partners will benefit from the expanded product line-up."

Dr. Albert Kirchmann, MFTBC President and CEO added: "The all-new FUSO truck range will play a key role under our product offensive to extend our



leadership in Indonesia and represents the brand's long-term commitment to the market."

#### **Export Out of India**

Under the umbrella of Daimler Trucks Asia, MFTBC and Daimler India Commercial Vehicles (DICV) combine their strengths to tap into further sales potential. The two companies are going forward with an integrated product portfolio for greater variant diversity and an optimized production network. The all-new FUSO truck models are produced in Chennai by DICV and will be exported to Indonesia.

The all-new FUSO trucks were developed for growth markets in Asia and Africa. They have already been introduced in Kenya, Sri Lanka, Zambia, Tanzania, Zimbabwe, Bangladesh, and Brunei. Indonesia, FUSO's largest export market and the second-largest market of Daimler Trucks worldwide, is the eighth market in which these trucks are sold. After introduction of the models to selected Asian and African countries, there are plans for a further roll-out in markets such as the Middle East and Latin America.

#### **FUSO** in Indonesia

FUSO is the number one commercial vehicle brand in Indonesia in the overall truck and bus segment. Over the past five years, the company has sold over 280,000 units in Indonesia, including light-duty trucks, medium-duty trucks and light-duty bus chassis. The company reached its one millionth sales milestone in 2013 after its market entry in 1970. Mitsubishi Fuso products for Indonesia are distributed by P.T. Krama Yudha Tiga Berlian Motors (KTB).



## Scania Singapore is **ENABLING Employers Award Recipient 2014**

cania Singapore has received its first Enabling Employers Award in recognition of their support to the Singapore Workforce Development Agency's Open Door Program (ODP) that encourages employment of People with Disability (PWD). Singapore Enable is an agency dedicated to enabling persons with disabilities into the workforce via referral services, grants and enhancing employability and employment options for potential employers.

#### The Best Fit

Mark Cameron, Country Manager Scania Singapore said: "Scania's prime consideration of recruitment ensures that the best candidate is chosen for the position on the basis of best fit for the role based on the person's skills, qualifications and previous experience. This includes hiring persons with disabilities suitable for the role".

HR Manager Esther Lim explains: "The hiring process is exactly the same, with the exception to ensure that any potential safety implications can be prevented and that employees are supported in their work both mentally and physically."

In the case of Majid Abdul, a Diploma holder in Mechatronics with a mild hearing impairment, he is teamed up in a buddy system. Colleagues are also educated to speak slower to him and to approach him from the front so as not to scare him. Scania Singapore have also installed safety beacon lights to ensure that in case of emergencies, he is still aware and can evacuate in a timely order.

#### A Diligent Worker

"Majid was the first PWD hired in the traineeship programme," said Esther.



"Sometimes when I feel overwhelmed, fellow colleagues will guide me along and share some of their ideas with me," says Majid Abdul, Service Admin Coordinator (on right) at Scania Singapore.

Given the higher risks in the workshop, it is imperative that we educate him on all external potential dangers to ensure he is aware and works in a safe environment. So far, he has been diligent in his work, is always eager to learn and completes his tasks on time."

Facing challenges is part of Majid's daily life, but he has learnt to view challenge as a growth of knowledge and experience. "I analyse and gather information regarding the situation, weigh the negatives and positives and try my best to strike a balance," said Majid. His mantra is to stay calm and cool, think positively and stay confident. Fellow colleagues have also provided ample support by being helpful and inclusive. They have also taught him how to work more efficiently.

As Majid declares: "I love being a part of Scania Singapore, they are like my family who is always there to lend me a helping hand. I am proud to be working in this progressive and inclusive culture where the management is supportive of my personal well-being and growth."

#### **Scania Singapore**

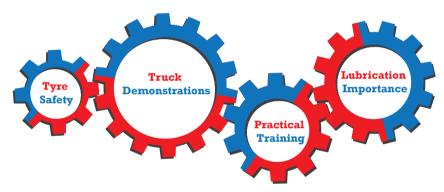
Scania Singapore Pte Ltd is a wholly owned subsidiary of Scania CV AB, Sweden. The brand has been active in Singapore's transportation industry since the 1970's. As a sole distributor and importer in this country, Scania provides total solutions, optimising the best profitability for its customers throughout the product lifecycle by delivering optimised heavy trucks and buses; marine, industrial and power generation engines and after sales services.

# Join the first Johor Safe

## Responsible Drivers Day!



Join the first Johor Safe & Responsible Driver Day to learn more about how to drive your truck safely and more fuel efficient. This jointly organised event is aimed at truck drivers that want to improve their skills and enhance knowledge. While we are at it, we will network and have some fun.



#### Venue:

Truck Nation Malaysia Sdn Bhd Showroom Truck Nation Malaysia Sdn Bhd PTD 56039, Jalan Kempas Lama, 81300 Johor Bahru Johor.

Tel:+607-556 2273 Fax:+607-556 2271 GPS Coordinates: N 01.56019° / E 103.71375°

#### Date:

Sunday, 2nd November 2014 Event Duration : 9.00am – 9.00pm

#### RSVP:

Scha: info@asiantruckerclub.com.my / +60 12 3644 351
Frankie: +60 16 710 5749 or +60 16 771 5748 Calvin: calvin@trucknation.my / +6013-722 0999

The event is limited to 100 truckers

#### Participating companies:

HOST



CO-HOST



ORGANISER



TYRE SAFETY



LUBRICANTS



### Zukunft bewegen



## 25. SEPTEMBER - 02. OKTOBER 2014 HANNOVER

25. SEPTEMBER -**HANNOVER** 

### **Driving the Future at IAA Hannover**

sian Trucker re-visits the Internationale Autoausstellung in Hannover to report about the latest developments and trends in our industry.

For our Cover Story "IAA Special" we visited the world's largest commercial vehicle exhibition. Held our under the headline "Driving the Future" saw new record being set, innovations introduced and our team busy meeting with readers and business partners from South East Asia. This year the IAA Commercial Vehicles, which was first held as a separate trade show in 1992, was taking place for the eleventh time in Hannover and has developed into the world's leading international trade fair for mobility, transport and logistics.

Knowning about your interest in the IAA 2014 we have visited this expo. IAA Commercial Vehicles has proven to be a stable pillar of this key industry with around 2.000 exhibitors from 45 countries, and showcased numerous innovations and technological highlights in the commercial vehicle industry.

The atmosphere was ecstatic as the industry has regained its confidence and with growth potential in Asia, many are looking East for sustainable expansions.

#### The VDA

Every year, the German Association of the Automotive Industry (VDA) stages the "Internationale Automobil-Ausstellung (IAA)", or International Motor Show. In odd-numbered years the IAA

focuses on passenger cars (next IAA Cars: 17 – 27 September 2015 in Frankfurt/Main), and in even-numbered years it covers commercial vehicles

The VDA consists of more than 600 member companies with a total workforce of more than 765,000. Its members are companies that are industrial manufacturers of vehicles and their engines, trailers, vehicle bodies and buses, vehicle components and accessories within Germany. The VDA's head office is located in Berlin. It also maintains an office in Brussels. The VDA promotes the interests of the entire German automobile industry in all aspects relating to motor traffic, such as industrial, transport and environmental policy, logistics, technical legislation, standardisation and quality assurance, both nationally and internationally. It works actively to ensure that individual mobility remains affordable to everyone.

The VDA is now 113 years old. It was established in Eisenach in 1901 by eight companies under the name "Verein Deutscher Motorfahrzeug-Industrieller (VDMI)", the Association of German Motor Vehicle Industrialists. Its initial tasks included the promotion of road traffic, the prevention of "burdensome official actions" (taxation), tariff protection and the supervision of automobile exhibitions. In 1923 it was renamed the "Reichsverband der Automobilindustrie (RDA)", the "Reich Association for the Automobile Industry". In 1946 it adopted the name "Verband der Automobilindustrie" (German Association of the Automotive Industry).

# >> | AAA









#### Milestones of IAA

**1897** First IAA held at the Hotel Bristol in Berlin. Eight cars are presented to the public.

**1989** The last IAA to feature both cars and commercial vehicles confirmed that the exhibition site in Frankfurt was now too small for this major event. Almost 2,000 exhibitors squeezed onto an exhibition site measuring 252,000 square metres.

More than 1.2 million visitors attended the event. Because of the high demand, it was no longer possible to meet exhibitors' requirements for adequate exhibition stands. In view of this, the VDA decided to hold two IAAs from now on.

**1992** The first IAA Commercial Vehicles saw 1,284 exhibitors from 29 countries. The exhibition site measured 252,000 square metres. Some 287,000 people visited this IAA, 66 per cent of them were trade visitors. This confirmed that the VDA's decision to split the event was right.

**2012** The IAA show has never been more international: IAA hosted exhibitors from 46 countries. With 1,904 exhibitors and 262,300 visitors, the trade fair presenting the slogan

"Commercial vehicles – Driving the Future" dramatically exceeded expectations. The exhibitors took advantage of this showcase to introduce their contributions to the most important trends, such as Euro VI, aerodynamics, alternative drive systems, intelligent and predictive gear shifting, safety, lightweight construction, networking/telematics and extra-long trucks.

With in total 354 world premieres – more than two thirds of suppliers introduced world premieres – the IAA 2012 was setting a new record for novel products. 2,087 journalists from 56 countries reported on the latest models and innovations. Test drives in electrical vehicles were offered on the trade show grounds for the first time.

This year, Asian Trucker again spent time at this most important exhibition to find out what industry leaders have in store for the future. On the following pages you will read about trucks, components, thoughts and trends. All of which we have gathered in exclusive interviews in an effort to bring you the latest, the freshest and most relevant content. Many of these companies will be participating in MIBTC 2015 and we hope to see these innovations at our show in Malaysia too.

## **WABCO** is the definition of efficient technologies

WABCO's differentiation in vehicle efficiency is also rooted in a global connectivity to deliver competitive, value-based solutions in mature and emerging markets alike.



ABCO Holdings Inc. (NYSE:WBC), is a leading global supplier of technologies to improve the safety and efficiency of commercial vehicles. During the IAA the company announced the company's continued technology leadership in vehicle safety and efficiency through its advanced systems, products and services, including new fleet management solutions.

#### **Fuel Saving**

WABCO demonstrated that the company continues to pioneer vehicle efficiency technologies that address diverse customer needs globally, including fleet management solutions. For example, a truck equipped with all of WABCO's efficiency technologies can improve fuel economy by more than 10 percent, while the green solutions also reduce vehicle weight and optimize energy recovery. All this is resulting in lower operating cost and fewer emissions over the lifetime of the vehicle.

"At IAA 2014, we will once again show how WABCO's technology leadership is grounded in our unmatched ability to anticipate the efficiency and environmental needs for



tomorrow's trucks, buses and trailers in different regions of the world." said Jacques Esculier, WABCO Chairman and Chief Executive Officer.

#### **Advanced Safety and Driver Effectiveness**

Connected with customers and their technology roadmaps, WABCO's engineering and manufacturing teams develop new products and functionalities that provide:

- Greater ability to control vehicles in all difficult driving
- Improved driver effectiveness and comfort
- Advanced safety systems that contribute to vehicles' compliance with increasingly stringent safety and performance regulations

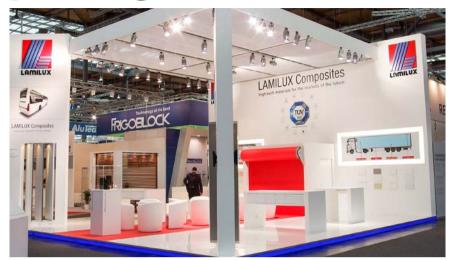
When it comes to Vehicle Efficiency and Environmental Sustainability, WABCO is at the forefront of the commercial vehicle industry's drive to protect the environment. The company's vision of significant improvements in vehicle efficiency and environmental sustainability is based on WABCO's focus in three key areas:

- Increase fuel savings by reducing power consumption of braking system and related products
- Improve weight performance ratios of our products by using lighter materials and enhancing the performance of existing
- Develop energy recovery systems that recuperate energy instead of wasting it

The company's aftermarket service network covers over 110 countries and includes more than 2,200 WABCO Service Partners.

WABCO acquired Transics International in February 2014, a market leader in Europe for Fleet Management Solutions (FMS). Transics serves 1,300 customers in 23 countries with more than 85,000 connected vehicles. T

# LAMILUX does it again: pushing the boundaries in laminates



We meet with a clearly proud crew at the LAMILUX stand where the company shows innovations that push the envelope further and show what the future in composites may look like.

Prominently displayed is the TÜV symbol at the LAMILUX booth. After winning the 2012 European Frost & Sullivan Award for New Product Innovation, the company has continued to work with TUEV, the testing and certification body, to demonstrate the superiority of their products. Present at the booth was Mr. Jochen Specht, General Sales Manager, innovative fibreglass solutions, and he explains this: "We want to offer our clients a product that they can use, that can be trusted. Every meter, every time and in every application." According to Specht, this is the kind of customer service that LAMILUX prides itself in. By carrying out these tests, the customer doesn't have to conduct them and will know that the solutions from LAMILUX will meet the requirements of the job at hand. Said Specht "Our USP is the consistent and reproducible quality as well as our approach to be an innovator."

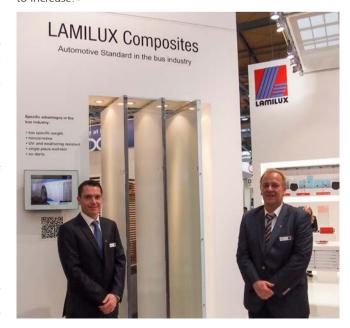
Currently, the markets are India, South East Asia and China which have a very high potential. Japan is also on the list of markets that is of interest and they are looking for distribution partners there. LAMILUX however does not just provide the product, but also service and development support that works hand in hand with the local clientele. Meanwhile, LAMILUX is also expanding its product offer from trucks to buses and has seen some major successes. As Specht explains, composite materials are common in trailers in Europe and the move to offer smart solutions for buses is a natural one. Side wall and roof applications and the floors of luggage compartments are the main applications.

There are many benefits of using composite materials. One of the issues bodybuilders in South East Asia have to deal with is the high humidity. Composites do not corrode, thus eradicating this problem. Composites are also lighter than metals, resulting in fuel savings, while they are easier to repair. In many cases, impacts from smaller accidents can't even be seen when using composites. LAMILUX is now further innovating by using different resins and mixtures of glass / resin (increasing glass content from 25 % to 50 %). "We are now offering solutions that range from decorative to construction. The new materials are extremely durable and can withstand a lot" Specht further elaborates.

Also on display are rolls of Carbon. "This is our latest product and we are seeing a lot of interest" said Specht. The carbon runs off the production line in 3.20 meters width, making LAMILUX the only provider that is capable of producing it in this width. With Carbon, maximum weight reductions can be achieved. In Sweden, one client has already used it for a silo / tanker as well as in Germany in the sports industry.

In view of the South East Asian market, LAMILUX highlights the characteristics of their products again when it comes to cold chain solutions. Here LAMILUX is able to cover the entire chain, from warehouse to transportation in trucks to POS displays in the shops where we pick our chilled or frozen goods.

The company produces some 12,5 Million square meters of composites per year, out of which some 30 % are being used in commercial vehicles. LAMILUX expects both of these numbers to increase.



### **Brianza Plastica does it both: Continuous and discontinuous laminates**

s the only manufacturer offering both methods of producing laminates in fibreglass, the company is showing innovations at IAA.

The Brianza Plastica S.p.A. group consists of four companies contributing to the study, realisation and supply of very high quality materials and products, making the group one of the most qualified in the industrial and civil overlay and insulation sector. As we meet Andrea Bollani at IAA, Area Manager, he also highlights that insulation is one of the applications that Brianza Plastica is strong in and seeks to grow further.

The main difference between continuous and discontinuous laminates is that the first is produced using machines fully automatized, while the latter is a manually made. Brianza Plastica's continuous version is called ELYPLAN and ELYCOLD is the brand of the discontinuous one, both have a high quality surface and we might underline this specific peculiarities:

ELYPLAN is a laminate made with a continuous production line using hot polymerisation. Continuous production offers real economic benefits over discontinuous technology, with excellent aesthetic qualities that, in the High Finishing version, rival the finest laminates made with discontinuous methods. Elyplan is therefore the best solution when the key factors are mechanical strength, dimensional tolerances, and value for money. Elyplan laminates come in rolls and sheets up to 3200 millimetres wide. There is no theoretical limit on the length, which is agreed to suit the customer's requirements.

ELYCOLD laminates, conversely, are made on a discontinuous production line with cold polymerisation that avoids thermal shocks and ensures a top-quality product with a perfect flat finish. Elycold fibreglass sheets emerge with a superlative aesthetic effect that is ideal where a smooth, shiny, totally flat surface is required. Elycold laminates, finished with gelcoat, are made in rolls and sheets up to 3400 millimetres wide and 60 metres long.

While both production methods use the exact same raw materials, to produce the manually fabricated ELYCOLD





highly skilled and trained operators are needed. While other manufacturers focus on either one of these methods, Brianza Plastica is the only maker in the market that offers both. This allows body builders and customers to source their materials for varying needs from one source. The respective area manager will be on hand to assist customers to identify the right application.

At the IAA 2014, Brianza Plastica is showing ELYPLAN EXTRA GLASS; developed according to market's needs, it is now a standard product.

This variant is extremely tough, but also flexible and light. It is available with or without gelcoat. It contains a high percentage of glass which provides the extreme rigidity and lightness at the same time. ELYPLAN EXTRA GLASS would be suitable for applications such as the roof tops of buses. It is also highly recommended for inner and outer walls of temperature controlled vehicles. The second innovation shown is the ELYPLAN HIGH FINISH. This laminate uses "chopped strand mat" which gives the laminate a better appearance by reducing the visibility of the fibres on the surface. "This variant is highly suitable for large commercial vehicles where the economic advantages come from the production method" said Bollani.

One of the obstacles identified by Bollani is the fact that many body builders are not familiar with composites and are therefore hesitant to use them. However, when Brianza Plastica's representatives explain the benefits, things change. Laminates are waterproof, don't need painting as they can be produced in all sorts of colours, are easy to maintain and repair and are durable. As such, the life of laminates is much longer than that of metal panels.

The company has seen a strong growth potential in Asia. Said Bollani "I am constantly travelling the area. Asia is the growth market for us as this is where new economies are now in a state where sophisticated solutions are needed to drive growth further. If anyone is interesting in a presentation, they can contact me via a.bollani@brianzaplastica.it and I will come to meet them." In line with the company's initial direction of "insulation", the cold chain providers in Asia are the prime market. "Meanwhile, Brianza Plastica will not forget the European home market" Bollani closes.

# DOLL sets a new standard for flexibility in heavy loads

When it is no longer enough to just have one application for one purpose, the new DOLL 6-axle panther lowloader offers a never seen before flexibility in trailers.



he DOLL panther is already a feast of tech know-how. However, for this version, the Oppenau based company has yet again exceeded expectations and added features that possibly make this trailer the most versatile in its class. Said Mr. Grunwald "Our client wanted to have a purpose built trailer that can handle a wide variety of loads. They needed a trailer that can be a low-loader and a semi low-loader." Therefore the trailer has a bed that can be connected in two positions to the platforms. As with the original panther, there is also a telescopic extension. Here again DOLL has found a superb solution to the request to allow for varying weight distribution: the bed with the telescopic extension can be swivelled around so that the extension is on either end of the platform.

The telescopic extension comes into play when the client is moving special goods that are light, but 5 meters wide and some 20 meters long. It is clear that the approach taken by DOLL makes this particular panther variant a true all-rounder as it can move heavy loads, such as dumper trucks that would



sit on the low bed, as well as oversized loads with less weight. It would even be possible to replace the current bed with a shorter version to move even heavier loads. Moving the bed is a simple task, thanks to thought trough engineering. Mating the bed and platform is done via a giant bolt that even has a back-up mechanism to loosen the bolt and the cables can run above or below the bed. At 80 Km/h, the permissible payload is approximately 69 500 Kg for the configuration shown at IAA. All trailers shown by DOLL at the IAA are already sold and clients are happy to see their own trailers on display.

The gooseneck is adjustable in four different positions to adapt to the different loads and to comply with laws and regulations. We chatted with Markus Renner, who headed the development of this trailer. "The development took some six weeks full time. The result is truly exceptional. Thanks to a client that wanted to push the envelope we have an amazing trailer here to show" he said. Added to the trailer is also a sophisticated CAN-bus system that allows to adjust the settings of the entire trailer either from the gooseneck or the back of the trailer. That way, long ways back and forth are avoided. "It is amazing how you can set up the entire system from one point without moving around" Renner said. The CAN-bus also manages the automated lubrication system. Renner explains "Why would you want the lubrication running on full when the engine of the truck is running, but the vehicle isn't moving?" DOLL's system is managing the lubrication whereby the lubrication starts when the trailer moves at a speed of 15 Km/h. This way, there will be less excessive lubricants that may pollute the environment.

The central box frame allows for dumper trucks or excavators to drive straight onto the trailer. In order to achieve the low loading height there is no beam between the already legendary DOLL axles and suspension systems.

### **Truck of the Future becomes Reality**

Mercedes-Benz Future Truck makes the future into reality with its autonomous driving with the integral "Highway Pilot" system.



■rom a vision to reality – the spectacular Mercedes-Benz Future Truck 2025 study had a visually exciting and technically feasible take on the long-distance truck of tomorrow at the 2014 International Commercial Vehicle show (IAA). In ten years' time, trucks could be driving autonomously on motorways. Transport efficiency will increase, traffic will be safer for all road users and fuel consumption and CO2 emissions will be further reduced. To do this Mercedes-Benz connects existing assistance systems with enhanced sensors to the "Highway Pilot" system. Autonomous driving is already possible at realistic speeds and in realistic motorway traffic situations. The Mercedes-Benz Future Truck 2025 provides a glimpse of the future shape of trucks.

#### Revolution on the Motorways

The technology of tomorrow is already reality at Daimler Trucks. The Future Truck constitutes a revolution in efficiency, safety and networking, a revolution for road traffic and its infrastructure, for professional driving and for the road transport sector. This is not a new truck, but rather the key element in the interconnected transport system of the future. It is being developed as part of the "Shaping Future Transportation" initiative by Daimler Trucks to conserve resources and reduce emissions of all kinds. Other aims are to ensure the highest possible level of traffic safety and to boost networking with intelligent data management considerably for tailor-made vehicle and service solutions.

In the summer the prototype demonstrated the exciting capabilities of the Future Truck at speeds of up to 80 km/h in realistic traffic situations on a section of the A14 motorway in Magdeburg, Germany. Now the thrilling exterior and interior of that same vehicle are being revealed.

#### **Fascinating Flowing Forms**

In terms of design, the Mercedes-Benz Future Truck 2025 study combines function, efficiency and emotion in a fascinating way. It adheres to the Mercedes-Benz design philosophy of "Sensual Purity". Soft, slightly curved surfaces that are near-natural represent both efficiency and emotion. Inside and outside, the exceptional visual appearance symbolises the great leap from classic truck to autonomous transport vehicle of the future. Innovative forms and the lighting engineering of tomorrow send the conventional truck cab into the future.

The designers have leveraged the opportunity presented by future length specifications: extending the front section allows soft, aerodynamically flowing forms to be created. Visual effects from the paintwork in light silver emphasise the enticingly smooth contours. Compact cameras replace conventional exterior mirrors. Its windscreen resembles a visor. The study's integral sun screen and aero roof have a distinctive form.

#### **Maximum Calm**

Featuring signature Mercedes-Benz style, the design is composed around the star as the central element. Looking practically seamless and as if made of one piece, the cab exudes maximum calm. Its plain yet powerful appearance lends it an imposing monolithic air.

While at a standstill with the engine switched off the front mask is closed. Classic elements such as the headlamps seem to be missing at first glance.

The Future Truck comes to life when the engine starts. LEDs illuminate the surfaces and light up the paintwork. The front mask gleams and LED bulbs shine instead of conventional headlamps to the left and right in the bumper. Orange flashing lights indicate when the truck is changing direction.

When the fully drivable study is being controlled manually and on the move, the lights are white. When the truck is driving autonomously the colour of the lights changes from white to blue. They then pulsate strongly, thus symbolising the truck's powerful heartbeat and clearly indicating the vehicle's current operating mode to other road users.

#### A New Way of Working

The sensual purity of the Future Truck 2025's calming design is also reflected by the interior. Flowing lines from the exterior are taken up inside the cab. Mercedes-Benz already creates a visual separation between the areas for driving and living in the cabs of long-distance transport. In the future the cab will also include a more comfortable and functional working area for autonomous driving phases.

The interior of the Future Truck 2025 is compelling as the focus is on essential functions and the design is almost puristic. The workplace for driving is calm and uncluttered like a modern, paperless office. Utilitarian engineering is excitingly juxtaposed with natural materials and a feeling of cosiness and warmth.

Wood flows from the floor to the instrument panel underlying the sense of well-being on board. The instrument panel is calm and uncluttered, with displays separating instruments and the exterior mirrors. Instead of conspicuous air outlets there is indirect climate control with a touchpad replacing conventional switch strips. Exciting lighting effects inside the cab also underline the distinctive character of the Future Truck.

#### **Self Drive**

When the truck is travelling autonomously, the driver may recline the seat and turn it by 45 degrees, to adopt a relaxed, comfortable working position. At the same time, indirect lighting illuminates the interior without glare.

To communicate the driver uses a tablet computer. This is accommodated in the newly designed centre console, but is removable. Here the driver can process documents, schedule more destinations, accept orders and arrange the next break. The computer screen can be configured to suit individual requirements, also enabling the driver to call up trip data. On long routes driven autonomously, the tablet becomes as crucial as the steering wheel and pedals are in regular driving mode. As an overall concept it combines the high-tech driver's area of the future with a state-of-the-art, paperless office and a living room. The driver feels at home even when on the move thanks to the digital picture frame on the cab's rear panel where personal photographs scroll across the screen.

#### Radar Sensors Scan Surroundings

The technology behind this exciting façade is no less impressive. The Future Truck is not, for instance, part of a platoon. It does not need to be daisy-chained to other vehicles. Radar sensors and camera technology enable the Future Truck to drive autonomously, independently of other vehicles or central control stations. Its technical features are thus crucial in giving the Future Truck its outstanding capabilities as an autonomous vehicle. For Mercedes-Benz the culmination of this is the highly intelligent "Highway Pilot" system, which resembles the autopilot on an aircraft.

Networking with other trucks or passenger cars extends its abilities further, but is not necessary for autonomous driving. A radar sensor in the lower area of the front end scans the road ahead at long and short range. The front radar sensor has a range of 250m and scans an 18-degree segment. The short-range sensor has a range of 70m and scans a 130-degree segment. The radar sensor is the basis for the proximity control and emergency braking safety systems already available.





#### Stereo Camera

A stereo camera installed above the instrument support behind the windscreen keeps the area ahead of the vehicle in view. This is currently the location of a mono-camera if optional Lane Keeping Assist is ordered. The range of the stereo camera is 100m, and it scans an area of 45 degrees horizontally and 27 degrees vertically. The stereo camera of the Future Truck identifies single or two-lane roads, pedestrians, moving and stationary objects, all objects within the monitored area and the road surface. The camera recognises everything that contrasts with the background, and is therefore also able to measure clearances precisely. The front stereo camera registers the information on traffic signs and recognises lane markings as a major function for autonomous lane guidance.

The road surface to the left and right of the truck is monitored by radar sensors installed in the sides located ahead of the tractor unit's rear axle. The sensors have a range of 60m and cover an angle of 170 degrees in the longitudinal direction.

#### **Blind Spot Assist**

These sensors form the heart of the new Blind Spot Assist system from Mercedes-Benz. The radar sensor modules are arranged to cover the area parallel to the truck over the entire length of a tractor/trailer combination or drawbar combination. In addition, this strip is extended forwards to two metres in front of the truck.

Blind Spot Assist warns the truck driver about other road users not only when turning; it also warns about imminent collisions with stationary obstacles – for example signs or lamps – and serves as an assistance system when changing lane. For Mercedes-Benz, the planned introduction of Blind Spot Assist over the next few years is a major step paving the way for the Future Truck and underlines Mercedes-Benz's role in pioneering maximum road safety.

#### **Networked and Autonomous**

All sensors on board the Future Truck are networked (multi-sensor fusion), and provide a complete image of the surroundings. All moving and stationary objects in the truck's vicinity are registered. Fusion of the data by a high-performance multi-core processor in the central computer links the data from all sensors in the whole area in front of and beside the truck.

The sensor and camera technology is active from standstill to the legally permitted maximum speed for trucks. By intervening in the steering, it automatically keeps the truck safely in the



centre of its lane. The system also includes a three-dimensional digital map, which is already used for the assistance system Predictive Powertrain Control (PPC). This means that the truck is always fully aware of the road's course and topography.

#### Communication with the Outside World

The "Highway Pilot" is ideally partnered with V2V and V2I networking. Every vehicle equipped with this in the near future will transmit continuous information to its surroundings. This includes vehicle position and model, dimensions, direction of travel and speed, any acceleration and braking manoeuvres and the bend radii negotiated.

The frequency of information transfer depends on vehicle speed and the intensity of any changes in its movement. It varies between one message per second when cruising to ten times this when changes are significant. Transmission is via WLAN technology, using the standard Europe-wide G5 frequency of 5.9 gigahertz. The basis is the ITS Vehicle Station (Intelligent Transport Systems and Services) on board the vehicle.

#### **Extensive Communication**

Communication between vehicles is also standardised. The range of these continuous sent messages is a radius of around 500m. The vehicles inform each other about their movements, so that they can respond to them immediately in anticipatory mode. This includes reacting to vehicles joining a motorway, or when approaching the end of a traffic tailback, for example. The more vehicles are communicating with each other, the more dynamically and flexibly they are able to respond to one another and together.

In an ideal scenario, an uninterrupted chain of communication forms along a route that rigorously informs the driver and vehicle about road and traffic conditions a long way ahead on their journey. V2I means that all these messages and signals are also sent to external recipients such as traffic control centres. These are then able to respond flexibly, for example by changing the speed limit or opening up additional lanes. Messages can also be sent to vehicles about temporary road works.

All this data informs the driver and the onboard computer about events happening outside the range of vision in good time. The driver and vehicle are therefore aware of obstacles in advance, before they can become a hazard.

#### **Anti-tailback Measures**

The Future Truck is not on the road in isolation, but constantly communicates with its environment, unnoticed by the driver. Traffic information passed is available to all road users. Because networked vehicles respond automatically to the data,

homogeneous traffic flow is ensured along with exceptional utilisation of limited road infrastructure. In combination with autonomous driving, road traffic will develop into a self-learning system.

Average speed is improved by better traffic flow and without raising the maximum speed. At the same time, homogeneous traffic saves on fuel.

#### **Autonomous Driving in Practice**

After joining the motorway, the driver merges with the traffic flow in the appropriate lane. The system then prompts the driver to activate the "Highway Pilot". The driver activates it, and the vehicle switches to autonomous mode. According to the given traffic situation, the Future Truck is on the road independently, as no vehicle in front is needed as a reference to guide it. It acts autonomously in its lane. If there is another vehicle travelling ahead, the truck can adapt to its speed within the permitted limit and maintains a set safety distance. It is therefore always possible for other vehicles to join the lane safely.

The safety distance is always maintained – the Future Truck adapts perfectly to its environment. It operates independently of other road users thanks to networking. However, to fully benefit in terms of logistical efficiency and making optimum use of infrastructure, comprehensive networking is desirable. This development is certain to occur in a gradual manner. Open standards and protocols are important to this end.

#### From Driver to Transport Manager

In many situations autonomous driving relieves the driver of "having to" drive, especially on tiring and often monotonous long-distance routes. As the truck regulates its own speed and automatically finds the best route using a navigation app, and because the transport company, dispatcher and goods recipient are constantly informed about the location, route and expected time of arrival, the driver is relieved of time pressure. This is a major stress factor for today's drivers.

The driver gains time for other activities and is able to communicate with his surroundings. The driver will be able to take on tasks previously performed by the scheduling team or which provide social contact. Owner-driver businesses in particular will be able to conveniently perform office tasks on the move.

Carrying out other activities will significantly change the professional profile of the truck driver. This will in turn give rise to opportunities for advancement from the purely driving role to transport manager. The profession of truck driver will become



Dr. Wolfgang Bernhard, member of Daimler's Board of Management and responsible for Daimler Trucks and Buses

more attractive – autonomous driving is therefore a compelling answer to the shortage of drivers. More than ever before, with autonomous driving the truck and its driver become a team, an intelligent, highly capable and cost-effective combination of man and machine

#### **Consumption & Emissions Down**

Fuel consumption and emissions will be significantly reduced during autonomous driving, thanks to more homogeneous traffic flow. Transport times will become more predictable. The new activities carried out by the driver or transport manager during journeys will revolutionise the freight forwarding sector, making it a dynamic and self-learning system.

Traffic flows on long-distance routes that are predictable for all road users improves safety. Already, assistance systems regulate vehicle speeds and are able to automatically initiate emergency braking to prevent accidents. Both have proved their worth for a number of years. Autonomous driving stands for perfection by fusion of the assistance systems.

In the future, accidents caused by human error will be largely a thing of the past. Safety regulations such as speed limits or safety gaps between vehicles will always be strictly adhered to. Anticipatory driving, a recurring theme in driver training courses, means programmed safety and cost-effectiveness for the Mercedes-Benz Future Truck 2025.

#### Reality in the Short Term

One of the most interesting questions on the subject of autonomous driving is the time horizon envisaged for its realisation. In purely technical terms, turning it into reality on the roads is feasible within around five years. In terms of passenger car development cycles, a possible start is envisaged in 2020. Owing to the more complex factors for heavy commercial vehicles, the time horizon for such vehicles will, however, be rather longer – realistically implementation is possible within ten years, also in view of the legal considerations that still remain to be clarified.

The introduction of autonomous driving will not happen digitally from one day to the next, as development is progressing in a gradual manner: evolutionary stages are necessary to revolutionise goods haulage on the roads. In coming years, new and improved assistance systems will continue to pave the clearly set-out way to autonomous driving.

#### **Necessary Conditions**

The technical preconditions are now being demonstrated for the first time with the Future Truck; however legislation also needs to be adapted to this new dimension in driving. A further





development of the "1968 Vienna Convention on Road Traffic", which most European countries have signed and implemented, is already under way. The Convention is intended to make road traffic safer by standardising regulations, and one of its core principles is that the driver must have control of the vehicle at all times and in all circumstances.

On the basis of the Vienna Convention on Road Traffic, UN/ECE Regulation R 79 does permit corrective steering intervention for steering systems, but not automatic steering over 10 km/h. This allowance is a precondition for Parking Assist and Stop-and-Go Assist.

#### **Driver Control**

The Vienna Convention came about at a time when autonomous driving was still in the realms of science fiction. A committee of United Nations experts has recently supplemented the Vienna Convention on Road Traffic, providing the basis for legalisation on autonomous driving. Corresponding systems will be permitted in the future, as long as they can be deactivated or overruled by the driver at any time. This is standard for the "Highway Pilot" in the Future Truck.

Data security must also be ensured in technical and legal terms. This concerns external access to the individual vehicle, and also the transfer of data for V2V and V2I or internet communication. In addition to operating permission it will be necessary to clarify other legal aspects such as liability for traffic infringements and accidents, which can never be completely ruled out. The same applies to insurance and product liability aspects. How new working models and professional profiles are to be reconciled with the current regulations on driving and resting times also remains to be defined.

#### The Answer

Where the associated legal steps are taken, the Mercedes-Benz Future Truck 2025 with the "Highway Pilot" system is the answer to the challenges of the future. The answer to increasing traffic, inadequate infrastructures, increasing cost pressure and a shortage of drivers. Against the background of numerous new and enhanced assistance and telematics systems and V2V/V2I communication, a new era in road goods transport and communication is being ushered in. In the future traffic will flow more smoothly, predictably and safely. Traffic systems will become more flexible, with better use of the infrastructure. Avoidance of human error at the wheel will reduce hazards and accidents. Transport operators will operate more cost-effectively and flexibly. Truck drivers will be able to assume different tasks as transport managers. This answer to the many challenges is not just a vision, it is already reality.

## Real Life Testing for Zero Emission Fuso Canter E-Cell

### MITSUBISHI FUSO TRUCK EUROPE



The new Fuso Canter E-Cell runs emission-free and almost silently has now been released for customer trials.

he cleanest technology, whatever the application: Fuso is a pioneer of "green" drive systems in the commercial vehicle sector. The Daimler subsidiary in Japan is the home of Daimler Trucks' centre of competence for hybrid technology, and with this experience behind it, Fuso has also been responsible for developing the new battery-electric-powered "Zero Emission" Canter E-Cell. The first all-electric light-duty truck, produced in a small series, runs emission-free and almost silently. The Canter E-Cell for Europe is manufactured at the Tramagal plant in Portugal. Eight vehicles have now been released for customer trials.

#### **Emission-free and Silent**

The "Zero Emission" Canter E-Cell provides the answer today to the ever-increasing traffic restrictions in major conurbations that are sure to be applied over the coming years, such as road tolls based on CO2 emissions or restricted access times. It is particularly suitable for use in limited-mileage operations in environmentally sensitive areas, for example in city-centre

traffic or in eco-zones and pedestrian precincts. As a particularly sustainable form of transport, it also provides companies with an opportunity to enhance their profile with customers and the public in general.

"The Fuso Canter E-Cell allows us once again to emphasize our leadership in the field of alternative drive systems," said Dr. Albert Kirchmann, President & CEO Mitsubishi Fuso Truck and Bus Corporation. "Led by Daimler Trucks' advanced engineering team based in Japan, our colleagues in Portugal have now realised yet another big milestone, bringing the latest Daimler Trucks innovation into the world."

#### **Real-life Testing**

Customer trials with the Canter E-Cell under real-life conditions are set to run for one year. The eight Canter E-Cell are based on the Canter with a wheelbase of 3.400mm and feature a single cab in the wide, comfort specification. Each is fitted with either a 4.3 m-long platform body or a 4.4 m-long box body.

The capabilities of these electrically-powered light-duty trucks will be put to the test under a wide range of conditions. The city of Lisbon will be using the Canter E-Cell for horticultural and waste disposal purposes, the city of Porto as a means of transport between its various municipal buildings and the city of Abrantes will similarly use it in the field of horticulture. The company Transporta will use the Canter E-Cell for house-to-house deliveries as part of its short-radius distribution service, the energy supplier REN for transport purposes within the port area of the town of Sines, to the south of Lisbon. And lastly, the Canter E-Cell will be helping the Portuguese national postal service CTT with transport runs between its distribution centres in Lisbon.



#### Powerful, High-Torque Electric Motor

Compared with the original prototype model – which celebrated its world premiere at IAA 2010 - the Fuso Canter E-Cell has now seen considerable development. The design of the electrically-powered light-duty truck is based on the chassis of the conventional Canter and allows a permissible gross vehicle weight of 6.0 t. The resulting payload of the chassis is therefore remarkably high, at around 3.0 t.

The electric motor in the new Canter E-Cell gives it a top performance of 110 kW (150 hp) and high maximum torque of 650Nm. Power transmission to the rear axle is via a singlespeed transmission. Both the cardan shaft and the rear axle are components that have been adopted from the Canter with combustion engine. Good performance is a given, as it is a feature of the design of an electric motor that its maximum torque is available immediately upon start-up. The top speed of the Canter E-Cell, as with all vehicles in this weight class, is limited to 90 km/h.

#### **Battery Ensures 100km Range**

Located on each side of the frame are a total of four battery packs, accommodated in two fully encapsulated boxes. These are lithium-ion batteries with an impressive nominal capacity of 48.4 kWh. This gives the Fuso Canter E-Cell a range of over 100 km, more than many short-radius distribution trucks in fact travel in a day. Charging the batteries at 230 volts takes around seven hours, while use of a rapid-charging system can reduce this to just one hour. The Canter E-Cell is very simple to drive: the light-duty truck is started by turning an ignition key. As with a torque-converter automatic, the driver can select between the gear settings D - N - R and P. The practical crawl function in Dand R is also comparable with that of an automatic transmission the driver can thus manoeuvre the Canter E-Cell simply by operating the brake pedal.

#### 50 Year Anniversary

The handover of the eight Fuso Canter E-Cell to the Portuguese customers represents a further highlight of this anniversary year for the Tramagal plant, which took up production of trucks 50 years ago. The plant, 150km north-east of Lisbon, is the central production plant for Fuso Canter in Europe. Last year saw the production of around 4,000 Canter. The location is an integral part of the global production network for Daimler Trucks.

Since 2011, Daimler Trucks has invested some 27 million euros in the Tramagal plant. Also the Portuguese government has supported the Canter E-Cell project. The Canter E-Cell is built at Tramagal on a special production line for prototype models.

#### **Hybrid Squares the Circle**

Since 2012, series-production of the hybrid variant of the truck, the Fuso Canter Eco Hybrid, has also taken place in Portugal. The Fuso Canter Eco Hybrid squares the circle: hightech helps to protect the environment and really pays off. The Canter Eco Hybrid reduces fuel consumption by as much as 23 percent, which means that despite the slightly higher price, the investment can be recouped within a few years. Rather than being an experimental vehicle, the first series-production truck in its class to feature hybrid drive is a sturdy production model that is absolutely viable for everyday use. The step up to meet the Euro VI emissions standard brought with it a further reduction of the already low fuel consumption, while CO2 emissions have also been reduced. This is thanks to the longer axle ratio and an optimised gearshift strategy. The Canter Eco Hybrid boasts an array of outstanding and robust technology including a start/stop device, all-electric starting and the Duonic dual clutch transmission, which is unique in this class.

The drive system to suit your needs: Canter Euro VI, Canter Eco Hybrid and Canter E-Cell. The logical next step is now the Canter E-Cell. Fuso is thus able to offer the Canter as the only lightduty truck with a choice of three state-of-the-art drive systems: as the straightforward Canter with an economical diesel engine that is compliant with the currently applicable Euro VI and Euro 5b+ emissions standards, as the Canter Eco Hybrid with hybrid drive system and now - in the context of customer trials - as the Canter E-Cell with battery-electric drive system. **T** 

# Fewer Injuries at Work with Volvo Dynamic Steering





ong days behind the wheel cause many truck drivers to feel pain in their upper back. Henrik Gustafsson, 27, is one of them. Five years ago, when driving long-haul transport to Norway, he developed a problem with a muscle behind his left shoulder. Henrik stopped driving long-haul because of this and started driving timber in the forest with his father. He also took up weight training, but the problem did not disappear completely. However, a year and a half ago Henrik got the opportunity to drive the new Volvo FH, equipped with Volvo Dynamic Steering, in field tests. Since then his back has felt much better.

"The difference now is that I don't have to be on edge and drive in a guarded way. With Volvo Dynamic Steering the truck is very stable", says Mr Gustafsson.

#### **Every Second Driver Encounters Problems**

The problems associated with industrial injuries have long been recognised. In a study by Volvo Trucks involving 160 truck drivers in Europe, over half had problems with back, shoulder and neck pain. In the study, conducted in 2011 and 2012, the majority of participants were men who drove long-haul operations.

Another 2011 study by the European Agency for Safety and Health at Work shows that 54% of women and 37% of men in the transport sector in Europe have muscular and skeletal problems. These are often concentrated in the backs, shoulders and necks of the drivers.

Peter Bark, who conducts research on health and safety issues at the Transport Research Institute, a research institute for transportation and logistics, explains why. "Tightening muscles in the arms and neck, together with repetitive movements, put a large strain on certain muscle groups. Gripping the wheel hard when steering leads to even greater tension, I would expect. Larger muscles like biceps are not as sensitive, but when tensing the forearm and certain muscles that connect to the fingers and hands, there is a risk of feeling fatigued. Tensing the shoulders also leads to fatigue which can then spread to the back of the neck".

### Drastically reduced vibrations with Volvo Dynamic Steering

The new Volvo Dynamic Steering greatly reduces the movements of the steering wheel, which would otherwise be created by road uneveness. It not only makes steering easier and more comfortable for the driver, it also impacts less on the muscles and joints in the long term.

Driving at low speeds on normal roads with Volvo Dynamic Steering reduces the effort necessary to turn a steering wheel by approximately 75%. When driving on rough roads it almost entirely reduces tremors by 95-100%. In combination with the automated I-Shift gearbox, it means that the pressure on the driver is massively reduced.

Jonas Nordquist, Product Features and Profitability Manager at Volvo Trucks points out: "If you take away everything that can happen to the driver outside the truck, then repetitive motion from road uneveness and from steering and shifting – so-called 'whole-body vibration' – is the biggest cause of occupational injuries. A road is never completely smooth, the body will shake with the motion. This creates what in ergonomics is called RSI-'Repetitive Strain Injury'. It is a wearing of the muscle, just like tennis elbow, for example."

#### A Classic Injury

This is exactly what happens when truck drivers get a sore back or neck - they are sitting still while the body sways up and down. He or she controls the steering wheel with a certain load and the higher the load, the greater the risk of injury.



Henrik Gustafsson's back pain turned out to be a classic work injury. So, when he and his father bought a new truck, the choice was easy – a new Volvo FH with Volvo Dynamic Steering. "Previously, I would tense up when steering the truck on small, winding roads. With Volvo Dynamic Steering the wheel is still, even when driving on bumpy roads when a force comes from the side that would normally shake the wheel. This is countered by the system so I can sit and feel more relaxed as a driver. Today I have a very different position when I drive," says Mr Gustafsson.

#### **How Volvo Dynamic Steering works**

Volvo Dynamic Steering is based on a conventional mechanical steering system where a steering shaft links up to a steering gear. A hydraulic servo unit generates force that helps the driver turn the truck's road wheels. In Volvo's system an electronically controlled electric motor is added, which is attached to the steering shaft. This electric motor works together with the hydraulic power steering and is adjusted thousands of times per second by the electronic control unit. At low speeds, the electric motor adds extra force and at higher speeds, the electric motor automatically regulates the steering and compensates for irregularities that feed through to the steering wheel, caused for instance by side winds or bumps in the road surface.

## **A Sports Car Under The Hood**







What do I do with this

Here's the Keys son

"When I realised that I would have to park the truck, my heart stopped. I thought 'How can I park this here?'" asks Ambrogio Adani.

n Volvo Trucks' latest commercial, The Casino, a surprised parking valet is given the keys to a brand-new Volvo FH. What he doesn't know is that the truck is remarkably similar to a sports car – thanks to its world-first transmission, I-Shift Dual Clutch.

#### First Shift

Ambrogio Adani's first shift as a parking valet at Casino San Remo in Italy didn't quite turn out as he expected. In The Casino, Volvo Trucks' latest commercial, he is busy parking one sports car after the other when suddenly a brand-new Volvo FH drives up and stops in front of the casino. Adani looks very surprised, to say the least, but the fact is that with its new I-Shift Dual Clutch transmission, the truck has a whole lot in common with a sports car.

Just like the technology found in many sports cars, I-Shift Dual Clutch features double clutches, which means the truck loses neither road speed nor torque during gear changes. Volvo Trucks is the first maker in the world to develop this kind of transmission for series-produced heavy trucks.

#### **Dual Clutch**

"For trucks, a dual clutch transmission is a major improvement, offering far smoother and easier driving. The heavier the transport assignment, the tougher the route and the more gear shifts, the more you gain with I-Shift Dual Clutch," says Astrid Drewsen, Product Manager Drivelines at Volvo Trucks.

I-Shift Dual Clutch is a further development of I-Shift and can be described as two parallel-linked gearboxes. When one gear is active, the next gear is pre-selected in the other gearbox. During the gear changing itself, the first clutch is disengaged at exactly the same instant that the second one is engaged, so gear changes take place without any interruption in power delivery.

#### **Communicating the Brand**

With The Casino, Volvo Trucks is continuing on the communication journey it launched with a series of commercials in 2012 and 2013. All told, these films have been shown more than 100 million times on YouTube, not only strengthening Volvo Trucks as a brand but also increasing interest in owning a Volvo truck.

# Volvo Trucks' I-Shift Dual Clutch delivers the power that a fully loaded truck needs, but it drives like a sports car.



The I-Shift Dual Clutch as seen from offset front right



An illustration showing how the I-Shift Dual Clutch works



The front of the I-Shift Dual Clutch

"We're really pleased that so many people are taking note of our products. With our latest film about Volvo Trucks' new transmission, I-Shift Dual Clutch, we are continuing to communicate our technological innovations in a way that is not only relevant to people interested in trucks but also to a wider public," says Claes Nilsson, President of Volvo Trucks.

I-Shift Dual Clutch will be available in all markets that sell the Volvo FH with Euro 6 D13 engines featuring power outputs of 460, 500 or 540 horsepower, starting in September 2014.

#### Facts I-Shift Dual Clutch

- I-Shift Dual Clutch is based on the I-Shift transmission. Despite having many new components, the new unit is just 12cm longer than a conventional I-Shift.
- I-Shift Dual Clutch changes gear without any interruption in power delivery when needed. When driving in conditions where it is optimal to skip a few gears, the new transmission behaves just like a regular I-Shift unit.

- I-Shift Dual Clutch can change gears without interruption in power delivery in all gears apart from range changes, which take place when shifting from 6th to 7th.
- Smooth gearchanges mean there is less wear on the driveline and the rest of the vehicle.
- Fuel consumption with I-Shift Dual Clutch is the same as with
- I-Shift Dual Clutch will be available on the new Volvo FH as a complement to I-Shift and manual gearboxes.



# Trucks with maximum protection from Rheinmetall MAN Military Vehicles



ast month, I was part of the Asian Trucker team that was heading to Port Dickson for an event with Shell. Along the way there were five tanks coming up the highway on the opposite way. These tanks looked pretty cool I must say. This incident, has led me to do some research about military trucks and I found Rheinmetall MAN Military Vehicles.

Part of the globe-spanning Rheinmetall Group – also a major supplier of automotive components – Rheinmetall Defence has long been a prominent member of the international defence and security industry. As a top European supplier of army technology, they offer an extensive array of military hardware that enhances the mobility, reconnaissance capabilities, lethality and survivability of troops deployed in harm's way, and also enables the networking of national and international systems. Rheinmetall has spent years pioneering new technologies for protecting friendly forces, systematically expanding its range of products in this critical field.

RMMV offers several different military trucks, however my focus here will be on the "Extreme Mobility Truck System". This



Fajar takes a closer look at Rheinmetall MAN Military Vehicles (RMMV) which fit the battlefield and help to accomplish missions, wherever and whatever they may be with a wide range of trucks.

particular military truck has caught my attention because of the powerful looks that it has. The unique box-type frame's unique feature is its 100% torsion stiffness. The extremely torsion – resistant box frame with hollow longitudinal members and welded tubular cross-members makes the SX a class of its own. Its unique design allows the suspension to absorb even extreme terrain irregularities. The SX offers a stable driving experience even during fast off- road driving.

The secret behind the SX's extreme mobility and adaptability lies in its progressive coil- spring suspension with an extremely long spring travel path. Other highlights include the optional Hydropneumatic rear axle suspension with integrated, regulated, load-dependent shock absorbers-driving stability under even the toughest conditions.

The engine, cooling system and converter are combined in a compact power pack located behind and below the cab. With its unique off-road capabilities and torsion rigidity, the SX sets the benchmark in off-road mobility. It can even navigate terrain







normally only accessible to tracked vehicles. Leader in its class, the 3- or 4- axle SX is ideal for transporting high value, complex and sensitive systems such as tactical systems and weapons. The SX's solid, robust design reflects decades of experience in engineering extreme-mobility trucks.

It is primarily deployed as a carrier for sensitive weapons systems, since its boxed frame structure does not pass on any torsion, even when driving at full speed in difficult terrain. Carrying sensitive weapon could be quite a dangerous task for the truck. Therefore it has been through a lot of tests.

The term "Military truck" may sometimes be a bit misleading. I found that these vehicles are not only used during war, but they are typically also part of any preparation for crisis prevention, conflict management and peace keeping missions with a complex set of security challenges. Furthermore, it is usually being used for certain occasions such as parades or during Independence Day.



Mobility and flexibility are essential to guarantee rapid deployment to affected areas. Just as important is a perfect harmonized logistic and tactical support. Military trucks designed by Rheinmetall MAN are built for on- and off-road missions worldwide. They combine maximum mobility and reliability with great operating efficiency.

From desert sands to stone track, from mud and rubble to snow and ice, they climb steep gradients and ford deep rivers with ease. These mobility trucks offer excellent off road qualities on any surface to keep military crews on the move and protected.

Looking at these technical feats, it becomes clear to me that not all trucks are created equal as they are subject to different tasks and environments. For long distance haulage cabin comfort may be crucial while for military trucks protection is paramount.



## Local Volvo Truck Fuelwatch Winners Off to Sweden



Local Fuelwatch winners set to go to Sweden to compete or a regional and global level to see who can drive using the least amount of fuel.

Volvo Trucks Singapore held the local edition of its global initiative, Volvo Trucks Fuelwatch Competition, on August 23, 2014. The competition challenged over 32 drivers to achieve the highest fuel savings through optimised driving techniques.

### The Winners

The winners of the FH/FM and FMX categories were Mr Eros Neo Jit Hong and Mr Christopher Wu Ming Pu, who achieved an average of 30% more fuel savings than their defeated contenders. They were amongst the 20 finalists who had qualified through a theory test. The finalists then drove the trucks along a 13km route to prove themselves as the most fuel-efficient Volvo truck driver in Singapore.

Neo and Wu will represent Singapore and participate in the APAC and Global Fuelwatch competitions to be held in Goteborg, Sweden, headquarters of Volvo Trucks, in September 2014.

### More than a Competition

"Volvo Fuelwatch is more than just a competition to me, it is an

opportunity for drivers like me to learn and share best methods to manage fuel consumption and reduce my carbon footprint," said winner of FH/FM category, Mr Eros Neo Jit Hong from Tee Hai Chem Pte Ltd. "Winning the local challenge is icing on the cake as it will allow me to meet global experts and greatly broaden my knowledge."

"The competition has made me realise that there is so much more to learn about fuel management, particularly learning about the positive impact fuel saving techniques can have on my company as well as the environment," said winner of FMX category, Mr Christopher Wu from KKL Enterprise Pte Ltd. "I am very excited and wait in great anticipation for the opportunity to interact with and compete against drivers from around the world."

### **Significant Savings**

Volvo Trucks has long realised that fuel cost, accounting for 30 per cent of overall operating costs, is a big challenge for truck owners and operators alike to overcome. Research shows that with training drivers are able to reduce fuel consumption by up to 30 per cent, which can result in huge savings.

"Our initiatives are about providing our customers with platforms to learn and achieve optimal results through key concepts that represent a new era of efficient and effective truck driving techniques," says Valery Muyard, General Manager at Volvo



Trucks Singapore. "At Volvo Trucks, we view fuel management as essential, both economically for our customers as well as the environment which ultimately results in a reduction in CO2 emissions."

### **Driver's Club**

To further enhance its commitment to partners and the truck driver community, Volvo Trucks Singapore launched its Volvo Trucks Singapore's Drivers' club at the Fuelwatch Competition. The club aims to exchange best practices on productivity, fuel management and training sessions in addition to awarding truckers with bonus points for driving fuel-efficiently and maintaining the trucks well. The accumulated points can be used to claim merchandises and vouchers from Volvo Trucks.

Participants of the Volvo Trucks Singapore Fuelwatch Competition 2014 were judged based on their fuel-saving performances in the new Volvo FH or FMX equipped with the state-of-the-art software, I-Shift, an automated transmission with built-in intelligence to quickly and automatically choose the right gear at all times. I-Shift is designed to save fuel. Every gear change is timed precisely in Economy mode, allowing the engine work at its most efficient revolutions per minute range.

A total of 23 drivers from all over the world will be joining the Final of Volvo Trucks' global Fuelwatch event, taking place in Gothenburg, Sweden.



### **Volvo Trucks Drives Progress** with Productivity Solutions

Volvo Trucks reveals ambitions for Asia operations at the Singapore Productivity Forum 2014.



olvo Trucks approaches productivity from the perspective of its customers and offers total transport solutions to the construction, mining, logistics and urban-use sectors. Addressing the Singapore Productivity Forum 2014, Mr Christophe Martin, President of Volvo Trucks in Asia Oceania, said, "Our customers rely on us to understand their needs and find the best possible transport solution for their business. To stay close to them, Volvo is investing and expanding in Asia. We made a THB3 billion investment (US\$93.5 million) in Thailand growing the dealer network, and similar plans are in place for Malaysia. The company also recently opened a new representative office in Mongolia, and by the end of the year additional offices in Pakistan and Myanmar will follow."

### Innovation by People for People

Volvo's new range of award-winning trucks, the Volvo FH, the Volvo FM and the Volvo FMX were developed at the cost of US\$3 billion and introduced to Asia in May 2014. "Our trucks are the most advanced in the market, and are designed with customers' productivity in mind. It is the combination of innovative products, services and a truly caring approach, that makes Volvo the market leader in our segment and the No. 1 brand to own," continued Mr Martin.

Volvo is convinced that a key to sustained productivity in the transport sector is through ensuring the safety and quality of the people driving and maintaining the vehicles, which in turn is supported by technological innovations. Mr Martin observed, "It has been a trend for a few years now, that there is a shortage of professional truck drivers globally, and companies that retain high-performing and experienced staff enjoy great productivity benefits.

"Since our founding in 1928, Volvo Trucks has consistently innovated around people. From the introduction of the threepoint seatbelt in 1959, to the I-Shift automated mechanical transmission in 2001, or very recently Volvo Dynamic Steering [2013]," he recounted. These technologies helped to improve driver safety, reduce fatigue and enhance fuel efficiency.

### Best Use of Driver's Time

In order to maximize the uptime of fleets and maintain fuel efficiency, Volvo Trucks employs a multi-pronged approach utilising technology built into its trucks, better and more accurate vehicle maintenance, as well as constant driver engagement and training.

The company is the first to make its drivers' handbook digital and available free of charge online and as a smartphone and tablet app (iOS and Android). The idea is to give customers, drivers and mechanics access to up-to-date, chassis-unique information. The digital user manual includes instructive films and images to show how the various functions can be handled in the best possible way. During vehicle maintenance, workshop engineers can refer to the digital manual and immediately see how the truck is configured, making servicing a faster and more accurate process.

The new range of vehicles feature Dynafleet, a telematicsbased fleet management system, which makes it possible for fleet owners to track fuel efficiency and driver behaviour in real time, so adjustments can be made to increase efficiency and inculcate safe driving habits. Dynafleet now comes with a free app on iOS and Android, allowing users to get updates on fuel consumption, total carbon emissions, vehicle utilisation rates and driver behaviour. All this information is consolidated into an easy-to-read fuel efficiency and driver score.

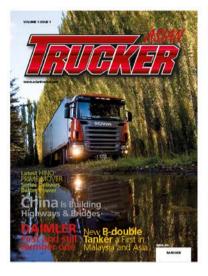
### The Volvo Way

The company believes in going local to be global, and has recently set up Volvo Group University to enhance employees' skills and further the competencies of the Group's 110,000 employees globally.

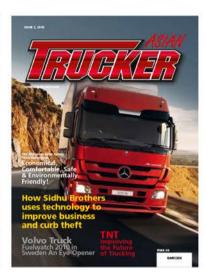
Mr Martin explained, "These investments in our human talent within the Group mark our journey towards greater internal productivity. Every year, half a million training days is allocated to our employees and retail organisation worldwide. The Volvo Group University will provide further education and training in Project Management, Engineering, Leadership and Management, and there are plans to create local hubs in the countries where the Group is active. As an organisation, we practise the Volvo Way, which emphasises open dialogue, diversity, customer focus and teamwork; to create the most innovative products for our customers." **T** 



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### Asian Trucker checks into TNT's ERN headquarters in Holland where it seems we are getting to see the future of transportation in border-free economic zones.

t is reliability that matters first and foremost when it comes to guaranteed next-day deliveries. Bas Janssen, Managing Director TNT Express Road Network B.V. explains how the company achieves this by using the newest trucks, sophisticated planning and insights into consumer thinking.

### The Trucks

"It is interesting to see that our trucks are getting younger and younger. The utilisation is continuously increasing, so our vehicles rack up kilometres very fast" says Janssen. According to him it is almost a scientific exercise to determine when exactly the trucks should be traded in. Currently, the fleet is about 4 years old with the trailers being between eight to ten years in service. "The reason for the longer running time of the trailers is simple: we may not always load them fully. Our trucks leave at precise times, not when the trailer is full" he explains. TNT owns a mix some 65 trucks from MAN, Volvo and DAF. Own trucks are used on all routes that require arrival in time to make the next trip from the hub. These are called "Connectivity Trucks".

Preventive maintenance and selection of vehicles with high durability is key to success. Naturally, fuel efficiency is a key factor, but the immediate consideration is the need for trucks that run daily without fail. The mix of trucks has to do with risk management as one would not want to put all eggs in one basket. Also, the trucks need to be packaged with service contracts. The "best combination of truck and maintenance" may vary from OEM to OEM at the different times of purchase.

As Janssen puts it, it is make or break for the business if the driver knows how to manage his right foot. However, if your promise is on time delivery all the time, then you need to ensure that the trucks are running. Maintenance is carried out by a third party service provider which is located opposite the yard, ensuring quick turn-around with little transits.

Trucks are monitored by GPS as we have seen this on the other road networks. Besides the scheduled maintenance, TNT goes the extra mile and sends the trucks for two annual inspections whereby it is only required once per year. Trailers are custombuilt to meet the specific requirements of customers.

### **The Drivers**

Similarly to the trucks, drivers are chosen based on their reliability. The company is always using the latest technology and equipment and a long line of drivers would love to work for TNT. The critical routes are handled by TNT's own drivers that will commute between 20 hubs in and deliver to 40 countries.

Drivers are allowed to steer a vehicle for 5 1/4 hours before they have to take a 45 minute rest. For teams of two drivers the maximum is 21 hours, after which a full 11 hour rest has to be taken. "Now, this means you have to park the trucks as close as possible to the loading bay. Every minute counts as driving time and should not be wasted with manoeuvring the trucks" says Janssen. In the ideal case, hubs are planned in geographic locations that would be about 21 hours apart with one crew handing over to another after their legally allowed driving time, thus keeping the truck on the road non-stop.



An internal competition is held on an ongoing basis and the most fuel efficient driver is featured in internal newsletters. As a result, truckers are proud of their achievement and are working toward winning the challenge, although it may not always be possible as the routes may have more or less hilly terrain.

### The future

According to studies, the truck / road transport combination will still be the most cost effective for the next 50 years. TNT is constantly working on improving their uptime, load capacity and connectivity. Having one of the most extensive road networks for their deliveries is also putting obstacles in the way. Naturally, the free movement of goods across the EU allows to transport goods through members states easily. However, at the same time traffic has increased with more and more congestions coming up. The myth of the German Autobahn being a maximum speed track is long gone.

As Janssen explains, the truck is still be most cost effective and reliable way to transport goods. However, it is also the responsibility of courier and logistics companies to reduce emissions and impact on the environment. To achieve the "cleanest way" of moving goods, one needs to look at more than just the truck. Extra long trucks / trailers are one way of moving more with the same amount of trucks or even reducing the number of vehicles on the road.

### The jobs handled

Apparently, nothing is too complicated to move for TNT. For the "normal" transport, goods should be a) packed properly (as moving goods may damage other consignments), b) movable

Mr. Bas Janssen, Managing Director, TNT Express Road Network B.V

by forklift and c) packed on palettes. In case the goods to be moved don't comply with these, the "Special Services" takes over.

The journey of Asian Trucker on TNT's road networks has now spanned some four issues and we have travelled 1 000s of kilometres. While the countries and conditions were widely different, there are two things that stood out as the key components: The drivers and the trucks. And with the idea of the ASEAN Free Trade Zone, we can be sure that Asian Truckers will continue to be in demand. •

# Yutong Buses on the Silk Road





he Silk Road Economic Belt Transport Summit & International Truck Race kicked off in Xi'an, capital city of Shaanxi province on August 19, 2014. The event was of great significance for Xi'an, the starting point of Silk Road and the capital of nine dynasties.

The bustling city is not inferior to that of ancient times. The biggest difference is that the eye-catching businessmen and tourists back in the day on the backs of camels and horses can no longer be seen as they have been replaced by buses full of passengers. Whether at Xianyang International Airport or Xi'an North Railway Station, whether at scenic spots like Terracotta Warriors Museum or strolling along the ancient city wall, you can see Yutong buses that include city buses, touring coaches and commuter buses. If visitors of a previous age judged travel in terms of camels or horses, then today Yutong buses seem to become the best envoy, receiving friends from all over the world.

### **Touring Coaches & Commuter Buses**

"In the commuter bus market of Xi'an," said Wang Yao, Yutong's account manager in charge of sales in Xi'an, "our market share is increasing year by year. It grew from 15% several years ago to 31.8% last year and ranked first in the industry. The market share of Yutong's touring coaches topped 40%, continuously ranked first in the industry."

It is really a hard-won achievement. Those familiar with the domestic bus industry know that Yutong wasn't early entering the coach and commuter bus market. In addition, the users of coaches and commuter buses are relatively scattered and attach no importance to brands. This gave Yutong, which has no big advantage in sale price, a great challenge in entering the market.

Wang Yao said in the bidding of commuter buses for Samsung (Xi'an) conducted last year, Yutong won the bid of all 42-units, and 35 of them are operated by Shaanxi Transportation Group. "Why did we chose Yutong?" asked Shaanxi Transportation Group's Wang Jun. "There are two reasons: firstly, it is related to the image of our company, so we need to choose buses with high quality; secondly, our customer Samsung company required that the buses should be first-tier bus brands in China. So we chose Yutong." He added Yutong buses have the highest performance-price ratio with good after-sales service, and the spare parts are cheap and easily to get. Founded in 1998, Shaanxi Transportation Group started its cooperation with Yutong ten years ago. At present, among all some 200 operating vehicles of the company, Yutong buses have the lion's share.

### **Customers Win Customers**

Along with the proposal of the strategic concept of the "Silk Road Economic Belt", the areas along the Belt are ushering in the opportunity for accelerated economic development. As the top priority, the city has done sufficient preparation for transport. "The second line of Lanxin railway is going to be put into operation soon, Baolan passenger transport line is also under construction, and Xianyang International Airport has completed the second phase of expansion. In the future, the building and optimisation of a large transportation system will play an increasingly important role in boosting the economic development along the Belt," said professor of Chang'an University.

The commuter buses for Shaanxi Transportation Group are all Yutong buses. "As an operating company, we try to maximize the benefits when purchasing vehicles. But the customers we serve like Samsung care more about the service level rather than merely low prices," said Wang Jun. "Yutong buses feature superior quality and good ride comfort, and even our customers spoke highly of that." The good reputation of the vehicles enhances the attractiveness of Shaanxi Transportation Group to customers.



lean, powerful and economical: these are the characteristics of the MAN Lion's City GL CNG which wowed the panel of trade journalists from across Europe judging this year's 'Bus Euro Test'. The 18.75m long natural gaspowered articulated bus cruised past the competition in order to claim its place as 'Bus of the Year 2015'. The trophy was awarded in September at the 2014 IAA Commercial Vehicles Fair in Hanover.

### **CNG Engines**

The Euro 6 CNG engine of the MAN Lion's City GL CNG offers an environmentally friendly public transport mobility solution with extremely low pollutant levels. When filled with biogas or e-gas, the articulated bus is virtually carbon neutral; offering emission levels comparable to that of fully electric vehicles. Even without the use of biogas, CO2 emissions are reduced by approximately 17 percent in comparison to diesel vehicles.

As well as being a sustainable fuel source, natural gas is also a particularly economical solution: thanks to the significantly reduced fuel costs, over a period of ten years a MAN Lion's City GL CNG saves approximately 15 percent on the lifecycle costs in comparison to a diesel bus from the same model range.

### Comprehensive CNG solutions from the market leader

MAN's position as market leader in this sector is backed up by decades of experience with natural gas buses. Working in partnership with erdgas mobil GmbH, MAN has taken great strides in increasing the number of natural gas buses in operation, as well as ensuring the continued development of the fuel infrastructure for the entire natural gas mobility industry.

MAN not only offers reliable technologies, but is also highly proficient and skilled in the servicing and repair of high-pressure gas systems. If requested by the customer, training courses can be arranged to ensure that MAN's expertise is competently transferred to the customer's own service personnel or an external service team and a global supply of spare parts for natural gas buses is guaranteed. All of this ensures that the operation of MAN vehicles runs smoothly.

### Interior Design Optimised for Passenger Flow & Comfort

The Lion's City GL CNG's vehicle concept, designed for inner city routes with particularly high passenger volumes, also played a role in securing the title of 'Bus of the Year 2015'. The 18.75 metre long articulated bus boasts a transport capacity of up to 142 passengers and features five double width doors – making it the only five door bus on the market. Such innovations ensure optimal passenger flow and reduced waiting time at stops. The vehicle is also fitted with three fold-out chairs which the driver can control, meaning more standing room can be made available in the event of a large influx of passengers. The ticket validation machines are capable of scanning electronic tickets purchased by smartphone, the bus offers passengers internet access via a free Wi-Fi hotspot and its screens are individually programmable.

Passengers are bowled over by the interior's top-quality materials and innovative lighting: the translucent bellows, glass sunroofs and LED light strips (using energy-saving diodes) combine to give the interior an energy efficient, uniform and pleasant atmosphere. The LED lighting allows the power consumption to be reduced, which in turn means less generator capacity is required. Headlights equipped with LED daytime driving lights and rear lights employing the same technology make additional contributions to energy saving. **F** 



### SMRT Provides Safer and More Reliable Bus **Services Using Telematics Solutions**







ingapore commuters travelling on SMRT buses can now look forward to a more comfortable ride as the public transport operator continues its efforts to improve the commuter experience through safety, reliability, care and comfort.

### Improving Driver Behaviour

In early 2014, SMRT began trials on telematics technology. Following the success of the trials, telematics devices are now being installed on SMRT's bus fleet. The telematics device is able to provide real time tracking and analysis of driving parameters such as the speed of the bus, how the bus negotiates a corner, abrupt switching of lanes and sudden acceleration/deceleration. This data can be analysed to reinforce positive driving practices and correct poor driving behaviour of the bus drivers, thereby ensuring the safety and improving the comfort for commuters.

As part of the collaboration with NEC Asia Pacific, SMRT is also employing business analytics which leverages on Big Data technologies to study driving behaviour, driver profiles and historical route related information. This will enable SMRT to better understand any risks and improve safety by identifying areas for pre-emptive intervention.

### Service Reliability

In addition, using the information received from the telematics device, a decision support system will be developed to improve the control of bus operations, particularly in the management of the Bus Service Reliability Framework (BSRF). By monitoring the exact location of each bus and the distance between buses. the decision support system will provide our service controllers with solution options to better control schedule adherence and reduce bus bunching. SMRT has also ported the telematics information onto a mobile computer tablet, allowing route controllers equipped with this tablet to track the location of SMRT buses in real time. By positioning route controllers at strategic bus stops, they will be able to regulate headway between buses accordingly.

SMRT has also enhanced the information needs of our commuters by using the NEC Information Display Solution. SMRT buses will be equipped with a panel that displays the estimated arrival time and passenger load information of the next bus. Within the bus interchanges, other than the arrival time, the panel also shows traffic conditions and other useful information required by commuters.

Mr Tan Kian Heong, Vice President, SMRT Buses, said: "These initiatives underscore SMRT's ongoing commitment to deliver a positive experience to our commuters – one that is safe, reliable and comfortable. SMRT Buses will continue to leverage on technology, refine our work processes and build a competent and motivated work force to upkeep the high standard of service that the public expects from us." *T* 

## **SMRT Double Deckers Begin Service in Singapore**

Singapore commuters can now look forward to more room on board Bus Service 972 as the first three of 201 Double Deckers have set out on their maiden journeys. The launch of SMRT's Double Deckers will bring greater comfort and help ease congestion, particularly during peak hours, along Bukit Panjang Road, Penang Road, Orchard Road, Somerset Road and Scotts Road.

In July 2014, a preview event was organized for Bukit Panjang grassroots leaders to familiarise themselves with the Double Deckers in the lead-up to the launch. The event was graced by Bukit Panjang Adviser Dr. Teo Ho Pin who, along with about 80 grassroots members, embarked on a Double Decker tour around the Bukit Panjang estate. Besides giving a brief orientation of the Double Decker, which sports wheelchair friendly features, safety mechanisms and greater capacity, grassroots leaders also got an overview of the initiatives SMRT has undertaken to enhance service standards.



### More to Come

In the coming months, more Double Deckers will be progressively introduced to nine other bus services, following a series of road tests, tree pruning and personnel training. These are essential services plying longer, heavily used routes, namely Bus Services 106, 188, 190, 850E, 951E, 960, 963, 966 and 969

To enhance commuters' travelling experience, SMRT will continue to monitor the road conditions causing congestion and traffic jams closely, and where necessary, provide swift and dynamic reinforcement.

Mr. Benny Lim, SMRT Senior Vice President for Roads Business said, "The Double Decker launch marks a significant milestone in our quest to provide greater comfort to passengers who journey with us. This involves changing the way which bus drivers and technicians are trained, retrofitting existing bus depots, as well as observing new safety standards. Our collective efforts have today borne good results, and we are thrilled that we can finally put these Double Deckers on the road."



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### Who is Responsible?

We often hear that companies don't invest in maintenance or in new technologies to ensure that trucks are safe, but is it just the transport companies that need to take care?

afety is everyone's concern." We hear this often, especially around heavy trucks and machinery. We hear this despite the vast majority of truckers being diligent workers who take good care of their vehicles. However, there are still some for whom safety is just an un-necessary expense and not an investment. So who is really responsible? I take a recent post on Facebook as a starting point for this conversation.

So, here you have it - an obviously unsafe truck. It would seem that the trucker doesn't care about safety. Right? Maybe not? Perhaps he has highlighted the issues to his boss who in turn did not react? Or maybe this is an owner/driver and his clients have already pointed these issues out, but he did not react? Maybe the enforcement officers have not had a chance to come across this truck and he has been lucky to evade them? And maybe the



public doesn't care enough about trucks and their safety to file a complaint?

There are two kinds of conversations I have with truck drivers. The first one upsets me. It is when Asian Trucker offers a course in Tyre Management for Road Safety and the invitees respond: "We don't need this, we know everything." Unless technology and research is at a stand-still, I would agree. However, it is not. Wouldn't you agree that the use of modern tools such as retarders, ABS, EBS and others may require you to keep yourself abreast of things?

Then there is the second type of conversation. And it upsets me in two ways. When people tell me that they know a truck is not 100% in order, but the boss won't do anything. To begin with the boss endangers not only the driver, but also others. I am also getting upset with drivers as they will, in many cases, continue to drive an unsafe vehicle. Why? Because if they don't, they lose money and there is always another driver that will be happy to pick up the load for a fee. Just imagine what would happen if no driver would accept a job that would put him in the hot seat? Correct, the errant bosses would have to react.

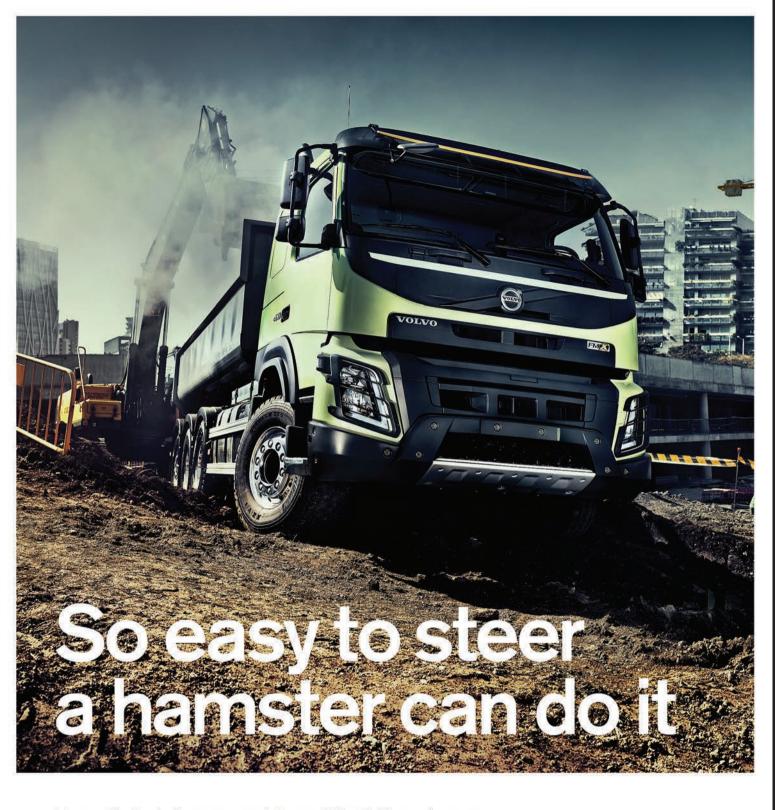
The public gets a fair share of criticism too. Safety requires investments. Yes, a safer fleet will also make more money, but you need to start with putting down the money. Now let's ask who of us isn't happy to have the cheapest cauliflower in the super-market! Perhaps, if we all agreed to pay a few cents more for the transport of our goods, maybe more transporters could upgrade / repair / replace their trucks more often?

In my view, the answer to "Who's responsible?" is simple, yet difficult to put into practice. The answer would be "We all are, in different ways!" All that said, let me stress again that in general truckers are decent people who want to earn an honest dollar. However, there is still some out there who don't care about safety and they are the ones that tarnish the industry. Here lies our collective responsibility, to get them on track and to convert them to safe drivers.



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