



MERCEDES - Citaro K



SETRA - S 515 MD



SETRA - S 519 HD



MERCEDES - Travego Safety Coach

IAA: DRIVING THE FUTURE

Bus and coach manufacturers did not pull back from taking up the challenge to drive the future and brought plenty of style and technology at the IAA in Hannover. Many new products were featured by European manufacturers



SETRA - S 416 LE

Also this year the IAA (Internationale Automobil-Ausstellung), now in its 65th edition, attracted the attention of all operators involved in the commercial vehicles sector.

As always, proposals for freight transport were in the foreground, taking up most of the exhibition space. However, proposals for passenger transport did also receive a good deal of exposure, both alongside trucks in the stands of the most important manufacturers, as well as in the hall reserved for independent bus manufacturers and for bus components.

Overall, the world of buses and coaches was almost completely represented. Missing the event, in addition to some Eastern European manufacturers, there were also Italian (with the exception of Sitar) and Spanish manufacturers, the latter justified by the upcoming FIAA trade

fair in Madrid (late October).

Results coming from data published by ACEA pertaining the European market of buses and coaches (+ 4.6% in the first eight months of this year) encourage manufacturers to make their own the slogan "Driving the Future" that characterised the 2014 IAA edition.

Without any doubt the **Daimler Group** wants to drive the future as the dominant player. At the IAA it took over two entire halls to showcase 63 vehicles including trucks, commercial vehicles and buses. A total of 13 bus and coach models represented the Mercedes and Setra brands.

Among the ranks of the buses bearing the three-pointed star, all eyes focused on to the 12.2-metre long Travego in the Safety Coach version, featuring all the safety systems currently available for buses and coaches, including

the new Active Brake Assist 3 (ABA 3) combined with adaptive cruise control with proximity control system (ART). Improved safety also for the Turismo that, starting next year, will also be available with lane assistant system (SPA) and AEBS advanced emergency braking system. Already available on two-axle Turismo models (on show with the 12.1 metre long 15 RHD version) there is also the OM 470 engine with 428 horsepower. Representing the Intouro rural-service series, the 12.1-metre show vehicle with a capacity of 55 passenger seats featured the new short, space-saving shift lever in the cockpit.

The Citaro city bus series was represented by the 18-metre articulated version, now also available with the horizontally installed 7.7-litre displacement engine that is less cumbersome, making room for the transport of up to 8 additional pas-

sengers. The Citaro G also benefits from the improved anti-jackknifing system ATC (Articulation Turntable Controller) and the new colour display in the instrument panel that controls the latest generation on-board electronics. Also on show, the 10.6-metre Citaro K and the 13.12-metre rural-services bus Citaro Ü awarded the "Blue Angel" seal for its environmental friendliness.

And finally, representing Mercedes minibuses there was the 8.7-metre long Sprinter City 77 with low-floor chassis with air-suspended tandem rear axle and 40 passengers transport capacity.

The parade of **Setra** buses included four world premieres. Starting with the MultiClass 400 LE business, exhibited in the S 416 LE version with a length of 13 metre, systematically configured for scheduled services. Moving upwards, the new ComfortClass MD as "Mitteldecker", that



MAN - Lion's Coach Midi



SCANIA - Citywide LE Hybrid



SCANIA - OmniExpress 3.6



SCANIA - Touring HD 12,9



MAN - Lion's City GL CNG

is a mid-decker with a total height of 3.56 metres, available in the lengths of 12.3 and 13.1 metre. The vehicle on show was the S 515 MD powered by the OM 470 engine with 394 hp (also available with the OM 936 with 354 hp) with rear door combined with the toilet installation and equipped with a kitchen service galley. It fits 46 passengers on Setra Route seats.

Next on exhibit, the new ComfortClass S 511 HD and S 519 HD. The first is a compact vehicle with a length of 10.5 metre only, suitable for touring operations

or VIP shuttle services, with a centre door as second entrance and a capacity of up to 43 seats (three-star arrangement without toilet and with a luggage compartment with a capacity of 6.5 m³) or with rear door fitting a maximum of 41 seats and 7.5 m³ luggage compartment and with or without WC. It is powered by the 10.7-litre engine with 394 hp, combined with GO 250-8 PowerShift automated transmission. The S 519 HD, instead, is a 15 metre long vehicle providing maximum spaciousness for a high-decker: up to 71 seats and a luggage compartment with a capacity of up to 12.6 m³. Engine choice is between the OM 470 with 428 hp or OM 471 with 476 hp.

Wrapping up the series of Setra models on exhibit there was the TopClass 516 HDH with TopSky Panorama glass roof and the 13.9-me-

tre long S 431 DT double-decker with OM 471 engine with 510 hp.

MAN and Neoplan also paraded a full array of models. Nothing particularly new except for the "Bus of the Year 2015" title awarded to the city bus Lion's City GL CNG, on display in the outdoor area. At the stand, there was also the diesel BRT articulated version measuring 18.75 metre in length.

Also on show, the 14.7 metre long City L LE CNG with the 12.8-litre horizontal E2876 LUH07 engine with 310 hp. Alongside, there was the 12-metre hybrid with two Siemens electric motors delivering 75 kW each and Euro VI diesel engine with 184 kW.

A three-axle Lion's Coach L Supreme, measuring 13.8 metres in length with 440 hp engine and wheelchair lift mounted under the floor at the second axle (with upper half door entrance), represented MAN touring coaches.

The only real novelty by MAN was kept outdoors: the Lion's Coach Midi developed in collaboration with Caetano. It's 10.2-metre long and has a gross vehicle weight of 15 tonnes. It is powered by a 6.9-litre 290 hp vertical engine combined with ZF automatic transmission and has a luggage compartment with a capacity of 6.8 m³. Onboard equipment includes toilet, kitchen and 34 seats.

Seen in the **Neoplan** exhibit area yet the usual 12.2-metre Cityliners in the Euro VI configuration, in this case in the Individual version with 8-seater luxury lounge area at the rear and an additional two tables with facing seats, for a total of 36 seats with leather upholstery. Other equipment include toilet and kitchen next to the second door. Replicating themselves are the 14-metre double-decker Skyliner that will



VOLVO - 7900 Electric Hybrid



NEOPLAN - Skyliner



VOLVO - 9900



IVECO BUS - Daily Minibus



IVECO BUS - Crossway LE City



SOLARIS - New Urbino 12



SOLARIS - New Urbino 18



VDL - Synergy



VDL - MidEuro

be available on the market again starting June 2015 and the 13-metre Jetliner C with a capacity of 54 seated and 10 standing passengers. Finally, the MAN Latin America area showcased the low entry Volksbus 18.280 OT LE, 12.45-metre in length, with Marcopolo bodywork.

As promised, **Scania** presented the new hybrid version of the Citywide LE measuring 12 metre in length (also available in the size of 18-metre) and 3.36 metre in height. It makes use of a parallel hybrid system with 9-litre diesel engine with 250, 280 or 320 hp (the latter also available in the biodiesel version) and 150 kW electric motor. It is combined with Opticruise 12-speed automated gearbox. 650-volt lithium-ion batteries are mounted on the front of the roof.

Also on display, the Touring HD coach in the new size of 12.9 metre with 51 seats plus two wheelchairs that board through a lift, 9-litre five-cylinder 360 hp engine, Euro VI with SCR only.

Scania featured also the OmniExpress 3.60 in the new size of 14.2 metre in length with 53 passengers configuration, powered by the 13-litre 450 hp engine and 12-speeds Opticruise gearbox. Next to the three-seater at the rear there is the toilet and, on the other side of the staircase, there is the kitchen.

Volvo Buses carries on with the decision to focus its public transport solutions on hybrid and electric drives. In Hannover it launched the new Volvo 7900 Electric Hybrid with plug-in technology capable of reducing fuel consumption and carbon dioxide up to 75%, compared to a conventional diesel bus. Total energy consumption is reduced by 60%. It can run in all-electric mode on an average 70% of the route and charging at the end stations takes 6 minutes only. It's 12-metre long and it makes use of a

Volvo I-SAM electrical motor with an output of 150 kW, a four-cylinder 177 kW diesel engine, Volvo I-Shift gearbox and 600 volts lithium-ion batteries of 19 kWh capacity. As part of the ZeEus European project, two 7900 Electric Hybrids will be put into operation in Stockholm for a trial period of two years. Series production is planned for the beginning of 2016.

Also on display in the Volvo stand there were an 18-metre long 7900 Hybrid and a three-axle 9900 touring coach.

Among the very many commercial vehicle versions of the New Daily that **Iveco** presented in Hannover, there was the 7.5-metre long New Daily Tourys 60C17 in the 19+1+1 seats configuration with 170 hp FIC 3.0 L engine. Other features include rear air suspensions, automatic air conditioning system, double glazing, reclining seats, LED individual spotlights, USB ports located on the side panels, audio/video system including DVD player and 17" LCD screen, a fridge and 2.5 m³ rear luggage compartment capacity. This is the vehicle that represented the range of new minibuses, also available in the Tourys, Line, Citys and Pop versions.

Under the **Iveco Bus** banners there was also a 12-metre long Crossway low entry (LE) City with 6.7-litre Tector 7 engine with 285 hp (210 kW), ZF Ecolife automatic transmission, fitting 45 double row seats plus wheelchair. The vehicle has been manufactured for Deutsche Bahn. In occasion of the IAA in Hannover **Solaris** fully disclosed the characteristics of the new Urbino generation. It unveiled the first two models of the new series. They are the 12 and 18-metre low-floor versions whose footsteps will be followed by all other diesel, electric and gas versions. Features include: new design, lighter



VAN HOOL - EX15H



VAN HOOL - EX16M



EBUSCO - Electric 2.0



OTOKAR - Territo U



OTOKAR - Navigo T



OTOKAR - Vectio T



TEMSA - LD 12 IC



TEMSA - MD 9

and more robust redesigned bodyframe, ease of access to technical equipment, better distributed axle loads, greater low noise levels and onboard improved comfort, more seats that aren't mounted on high bases, wider doors and a driver's workstation with improved ergonomics. The Urbino 12 mounts a 280 hp ISB6.7E6 Cummins engine combined with Voith Diwa 6 automatic gearbox, while the Urbino 18 relies instead on the 370 hp Daf MX-11 engine combined with ZF Ecolife automatic transmission.

In the outdoors exhibit area it was possible to also look at the 18-metre Urbino Electric with inductive charging system, the first of a batch of four vehicles for Braunschweiger Verkehrs-GmbH and part of the "emil" project (Electromobility through inductive charging).

Even **Van Hool** launched a new series of vehicles in Hannover. It goes by the name of the EX and consists of basic segment of touring coach models that can also be used for long distance and scheduled services. To begin with they come in two different heights and three lengths variants, and they will be manufactured in the new Van Hool factory in Skopje, Macedonia. It was possible to look at the EX15H and EX16M models. The first has a length of 12.48 metre and a height of 3.8 metre, while the second is 13.26 metre long and 3.67 metres tall. Both are fitted with Paccar/Daf MX11 engine with 394 hp combined with GO manual gearbox as standard or, available as option, with ZF AStronic or ZF Ecolife transmission. It features a simple and elegant design, LED lights, modular interiors to facilitate customisation, ergonomic design for the driver's workstation and plenty of comfort for passengers.

Nothing new in the **VDL Bus & Coach** exhibit

area where a complete representation of range models was presented again. It comprised the Citea LLE 120/255 citybus and the luxury Mid Euro MLD 80/190 mini coach. Also, the Futura FHD2 139/440 in the five-stars and FMD2 129/330 multipurpose configurations and the double-decker Synergy SDD 141/510. A Citea SLF Electric, a diesel articulated and a low-floor MidCity were on exhibit in the outdoor area.

Turkish company **Otokar** sought to emphasise the excellent results achieved in 2013, with a growth by 40% in turnover and 25% increase in the export of commercial vehicles. In the first seven months of 2014 Otokar increased its exports in the Bus & Coach segment by 14% thanks to results coming from France, Italy, Spain, Belgium and Germany. Otokar aims to expand in the UK market soon, starting with participation to the upcoming Euro Bus Expo 2014 in Birmingham with the right-hand drive variants of its models.

In Hannover, Otokar brought an 8.4-metre Navigo T with 180 hp Cummins engine and new interior 20+1+1 seats configuration. New transmission for the 10.1-metre Vectio T that now relies on the 290 hp Man D 0836 LOH 72 combined with ZF Ecolife automatic transmission. Finally, Otokar's presence was completed by a 9.2-metre Vectio C city bus and two intercity buses, the 12-metre Territo U and the 7.7-metre Navigo U.

Karsan, another important manufacturer from Turkey, made its debut at IAA. It recently projected itself in the European bus markets starting with participation to Busworld Kortrijk last year. In Hannover it featured the same three models. The eight-metre low floor Atak fitting 50 passengers (including wheelchair), the same size Star intercity/tourist bus and the 5.8-metre



KARSAN - Star



KARSAN - Atak



ISUZU - Visigo Inerurban



ISUZU - Citiport



BOZANKAYA - Sileo



SOR - EBN Electric



MCV - 600



KING LONG - C 12

Jest with low floor. They are all powered by the Fiat NEF4 engine, 186 hp for the first two models and 126 hp for the Jest.

To note that Karsan will produce the new series of H350 commercial vehicles on behalf of Hyundai (on display in the Hyundai area) for sale in the Turkish market and for export. The H350 bus version has a total weight of 4 thousand kilograms and can transport up to 15 passengers.

Even more buses 'made in Turkey' came from **Temsa** that relaunched by exhibiting four new generation Euro VI vehicles. The 12.3 metre intercity bus LD 12 Ic with 368 hp Daf engine, the same size HD 12 touring coach with 430 hp Daf engine, the 9.3 metre MD 9 with touring equipment with 290 hp Man engine and the 12 metre low-floor LF 12 with the 280 hp Cummins. Exhibited in the outdoor area there was also an MD 9 LE. The renewal of the range will mark the birth of four other models in 2015. Temsa holds a 31% market share in Turkey, and a decent market presence in the United States (650 vehicles sold by the end of 2014) and in Europe, where it restructured its organisation in Germany and created a new logistics Centre for service and parts in Austria.

Anadolu Isuzu celebrated its 30th anniversary in Hannover and featured a big parade of models. International premiere for the Citiport, a beautiful low floor city bus of 12 metre length with 283 hp Cummins engine alongside the 9.5 metre Citybus. Joining the 9.5 metre touring/intercity Visigo family there is now the Visigo Interurban, also with Cummins engine and wheelchair lift housed under the floor between the two axles and with the second entrance on the rear overhang. Also on show, the full range

of the well-known 7.5 metre Novo and the 7.7 metre Turquoise.

The German subsidiary of Turkish company **Bozankaya** featured the 10.7 metre Sileo with full electric drive powered by 200 kWh lithium-ion batteries and two engines delivering 120 kW each with Vectorpower control technology by Aradex.

Dutch company **Ebusco** goes forward with its proposal. It unveiled its electric bus Ebusco 2.0, a new version of the low entry city bus, 11.5 metre long manufactured by Chinese company Zhuhai Guangtong Automobile but with all components from the European Union. It features ZF axles, Alcoa aluminium frame, Ebusco electrical equipment, Actia instruments, and so forth. The 311 kWh batteries are housed on the roof and on the rear of the vehicle, charging time is 1.6 hours and it is claimed to have a 300 kilometres running range in urban traffic.

SOR (Czech Republic) featured one vehicle only: the EBN electric bus, available in the 8, 9.7 and 11.1 metre lengths, all driven by the 120 kW electric motor powered by 172 kWh lithium-ion batteries.

Making a come back at the IAA, from Slovenia, former TAM Durabus, now simply called **TAM**, featured the 14.7 metre long VivAir 104WL airport bus with wider windscreen and the optional seventh door at the rear. It also exhibited the Vive TH, a 10.2 metre long touring coach with 41+1+1 seats, completely redesigned and now with Euro VI Man or Cummins engines with 290/285 hp.

MCV of Egypt proposed again the usual MCV 600 tourist coach measuring 14.3 metre in length, built on Mercedes chassis and with a lot of equipment.

The only Chinese manufacturer at IAA, **King**



TAM - VivAir 104WL



TAM - Vive TH



PROBUS - Rapido LE



KUTSENITS - Tourist 719



ALTAS - Cityline



SITCAR - Voyager



KING LONG - C 12

Long, presented three vehicles. The 9 metre long C9 touring coach, with redesigned driver's workstation and now with 313 hp Cummins Euro VI engine. The C12 version (12.2 metre) was also upgraded and it is also available with 400 hp Iveco Cursor engine. Also on show, the E12 (12 metre) electric-hybrid model, that claims to run exclusively in electric mode for 50 km.

Among the exhibitors there were also numerous bodybuilders specialising on medium and short size commercial vehicles. Playing at home, German company **Probus** showcased its models made on Iveco Daily chassis. Seen on show: the Rapido, with advanced windshield, in the 8.3 metre L version in touring configuration with 28+1+1 seats, the 8.7 metre LE version with low floor in the centre and 23 seats and the HNF version with lowered rear overhang. Also on exhibit, the Maximo L with Daily series front and also with the 28+1+1 seats configuration. Also from Germany the two **TS Fahrzeugtechnik** models, both on Fiat Ducato Maxi basis and with a large double side door and low floor. The first is the 7.7 metre Liner and the second is the 6.4 metre City Shuttle.

Kutsenits, from Austria, presented its latest creation. It's called Tourist 719 and is based on the Sprinter 519 with the replacement of the second axle (now 5.3 tonnes) and with a longer rear

overhang to accommodate 29 passengers. From Italy, **Sitcar** presented its new 8 metre long Voyager on Iveco 70C17 chassis with capacity up to 27+1+1 seats. This vehicle has recently replaced the Beluga based on Mercedes. On exhibit also the Trend XL whose new Euro VI version will be seen at the IBE in Rimini. Also based on Iveco Daily, Slovak company **Rosero** proposed the 8 metre First FLHI Travel model with 26 seats and the FCLLI model, a city bus with one wheelchair area on the lowered central floor.

On another front, the products presented Lithuanian company **Altas** are based on Mercedes Sprinter. It featured the 7.3 metre Tourline alongside the 7.6 metre Cityline with lowered floor in the centre.

And finally, in the stands of big name car manufacturers, alongside countless proposals for freight transport there were also some passenger transport vehicle versions. Such was the case for Hyundai with the aforementioned H350 with 15 seats and for Fiat with the Ducato Panorama Flex Floor. Volkswagen paraded the Crafter 30 Kombi, the Multivan Special and the VIP Shuttle, the Caravelle Comfortline and the Caddy Maxi. Ford showcased its Transit Bus with 18 seats, Citroen the new Jumper and Opel the new Vivaro.



TS - Liner



FIAT - Ducato



VOLKSWAGEN - Multivan Business



CITROËN - Jumper



FORD - Transit Bus



HYUNDAI - H 350



OPEL - Vivaro