

## LOTS OF INNOVATION AT BUSWORLD EUROPE

Busworld will reach a very important milestone when the Exhibition opens in Kortrijk on 17 October. Busworld will be 21! That comes from 17 shows in the Belgian city, 3 in Shanghai and 1 in Lagos.

Busworld Kortrijk is the largest international exhibition for the bus and coach industry in 2003 and will be bigger than ever before. Two large marquees are being erected in front of the main halls and will form the entrance to the Exhibition.

At the last count, 278 exhibitors had booked space and all the internal under-cover area, all 37,200sq m, was fully committed.

Busworld Kortrijk 2001 attracted 23,934 professional visitors from 98 countries and we confidently expect to break the 100 barrier this year.

Busworld Kortrijk starts with a Press Day on Thursday 16 October and will then be open to trade visitors from 10.00am to 7.00pm daily from Friday 17 to Wednesday 22 October. The Fair will be open to the general public only on Sunday.

A number of traditional events coincide with Busworld Kortrijk. These include the European Coach Week, the award of the Coach of the Year trophy, the Coach or Bus Builder of the Year trophy, the Night of Busworld, the European Grand Prix Award for Coach Tourism, the IRU-Eurochallenge for Transportation, and several seminars, workshops and conferences.

The European Coach Week will be held from Saturday 11 November to Tuesday 14 November and consists of a number of technical, aesthetic, ecological, safety and comfort tests on coaches. The judging is done on the basis of recent marketing studies and the results are announced during the Fair's opening ceremony.

The European Grand Prix Award for Coach Tourism is awarded by Carecredit, the European alliance of publishers for coach tourism. Once a year, this prize is awarded to a group-orientated tourist attraction on the basis of its high intrinsic value, success in the coach business, outstanding achievement and associated human factors.

The Coach of the Year trophy is traditionally awarded by a panel of respected judges, one from each country, representing well-known trade journals. The award follows thorough scrutiny and comprehensive road testing of candidates' coaches in Baveno, Italy, in May this year. This prestigious trophy for 2003 will be awarded at



10.00am on Friday 17 October, and for the first time in its history, there are two joint winners!

The Night of the Fair, the famous banquet of the FBAA, the Federation of Belgium Coach and Bus Operators, will be held on the evening of Saturday 18 October.

A large number of products will be seen at Busworld Kortrijk for the very first time. They range from complete vehicles to the smallest components. News of many of these came through before this edition of the Busworld Newsletter closed for press.

Busworld Kortrijk is unique. It is a truly multi-national Fair, dedicated to the bus and coach industry in its widest sense. The atmosphere is always lively. It is the ideal place to meet old friends, make new ones, and get fully up to date on an industry which is becoming more global by the year.

## DOUBLE LAUNCH BY SETRA

Setra will celebrate two world premieres at Busworld. The S416HDH is a three-axle touring coach, built to an overall length of 12.99 metres. It offers very comfortable seating for 50 passengers in a 4-star rating and has been developed in an extremely short space of time in response to numerous requests from customers for new vehicle lengths for three axle touring coaches.



There will also be the world premiere of the ComfortClass 400 range. The ComfortClass joins the TopClass 400 touring coaches and MultiClass rural regular-service buses in the Setra product portfolio and combines high standards of touring comfort with the cost-effectiveness required for excursions and occasional services.

Many technical developments have been incorporated into the new ComfortClass range. All three models are 200mm longer than

their predecessors. Much of the additional space has been given to the driver's area and to the entrance stairwell. A 12.2 metre S415GT-HD and a 13.07 metre S416GT-HD will make their debut at Kortrijk.

## VANSCO MULTIPLEXING

Exhibitors come from far and wide to Busworld Europe. Vansco Electronics of Winnipeg, Canada, has developed its patented Vansco Multiplex Module, (VMM) System. It offers many additional features such as easy troubleshooting, auto-programming modules, and user-friendly software. VMM's have solid state outputs that are protected against shorts, over current, reverse polarity and back feed connections. This eliminates the need for fuses and circuit breakers. Because the VMM system has fewer components than in a typical electrical system, the risk of malfunctions is greatly reduced. There is also a reduction in the number and types of connectors, which increases the reliability of the system.

Vansco has developed user-friendly diagnostic software which can be used not only to identify malfunctions, but also to record how the vehicle is being driven.

## MORE COMPOSITES FOR BUSES

Fiberline Composites A/S of Kolding, Denmark, believes that buses and coaches will in future contain far more components made of plastic composites. The company will show a number of innovative solutions to make buses lighter, stronger and easier to maintain.

Henrik Thorning, Managing Director, says: "Plastic composites have long been used for the fronts and backs of buses. Profiles in plastic components can now be used to just as great advantage for covering the sides and tops of buses, as well as for interior panels. This is why we are expecting strong expansion in the market as manufacturers discover the many new options plastic composites offer".

## SOMTEX IN NEW FACTORY

Somtex is one of the leading textile companies in Belgium, producing fabrics for bus and train seats. Since Busworld 2001, the company has moved into a new and larger factory and invested in brand new technology.



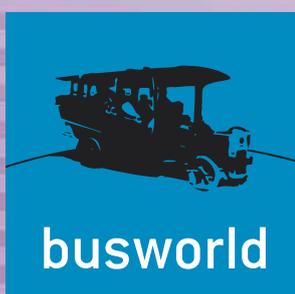
Somtex has developed a flame retardant fabric that meets the new fire standard for railway applications in the United Kingdom. It is very difficult to meet and requires special treatment of the raw materials. Other countries are now taking an interest. Somtex believes there will be increasing demand for its new flame retardant fabric programme.

## FIRST TIME FOR TSN

Techno Service Nederland is appearing at Busworld Europe for the first time to demonstrate the services and products it can provide. TSN has a service network of over 60 workshops and maintains more than 12,500 commercial vehicles in the Netherlands. The company is involved in the maintenance of more than 50% of all Dutch buses and is a major European specialist in the distribution of bus parts.

## NEW SLEEPER SEAT

V Brøndum A/S of Silkeborg, Denmark, is the leading manufacture of sleeper seats for long distance coach travel. The Easy Chair Vision 2000 can be used in almost all known makes of long distance luxury coaches, and has both EU Type Approval and approval by TÜV, Germany. The seat is designed to provide perfect sitting comfort and has an ideal surface for lying down. It is converted in one



movement from a seat to a comfortable couchette. Easy Chair seats increase the versatility of luxury coaches and add value to long distance travel. A wide range of accessories is available.

## MORE MODELS FROM MARBUS

MARBUS is the brand name for buses and coaches built by Tovarna Vozil Maribor of Slovenia. The company first appeared at Kortrijk in 2001. Since then, MARBUS has developed a range of vehicles, from 8.0 to 11.0 metres, for urban, suburban, interurban and touring applications.

## MERCEDES-BENZ LAUNCHES

Mercedes-Benz will show several new vehicles at Busworld. One of

comprehensive interior specification includes air conditioning as standard. Mercedes-Benz says that the Tourino brings new levels of comfort and refinement to the midicoach sector of the market.

The Travego M touring coach is a 3-axle model with an overall length of 12.82 metres. It fills the gap between the 12.0 metre two-axle and 13.85 metre three-axle models. It provides space for 53 passengers and a toilet to a 3-star touring specification.



sensor and oxidising catalytic converter, which already complies with the Euro 5 exhaust emission standards scheduled for introduction in 2008-09. The previous metal gas tanks, mounted on the roof, have been replaced by newly developed tanks constructed entirely from carbon fibre-reinforced plastic, giving a considerable reduction in weight. Customers can therefore choose between a significant extension of the daily operating range, or an increase in the number of passengers, with the same tank capacity.

Mercedes-Benz is also offering CNG as an option on the low floor Sprinter.

## GROUP HAPPICH ELLAMP

Happich and Ellamp joined forces, as the GHE Group, towards the end of 2002. The company is now Europe's leading manufacturer of interior equipment and coachwork components for buses, coaches, trains and commercial vehicles and will present 13 new solutions for bus interiors at Busworld Kortrijk. Some of these are as a result of advances in LED technology, which bring a number of benefits, including weight saving, longer life and less generation of heat.

## SHIP-CAR RELOCATES

Ship-Car, the Italian producer of windows for a wide range of vehicles, is moving in December to a new factory that will enable it to improve efficiency, quality and service. The company will show at Kortrijk a novel new sliding system for windows with a very small base in comparison to the height of the window. The glass can be replaced without removing the window frame from the vehicle.



the stars of the show will be the brand new Tourino midicoach for up to 38 passengers. This is another product of the joint venture between Mercedes-Benz and Caetano Bus in Portugal. The 9.35m long coach is designed for a gross weight of 12.6 tonnes.

Power is provided by the OM906LA 6-cylinder engine mounted vertically at the rear with the choice of 180kW or 205kW power output. Independent front suspension is standard, as are the electronically controlled braking system with disc brakes all round, ASR and ABS and a Voith R123 retarder. The



Mercedes-Benz will also launch its next generation of natural gas technology. The Citaro low floor city bus can be offered as an option with the M447hLAG engine with oxygen

## NEW BUS LIFTS

The long established German specialist, Walter Finkbeiner of Freudenstadt, Germany, builds mobile lifting columns in two versions, 2.5 tonnes and 7.2 tonnes, per column. They are easily manoeuvrable by one person. Four, or six for tri-axle and articulated buses, can be synchronised to lift vehicles up to a height of 1,800mm. Finkbeiner has also developed a new stationary scissor lift, in various models, with capacity for up to 50 tonnes and a platform length of up to 19.0 metres. The new patented design uses compact half-scissors as lifting elements at the ends of the



platform. Between the scissors there is absolute free access to walk underneath the platform and work beneath a vehicle.

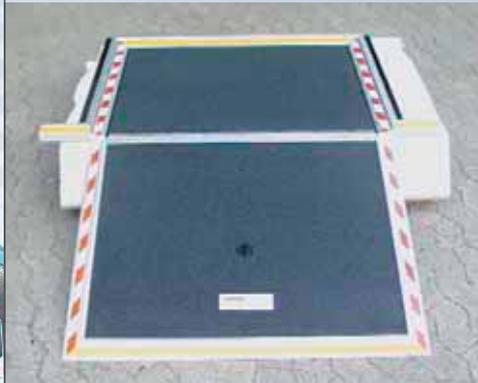
## REAL TIME INFORMATION

AB Thoreb of Sweden will demonstrate its innovative new IT-Radio Information System for bus passengers. It has already been installed in the city of Jönköping. Customers can easily obtain rapid



and correct information on signs at bus or tram stops, or by using the internet or mobile phones. The system reliability is confirmed by text on signs at the stops. "Nu" indicates that the bus is 120 metres away. "NU" indicates that the bus is 60 metres away and will depart in less than 30 seconds.

## NEW RAMPS FOR BUSES



Lohmann Apparatebau RAVITE is launching a new manually operated ramp for low floor city buses. It fully complies with EC Directive 2001/85.

## AQUABLUЕ REACHES 6,000

Aquablue, the Dutch converter of wheelchair accessible minibuses, recently celebrated production of its 6,000th conversion. Formerly known as Autoservice International, the new name Aquablue stands for a clear and transparent way of working. The company will exhibit a JOBLINER built to the latest regulations in Belgium, and capable of carrying up to six wheelchair passengers.

## KEEPING DRIVERS COOL

Among the exhibits on the Thermo King stand will be the SR10E lightweight air conditioning system for driving compartments, as well as truck cabs and construction and agricultural vehicles. The unit is fully sealed, with a hermetic refrigeration circuit and compressor, resulting in fewer leaks, longer service intervals and lower life cycle costs. The SR10E will be pre-filled and fully tested at the factory, ready to operate when mounted on the roof.

## FIRST WITH ESP

Mercedes-Benz and Setra will offer Electronic Stability Programme, (ESP), on Travego and TopClass 400 coaches as standard with immediate effect. It will progressively be offered on other complete EvoBus coach products. ESP is an active system designed to enhance road safety and directional stability. It helps noticeably to reduce the risk of skidding when cornering and during evasive manoeuvres, for example, a sudden change of lane on a motorway.

## FRENZEL TEAMS WITH LUFTHANSA

Frenzel has long been known for its stylish refreshment systems which can offer passengers a variety of hot drinks on board. Units can be built in to a coach or stand alone. At Kortrijk, Frenzel will launch the first cold drinks dispenser for mobile use in coaches and trains. Quality components include a Danfoss cooling compressor and materials with very good insulation properties. The machine is coin operated and easy for passengers to use. It also has the major safety advantage of leaving the driver free to concentrate on the road ahead.



Frenzel has teamed up with LSG (Lufthansa Service Sky Chefs), to offer a comprehensive catering system exclusively developed for the coach industry. They offer a complete package which transforms the standard mini kitchen into a compact gastronomy unit. Samples and snacks will be on the Frenzel stand!

## MARCOPOLO EXPANDS

Marcopolo, the largest manufacturer of bus bodywork in the world, will be exhibiting three models, built in its factory in Portugal. There will be a Viaggio coach, an Andare intercity model and a Senior minibus. Marcopolo plans to increase output from its factory in Portugal to 200 units in 2004. It will mark an important step in the consolidation of the Group in the European market and is part of a plan of reorganisation and stronger integration with the parent company in Brazil. The Marcopolo Group produced more than 14,000 units in 2002 and plans to reach 15,000 this year.

## NEW GRAMMER COACH SEATS

Grammer is presenting a new generation coach seat which benefits from the latest ergonomic research, light weight and modular assembly. It follows a modern and trend-setting space concept and also sets new safety standards, with the combination of a high backrest and integrated 3-point seatbelt.

## KEEPING BUSES CLEAN

BTC is a Belgian manufacturer of washing machines for buses and trucks. The company's latest product is the Silverstar, made from stainless steel or aluminium for durability. The brush motors are driven by frequency-converters, which guarantee smooth movements. The vertical brushes are attached to hinged frames at the top and bottom, ensuring that the vehicle is washed evenly. The

power of the horizontal brush is continually monitored so that it can quickly bypass any obstacles and avoid damage.

## SAFETY ON BOARD

All new Volvo coaches will in future be provided with a copy of a film informing passengers of safety precautions on board. Volvo will also introduce its new "Sound & Vision" AV packages. There are two multi-media systems which are on a whole new level in terms of stereo and video installations in both coaches and city buses.

Volvo will exhibit a 7700 city bus, an 8700LE low entry interurban bus built to 14.5 metres overall, and three coaches, including one bodied by VDL Jonckheere. The new I-Shift automatic gear changing system will also be on display. It is simple to use and should help to improve fuel economy.

## NEW IDENTITY FOR IRISBUS

Irisbus will launch its new identity at Busworld Kortrijk. From now on, all vehicles will be branded Irisbus, replacing the previous Iveco and Renault identities. The company has appointed its own distributor in the Benelux countries will present three world premiere models. The shortest will be a 9.7 metre midicoach on a MidiRider chassis. Next comes a 10.6 metre version of the interurban Ares family. Third is a new 12.8 metre long touring coach, described as the first model of a new range from 352-440bhp. Irisbus will also exhibit three coaches with ramps or lifts to help passengers with disabilities.

## NEW CLUBSTAR

Ernst Auwärter will complete its ClubStar range by showing a high deck coach on the new MAN 14.280 chassis with rear mounted engine. The 9.6 metre coach is built to a width of 2.55 metres and can accommodate 33 to 37 reclining seats. The deep side glazing is in tinted double glass and a wide range of optional equipment is available.



Ernst Auwärter will also show its new Super Sprinter 616 and a TeamStar coach on a Mercedes-Benz 815 chassis. The company also announced that its EuroStar 505 is now available at an optional length of 14.0 metres, with 60 reclining seats.

## FIRST FOR CASTROSUA



Carrocera Castrovia, the major Spanish builder of city and interurban bus bodywork, is taking a stand at Busworld Europe for the first time. The Galician company built more than 400 bodies last year, on a wide variety of chassis. Castrovia will show a 12.7 metre CS.40 Magnus body on an MAN 18.310 chassis and a 10.8 metre CS.40 Magnus S on an Irisbus 397.E chassis, both with interurban



specifications, including air conditioning.

Castrosua has been established for more than 40 years and is well known for its distinctive modern styling, flexibility and quality.

### SCANIA IRIZAR SELECTION

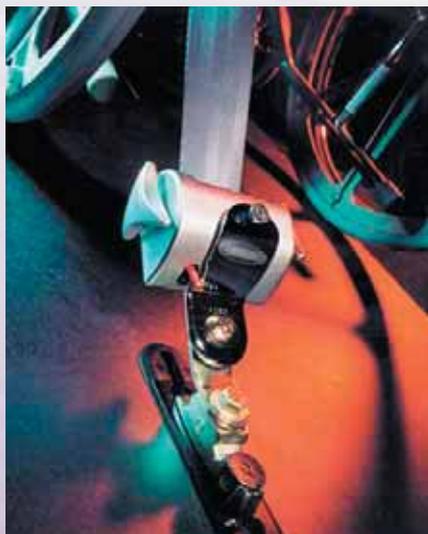
Scania and Irizar have enjoyed a close working relationship for nine years and have developed joint activities in around 15 countries. Irizar parts are available from Scania's aftersales network. Three coaches will be on display. The advanced new PB is available in various lengths, and a 13.7 metre example will be on display. The popular Century body continues in production. There will be a 12.0 metre touring coach and a 15.0 metre Century Express. Scania will also display an OmniLine intercity bus, fitted with double glazing and air conditioning.

### ISRI'S NEW DRIVER'S SEAT

Isringhausen is offering a new range of driver's seats. The company says that the main difference between this range and its competitors is an adjustable shoulder position. It is able to accommodate drivers of all heights and weights and increases comfort and security for drivers. The new seat is available with or without integrated lap and diagonal seat belts.

### NEWS FROM Q'STRAIT

Q'Strait will exhibit its QRT range of retractable restraints and also a new floor anchorage systems for wheelchairs, called "Slide 'n' Click".



### VDL GROUP DEBUT

At the end of August, the European Competition Authorities gave their approval to the acquisition of Bova by VDL. Since 1 September, the former DAF Bus International has become VDL Bus International. VDL Group will be represented in Halls 1 and 2.

### ON BOARD SURVEILLANCE

RP Sicherheitssysteme, also known as RP Security, specialises in on-board video surveillance systems for buses, coaches, trams and trains. The company has sold more than 3,000 sets of its RP8-camera systems, the RP RoadRunner, the best selling system in Europe. A further development of this system will be presented at Busworld Kortrijk, with two hard drives, four video outputs and 50 frames per second operation.

### MITRON'S SLICE DISPLAY

Mitron of Finland will display its latest bus destination sign. The new technology, known as Slice Display, has several advantages over previous systems. Slice Displays are brighter, clearer and have better contrasts, also the viewing angle is wider than ever before.

### TOUCHLED TECHNOLOGY

Frank Frensch of Duisburg, Germany, will be showing their LED TouchLed boards on their stand. This patented technology is used in coach roof lighting systems. A prototype can be seen on the

Happich stand, to be used in the roof of the Setra TopClass 400 range.

### GRAPHIBUS FREESIGN

Graphibus, the French creative studio and coach paint-scheme workshop, launches FREESIGN. It is a new technical vinyl solution using polyurethane colours. Everything is possible, including metallic, pearly, gradations and multi-tone effects. Repairs and retouching are easy and indiscernable. FREESIGN comes with an eight year warranty and has good resistance to weather, cleaning fluids and washing machines.

### NEW BLADES FROM MATADOR

Matador, based in Buckingham, England, is a well established manufacturer of windscreen wiper arms. The company currently supplies a large number of top quality car, bus and train manufacturers. Their latest product is a new range of under-hook wiper blades. They are different technically and aesthetically when compared with competitive equipment and complement the established range of wrap-over wiper arms. The new under-hook wiper blades have a sleek appearance and help to enhance the visual impact of buses and coaches fitted with them.

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