Building up to Busworld Kortrijk

It is now only a few weeks before the doors open to Busworld Kortrijk, the largest exhibition in the world devoted to the bus and coach industry. A total of 411 exhibitors will be attending from 36 countries, an all-time record for Busworld Kortrijk!

This year, Busworld Kortrijk will be larger than ever before. The temporary pavilions, Halls 8 and 9, will be further extended, offering direct links into Halls 1, 2, and for the first time, Hall 3. This additional area of 3,000 square metres will displace the former parking for demonstration vehicles. They will now be located on the adjacent Kennedylaan, part of which will be closed off for the duration of Busworld.

Two years ago, much of the focus was on the introduction of Euro VI emissions standards which resulted in ultra-clean diesel engines. The chart shows the progressive reductions in emissions which have been achieved over the last twenty years.

The major European manufacturers each reckoned that they spent more than one billion Euros on development of Euro VI engines, across their bus, coach and truck ranges, and therefore had to recover those costs in higher prices. Operators have generally found that Euro VI engines are more fuel efficient than previous generations and that the higher initial cost can be recovered in fuel savings.

It would appear that there are no plans for Euro VII, but legislators are turning their attention to maximising fuel economy. This could be done by a combination of hardware and software, with many examples likely to be on show at Busworld Kortrijk. Cummins, as the largest independent engine manufacturer, reckons that there are quite a number of measures which can be taken, some relatively significant and others quite minor, but, when combined, can achieve further savings of up to 30%.

Diesel engines will remain the source of power for the vast majority of buses and coaches.
for at least the next ten years, and certainly much further ahead in the case of coaches. European cities have to meet stringent EU targets to reduce CO2 emissions by 2020. While modern vehicles produce minimal emissions, the industry has a problem that buses and coaches have a longer operational life than almost all other motor vehicles. Fortunately there is a thriving industry that offers to retrofit exhaust filters to older vehicles, bring their engines up to cleaner standards. Demand will be stimulated by the introduction of ultra low emission zones in cities, where only the cleanest vehicles can circulate.

As always at Busworld Kortrijk, visitors can expect to see numerous new models. Several manufacturers and component suppliers have already made announcements and we expect many more to be made in the weeks leading up to the opening of Busworld.

Following deregulation of intercity services in Germany and the recent legislation that will open up the French market, there is strong demand for high capacity vehicles for express services. The most efficient operators prefer over-deck or double deck coaches so that they can maximise seating capacity and revenue.

Two years ago at Busworld Kortrijk, many visitors were surprised at the number and variety of all-electric buses. This is a growing trend. The influential iDTechEx Research of Cambridge, England, recently predicted a trillion dollar market for all-electric buses through to 2035.

One of the major topics at Busworld Kortrijk will surely be the size, weight, cost and range of batteries. On the one hand, there are manufacturers offering vehicles that will have a full day’s range on typical city work on fully charged batteries. On the other hand, there are those who advocate fast charging systems, usually at each end of a route, thus requiring far fewer batteries on board the vehicle, saving considerable weight.

Volvo has demonstrated this clearly, progressing from standard hybrid systems, saving 30-40% of fuel consumption, to electric hybrid vehicles saving around 70%, and then the recent launch of its all-electric project in Gothenburg. While hybrid buses are completely independent of charging systems, except overnight at depots, it will be interesting to see if they can be competitive with all-electric vehicles on total cost of ownership.

We will be publishing one more issue of The Busworld Times at the end of this month. Therefore, if you have any news about products or services that your company plans to introduce at Busworld Kortrijk please let us know. (mail to inge@busworld.org)
The International Bus & Coach of the Year Jury is made up of 22 senior journalists, each representing a leading trade publication in 22 European countries. They met in Plovdiv, Bulgaria, in June, for the Coach Euro Test Event. Only coaches that participate in the Euro Test are eligible for voting, and they had a selection of six quite different vehicles.

The programme included static and on-road tests. The winner was the Iveco Magelys HD, a 12.765m coach, built on two axles, with 46 seats, designed for international line work.

The Magelys is not a new name in the coach market, but in its Euro VI version it offers an array of innovations. The judges were impressed by the stylish appearance of the coach, inside and outside. Iveco Bus has retained the glazed side roof sections that provide a lighter interior with more headroom for passengers next to the windows.

Features on the coach included an entertainment system offering 250 different movie choices to passengers. The coach as tested was fitted with a wheelchair lift on the nearside and a demountable table arrangement that enabled drivers to board a wheelchair passenger easily without having to remove seats.

The Magelys had the 8.7-litre FPT Cursor 9 engine rated at 294kW (400hp), driving through a ZF AS-Tronic automated manual gearbox. It was the only coach in the Euro Test that did not utilise exhaust gas recirculation to control engine emissions, instead relying solely on selective catalytic reduction. This enabled a reduction in fuel consumption of up to 10% compared with Euro V models.

Iveco Bus has focused on efficiency with the Magelys. The jurors appreciated how this manifested itself in a number of ways designed to reduce the total cost of ownership for the operator. While the Magelys had all the latest safety features the jurors also thought that Iveco Bus had got the basics right, for instance particularly good all-round vision from the mirrors.

A significant factor in the appeal of the Magelys was the price-quality ratio, combining value for money with a vehicle that does not compromise on the specification or the standard of materials used. They thought it was a vehicle that could be used for a variety of roles and for a full life.

The decision of the jury to award the top prize to an intercity express coach is particularly appropriate, because this is a sector of the coach market that is growing strongly.

The Coach of the Year Trophy will be presented to Iveco Bus during Busworld Kortrijk.

The table can be demounted to accommodate a wheelchair passenger.

The stylish and comfortable interior with 46 seats. The pink handbag is an optional extra.
World First at Busworld Kortrijk

Busworld Kortrijk has for many years enjoyed the privilege of manufacturers choosing to launch their new products. This October will be no exception.

For the very first time, there will be a world launch of a completely new type of city bus, the world’s first all-electric double deck bus.

BYD, the largest manufacturer of all-electric buses, has already supplied its 12 metre single deck electric buses not only in China but to several European countries. Amsterdam’s Schipol airport has the largest fleet, with 35 carrying passengers between aircraft and the terminals. Any reduction in emissions at a major international airport are always welcome.

The contractors who work for Transport for London already use a large number of hybrid buses, almost all double deck, and the BYD vehicle is expected to go into service shortly after its appearance at Busworld. The Mayor of London has also announced an order for 51 BYD all-electric single deck buses. The chassis and all the electrical equipment will be supplied from China, with the bodywork built in the United Kingdom in aluminium by Alexander Dennis. They are due to enter service by August 2016.

Isbrand Ho, General Manager of BYD Europe, says that his company’s vehicles have sufficient batteries for a full day’s operation. He claims that this arrangement is superior to fast-charging of smaller batteries at each end of a route. If a BYD bus is delayed in service, it has a better chance of recovering its schedule because it will not be delayed by fast charging.

Double debut for Solaris

Solaris is gradually moving production from the previous well-established Urbino range of city buses to the New Urbino. Solo and articulated versions of the vehicle are going into service or on order.

At Busworld Kortrijk, Solaris will launch two more versions of the New Urbino, both at an overall length of 12 metres. The first will be the Urbino LE which, as the letters imply, will be a low entry model. The previous Urbino low entry models proved particularly popular in the Nordic markets, and on less intensive suburban services where they could offer higher seating capacity.

The second will be an all-electric Urbino, using a pantograph system for overhead fast charging. Solaris believes that the cost and weight of batteries is considerably less when fast charging is used, typically with recharging facilities at each end of a route.

Voith refines automatic transmission

Voith will be present in Hall 5 at Busworld and its exhibits will include further refinement of the popular DIWA.6 automatic transmission for city buses. It has been developed for Euro VI requirements and, Voith reckons, can save almost 5% in fuel consumption compared with its predecessor. Improvements include Intelligent Management Start-Up, Optimised Automatic Neutral Shift function and the topography-dependent SensorTop Gear-Shifting programme.

Voith will also show its award-winning Aquatarder, the first secondary retarder to brake with water and its DIWA SmartNet system to monitor easy and efficient driving.
Increases in maximum weights

The European Parliament has issued a Directive which will lead to higher gross weights for buses and coaches. There are also plans to increase the maximum length of some trucks by adding aerodynamic flaps that will help to save fuel but will not increase the load carrying area.

Parliament considered: “The need to reduce greenhouse gas emissions, particularly carbon dioxide (CO2) emissions, to improve road safety, to adapt the relevant legislation to technological developments and changing market needs and to facilitate intermodal transport operations, while ensuring undistorted competition and protecting the road infrastructure, must be emphasised.”

The Directive noted: “Alternative powertrains, which include hybrid powertrains, are those which, for the purpose of mechanical propulsion, draw energy from consumable fuel and/or a battery or other electrical or mechanical power storage device. Their use for heavy duty vehicles or buses may generate extra weight, but reduces pollution. That extra weight should not be counted as part of the effective load of the vehicle, since this would penalise the road transport sector in economic terms. However, the extra weight should not result in the load capacity of the vehicle being increased either.”

The Directive also went on to note: “Since the adoption of Directive 96/53/EC, the average weight of bus passengers and their luggage has increased substantially. Given the weight limits imposed by that Directive, this has resulted in a gradual reduction in the number of passengers carried. Moreover, the equipment needed to meet the current technical requirements, such as Euro VI, adds to the weight of the vehicles carrying them. The need to promote public transport over private transport in the interest of better energy efficiency means that the previous number of bus passengers must be re-established, taking into account the increase in their weight and that of their luggage. This can be done by increasing the authorised weight of buses with two axles, within limits that nonetheless ensure that road infrastructure is not damaged as a result of faster erosion.”

The Directive proposes that the maximum weight of two axle buses can be increased to 19.5 tonnes. The maximum weight of a three axle vehicle is increased to 26 tonnes provided that the driving axle is fitted with twin tyres and that the vehicle has air suspension. Three axle articulated buses normally have a maximum limit of 28 tonnes, but that can be increased by the additional weight required for alternative fuel technology up to a maximum of a further 1 tonne.

As part of the new proposals, the Parliament expects each Member State to carry out an appropriate number of checks each year to ensure that there is compliance with maximum permitted weight limits.

New Eberspächer Sütrak aircon systems

Eberspächer Sütrak has announced the world debut of its pioneering AC230 roof-top air conditioning system with an innovative heat pump, which works on the air flow reversal functional principle, for which a patent application has been made.

The company says that the greatest advantage of the new system is its simplicity. It works as a classic refrigerant circuit with the special feature of air flow reversal. This significantly simplifies the refrigerant circuit of a heat pump which, until now, was complex. Individual parts and connections have been reduced. The AC230 is designed as a modular platform solution, based on common refrigerants, but is also designed for use of CO2 in the future.

Eberspächer Sütrak will also show its all-electric AC 136 G4 air conditioning system for electric buses and the AC 403 E G2 air conditioning system for city buses.
Czech factory celebrates 120 years

Earlier in the summer, Iveco Bus celebrated 120 years of manufacturing at the site in Vysoké Mýto in the Czech Republic.

In 1895, Josef Sodomka started business as a wheelwright and that progressed into building complete carriages. In 1925, the first bodywork was built on a car chassis, and the first bus followed in 1928.

After the Second World War, the factory was nationalised and became known as Karosa. It built bodywork on several makes of chassis and then progressed into the manufacture of complete integral vehicles. After the Czech Republic claimed independence, including the Velvet separation from Slovakia, Karosa was privatised in 1993. Renault Véhicules Industriels took a 34% shareholding, increasing to 51% before the end of 1996. The range was partially replaced by the 900 family and included Renault engines.

In 1998, Renault and Iveco merged their bus and coach manufacturing activities with effect from the beginning of 1999, forming Irisbus. When Volvo acquired Renault Véhicules Industriels, the European competition authorities ordered them to divest the Renault share in Irisbus. By 2001, Irisbus had become totally owned by Iveco.

Throughout this time, there was heavy investment in the factory, with complete modernisation of all the production facilities and the installation of a cataphoretic dip anti-corrosion plant that could take vehicles up to 15 metres long. Production capacity was greatly increased and the factory became responsible for all interurban and multi-purpose coaches in the Iveco range, including the very popular Crossway low entry vehicle.

Today, Vysoké Mýto covers an area of more than 225,000 square metres. It is the largest commercial vehicle production plant in Central and Eastern Europe, employing more than 3,000 people, and another 1,700 with subcontractors. Production in 2015 is expected to come near to 4,000 units.

The Crossway range is suitable for school, suburban, interurban and multi-purpose coach applications. France is a major market, but the company has also secured significant orders from De Lijn in Belgium and, on an even larger scale, from Germany’s Deutsche Bahn.

One of the most recent developments has been a Bus Design Centre, with a number of sub-assemblies, including those of seats, which enable customers to specify their requirements.

At the anniversary celebration, a loyal French customer took delivery of the 120,000th bus to have been built in the factory. At the same event, Jan Hamacek, Speaker of the Chamber of Deputies of the Parliament of the Czech Republic said: “Iveco Bus is a worthy successor to Josef Sodomka. The tradition of fine quality products continues.”

Busworld India relocates

Following the great success of Busworld India 2015 in Mumbai, Busworld and its Indian partners, Interads Ltd have decided to move the exhibition to even years and to relocated to Bengaluru, probably better known as Bangalore. The seventh edition of Busworld India will be held from 10 to 12 November 2016 in the southern Indian city.

Further information will be carried in future edition of the Busworld Times.