Busworld goes North America

In collaboration with the American Bus Association (ABA), Busworld North America organized an information session yesterday on the fiercely exaggerated fears implied by “Buy America”.

After a brief introduction by chairman Don De Vos, CEO Peter Pantuso outlined the history of the ABA founded in 1926. With 900 affiliated companies (approximately 2,000 vehicles), the ABA represents 60% of the coach companies. They do organize a travel fair, but not a vehicle fair like Busworld. That is why ABA and Busworld are the ideal partners to organise a bus and coach show based on the European model in North America as well.

With only a handful of its own OEMs, there is still room for newcomers in the United States, especially when it comes to suppliers.

A detailed explanation of the ‘Buy America’ regulations quickly made it clear that the fear of not being allowed to import into the US is unjustified. This import restriction only applies to city buses that are financed (partially or entirely) with federal public money, while regional or urban concessions are not affected. School buses and coaches are not subject to this restriction. There is also an exemption for parts or systems that are not available in the US or that are lacking in quality and for orders below US$150,000. Software is also not subject to this restriction.

Together, ABA and Busworld organize the first Busworld North America in 2021 in Baltimore, Maryland.

Dafo Vehicle Fire Protection has developed a comprehensive multi-zone fire protection solution, available for electric and hybrid vehicles. Dafo uses Forrest as part of a complex system solution. The manufacturer states that it provides an effective cooling capacity to slow down fire development for safe evacuation of passengers.

Dafo Fire Protection has divided the EV or HEV-bus into four protection zones, which are protected in various ways with robust detection and fire suppression systems, applied on both liquid and gas based solutions. Dafo claims that since Li-ion batteries are still a relatively new technology and battery fire safety is a recent area of research, regulations and standards are to some extent lagging behind developments. Dafo Vehicle Fire Protection is participating in several research projects on how to deal with the fire risk of Li-ion batteries in vehicles and to reduce the risks and consequences of a thermal incident in HEV’s and EV’s such as buses and trucks. It directs the Li-ionFire research project funded under the EU Framework Programme for Research and Innovation - H2020 - in the context of the SME financing scheme. Li-ionFire has been selected for the shortlist of the Busworld Awards. (Hall 3, stand 3110)

Caetano partners with Toyota

The Portuguese bus manufacturer Caetanobus is working with Toyota on its first fuel cell city bus. The first prototype can now be admired at Busworld Europe 2019. Caetanobus will deliver the bus, while Toyota provides the fuel cell technology and installation.

Toyota has been promoting the use of its hydrogen fuel cell technology for many years, not only in passenger cars, but also in heavy trucks, small trucks, forklift trucks and buses. It reflects Toyota’s vision of a low-carbon society - as stated in its ‘environmental challenge’ for 2050.

With Caetano, Toyota is the first in Europe to implement its fuel cell technology in buses. The components it supplies to Caetanobus include fuel cell stacks, hydrogen tanks and other key components to build city buses with fuel cells.

The first city buses equipped with this zero-emission fuel cell technology will roll off Caetanobus’s 5A’s assembly lines in just under a year and will first be used by Caetanobus for demonstration purposes. “The delivery of our fuel cell systems to Caetanobus shows the many practical applications and environmental benefits of hydrogen for a carbon-free society,” says Dr. Johan van Zyl, President and CEO of Toyota Motor Europe. José Ramos, President of Salvador Caetano Industria is proud to be the first company in Europe to benefit from Toyota’s leading fuel cell technology. Caetano also offers an electric battery bus, the e.City Gold and the electric chassis e.C2300, in its range. Both are equipped with Siemens central electric motor.

Test drive with MAN Lions’s City E

At this year’s Busworld in Brussels, MAN Trucks & Bus presents several premieres including the Lion’s City E, the Lion’s InterCity with a Diesel engine and the eTGE Combi and TGE City minibuses. The fully electric MAN Lion’s City E can now be used for the first time for test drives.

The 12-metre version of the electric Lion’s City E completes this new generation of MAN city buses. The most striking feature is the absence of the engine tower at the back of the bus, the position of the batteries on the roof and the 4 additional seats that are possible as a result. The Lion’s City E has a range of 200 km, or up to 270 km in optimal conditions, over the entire life of the batteries.

Furthermore, MAN presents the Lion’s City 19 EfficientHybrid. The articulated bus is 18.75 metres long. The three-axle has room for 38 seated passengers. A D1556 LOH diesel engine with 360 hp (265 kW) drives the vehicle and complies with the Euro 6d emission standard. The stop-start function ensures that the vehicle is virtually silent and emission-free even when it stops. The articulated bus features various onboard safety and assistance systems, such as pedestrian detection. Cameras on both the front and the two sides of the vehicle are provided for traffic monitoring. The driver is actively warned to avoid potentially dangerous situations or collisions, both visually, via two built-in displays in the driver’s field of view, and an acoustic signal. The new systems will be available next year for all MAN buses ex works as well as as a retrofit solution.

New motor

At Busworld, MAN presents the Lion’s InterCity for the first time with a new 9-litre 360 hp (265 kW) D1556 LOH motor. MAN is also expanding its gearbox portfolio for its intercity buses with the automated 12-speed gearbox of the new TipMatic Coach generation.

MAN is also showing its two new minibus designs: eTGE Combi and TGE City. The eTGE Combi is the first fully electric minibus in the MAN range and is suitable for up to eight people. Theoretically, the eTGE has a range of up to 173 kilometers (NEDC) or 84 kilometers (WLTP). The MAN TGE City is equipped with a low-floor platform that has been specially developed for the TGE City. In addition, MAN pays a lot of attention to the ‘software’ i.e. the challenges associated with the transition to e-mobility. The specialists at MAN Transport Solutions advise on questions relating to e-mobility. With immediate effect, MAN and Neoplan customers will also benefit from the many advantages of digitization. MAN DigitalServices is designed to track and optimize all cost factors contributing to the TCO (Total Cost of Ownership) - from smooth travel planning to maintenance management. New buses are equipped with the RIO Box by default for this purpose. (Hall 4, stand 422)
At Busworld Europe, Van Hool launches the 3.0 and cooling, as it can have a significant impact on the range and thus on the operation of buses. By using heat from the ambient air, these thermal systems reduce the energy consumption required for cooling and heating by more than 50%.

Moreover, CO2 is 20% more efficient than conventional refrigerants; in other words, according to Konvekta, approximately 25% less fuel is needed to achieve the same cooling power. Konvekta also presents a new additional module to save energy costs: “Energy Collect”. Waste heat from the axles or the battery is used to heat the vehicle’s passenger cabin. According to the initial measurements, approximately 15 to 20% of the required heating energy can be saved in one year. (Hall 5, stand 502)

This year Konvekta AG presents at Busworld the modular heat storage concept Heat2Go for electric city buses. Konvekta promises more than an hour of uninterrupted heat with a capacity of 10 kWh available for electric buses without relying on the batteries.

The Heat2Go research project - a joint venture development with the Fraunhofer Institute for Traffic and Infrastructure Systems - is a fast-acting, modular heat storage system for electric city buses. This heat storage system absorbs thermal energy that can be added to the system in a short period of time to be used for heating.

At Busworld, several versions of the Konvekta CO2 heat pump range can be found. In urban traffic, energy consumption plays an important role in heating and cooling, as it can have a significant impact on the range and thus on the operation of buses. By using heat from the ambient air, these thermal systems reduce the energy consumption required for cooling and heating by more than 50%.

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At Busworld Europe, Van Hool presents the EX11, the fourth model in the EX series after the EX05, EX06 and EX07. Last year, Van Hool launched the EX series, a modern, efficient, innovative and comfortable alternative to the increasing competition on the global coach market. This is the first time that the EX01 has been shown to the public, but there are already a few vehicles circulating in Belgium. The EX also won a Busworld Award for comfort.

With the new EX11, Van Hool is responding to the increasing market demand for well-equipped and comfortable eleven-metre coaches. The EX11 is available in two versions, 3545 mm high as the EX01 and the EX11H with a height of 3805 mm. Like all other coaches in the Van Hool EX range, this ‘short’ model is also built in Van Hool’s modern factory in Skopje, Macedonia.

The EX11 is equipped with a Paccar/DAF MX-11 270 kW (367 hp) Euro 6 engine with 1900 Nm or the MX-11 300 kW (408 hp / 2010 Nm) and with a manual G2210 (230) gearbox, a 2T Trakon or the 3T EcAlife. The EX01H can also be equipped with the MX-11 330kW (449 hp / 2300 Nm) and the same gearbox selection.

The entire EX range, including the L and H versions with low or standard entry height, now consists of ten versions, all equipped with Paccar/DAF engines and available with a wide range of manual, automated and automatic gearboxes. At Busworld Bruxelles the new EX1 L S with a Trakon gearbox, the EX06 with Trakon or EcoLife gearbox and the Astronef and Astromega with Allison gearbox can already be tested. (Hall 5, stand 502)

Van Hool chose Vision Systems’ solution Smart-Vision to equip two coaches of the EX range and two of the TX0 range exhibited at Busworld. This camera monitoring system is part of the many technological innovations integrated in Van Hool’s vehicles that reflect the company’s innovative strength.

Smart-Vision replaces the rearview mirrors with high-definition cameras and interior displays to offer optimized visibility and enhanced ergonomics. Compared with standard rearview mirrors, the interior displays eliminate glare and the automatic adjustment of the screens’ brightness ensures excellent visibility in all lighting conditions, at the entrance and exit of tunnels, night and day, in every weather and in any driving environment. In addition to eliminating lateral blind spots, the solution provides functions such as the suppression of the

Konvekta with Heat2Go

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