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SINGAPORE



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To book your booth or to learn more, please contact Nicole Fong via nicole@asiantrucker.com or +6012 207 5528

Lot No 8-2, ( Level 2 ) Medan Klang Lama 28, Jalan Klang Lama, 58000 Kuala Lumpur 随着《Asian Trucker》杂志在近年来所举办的商用车辆展览获得各 界营运商、物流公司以及利用货车经营等业者热烈响应,我们将在明 年5月于我国举办第3届大马商用车辆展览。

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有兴趣预订展示单位者,可致电邮至nicole@asiantrucker.com 或拨打6012- 207 5528,以联络本杂志社广告部代表Nicole Fong了 解更多详情。



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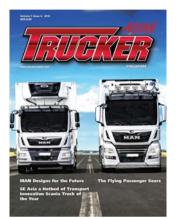
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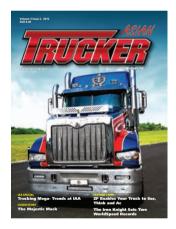
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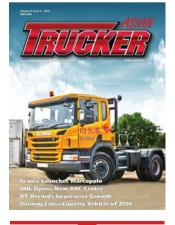
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# The Drivers

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### EDITOR'S NOTE ASIAN TRUCKER | 4



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mpas

11" May 2015

## **Disrupting the Future**

t seems that the less future that I have the more the future is being talked about. In this, the first issue of 2017, it seems that almost every article that we've done has an element about how new technology will soon be changing the future and dramatically changing the way we live.

## Are we Ready?

The Autonomous Driving Conference made it clear that self-drive cars is no longer something to be experienced in futuristic movies. The technology is here, it is society that is not yet ready for the impact it will have on us. There is certainly a level of immaturity in our interaction with AVs. I could understand the young men, partying on Sentosa, having fun with AVs – that's what they do, but even in other areas where AVs were being tested, adults have reacted to them like a cat that has just discovered a mouse...let's see how much fun I can have with this...

Platooning is a relatively new concept, but the reality of it will soon be on the streets of Singapore. The Ministry of Transport and PSA Corporation have signed agreements with Scania, Singapore and Toyota Tsusho, to design, develop and test-bed an autonomous truck platooning system for use on Singapore's public roads. This concept will see three trucks travelling on public roads, at speed limits, but with only one driver for the three vehicles. This scenario makes some people very nervous. One problem that it is anticipated that autonomous cars will have on freeways is that people will take advantage of them because they are programmed to avoid collisions and so will slow down when other vehicles want to push ahead of them into their lane. With truck platooning I don't think they will experience that problem.

## **Energy Challenges**

Anticipating that the future is going to need much more energy than the world needs today Shell is looking for ways to use less energy and make the energy we do use much cleaner. Shell now has a concept car that will help them meet that goal. It weighs only 550kgs, while Shell's bespoke motor oil delivers 5% fuel economy – according to the New European Driving Cycle (NEDC) fuel-efficiency test. The car is manufactured using recyclable materials and low carbon design solutions. The picture of it on the Shell website looks more like a cartoon than a real car. You might expect it to start talking to you.

Cars have been talking to us for some time, but we could always override them. Now they are about to tell us to shut up – they know where they are going, and the best way to get there.

## Be Open to Change

Dr Falk Hartmann Carl-Benz Schule Gaggenau, speaking at the ceremony where Scania Singapore and Institute of Technical Education (ITE) renewed their collaboration, he talked to the students about the changes that will be impacting them. He urged them to 'be open to challenges. Never stop exploring, always keep learning and developing new ideas. Always strive for the best results."

Good advice regardless of what you anticipate the future to be. Striving for the best results is what has got the world to where it is today – on the cusp of solving some problems that have dogged us for a long time and which have had a very negative impact on our lives. We have the opportunity, it will be interesting to see how quickly and how well people embrace the changes.



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Trucks you can trust

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## ASIA 2017

## PANEL DISCUSSION

## Asia Collaboration Efforts to Harmonize Legal Frameworks to Create a Welcoming Test Bed for AVs

Moderator: Magdalene Teo-Yong Senior Associate, Norton Rose Fulbright

Panelists:

Kirim Elisabeth Lee Deputy Director, Advanced Motor Vehicles Division Ministry of Land, Infrastructure and Transport, Reference of Korea Peter Damen Chair of Executive Steering Committee Australian Driverless Vehicle Initiative John Wall Manager Road Safety Technology, Centre for Road Safety, Fneght, Strategy & Planning port for NSW. Australia

**IOUS Vehicles** 

## On the Road to Autonomous Driving

Autonomous driving is expected to significantly change the transport industry and the topic was discussed from many angles at Autonomous Vehicles Asia 2017 held in Singapore in January, reports Floyd Cowan



hen Autonomous Vehicles Asia 2017 was held from 21-23 February at Amara Sanctuary Resort Sentosa, Singapore, most of the 15 speakers referred to passenger cars and the implications of autonomous driving would have on them and their users. The implications are many, just as they are for commercial vehicles. The sessions during the two days explored the legal and legislative challenges of Autonomous Vehicles (AVs), the need for supporting infrastructure and the development of necessary technology and public acceptance of vehicles that would drive by themselves.

## **Building Trust**

Niels De Boer Programme Director – CETRAN, Nanyang Technological University, Singapore was the first speaker. The aim of the newly-launched Centre of Excellence for Testing & Research of Automatic Vehicles (CETRAN) Singapore



is to helping the public and transport regulators trust self-driven road vehicles (SDVs). Launched by the Land Transport Authority (LTA) of Singapore and JTC Corporation in August 2016, CETRAN aims to be at the global forefront of developing standards that SDVs should meet before their first foray onto public roads.

"As Singapore's rail network expands and public transport becomes more attractive, SDVs could be an important piece in Singapore's public transport puzzle," said Mr de Boer. "Finding people to drive buses and taxis is already an issue, and will become more difficult as the population ages. At the same time, train stations are moving closer to people's homes, so self-driving vehicles could become a more efficient option."

### **Stages to Self-Drive**

Public acceptance was a topic of most speakers, and what it will take for society to get to the point where they have confidence in this mode of transportation. Most speakers agreed that there were several stages for people to go through to reach the full adoption and acceptance of fully autonomous vehicles. Stage 1 is driver only, where the driver is totally in charge of the vehicle; Stage 2 Assisted where the car has basic driver assistance functions; Stage 3 Partly automated with advanced driver assistant functions; Stage 4 which is highly automated, automated driving is in a defined use case. The driver has to take over in a certain period of time and Stage 5 Fully Automated where driving is totally automated and there is no take over scenario by a driver.

Without a human in charge, autonomous vehicles will need to be able to obey traffic rules, traffic conditions and road design. Research by Cetran is well underway. "Traditional testing cannot cover such a large number of conditions," noted Mr de Boer, adding that NTU researchers will need to identify all of the possibilities and create ways to test whether SDVs are up to the challenge.

"The track testing will have the dual function of testing the most critical functionality in the real world, while at the same time validating that the simulation in the virtual world is correct," explained Mr de Boer. A test track is expected to be operational in the second half of 2017.

### Levels of Cooperation

Peter Damen, Chair of Executive Steering Committee spoke about the Australian Driverless Vehicle Initiative which aims to accelerate the safe and successful introduction of driverless vehicles onto Australian roads. ADVI is driven by a collective of over 60 partners including industry, government and academia. Mr Damen said there is a need for various levels of co-operation between these bodies. "What we want to do is make it easy for them to harmonize rules and develop a framework for intergovernmental regulations. It is not about the technology," Mr Damen added. "It is ultimately about how we get there. It is about delivering more liveable cities."

Picking up on the theme of public acceptance Mr Damen stated, "People instinctively adapt to new technologies. However, humans are not built to be monitors. They can operate a vehicle or

## FEATURE STORY ASIAN TRUCKER | 8



future is unclear," he stated. John Wall, speaking as a panellist on the topic of Asia Collaboration Efforts to Harmonize Legal Frameworks to Create a Welcoming Test Bed for AVs, talked

be a passenger, but not a monitor." For

that reason, he recommends skipping

Stage 3 in the move to totally automated

The challenges of reaching Stage 5, of

fully automated driving, lie in having

harmonious laws across all jurisdictions

and having insurance that would meet

the needs of the new conditions. "The

The Future is Uncertain

drivina.

on the subject that AVs would be safer than human drivers. "It is assumed that there are advantages in increasing levels of automation, but the work has not yet been done on how much improvement in road safety there would be."

## Accidents from Inattention

Dr Robert Brukmeier, VP Connected and Automated Driving Lab, BMW, was optimistic that benefits would be gained by automated vehicles. "In 2015 there were 1.25 million deaths in automobile accidents worldwide," he stated. "Inattention is a top cause of accidents."

Dr Brukmeier pointed out that one of the challenges for developers is that predicting driver intentions is very different in China than it is in Germany. He suggested that cross industry cooperation is required. "Companies should share data and share technology."

Dr Stefan Greiner, Director of Chassis Development, Audi China, pointed out some of the advantages of fully automated cars. They would save space on already crowded highways, and in parking space as cars could park themselves, needing much less space as people wouldn't need to get in and out in the parking lot. That parking lot could be located remotely as the passengers wouldn't need to walk to where they want to be.

## Who is Responsible

Tobais Schoener, Senior Legal Counsel. Audi China, said when an accident occurs the question always is, 'who is responsible.' With AVs that becomes a complicated question. Is it the designer, the manufacturer, those who made the sensors or various components that are required for AVs? In Singapore, where fully automated vehicles are being tested in very restricted, but public areas, they have experienced a very human problem. People deliberately step in front of the AVs, knowing that they have to stop. Vehicles being tested in Sentosa were constantly stopped by young men who had come to the beach to party. Passengers got frustrated as they were not getting anywhere so they got out and walked. A law has been enacted to make it an offense to interfere with an AV.

## **Not Aggressive Enough**

A similar problem is anticipated on highways when there would be a mix of AVs and people driven vehicles. As the AVs are programmed to avoid collisions it is felt that they won't be aggressive enough in traffic as they constantly give way to other vehicles.

Grant Peace, Portfolio Manager – Personal Lines, National Product QBE Australia & New Zealand asked the question, "If an accident occurs and they can't find any fault or defect in the vehicles then how do they determine liability?"

## Automated Buses

Colin Lim Managing Director, SMRT Services spoke on the topic 'Automated Group Rapid Transit to Enhance Last-Mile Connectivity – Case Study of SMRT Services. "Trials are important," he said, "to test operational complexity, safety and environmental factors. Also, we need to focus on the user."

In April 2016, SMRT Services and 2 Getthere Holding B.V. announced their Joint Venture to market, supply and operate 2getthere's Automated Vehicle systems in the Asia-Pacific region. Mr Lim explained that the JV was entered in to jointly market, install, operate and maintain the Automated Vehicle systems for customers in Singapore and the Asia-Pacific. The JV is now showcasing 2getthere's third Generation Group Rapid Transit (GRT) vehicle capabilities in Singapore. 2getthere's vehicles are unique in being able to operate autonomously in demanding weather conditions while using artificial landmarks for navigation. The third generation GRT vehicles can carry up to 24 passengers each, and can operate as a low-cost automated transit system that can cater for up to 8,000 passengers per hour in any single direction.



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## Mobility as a Service

In the first phase the GRT worked in semi-controlled environments, in which the behaviour and speeds of other road users could be managed. Travelling up to 40km/h, it can pick up and drop off passengers at designated stops. 2getthere is incrementally shifting to mixed-use traffic operations through active participation in several research programmes worldwide.

"There is a growing national push to implement future mobility solutions that can meet our first and last-mile connectivity needs in Singapore. As part of the JV, SMRT Services will leverage on our experience in installation. operations and maintenance of transit systems to realise these solutions locally. The Automated Vehicles will complement our existing multi-modal transport operations to bring about seamless connectivity for commuters. Mobility is becoming a service. With a smart app people will be able to choose their transportation systems and integrate them seamlessly to move to their destination. We wish to create a system that everyone can use, including the elderly and the handicapped."

## **AVs Already Arrived**

For Volvo Trucks, completely automated driving has already arrived, as Peter Voorheve, President Volvo Australia, explained in his presentation, "Reviewing the Journey of Rolling Out the World's First Fully Autonomous Truck: the Volvo story. "The automated truck is 95% the same as a road truck," Mr Voorheve explained. "With trucks, it is about the payload, not about how cool it is to be in the vehicle. The thinking about Automated Trucks is very different from passenger vehicles.

"Volvo Trucks has been developing ground breaking innovations for some years now. We started at the first level of developing automation for Driver Assistance. The ishift learns how you drive and takes over for the driver so that it shifts at the optimum time to maximise power and minimise fuel consumption. isee connects the truck to the Cloud and it tells the truck how to drive. We have gone through the stages of self-driving, to driver less, to autonomous vehicles.

## Eyes on the Road

Mr Voorheve renamed the five stages to 1. No feet, 2 No hands, 3 No eyes, 4 No head and 5 No driver. "We will skip Level 3," he stated. "We do everything we can to keep your eyes on the road."

He noted the benefits and the challenges to AVs. Benefits include better fuel efficiency – already being achieved with the ishift, up time of the vehicle, safety – a core value of Volvo and it is better for the driver – especially in a time when there is a great shortage of drivers. Like others before him he noted that some of the challenges included reliability, social acceptance, infrastructure and clarifying the driver's role.





## Singapore Starts Full-Scale Autonomous Truck Platooning Tests

The Ministry of Transport and PSA Corporation have tied up with Scania and Toyota to start truck platooning trials in Singapore.



The Ministry of Transport (MOT) and PSA Corporation have signed agreements with Scania, Singapore and Toyota Tsusho, to design, develop and test-bed an autonomous truck platooning system for use on Singapore's public roads. With this, Singapore moves another step closer towards autonomous freight transport. These agreements follow from a Request for Proposals exercise, suite to a Memorandum of Understanding (MoU) inked between MOT and PSA in October 2015 to collaborate and co-fund truck platooning projects.

## Scania to Design Operation

Scania will design the world's first fullscale autonomous truck platooning operations, based on its own advanced technology. The platoon will travel on public roads while transporting containers between port terminals in Singapore. The aim is to organise convoys of four trucks – with the following three trucks behind the lead truck being autonomously driven, as well as to fully automate the processes for precise docking and undocking of cargo. Efficient freight movement is critical to the competitiveness of Singapore's ports. Truck platooning will also alleviate Singapore's shortage of manpower, and allow more freight movement to be conducted at night to ease traffic congestion.

## **Relieve Labour Shortage**

Mr Pang Kin Keong, Permanent Secretary for Transport and Chairman of the Committee on Autonomous Road Transport in Singapore (CARTS) stated:



"Trucking as we know it today is a highly labour-intensive industry. We face a shortage of truck drivers. In this regard, truck platooning technology presents us with an opportunity to boost productivity in both the port sector and the trucking industry. It will also open up opportunities for truck drivers to take on higher-skilled roles as fleet operators and managers."

"Autonomous vehicles and platooning are cornerstones of future sustainable transport systems," Claes Erixon, Head of Research and Development at Scania added. "This is a great opportunity to demonstrate our leadership and technology in this new exciting area. We are pioneering in this field, which has the potential not only to save lives in traffic, but also to significantly decrease the environmental impact of transport."

## Singapore at Forefront

The Government of Singapore is in the forefront of new autonomous vehicle technology. Singapore has tested autonomous cars, taxis, utility vehicles and buses, and is now adding trials of truck platooning concepts in this multiyear project. Truck platoons have already shown the potential to achieve major fuel savings as well as contribute to increased road safety.



Mr Ong Kim Pong, Regional CEO Southeast Asia

Mr Ong Kim Pong, Regional CEO Southeast Asia, PSA International noted, "As PSA prepares for our future terminals at Tuas, it is timely that we move on to the next steps in developing autonomous truck platooning technology. I am excited by the progress being made, as it underlines our joint commitment to being future-ready, while also helping us continue to serve our customers better through fast and efficient inter-terminal container movement."

## Land Constraints

With the vehicle population in Singapore approaching one million, the Initiative seeks to address the increasing travel demand and land constraints; 12 percent of Singapore's total land is used for road and land transport infrastructure. Additionally, it faces a shortage of drivers. It has therefore established Singapore as a "living laboratory" for new vehicle concepts that will increase productivity, road safety, optimise road capacity and enable new mobility concepts.

"Scania is well advanced in cutting edge autonomous technology as well as in platooning. Singapore has launched several autonomous vehicle initiatives and together we will now demonstrate how we can substantially enhance productivity in the Port of Singapore," says Mark Cameron, Country Manager, Scania Singapore.

## **Two Trial Phases**

The truck platooning trials will take place in two phases. The first phase will focus on designing, testing and refining the truck platooning technology to adapt to local conditions. These will be conducted by Scania and Toyota at their respective research centres in Sweden and Japan, to leverage their existing development work. The second phase will consist of local trials and development of the technology in Singapore.

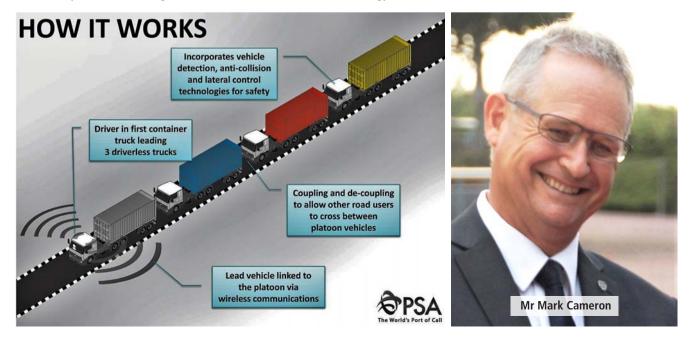
Scania has recently been engaged as the lead partner in the EUR 5.4 million European research project Companion, which has developed systems for implementing truck platooning technology on roads. Scania is currently workina on enhancing wireless communication between heavy vehicles, which will allow the distances between vehicles to be safely reduced, reducing drag and lowering fuel consumption. To this end, Scania has teamed up with Ericsson, a world leader in communications technology, which will contribute its expertise in 5G technology as well as in software and services, to enable new forms of mobility.

### Leader – Follower Formation

Scania and Toyota were shortlisted based on the quality of their proposals and strong track records in both truck manufacturing and the development of self-driving technology. Both companies will be working to develop technologies to enable heavy vehicles to move in leader-follower formation, as well as to fully automate the processes for precise docking and undocking of cargo.

The truck platooning trials will take place in two phases over a three-year period from January 2017 to December 2019. The first phase, lasting about a year, will focus on designing, testing and refining the truck platooning technology to adapt to local conditions. The trials will be conducted by Scania and Toyota in their respective research centres in Sweden and Japan, to leverage their existing development work. Depending on the outcomes of the phase 1 trials, MOT and PSA Corporation will then select one of the companies for Phase 2. which will consist of local trials and some development of the technology in Singapore.

A 10-km long test route along West Coast Highway has been designated for the Phase 2 trials. The trials will initially involve inter-terminal haulage between Brani Terminal and Pasir Panjang Terminals, and may eventually be scaled up for haulage within the port area, as well as between Pasir Panjang Terminals and Tuas Port.



## 5,000th DAF Truck Produced in Taiwan



(Dadu, Taiwan) DAF Trucks is experiencing impressive growth in Taiwan. The 5,000th truck has rolled off the assembly line less than 10 years after it opened in Dadu. With a market share of almost 30% in the 12 ton+ segment, in Taiwan DAF is the undisputed market leader among non-Asian truck brands. Every week, DAF Trucks ships components for the popular LF, CF and XF105 series from its factories in Eindhoven and Leyland to Taiwan, where its partner, the Formosa Plastics Group, assembles around four trucks per day. All the vehicles are powered by highly reliable and economical Euro 5 PACCAR engines. Two years ago, the ultramodern assembly line in Dadu was expanded to meet the growing demand for DAF trucks in Taiwan.

"The quality of the DAF trucks assembled in Taiwan is at the same high level as the trucks that come off the production lines in the Netherlands and the UK," says Geert van Genugten, who is responsible for sales in south-east Asia. "The 5,000th Taiwanese DAF truck is a CF 85.410 tractor unit which will be used to transport raw materials for the paper industry."

The unmatched quality, combined with low fuel consumption, is highly valued by the Taiwanese. "The excellent reliability and low costs per kilometre of the DAF trucks set the standard in the industry," is how Wilfred Wang, President of Formosa Plastics Group, explains DAF's success in Taiwan. "In addition, a tight network of DAF dealers has developed in a short time, offering top-quality service and parts supply."

Richard Zink, Director Marketing & Sales has seen how the Taiwanese truck market has taken DAF to its heart: "We are truly proud of our partnership with the Formosa Plastics Group. Together, we are building fantastic trucks that exceed the customer's expectations. More and more renowned Taiwanese transport companies are choosing DAF. Just like in the rest of the world, they are consciously opting for our DNA: unprecedented quality, low total cost of ownership, highest uptime and industry-leading comfort for the driver."

## **ZF Technology Centre Inaugurated in India**

(Hyderabad) ZF Friedrichshafen AG recently inaugurated its Technology Centre in India in the presence of K. T. Rama Rao, Minister for Industries & Commerce of the Telangana Government. The India Technology Centre (ITC) will focus on developing advanced electronics and software solutions for automotive and industrial applications. This will reinforce ZF's global research and development network while expanding local product development in India.

"ZF is growing substantially in many regions and this is especially true in India. We are delighted to be part of the business hub in Hyderabad known as the Innovation Centre," said ZF's Chief Executive Officer Dr Stefan Sommer during the inauguration ceremony. "In a dynamically changing and increasingly digital world, speed is of the essence. We are proud to have been able to set up the India Technology Centre so quickly."

ZF first announced plans to build the ITC in September 2016. A total of €15 million will be invested in the facility over the next



five years, with 2,500 engineers to be employed by 2020.

Mamatha Chamarthi, ZF Chief Digital Officer added: "The India Technology Centre fits seamlessly into ZF's research and development network and will become a pillar of innovation for the company. The demand for software solutions is growing, and ZF is increasing its capacity in this field."

## **JAC N-series Rolls off Line in Pakistan**

he first batch of JAC right-hand N-series high-end light duty truck CKDII rolled off the product line on February 3, 2017. With a population of nearly 200 million, a quickly -growing economy and a series of preferential policy release, Pakistan has great potential for auto markets and is an important export market for JAC Motors.

The 'One Belt and One Road' area has more than 60 countries and JAC has exported its products to half of those countries. JAC has established jointventure companies and assembly plants in a dozen of these countries, including Pakistan and Vietnam. This achievement is due to the boosting of the Chinese 'One belt and one road' challenge as well as JAC's powerful R&D strength and excellent product quality.

Mr. Zhang Peng, the Vice-General Manager of JAC International said: "In terms of the auto market, there are 15 million units sales volume scale of 'one belt and one road' countries. JAC



offers a complete series of commercial vehicle and passenger cars. Meanwhile, JAC also has R&D systems and manufacturing capability in the region. We'd like to support this area's economic development under the guidance of the national strategy and seek the space and

opportunity for further joint ventures." JAC will hold a series of launching activities of N-series light-duty truck in big cities in Pakistan in the coming year.

## MAN and CNL to Bring eTrucks to the Roads

(Steyr) From the end of 2017, MAN and Council for Sustainable Logistics (CNL) member companies will be testing electricallypowered trucks for various purposes in daily service. By starting to manufacture electric trucks at its Steyr site, MAN is taking a major step closer to electromobility in urban distribution transport. In the presence of Austrian Federal Chancellor Christian Kern and Austrian Minister for Transport, Innovation and Technology Jörg Leichtfried, MAN Truck & Bus and CNL signed a Memorandum of Understanding on February, 20 2017.

MAN is going to make test vehicles available to CNL member companies for initial practical trials at the end of 2017. CNL plans to up its use of eTrucks for inner-city and suburban distribution transport from 2020 onwards in order to make



an active contribution towards reducing emissions in cities.

In signing the development partnership agreement, both MAN and CNL are kicking off the introduction of electric drives in medium and heavy distribution transport with a permitted gross weight of 12 to 26 tonnes. The plan is to start producing electric versions of the MAN TGM series from the end of 2018. "As the Truck Modification Centre is also based here, the Stevr site is perfect for producing our first electric trucks. The CNL companies will test out these vehicles in daily use," said Joachim Drees, Chairman of the Board of MAN Truck & Bus, underlining the importance of MAN's Steyr works for its development partnership with CNL.

## Brianza Plastica Doubles Its Production in Fiberglass Laminates

Brianza Plastica is today one of the leading fibreglass laminates manufacturer in Europe, implementing both hot continuous and cold discontinuous technologies and offering laminates of various qualities, from standard products for constructions and farming industries to top quality items for recreational, refrigerated and public transport vehicles.



Brianza Plastica was set up in 1962 to produce fibreglass laminates. Over time, it has significantly extended its market presence with a comprehensive product range. It has served the construction industry and has been enjoying increasing success in the transport sector since 2006. In this arena, it supplies fibreglass sheets both to manufacturers of recreational vehicles (campers and caravans) and to lorry and refrigerated-trailer producers.

The headquarters are in Carate Brianza; two production sites are located in Ferrandina and Ostellato, and two others in San Martino di Venezze (Rovigo), Italy. Sales and distribution centres are in Nola (Italy), Lyon (France) and Elkhart (USA). The growing market demand for recreational vehicles and refrigerated vans led in fact Brianza Plastica to open in 2014 a distribution centre in Elkhart, Indiana, in 2016 a new plant in Rovigo for Elycold flat discontinuous laminates and a new continuous production line for Elyplan laminates in Carate Brianza. These investments have driven Brianza Plastica to increase its production capability by over 40% and prepared the Company to tackle future market demands. By expanding its production capacity, Brianza Plastica can effectively even better satisfy all market demands, with greatest production flexibility.

## MANN+HUMMEL Launches WIX Filters in Singapore

ANN+HUMMEL, a leading German filtration technology specialist, launched its latest aftermarket filters brand, WIX Filters, in Singapore on Friday, February 10.

Singapore is the first country of the regional launch where WIX Filters is now readily available. Official launches will also be held in key markets across South East Asia. WIX Filters is a top aftermarket filter brand in international markets such as the US and Europe and is known for its decades of specialization in filtration. As a close partner to original equipment manufacturers, it offers high performance and high quality filtration solutions. The WIX Filters portfolio includes a complete range of filters for automotive and industrial applications, focusing on the general vehicle and engine segments in South East Asia. The Automotive filters portfolio covers popular brands such as Toyota, Honda, Hyundai and Nissan. The Industrial filters portfolio covers wellknown applications such as Cummins, Caterpillar, Kobelco and Perkins.

Workshops, fleet owners, asset owners and vehicle drivers with the need for high quality filtration solutions will now be able to access WIX Filters from a leading manufacturer partner with regional and local warehousing capabilities.

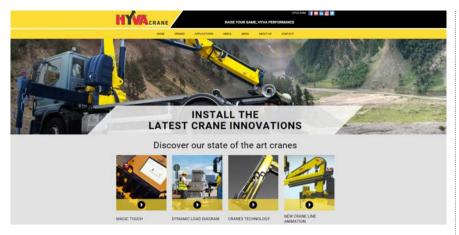
"With WIX Filters, MANN+HUMMEL will offer an even more comprehensive range of filters serving both the automotive and industrial applications. The high quality of filters will meet the



stringent demands of filtration needs by both users and modern engine technology," said Joerg Pfeilmeier, General Manager of MANN+HUMMEL Filter Technology (S.E.A). "Singapore is our regional headquarters and will continue to be an important hub for us to support the growth of our customers."

The first expansion of WIX Filters in South East Asia will offer to partners and customers better support, faster stock availability, speed to market and access to technical training expertise.

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## **New Hyva Crane Website Live**

yva, a leading global provider of transport solutions for the commercial vehicle and environmental service industries, has launched a new Hyva Crane website.

The website brings you all you need to know about Hyva Cranes. The bold, image rich design and improved content tells you who we are and how we operate – from product development through production to final customer delivery. The website has a responsive design, for an optimal viewing experience across all devices (desktop, tablet and smartphone).

"Our product portfolio is clearly presented and you can review the technical features of each of our cranes. Applications too are summarised, showing where our cranes are used in industries ranging from Oil & Gas and Mining to Logistics and Waste Handling," said Arthur van Welzen, Managing Director of Hyva Malaysia.

New generation 13-16 tm cranes are featured alongside other well established lines, including specialist cranes for agricultural, timber and recycling applications. And, if you are not sure which crane is right for you, you can try our Crane Configurator. This easy-to-use, online tool will help you select the best crane for the job, on the basis of required lifting load and reach length.

Videos have been employed to illustrate innovative features such as Magic Touch (folds and unfold automatically) and Dynamic Load Diagram (optimises stabilisation and makes crane operation safer) which are typical of the ways in which Hyva is raising performance and safety in cranes. The site can be found under www.hyvacrane.com. **7** 

## In Style at MCVE

Want to arrive at MCVE in style? Why not dress like a Trucker?

## Contact

info@asiantruckerclub.com.my to order these items: **T-Shirt - 30 RM** 

Cap – 15 RM

Shirts are available in different sizes.

Combining both with a car sticker and the membership for the Asian Trucker Drivers Club, you pay only 50 RM and get access to exclusive events for the Club.



## SSAB is Introducing the New Generation Hardox Wear Plate



ardox 500 Tuf combines the best properties from Hardox 450 and Hardox 500. The result is a wear plate that has no real competition on the market.

It is tough enough to perform as a structural material in heavy-duty dump bodies, containers and buckets. Superior wear and dent resistance gives increased service life and the ability to withstand heavy impact.

WearCalc and TippCalc calculations based on sliding wear with granite indicate that Hardox 500 Tuf has 85-100% longer service life compared to Hardox 400.

Working conditions where Hardox 500 Tuf will excel include the loading and unloading of heavy and sharp rocks in quarries and mines, handling large and heavy steel scrap, and in demolition when pieces of concrete containing rebar are loaded or dropped into dumpers.

Hardox 500 Tuf has a guaranteed impact energy of 27 J at -20°C (20 ft-lb at -4°F) and a typical value of 45 J at -40°C (33 ft-lb at -40°F). It has an unusually narrow Brinell hardness window of 475-505 HBW. Hardox 500 Tuf will be available from September 2017.

# **Events & Exhibitions**



## ASIA WAREHOUSING SHOW 2017

Date	: 27 April 2017 – 29 April 2017
	: Bangkok International Trade & Exhibition Centre (BITEC), Bangkok
	: +66 - 617361478 / prashant@manchcommunications.cor
Details	: AWS is an annual exhibition and meeting place where professionals from warehousing, material handling, storage, AIDC, intralogistics, supply chain, transport & logistics industry meet the buyers various end-user industries. Innovative and energy-saving solutions can
	be found at this show.

INTERTRAFFIC CHINA Date : 04 May 2017 – 06 May 2017 Venue : Shanghai New International Expo Center, China Contact Info : +86-10 582 780 80 / intertraffic@rai.nl Details : Intertraffic China is the regional showcase for infrastructure, smart mobility, traffic management, safety and parking. The show offers a prominent platform for the traffic and transport industry to get a taste of the Chinese market, find local partners and explore local distribution channels.

### MALAYSIA COMMERCIAL VEHICLE EXPO (MCVE

	18 May 2017 – 20 May 2017
	Malaysia International Exhibition & Convention Centre
Contact Info :	012 – 364 4351 / stefan@asiantrucker.com
Details :	Previously named Malaysia International Bus, Truck & Components Expo (MIBTC), the event is co-organised by Asian Trucker. It is the only exhibition in Malaysia that caters specifically to the needs of the regional trucking, logistics, and bus industries. The event is serving as an exclusive platform that gathers all the best from leading manufacturers, equipment suppliers and service providers. It is the only international scale business-to-business trade exhibition in Malaysia focusing on the commercial vehicle market and its supporting industries.

MRPMA 2-DAY INTERNATIONAL CONFERENCE	
Date : 19 May 2017 – 20 May 2017	
Venue : Top Glove Tower, Malaysia	
Contact Info : 03 – 5631 6150/6151 / secretariat@mrpma.com.my	
Details : The highlight of Malaysian Rubber Products	

Manufacturers' Association's 65th Anniversary Celebration is their 2-Day International Conference. Renowned international speakers will grace the event by presenting seminar papers that is pivotal and up-to-date with the current rubber manufacturing industry.

### **RUBBER & TYRE EXPO VIETNAM 2017**

	13 June 2017 – 15 June 2017 Saigon Exhibition & Convention Center (SECC), Vietnam
	+84 83848 8561 / info@veas.com.vn
Details	Rubber & Tyre Vietnam 2017 is an ideal platform for the key players in the global rubber industry to showcase their products and services, and create an awareness about them in the international community. The exhibition serves as a perfect stage for manufacturers to interact with the like-minded individuals in the rubber business.

### LOGMAT & WAREHOUSING SOUTH 2017

Date	: 22 June 2017 – 24 June 2017
	: Chennai Trade Centre, India
Contact Info	: +91 (44) 2250 1986 / 87 / office@smartexpos.in
Details	The only exhibition of its kind in South India that has been organized consistently over the past 4 years; LOGMAT offers a platform where the entire industry meets once in a year to share and discuss the latest upcoming projects within the region. From small & medium enterprises to larger companies, expect to reach and attract buyers from other regions of India.
	IESIA INTERNATIONAL SMART CITY EXPO & FORUM 2017
Date	<sup>.</sup> 13 June 2017 – 15 June 2017

Dale	. 15 June 2017 – 15 June 2017
	: Saigon Exhibition & Convention Center (SECC), Vietnam
Contact Info	: +84 83848 8561 / info@veas.com.vn
Details	: Rubber & Tyre Vietnam 2017 is an ideal platform for the
	key players in the global rubber industry to showcase their
	products and services, and create an awareness about
	them in the international community. The exhibition serves
	as a perfect stage for manufacturers to interact with the

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## **Tyrexpo and Garagexpo Roll into Singapore**



Held in conjunction with the Tyrexpo 2017, the inaugural Garagexpo also saw a good response. Asian Trucker's Stefan Pertz was on the ground to meet exhibitors to get their first-hand feedback on the pivotal event for the tyre industry.

eld in the prestigious Singapore Expo in Changi from March 21 to 23, the event saw some 250 exhibitors showcasing their products and services. Well-known brands such as Stamford Tyres and Timsun were present.

## **Central Location**

Timsun's International Departments Director, Gavin Xia, told Asian Trucker that this was their third time to take part in the show. "This is a very good platform. Geographically, this puts us right in the middle of a central market. We are getting a lot of attention from visitors from the Philippines, Vietnam and Malaysia. Obviously, it is easy for these visitors to come to Singapore." When asked why a Chinese brand would want to expand internationally, given the huge size of the domestic market, Xia has a very simple answer: "One cannot rely on one country alone and we are currently selling to some 40 countries." Xia was happy with the response from visitors to the expo.

Also present at the show were Zheng Wei, Deputy Director, Overseas Exhibitions Division of the China Council for the Promotion of International Trade, Qingdao Sub-Council, China Chamber of International Commerce, Qingdao Chamber and Shen Jidong, Overseas Division. They praised the event as a superb location for their clients to demonstrate how Chinese companies can compete in the international arena. "We are here with about 20 companies from Qingdao, those that have already been successful in our home market," said Wei. According to them, some 40% of tyres made globally are manufactured in China. Half of that is produced in Qingdao. Companies using the service of the council gain an advantage as the council itself helps to promote Tyrexpo with ads and campaigns.

## **Increasing Pressure**

Meanwhile, Harsh Kunal of Agarwal Rubber Limited shared his views regarding the current market situation. He was worried

about the state of the industry, whereby increased competition is adding pressure while the prices of rubber as raw material have been highly volatile and causing a lot of concern. "We are very strong in India. Bias tyres remain a key product of ours in markets where roads are not as good as in Singapore, for example. When you have a lot of off-road and rugged roads to cover, the bias tyres still have an edge over radial tyres."

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Government

Also returning for the third time was John Lee Chen Lim of Maxrubber industries Sdn Bhd. Based in Malaysia, the company takes advantage of the proximity to Singapore and has taken their usual spot at the event.

Rounding off the show were talks by industry heavy-weights discussing pricing developments and other important topics that are close to the industry. Goldbell joined with a showcase of FUSO trucks in the Commercial Vehicles section.





# Atego Made to Go Anywhere

Fleet owners gathered at Mercedes-Benz Commercial Vehicles Centre to enjoy the handover ceremony as new owners were given the keys to their new Ategos.



Many roads lead to the same destination. The question is: How do you get there? That was what the voice-over on a video about the history of Daimler asked. The answer for many in attendance the evening of March 3, 2017 at the Mercedes-Benz Commercial Vehicles Centre at Pandan Gardens was the Atego. The Mercedes-Benz mid-sized lightweight general-purpose truck was first introduced by Mercedes-Benz in 1997. Now in its fourth generation it is a very smart vehicle with the robustness and the technology to do the job.

### **Excellent Attributes**

Someone who probably understands and appreciates the Atego more than anyone is Mr. Olaf Petersen, Vice President Mercedes-Benz Commercial Vehicles South East Asia who introduced the audience to the new vehicle.

The Atego, a light-duty truck with short-radius distribution is economical, reliable and offers excellent driving comfort. It is fuel-efficient, gets 7km per litre diesel and an engine that is designed for particularly economical operation. With a choice of two cab variants and a variety of equipment options, the interior of the Atego makes a comfortable workplace for the drivers. Boasting excellent manoeuvrability, the Atego's compact dimensions and easy handling make it the ideal distribution truck for the sometimes narrow streets of Singapore: it takes winding streets and enclosed spaces in its stride. When every centimeter counts the Atego strikes.









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### Trucks you can trust

Mr. Collin Teo, Sales & Marketing Director of long time Mercedes-Benz partner Cycle & Carriage promised the audience that the Atego is a vehicle they can trust.

The Atego has an excellent fuel economy due to the Telligent <sup>®</sup> engine management system that works in conjunction with powerful 4- and 6-cylinder in-line engines and is spanning the output range of 130 to 205kW (177 to 279hp). High torque output at low engine speed enables agile driving dynamics.

The optional Telligent<sup>®</sup> automated gearshift selects the ideal gear for additional fuel reduction and relieves the driver of gear shift operation.

Owning to its weight-optimised frame and hypoid rear axle the Atego is tagged as a 'lightweight' vehicle but still offers a high payload capacity.

### **Proud New Owners**

With a former generation of Atego, born and registered in 1999, Mr. Siva Sundram of Siva Sundram Pte Ltd is an Atego owner of the first hours. Trusting the performance and reliability, he was delighted to receive the keys of his new Atego, an Atego 1624. Besides, also Toll Logistics (Asia) Ltd gladly received the symbolic giant key for the Atego 1224, the other model type of Mercedes-Benz Atego that is available in Singapore.

Along with the new owners, the invited guests inspected the trucks in detail, having a closer look at the truck chassis and the several applications displayed.

With pictures taken in front of the vehicles and behind the wheel, and after some refreshments, there was enough time to socialize and network in a pleasant atmosphere after the official program.











## Tata Motors launches WORLD SMART TRUCK

Tata Motors, India's largest automobile manufacturer launched its WORLD SMART TRUCK brand – The Tata PRIMA, in Saudi Arabia.



ata Motors has unveiled two new PRIMA heavy-duty trucks in Saudi Arabia – the PRIMA 4438.5 (4X2) tractor head and the PRIMA 4038.K (6X4) Construction tipper, with dealer-partner – Manahil International Company, a unit of Mohamed Yousuf Naghi & Brothers group (MYNM).

## Input from Around the World

This next-generation range of heavy-duty commercial vehicles from Tata Motors, sets new benchmarks in styling and features, with a combination of power, world-class performance, fuel efficiency, superior technology and safety, uncompromisingly built for long-distance and long hours of transportation. Developed with Tata Motors subsidiary – Tata Daewoo Commercial Vehicles (TDCV), the Tata PRIMA range is designed and developed with technical input from across the world, hence it is the 'World-Smart Truck.' The Tata PRIMA is based on an Italian cab design, with engine technology from the U.S., gearbox expertise from the U.S. and Germany, chassis frame know-how from Mexico and sheet metal dies from Japan and Korea, combined with Swedish precision on a robotic weld line.

Mr Ravindra Pisharody, Executive Director, Commercial Vehicles Business Unit, Tata Motors noted, "The launch of the Tata PRIMA is an important milestone in our journey towards further enriching the value trucking proposition, in one of the largest construction and infrastructure hubs in the Middle East. The Tata PRIMA is world-class in every sense, enabling customers to upgrade to a next-generation commercial vehicle, with the trusted credentials and reliability of the Tata Motors brand. As the Saudi Arabia readies itself to become the largest construction and infrastructure destination in the world, we at Tata Motors are geared up to meet customers' requirements of the market and will continue to introduce new products and solutions."

## **Decades of Experience**

Mr Rudrarup Maitra, Head – International Business, Commercial Vehicles, Tata Motors added, "The Tata PRIMA has been built based on over six decades of experience in the commercial vehicles business and has been introduced, based on increasing customer preferences for a new-generation commercial vehicle with superior performance, suitable for more trips and long duty cycles, with the benefits of lowest turnaround time. An integral part of introducing the Tata PRIMA range here is Manahil International Company, a partner that has

showcased tremendous enthusiasm and passion in the country's commercial vehicles industry and the Tata Motors brand. They are as customer centric as we are. Through this partnership, we look forward towards further strengthening our relationship with our customers here in Saudi Arabia."

The Tata PRIMA is available in different trims, including multi-axle trucks, tractor-trailers and tippers, apt for several applications, thus meeting varied end-user requirements. With the range extending up to 49 tonnes and engine options up to 400 bhp, the Tata Prima is an ideal work horse.

## Low Ownership Cost

The Tata PRIMA boasts outstanding material and build quality, comfort, driving dynamics and economy, at the same time offering customers with a lowest cost of ownership. Equipped with strong aggregates and a robust chassis frame and suspension, the Tata PRIMA range meets the highest operating standards under extreme conditions.

A unique aspect of the Tata PRIMA is its cab which focuses on driver comfort. The cockpit of the Tata PRIMA is both functional and visually ergonomic with a separation in terms of the working and living area. The cabin is air-conditioned, with roomie occupants' space, includes reclining seats, armrests, an adjustable steering system, a music system and Global Positioning System (GPS) as a standard feature. **7** 





## MCVE 2017 Opens its Doors

Www.ith a stellar line-up of exhibitors and a well-rounded fringe program, Malaysia Commercial Vehicle Exhibition 2017 is set to be true to the title of being the largest commercial vehicle exhibition in South-East Asia.

The main attraction will of course be the exhibitors. Many are taking the opportunity to showcase their latest technology and products. Filling the entire 8 000 square meters of the main halls, there are over 60 exhibitors vying for the attention of delegates from Malaysia and surrounding countries. Some have even opted to display additional products outside the halls. "We are happy with the turnout in terms of exhibitor participation as we have managed to assemble the top brands of the industry for our show," said Stefan Pertz, Organizer of MCVE 2017.

Mobility and connectivity are topics that are very much at the heart of the industry. The "last-mile" and the creation of Bus Rapid Transit systems will continue to be important topics. While riding on these vehicles, staying in touch is one aspect of connected mobility. Not only will passengers benefit from Machine to Machine connectivity, but workshops and fleet operators as well. Big Data is now quickly becoming a key instrument to manage businesses that provide services for commuters and travellers.

M2M communication, GPS and other gadgets now allow for self-driving vehicles. Numerous countries are already implementing trials and we are now seeing truck platooning as well. In summary, we are heading towards exciting times and our expo will certainly be a ground for participating companies to showcase their innovations and thoughts.

"What can you expect at this year's MCVE? Following the success of the past events, many have returned, some of which with increased spaces for their booth. Meanwhile, others have

joined the existing list of exhibitors to make use of the exhibition to meet new customers, refresh connections and to mix and mingle. We are happy to say that the event is a sell-out and we would like to thank the industry for their support."

Besides the exhibition, we have a fringe program which sees various components again. The Scania Driver Competition MCVE Edition and Scania Driver's Lounge will be back and we encourage everyone to participate in the competition. It is also the seventh year for the annual Asian Trucker Networking Night. Here we have the support of MAN Truck and Bus Malaysia, which allowed us to put together a program including performances, music and a lot of fun. For business discussions and for Rest & Recreation we are offering a R & R themed area where we serve free food and coffee. Experts in the field of Fatigue Detection, Guardian South-East Asia is the sponsor for the R & R. Back again is the Best Booth Design award, whereby delegates can cast their votes for the nicest exhibition spaces. Last year's winners for the bare space donated their prize money to charities.

MCVE 2017 will also feature speakers, seminars and the Asian Trucker Drivers Club MCVE Gathering. This gathering for members of our club is sponsored by Volvo Trucks and Giti Tires. We are expecting bus captains and truckers to flock to the event, too. If only to make new connections or to exchange thoughts with their fellow drivers. In line with the theme of the expo, we are hoping that the fringe program will enable participants to get connected.

Delegates my pre-register via www.mcve.com.my in order to obtain the delegate pass ahead of the exhibition and bypass the registration

counter on opening day.



## **CAPAS CHENGDU**

Chengdu International Trade Fair for Automotive Parts and Aftermarket Services

# 25 – 27.5.2017 Chengdu Century City New International Convention &

**Exhibition Center, China** 

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## Future – Made by Shell, in Singapore



The Shell Eco-Marathon might be the most prominent component of the three-day event titled "Make the Future Singapore". However, guests were to explore and experience a whole world of thought provoking ideas that could revolutionise the way we think about transportation.

rriving at the venue on Thursday, March 16, one could find a number of activities going on. Walking towards the main hall of the Changi Exhibition Centre, one could witness some odd-shaped vehicles on their test runs to prove that the team behind each had a winning formula in this global competition challenging students to push the boundaries of energy efficiency.



## Winning Formulas

The Shell Eco-marathon Asia, held for the first time in Singapore, saw around 22,000 people gather for the event where students set a series of fuel-efficiency records.

In the Prototype category, drivers squeezed into low-slung cars, lying on their backs to steer around the 1.19 km custombuilt track that overlooked the South China Sea. In the UrbanConcept category, cars had more conventional designs.

In total, 123 teams competed from across the Asia-Pacific region. The competition culminated in the inaugural Drivers' World Championship Asia – a specific contest to crown Asia's most energy-efficient driver in the UrbanConcept category.

De La Salle University (DLSU) from the Philippines beat five other Asia-Pacific teams to claim the title. They were followed by two Indonesian teams: Bengawan Team 2 from Sebelas Maret University, Surakarta, Central Java and ITS Team 2 from Institut Teknologi Sepuluh Nopember in Surabaya, East Java.

All three teams will fly to London in May for the Drivers' World Championship Grand Final where they will compete with teams from Europe and the Americas.

"I can't believe it. None of us can," DLSU driver Carlo Miguel Flores, 19, said. "This is just such an amazing achievement for all of us and we've worked so hard to get here."

Students from the University of Canterbury – the first team from New Zealand – competed with an electric vehicle. In the Prototype competition, Team Virgin from Sakonnakhon Technical College in Thailand beat a 2016 record with their result of 2,288 kilometres per litre.

Team Sadewa from Indonesia and Team LH-EST from Vietnam won in the UrbanConcept competition, setting new records in their respective categories.

## New Technology the Key

Panel discussions were dominated by the question on how we can use resources better and make the most of the energy we have. According to Shell spokespersons, value will be unlocked through new technology. For instance, the rise of 3-D printing allows for the production of parts without the need of having to ship them to multiple locations. Shell itself is interested in such methods as it allows the company to produce spare parts on an oil rig for example, greatly reducing the need to keep stocks of parts or to wait for the needs items to arrive.

What Shell identified as global trends was the demand for cleaner and more energy. With the emergence of new technology, such as Internet connectivity using basic systems in rural areas, demand for transportation in remote areas increases. As people are seeking convenience, the notion of "Now and Here" is going to be more and more prevalent. Citing insights from Volvo Trucks Singapore, China has enormous expertise in E-Commerce, but requires highly sophisticated systems and a good road network to be able to manage deliveries as customers in second and third tier cities expect next-day delivery. Overall, with an estimated population of nearly nine billion people by 2050, it is obvious that the need for transport, commercial as well as private, is only going to increase. Further trends are loadsharing to optimize resources and a call for alternative fuels, such as biodiesel.

## Fleet Management

Introduced at the event was the Shell Fleet Management System. In a move to add value, Shell has launched a system that allows transporters to monitor, manage and improve the performance of their vehicles in one platform. Here, Shell offers not only the

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benefits of the well-established Fleet card, but also works with customers when it comes to tyre management, driver training and other aspects of the running of a commercial vehicle fleet. Currently, there are some 7.3 million trucks on the road in the ASEAN Economic Community, according to Shell.

In Singapore, Shell is handling all Upstream, Midstream and Downstream activities. The island state is also home to a Shell refinery. Handling the business affairs is Kaushik Burman, Country Business Manager, Shell Singapore, who launched the Telematics solutions together with pioneer client Redmart.

## **Fleet Efficiency**

A case study from Redmart already showcased how effectively integrating data management can help improve the efficiency of the fleet. With some 50,000 items available for ordering and 12,000 of those in stock at any given time, Redmart was looking at the Shell Telematics solution to streamline their operation.

One of the key issues is the timely delivery of the orders placed. While drivers may be in a rush, Redmart's management also emphasises safety. Hence, the speeding alerts are crucial. When asked about autonomous vehicles in this connection, Jamil Khan, Vice President of Redmart had to admit that without humans the business would not be possible. The last step is to deliver the goods from the van to the door-step of the client. Without the last carrier, the order fulfilment would not be possible. Besides, Redmart's drivers are trained to have a chat with their customers when handing over the goods. Courtesy is surely something that will continue to have a space in transportation for a long time to come.



## S K Rosenbauer Designs & Builds Fire Trucks

S K Rosenbauer manufactures fire trucks and emergency vehicles at its factory in Tuas.

For over 30 years S K Rosenbauer has designed and built fire trucks and rescue vehicles for the Singapore market while exporting 75% of what they produce.





When you need a new fire truck you don't just wheel down to your local dealership and pick out a new shiny red model. Specifications are too specific to each user to have such vehicles mass produced. So where do you go? In Singapore, for the past 32 years, buyers have been going to a company now known as S K Rosenbauer, headed by Managing Director Bob Houchin.

## **Focussed on the Client**

The Singapore subsidiary has been part of the Rosenbauer Group for over 20 years and has its own in-house production facilities with an output of around 50 vehicles annually. The company has always had a company mission that is focused exactly on customer needs and ranges from rescue platforms to complex industrial vehicles.

Houchin, who started his career with Dennis in the UK, moved to Malaysia in 1979 with Hargill Construction Equipment and in 1982 moved to Singapore. "In August 1985," Houchin relates, "I set up an office on the 19th floor in Jalan Sultan in the Internatio Muller office." Saval Kronenberg was the owner of S K Fire, which Houchin established on behalf of the Dutch company. In 1991 the Austrian company Rosenbauer International bought S K Fire and eventually the name was changed to S K Rosenbauer Pte Ltd in 2009.

## A Challenging Start

"In 1985 the economy was terrible in Singapore, and Tuas was not as developed as it is now" Houchin continues. "There were not so many buildings available. I knew the people who had my current factory. I dropped in and asked them if they knew of any buildings like this that I could rent. They looked at me in complete surprise as nobody was starting up, most were closing down, and said they'd just made the decision, like many others, to close the company. They suggested that I could have the space if I wanted it. The economy was so bad at that time that JTC offered us the factory rent free for six months." Despite the economic challenges the company began to get orders, as they designed and built fire trucks and emergency vehicle. The first truck was sold and developed for the city state of Singapore. Focusing on exports the first order from overseas came from Brunei in 1987. By 1991 S K had sold and delivered 82 trucks with 20 for Singapore, 21 going to Brunei, 16 to Taiwan, nine to Thailand and one to Sri Lanka.

## **Continued Growth**

In the 1990's Hong Kong started to be an important market and now over 250 trucks have been sold there. In 2001 both white and yellow trucks were shipped to Bangladesh. S K has become a major exporter with 75% of its products being sent out of the country. As of today, S K Rosenbauer has supplied over 870 trucks, nearly all designed and built in Tuas.

Hong Kong and Macau are its biggest export markets with 30% and 12% trucks respectively. Brunei is next with 11.5%, but Singapore remains its biggest market having taken 37% of their trucks over the last 30 years.

Not all the vehicles S K Rosenbauer produces are for fighting fires. In 2015 Changi Airport came to the company to see if they could provide a solution for a special requirement. Changi Airport needed a vehicle that could transport passengers should a plane crash at the airport. The Mass Causality Carrier (MCC) would have to move a lot of passengers, some walking, some hobbling and some injured, from the crash site to care facilities. In a collaboration with Gemilang (Malaysia) they produced the Mass Causalty Carrier for this purpose.

## Service for the Region

The Singapore factory not only manufactures vehicles, but it provides aftersales service for them as well as those in the region

supplied directly by the head office in Austria. The company, due to its quality production and service, has established itself as the Rosenbauer International's Asian Centre, providing service for the region.

In addition to the Singapore facility the company has an office in Manila, established in 2013, where service activities in the Philippines are coordinated and a sales and service operation in Brunei that was opened in 2008.

## **Contributing to Singapore**

Along with other awards, S K Rosenbauer was presented with the Ministry of Defence Award 2007. "We have become a proven supporter and participant in Singapore Total Defence," Houchin notes. "When I received an award Prime Minister Lee was on the dais and he asked me what do we do. When I told him we design and manufacture fire trucks and mostly we feed our export markets he was impressed and wished us well."

S K Rosenbauer continues to adapt new technology to meet the always changing needs of their customers. Following the major fire on Pulau Bukom, Shell embarked on an upgrading programme, with trucks with 10,000 litre pumps, plus a 10,000 hydrant driven foam system and a monitor capable of 13,000 lpm, which SK provided them with. Recently S K delivered to SCDF S K Rosenbauer the "FROST" unit which was developed with SCDF to combine two trucks into one.

"We are recognised in the market for quality and innovative products at a fair price," Houchin notes. "We have the proven ability to survive when focusing on a single industry. Over the years many players have come and gone and we remain as the only dedicated manufacturer of fire and rescue trucks in Singapore." r





## **Scania** and Big S' Holiday Drive Standards for Environmental Emission



Scania delivers the first low emission Euro 6 coach to longtime Singapore client Big S' Holiday.





hen Scania delivered its first Euro 6 coach to long-time customer Big S' Holiday Pte Ltd, it not only ushered in a new era of Scania's commitment of providing businesses in Singapore with the widest range of sustainable transport solutions, it strengthened the long-term relation between the two companies. Big S' Holiday Pte Ltd has been involved in the business of land transportation since 1988 - nearly three decades of buying and running buses. Many of their current 25 buses were purchased from Scania and near term plans are to get 28 coaches on the roads of Singapore.

## The First & The Best

"I have to buy the best buses from Europe," says Big S' Holiday Pte Ltd Managing Director Mr Thane Sng. "Our partner is JTB Singapore Pte Ltd, and they require buses that are going to get their customers to their destination every time. We buy Scania buses because they deliver service and reliability." Presently the company buys two buses every three years. With a strong history in sustainability and care for the environment Scania became the first manufacturer in Europe to put vehicles with Euro 6 engines on the road as early as March 2011, enabling far-sighted businesses to invest in the cleanest emission technology available. This market-leading practice continues today with the inaugural Euro 6 delivery in Singapore, well ahead of the January 1, 2018 date mandated by Singapore's National Environment Agency (NEA). The NEA, responsible for improving and sustaining a clean and green environment, announced the new standards at the end of 2014 for which only Euro 6 commercial vehicles can be registered.

## **Uncompromised Performance**

Building on the latest engine platform, the new Euro 6 coach promises uncompromised performance, highest torque to-topower ratio in the industry, maximum drivability with low-rev cruising options and operating economy through lower fuel consumption.

In redefining the acceptable limits for exhaust emission with the Euro 6 standards, nitrogen oxide levels are reduced by 80% and particulate levels reduced by 50% compared to predecessor Euro 5, presenting real environmental benefits to the people of Singapore.

"This first Scania Euro 6 coach delivery is an important environmental milestone for Singapore, our customers and Scania," said Mark Cameron, Regional Director of South Malaysia and Singapore, Country Manager of Scania Singapore. "We are, first and foremost, a solutions provider, building sustainable transport solutions that are commercially viable with minimal impact to the environment. We are enthusiastic and pleased to partner with our customers to tailor-make a package of products and services that help protect the environment while driving down operating costs, maximise productivity and keeping drivers safe and comfortable."

## Socially Responsible

Mr Thane Sng, added: "We are looking forward to the new Euro 6 low emission levels, taking our company's social responsibility to the next level. We are proud to have partnered with Scania for this historic moment in Singapore." Big S' Holiday Pte Ltd, who in receiving their first Scania K410IB4x2, looks forward to many more partnership opportunities with Scania as the company handles inbound tourists to Singapore along with partner JTB.

"We have enjoyed the great working relation with Scania," Mr Sng added, "and we are looking to have a lower average age of vehicles. We were also looking for the new Euro 6 as a move to be socially responsible to reduce harmful emissions." Big S' Holiday has about 60 employees with 25 of them being drivers, the majority of them behind the wheel of a Scania coach.

## **Company Colours**

It was Thane's father Dennis who started the company in 1988 and even at a young age Thane had a part to play in the company. "When Dad started the company he came home one night and asked my sister and I to draw buses and give them various colours. Looking at the influences around him one set of colours that Thane choose was blue and gold. His father went with that and they remain the company colours.

When Thane left his job to take over the business from this father in 2010. "There are always challenges in this business," Sng noted. "We run buses everywhere in Singapore. We do City Tours, Full Day Tours and we provide shuttle buses for JTB. Our business is 75 – 80% meeting the needs of JTB, and the balance is other in-bound tourism and government projects."

Commenting on his Scania buses Sng remarked, "Our customers like the buses. We like to keep the configuration comfortable. Our buses have wifi, USB ports and sockets for charging phones. We get a lot of the younger demographic and they need to keep connected."



## Solid Distribution Contributes to Nak Bamrung's Growth.

Taking a no-nonsense approach, the Bangkok based business has built a solid reputation that transcends the borders of Thailand



Spare parts are crucial for keeping truck fleets moving. Diesel Technic is a major player in the aftermarket scene and enjoys a good reputation for excellent service and one of the widest ranges of parts for major brands. In Thailand, as anywhere else in the world, DT Spare Parts are being sold via distributors. Asian Trucker met with the founder of Nam Bamrung Auto Parts Ltd., Part. In order to find out more about the ins and outs of spare parts distribution.

Located in the heart of Bangkok is the headquarters of Nak Bamrung. It has been in the same spot since the founder, Mr Kimchuan, Techatanakitlert, has set it up in 1980. Meanwhile he has another outlet and his son, Chankit Techatanakitlert, is also taking a keen interest in the business. Nak Bamrung has been a Diesel Technic distributor since 2007; as we conduct our interview the latest certificate authenticating the business as a legitimate distributor was handed over by Paul Chan, Sales Manager of Diesel Technic Asia Pacific Pte Ltd.

## **Humble Beginnings**

Techatanakitlert Sr started out working for another distributor for six years, mainly handling Japanese trucks. Following that, he got his hands on some European brand trucks and learned his way around that. Seeing an opportunity, he left his employment after being unhappy with the direction his bosses were taking. One of the problems he had was that he was lacking capital. He took out loans for what he needed and promised to repay through hard work. Taking a no-nonsense approach and the idea that one has to keep any promise made, the business began to flourish. One of the contributing factors to his success was the trust given by distributors in Singapore, where he also built a solid reputation.

Diesel Technic has been supplying parts since 2007 to Nak Bamrung, starting with simple parts, such as nozzles. From there the portfolio has been expanded continuously.

## **Boost from Singapore**

A huge boost of confidence came from the market when Diesel Technic opened up the regional headquarters in Singapore. "Since then, the business with Diesel Technic has taken off. The sales volume has quadrupled and the support we are receiving has had a positive impact on our business," he said. The proximity to the warehouse now allows for fast deliveries. Within three days, Nak Bamrung will receive parts they order from Singapore. This has also led to an influx of new customers, of which they count 20 until now.

## Advantage Diesel Technic

When asked why he chose Diesel Technic, Techatanakitlert explains "Diesel Technic is able to provide a wide range of products. Thanks to the support we get, we have been able to secure more customers. Good service for us is defined as fast delivery, better price support when we need to react to the market forces and lastly, the perception of European brands here is very good." In working with the German company, Nak Bamrung is also happy to note that the distribution channels do not change randomly and are based on mutual trust and confidence. In his opinion, in business, one cannot just reap the rewards of the work, one sometimes also needs to take responsibility. And this is where Nak Bamrung stands with their name for quality products and services. One thing that he highlights is that there has been a paradigm shift. Some 30 years ago, there was only "Win", meaning that a distributor would never have to make any concessions. However, things have changed and today, a distributor has to take on responsibility and work with the principal to address issues, rather than just skirting around them. It is a circle. Good products are supporting the distributors and happy customers return to the distributor for guality products. Nowadays, constant feedback to the principal, here Diesel Technic is part of the partnership that helps to improve the business.

## **Modern Needs**

Back in the days, it was good enough to just have DT Spare Parts nozzles in the portfolio. Over the years, the demands towards Nak Bamrung have changed and today, customers require a full range of spare parts. However, in the case of Nak Bamrung, the hot items are mainly undercarriage parts. That said, Nak Bamrung has, of course, access to the entire range of products from Diesel Technic, as and when needed by clients. Having grown substantially, today the company employs some 14 staff, while four family members are involved in the enterprise.

Focusing on the top line performance, rather than the bottom line performance, the strategy is to service clients that would come to Nak Bamrung, rather than chasing them. Clients from the provinces typically visit the outlets to collect their parts. This way, the company is also kept lean with less staff than one may expect. "This is a volume game!", is the summary.

### **Next Generation**

Following in the footsteps of the founder is his son, Chankit Techatanakitlert. Having studied in Australia, he returned to Bangkok to help in the business. Coincidentally, Techatanakitlert Jr has been with the company for 10 years by now. "What I enjoy is to address the question of what our customers need. Solving problems may sound like a challenge. But it is really a rewarding task as one is building relationships with the clients."

Looking ahead, Nak Bamrung is planning to open another warehouse to further enhance the support of clients. Supporting this ambition is Chan. "Our goal is to make the Diesel Technic brand more known, to increase brand awareness. Although very ambitious, we want to see our blue and white boxes everywhere," he says with a smile. Having a positive meaning to Chinese, the name Nak Bamrung beacons good fortune. "The timing must be right. So has to be the place and the people involved."

Techatanakitlert Sr finishes by saying that "When you start a business, it helps to have a name that is easy to remember. Please remember Nak Bamrung the next time you need a spare part for your truck."

The Diesel Technic Group is one of the largest suppliers of commercial vehicle spare parts in the Independent Aftermarket (IAM). The global network of subsidiaries and authorized distribution partners ensures the local supply of spare parts and individual support of customers in over 150 countries. Distribution partners and their customers value Diesel Technic as a reliable Full-Service-Partner.

The Diesel Technic Group includes, in addition to the headquarters in Germany, subsidiaries in France, the Netherlands, Spain, United Kingdom, Italia, Dubai and Singapore. Worldwide, the Diesel Technic Group employs more than 650 people from 30 countries.

Diesel Technic Italia S.r.l. is their new subsidiary in Italy (located in Verona) and it started its operative business on 2nd Nov 2016.



## HOW DRIVERS BENEFIT FROM VOLVO DYNAMIC STEERING

Linda Thomsen Högfeldt gives us an indepth look at how drivers can have a better experience when they are behind the wheel of a Volvo truck with Volvo Dynamic Steering. Illustration by Dan Hambe.

## Steering rod

1

It has been modified to accommodate the new installation.

## 2 Control unit

Information on the movement of the truck, such as its speed, is collected and processed by the control unit. It then sends signals to the electric motor, which corrects the steering force the driver feels

## **3** Hydraulic steering gear

The electric motor twists a torsion rod in the hydraulic steering gear. The more the torsion rod is twisted, the more a hydraulic valve is opened, which increases the hydraulic assistance.

## Electric motor 4

An electrically controlled electric motor is fitted on top of the steering gear, and the two work together. The motor is controlled 2,000 times a second to harmonise steering-wheel power, and has an output torque of maximum 25 Nm.

## Internal sensor 5

The internal sensor is inside the electric motor and is designed to measure the angle and drivers' applied torque. This data is needed to calculate how the system can create the perfect steering response.



## External sensors 6

The truck acts on information that is gathered from different sensors that are spread throughout the truck. It then combines this to describe the exact ambient conditions. Perfect stability at high speeds, total control at low speeds, and significantly less strain on muscles and joints. Since the groundbreaking Volvo Dynamic Steering system (VDS) was launched in 2013, it has fundamentally changed many people's driving behaviour.

## **RESULTS AND BENEFITS**

## Less surface disturbances from the road

VDS automatically compensates for unevenness in the road surface and eliminates vibration and involuntary steering wheel movement.

### Lighter steering

When driving at low speeds, steering is about 75 per cent lighter. Drivers are therefore able to handle tight cornering, roundabouts and other demanding manoeuvres in a far safer and more relaxed way.

### Improved directional stability

At higher speeds, the truck maintains directional stability even if the road surface is uneven, and helps the driver to balance direction deviation. This is an important safety aspect on the highway.

### Easier to reverse

While the truck is in motion, the steering wheel automatically returns to the dead-ahead position when the driver lightens his or her grip on the wheel. This works just as well when reversing, which therefore is made a lot easier.

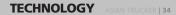
## Less muscle strain

VDS cuts muscular strain by 20 to 30 per cent, and for certain manoeuvres by up to 70 per cent\*. This allows truck drivers to avoid repetitive strain injuries and extend their professional careers.

## Safer driving

Since the system compensates for all small bumps in the road, the driver becomes more relaxed and thus less tired. This improves safety out on the road.

\* The study behind these figures was carried out by VTI, the Swedish National Road and Transport Administration. **7** 



High capacity batteries are mounted on both sides of the vehicle

Recharging is simple: just plug in!



600V lithium ion battery.

DC/DC CONVERTER

JUNCTION вох

MOTOR

DRIVER

**BATTERIES** 

Steps down the voltage of lithium ion battery and supply the electricity to auxiliary components.

Distributes electric power between the lithium-ion batteries and each component.

Inverter to drive the electric motor.

Unit for charging lithium-ion battery from external power supply.

**ON-BOARD** CHARGING UNIT

If electric power is

non-existent

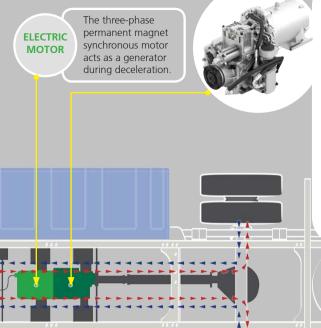
produced by renewable energy generators, emissions are absolutely

**Emission-free. Silent running. Endless possibilities.** 

**UD Electric** 

As UD Trucks continues to explore all possible future paths of transportation, Electric Demonstrator, UD Trucks' electric medium-duty concept-truck, shows the way to zero-emission transportation.





#### 2-Speed AMT

- A core component of the Volvo Group's new full electric driveline, the new gearbox has been developed in-house, based on many years of advanced engineering experience.
- Using a technology structure optimized for a mediumduty truck, UD Electric Demonstrator's high-speed electric compact motor combined with 2-speed AMT delivers efficiently the necessary power and torque for a medium-duty truck.

#### **Electric propulsion**

- Both batteries provide DC electric power to the junction box
- The junction box combines the power from both batteries and provides it to the electric motor driver
- The electric motor driver converts DC electric power to AC and provides it to the electric motor
- The electric motor provides propulsion power to the wheels via the unique 2-speed AMT

#### **Braking regeneration**

- Braking power is generated by the electric motor
- The power is converted to DC electric power by the electric motor driver
  The electric power is provided to the junction box
- The electric power is split and used to charge both batteries

The truck communicates through WiFi with a mobile tablet to inform the driver about the charging status and battery levels in real time

eveloped by an international team with staff drawn from Japan, Sweden and France, UD Electric Demonstrator is a driving laboratory that showcases what potential electric trucks can bring to future transportation.

The diesel powertrain is replaced by a lightweight and compact electrical driveline. Combining a high-speed electric compact motor and a 2-speed AMT, it constantly delivers maximum torque over a wide rev range.

To spare batteries and limit electrical consumption, many modifications have been applied to this special truck. The brakes are designed to benefit from an energy regeneration system: when braking, an electric motor driver transforms the kinetic energy into electricity, contributing to extending the range. The steering is now powered by an electro-hydraulic pump, while auxiliaries are moved through energy-saving electric air compressors. Xenon headlamps are replaced by low-consumption LED lamps, while rear lights are composed of a mix of energy-efficient lighting technologies.

Equipped with a widely spread CHAdeMO system, and a quickcharging system, UD Electric Demonstrator can accommodate

various customers' needs, such as charging during deliveries, for example.

Designed with the latest UD Trucks' technologies, UD Electric Demonstrator highlights traditional UD qualities such as road handling and comfort. The electrical driveline and the lithium-ion batteries are positioned in the central part of the vehicle, to allow better weight balance, and reduced vibrations at the benefit of the driver's comfort.

In the past years, transportation needs have evolved considerably. Population concentration in urban areas, and the rapid development of e-commerce have increased the number of deliveries anytime of the day, including early morning and late evening. Besides, environmental issues have become a major concern. UD Electric Demonstrator is a people-friendly and environment-friendly zero-emission and silent vehicle. As a result, as well as addressing the need for early morning and late night deliveries, it can help to solve specific issues, such as garbage collection. Moreover, it increases the possibilities for deliveries in closed spaces, or emission-restricted areas.

Adapted to urban transportation needs of the future, UD Electric Demonstrator



#### **Emission-Free**

Zones where noise is limited are becoming more and more common, as are zero-emission zones. UD Electric Demonstrator can cross all zones and even go where conventional trucks can't.

#### Silent Running

Because of its fully electric technology, UD Electric Demonstrator makes for extremely silent running and a comfortable experience for the driver.

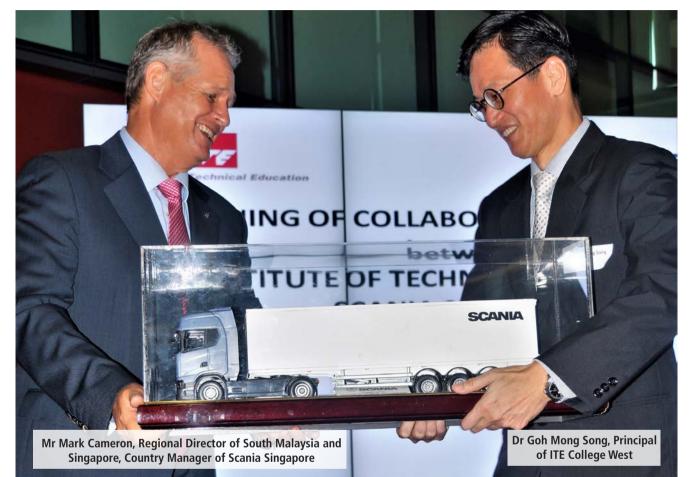
#### Large Cargo Space

UD Electric Demonstrator is a fully functioning medium-duty truck. This promises great flexibility and ability to carry large loads as well as adapting to a huge range of uses.

is a tangible example of the continuous research that UD Truck carries out to provide the most adapted solutions to each of its customers. r

## Scania Singapore and ITE Renew Collaboration

ITE Collage West annually holds Automotive Engineering Industry Engagement Day to recognize its partnership with industry.



S cania Singapore has renewed its commitment to train the next generation of automotive technicians with the extension of its industry collaboration with the Institute of Technical Education (ITE) at the Institute's Industry Engagement Day 2017. Students, academia and industry partners gathered at ITE College East on March 1, 2017 where the signing took place and students were recognized for their work.

#### **Knowledge Transfer**

The collaboration between the European truck manufacture and ITE, which first began in 2012, involves the transfer of knowledge and expertise for the training of NITEC in Automotive Technology (Heavy Vehicles) students and teaching staff at ITE College West. It continues to cover the provision of local internships for students to gain practical experience. Scania Singapore awards three book



prizes to reward top students, and it holds a student edition of the Scania Top Team Skills Competition.

Under the terms of the renewed collaboration, Scania Singapore will focus on familiarising students and teaching staff with the new Scania Euro 6 heavy vehicle diesel engine, designed to minimise harmful exhaust emissions. In addition, Scania Singapore will provide attachment opportunities for ITE teaching staff to learn more about its Euro 6 technology at its local and overseas workshops.

#### **Stringent Euro 6**

By January 1, 2018, all diesel engines in Singapore must comply with the stringent Euro 6 emission requirement set by the



European Union. In comparison with its predecessor Euro 5, the Euro 6 defines standards to reduce nitrogen oxide levels by 80% and particulate levels by 50%.

"Our continued collaboration with ITE College West allows Scania Singapore to groom the next generation of automotive technicians to be well-versed in Euro 6 engines," says Mr Mark Cameron, Regional Director of South Malaysia and Singapore, Country Manager of Scania Singapore. "As a sustainable transport solutions provider with a broad range of alternative fuel and technology solutions, we look forward to the opportunity to share our knowledge in Euro 6, the highest

possible emission standard that is set to improve air quality and public health in Singapore."

#### **Scania Provides Opportunities**

In addition to the 12-week local internships for students, Scania will also give the four best-performing interns the opportunity to experience overseas internships at its workshop in Malaysia. "ITE works closely with the industry to ensure our students are trained in industry-relevant skills, so we are happy to extend our partnership with Scania Singapore. This partnership will give more opportunities for Automotive Engineering students and staff to gain valuable industry exposure, through both local and overseas attachments," savs Dr Goh Mong Song, Principal of ITE College West. Mr Cameron and Dr Goh officiated at the signing ceremony at the ITE College West campus for the threeyear extension of the collaboration.

#### A Greener Industry

ITE College West, which opened in April 2011 as a 'College of Service and



Innovation', is home to about 7,800 students and 710 staff. It offers 42 courses under the Schools of Business & Services, Electronics & Info-Comm Technology, Engineering and Hospitality.

Addressing audience, Dr Goh Mong Song said there is an 'increasing need for the world to be greener, and this will require a lot of changes.' "The technicians of tomorrow will be multi-disciplinary as the Internet and the shared economy will impact transportation and how we use it."

#### **Facing Challenges**

Dr Falk Hartmann Carl-Benz Schule Gaggenau, focussing his message to the students told them to expect challenges in the coming years. "There are more challenges laying ahead," he stated. "We have to teach the technicians to have a mindset that they are not just going to accept the technology of today, but that this is going somewhere. The new generation has a different perception of a car. It is more important to them to be connected and to be able to do business when they are in the car, so that would mean they are not driving.

"This new generation has to be aware of challenges that are opportunities. You must look ahead and embrace your vocation. A vocation is a calling, your heart must be a part of what you do, as you always strive for the best results."

#### **Annual Event**

Technical Engineer Diploma (TED) in Automotive Engineering Industry Engagement Day is organized and held annually to showcase the graduating TED students' Final Year Projects to their industry partners, potential employers and guests. The TED students have been engaged for the last nine months with their industry partners covering aspects such as brainstorming, conceptualization, data collection and analysis to rollout various recommendations.

The end products of the four teams were on display and a spokesman for each team outlined the project and its goal.





### Road Safety Promoted with Educational Installation at Car-free Sunday SG

Volvo Trucks played its part in educating people about the blind spots trucks have at Car-free Sunday SG.

To educate the public about road safety around heavy vehicles, Volvo Trucks Singapore created an installation at the Car-Free Sunday SG held on February 26, 2017, to let visitors experience first-hand the limited field of view a truck driver faces., and how they can play a part as pedestrians to avoid accidents.

#### Safe Riders Sunday

Car-Free Sunday is a community initiative organised by the Urban Redevelopment Authority (URA), Land Transport Authority (LTA), National Parks Board (NParks), National Arts Council (NAC), Health Promotion Board (HPB), Sport Singapore (SportSG) and is supported by a host of community and interest groups to promote the car-lite message and enliven the streets. The initiative takes place on the last Sunday of every month and turns part of the city into a pedestrian and cyclist friendly precinct.

In line with the theme "Safe Riders Sunday", Volvo Trucks Singapore featured its "See and Be Seen" truck installation to educate visitors about maximising their visibility to truck drivers by inviting them to spot brightly coloured bicycles placed on all sides of the truck while seated behind the steering wheel. While doing so, they learned about a truck's blind spots and taking the appropriate safety measures to avoid these blind spots and minimise road accidents.

#### Safe Riding Programme

The latest edition of Car-Free Sunday SG also saw the introduction of LTA's Safe Riding Programme, which will be launched by July 2017 to inculcate safe riding habits among cyclists and users of personal mobility devices. A course preview was conducted at the LTA booth, which was located beside Volvo Trucks Singapore's installation.

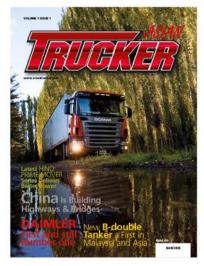


"Volvo Trucks has always been synonymous with safety, which is one of our key core values where we firmly believe we need to make the roads a safer place for everyone," said Tricia Thet, Senior Marketing Manager, Volvo Trucks Singapore. "The most effective way to increase road safety is to complement technological innovations with training for drivers and awareness for pedestrians and other road users. Together, we all have a part to play in making the roads safer, and the "See and Be Seen" installation is a step forward in the right direction in raising such awareness among the community at large."

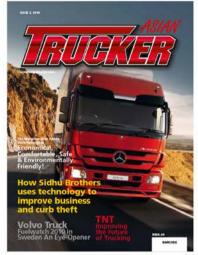
The installation caught the attention and interest of many and saw participation from all ages and walks of life. r



# Subscription Form







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## **Aligned for the Region – Car-O-Liner**

Road safety and reduction of cost of operation remain key issues that concern the industry. One of the many ways to tackle these issues is to look into the performance and uptime of trucks. We went straight to Thailand to meet with the people at Car-O-Liner to find out how that can be done using their equipment.

A rriving at the office of Car-O-Liner (Thailand) Co., Ltd, just a short ride away from the new airport of Bangkok, we are greeted by the incredibly nice smell of a bread factory next door and the unmistakable Swedish design of the office. Welcoming us are Per Jorgensen, Sales Directory Asia Pacific, Business Unit Commercial Vehicles and Rickard Per Eriksson, Sale Engineer, Academy Trainer. We are being told that they have arranged for a truck to be available for demonstrations specifically for our visit.

#### What is Car-O-Liner?

Car-O-Liner is a Swedish brand. It is more than 40 years old and focuses on three key business units: automotive, commercial vehicles and workshop development. Here we focus on the commercial vehicle segment. Both, truck Cam and Josam equipment are housed under this unit. The former being mainly for bus and truck factories, while Josam is meant to address the needs of the aftermarket. Typically, truck Cam is being used in places where axles are produced or where axles are installed on the chassis for the first time. "Using our equipment, OEMs can ensure that the vehicles they hand over to customers are running straight and that all the axles and wheels are correctly aligned," Jorgensen explains. Additionally, there is a end-ofline system that allows for truck makers to check the alignment once again during final inspection.

Josam, being used in the after-market for buses and trucks. Jorgensen stresses that the Josam equipment can be used for vehicles with as many axles as you want. Besides the wheel alignment, Josam offers frame straightening and cab repair tools. "I like to highlight our induction heating as it is a really nice tool for repairs. However, wheel alignment is required for all trucks and therefore the most important". Next would be the repair tools as not every truck will need repairs. Induction heating can be used to align axles that may not feature systems to adjust them. Further, the induction heating is used for frame straightening.



#### Why Wheel Alignment?

Those who have been in touch with Manbeni Machine Tools here in Malaysia will know that TB Wong and his crew are strong proponents of wheel alignment in order to reduce operating cost and improve safety. This is echoed by Johanson. "There isn't enough focus on the issue of wheel alignment. This is a regional phenomenon. This is one of the easiest ways to improve fuel consumption, reduce tyre wear and enhance driving comfort," he says to underline his points. What Johanson sees happening now is that truck OEMs use their systems for the production of the trucks and then impose regular checks to be carried out by the distributors as part of the actions to be carried out as part of the mandatory items to ensure that the vehicles remain within the warranty.

#### **Base in Thailand**

The set up in Thailand is in operation for less than a year, with the official opening in October 2016. Previously, the headquarters was in Singapore. As the operations hinges around a training academy, welding, grinding and other noises related to vehicle repair are part and parcel of the business. These activities were not always welcome in the confined spaces of Singapore and therefore Car-O-Liner moved to Thailand. The proximity to the airport is important as there are training courses running every day and people need to get in and out of the country easily to focus on





the training. Today, the Thai operation is the regional headquarters and people fly in from countries ranging from India to Japan. There are some 23 countries under the supervision of the Thai office. Besides training, the office is also serving as a distribution center, serving the Asian markets with the exception of India and China. Johanson has been with the company since 2012 as Managing Director for India and he shifted to Thailand last year.

#### Growth

"Our biggest growth will be in the aftermarket in this region, obviously with the Josam brand," is a quick assessment we get when asked where the business is heading. In terms of factories, there is a limited number of those being build and in the case of India, Car-O-Liner has already supplied their equipment to about all of them. Growth will come from the sales of wheel alignment and frame straightening equipment in his view. What he sees is that OEMs are now also getting more involved in what is possible to be done to their vehicles after they have been sold. As the frames are getting stronger and stronger, the "old-fashioned" way of straightening a frame with a chain that is simply attached to something will no longer provide satisfactory results. Another area that holds many opportunities are the trailers. According to both, TB Wong and Jorgensan experience that operators typically don't care about the alignment of the trailers. Even trailer makers may in many cases not align the axles. However, this results in increased wear and tear, which could be reduced by making sure the trailer is aligned properly too.

#### Innovations

While the equipment is long lasting, there are always innovations that Car-O-Liner churns out. Some of which may be ideas on how a business can improve their operation. "Instead of just two wheel clamps, you could use eight. That way, you reduce the time you need for an alignment and you can handle more vehicles in a day, thus increasing vour revenue. And we will support that with software, training and equipment upgrades," he said. Owners of existing workshops may be interested in the latest Josam straightening system, the i-press. Typically, the frame for the tools would have to be laid into the concrete foundation of the workshop. This requires the workshop to be either redone completely or the framework to be inserted while laying the foundation. With the Josam i-press, workshops can be retrofitted with the system as long as there are 150 mm of concrete to fix the floor anchorings. As everything is just bolted into place, the system can be moved to another location, should that become necessary. Software development is driven by the notion of making it easy to use. The systems tell the operator step by step what to do, using easy to read illustrations. The top of the range would be Josam's lane departure system connected to ABS, whereby the system is using a camera in a windscreen. Should the windscreen be replaced, normally a 45 minute calibration drive is required. Josam offers a system that would allow for calibration without the drive, keeping the vehicle off the road.

#### Ease of Use

Just to make a point, Johanson takes us into the hall to let us give it a go on the actual equipment. While we are untrained on the actual work, it is easy to see that the operation of the equipment is not only simplistic, but also highly effective. Especially impressive is the induction heating that gets a thick piece of metal to glow red-hot in small spot within seconds. For those that want to know more, we would recommend to visit the Manbeni booth at MCVE in May. **7** 



### Dakar Rally 2017: The Battleground for World's Motorsports Enthusiasts

With 13 stages, 9000km and 3 500m altitude that had to be conquered in extreme weather with temperatures up to 44°C, the 39th Dakar Rally, running across Paraguay, Argentina and Bolivia, was the ultimate challenge that pushed both man and machine to their limits.



This year, with the addition of Paraguay, the Dakar visited the 29th country in its history, the 5th on the South American continent. Throughout this two-week event, a total of 354 vehicles - motorbikes, cars, quads and trucks –were registered, with up to 556 participants battling it out to the end of the event. Other than bike, cars, quads and of course the truck categories, this year we also saw the introduction of the new UTV category in this world famous event.

After the event kicked off on 2 January, in Asunción, the capital of Paraguay, thousands of motorsport enthusiasts and contestants headed out into the wilderness of Argentina and Bolivia. The 39th Dakar Rally is known to be one of the toughest ever in the history of South American rally-raiding. It is basically like a sort of "Ironman Triathlon" for both the contestants and the vehicles, which is a rigorous test of their strength, stamina and endurance.

What is deemed as "extreme conditions" here is just beyond layman's imagination. Not only has one to drive across the most treacherous routes, like the cavernous mud holes, high altitude dunes, mountainous and rocky terrain, boulders, stony dirt roads and more, but also drive in extreme weather conditions with furnace-hot desert air and dust for days. Likewise, for the truck category, it is the attestation to the durability and quality of a truck's chassis, engines and tyres, the manoeuvrability and ultimately the skills of the drivers and their navigators. To compete till the end of the event, drivers not only need to prove their excellent skills and dexterity at driving, manoeuvring, and drifting the truck at the most challenging conditions; but it also requires them to be physically fit to take up these challenges.

KAZAKHSTA

In an interview with MAN Magazine, Florian Reiter who loves adventure and is a tough performer, said that he drives MAN trucks with his co-driver for the sport. He spoke about his experience of conquering the test set by the Dakar Rally in his second appearance as a "truckie".

Since the end of the 2016 Dakar, it was clear to Reiter: he would return in 2017. Even the extreme conditions he had become familiar with in his first rally could not change his mind. Thus, this year, he joined the X-Raid team in the MAN TGS  $6 \times 6$  service truck as a "senior".

Reiter describes, in order to complete the task by carrying people and materials safely through the demanding stages of the Dakar, the drivers not only needed to have great driving skill and ability to concentrate, but also equally important, they must be experienced drivers with good nerves; those of the steel type.

For instance, to assess the movement of a 26-tonne truck accurately, when he is driving through the mountains where crash barriers are completely non-existent, a driver must be highly sensitive and alerted to the environment around.

"Things to consider here include where can I overtake, how do I have to operate the service and engine brakes in alternation, how can I prevent the vehicle from crashing on mountain roads. The climatic conditions and lengths of the stages in the Dakar



also take their toll," said Reiter describing the energy-sapping rally routine.

Throughout the rally, the total of ten MAN vehicles making up the X-Raid team endured almost 10 000 kilometres for the sport, "We have a reliable product", said Reiter in a sober appraisal.

For the first few stages of the event, routes that the Dakar needs to cover are mainly mountainous and rocky terrains that head westwards from Resistencia to San Miguel DeTucuman, and then towards the north to San Salvator De Jujuy.

The distance of routes of the earlier stages will not be a concern that preoccupies the competitors, but rather the tension that will accompany the contestants from the opening of the event. Yet, everyone has to be aware that an error on the technical tracks and even the trial-style sections early on could be costly.

Along the journey, the rise in temperature and altitude is accompanied with a drastic change of scenery, making it a good experience of wilderness adventures for the drivers. However, this also means the degree of difficulties for the game also levelled up.

#### ASIAN TRUCKER | 43 MOTORSPORT

Other than to drive in conditions with temperature variations from 0 to 44 degrees Celsius in the shade, constant rain, landslides, extreme differences in altitude are the key challenge for drivers.

Even before the 2017 Dakar, it was clear that long stages at altitude could prove a challenge. This is why it is important for teams to have oxygen devices with them on board for safety purpose.Reiter however, coped with the altitude well, but he still used the oxygen cylinder on a prophylactic basis, to ensure safety and to remain focused.

Nevertheless, the backup team also play an important role on the entire competition, particularly in fixing damages which needs to be done immediately on site for the whole expedition to continue. In this context, great team-work demonstrated among team members is undoubtedly an important factor that could affect the end result.

Entering into the stage four of the rally, the Dakar moves on from San Salvator De Jujur, Argentina to Tupiza, Bolivia, and this cross-country journey is undoubtedly a tormented experience. This is simply because, at around 3 500 metres altitude, the Dakar will reach "a cruising altitude" at which competitors will have to navigate for six days. To pass across these dunes at this altitude, the driver requires an expert climbing technique. Meanwhile, with a number of direction changes in the Bolivian section of the special stage, the co-drivers will have no time to relax.

Yet, the teams would require maximum effort to move on from Tupiza to Oruro later, particularly when they are moving upward and pass across the Bolivian Altiplano with even higher altitudes. At this time, when the teams will became acclimated with the change of altitude, fatigue will set in. In this context, the large variety of terrain makes this stage one of the most demanding within the tour.

After heading back to Argentina from Uyuni to Salta, with the distance of some 900 kilometres, the contestants again had to cover another route of nearly 1 000km to Chilecito on 11th January, which included a small half in the special stage with 98% off-road for this timed section.

This was the toughest test for the navigators, who played a decisive role on deciding the routes to the next stages. At this point, the verdicts of this day could mark a turning point in the conquest for the titles before the team continued their routes for the last three stages to San Juan, Rio Cuarto and Buenos Aires.

As Dakar Rally came to a splendid ending on 14 January, Russia's Eduard Nikolaev of the KAMAZ-Master truck team claimed his second Dakar rally title. However, win or lose, at the end of the rally, all the contesting teams and motorsports enthusiasts enjoyed their expedition in the 39th Dakar Rally.





## Safer Braking with WABCO EBS

Many hail ABS as a tool that helps prevent accidents and that offers extra safety in a commercial vehicle. However, some 20 years in the market, EBS might have been overlooked as an add-on to your trailers in giving you an edge when it comes to safety features.

o find out more we met with representatives from Top Quality Trailer Parts Sdn Bhd and Mr. Billy Tee of NITTSU. We are looking at only three relatively small components that make up the EBS system. What isn't on the table are the cables, hoses and sensors, but as one can imagine, these are light-weight items that don't take much space. The actual configuration of sensors would also depend on the number of axles on a trailer and the data that one is planning to gather.

#### What it does

In a nutshell, EBS changes the dynamics of braking and makes a commercial vehicle safer to drive. When a truck with a trailer without EBS is applying the brakes, the truck brakes first and the trailer will push from behind. Should the braking ration of these two be vastly different, the trailer may actually jackknife as it has too much velocity and nowhere else to go. When installing EBS, the trailer will brake first, and slightly harder than the truck. This results in more stopping power on the trailer, thus the trailer will pull back the truck in the front.

Hopefully, our truckers will not have to perform emergency braking too often. Meanwhile, the EBS also has a second, perhaps more important function. When cornering too fast, the centrifugal forces may actually overturn a truck. What the EBS will do is to detect situations in which the centrifugal forces are getting too strong and to apply the brakes to slow down the tandem. By slowing down the vehicle, rolling over will be avoided. "It was exactly such a situation that has triggered NITTSU to install EBS in all of our trailers," said Tee. Citing concerns for the drives and other participants on the road, the system may be like an insurance: you are happy to have it when you need it.



#### Ease of Use

The installation is quick. It only takes some two or three days to fit EBS. And it can be retrofitted to existing trailers. What is needed is calibration after the installation; a certification is needed (End of Line), but Top Quality Trailers is well versed in this process and has no difficulties passing the tests. However, everyone present agreed that it might be best to fit the system when building the trailer. "The cost can be recovered. Although it is hard to measure, but I am sure that we avoided some accidents, which we may have had without EBS," Tee elaborates. All that is really needed to operate the EBS is clean air, which can be filtered using WABCO air filters for optimum performance and compatibility with the EBS. Should there be any issue with the EBS, a warning light will tell the driver to have it checked. Should one divest a trailer, the EBS can be dismantled and transferred to another trailer. While EBS is a compulsory component for transporters in Oil and Gas, others may consider the application of it as well. A GPS system for instance may highlight harsh acceleration or braking, however, it would not detect the near misses when a truck is going around a corner too fast. The WABCO system that was used as the demo unit in our interview is able to record some 600 trips and operators can glean useful insights and data from it too. The insights gained can further help with driver training.

#### Legislation

Currently, there is no law that forces transporters to add on EBS. Lee of Top Quality Trailer Parts however pointed out that "EBS is already compulsory in many countries. We hope that this technology will be used more here in Malaysia as well as it is a solid technology that has been in the market for a long time and, most importantly, it can improve safety on our roads!" Besides that, from experience, he told us that drivers also feel safer.

Operators looking for EBS can turn to WABCO. In Malaysia, YonMing is the official distributor for WABCO, the vehicle control systems business of American Standard Companies. It is one of the world's leading producers of electronic braking, stability, suspension and transmission control systems for heavy duty commercial vehicles. WABCO products are also increasingly used in luxury cars and sport utility vehicles (SUVs). Customers include the world's leading commercial truck, trailer, bus and passenger car manufacturers. Founded in the US in 1869 as Westinghouse Air Brake Company, WABCO was acquired by American Standard in 1968. Headquartered in Brussels, Belgium, WABCO today employs nearly 7000 people in 34 office and production facilities worldwide. In 2005, WABCO contributed US\$1.8 billion to American Standard's total sales of more than US\$10.3 billion. **7** 



Trailer EBS E features	Your benefits
Simplified system layout with new connector and cable design Modular system with free order of trailer components Point-to-point connection - cable with assigned functions (one function per connector) and no Y-cables	Reduced installation time, increased process stability, easier installation, fewer variants
New connector concept with robust sealing	Enhanced lifetime and higher quality
I/O functionality can be customized	Customer can configure individual functions
Integration of Electronically Controlled Air Suspension (ECAS) in the Trailer EBS E modulator	No additional ECU needed in the trailer, easy and inexpensive assembly
Automatic manoeuvre assistance	Tire wear reduction
Roll Stability Support (RSS) for full trailers with only one axle load sensor	Easy installation, lower costs
Operating Data Recorder (ODR): extended trip memory, event recorder for warning lamp, tire pressure monitoring etc.	Greater vehicle visibility
Integrated fittings (optional)	Reduced installation time for OEMs
Flange mounted extension module with integrated overload protec- tion valve, overflow valve and pressure distribution for air reservoirs, air leveling valve, PREV, TASC, lift axle valve and 4 ports for the spring brake actuator	Direct installation onto the Trailer EBS E modulator, sold with integrated fittings for easy connection



## Hot Dip Galvanizing: Make Your Trailers Long-lasting

Companies everywhere in the world utilize their commercial vehicles, trucks, lorries and buses, in varying environments and terrains. These varying environments, in some cases, could be very harsh and unforgiving to the steel used to build the vehicles causing minor aesthetic damages or sometimes, affecting their ability to function in their most optimum form.

In Malaysia specifically, the primary environment and the weather condition in which vehicles operate is depictable by either a scorching and relentless sun or impulsive heavy rains which cause floods all across the states. Taking this into account, one can already assume that this type of climate is bad news for trucks and trailers.

One of the alternatives of overcoming the effects imposed by constant usage, wear and tear and the exposure to environments, terrains and natural elements mentioned earlier is to galvanize steel parts of trailers. Trucking Info website pointed out that a trailer will only last for an average of 10 to 15 years; whilst most research would suggest to you that galvanizing trailers would add a staggering 50 years to their life span.

To know more about this and actually see the process ourselves, we visited a local galvanizing giant, Super Galvanizing, all the way to Rawang. Super Galvanizing is a local subsidiary of a larger international company. Greeted by their friendly Business Development Engineer, Mr Ali Bukhairah Md Halim, we were excited at the opportunity to finally see the galvanizing process which is ubiquitously done for local steel infrastructures, but has yet to make its way into the truck trailers manufacturing industry domestically according to him. The company is a regional specialist in the process of Hot Dip Galvanizing, established in March 1993 by MD Mr Super Quah, who progressed the company until today into a wellknown specialist in galvanizing. In past and recent years, Super Galvanizing has been very busy with contracts and projects from giant companies in Malaysia like Petronas, MRT, Tenaga Nasional Berhad and many more. Notable contributions are the Tenaga Nasional Berhad transmission tower, G-Tex Communication Tower, Kinabalu Project Petronas Carigali and many more.

We were told that galvanizing is not something new in the steel coating industry. Hot dip galvanizing has been around for more than a century, patented in 1837 by French engineer Sorel. But often a lot of these ideal choices are simply unintentionally overlooked by players of the industry. And even though strong coats of paint might already be used, for those who want years of maintenance-free steels, in this case trailers, galvanizing can be the answer.

Super Galvanizing mostly caters to the need to galvanize bigger steel constructs, specifically for infrastructures on roadsides and in buildings. We say that this is a tough job because these steels are essentially exposed to the everyday elements of harsh tropical climates we have here in Malaysia, especially in the coastal regions. Thus, galvanizing steels helps to protect them and make them easily outlast any paintjob exceedingly.

In conjunction with the company slogan, "Painting is not enough," Mr Ali elaborated that this long-lasting galvanized coating will outlast even the toughest paint available in the market. Unlike painting, which only covers the outer part of



the steel, hot dip galvanizing coats the steel inside and out, including corners and usually unreachable spaces. The result is an ever more glossy and gleaming chromium look of the steel, which might seem to appear normal, but is ultimately tougher and hard-wearing, when put to the test.

Galvanizing is a process of coating steel with zinc. The steel product is immersed in molten zinc baths which end up forming a progression of layers consisting of zinc-iron alloy combination, which is metallurgically bonded to the original steel. At Super Galvanizing's plant, we were presented with the very detailed process that steels have to go through before being galvanized, the process itself and what happens after. The steels that are given to them to galvanize are first and foremost weighted to estimate the pricing. It can be quite surprising but lighter and smaller steels are charged with a higher price when galvanized, as the process will be much more complicated, and more zinc will be used to entirely cover them with the strong zinc coating.

We then transitioned to the kettles site, which are the huge pools containing various chemicals which are necessary for the galvanizing process. The kettles that they have measure 13m (I) x 1.8 (w) x 3.5 (d). These are so big that any steel item can be successfully galvanized here in a safe manner. There are briefly nine steps to the process: decreasing where steels are dipped into a hot alkaline solution, rinsing with water, pickling where the steels are dipped into acid bath to produce clean metallic surface, again rinsing, pre-fluxing in a hot flux solution to prevent oxidation, followed by the galvanizing bath where they are immersed in the molten zinc (445 – 660 Celsius). Afterwards the steels will be quenched with water, then with chemicals to prevent any wet storage stain or white rust, and lastly the finishing step where the steels are withdrawn slowly.

The visit to the galvanizing plant made our thoughts on galvanizing much more tangible. Mr Ali further stressed that the whole process shouldn't be thought as a hassle to go through as it just takes one day for a steel item to be galvanized. But of course, due to the que, it might take a few days for a company to have their items ready.

Going back to our focus on truck trailers, knowing that, trailer steels especially, are exposed to all kinds of impacts from being susceptible to dust, rocks, scratches, sometimes minor dents due to continuous loading, unloading and hauling, weather elements, corrosive atmospheres coastal regions, we should imagine the kinds of wear and damage that these elements wreak upon trailer steels. The constant exposure poses detrimental effects in the form of accelerated oxidizing processes which in the end could translate to a significantly shorter life span for the usage of truck trailers. This situation can be extremely frustrating to companies that have built their businesses upon the commerce which revolves around the usage of trailers, like those in the business of transporting goods or construction materials, rental, utility or even for municipality purposes.

Apart from making steels last 50 years more; galvanizing will also maintain the resale value of the steels, in our case, truck trailers. Considering the fact that trailer owners would be bothered less by maintenance issues of the trailers, which is saliently very economical, the resale value of the galvanized trailer is more than often much higher than that of the painted trailer. In summary one would get a tougher, more long-lasting and economical trailer. With these facts presented, it becomes apparent that galvanizing trailer steel makes for itself a very sturdy case.

Finally, it should be something that the Malaysian industry – fleet owners, haulage businesses, even trailer builders- may consider as significant and central when rethinking the future of the trailer in this industry which is day by day, under scrutiny to become more environmentally friendly as well.





## She Ain't Your Momma!

Stefan Pertz looks at the male dominated profession of truck driving and says, 'look who's driving now.'

ave you been asked: "What's your mother doing?". Maybe she is a stay-home mum or she is working in a profession or she may even be a selfemployed. Mine worked as a bookkeeper in a publishing company (Aha. The apple doesn't fall far from its tree). And that was fine. No one bats an eye over that.

#### Don't Mess with Her

I am sure many others will have similar experiences when they tell people that their moms work as teachers, nurses, flight attendants or in a building management office. Kim Walker is a friend of mine and his daughter is a professional Muay Thai fighter. Asking her out for a date, you are safe from dad, but better not mess around with her! Now, here it gets a bit itchy for me to discuss this topic of female drivers as I can, obviously, only speak from a male point of view. I hope that this may get some lady-drivers to speak out, too.

What if someone were to say that his or her mother was earning a living driving a truck? I am sure that would raise some eyebrows and get a bunch of follow-up questions. What could be wrong with such a job? Overnight trips which require staying outside home? Nothing that flight attendants haven't been doing for decades. Getting up early for work? My mom had to get moving at 5:00 am Monday to Friday. Is the job dirty? I dare say it is not. Modern trucks and equipment are built with ergonomics and protection of the worker in mind. Certainly, the profession as a truck driver is not illegal.

#### **Job Satisfaction**

In the very few interviews I have had with female drivers, they all told me they enjoy the work. For various reasons. Just like males, some enjoy it for the travel, others like the fact that they are working independently. For some, the job as a truck driver is also a stepping stone to another career within transportation and logistics. I would argue that it makes sense to have been a driver for a while before managing a fleet of trucks. That way, one knows what is happening on the road.

I have no proof that one of the fundamental problems here is the image of the truck driver. The unhappiest professionals in Singapore are PR practitioners. I have yet to come across a trucker that is totally unhappy with his/her work. Yes, maybe not happy about the working hours or the unwelcoming attitude others may give them, but no group-grudge.

#### **Better Drivers**

However, say that you are working for a global PR firm and people at a cocktail party want to know more about your job. I remember a story about a big agency losing a key account and the staff broke out in tears because they could now spend time with their families before midnight. Transporters actually like hiring women. I have been told that they are the better, more careful drivers. Yes, we guys have a bit of a macho-thing going when we are behind the steering wheel of a huge machine.

I am surprised by how many females work in the industry. Clerks, accountants, PR managers, marketing directors and even managing directors. Yes, these are all office jobs, but nonetheless they break through the stigma of our industry being a 'male' one.

#### **Supporting Needs**

Perhaps the supporting infrastructure isn't ready yet? There are driver lounges in many places, but do they cater to the needs of two genders? Perhaps it is not so much of an issue of the ladies not wanting to carry out this job, but that of not finding the required support to do so. We already know that in many cases there isn't even enough space at rest stops to accommodate all the vehicles. Now add to that the need to accommodate the needs of female drivers and maybe we see why we aren't ready yet.

Maybe the trucks themselves also need a bit of a make-over? Could it be that the needs of female drivers differ from males? And jokes aside, I am not talking just about a pink paintjob. I have interviewed truck manufacturers, whereby some don't include any drivers at all in the development process. Not once have I heard that there would be a group of lady drivers invited to comment on the design and functionality of the next generation truck.

Could this be the next big thing in workforce development and truck design? Perhaps. For now, I am hoping that we can work on the image of the truckers so that soon people will be able to proudly answer when asked who is driving a big rig "That's my momma!" **7** 



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