

busworld newsletter



Number 17 - june 2006

This Busworld newsletter appears in january, june, august, october and december (5/year) - Afgiftekantoor 8900 Ieper 1 - P409506
YU: BAAV - Luc Glorieux - Busworld - Kasteel van Rumbeke - Moorseelsesteenweg 2 - BE-8800 Roeselare - Tel. +32.51.22.60.60 - Fax +32.51.22.92.73

BUSY BUSWORLD SHANGHAI

The 6th annual Busworld Shanghai Exhibition was held in two of the large halls of the New International Exhibition Centre in Pudong, Shanghai, from 28-30 March. This was the first time that the rapidly expanding and very popular exhibition had filled two complete halls. There were record numbers of exhibitors, from vehicle manufacturers to component and system suppliers. The facilities in the exhibition centre were excellent. Wide gangways gave easy access to all the stands in the long rectangular halls. The layout was the same as previous years with large stands, displaying vehicles, along the outer walls and the generally smaller units of other suppliers in parallel "streets" between them.

Busworld Shanghai was as always, a busy exhibition. During the first morning, especially when the premières were launched, some of the exhibitors believed in making



Distinguished guests at the opening ceremony included the Flemish Minister of Tourism and the Consul-General of Belgium in Shanghai.

a song and dance about their business, quite literally. Pretty girls, including dancers, helped to promote products. Music was frequently so loud that conversation was difficult. It was all part of the unique atmosphere of Busworld Shanghai.

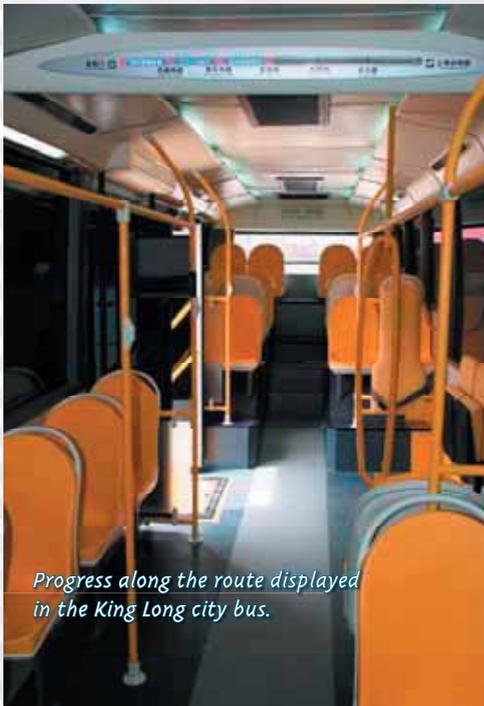
The Chinese manufacturing industry is continuing to develop new models at an astonishing rate, although some Western European visitors thought that the pace was probably a little slower than in previous years. There is a tendency for manufacturers not to attend if they have nothing new to show, which is unfortunate.

It explains why some exhibitors from previous years were absent. One of the main benefits of Busworld exhibitions is to meet old friends and make new contacts. Constant changes in styling are not recommended, because previous vehicles become dated more quickly and that has an adverse effect on

residual values. Therefore we hope to see even more exhibitors in March 2007!

THE SIZE OF THE MARKET

Although China became the third largest builder of cars for the first time last year, overtaking Germany, levels of car ownership remain very low. Buses and coaches are the main form of public transport for the vast majority of the population. Around 13 million people are moving each year from rural areas to the cities, to work in China's industrial revolution. They all require transport. It is difficult to calculate the exact size of the market. The number of chassis builders is quite small but they supply their products to a large number of bodybuilders who invariably give their brand to the complete vehicle. There are also some makers of complete integral models.



Progress along the route displayed in the King Long city bus.

Taking buses and coaches of 7 metres and above, the best estimates are around 90,000 chassis and complete vehicles in 2005 – but beware of the possibility of some double-counting. Even so, it is a massive output, well over three times that of Western Europe.

New patterns are emerging. The trend in the cities is towards larger capacity buses, with lower floors, although there are still very few with much of the floor only one step above the ground. However, with Beijing hosting the Olympic Games in 2008, and Shanghai holding a World Expo in 2010, Busworld Shanghai was the showplace for new vehicles designed for those events.



ALTERNATIVE FUELS

China is keen to develop and use alternative fuels. Compressed natural gas is now being piped from the large gas fields in the west of the country to Beijing and the cities on the eastern seaboard. Liquified petroleum gas is also available as an option.

Xiamen King Long United Automotive Industry Co showed the stylish XMQ6122G dual-door concept bus that had a low floor from the front



The driver's area on the new King Long concept bus

entrance to the second exit, just ahead of the rear axle. This bus was powered by Cummins CNG engine and was targeted at the Olympic Games in Beijing.

The interior included a digital display of the route, illuminating to show the exact position of the bus on its journey. At the rear, there was a ticket-issuing centre. Passengers pressed a touch screen to show their destination and received a map of the area around that stop. The interior was finished in shades of yellow and white, and included an area for a passenger in a wheelchair.

Also with Beijing in mind, King Long showed the first bus in China with a Euro 4 engine, a Cummins ISBe unit. Cummins has been active in China with local partners for many years.

FUEL CELL BUS

One of the surprises of Busworld Shanghai was a fuel cell bus, developed by King Long (Suzhou), now promoting buses under the Higer brand. The Government has

encouraged development of this new technology. The PEM fuel cell was developed by Shanghai Shen-Li High Tech, which can offer engines for buses with power output ratings from 65 to 150kW. Hydrogen was stored at low pressure in tanks mounted on the roof.

The height of the main floor of this bus was mostly two steps above the ground. It is a more popular arrangement in China than the European standard with just one step above the ground. Company representatives quoted a price of a little over EUR300,000 for the complete vehicle. Although this was very high by Chinese standards, prices will inevitably come down as production volumes rise. One major challenge, not just in China, is the current high price of hydrogen as a fuel.

HYBRID BUSES

Several Chinese manufacturers came to Busworld Shanghai with newly developed hybrid buses, claiming substantial savings in fuel consumption and emissions. Most designs relied on a small thermal engine, running at relatively constant speed, powering a generator, with electric drive motors to the rear axle. The generator passed current to batteries, and they were also recharged by the electric motors when the vehicle was descending a hill or braking.

The unusual development in China, and one that was not fully explained by the exhibitors, was the use of a standard five-speed manual gearbox in the drive system. Vehicles tended to accelerate silently in all-electric mode until reaching a pre-set speed, around 20kph. Then they switched





The Spaceliner double deck coach from Jinhua and Neoplan

into diesel mode, accelerating through gears like a conventional bus!

The Xiamen Golden Dragon Van Co built 15,500 vehicles last year, from 5 to 12 metres overall length. Of these, more than 3,500 were longer than 8 metres. The company exhibited an 11.38 metre hybrid electric bus, saying that emissions were reduced by 70% and that it achieved a 30% saving in fuel consumption. It used a Yuchai Euro 2 engine coupled to a Gangxin Power HCTS 700-4 gearbox that also worked as a retarder during braking.

The extensive display of Zhengzhou Yutong, another of China's largest

manufacturers, included the ZK6108HGD diesel-electric hybrid bus. In the demonstration area, before the exhibition, it started in electric mode and moved over to diesel at a set speed. Thermal power was provided by a four cylinder common-rail diesel engine, driving a 45kW generator.

A spokesman said that the system also employed a continuously variable transmission that was contained within the casing of a normal manual gearbox. The show exhibit had lead-acid batteries as standard, but nickel-hydrate and lithium-ion batteries were available as options, at a higher price.

Ankai is probably best known as the Chinese partner of Setra, but also showed its HFF6110GZ-3 hybrid bus. It used a 2.8 litre Iveco Euro 3 engine running within a restricted speed band, powering a generator and an Optima battery pack for electric power.

CITY BUSES

There is a wide variety of urban buses in China. In the poorer and more thinly populated parts of the country, most buses are built on

truck-derived chassis with the floor up to four steps above the ground. In the larger and more prosperous cities, the trend moved some time ago to rear engines and, more recently, to lower floor heights.



A Euro 3 engine from Shanghai Diesel

One of the basic rights of the people in China is very inexpensive bus travel, making it difficult for operators to cover their running costs, including the rapidly rising cost of fuel. That is despite heavy demand for bus travel, and not just at peak periods. Lower floor heights help to reduce dwell time at bus stops, because all passengers can get on and off more rapidly. Therefore lower floor heights will come, but it will take time.

The Dandong Huanghai Automobile Co is one of the largest builders of city buses in China. Just before Busworld Shanghai, the company signed a licence agreement with Neoman Bus to build the low floor MAN Lion's City bus range in China, starting in 2007. Two prototypes, one rigid and one articulated, were shown, having been built by MAN in Poland.

MAN will supply engines and articulated bellows, also some tooling and training for the Chinese workforce. Dandong Huanghai said that the new joint range will be targeted at the ten largest cities and could in future be developed into a four axle Bus Rapid Transit vehicle, up to 20.5m long.

COACHES

One of the impressive features of the Chinese market is the enormous range of coaches. They vary in length from around 6 metres up to the permitted maximum of 13.7 metres, although few of the latter

SHANGHAI STATISTICS

Busworld Shanghai attracted record numbers of visitors, totalling 17,998 over the three days of the event. Unlike Busworld Kortrijk, where the flow of visitors is much the same each day, more than 45% came to Busworld Shanghai on the opening day.

Just over 7% came from abroad, or from the Special Regions of Hong Kong and Macau, but they came from more than 50 countries. Around 37.35% were local to the Shanghai area and the other 55.5% came from other parts of Mainland China, confirming the importance of Busworld Shanghai in reaching decision makers and managers in the vast Chinese market. In fact, around 83% of all visitors described themselves as being in one or other of those two categories.

When asked about the products that interested them, more than 48%

said vehicles and another 23% said accessories. There were 8% that described themselves as agents and another 8% who said that they were importers or exporters. Another 8.3% said that their primary interest was tourism. Put together, those figures confirm that Busworld Shanghai was a place to do business.

Everyone was also asked the purpose of his or her visit. Significantly, more than 28% said that they were looking for new suppliers and almost the same number had come to see the latest trends and developments. More than 14% had come to consolidate contacts and over 11% said that they were sourcing products and placing orders.

Can you afford to miss Busworld Shanghai in March 2007?

are yet in service. They vary from cheap and cheerful vehicles for works and rural transport, costing about the same as a medium-sized family car in Europe, to sophisticated top-of-the-range models, with high imported content, and prices on a par with equivalent coaches in Western Europe.

The market for these vehicles, from 7 metres and above, is estimated to be approaching 60,000 units per annum, and of those around 10% are fitted out as sleeper coaches. They are used on long distance services, all across China, around the clock, and are normally fitted with three single rows of forward facing bunks, one above the other.

Xing Kai Long was another company exhibiting for the first time. They have built a range of simple, well-appointed, coaches at very competitive prices. The company believes that there is rapidly rising demand in China for cost-effective coaches. Chinese people are travelling and touring more than ever before, because of increased earnings and greater prosperity. They did not expect to travel in more expensive premium coaches at higher fares.

Golden Dragon is one of the largest manufacturers in China. Their exhibits included an unusual coach for city sightseeing, offering excellent upward vision. Above the main side



An impressive line-up from Zhengzhou Yutong

New manufacturers are still appearing at Busworld Shanghai. The Shanghai Shenlong Company was established in 2005, having taken over another builder, and made 600 vehicles last year. The target for this year was 2,000, in a factory with capacity for 3,000 units per annum. Shanghai Shenlong offers a range of medium to high class buses and coaches, from 8 to 12 metres long. Customers can choose from a wide variety of options, including Cummins, Hino and Yuthai engines. Sany was another new exhibitor. The company started building trucks around 1990, adding buses in 2003. Around 1,000 were built in 2005. Both tourism and sleeper coaches are offered, built in the company's own semi-integral construction system.

windows and the cantrail, there were additional windows that curved to 90 degrees, to meet the flat roof. They were reminiscent of the quarter-lights that were popular on some European designs over 40 years ago.

Golden Dragon also showed a much more glamorous high deck luxury coach on the first Scania chassis to be bodied in China. It had distinctive styling by the Italian house Bonetto Design. It was built to an overall height of just over 3.8 metres, giving excellent luggage capacity.

Scania appeared at Busworld Shanghai for the first time. The Swedish company showed a tri-axle coach chassis that attracted tremendous attention. Scania said that it planned to import complete

chassis and to work with a small number of selected bodybuilding partners at the very top end of the market.

There is even a small sector in China for double-deck luxury coaches. The only one in the exhibition was a 13.7 metre Spaceliner coach shown by Jinghua Neoplan, a company that also trades as Youngman. Their vehicle had a seating layout with twin seats on one side of the gangway and single on the other, limiting capacity to 58 passengers. Up to 86 people can be carried with a more normal 2 + 2 layout.

EXPORTS

Although quite a number of exhibitors talked about exports, it appears that there is still such strong demand from the home market that exports probably account for no more than 5% of the output of vehicles of 7 metres and above.

There have been some spectacular sales. For instance, Zhengzhou Yutong has taken orders for around 1,000 coaches from Cuba, said to be the largest Chinese export order to date. Most of the exhibitors reported some export activities, mainly to developing countries. The leading builders realise that they will need to make major investment in parts and service support if they are to succeed in developed countries against strong domestic manufacturers. That will take time, but the signs were there for all to see at Busworld Shanghai.



Many more vehicles are entered in Asian Coach Week than in the European equivalent.

ASIAN COACH WEEK



Asian Coach Week immediately precedes Busworld Shanghai. Panels of European and Chinese experts test vehicles for a wide range of attributes. These include driving tests, also detailed assessment of driver and passenger comfort.

This was the 5th Asian Coach Week. Normally in the European

counterpart, around 10 vehicles are entered. The Chinese are so enthusiastic that five juries, each with three members, were presented with 28 vehicles.

Piet Vintevogel, one of the organisers of both Asian and European Coach Weeks, observed that the Chinese manufacturers



Anhui Ankai builds Setra coaches in China and won the Luxurious Coach of the Year.



Yancheng Zhongwei shared the prize for the Coach Appearance of the Year.



One of the three winners of the Coach Appearance of the Year was Scania, bodied by Xiamen Golden Dragon.

AWARD

- Best Airconditioning of the Year
- Best Engine Producer
- Best Midi Bus of the Year
- Green Bus of the Year
- Bus Appearance of the Year
- City Bus of the Year
- Bus of the Year
- Bus Builder of the Year
- Best Midi Coach of the Year
- Best Safety Equipment
- Coach Appearance of the Year (3 awards)

COMPANY

- Shanghai Jialeng Songzi
- Shanghai Diesel
- Mudan Automobile
- Xiamen Golden Dragon Van Co
- Mudan Automobile
- Xiamen King Long United
- Zhejiang Yang Man Neoplan
- Dandong Huanghai
- An Hui JAC Coaches
- King Long United Suzhou
- Yancheng Zhongwei
- Zhengzhou Yutong
- Xiamen Golden Dragon Van Co
- Anhui Ankai Automobile
- Xiamen King Long United
- Zhengzhou Yutong
- Zhengzhou Yutong

- Luxurious Coach of the Year
- Coach of the Year
- Coach Builder of the Year
- Best Export Marketing Campaign of the Year

were continuing to make progress. There were excellent improvements in external styling, but some manufacturers need to improve internal design and passenger comfort. Condensation was a problem on some vehicles and could be cured by better climate control systems.

Manufacturers who take part in Asian Coach Week look at the list of awards and decide which they would like to contest. The final award list and the winners of Asian Coach Week and the BAAV 2006 are on the panel alongside.



Happy faces of award winning participants at Award Ceremony

CHINA ADOPTING EURO EMISSION STANDARDS

China is becoming increasingly aware of engine emission levels as part of its efforts to reduce emissions and pollution in urban areas. The whole nation will move to Euro 3 standards for new vehicles from 1 July 2007, followed by Euro 4 on 1 July 2010 and Euro 5 from 1 January 2012. One of the major challenges to be overcome is to refine and distribute ultra low sulphur diesel.

Some of the largest cities have introduced Euro limits ahead of the rest of the country. Beijing has

required Euro 3 from the end of December last year and will make Euro 4 mandatory from 1 January 2007. Shenzhen required Euro 3 on new city buses from March 2005. Guangzhou and Shanghai called for Euro 3 from 2006 for city buses.

It is quite possible that some of the cities will continue to introduce later levels of Euro standards ahead of the country as a whole. Also, Hong Kong continues to introduce the latest emission limits concurrently with Europe.

VOITH ADVANCES IN CHINA

Voith Turbo China, based in Shanghai, is making several advanced axle systems in China and achieving up to 85 per cent local content, to meet increasing demand for the latest European standards of components for longer and more sophisticated buses and coaches.

These have been developed by Voith Drive Systems, based at Twello in the Netherlands. Huub Hendrickx, a director of that company, said that Voith in China was building portal rear axles for full low floor city buses, originally engineered by Graziano in Italy, also rear steer axles with independent suspension for longer tri-axle coaches.

Voith Turbo China was on the point of becoming the first supplier in China to introduce independent front suspension. Voith can offer suspension systems with an axle weight capacity ranging from 5 to 9 tonnes gross on 22in wheels, and lighter systems from 4.1 to 6 tonnes gross for use with smaller 19.5in wheels. Xin Xin Eurostar Bus Co will be the first Chinese bus builder to combine all three units – in a prototype low floor double deck bus chassis

DATES FOR YOUR DIARY

There is a busy programme of forthcoming Busworld exhibitions, starting in December and running through 2007.

Lagos,
during December 2006
Tafawa Balewa Square,
Lagos,
Nigeria

Mumbai,
30/01-01/02/2007
Mumbai Exhibition Centre,
Mumbai,
India

Istanbul,
8-10/02/2007
IDTM, Istanbul,
Turkey

Shanghai,
13-15/03/2007
Shanghai New Exhibition Centre,
Shanghai, PR
China

Kortrijk,
19-24/10/2007
Kortrijk Xpo, Kortrijk,
Belgium

Book now for your stands in Istanbul and Mumbai.

BUSWORLD ISTANBUL 2007

The first international Busworld Istanbul will be held from 8 to 10 February 2007 in two large halls at the Istanbul World Trade Centre, situated right next to the airport.

The three partners in Busworld Istanbul are HKF Trade Fairs, the International Road Union (IRU) and Busworld. The exhibition will be supported by Toder (the Federation of Intercity Transport) and the Ministry of Transport.

When signing the partnership agreement, Luc Glorieux, International Director of Busworld, said: "We are very pleased to add Turkey to the countries that host the unique concept of Busworld exhibitions, dedicated to the professionals in the bus and coach industry. Turkey is a very important market. Its manufacturers have capacity to build a very extensive range of buses and coaches, from simple vehicles for local transport to high specification coaches. Turkey relies very heavily on buses for urban transport and on coaches for intercity travel. Turkey is also an important regional hub. Vehicles are supplied by Turkish manufacturers to many neighbouring countries, also throughout Western Europe and to Russia and the Turkic Republics in Central Asia.

"Busworld Istanbul therefore has the potential to become every bit as international as Busworld Kortrijk."

Busworld Istanbul will be launched officially in the middle of June when exhibitors can book space for this very important fair.

NEWSLETTER ON LINE

The Busworld Newsletter is now available on-line at www.busworld.org. Alternatively, we can arrange to send it to you by e-mail. Please make your request to mieke.glorieux@busworld.org.