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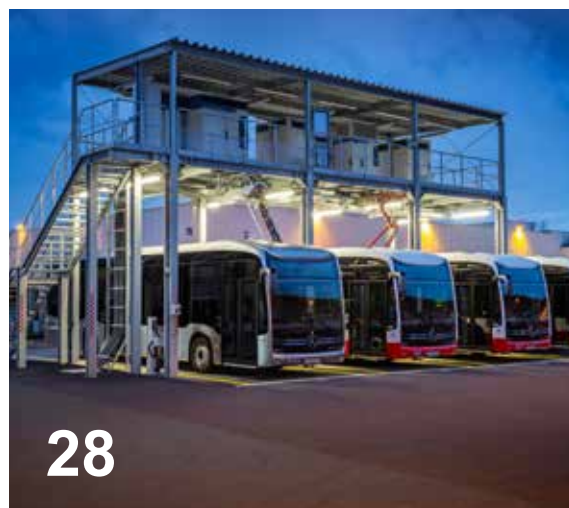
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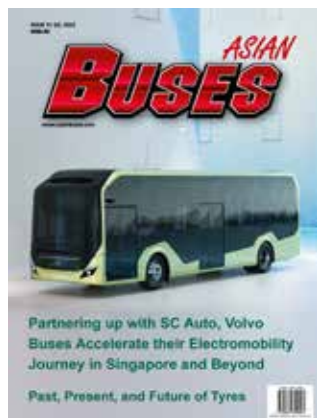
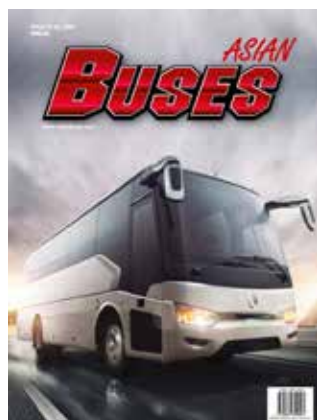
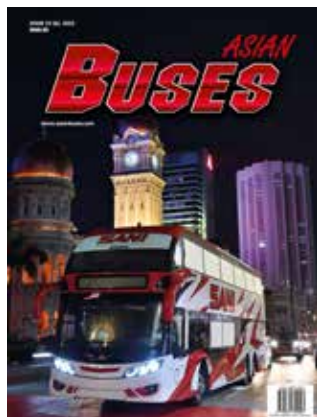
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EDITORIAL

EDITOR Stefan Pertz
GRAPHIC DESIGNER Tony
PHOTOGRAPHER Stefan Pertz

CONTRIBUTORS

Motoring Trends

ADVERTISING

Nicole Fong
Nicole@asiantrucker.com

SINGAPOR

Floyd Cowan
Floyd@asiantrucker.com

THAILAND

Songyot Kamontavikun
Songyot@asiantrucker.com

ASIAN TRUCKER DRIVERS CLUB

Sponsorship / Membership
info@asiantruckerclub.com.my

CIRCULATION, CONTRIBUTIONS and SUBSCRIPTION

info@asiantrucker.com WEBSITE and E-NEWSLETTER
www.asiantrucker.com

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Drastic Change: Arrived

That we need to prepare for change is nothing new. There will always be transitions and developments that impact our businesses. Ads, articles and reports oftentimes urge us to get ready for impactful developments. However, this time around, I turned and, hoppla, some drastic changes have occurred, seemingly without any big bravado.

There is the extra-long buses that E-Mutiara put into action to serve their routes along the East coast of the peninsula. Adding seats, adding comfort, these are buses that have been extended to 13.5 meters. In Europe, such lengths are common and I am sure that these buses will serve the operator well. I find that the longer buses have a nicer ride comfort as the vehicle, thanks to the length, is less nervous on the roads. At the moment, this is a trial to see if this bus type is suitable for Malaysia's roads. I sure hope that the outcome will be positive as I like to see a wider adoption of this kind of buses.

Taking a step back, I also found that some of the businesses involved in road transport of goods can trace their roots back to being a bus bodybuilder. Back when, some would say that the difference between a bus and a truck chassis is not that significant. However, that has changed, and buses today are a completely different kind of asset. Something must have happened, a change in the business landscape: in other countries we see a faster adaptation of electric buses than I perceive it in Malaysia. One of the biggest European transport solutions providers recently introduced an electric truck. When probed about this, I was told that any company in the industry would follow demand from the market and that they are simply responding to what customers demand.

Our Swedish friends are very active in Indonesia. In an exclusive interview I got to learn more about their operation and how they are going to plan to gain significantly more market shares. It appears that the key to their success will be their new assembly plant. Through the change of how the vehicles are being imported and sold, the brand hopes that they are now in a position to offer sophisticated products that are aligned with the transport policy of the country. I should think that this would be a challenge as Indonesia is a very diverse country in terms of the applications and uses. There are extremely dense cities as well as smaller islands, all of which need public transport.

Meanwhile in Malaysia, we are seeing brands introducing new chassis, dropping engine technology that is deemed to be outdated while starting to offer modern drive train solutions. In tandem with the new drivetrain technology, other components are getting updates too. I now see new tyre technology being introduced; the mirror replacement camera is being enhanced. As for the latter, I am curious when we will be seeing them on buses here in Malaysia as they not only look very sleek, but also help reduce fuel consumption.

I keep telling people that the most important aspect of doing business in Southeast Asia is relationship building. Many times I have been caught by surprise when I hear that someone has changed their job. It usually is something that people don't announce way in advance and there are also people I have been working with for a decade that now change industries in a bid to pursue a different career. As I like to keep in touch, although I have to change your details in our database, it would be great if you could let me know about any job changes. I recall cases where a contact completely disappeared from my radar only to pop up in another company a little later.

Change we must, but never drive recklessly.

A handwritten signature in blue ink, appearing to read 'Stefan Pertz'.

Stefan Pertz
Editor, Asian Buses

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by: Motoring Trends

Daimler India And Reliance Collaborate To Build A Hydrogen Bus

After collaborating for a hydrogen internal combustion engine-propelled truck concept, Reliance Industries has partnered with Daimler India Commercial Vehicles to develop a hydrogen fuel cell-propelled bus concept.

Reliance Industries and Daimler India have collaborated to build a hydrogen fuel cell inter-city luxury bus concept. It will be used to conduct an advanced engineering study to explore the viability of hydrogen fuel cell as a propulsion alternative for the future. The hydrogen fuel cell propulsion technology used on a luxury coach has been developed indigenously by Reliance Industries and is capable of a range of approximately 400 kilometers.

To be deployed to understand the viability of hydrogen fuel cell technology in the inter-city bus segment, which is also termed as the mid-premium segment currently in India and includes modern front-engine 13m and 12m long buses such as the

BharatBenz 1824 and 1624, respectively, the experimental luxury coach follows the announcement by a heavy-duty hydrogen ICE truck in collaboration with Ashok Leyland.

Touted as India's first hydrogen-powered truck, the experimental truck was flagged off by Prime Minister Narendra Modi at the India Energy Week event in Bengaluru in February 2023. The collaboration of Reliance Industries with Daimler India Commercial Vehicles to develop the fuel cell hydrogen inter-city luxury bus highlights the presence the German CV maker has managed to attain in the mid-premium segment, which is also quite competitive with the presence of manufacturers like Tata Motors, VE Commercial Vehicles, Ashok Leyland and a few others.

The BharatBenz brand of Daimler India Commercial Vehicles is known for its modern engineering attributes, safety, comfort and reliability among bus and truck operators. ■

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Lu & Sons Celebrate 40 Year Partnership with HINO with Upgraded 3S Facilities in Bintulu

Lu & Sons Engineering Sdn Bhd has reached an exciting milestone as the company celebrates 40 years of partnership with Hino Motors Sales (Malaysia) Sdn Bhd (HMSM). The relationship between the authorized Hino 3S Dealer Lu & Sons Engineering Sdn Bhd and Hino Malaysia started in 1984.

Lu & Sons started their company as Lu Motors Parts Engineering in 1983 as a service and repair workshop. A year later, Lu & Sons embarked on its journey as an authorized 2S (Service and Spare Parts) Hino centre when it was established in 1984. Progressing over time, Lu & Sons became a trusted service provider for numerous Hino vehicles, earning the confidence of the vehicle owners. During that period, there was no Hino sales centre in Bintulu, and customers interested in purchasing Hino vehicles had to go to Miri. Many customers inquired about the possibility of vehicle supply, which Lu & Sons decided to upgrade from a 2S to a 3S Hino centre on July 26th, 1997.

Lu & Sons' remarkable success has found its foundation in the unyielding dedication and tireless efforts of their associates, further reinforced by an all-encompassing culture of Customer-Centric service deeply embedded within the fabric of the organization. Spanning a remarkable 40-year journey, and presently boasting three branches across Bintulu, Kuching, and Sibul, Lu & Sons has consistently upheld its commitment to providing top-tier plastic enclosure products and services.



The ceremony took place at Lu & Sons Engineering Sdn Bhd in Bintulu, Sarawak. During the event, HMSM's Managing Director, Atsushi Uchiyama, presented a memento to Lu & Sons Engineering Sdn Bhd's Managing Director, Lu Kui Tiong, in appreciation of their dedication and hard work during their 40 years of partnership. Following the memento presentation, a handover ceremony of the Hino 200 Series lorry to the customer Art and Sign Shop. A photo session and a viewing of the upgraded facilities were part of the continuing ceremony.

Products and Services Offered as Hino Authorized 3S Dealer

As the pioneer Hino 3S centre in Bintulu, Lu & Sons Engineering now offers comprehensive services encompassing sales, spare parts, maintenance, and repair, primarily focusing on the plantation and construction sectors.

A noteworthy achievement occurred in 2014, when Lu & Sons became the pioneering Hino 3S dealer to introduce the 700 series prime mover to Malaysia, a segment encompassing Hino's heaviest vehicles. This upgraded version, capable of producing up to 460hp, significantly narrowed the performance gap with its European counterparts. Lu & Sons identified its potential in segments such as logging, container transport, and palm oil tanker haulage, successfully selling all 6 units from the initial batch.

Expectations for Future Business Direction

Looking ahead, Lu & Sons has undertaken a comprehensive facility enhancement by introducing a fresh and modern facelift to their premises. This includes the transformation of various spaces, notably the customer waiting room, reception area, meeting room, training room, awards room, prayer room, conference room, and the addition of a mechanic display board.

As they set their sights on the horizon of 2023, Lu & Sons is poised to engage in introspection, revisiting their humble beginnings, and acknowledging the milestones that have paved their path. This contemplative journey will serve to illuminate their achievements and pave the way for a blueprint of aspirations that will guide them into an even more prosperous and impactful future, notably to be "The Best in Town".

Webasto Bundles Electric Heating and Air-Conditioning Technology for Thermal Management in Electric Buses



Whether in electric minibuses or city buses – Webasto's High-Voltage Heaters (HVH) convert electrical energy into heat at an efficiency close to 100 percent. At the Busworld Europe exhibition in Brussels from October 7 to 12 (Hall 7, Booth 7113) the company is exhibiting the latest members of its HVH family that deliver 10 and 12 kilowatts (kW) of heat output respectively. These are the second-generation models of the world's first 800-volt heater to enter series production. Together with the new CoolTop 80-e (CT 80-e) electric rooftop air-conditioner, the heating and cooling units form the basis for feel-good temperatures all year round – from the driver's cab to the passenger cabin. In conjunction with the intelligent Cronus Smart control unit, Webasto also combines various components from its heating and air-conditioning technology portfolio to create the centrally controllable electric Thermal Management (eTM) system, which keeps both the traction batteries and the passenger cabin at the ideal operating temperature.

Pioneering Electric Heating

The new models allow Webasto to offer efficient electric heating solutions for all conceivable application scenarios. The HVH 100 Compact and the HVH 100 Compact + each offer a heat output of 10 kilowatts. With a height of just seven centimeters, they are smaller than a DIN A4 sheet of paper and designed to operate at a voltage range of between 250 and 880 volts. Communication takes

place via LIN bus, which facilitates the heater's technical integration into the vehicle.

The HVH 100 Compact + models with a heat output of 10 kilowatts and the HVH 120 with an output of 12 kilowatts are also compatible with the CAN-protocol. Their compact housing and flexible connectivity options offer manufacturers many options for easily integrating the units into their vehicles. Thanks to precise and virtually stepless control of the maximum output and target temperature, the High-Voltage Heaters always operate at maximum efficiency.

Electric Air Conditioning Technology Premiere

Webasto is exhibiting its first all-electric rooftop air conditioner for small buses: the CoolTop 80-e (CT 80-e) with a cooling capacity of 7.5 kilowatts. The air flow rate of the CT80-e is 2,100 cubic meters of air per hour and the unit optionally features a PEPA-F air filter that removes even the smallest particles from the air, including viruses. This compact powerhouse operates in the high-voltage range between 200 and 430 volts and is designed for temperatures from -20 to +45 degrees Celsius. Webasto uses the latest R1234yf coolant to ensure environmentally friendly operation.

Heating and Air Conditioning Technology from Single Source

Webasto's electric Thermal Management (eTM) system is a modular solution

comprising electric heating and air conditioning technology that controls traction battery thermal management as well as ensuring a feel-good climate for passengers and drivers. For the first time, the company is combining a range of individual components to match the eTM to the heating requirements of the respective vehicle type. The system is based on a heat pump which, in combination with heat exchangers, High-Voltage Heaters, underfloor heating and electric rooftop air conditioners, ensures pleasant temperatures in all areas of the vehicle. Peak energy efficiency values are achieved thanks to the high efficiency of the air-conditioning technology employed and intelligent heat recovery from the electric motor. E-vehicles featuring electric thermal management achieve up to 40 percent greater range because the traction batteries are maintained at a uniform temperature in summer and winter alike. The flexible design options offered by the scalable system, combined with its simple implementation, also assure manufacturers of rapid vehicle integration.

Greater Electric Range with Range Plus
Another highlight of Webasto's appearance at the exhibition is Range Plus. For electric minibuses and vans, the retrofittable air heater – along with its associated tank – forms a separate heating circuit in the vehicle which relieves the load on the traction batteries in winter. Range Plus is compatible with the sustainable HVO fuel and the system delivers an increase in the overall range of e-minibuses by up to 80 kilometers in the cold season.

"At Busworld 2023, Webasto was underlining its corporate identity as a systems partner for e-mobility. Our Standard Battery System is already powering a large number of electric special-purpose vehicles. It is only logical for us to add fully comprehensive thermal management solutions to our portfolio. This will allow us to increase both vehicle performance and on-board comfort," comments Heike Niehues, Executive Vice President Webasto Customized Solutions. "

Shell Fleet Solutions Evolves into Integrated Business Mobility Solutions Provider

Shell Malaysia through its business mobility division, Shell Fleet Solutions, has officially launched its Accelerate to Zero (A2Z) Programme in Malaysia.



With the Malaysian fleet sector facing unprecedented challenges in the market that include supply chain disruptions, driver shortages, pressure to decarbonise, vehicle optimisation and rising costs, the A2Z programme is designed to help fleet owners optimise their operations, grow their businesses, and achieve their sustainability goals.

The launch of A2Z sees Shell Fleet Solutions evolving from a traditional fuel card provider to a partner of choice for simpler, smarter, and sustainable integrated solutions comprising:

- **Shell Card** – The newly revamped Shell Card is the key to unlocking all the solutions and enabling integration to a fleet's day-to-day mobility expenses, including fuel, telematics, lubricants, and electric vehicles (EVs) charging through the Shell network.
- **Shell Recharge** – Shell's EV charging ecosystem provides corporate fleets with a complete package of hardware, software services and support solutions designed to meet their specific EV infrastructure requirements. Customers can also tap into Shell's expanding network of charging points.
- **Shell Telematics** – This solution combines integrated Shell Card data, 'live' vehicle tracking, vehicle performance monitoring and more to provide corporate fleets with critical data and business intelligence to help them achieve greater sustainability.
- **Carbon Compensation** – While adopting measures to avoid and reduce emissions is pivotal to reducing carbon emissions in the long and medium term, management of less-avoidable emissions is still a necessity in the interim. Customers can now opt to compensate for the carbon emissions from their fuel purchases through carbon credits generated by Shell projects.

Speaking at the official launch of A2Z, Shell Fleet Solutions Malaysia General Manager Joanna Lean said that the integrated solutions aimed to empower fleet owners in making better business decisions to stay competitive not just in Malaysia but the region.

"Decarbonising a fleet can be a complex, costly and challenging endeavour. Fleet owners must navigate a changing regulatory, technological and commercial landscape, while maintaining a high level of service to the business and employees, as well as managing their costs in a volatile world.



Shell aims to be the partner of choice for fleet owners in Malaysia in their transition towards decarbonisation and accelerating growth. Whether you are a small business owner or a large global enterprise, we provide integrated fleet solutions enabled by our people, technology and data to help achieve your business and sustainability goals," she said.

Although the focus of the event was on the upcoming electrification of commercial vehicle fleets, it was acknowledged that ICE-powered vehicles would still play a vital role in the transportation ecosystem for a number of years to come. To this extend, Shell offers sophisticated fleet management solutions that can assist transporters not only in reducing fuel consumption through driver training and route planning. This service, as part of a comprehensive package offered, is to be further boosted throughout the region going forward. ■



Hino Motors opening of the Hino Suvarnabhumi Monozukuri Center

Hino Motors Manufacturing (Thailand) Ltd has recently held the grand opening ceremony of the Hino Suvarnabhumi Monozukuri Center.

For the ceremony, we invited the governor Supphamit Chinnasri of Samut Prakan Province, the executive vice president Somkid Praditkamjornchai of Toyota Motor Thailand Co., Ltd., Mr. Maroshi Tokoyoda, who is the head of the first mobility department of Mitsui & Co., Ltd., government officials, and personnel of business partners. The Chief Monozukuri Officer (CMO) Tokuichi Shiga of Hino Motors and staff of Toyota Motor Corporation and the Hino Group attended the ceremony.

"Hino Suvarnabhumi Monozukuri Center" which was developed through the collaboration among Hino Motors Manufacturing (Thailand), Hino Powertrain Manufacturing, and Hino Motors Asia, will integrate and strengthen the functions to plan,



develop, and produce products in Thailand and consistently develop, manufacture, and supply optimal vehicles in ASEAN countries as a hub of development and manufacturing of trucks and buses in ASEAN countries. The centre aims to meet the growing demand from customers in Thailand and ASEAN countries, contribute to Thailand from the economic and employment aspects, and educate employees about R&D technologies and technical skills to improve them.

This centre is located in the Asia Industrial Estate, Bang Bo District, Samut Prakan Province, about 20 km from Suvarnabhumi Airport. The area of its premises is 400 000 square meters, and the total project cost is 3.56 billion baht. ■

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Webasto's Integrated thermal management system for electric vehicles, provides complete system competence integrating new technologies and components to guarantee consistent and optimum temperatures for passengers, batteries, powertrain and power electronics.





Japan Mobility Show 2023

The Japan Automobile Manufacturers Association, Inc. is pleased to announce the start of ticket sales today, August 30, for admission to Japan Mobility Show 2023, to be held at Tokyo Big Sight, in the Ariake district of Koto-ku, Tokyo, from October 26 (Thursday) through to November 5 (Sunday), 2023. The show will be open to the general public from October 28 (Saturday).

The all-new Japan Mobility Show 2023 will give visitors the opportunity to discover an exciting futuristic Japan in which they can explore and interact with new products and technologies not only from the automobile and related industries but across a broad spectrum, thanks to the participation of domestic and overseas exhibitors and startups whose activities extend beyond mobility. In conjunction with the start of ticket sales, JAMA is also releasing a list of exhibitors at the show as well as new information on show events and programs.

To date, 140 companies have signed on to participate in Tokyo Future Tour, a cross-industry effort to show how different types of new mobility will help create an exciting future. Tokyo Future Tour will feature the following five events.

1. Immersive Theater–Welcome to the Tokyo of the Future!

Large surrounding screens with spectacular visual displays and powerful sound will enable visitors to immerse themselves in a spellbinding Tokyo of the future. Immersive Theater will be the point of departure as well as the gateway to the other Tokyo Future Tour events.

2. Life/emergency/play/food and Mobility –Interactive Show Areas Showcasing Future Mobility

Four interactive areas on the themes of life/emergency/play/food and their interplay with mobility will dynamically showcase how new mobility will impact life in the future.

“LIFE & MOBILITY” will feature, in a thrilling musical-like performance, multiple forms of new mobility and the roles they will play in transportation and cityscapes of the future.

“EMERGENCY & MOBILITY” will vividly depict how new mobility will be able to assist people in a natural disaster-prone country like Japan.

“PLAY & MOBILITY” will envision how some forms of mobility will enhance the enjoyment of sports and entertainment, through displays and activities that will fascinate visitors of all ages including children.

“FOOD & MOBILITY” will demonstrate the wide-ranging usefulness of mobility in agriculture, food distribution and preparation, catering, and other food-centered pursuits.

3. Startup Future Factory–Creating the Future of Mobility

This event will serve as a springboard for startups and top-tier companies to come together to create the future of mobility and will feature the Pitch Contest & Award and Business Matching Events programs.

The Pitch Contest & Award program will be held on November 4 (Saturday). Influential leaders in Japan’s startup world will assess early-stage startups looking for funding and the chance to pitch to potential investors to promote their business visions.

Business Matching Events will be held five times during Japan Mobility Show 2023. This program’s purpose is to act as a catalyst to accelerate development in the mobility industry by bringing together established mobility companies and startups to forge new partnerships and create new business ideas. Topics for discussion will include natural disasters, declining birthrates and aging populations, regional revitalization, environmental sustainability, and personal wellbeing.

Factory programs will provide visitors to Japan Mobility Show 2023 with the opportunity to envision an exciting future based on innovative ideas from next-generation entrepreneurs.

4. Japan Future Session–A series of talks on the future in Japan

The Japan Future Session event will be a multi-day series of presentations focusing on the future of mobility and covering a wide range of topics, from sustainability to artificial intelligence to motorsports, leisure activities, toys, and more. Presentations will be followed by discussions which will be of interest to visitors from all backgrounds.

5. Personal Mobility Ride–Test Riding Next-Generation Mobility

This program will showcase near-future mobility in the final stages of development. Visitors will be able to test ride new types of personal transportation and experience the future first-hand. 🚗



MCVE 2024 Ready Again as Platform for the Industry

Returning to the previous format, Southeast Asia's largest commercial vehicle exhibition is set to be yet again the platform to enable the industry to showcase innovations and to nurture dialogue.

In anticipation of significant changes to the industry, there could be no better time to host an exhibition. Electrification is powering ahead and many commercial vehicle suppliers are readying themselves to introduce their vehicles to Malaysia. Meanwhile, the transition to battery electric or hydrogen-powered vehicles is happening with changes to the legislation. Malaysia is poised to upgrade emission norms to EURO IV standards, thus requiring a new generation of vehicles to be introduced to the market.

According to the organisers, several big name brands have already confirmed their participation in the upcoming instalment of Southeast Asia's largest commercial vehicle exhibition. Some of these have even confirmed their booth again during last year's event to ensure that they retain their spaces. A number of exhibitors are adding extras to their stand in the form of sponsorships. Returning to support the event by providing the casual meeting space is Hengst, who are again named as R & R Sponsor. Meanwhile, PETRONAS Lubricants International has significantly increased their footprint by taking up a larger space in addition to being the Official Lubricant Partner. Having utilised MCVE 2022 to boost their brand with sponsorship, MAN Truck & Bus is back again as Gold Sponsor for the upcoming show. "We are very grateful for the support our sponsors are giving us. Each sponsorship comes with a tailored package to enhance their participation. This is very encouraging for us as we see the event as more than just a display of products, but a means to enable communications on various levels with the market," Stefan Pertz, Organiser of MCVE 2024 said.

Considering the rapid developments of electric vehicles, in combination with the expected move to upgrade emission norms in Q2 2024, the event is poised to be a showcase of new technologies. Organizers hope that the event will be seen

as a channel that can reach a wider audience and also serve as a platform for launches of new vehicles, which would have to be introduced to comply with EURO IV emission regulations

Having emerged from the pandemic, organisers are planning to revert to the previous format of the event, whereby an extensive fringe program will be designed to educate and entertain delegates and exhibitors alike. "There are many interesting ideas afloat at the moment and we are in discussions with several parties that would want to elevate their presence at the show with additional activities," Pertz added. Those planning to attend are encouraged to visit the official website frequently as any confirmed activity will be listed as and when it is officially made a part of the program.

The sixth MCVE will be held in the Malaysia International Exhibition and Convention Centre from 9 to 11 May. While many of the spaces have already been allocated, organisers point out that there is still plenty of exhibition space available and that exhibitors will be able to customise their booths to suit their needs.



All About EVs at Automechanika Shanghai



Automechanika Shanghai is, of course, an event that needs no introduction. As one of the most influential shows under the Automechanika brand's global portfolio, it consistently offers fresh perspectives on the latest developments in automotive parts, accessories, and servicing.

This year's edition will take place from 29 November to 2 December across 12 halls at the National Exhibition and Convention Center (Shanghai). With a sprawling 280 000 sqm of floor space and an estimated 4 800 exhibitors attending, it is a remarkable display of the sheer scale and diversity contained within the automotive sector. As such, there's no better place to get a pulse on where the industry is heading.

From this standpoint, China has emerged as a global leader in the new energy vehicle (NEV) market. This year, the country is set to sell approximately two thirds of the world's NEVs, all of which are contributing to its national target of carbon neutrality by 2060. In further pursuit of its adoption goals, the country is moving quickly to develop a network of charging stations, battery swapping facilities, and related transportation infrastructure in both the passenger and commercial vehicle sectors.

Reflecting this push for innovation, this year's edition of Automechanika Shanghai will be run under the theme "Harnessing Innovation4Mobility". There will be four Innovation4Mobility features which will combine an assortment of forums, presentations, workshops, and product displays. Each will be focused on a different theme from the NEV aftermarket to customisation and more; while the topics might differ, they each contribute to a common goal of advancing the automotive sector into a more sustainable and user-friendly future.

Asian Trucker will be delivering a presentation at the Innovation4Mobility Mainstage which, despite the name, is more than just a single stage. It consists of a forum area, a networking lounge, a start-up area and a product showcase, and will highlight pressing topics including connected and autonomous driving, hydrogen fuelling and fuel cell technology, and intelligent chassis and drive technologies, to name a few.

In this presentation, Asian Trucker will discuss the implications of the switch to new energies, looking at the infrastructure around the vehicle being affected. The change in propulsion system has significant impacts on the workforce, legislation, workshops and transporters themselves. Stefan Pertz, Editor of Asian Trucker and Asian Buses magazines will be presenting first-hand insights he has gathered on the topic of "Impacts of EV on transport ecosystem".

Sources:

"Global electric vehicle sales grow strongly with China as the main driver", people.cn, 1 March 2023, <https://qr.messefrankfurt.com/Tfe85> (Retrieved: June 2023)

2. "China's new energy vehicle sales expected to exceed 9 million units in 2023", CNII, 22 February 2023, <https://qr.messefrankfurt.com/j4a9b> (Retrieved: June 2023)



Events & Exhibitions

Japan Mobility Show 2023

Date : 28 October – 5 November 2023
 Venue : Big Sight, Tokyo, Japan
 Contact : <https://www.japan-mobility-show.com/en/>

The Japan Automobile Manufacturers Association, Inc. is pleased to announce that "JAPAN MOBILITY SHOW 2023," Tokyo's new motor show, will be held from October 26 (Thursday) through November 5 (Sunday), 2023, at Tokyo Big Sight (occupying the entire venue) in the Ariake district of Tokyo's Koto-ku. In addition to automotive industry participants, organisers are looking for new partners — in startups and in other industries, whose activities extend beyond mobility as such — to join the show.

In view of this projected broader scope of participation, we are considering expanding the total area of the show to include multiple sites in Tokyo Waterfront City in the vicinity of Tokyo Big Sight (the main venue) in order to accommodate new exhibits, programs, and activities, so as to make the show experience optimally enjoyable for its anticipated one million visitors.

Exhibitor recruitment—from the auto industry (passenger cars, commercial vehicles, motorcycles, vehicle bodies, parts and machinery) and from next-generation mobility-related and other industries saw the recruitment of additional exhibitors and participants for various special organizer-sponsored programs will start at a later date.

Roads & Traffic Expo Thailand 2023

Date : 1 – 2 November 2023
 Venue : BiTEC | Bangkok International Trade & Exhibition Centre, Bangkok, Thailand
 Contact : kym.chua@terrapinn.com

Over the last decade, Thailand has invested heavily in improving and expanding its infrastructure network. Recent infrastructure development has helped to drive the government's Eastern Economic Corridor Initiative (EEC). The above has resulted in a number of projects being developed at the national and local levels. Private investors can participate in the upcoming infrastructure projects through the government's long term policy.

After a successful launch in 2022 The Roads & Traffic Expo Thailand will gather 2,500+ leaders in infrastructure to explore the amazing opportunities in Thailand. Join us in November for a packed expo floor with multiple content tracks, and plenty of networking.

In 2023, we will be focusing on smart cities, tunnels and bridges, intelligent traffic, road construction, and road safety monitoring.

There will be a lot of networking opportunities on the exhibition floor. We also have multiple seminar rooms, where you can see product demonstrations.



The Showcase, Learning and Fun are all interconnected by networking. Before, during, and after the event, you can exchange ideas, create brand awareness, establish friendships and partnerships and grow your professional network.

Atransport logistic Southeast Asia 2023

Date : 1 – 3 November 2023
 Venue : Sands Expo and Convention Centre, Singapore
 Contact : <https://messe-muenchen.de/en/events/transport-logistic-southeast-asia-2023.php>

transport logistic Southeast Asia is the latest edition of the world's largest trade show for transportation and logistics industry. It is poised to become the most influential meeting place for logistics, mobility, IT and supply chain management in Southeast Asia region. Based on the established concept of the Munich exhibition, and benefiting from the extensive global network of Messe Muenchen, transport logistic Southeast Asia will bring together the world's leading service providers, to meet, network and trade with top buyers from the region. The event will also comprise of a high-level summit where expert speakers will share key trends and insights on some of the most forward-looking topics.

Taipei Smart City Summit & Expo 2024

Date : 19 – 23 March 2024
 Venue : Taipei, Taiwan, Nangang Exhibition Center

Smart City Summit & Expo (SCSE) will be addressing the growing demand for sustainable development and solving urban issues, we bring the industry and public sectors together in the most comprehensive intelligent solution event in Asia-Pacific. As artificial intelligence technology develops, the applications begin to play a key role in government delivery of citizen services. Smart cities are entering a new phase of Smart City 2.0 by integrating AI as well as IoT technologies into services.

The exhibitors gathering here in the event will showcase a wide range of products and services like cutting edge information technologies services, energy management services, transportation services and many more related products and services.

Tyrexpo Asia Bangkok

Date : 15 – 17 March 2024
 Venue : BiTEC | Bangkok International Trade & Exhibition Centre, Bangkok, Thailand
 Contact : <https://www.tyrexpoasia.com/>

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E-Mutiara Expands with First Longest Scania Double Deck Coach in Malaysia



It was a much-anticipated event when Scania invited for a reveal of a special kind to Bukit Jelutong, Shah Alam, on 13 July, when Konsortium E-Mutiara Berhad (E-Mutiara) expanded its fleet with 20 units of the first longest Scania K410EB6X2 double-deck coach in Malaysia at 13.5 metre length. The launch ceremony was witnessed by Guests-of-Honour YB Tuan Anthony Loke Siew Fook, Minister of Transport Malaysia (MOT) and Mr Robert Lejon, Deputy Head of Mission Embassy of Sweden. Ms Heba Eltarifi, Managing Director of Scania Southeast Asia handed over the coaches to Che Ibrahim Che Ismail (Pak Nik), Executive Chairman of E-Mutiara.

With this latest addition, E-Mutiara will launch their first luxurious express coaches in Malaysia and start another chapter in their long and successful sustainable partnership with Scania. Gracing this inaugural ceremony was also, Tuan Rospiagos Taha, Director-General of JPJ, Datuk Azlan Shah Al Bakri, Director-General of APAD, PPJ Kehormat (PA) Dato' Sri Haji N.W.Hisham Abdul Wahab, Chairman of APM, Associate Professor Ts. Dr. Wan Mazlina Wan Mohamed, Head

Consultancy of MITRANS, Mohamad Suffian Ahmad, Commercial Vehicle Unit Research Officer of MIROS, DSP SH Roslee SH Mohd Norrani, Head of Traffic Investigation and Enforcement Division of IPD Shah Alam, PDRM and Directors and key officials from MOT, JPJ, MIROS, APAD and PDRM.

E-Mutiara also operates the first Scania 14.7 metre single-deck coaches in Malaysia. Upon approval from MOT, the body was built by Marcopolo on top of the Scania chassis and E-Mutiara continues to enjoy the enhanced passenger capacity and fuel-efficiency from the aerodynamics. The Scania 13.5 metre double-deck coaches offer a 10 percent increase in capacity compared to other luxury coaches in Malaysia resulting in improved operating economy. The energy-efficient powertrains with Opticruise in Eco-mode coupled with Scania fleet management services and maintenance services can make a massive difference - up to 15 percent improvement in fuel economy.

The front and rear air-suspension provides a comfortable driver and passenger experience. Like all Scania vehicles, EBS with ABS and traction control comes standard, coupled with Retarder as additional braking, taking the wear and tear out of the disc brake pads. The hill hold keeps the coaches on steep stops while the speed limiter

helps to maintain a safe drive. The 360-degree cameras give all-round visibilities eliminating blind spots, with a 3-fire alarm system activated during emergencies.

"I would like to take this opportunity to congratulate E-Mutiara for their continuous belief in Scania's ability to deliver profitability and sustainability to their operations. I would also like to thank our body-builder partners

for their close collaboration with Scania. Together, E-Mutiara, Scania, Gemilang Coachwork, Truckquip and Sin Hock Leong Coachwork have set the bar high again in terms of smart and safe transport," said Eltarifi.

"E-Mutiara took the bold step to apply for the Scania 13.5 metre double-deck coaches and got the approval from MOT. The impeccable safety and comfort, fuel-efficient

and environmentally friendly Scania coaches have always been a plus for E-Mutiara in securing better profitability and sustainability. Now with a longer coach, we are able to increase the passenger capacity and also comfort." stated Pak Nik.

E-Mutiara has also been recognised by Scania as "A Good Company" while three of E-Mutiara's bus drivers also occupy places one to three as "A Good Driver". Pak Nik commented on this by saying that these two initiatives, as part of Scania's Ecolution, have been instrumental in reducing fuel consumption and improving driver management. According to him, it is an effort made over several years, however, running the program has significantly improved profitability of the company. In particular, through driver management, the number of accidents has been significantly reduced, which in turn not only is better for society as fewer people are exposed to risks, but also enhanced the company's profile and reputation.

With this latest addition, E-Mutiara will launch their first luxurious express coaches in Malaysia and start another chapter in their long and successful sustainable partnership with Scania. 📌



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Quietly, MAN Truck & Bus Malaysia has geared up to meet the immediate and future demands from the market: Moving people, positions and perceptions we find out what the brand has in store.

Having put their Euro V engines on the map in Malaysia by introducing this engine technology for trucks two years ago, MAN Truck & Bus now enters the next stage in their sustainability journey. The move to a new headquarters in Shah Alam earlier this year was only one of many strategic steps taken. Asian Buses met with Tom Kuiphuis, Head of Bus, Australasia & Greater China, MAN Truck & Bus Malaysia to find out what else the German marque has in store this year.

Following the fantastic response from truck fleet operators, MAN Truck & Bus Malaysia (MAN), is now also pressing on with the introduction of the Euro V engine technology for bus chassis. “As it stands now, as of April 2024, all newly registered vehicles in Malaysia have to be at least Euro IV. Therefore, we will now start to take orders for our Euro V chassis,” Kuiphuis said. According to him, the fuels available in the country are of good quality to support this. Chassis using engines with lower emission standards can still be registered until April next year though, given that they have a type approval. “We have already anticipated the stepping up of the emission norms and stopped offering Euro III earlier this year, just to make sure we have ample time to get the chassis in, and the body build before 1st April 2024.”

In terms of other changes to the chassis, the engine is the main aspect that is affected by this upgrade. Going from Euro III to Euro V, one will reduce NOx by about 60 percent through the use of Selective Catalytic Reduction, filters and other methods used on the modern engines. “These engines are significantly cleaner,” he stated.



As buses move people, safety features are a crucial aspect. MAN is offering a complete suite of safety features to customers, depending on their needs. Lane Assist and Lane Guard, Emergency Brake Assist and Adaptive Cruise control are among the many options one can bolt on. The Attention Guard offered by MAN deserves a special mention as it is an application that actively monitors the behaviour of the driver in order to ensure that the vehicle is operated in a safe manner. If there is inconsistent driving, the driver will be warned actively. Working closely with bus builders, MAN ensures that these functions are correctly installed and working properly.

MAN is emphasising their effort to provide sustainable transport solutions. "The introduction of our Euro V bus chassis feeds into this as we are reducing the local emissions drastically. Another very effective approach to reducing local emissions is driver training," he said. Through such training, offered by MAN under the name MAN ProfiDrive, fuel savings of up to 15 percent can be achieved. Kuiphuis drew the connection between the local emissions and global emissions, as per the Paris Agreement. Higher Biodiesel blends can also help in reducing CO₂ emissions besides using the best possible engine

Kuiphuis further elaborated that it is important to distinguish between local and global emissions. In the case of the latter, CO₂ is usually measured. This can be reduced through the use of Biofuels or the reduction of fuel consumption. Using Diesel exhaust fluid (commonly referred to as AdBlue) in connection with the sophisticated exhaust treatment systems of the new engines will reduce local emissions.



technology available. Hence, as both, Euro V and V use Diesel exhaust fluids (DEF = Urea), one could immediately move to Euro V.

Through the MAN ProfiDrive programme, drivers can access driver training to be safer and more fuel efficient. Looking at a fleet with 15 – 20 vehicles, the savings that can be achieved are already significant. Besides that, such driver training also helps to reduce wear and tear of the vehicle, thus reducing the cost for spare parts and maintenance. It is important though that drivers undergo regular re-training to ensure that they continue to apply what they learned. “We are also talking about sustainability here as we ensure that the business sustains as a business being in competition with others besides the reduction of use of natural resources.”

One of the concerns from the market is that Diesel exhaust fluid is adding cost to the operation. However, Kuiphuis also pointed out that the cost of this fluid is likely to drop with the increased number of vehicles requiring it. As there was previously no demand, producers would not achieve economies of scale. With such an increase of demand, it can also be expected that petrol stations will offer Diesel exhaust fluid through pumps, similar to Diesel; doing so would reduce the number of plastic canisters needed to fill up the Diesel exhaust fluid tanks of buses and trucks. “This is where we will be able to further reduce the impact on the environment by not needing these jerry cans.”

Recently, MAN moved its regional headquarters to Malaysia. Kuiphuis sees advantages in having done so as the country is centrally located and acts as a jump-off point for the business.

Being responsible for Australasia and Greater China, Kuiphuis is working closely with MAN’s importers in the region. “I love buses, and this is a fantastic opportunity to drive the sustainability agenda. What we would likely need to change is our approach to transport,” he said. In his opinion, urbanisation will continue, and ride sharing is the way forward to keep cities moving. Buses are, in his view, the ultimate ride-sharing application. “Just imagine that all people commuting between Kuala Lumpur and Kota Bharu for instance would drive by car!” Working closely with authorities, Kuiphuis hopes to make an impact by pushing more public transport.





Across the region, we are now at a stage where several countries are still ordering buses with Diesel engines (Internal Combustion Engines – ICE), whereby they are starting to plan ahead for electrification. When considering electric buses, operators should give thorough consideration to how the electricity is generated, as Kuiphuis opines. “It is a balancing act, whereby the ambition is to reduce the emissions and pollution in cities, but that does not mean that electrification should not consider other aspects.” Optimally, renewable energy generation should go hand in hand with the electrification of bus fleets. In Europe, the implementation of electric vehicles is perceivably easier as the legislation is identical in several countries, whereas in Southeast Asia, there is seldom common ground. Width, axle loads, and permissible vehicle lengths are not homogeneous on our shores.

“The Euro V technology has been around since 2008, it is tested and proven by now,” Kuiphuis said in closing. With staff being trained up, spare parts being stocked up and the sales force informed, the introduction of the new chassis is something he is looking forward to with confidence that the market will respond positively. ■



Malaysia Made, Export Only

Capitalising on the proximity to the port and leveraging on their experience, Supportrans have created demand for their buses.

Emerging from the pandemic with promising order books, Supportrans Sdn Bhd is gearing up to meet the increased demand for buses from overseas markets. Currently, occupying 1.5 acres, the company is in the midst of constructing a bigger assembly, which was originally supposed to be commencing operation in the first half of 2020. As Wesley Beck told Asian Buses, the plan had to be put on hold, and is now going ahead with renewed energy. While capitalising on the proximity to the Singaporean Port, Supportrans is re-thinking how to set up an efficient production line in a bid to become less dependent on manual labour.

The brand is deeply rooted in bus building: the family business has been in the industry with a different set-up that unfortunately fell victim to the Asia financial crisis. Prior to the 1998 Asia financial crisis, Hino was a major supplier to the business. Having formed strong ties with the Japanese OEM, the business has also branched out into truck (Asian Trucker reported). Unfortunately, the business had to shut down.

Having been encouraged by several parties to re-start with a bus building facility, Supportrans Sdn Bhd was set up a few years after the crisis. Wesley Beck, ABC of Supportrans told Asian Buses that many former customers and stakeholders were asking for a rebirth of the business. "Back then, Trans Island, which is now SMRT, put out a tender, which Australian-based Volgren won. Volgren turned to us to assist with the fulfilment of this order," he said. From this stems the business model that Supportrans will only be selling buses to overseas markets. Acting like a bonded warehouse, the manufacture turns bus chassis, shipped from abroad, into ready buses, which will then be exported via Singapore's port. The advantage of this focus, as Beck explains is, that parts and components need not be treated differently when it comes to import duty and taxes. "This way, we do not need to worry about accounting for different markets."

The focus on exports opened channels to market their buses throughout the region. While Singapore, right at the doorstep, and Australia being home of the licencing partner, are the obvious key markets, Supportrans already shipped

buses to other markets in the region. One will even find their vehicles in Myanmar, where some 20 units were sold to. The pandemic put a temporary stop to it though. However, now that restrictions are lifted, Beck and his team are re-igniting the sales to other countries. The order his colleagues are currently working on is a batch of buses to be deployed in Singapore. Currently, the production capacity of 60 units per year has been filled with order books for 2024 already filling with orders for 70 units.





For now, Supportrans is assembling buses with Diesel powered drive trains only. “We acknowledge that EVs are becoming more popular and will also look to being able to handle this technology, however for the time being, orders we receive are for ICE-powered vehicles.” One of the stumbling blocks for electric buses at the moment is the high cost according to Beck. Another aspect of implementing electric vehicle technology is the distance to after sales service. If an electric bus is imported from a far away country, there might be implications in case there is a need for support with the brand not having local representation. When the time comes, Supportrans will be in a good position to support clients nearby as Johor is a perfect base to connect to countries neighbouring Malaysia.

One of the biggest selling points for Supportrans when dealing with Singapore is the fact that they are right next door. “Certainly, when it comes to after sales service, proximity to the customers is a key factor. We notice that there is even some resistance to deal with bus builders that are in Malaysia, but further north as getting to them is perceived as more troublesome.” Beck added that this closeness to the Singapore market is not only crucial for after sales support, but even during the actual build, as customers can easily visit the facilities in case needed. At the same time, Supportrans can whisk across the border on short notice if a client requires them to do so during tender or build processes.

Volgren, a family business with decades of history, is using Volvo chassis. Even the name, a play on the family name and the Swedish marque, indicates what chassis Supportrans is using. Chassis are shipped straight from Sweden, with the components for the body are light-weight aluminium panels that are being screwed into place, rather than being welded. “There are good reasons why we are using this approach. Firstly, the bus is lighter, compared to a steel construction. Secondly, we do not depend on experienced and skilled welders. Welding, although an established technique, has several disadvantages in comparison to the method we deploy. Our method of screwing components into the body allows us to fabricate the buses faster, using standard panels and columns, while staff does not need to be highly trained and thus, staffing is easier.”

Going forward, Supportrans is constructing an extension of their assembly adjacent to the current location. Here, on another 3.9 acres, Beck plans to set up a production that will be modelled after the Fordism method of automotive assemblies. Workers will be performing only limited steps in the fabrication of the vehicles, whereby Beck aims to automate and streamline the assembly as much as possible in order to reduce the dependency on manual labour. The idea is to implement a moving assembly line. Once completed, the total assembly capacity is estimated to be 200 units per year. Challenged on the planning, Beck says that there is a high confidence that this capacity will be filled. One of the issues he identified is that fluctuations in demand have a severe impact on his business. Being depended on just a few key markets makes it risky business and thus, Supportrans is aiming to open up more markets in a bid to even out peaks and drops in demand. “Stabilisation is key!” Beck underlined this thinking.

“We will leverage on our expertise in dealing with export markets. There are, of course, some situations where we will reject orders. For instance, when the terms and conditions are somewhat uncommon.” Beck recalls that there have been times when they were offered cash payments, which raised some eyebrows as to the seriousness of the business transaction.

Positive about the future, Supportrans also aims to increase the number of staff from 110 to support their ambitious expansion plans despite the offset in manual labour needed by applying their new approach to assembly of buses. On offer are internships for young students, which may find their way into the workforce here, at this local bus builder. “What is crucial though is that one has a passion for this kind of business. Otherwise, people will not enjoy working on these products,” Beck concluded before guiding a tour through the production to illustrate their ability to quickly churn out busses. 🇲🇾



Daimler Buses at Busworld Europe 2023



An exhibition stand with a surface of 2700 square metres featuring eight innovative buses and touring coaches from Mercedes-Benz and Setra. Three more vehicles from the two major bus and touring coach brands on display in the outdoor exhibition area, including two spectacular vehicles ready for test drives. A wealth of premieres on the linked topics of electromobility, safety and sustainability, numerous innovations in buses and touring coaches, new and innovative services from the Omniplus service brand, the anniversary of BusStore, the leading used bus and touring coach brand – between 7 and 12 October, Daimler Buses presents its innovative strength at Busworld Europe 2023 in Brussels.

eMobility for city buses, the economical Intouro, enhanced Tourismo

The versatile and economical Mercedes-Benz Intouro hybrid intercity bus welcomes visitors at the entrance to the bus and touring coach trade fair. Within the exhibition halls, the all-electric eCitaro fuel cell solo bus featuring a fuel cell will be celebrating its premiere. Next to it, an eCitaro with the latest NMC3 battery generation and performance package as well as the Brazilian eO500U city bus chassis as a European premiere will be exhibited.

Together, these three define the high level of development of locally emission-free city buses – with this trio, cities in Europe and beyond will become more liveable. Anyone wanting to experience this live at the wheel or ride along will also have the opportunity to do so: a Mercedes-Benz eCitaro G fuel cell is available for test drives outside – it extends the trio of vehicles to a quartet.

The Mercedes-Benz Tourismo represents the level of contemporary high-decker touring coaches in the business segment at the exhibition stand in Brussels. In many respects, it has undergone crucial further development ahead of the trade fair, combining cost-effectiveness, safety and comfort.

In addition to the elegant anthracite metallic paintwork, all vehicles bearing the Mercedes star share a host of new safety and assistance systems. Mercedes-Benz as a synonym for safety – this will once again be evident at Busworld Europe 2023 in Brussels.

Setra: new MultiClass LE, further upgraded, fascinating touring coaches, extravagant appearance

Setra is also inseparably linked to safety. The exhibition vehicles' innovations at Busworld Europe 2023 in Brussels once again underline this. The recently unveiled Setra MultiClass LE model series will be celebrating its trade fair premiere – an extremely versatile intercity bus with low-entry design, which is equally outstanding when operated as a city bus and in suburban traffic. The new, top-of-the-range S 518 LE model demonstrates the remarkable format of the new MultiClass LE in the exhibition's outdoor area: the three-axle intercity giant with a length of 14.5 metres is ready for test drives – and presents itself with numerous new and further developed safety features.

The fascinating touring coaches also benefit from these: the Setra ComfortClass high-decker, the TopClass super-high-decker and the stylishly upgraded Setra S 531 DT double-decker touring coach. Celebrating their premiere a year ago, they are already taking the next step, once again emphasising their technological leadership role. A dash of extravagance is a must for Setra: this applies to the selected comfort equipment in the touring coaches as well as their appearance with warm and unmistakable honey yellow metallic paintwork – a Setra is always a statement.

Mercedes-Benz and Setra: new and enhanced assistance systems, MirrorCam instead of outside mirrors on request

Daimler Buses focuses on safety: the Mercedes-Benz Buses and Setra brands from Daimler Buses are already traditionally pioneers of new safety technologies and assistance systems. At Busworld Europe 2023 in Brussels, Daimler Buses will be showcasing a comprehensive range of new and enhanced assistance systems.

The new Active Brake Assist 6 (ABA 6) emergency braking assistant for touring coaches and high-floor buses uses a combination of short and long-range radar sensors as well as a camera. ABA 6 detects moving or stationary persons and cyclists in front of the vehicle and can independently implement emergency braking. With ABA 6, accidents can be avoided even more reliably. The system covers the entire speed range of the vehicle and is active in the background.

Daimler Buses is introducing Preventive Brake Assist 2 for low-floor buses, the next generation of the world's first active braking assistance system specially developed for regular-service buses. This system can react to stationary and moving objects, including pedestrians and cyclists. It can now handle several objects at the same time and, within the system limits, offer improved detection of objects beyond the carriageway.

The new Sideguard Assist 2 turning assistant, which is also radar-based, reacts and, thanks to a new sensor concept, warns even more accurately if there is a risk of collision with pedestrians and cyclists. The system is now also used for the driver's side. This makes turning left even safer.

Frontguard Assist is completely new. This system is also radar-based. It detects and warns of obstacles or people directly in front of the vehicle up to a speed of 15 km/h. Sideguard Assist 2 and Frontguard Assist combine to provide a complete warning system for obstacles and people to the side and in front of the vehicle. Also new is the intelligent Traffic Sign Assist speed assistant. It compares the current speed of the vehicle with the permissible vehicle speed and warns the driver if the permitted speed is exceeded.

In future, all Mercedes-Benz and Setra bus and touring coach model series, whether these are city buses, intercity buses or touring coaches, will be optionally available with MirrorCam instead of the previously installed outside mirrors. The advantages are an extended field of vision for the driver through the windows and significantly better visibility to the rear in the dark thanks to residual light amplification. The small area of the camera lens is less susceptible to dirt. Compared with conventional mirrors, MirrorCam barely or only slightly protrudes beyond the vehicle edges. This means easier manoeuvring and less damage. Finally, the area of the vehicle facing forwards is reduced, which has a positive effect on fuel consumption.

Omnipus: sustainable, secure, digital and with innovative services

Omnipus, the Daimler Buses service brand, is showcasing new and proven service solutions in Brussels. The focus is on sustainability, security and digitalisation. Sustainability starts with the manufacturing process, for instance the production of genuine parts. In this context, Omnipus has developed solutions, such as the remanufacturing of parts, 3D printing or the second life for high-voltage batteries. Omnipus training courses serve to ensure the safety of the vehicle, passengers and drivers. The new Premium Dynamic and Premium Regional Dynamic service contracts, which allow for dynamic monthly service rates based on the actual mileage of the vehicles, ensure both safety and economy.

Another important focus concentrates on digital services, which have become an indispensable tool for many bus and touring coach operators to improve the availability and economic efficiency of their fleet. From the new Omnipus On performance analysis and Omnipus On Uptime pro, the offer for businesses

running their own workshop, to the Remote Charge Control feature for electric buses, Omnipus is expanding its digital services and showcases new services at Busworld Europe 2023.

For example, Daimler Buses is one of the first vehicle manufacturers in Europe to offer its customers a data interface for remote bus monitoring that has been certified according to the universal international ITxPT standard: the virtual TiGR data interface (Telediagnostic for intelligent Garage in Real time). Thanks to the harmonised interface with a universal transmission protocol, transport operators can now simplify vehicle analyses and obtain a homogeneous data basis for their entire fleet.

BusStore: ten years of quality brand for used buses and touring coaches

BusStore, the international quality brand for used buses and touring coaches under the umbrella of Daimler Buses, is celebrating its tenth anniversary this year. Since it was established in 2013, BusStore has become the European market leader in the sector and has continuously expanded its network. The anniversary year will be launched in Brussels with many campaigns.

Mercedes-Benz and Setra-branded buses and touring coaches have been the focus of the BusStore range since the beginning; today they make up more than three quarters of all purchases and sales. In addition, all common bus and coach brands are also included in the sales lists. Clear and universal classifications, financing, warranties, service contracts, retrofits such as the turning assistant, and leasing offers form the basis for the success of the BusStore used bus and touring coach brand. ■





Brief Introduction to Science of Air Filters

As the central element of every filtration solution in modern vehicles, filter media combines numerous functions. They filter out contamination in the form of particles or gases, which can enter the engine or vehicle interior via operating systems such as air, oil, and fuel. Depending on the requirement, different filter media are used in different combinations. Material mix Filter media used in different applications differ in the composition of the fibre and pore structure, which also affects the filtration grade. The finer the fibre strand and pore of the filter media, the better the efficiency of the filter.

Filter media consists of cellulose, synthetic fibres, or a combination of the two materials. Another type of filter media in use is a combination of the base material cellulose and an additional layer of melt-blown or nano fibres. Cellulose is strong and has good filter efficiency and dust capture and retention properties. Synthetic fibres, on the other hand, can be used to optimize filter efficiency, dust capture and stability. Together, the materials form an ideal combination of durability, filter efficiency, dust capture and stability, to increase the performance of modern filters.

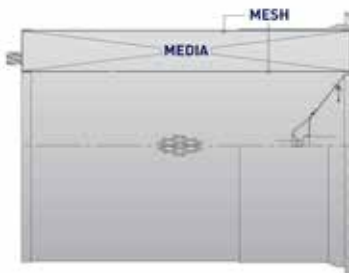
Mesh and Media – Roles in an Air Filter

Heavy duty machines are fitted with robust engines to operate in demanding condition. The supporting roles in the engine system like the fuel, oil, electrical and air subsystem plays crucial part in keeping the engine alive and operating. Just like the engine these subsystems are designed with toughness in mind. The engine air filter for example, is designed to block as much dirt as possible from reaching the engine intake and at the same time capable of withstanding the high air flow. The media of the air filter bear the brunt of the air flow rushing in. Without the structural support of stronger material like steel, the media has no defence against the air pressure. Heavy duty air filter media are surrounded with steel mesh externally (outer liner) and internally (inner liner) to provide the structural rigidity. The outer liner also serves as a protection for the media against accidental knocks during storage, transport and maintenance work. Debris which make its way to the air filter will also be stopped by the mesh, avoiding any damage to the media and subsequent bypass in the air filter. Selection – balancing act

Filtration in Commercial Vehicles

Commercial vehicle filters are subject to high loads, due to the higher mileage and longer service life of the vehicles. In addition, drivers of commercial vehicles are often confronted with different fuel and oil qualities on an international level. The supply of replacement parts is not always optimal. All the more important that the filtration systems function reliably. This also applies to agricultural and construction machinery with very high exposure to dust and dirt.

Ideally the media can trap infinite dirt but in reality, there is limit on media area. Adding more pleats will increase the area but at the same time the pleats will be too packed to permit required air flow. Hengst uses optimal media and proper calculation to ensure minimal differential pressure but at the same time greater holding capacity. Similarly, the wire mesh for the liner needs to provide the structural strength and concurrently has adequate open area to let air through with minimal resistance.





Mesh Size and Media Type

Left: Mesh with 43 percent open area and media with low air permeability will stifle the engine

Right: A more open mesh with 75 percent open area and a more superior media with better air permeability and greater dust holding capacity



Sealing and Filtration

Sealing plays a crucial part in the world of filtration. A proper seal will form a barrier to separate the clean and dirty sides of a filter. It allows parts of a filter to assemble without the need for two hard surfaces to mate perfectly by offering a malleable interface layer. The flexible property also ensures that sealing is intact when there is vibration or abrupt movement of two mating parts.

Mechanical Seal Types and Material

Different application requires different types of seals. Lip seals, x-rings and O-rings are mainly used for rotating shaft or extending cylinder. Gaskets and square rings

are more suitable for static application with flat surfaces. The material ranges from fibre, rubber, silicone, soft metal, liquid sealant. The choice will greatly depend on the operating environment – temperature, chemicals, pressure and others.


Supplier Profile

As one of the world's leading filtration specialists, Hengst Filtration is a family company founded in 1958 in Münster, Westphalia. With more than 3 500 employees at 23 locations worldwide, it develops innovative solutions in filtration and fluid management.

Hengst supplies technologically leading filtration systems in the areas of plant and mechanical engineering, industrial filtration, hydraulics, life science and health care. The tailor-made solutions are used in medical clean rooms, air conditioning systems, cleaning devices, industrial plants, power tools and robots. Additionally, they are a series supplier to the international vehicle and engine industry and a development partner for sustainable drive and mobility concepts.

In this way, Hengst Filtration makes future-oriented technologies possible in all sectors worldwide.

Size and Hardness

The core purpose of a seal is to provide the desired sealing requirement to prevent leakage. Other than the material and type, cross sectional thickness and hardness are also crucial factors. For example, the photo on the bottom right shows 2 O-rings with different thickness but meant for the same type of air filter. The thicker O-ring on the left may give a false impression that it can provide a better sealing with more material. However, a simple squeeze test shows that it compresses more readily than the O-ring on the right which needs a stronger squeeze to compress. To get the same sealing tightness, a softer material will require a greater amount of "squeeze" than a harder material and thus a thicker cross section is needed for the softer material. Deciding the hardness and thickness is a balancing act and size does not always matter. 



A Market Snapshot of Indonesia as Seen by Volvo Buses

Indonesia's economic boom provides opportunities to make the most of buses to move its population across cities and islands across the nation.

500 and 1 800 units of the latter type of buses would be imported, while in the last year this number dropped to as low as 500 units.



Lovyan agreed in the statement that Indonesia is a vastly different country from other nations in Southeast Asia, being large and fragmented with thousands of islands. He also noted that there is a shift in the way people travel throughout the country, whereby previously air travel was the preferred choice. Nowadays however, more and more routes open up with more and more buses plying these routes, making transportation with buses more accessible and affordable. "Certainly, in many places we cannot compete with the use of private transportation

Being the fourth most populated country, Indonesia is also a bus powerhouse. Indonesia's bus imports are projected to reach \$114 million by 2026. This is a sharp increase from \$93 million in 2021. On average, demand has grown 9.1 percent year on year since 1994.

Besides increasing imports, exports are expected to reach \$107 million by 2026, up from \$83 million in 2021. On average, supply grew 9.6 percent year on year since 1995. Indonesia is placed 25th on the list of bus-exporting countries in 2021. Speaking to Asian Buses was Eka Lovyan, Chief Operation Officer, Indotruck Utama and Harry Iskandar, Country Manager, Volvo Buses Indonesia, to provide insights into this bustling and booming market. The market is generally split into two categories: the front-engine buses and those with the engine mounted in the rear, being 8 12 meters to 13.5 meters. Prior to the pandemic, between 1



or trains.” A surge in bus uses can be observed in bigger cities, especially in Jakarta, where Trans Jakarta is pushing for more public transport. City buses are becoming more and more popular, slowly competing with vans, transporting up to ten passengers, similar to Jeepneys in the Philippines. Intercity buses still hold an impression of being not very comfortable by most passengers, although some places have been connected since the 1960s.

The increased use of buses goes hand in hand with the improvement of infrastructure on the main islands. Many highways are being upgraded, and the shift to a new capital will be a major boost for the bus industry. Not only are the planners for the new capital city gearing the place up for more buses to move commuters, but it is also planned right away for electric buses. Currently, the mandated emission standard is EURO IV. However, Volvo is already offering all buses in EURO V standard, being already one step ahead. In Indonesia, PETRONAS is a major supplier of Diesel Exhaust Fluid (DEF), which is now seeing price reductions and expansions in availability.

“What we also notice is that the government is pushing for more school buses to be deployed. Currently, most parents would drop off and pick up their children using private cars and picking them up as well later on.” As one can imagine, the move to school buses would be a great relief to the overburdened road network. In big cities, city councils are now enforcing policies that allow for use of private cars only on alternate days. Naturally, this would require alternatives offered to allow people to commute more effectively. In Jakarta, some 4 000 buses are currently in operation; it is said that this number is to be increased to 10 000.

Being the distributor for Volvo buses, PT Indomobil Sukses Internasional Tbk (Indomobil), has started additional collaboration with Volvo Buses in 2022 to locally assemble buses. The assembly facilities are to reduce import duty and allow for the opportunity to offer cleaner technology in a more competitive way. Thus, Indomobil and Volvo Buses work closely with customers and develop vehicle solutions that can bring them closer to the business objectives of their



customers. With the CKD facility, Indomobil hopes to break into the mass market as well, offering a wider range of products. Lovyan added that this, as it also constitutes a significant investment from Volvo Buses, sends a clear message to the market about the seriousness of the two partners in Indonesia. Here, Volvo is hoping to capitalise on their reputation for quality and safety.

The decision to enhance the partnership with Indomobil was motivated by the fact that the company already has an extensive service network. Currently, Indomobil is also adding service stations along the most popular intercity routes to ensure seamless running of the vehicles. In Jakarta, Volvo buses are sold with full service and maintenance contracts, guaranteeing 24-hour emergency breakdown service. “The very extensive service network is really making this the best possible partner in the country,” added Lovyan. This network will be forming the backbone of the operation as the country is now connecting cities and highways in a bid to offer better connectivity for the transport of both, passengers and goods.

With the renewed momentum, Indomobil might be up against strong competitors, however, this may also be an advantage. Being the youngest, one may actually be able to deduct the market trends from what others are selling, piggybacking on their mistakes and thus being able to accelerate the introduction of the right products. Financing also depends on the ability to demonstrate that the credit is

secure and having a strong brand, Volvo, as partner certainly helps in securing financing of the buses for operators. Now that customers are also able to compare all European bus chassis, Lovyan notices that customers are making a switch to the Volvo brand. Iskandar also has strong confidence that Volvo Buses would be the preferred business partner to the customers in Indonesia.

What Indomobil has observed is that the creation of new highways, paired with the introduction of new, comfortable buses, has elevated the standing of the profession of bus drivers with more younger people looking to being a bus driver. It is also becoming more common to see female drivers on long distance routes. Besides being an alternative to air travel, buses are now also more and more popular among tour operators ferrying tourists, companies, such as mining operations, to move their workers about. The use in such application is, according to Iskandar, a manifestation of the believes of customers in the quality and safety promise made by the Swedish brand.

Indonesia, like many other countries, is realising that the chokehold on cities can only be alleviated by reducing the number of cars on the roads. This can be achieved by offering suitable public transportation solutions. This, as often highlighted by Volvo, has to be done by means of integrated systems, comprising of buses, trains, MRT and LRT. “Many of Indonesia’s cities would benefit greatly from having BRT (Bus Rapid Transit) systems and we hope that we can play an integral role in the movement towards better transport efficiency in the country,” Lovyan said in closing. 📌



Electric Mobility Changes Major Parameters in Tyre Development Process



Enno Straten, Head of Strategy, Analytics and Marketing at Continental Tyres EMEA, explains at the presentation of the new Generation 5 Conti Hybrid tyre line how Continental is shaping the transformation to electric mobility with specially developed commercial vehicle tyres and smart sensors.

Q: Mr. Straten, electric mobility has hit the fast lane, and the EU is predicting 30 million electric vehicles will be on Europe's roads by 2030. How far has electrification progressed with commercial vehicles?

ES: Electrically powered trucks play an important role in reducing CO2 emissions from road traffic – and therefore in achieving sustainable mobility. It is true that development has reached a more advanced stage with passenger cars – as well as with electric vans and electric buses – than with heavy-duty commercial vehicles. Electric vans are employed primarily by courier, express delivery and package delivery services; light electric trucks up to 7.5 metric tons are generally used for delivery purposes in urban areas to transport goods over the last mile. And an ever increasing number of local transport operators are running electric buses.

Q: What do these changes to drive systems mean for the tyre market?

ES: The rapid development of electric mobility has been accompanied by a surge in demand for suitable tyres in the commercial vehicle segment. The new drive system types and, in some cases, new vehicle concepts, are changing requirement profiles.

Q: What are these new requirements?

ES: First of all, tyres for electrified commercial vehicles do not yet differ fundamentally from tyres for commercial vehicles with diesel or gasoline engines. Having said that, certain parameters that play a major role for us in tyre development are changing. Uppermost on this list are load capacity, rolling

resistance and wear resistance. Vehicles with electric drive are heavier on account of the batteries they are carrying, but they also accelerate faster than vehicles with conventional engines. The driver can essentially call on maximum torque from a standstill. So greater forces are exerted on the tyres of electrified vehicles.

Q: Can you give us some specific examples of tyre developments?

ES: With the Conti Urban city bus tyre, we have developed a tyre with an increased load index specially for electric buses operating in urban areas. The load capacity of the tyre is geared to the higher weight of electric buses. For example, the Conti Urban HA3 315/60 R22.5 can carry up to eight tons per axle.

Q: You also mentioned rolling resistance as an influencing factor. What role does this parameter play?

Optimized rolling resistance allows the motor's energy consumption to be reduced, and that also applies for vehicles with combustion engines. Since the EU emissions directive came into force and the VECTO tool was introduced – if not before – commercial vehicle manufacturers have been concentrating on lowering CO2 emissions. And tyres have been one of their main points of focus.

Q: Another trend are smart tyres with sensors. What sort of developments are we seeing here?

ES: Yes, commercial vehicle tyres are being increasingly incorporated into the vehicle architecture for connected and automated driving. We also offer this technology as a professional retrofit solution with ContiConnect 2. Sensors fitted in the tyre provide information such as tyre pressure, temperature, wheel load, tread depth, wheel speed, wheel slip, and structural damage in the tyre. This information can be accessed

and analyzed in real time. The result is improved handling properties, increased road safety and greater efficiency, combined with low costs.

Q: You mentioned working with commercial vehicle manufacturers. What do these partnerships look like in detail?

ES: A good example here is VDL Bus & Coach, a leading manufacturer of electric buses based in the Netherlands. We have been running a partnership with the company since the end of 2020 and have worked with them to develop initial prototype tyres for electric city buses. We have now tested these tyres in depth at our Contidrom proving grounds. VDL has been offering electric city buses since 2013. The driving environment with these buses is a departure from the familiar. To start with, there is the higher torque when pulling away and accelerating. And then you have the impact of recuperation – i.e. recovery of energy when braking. All of this subjects the tyres to particularly significant forces.

Our partnership with the Switzerland-based Designwerk Group's electric truck brand Futuricum works in a very similar way. In fall 2021, a Futuricum truck fitted with our EfficientPro tyres set a new distance world record at the Contidrom: 1 099 kilometers on a single battery charge!

Q: Those collaborations are with commercial vehicle manufacturers. Do you also have special partnerships with end customers – i.e. mobility providers?

ES: One example here would be our partnership with MOIA, a ride-sharing company operating in Hamburg and Hanover. We developed a special all-season tyre for MOIA, which offers even greater safety in combination with the Conti360° Fleet Solutions concept. Together with our service partner Vergölst we are working intensively on optimizing tyre performance and breakdown service. This has seen us successfully carry over our established 360° Fleet Solutions approach from the commercial vehicle space into MOIA's new and innovative mobility concept.

Q: Do you also work with traditional mobility providers, e.g. with local transport operators?

ES: Of course – the partnership with the Hamburg-Holstein public transport operator (VHH) is a case in point. VHH uses fully electric Lion's City buses from MAN. To ensure the tyres can deal with the weight of the batteries on board, the buses are fitted with our Conti Urban HA3 tyre. Our developers have increased the load capacity of this tyre specially to meet the requirements of electric mobility in urban areas. Two other examples also spring to mind – one in everyday usage scenarios and one in the context of smart tyres.

Q: Sounds interesting – please tell us more!

ES: The Stiegl brewery in Austria has been running an electric truck from MAN since late 2018. In this time, our Conti Hybrid HS3 and HD3 tyres have covered more than 23,000 kilometers on the vehicle. The truck is on the road for eight hours a day in the center of Salzburg and in a radius of 50 kilometers around the city. Stiegl report that our tyres have performed outstandingly across all driving situations.

Q: That's nice feedback! What example were you thinking of when you mentioned smart tyres?

ES: We launched a pilot project with SHARE NOW Denmark in which we successfully monitored the tread depth of tyres on electric vehicles in real time. Together with telemetry experts Traffilog, we linked information from tyre sensors and telemetry data from the fleet's vehicles with a cloud-based algorithm. We were then able to use this information to tailor our tyre service even more precisely to actual needs, instead of pursuing regular, scheduled servicing. ■

Fleets and Electric Mobility

The European Commission has made clear stipulations regarding the use of low- and zero-emission commercial vehicles, meaning there is growing pressure on fleet operators to upgrade their vehicles accordingly. Time is running out, the costs are enormous and the market very unsettled. As far as the tyres are concerned, considerable gains can be made by using low-rolling-resistance, low-noise tyres designed for electric drive systems, professional tyre management, and digital solutions.

Mobility is currently undergoing a rethink. Electric mobility and sustainability are the most important elements and hold the key to a more climate-friendly, future-proof form of mobility worldwide. Electric vehicles produce fewer carbon dioxide (CO₂) greenhouse emissions, especially when they run on electricity from renewable resources. For years now, demand for electric vehicles has been steadily increasing – for cars, trucks, buses and vans alike. Sustainable and safe electric vehicles call for tyres offering exactly the same qualities.

When it comes to tyres, the same essentially applies for an efficient electric vehicle as for a low-emission combustionengined vehicle: lower energy consumption equates to a higher level of sustainability – regardless of the type of drive system. For an electric vehicle, achieving a greater range while using less power is the measure of particularly high sustainability. Energy consumption can be reduced by minimizing rolling resistance, but also by giving the tyres good aerodynamics. There is particularly strong demand for zero-emission electric fleets from municipalities and transport operators. The EU's revised 'Clean Vehicle Directive' from 2019 is one of the factors driving the switch to electric. With electric mobility evolving at such a rapid pace, there is also a growing demand for suitable tyres in the commercial vehicle segment. Manufacturers have been focusing their efforts on reducing CO₂ emissions ever since the EU regulation governing emissions came into force and the VECTO tool was introduced, if not before.



A Visually Optimized Windscreen

Windscreen wipers are crucial components on any bus. Doga is a market leader with a global footprint, offering sophisticated systems to keep the windshield clean.



A clean windscreen is vital for the safe operation of any bus. It just takes a little flick of a stalk on the steering column to activate wipers if there isn't already a sensor that automatically sets them in motion once rain or spray hits the glass. This seemingly effortless action is made possible through the use of sophisticated motors. These motors may be hidden behind the cladding of the vehicle, but they are crucial nonetheless and maybe some of the hardest working components in a bus. Spanish manufacturer Doga in Abrera has carved a niche in this area and their solutions have gained a high-quality status. In our region, Mr Oh Teik Gee, Managing Director of Europarts (M) Sdn Bhd is their main point of contact.

Europarts can trace its roots back to 1978. With GST introduction, Oh re-designated the business to be a holding company with the brand Trailer & Truck Components to be the trading and marketing arm of the business. In 1995, Europarts was appointed by Doga to be the local representative in view of the

1998 Commonwealth Games held in Malaysia. At the time, a large number of buses was predicted to be needed to move the crowds during the games. Subsequently Doga continue to partner with Europarts to cover regional clients

(SEA) providing sales, engineering support and after-sales services. As of 2005, Doga also produces in Nantong, China leveraging on global sourcing, reaching out and better service to clients in Asia. Primarily Japan (Komatsu, Hitachi), Korea (Hyundai, Doosan) and China (Yutong, BYD). This setup allows Europarts to tap on both Spain and China engineering and supplies. The latter having same production procedures at Spain, thus producing quality equal to what HQ offers.

Today, Doga Spain and China supply to all the big names in the industry. The advantage, as Oh highlighted, is that one can deal with technical staff and engineers in real time and doesn't have to factor in the time difference between Southeast Asia and Europe. Buses manufactured in Malaysia, using Doga parts, are shipped all over the world, thanks to the strong reputation of local bus builders. In Oh's view, it is the high quality of buses build in Malaysia that aligns with the demands of Doga towards their products. Doga's products are either OEM products that come with the fully build bus or can be specified by any operator to be used in their buses.

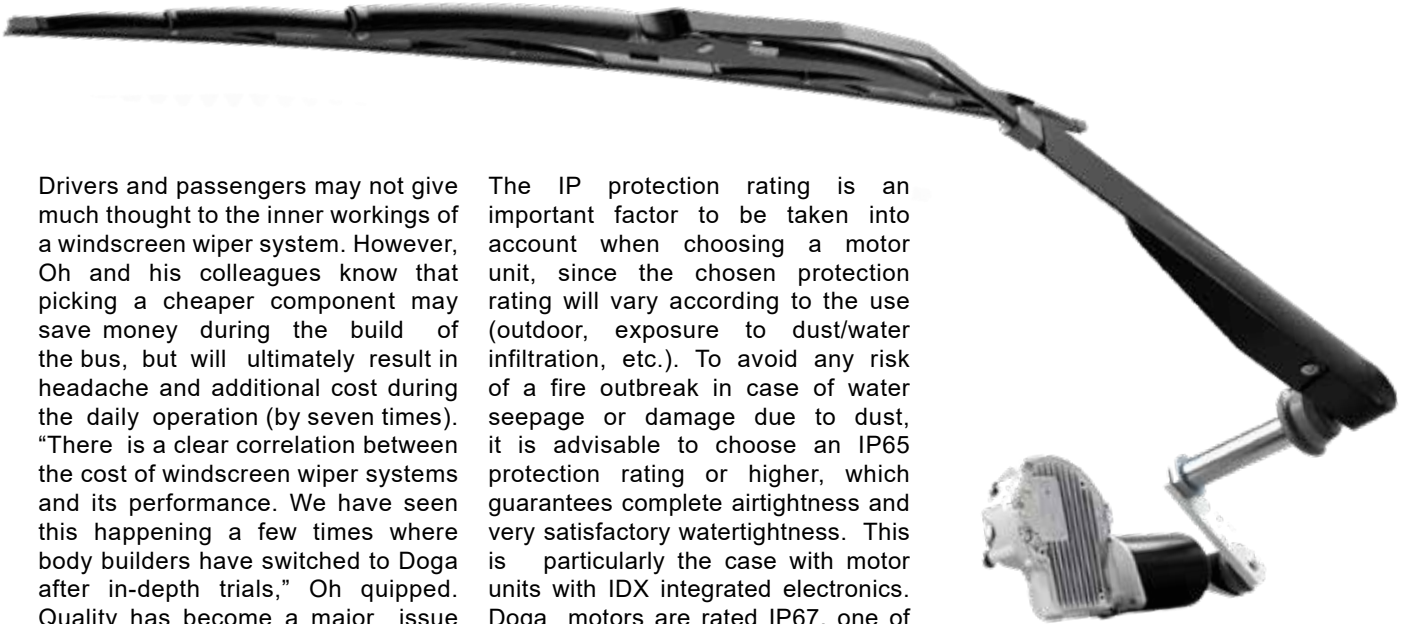
Windscreen wipers may be among the least valued item on a bus, but they are among the top five most important safety features on a vehicle.

Drivers and passengers may not give much thought to the inner workings of a windscreen wiper system. However, Oh and his colleagues know that picking a cheaper component may save money during the build of the bus, but will ultimately result in headache and additional cost during the daily operation (by seven times). "There is a clear correlation between the cost of windscreen wiper systems and its performance. We have seen this happening a few times where body builders have switched to Doga after in-depth trials," Oh quipped. Quality has become a major issue for makers of windscreen wipers as governments are starting to demand up to five years of warranty on buses. Naturally, operators, being government or private companies, would surely want to have a hassle-free experience. "Windscreen wipers may be among the least valued item on a bus, but they are among the top five most important safety features on a vehicle. If the wiper system does not work, the bus does not run." Quality is a priority for Doga, the company, through Oh's team of engineers conducts audits at the bus builder's location to check on the correct installation of the motors and wiper systems. This is to ensure that every system is installed correctly, which ensures that each Doga system performs its best for many years.

The IP protection rating is an important factor to be taken into account when choosing a motor unit, since the chosen protection rating will vary according to the use (outdoor, exposure to dust/water infiltration, etc.). To avoid any risk of a fire outbreak in case of water seepage or damage due to dust, it is advisable to choose an IP65 protection rating or higher, which guarantees complete airtightness and very satisfactory watertightness. This is particularly the case with motor units with IDX integrated electronics. Doga motors are rated IP67, one of the highest in the industry. As these motors are extremely tightly sealed, no condensation or dust can creep in. "Thus, these are highly suitable for climates like ours here in Malaysia or places like the Middle East, where it is hot and dusty." In Indonesia for instance, buses drive through the night, climbing mountains where condensation creeps into motors of lower quality. Typically, the low-cost options only last six months in such environments. In hot and dusty conditions, Doga's products also perform better than others as they are build to withstand the most extreme climates.

Doga's systems are future-proof, as the motors and steering units do not need to have special adaptors

to log onto the CAN-BUS of battery electric vehicles. With an innovative way to operate the motors, Doga's windscreen wiper systems manage to clean more surface space than others. This is done by having overlapping wipers that will also keep the middle of the windscreen clear while being a compact system that saves the body builder space in the chassis. Oh points out that Doga is able to provide low quantities. "As long as a customer provides us with all the information, we can produce really small order quantities while still ensuring a maximum wipe." Offering complete systems, from the wiring on the motor to the wiper blades, Doga produces everything in house. Wiper blades are made from Malaysian Rubber, as it is the best in the world. ■





ETG parts are selected and approved parts only, manufactured according to German Standard. "We have a dedicated team that audits our suppliers by visiting their production facilities to check their quality compliance. Among the 30 000 plus part numbers, customers can also find parts for trucks that are not officially sold here in Malaysia. Working with trustful wholesalers and resellers only, ETG is a well-known aftermarket brand and a reliable option for various markets and customers.

Once the minimum order volume is reached, goods are shipped from the central warehouse in Germany, arriving here a few weeks later at the purchaser's warehouse. "Typically, my clients will have rolling orders for a year for the parts they forecast." One may ask if it is worth paying a premium for a German brand when there are alternatives in the market. Mr. Alfred points out that the benefit of using ETG's products is that their quality is consistent. Market observation has shown ETG that cheaper products may be of a high standard when the first batches are being sold, but after that it can be hit and miss."

"ETG's quality is its biggest value and especially for technical parts, Europe is still the worldwide leader, and consistency is key," he emphasised. Issues with aftermarket parts arise typically when a technician is not properly trained in how to install the parts.

"Our product department is connected to all our suppliers, and we are always happy to assist with demand planning or technical expertise." ETG is already established and successful on other continents (Middle East, South America, Africa). Now they are ready and excited to support their growing partners in the Asia region as well.

What Oon has observed is that the European market is no longer different from Asia. The availability of aftermarket parts, the competition and cash flow is rather similar. However, he noted that in some markets there is a preference for OEM parts, while others are flooded with fake or counterfeit parts. "In this context, we try to educate the market, we need to understand the need of the operator and support them partnerships and loyalty to our dealers. This is what Meyer Glitza (ETG) stands for." ■

Part-nership as Winning Formula

Their simple slogan, 'being your lifetime partner' denotes the business philosophy of ETG. Standing for Engine Technic Germany, the brand works with every business partner on their core values of offering high quality products, sustaining credibility, reliability and fairness in the pursuit of this slogan. Meyer-Glitza, Frese, GmbH & Co KG (Meyer-Glitza, Frese) has earned an excellent reputation in the automotive parts industry over the past 150 years since its founding.

Locally, Mr. Alfred Oon Ching Hsiang, Sales Director, Asia Pacific, ETG (Asia Pacific) Pte Ltd, is responsible for managing the brand in the region. Based out of Malaysia, he is handling the portfolio of Meyer-Glitza, Frese, which has since grown to include components beyond engine parts. Shock absorbers, slack adjusters, belt tensioner and several other product groups can now be obtained from Meyer-Glitza, Frese via ETG.

"What we do is to reverse engineer the OEM's components and then source them globally with the quality matching that of the original manufacturers. "I have been in this industry for decades and what I found is that fleet operators opt for aftermarket parts once the vehicle is older than the warranty would cover. And if you can save thousands of Ringgit Malaysia on servicing per truck it multiplies," he said.

The portfolio that customers can choose from here in Malaysia are either OEM spare parts, such as Kongsberg, FTE, Relo, Kaco, and others, or aftermarket parts, branded ETG. The latter are Quality parts for European trucks. Besides being competitively priced,



Get on the Bus. Which Bus?

There should be no debating that we need to act now in order to reduce negative impacts on the environment from transportation. For the sake of this column we can also assume that in broad strokes, public transport is having a lesser impact than personal vehicles. Increasing bus capacity using is also generally seen as easier and more flexible than other means of transportation such as trains, for instance. So, we should all get onto buses more often to commute, and to visit sights while also incorporating them into our leisure activities. I am in! I like the idea of not having to worry about filling up the fuel tank before a trip or where to find a parking spot when I arrive.

But just how can this be done? I can see the mall from my sofa when I watch TV. It is so close that one could walk, if one were brave enough to cross the four-lane road that is in between. I have seen big shuttle buses that drive around my neighbourhood. I see them at 5:30 in the morning when I go for a run. I see them parked randomly, but never in a bus stop. Also, I never see them after 7:00am. It is a bit like bananas in the former East Germany: you know they exist, but you can't get them. What I do see thought is a lot of people driving all about town when they get their shopping done or on the way to restaurants. Just why aren't there more buses with clearly communicated schedules that service a township that even has a kind of ring road system?

This week, we also learned through official channels that only half of Rapid's buses are operating. That is about 900 for a city population of about nine million. Or one per 10 000 people. Cut to Singapore where we find some 5 800 buses serving 5.5 million people. Of these some are reserve or under maintenance, let's call it 5 000. That is one bus for 1 100 persons. In Singapore, you can travel to the most remote corner of the island in a bus. Phrased slightly different by the OEMs, the bottom line is that public transport needs to be available, convenient and predictable. I would need 4.5 hours to get from home to my office 18 Km away. However, I would not even know where to access buses if indeed they operate.

In some parts of the Klang Valley we can hop on free buses. However, the problem persists: it is not accessible or convenient. I learned this phrase here in Malaysia: 'free, also don't want'.

The idea of independence was also promoted in Europe where I grew up. We would go camping, driving our cars and trailers around the place to see different spots. In Malaysia, the idea of doing good for the economy by buying national cars is something that is still very prominently promoted. After decades of this narrative, it is of course very difficult to affect a mindset change. If we are honest, the voice for public transport is silenced by the deafening roar of promotions for cars, mainly the electric ones these days. When was the last time you passed a billboard that told you how cool it is to ride the bus?



stefan@asiantrucker.com

How could we rapidly ramp up the capacity for public transport using buses? Just being critical is not good enough, hence here is an idea or two. Singapore is planning to replace half their buses with electric ones by 2030, 100 percent by 2040. This means, that every month now, there will be used buses phased out. Malaysia could pick them up. Likely, some were built in Malaysia and repatriating them should be relatively easy. As a positive side effect, these buses already comply with higher emission standards, which would help improve air quality while working towards carbon neutrality. In addition, there are still bus operators that have yet to get back to full capacity as tourists have yet to flock back to our shores. These buses, small or large, could well be used to transport commuters around the city.

From what I observe, many people are fed up with the traffic jams and they would not mind switching to public transport. However, for now, the odds are stacked in favour of most to take their cars whenever they need to go somewhere. ■



Safety Tech Showcases New Features of its Europe No 1 Camera Monitor System



Blind spots are a major cause of accidents involving buses and coaches. The UN regulations R151 and R159 on Blind Spot Information Systems (BSIS) and Moving Off Information System (MOIS) help avoid collisions with Vulnerable Road Users. The regulation requires the system to inform the driver of the presence of a

nearby cyclist who could be endangered when turning away from the driver so that the driver can stop the bus before crossing their path, and when a pedestrian or bicyclist is in close proximity in front of the vehicle during drive-off.

Safety Tech stays at the forefront of innovation offering ever more safety in the city and a greater driving experience through its ADAS (advanced driver assistance systems) and bus driver security barrier.

Following the success of its Camera Monitor System (CMS) Smart-Vision, already chosen by about 100 operators, 40 bus, coach, and truck OEMs, equipping more than 10,000 vehicles including 100 types of vehicles, Safety Tech showcases information systems for the side and the front areas of the bus. SafetySide and SafetyFront eliminate blind spots and alert the driver to avoid accidents and save lives.

Safety Tech has developed innovative systems that go beyond the standards, to ensure maximum safety for drivers and road users. SafetySide and SafetyFront offer a wider detection area, allow the detection of all vulnerable road users, and SafetySide is available for both sides of the vehicle, and can be integrated in the Smart-Vision solution without any additional display.

Smart-Vision is a compact system that replaces mechanical rear-view mirrors with high-definition cameras and interior displays to provide optimized visibility and enhanced ergonomics. Compared with standard rear-view mirrors, the CMS covers a larger field of vision, the interior displays eliminate glare, and the automatic adjustment of the screens' brightness ensures excellent visibility in all lighting conditions, i.e.: entrance and exit of tunnels, low light, bad weather.

Smart-Vision offers a high-quality image, night and day, and guarantees a stable image in any driving environment (no vibration). In addition, the solution provides functions such as parking and manoeuvring aid or guidance assistance allowing a shorter turning radius.

Smart-Vision brings greater driving comfort, reduced fatigue and enhanced safety, but also allows a quick return on investment.

Indeed, the system cuts down fuel/energy consumption thanks to the removal of the mirrors, which lowers wind resistance for improved aerodynamics. Smart-Vision improves manoeuvrability and eliminates the risk of collision between the mirror and tree branches or road signs, which lowers maintenance costs linked to potential damages, while enhancing the vehicle's availability.

Safety Tech will also launch a data management service along with its CMS. Data is collected through the camera monitor systems and can be transmitted in real time or deferred to a CCTV device and fleet management or internal platform over wireless network providing useful analysis in order to improve safety and security. This service opens up new possibilities in data collection with the combination of Safety Tech's products and artificial intelligence.


Regarding the bus driver security barrier, with more than 10 000 buses equipped, Safety Tech's driver protection door, Savety-Door, is another of the company's highlights. Safety Tech is the European leader in the driver protection door market with its modular composite-based door comprising a reliable up/down sliding glass that separates the driver from the passengers. This physical separation

creates an anti-aggression and anti-virus barrier bringing more security and serenity to the bus drivers. Easy to install as original equipment or refit, it is also a robust and low maintenance solution with highly customizable features. ■



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TRUCKER ASIAN




Ashok Leyland Bags Orders for 1282 Buses from Gujarat State Road Transport Corporation

Ashok Leyland, the Indian flagship of the Hinduja Group and the country's leading commercial vehicle manufacturer, today announced that it has bagged an order for 1 282 fully built buses from Gujarat State Road Transport Corporation (GSRTC). This order, one of the largest from a State Transport Undertaking for a single OEM, will contribute to strengthening Ashok Leyland's dominant position in the Indian bus market.

Under the terms of the order, Ashok Leyland will deliver 55-seater fully assembled BS VI diesel buses in a phased manner. These buses are designed to provide exceptional passenger comfort and will feature the advanced iGen6 BS VI technology, featuring a robust 147 kW (197 hp) H-series engine, which in turn shall enhance safety and comfort, and reduce the overall cost of ownership (TCO).


Speaking on the order win, Mr. Sanjeev Kumar, President – M&HCV, Ashok Leyland, said " We are thrilled to receive this order from the Gujarat State Road Transport Corporation (GSRTC). GSRTC has had a long association with

Ashok Leyland with more than 2 600 nos. BSVI buses already operating successfully in their fleet, including 320 nos. fully built midi buses. This latest order boosts our order book from State Transport Undertakings to an impressive tally of over 4 000 buses. GSRTC has been a cherished long-standing partner, and we take pride in our consistent track record of delivering high-performance vehicles to them. These 11-meter fully assembled diesel buses will feature our in-house developed iGen6 BS VI OBD II technology, adhering to the rigorous AIS 052 and AIS 153 CMVR bus body standards." 

Hong Kong Operator KMB Celebrates 90th Birthday with Launch of Next-generation ADL Enviro500EV

As it celebrates its 90th birthday, the operator is looking firmly to the future with the unveiling of its first Alexander Dennis Enviro500EV electric double decker. The new three-axle vehicle has been designed in-house by Alexander Dennis and fully built in the company's production network. The Enviro500EV is an integral battery-electric double decker which utilises the heavy-duty variant of the Voith Electrical Drive System, giving it a peak power output of 410 kW, which makes it suitable for the high and low-speed duty cycles and topographical challenges of Hong Kong. It combines this with 472 kWh batteries that are assembled by Impact Clean Power Technology

to a future-proof Alexander Dennis proprietary design. Clever packaging allows them to be fitted smartly within the bus, avoiding intrusion into the passenger space and thereby delivering a conventional saloon seating layout. In KMB's specification, the Enviro500EV seats 82 passengers and has room for two wheelchair users. Paul Davies, Alexander Dennis President & Managing Director, comments: "Happy birthday to KMB, who have been Hong Kong's Heartbeat of the City for 90 years. We are very proud to be a long-standing business partner of KMB and this is yet another milestone in our relationship as our all-new Enviro500EV joins over 2 500 existing Alexander Dennis double deckers

in the KMB fleet." Alexander Dennis and its predecessors have been supplying buses to Hong Kong since the 1920s and have been at the forefront of bus development in Hong Kong, bringing vehicle air conditioning to the market as well as low floor access for three and two-axle double deckers, before pioneering hybrid and now electric drivelines. 



Karsan Gets Ready for the Future of Public Transport with e-ATA HYDROGEN



Ahead in the Future of Mobility", Karsan this year received an award at Stevie Awards, one of the leading award programs in the business world as it did last year.

At the Stevie Awards held for the 20th time this year, Karsan was deemed worthy of the Bronze Stevie Award with e-ATA HYDROGEN in the transportation branch of the Product&Service category this year. The award received thanks to hydrogen-fuel e-ATA HYDROGEN from the Stevie Awards, one of the world's leading business awards held since 2002, is an important result of Karsan's recent technology investments. Stating that they started to produce 100 percent electric vehicles with e-JEST five years ago with the vision of being "One Step Ahead in the Future of Mobility", Karsan CEO Okan Baş said, "After this step, we completed our electric product range by adding our e-ATAK and 10-12-18 meter e-ATA models in a short time. These vehicles continue to grow fast in their segments in Europe. In addition, we managed to fill a significant gap in the market, adding a hydrogen fuel option to our e-ATA model. This prestigious award our e-ATA HYDROGEN model has received has made us proud."

Investing in new generation energy systems with the vision of being "One Step Ahead in the Future of Mobility", Karsan added another to the awards it has won thanks to its innovative products. Karsan, which plays a pioneering role in the electrification of transportation infrastructure in Europe after Turkey, continues to be rewarded thanks to its successful practices and high-tech production power. Increasing its production capacity day by day with the vision of being "One Step

Geotab Data Connector Integrates AI Predictive Safety and Benchmarking Capabilities

In 2022, Geotab's data insights helped commercial vehicles drive 17 percent more miles on average before experiencing a collision in comparison to 2021. Building on quality data intelligence and recent innovation in artificial intelligence (AI) and machine learning, Geotab is now able to provide even more reliable data and predictive insights to help fleets make informed decisions to prevent collisions, reduce risk and get drivers home safely.

Introduced in February 2023, Geotab Data Connector (GDC) is having a significant impact on improved business outcomes. GDC easily integrates curated connected fleet data insights into popular business intelligence platforms to provide a clear actionable picture, enabling companies to better manage and measure fleet

data for improved performance, such as vehicle health, utilization, fuel consumption - and now, predictive safety and industry benchmarking.

By employing its expertise in data intelligence and machine learning, Geotab has now incorporated advanced AI-powered predictive safety and benchmarking capabilities into GDC, moving from traditional fleet safety scores into forecasted probability of collision. Then, by comparing aggregated data across Geotab's customer base of more than 3.7 million subscriptions, the safety benchmarking functionality provides an objective comparison of safety performance, allowing businesses to evaluate their performance against industry benchmarks.

“Perfect motor”: MAHLE Combines Strengths of its SCT and MCT Electric Motors



The MCT (Magnet-free Contactless Transmitter) and the endurance champion SCT (Superior Continuous Torque) electric motor, which operate contactless and without rare earths, are among the latest innovations from the Stuttgart-based automotive supplier in the field of electric drives. Dispensing with rare earths in MCT technology not only makes production more environmentally friendly, but also brings advantages in terms of costs and raw material security. It is particularly efficient - at almost all operating points. The MCT electric motor shows its efficiency advantages to the full, especially in those areas that are frequently used in real road traffic.

The MCT electric motor is characterized by high durability, because the necessary transmission of electric currents between the rotating and stationary parts inside the motor is contactless and thus wear-free. Therefore, the motor is maintenance-free and suitable for a wide range of applications.

With the SCT electric motor, MAHLE currently has the most enduring electric motor in its range. The traction motor can operate at high power for an unlimited period of time. This technological leap was made possible by a new cooling concept. The innovative integrated oil cooling not only makes the e-motor robust, but at the same time also allows the waste heat generated to be used in the vehicle's overall system. The new e-motor is unrivalled in its small size, light weight and efficiency. The extremely compact design also results in a material cost and weight advantage - a lighter motor requires less material in production and at the same time increases the possible payload in commercial vehicles.

The MCT electric motor shows high efficiency over a wide speed/torque range. The SCT electric motor, on the other hand, is designed to achieve the highest efficiencies at the optimized main operating points. Another strength of the SCT electric motor is its high continuous output. This is - despite the very compact and lightweight design - 93 to 100 percent of its peak power, as measurement results prove. This unprecedentedly high ratio, which is unique on the market, enables it to be used in electric vehicles of all kinds, even under very demanding conditions. Classic examples include driving an e-truck over mountain passes or repeated acceleration of a battery-electric passenger car. These scenarios are only covered to a limited extent by e-motors available to date.

Hydrogen Combustion Engine Excites Customers at China Tech Day

During a Technology Day in Wuhan, China event at Cummins' East Asia Research & Development Centre showcased the company's latest product strategy for China-based customers, focusing on the China debut of its 15-litre hydrogen internal combustion engine. Meritor axles, Eaton Cummins Endurant transmissions and Cummins aftertreatment systems were also on display, highlighting the company's commitment to provide a broader range of products, as well as full powertrain integration capabilities.

The event signalled the introduction of Cummins' X15H hydrogen internal combustion engine and attendees witnessed its first start-up in China. Part of the company's industry-first fuel agnostic engine platform, Cummins' 15-litre hydrogen engine features direct-injection, lean-burn combustion, with ratings up to 542 hp and peak torque of 2600Nm. The zero-carbon fuel hydrogen engine can achieve brake thermal efficiency (BTE) up to 44% with brake mean effective pressure (BMEP) of 22Bar, supporting diesel-like power and torque capability.

Jason Wang, Cummins VP & General Manager of EBU China said, "Achieving zero-carbon requires collaboration and joint innovation. Cummins has long-term partnerships with its Chinese customers which allows us to fully understand their business requirements and sustainability goals. The combination of in-depth market insights and a culture of innovation well-positions Cummins to develop the right solutions that support our customers' businesses while reducing environmental impact."

Cummins X15H hydrogen engine is based on familiar internal combustion engine technology and can be integrated into a vehicle chassis without the need for a major product redesign. Its diesel-like performance means it's a viable zero-carbon fuel option for many applications, including heavy-duty haulage and vocational trucks. Commonality between the X15H and its diesel counterparts also supports existing parts supply and maintenance practices.



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