Volkswagen to invest in new plant for Crafter’s successor

Germany / Poland - Volkswagen Commercial Vehicles of Hanover, a subsidiary of Volkswagen AG (VW) of Wolfsburg, Germany, has announced that the successor to the Volkswagen Crafter is to be manufactured at a new plant in Poland from 2016. Construction of the new plant, says VW, is scheduled to start at the end of 2014 on a 220 hectare site in Wrzesnia, which is in the Voivodeship Wielkopolska region of Poland. The future factory is to consist of a body shop, a paint shop and final assembly with vehicle production scheduled to start in the fourth quarter of 2016. The new plant, Volkswagen Poznan, is the name of Volkswagen’s existing light commercial vehicle plant nearby in Poznan, Poland. The plant was founded in 1993 as a joint venture between Volkswagen AG and the Tapran factory in Poznan. In 1996, Poznan became a wholly-owned subsidiary of Volkswagen AG and was integrated into the Volkswagen Commercial Vehicles brand one year later. The plant consists of three units with a total area of 739,000 square metres, of which some 90% is occupied by production buildings. At the end of 2013 it had a workforce of over 6,500 employees and produced 170,900 light commercial vehicles (VW Caddy and the T5).

As a result of its decision to build the new Crafter replacement model on a new site in Poland, Jens Ocksen (53), formerly member of the board of management of Volkswagen Commercial Vehicles, who managed the Crafter production project and head of the board of management of Volkswagen Poznan Sp.z.o.o. He, however, remains a member of the board of management of Volkswagen Commercial Vehicles, Dr Josef Baumert, previously technical managing director of the Volkswagen Group Rus and plant manager in Kaluga, Russia, is now responsible for production and logistics division.

Sisu Auto to acquire Serbia’s FAP

Serbia / Finland – Timo Korhonen, managing director, chairman and owner of the Finnish special heavy-duty on- and off-road multi-axle truck manufacturer, Oy Sisu Auto Ab of Karjaa, and Dusan Vujovic, Serbia’s Minister of Economy, have signed a Memorandum of Understanding that would see Sisu take over part of the assets of truck and bus manufacturer, FAP Korporacija a.d. of Priboj, Serbia. FAP is majority owned by the state.

The Serbian government states that Sisu Auto, under the agreement, plans to establish a company in Serbia for the production of heavy commercial vehicles and components with the support of the Serbian government. “Our objective is to sign the contract by the end of August,” Korhonen said, according to the Serbian press.

FAP started production of trucks in 1953. Initially the plant manufactured trucks under a licence from Saurer - a purpose trucks called Sisu Polar for gravel, rock, timber and metal transportation and other applications. In May 2013, Sisu announced its new line up for Euro 6, which it said would feature new engines and cabins for market introduction starting in October, with deliveries starting in the second quarter of 2014.

According to the consulting company engaged by FAP as a consultant for restructuring and privatization, FAP’s annual capacity is 5,000 trucks. However, the company has only used between one and five per cent of the capacity over the last few years. It is also understood that FAP has the capacity to build about 70 bus chassis per year.

In 2010, the then management at Sisu Auto, including Timo Korhonen, took over the company in a management buyout – the Suomen Autoteollisuus Group then consisted of the following companies: Oy Sisu Auto Ab (group services), Sisu Auto Trucks Oy (commercial trucks), and Sisu Defence Oy (military vehicles). Korhonen became the sole owner in August 2013. In November of 2010 it entered into an agreement with Daimler to use Mercedes-Benz components extensively to build a range of heavy-duty special purpose trucks called Sisu Polar for gravel, rock, timber and metal transportation and other applications.

USA / Italy – Meritor’s 17X axle carrier, which features Meritor’s patented laser-welded gear sets, is to be offered with an, as yet, unnamed truck builder in North America; Meritor says the agreement gives the customer a period of exclusivity for the 17X carrier. The Meritor 17X heavy duty axle was launched in 2006 for the European, Australian and South American heavy-duty markets and features Meritor’s patented laser-welded gear sets in the carrier. These replace the conventional bolted-design found in its predecessor and still used currently in North America with Meritor’s 160 single reduction axle for on-highway applications.

The 17X axle carrier, says Meritor, which is made in its manufacturing facility in Camden, northern Italy, is to be shipped complete ready for integration with a Meritor heavy-duty axle in North America before sequence supply to the customer.

Meritor signs deal with US truck builder to supply 17X laser-welded axle carrier

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</table>
Turkey - TCV (Turkish Commercial Vehicles) Ltd of Ankara, Turkey announced that it was making good progress with the design and development of an all-electric bus, which it plans to display at Europe’s premiere commercial vehicle show, the IAA in Hanover in September later this year. The vehicle is expected to be a 3-door low floor 10.7m unit with a range on a full single charge of approximately 200km.

The company said that being part of the Bozankaya Group also based in Ankara since 2005 through its German operation, Bozankaya GmbH of Salzgitter, it has the necessary expertise in terms of battery chemistry, battery management systems and energy storage for building a full electrically-powered city bus. The wheel hub drive is ZF’s AVE32 electric drive axle. The company also said it was already using this in-house group expertise to deliver its first trambus or trolleybus models in Turkey - ten at 25m and two at 19m; all are to be fitted with Vossloh-Kiepe electric motors - over the next few months. (All 12 are to be fitted with a small diesel engine as a generator on the side of the bus to provide power when off-line).

The designs for all its electronically controlled equipment and systems (such as the batteries, battery management systems, electronic traction) were performed by Bozankaya’s Wolfenbuettel GmbH research and development centre in Germany. The company also announced that Euro 6 vehicles would be available within the year – it plans to offer an FPT diesel engine or an MAN natural gas engine (E0836).

In its brief history - TCV was founded in October 2010 by former senior executives of Temsa and by the time of the last Busworld Turkey in April 2012, TCV had built two 10.7m three door full low floor prototypes fitted with Iveco 5.9 litre engines mounted offset at the rear. The company has since built 200 vehicles, 10% of which were fitted with CNG (MAN) engines. TCV said that currently, for Turkish operators, CNG powered buses cost between 20 and 40% less to operate than diesel ones.

The company builds the buses in Ankara in two stages – the body structure is built at MAN’s Turkish facility in Ankara, where it is KTL-treated and powertrain (engine, transmission and axles are installed), before being transferred to TCV’s own facility locally for finishing. TCV says that its major advantage again was that its parent company, through its subsidiary Bozankaya AS, has a full range of metal components for bus chassis and bodies at both its plants in Turkey and in Germany, not only for TCV but also for other famous German brands.

**Fruehauf comeback continues**

UK - Tipping trailer and moving floor specialist, Fruehauf Ltd of Grantham is continuing to recover strongly with build rates per month having more than doubled since the last specialist tipper show, according to David Snodin, managing director at Tip-Ex 2014 in Harrogate last month.

Snodin advised Truck & Bus Builder that at the same time last year, it had been building approximately 35/40 trailers a month, whereas this year its monthly output was averaging between 50 and 100 units a month. Subsequently, it is of no surprise that further investment has been made in new machinery and man power.

2012 saw an investment of GBP200,000 in a new PPG shot blasting facility to guarantee high quality surfaces and superb surface conditions for priming, top coating and baking. In 2013, some GBP450,000 was spent on a new heavy duty laser cutter and a further GBP100,000 on new aluminium welding equipment, said Snodin.

The company was utilising some two thirds of the 64 acre site in Grantham, UK, and that its consignment stock had increased to between GBP3m and GBP4m, from GBP1.5m a year ago. The company’s ultimate goal, Snodin remarked, was to have sufficient consignment stock for a full six week production period of all models – the equivalent of some 150 units.

During the past year too, it has increased its number of engineers and skilled welding workforce; fulfilling the latter through its traditional recruitment strategy of taking on skilled welders from the Baltic states, announcement, said Snodin. Bozankaya GmbH of Salzgitter, it has the necessary expertise in terms of battery chemistry, battery management systems and energy storage for building a full electrically-powered city bus. The wheel hub drive is ZF’s AVE32 electric drive axle. The company also said it was already using this in-house group expertise to deliver its first trambus or trolleybus models in Turkey - ten at 25m and two at 19m; all are to be fitted with Vossloh-Kiepe electric motors - over the next few months. (All 12 are to be fitted with a small diesel engine as a generator on the side of the bus to provide power when off-line).

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The product range too has been expanded. At Tip-Ex 2014, it showed a smooth sided tipping trailer with an external tipping ram for the first time. This has several advantages, said Snodin, it allows sand or other bulk material to be discharged more quickly and it reduces the risk of material sticking in the bulkhead.

Snodin also announced that six months ago (October / November 2013) Fruehauf had re-entered the rigid tipper market. This project, he said, he had delayed deliberately until the confidence in the Fruehauf name had been re-established - this is certainly confirmed perhaps by vehicle build rates and by the levels of stock now held on consignment.

A separate production line has been set up for its rigid tipper range, continued Snodin. A number of models are now available. On display at the show was a lightweight insulated smooth-sided tipper with a twin skin using 6mm square panels offering a 20 tonne payload designed for the transport of hot asphalt suitable for use with road-laying machines. It also offers a lightweight heavy-duty aluminium body with 34 cubic capacity for sand and general purpose applications on an 8x4 chassis as well as tipper bodies made of high tensile and wear resistant pressed steel in monocoque design available in light, medium and heavy-duty options.

An additional feature of the bus is its design and development through subsidiaries TCV (Turkish Commercial Vehicles) - all are to be fitted with Vossloh-Kiepe electric motors - over the next few months. (All 12 are to be fitted with a small diesel engine as a generator on the side of the bus to provide power when off-line).

Another part of the business, which it has developed and expanded during the past year, is its repair and refurbishment operation. With the comprehensive manufacturing facilities and labour expertise at Grantham – ie shot blasting, welding, painting etc, Snodin says it is in a strong position to carry out high-end repairs to a trailer and rigid body. It focuses on the high-end or high value repairs however, should a leak develop over time, ADL says it is experimenting with 3mm. The QRG system uniquely allows the side windows to be taken off the depot, scaffolding or raised platform erected, and two skilled operatives to replace the glass often taking several hours. Standard 4mm glass is being used by ADL for the side windows, but the company says it is experimenting with 3mm.

The company did not say whether this system was being used in any of its other products currently, but it is likely that it will be incorporated, certainly in its tri-axle E500 models sold into North America and the Far East.

**Technology / Component**

UK – Quick Release Glazing (QRG) is the name of a new, patented glazing system developed by bus builder, Alexander Dennis Ltd of Larbert, UK for its side windows as part of the company’s complete re-design of its Enviro400 double deck city bus range at Euro 6.

ADL’s QRG system uniquely allows the side windows to be installed and, if necessary, replaced from inside the bus. This is possible due to the fact that the design of the bus frame provides the necessary structural strength, unlike conventional gasket glazing systems; but by using the outer bus frame to hold the glass in place this also enhances safety by preventing the window from being pushed out from the inside.

The QRG system uses the same interior plastic trim as that used for the bonded glazing in the front and rear of the decker. However, the window is secured from the inside using push-fit mounting blocks of a patented design, which are fixed in place using a single screw. The push-fit blocks sit under the trim in the interior of the bus frame profile and the glass on the inside and the rubber seal and outer frame of the profile. The system has a unique sealing system, says ADL, to reduce water ingress without the need of sealants; however, should a leak develop over time, ADL design of the new generation E400, allows it drain into a channel that exits the vehicle.

As the interior trim and blocks can be removed by just one person with the appropriate tools in just a matter of minutes, the QRS reduces side window replacement time to just minutes rather than hours. The system allows the window to be replaced at kerbside, minimising vehicle downtime and reducing the total cost of glass replacement – bonded glass systems, certainly in the upper deck, requires the bus be taken off the road to a depot, scaffolding or raised platform erected, and two skilled operatives to replace the glass often taking several hours. Standard 4mm glass is being used by ADL for the side windows, but the company says it is experimenting with 3mm.

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**Funding**

UK pledges GBP0.5bn towards low emission vehicles

UK – The UK Office of Low Emission Vehicles (OLEV) has revealed how it plans to spend GBP500m of funding allocation over the next five years (2015-2020) to help instigate a major shift towards low and ultra-low carbon vehicles and technologies.

The key features of the OLEV package in respect of the commercial vehicles are:

- GBP100m for R&D projects;
- GBP30m for buses;
- GBP23m on infrastructure (including for a rapid charging network);
- GBP4m for gas refuelling network for HCVs.

It is seen by many in the transport industry as a balanced approach to incentivise technical developments in all segments of road transport, not just passenger cars.
## Meritor starting trials of LogixDrive

Italy / USA – LogixDrive, the name given to the industry’s first intelligent axle system by medium-and heavy-duty drive axle and brake specialist, Meritor Inc, is to undergo official testing with several OEs later this year as part of a European funded programme encouraging the development of low carbon and fuel efficiency saving technologies.

LogixDrive is an electronically controlled system that sits within the differential carrier designed to control the level of lubrication within the drive axle. The LogixDrive unit controls the amount of lubrication in the axle at any given time by sensing temperature, speed, braking and torque conditions. It consists of a six-litre ‘C’-shaped composite tank with a composite actuator at the top controlling the composite valve at the bottom. Oil is moved into the tank by scoops fitted to the crowned wheel from the 12-litre differential carrier housing. By moving the oil into a separate tank whenever less oil is required reduces parasitic losses, explained Chiara Cesari, axle project engineer, Axles Engineering Europe at Meritor Heavy Vehicle Systems Cameri SpA in Cameri, Italy, last month. Lower oil level around the crown gear, reduces oil churning losses, added Cesari, which improves axle efficiency, reduces truck fuel consumption and carbon dioxide emissions.

The system uses information from sensors in the axle carrier to determine when the load on the differential is being increased (such as when the vehicle is climbing, braking or in low speed conditions) higher oil level and lubrication is required and subsequently, the actuator opens the valve at the bottom of the tank and oil is released back into the differential. The system has a failsafe device, Cesari pointed out, which allows the oil to be released back into the differential automatically should the system fail. The potential efficiency gain is 0.5kW, said Cesari. In addition, LogixDrive has the potential for axle-monitoring to improve oil performance and curtain – both are built to the standard European height of 4m. The fixed roof has a floor load of 7.1t and an unladen weight of 6.62t. The chassis is a Schmitz bolted galvanised unit with a 10 year guarantee against rust, full length lashing holes as standard plus 13 pairs of lashing eyes in the outer frame. The rear wall is a steel frame with integrated tarpaulin tensioner and aluminium double doors. The bulkhead is aluminium with UK designed steel corner supports with interior ram locks and tarpaulin clamping ratchets in front of the bulkhead. The roofing is a single piece aluminium sheet. The running gear is Schmitz own Rotos disc brake (430mm) axles with air suspension.

### Schmitz offers fixed roof in UK

UK – Due to the high traditional demand for fixed roof trailers in the UK, Schmitz Cargobull (UK) Ltd of Warrington, UK, has, for the past six months, been offering a fixed roof curtainsider for the first time with varying heights and side apertures starting at 4.2m (2.7m) up to 4.6m (3.1m) and available at 50mm increments in between. Paul Avey said that the trailer was introduced September last year and compliments its two other curtainsiders on the market, the Euroliner standard trailer and the Speedliner, fitted with the speedy

## Iran registers first electric bus

Meritor Heavy Vehicle Systems Cameri SpA (Italy / USA) has started testing its new LogixDrive axle system in Europe. The system uses information from sensors in the axle carrier to determine when the load on the differential is being increased. This allows for more efficient lubrication of the axle, reducing fuel consumption and carbon emissions.

### New Company

**Iranian bus builder sets up production in Turkey**

Turkey / Iran / Switzerland – AKIA Hess Otomotiv Karoser Imalat San ve Tic Ltd of Bursa is a new bus builder and subsidiary of the Iranian manufacturer, Akia Dizh of Tabriz, which opened a factory in Bursa in October last year (Akin Hess Automotive Body Manufacturing Industry ve Tic Ltd) to build a range of low floor city buses with the option of Cummins diesel or CNG engines. Three examples of its so-called Ultra range were last week delivered to Izmir city council in Turkey in April this year. Two were built to 12m and the third was a 9.33m midibus. All three are fully integrated steel structures with aluminium panels on the sides, glass rear panels and with their engines mounted offset and in-line at the rear – one of the 12m was CNG powered. ZF supplied the beam front axle, portal rear axle and fully automatic gearbox for all three. (The specification for the 12m diesel bus is summarised below).

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td><strong>Engine</strong></td>
<td>300hp/1100Nm</td>
</tr>
<tr>
<td><strong>Gearbox</strong></td>
<td>ZF 8LS59 or ZF 7LS105C rigid portal (8.5t)</td>
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<tr>
<td><strong>Steering</strong></td>
<td>Hema Servocom hydraulic (4,800)</td>
</tr>
<tr>
<td><strong>Axle</strong></td>
<td>ZF AV132 (13t)</td>
</tr>
<tr>
<td><strong>Braking</strong></td>
<td>Intarder, ABS and ASR (Wabco or KB)</td>
</tr>
</tbody>
</table>

### Akia Ultra LF12 - Specification details

**Passengers**: 27 seats, 45 standees, total 72

**Dimensions**: 12m (L), 2.55m (W), 3.1m (H*), GVW 18t

**DOOR**: Auto-pneumatic 2.2-2

**Engine**: Cummins ISB 6.7-litre, 300hp/1100Nm

**Gearbox**: ZF Ecolife auto with interdover

**Steering**: Hema Servocom hydraulic (4,800)

**Front axle**: ZF RL85A or ZF RL75EC rigid portal (8.5t gaw)

**Rear axle**: ZF AV132 (13t gaw)

**Braking**: Intarder, ABS and ASR (Wabco or KB)

Omer Celik, sales manager, at the show announced that four prototype buses had been undergoing trials with a number of operators in Turkey since November last year and that Akia would begin building its city bus range at a rate of 15 units a month at the end of May.

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Direct Line: +44 (0) 1780 749 502

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**Schmitz offers fixed roof in UK**

UK – Due to the high traditional demand for fixed roof trailers in the UK, Schmitz Cargobull (UK) Ltd of Warrington, UK, has, for the past six months, been offering a fixed roof curtainsider for the first time with varying heights and side apertures starting at 4.2m (2.7m) up to 4.6m (3.1m) and available at 50mm increments in between. Paul Avey said that the trailer was introduced September last year and compliments its two other curtainsiders on the market, the Euroliner standard trailer and the Speedliner, fitted with the speedy...
Cummins China introduces in-house developed 8.9-litre gas engine for Chinese market

China / USA - Cummins Inc used the Bus & Truck Expo 2014 in Beijing last month to launch the first gas engine platform to be designed, developed and produced in China. The engine is the L8.9G natural gas engine meeting national stage five (NSV) emission standards (equivalent to Euro V in Europe) in China.

The L8.9G is a lean burn spark ignition engine offered in five power output ratings of between 250hp and 328hp and torques of between 900Nm and 1200Nm – see table below for engine specifications.

The design, development, construction of the new gas engine in China for the Chinese market has been initiated for two main reasons, said Diana Zhao, marketing communications director at Cummins (China) Investments Co Ltd in an interview with Truck & Bus Builder, last month. There has been a move by China towards cleaner energy, and natural gas is seen as a cleaner fuel to that of diesel, certainly in terms of particulates; which has resulted in strong demand for both CNG and LNG fuelled engines, notably from the bus and coach sectors in the cities and intra-urban transport. Furthermore, China is investing heavily in natural gas extraction and the necessary infrastructure to bring the natural gas reserves found in the west of China through to the east and to distribute it where needed. The second principal reason is customer requirements for fit-for-market engines for local production. The new Cummins L8.9G is expected to meet both of these goals.

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Cummins China - Overview

Cummins China, which has its headquarters in Beijing, has no fewer than 29 entities (including 13 joint ventures), 19 engine, genset and component production plants, two research and development centres (Wuhan and WuXi), generating revenues in 2013 of USD3.469bn (including both consolidated and unconsolidated JV sales), which is double the revenue of the major recessionary year in 2009 of USD1.73bn. It is also a major advance on a turnover a decade ago of just over some USD500m.

Three engine joint ventures:

• Beijing Foton Cummins Engine Co Ltd (BFCEC) – a 50:50 JV with Beiqi Foton Motor in Beijing (est. 2008).

This plant produces the ISF (2.8-litre and 3.8-litre) engines supplied to Foton light duty vehicles, and also other Chinese light-duty truck, van and bus brands such as JAC, Karry, Shuguang, CNHTC, Yu tong and Golden Dragon, as well as foreign builders such as GAZ in Russia and VW in Brazil. It also produces the new ISG (11 and 12-litres) series engine - G for G series range rather than gas – of which, production started earlier this year. Foton is the main client for this larger heavy-duty engine range.

Cummins China - Turnover 2008 to 2013

<table>
<thead>
<tr>
<th>Year</th>
<th>USD</th>
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<tbody>
<tr>
<td>2008</td>
<td>2.315bn</td>
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<tr>
<td>2009</td>
<td>1.73bn</td>
</tr>
<tr>
<td>2010</td>
<td>3.052bn</td>
</tr>
<tr>
<td>2011</td>
<td>3.688bn</td>
</tr>
<tr>
<td>2012</td>
<td>3.041bn</td>
</tr>
<tr>
<td>2013</td>
<td>3.469bn</td>
</tr>
</tbody>
</table>

Source: Cummins China

Of the 19 plants, no fewer than 12 are associated with production of engines or components for the on-highway segment. They include:

Cummins China - Specifications of L8.9G (gas) engine

<table>
<thead>
<tr>
<th>Engine</th>
<th>Power output</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>L8.9G5.250</td>
<td>250hp (184kW) @ 2100 r/m</td>
<td>900Nm @ 1400 r/m</td>
</tr>
<tr>
<td>L8.9G5.085</td>
<td>260hp (191kW) @ 2200 r/m</td>
<td>1000Nm @ 1400 r/m</td>
</tr>
<tr>
<td>L8.9G5.280</td>
<td>280hp (206kW) @ 2200 r/m</td>
<td>1150Nm @ 1400 r/m</td>
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<tr>
<td>L8.9G5.060</td>
<td>300hp (221kW) @ 2200 r/m</td>
<td>1200Nm @ 1400 r/m</td>
</tr>
<tr>
<td>L8.9G5.320</td>
<td>320hp (235kW) @ 2200 r/m</td>
<td>1200Nm @ 1400 r/m</td>
</tr>
</tbody>
</table>

Sisu Auto introduces Euro 6 truck range

Finland – Builder of specialist multi-axle heavy-duty trucks, Oy Sisu Auto Ab of Karjaa, has brought to market its new Euro 6 compliant, Sisu Polar truck range.

The new Sisu Polar Euro 6 series trucks are equipped with the new Mercedes-Benz 6-cylinder in-line engines. Power ratings of the 13-litre OM 471 engine model are 420, 480 and 510hp, and in the 16-litre OM 473 engine model there are three ratings ofler 520, 580 and 625hp. The new generation of PowerShift 3 transmission is fitted with both automated and manual gear shifting versions. An Eaton Fuller RTLO- crash gear box option is to be available later. Chassis frame options of Sisu Polar series shall remain the same – the low U300 and high C460; thus body structures can be changed from the current vehicles to the new model series. Also the current axles, suspension solutions and drive configurations mainly remain the same.

The Sisu E6 series has a 200 truck series, again from Mercedes-Benz, the low cab at 2.3m wide and the high version at 2.5m wide. The exterior design retains the recognisable Sisu Polar style, that of industrial designer, Jukka Pimiä, who designed the previous Sisu Polar series. Broader of these, the sleeper cabin, does not have an engine tunnel and comes with a full flat floor. Both cabins are available with various axle configurations.

This plant builds a full range of diesel engines - B series (3.9-litre & 5.9-litre), C series (8.3-litre), L series (8.9-litre), ISD (4.5-litre & 6.7-litre), ISL (9.9-litre & 9.5-litre) and ISX (13-litre). It supplies engines mainly to DFM, but it is not exclusive.

• Xi’an Cummins Engine Co Ltd (XCEC) – a 50:50 JV with the Shaanqii Group located in Xi’an (est. 2007).

This plant produces the ISM (11-litre) diesel engine and since 2007 it has supplied this engine to Shaanqii, but it is not exclusive.

On-highway components plants are:

• Shanghai Fleetguard Co. Ltd – a 50:50 JV company with Dongfeng Motor (DFM) in Shanghai (est. 1994) manufacturing filtration systems.

• Cummins Turbo Technologies (CTT) – a joint venture with Wuxi Power based in Wuxi producing turbochargers for the Chinese and overseas markets (est. 1996).

• Wuxi Vane Wheel - a joint venture with Wuxi Power based in Wuxi producing turbochargers components (est. 2006).

• Shanghai Valvoline Cummins – a 50:50 JV company with Valvoline Inc producing lubricants for the Chinese and Asian markets (est. 2000).

• Cummins Fuel Systems (CFS) – a wholly-owned subsidiary based in Wuhan, producing common rail and injector fuel systems (est. 2008).

• Cummins Emission Solutions (CES) - a wholly-owned subsidiary based in Beijing producing after-treatment systems (est. 2008).

• Cummins Filtration - a wholly-owned subsidiary based in Shanghai, manufacturing filtration systems (est. 2007).

• Cummins Tianyuan Telematics - a joint venture company (50:50) with Tianyuan Technologies based in Shijiazhuang, manufacturing telematics software and hardware for the Chinese market (est. 2011).

• Dongfeng Cummins Emissions Solutions - a JV company (50:50) with Dongfeng Motor based in Shijian (est. 2012).

The company says it has delivered more than two million engines to date, which today are serviced by more than 2000 authorized dealers of Cummins independent and JV engines in China. Cummins China remains the group’s fastest growing business overseas. In the on-highway segment with the introduction of the 11 and 12 litre engines it offers a full engine range between 2.8 litres with outputs starting from 107hp up to its 13 litre unit with a maximum output of 545hp. Its strategy for business growth remains the same - long-term partnerships, a strong network, growth capacity, continuous improvement and investment in people. Cummins sees further growth opportunity in China due to government policy to reduce pollution and greenhouse gas emissions with regulations converging on international standards.
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STAS builds 14.65m moving floor trailer for UK market

UK / Belgium – Since introduction in January this year, Steadplan Ltd of Clitheroe, the UK distributor for the premium Belgium trailer manufacturer, STAS, has sold 25 STAS 14.65m long, 111 cu m moving floor trailers for high bulk goods transport (sawdust / woodchip) in the UK market.

Graham MacMillan explained that the trailer took 18 months to develop and at one metre longer than a standard length trailer, it has been approved and licensed under the UK’s ten year longer-length trailer trial that started back in 2011.

The 14.5m long trailer is all aluminium including the chassis and features a new design of rear steer axle developed specifically by Trided for STAS fitted with a SAF axle with a 20 degree angle. As the trailer is 4.5m the axle track too is wider to lower the centre of gravity, said MacMillan. The trailer features STAS’s robot welded chassis - chassis rails are 15mm at the top with 12mm at the base and with full depth cross bearers at 1400mm centres (1600mm chassis width) to increase stability. Asked why the other trailer length trial that started back in 2011 underwent training prior to operating the trailer.

MacMillan said that STAS trailer sales in 2014 had been very strong so far; it had 140 STAS trailers (20, tipper and 120 moving floors) in the first five months of 2014 compared with 200 trailers in all of 2013 (60 tipper and 140 moving floor trailers).

The shorter length trailer trial that started back in 2011.

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The longer length trailer trial ran for two years, during which manufacturers were offered a share to build some 1800 longer length trailers (900 at 14.65m and 900 at 15.65m). However, the number of trailers actually built was small in percentage terms and now these licenses are being transferred by Britain’s Vehicle Certification Agency (VCA) to those companies when orders are received. MacMillan said that the trailer has to be approved by the VCA and the driver needs to undergo training prior to operating the trailer.

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The half-pipe TPX ‘streamline’ tipper, now known as the BX trailer, is showing significant fuel savings and payload advantages, as verified by independent customers, says Steadplan’s group sales manager, Dan Edwards.

Edwards said that an operator called Bayliss Bros working for Lafarge Aggregates was saving GBP2,010 a year on fuel and was gaining an average extra payload worth GBP18 a day based on three loads a day or GBP5,148 a year. This, he said, was equivalent to a combined payback of GBP71,580 over 10 years.

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ADL’s new E400 decker – ‘Designed by the industry, for the industry’

UK – A new double deck, ‘designed by the industry, for the industry,’ aptly summed up the effort placed in the design and development of the all-new Enviro400 double-deck Euro 6 compliant two-axle city bus unveiled by Alexander Dennis Ltd (ADL) at its headquarters in Larbert, Scotland, last month.

The enthusiasm and pride in the new vehicle by ADL’s Colin Robertson, CEO, was simply effusive. Robertson said that going into the new vehicle as part of what ADL believes to be an industry first and unique partnership involving ADL’s design and engineering teams, operator customers from across the industry and suppliers. Robertson described the development process as: “The most extensive new product introduction activity it has ever undertaken.”

He said that more than more than 70 operators and suppliers had been involved in a three-year, customer engagement programme, to redesign the bus. The new Enviro400, he stated, incorporates over 200 improvements, many of which come from an intensive study of every fault reported on every ADL two-axle double-deck since 2006.

Development of the new Enviro400 was announced some two years ago as what it called its MMC project – MMC being short for major model change – and, said Robertson, its aim was to set a design platform that would underpin the business for many years to come. Over the last two to three years, ADL has invested approximately GBP7.5m on its MMC being short for major model change – and, said Robertson, its aim was to set a design platform that would underpin the business for many years to come. Over the last two to three years, ADL has invested approximately GBP7.5m on this project, which said Robertson, was some 25% of the group’s new product development budget.

Robertson said he was confident that the new vehicle would raise the bar for the whole bus building industry. “It is 400kg lighter,” said Robertson, stealing the thunder from his design team, “it is more fuel efficient. It has increased seating capacity – up to seven more than in the full-length model. It is powered by a 6.7-litre Euro 6 Cummins engine that operates as reliable and capable of optimising performance week-after-week, year-after-year. It has a radical new heating and ventilation system that ensures a constant temperature throughout the bus. It introduces ADL’s unique, patented quick release glass system, which reduces window replacement from three hours to three minutes – an operation that can be carried out at kerbside inside the bus without scaffolding.”

There is clearly much customer confidence in the new decker range, if its forward order book is anything to go by – Robertson announced at the launch that it already had orders for some 400, worth an estimated GBP80m. “Almost 120 of these will be delivered in the next 12 months to Go-Ahead, Stagecoach, Reading Transport and others, while additional contracts will form part of multi-year deals with operators such as National Express and Abellio.”

Product

Ford develops new generation of steering technology

USA / Japan – With market availability within 12 months, Ford Motor Company of Dearborn, Michigan, has announced development of a new generation of electrically-assisted steering technology, called Adaptive Steering that is suitable for all types of vehicle regardless of vehicle size or class types classes and which, Ford says, will help make vehicles easier to manoeuvre at low speeds and in tight spaces. At faster speeds, the new technology, Ford adds, is expected to make the vehicle more agile.

Adaptive Steering changes the ratio between the driver’s action on the steering wheel – the number of turns – and how much the front wheels turn. In traditional vehicles, this is a fixed steering ratio, but with Ford’s new Adaptive Steering, the steering ratio continually changes with vehicle speed, Ford explains in order to optimize the steering response in all conditions.

Ford’s system has been developed for production by Ford in collaboration with Takata Corporation of Minato, Tokyo, Japan, a supplier of automotive steering and safety systems. It uses a precision-controlled actuator placed inside the steering wheel that requires no change to a vehicle’s traditional steering system. The actuator – an electric motor and gearing system – can essentially add to or subtract from a driver’s steering inputs. The result is a better driving experience at all speeds.

Four pre-production new E400 had been built at the time of the launch, but series production would start in May on a dedicated line at its Plaxton facility in Scarborough, alongside its existing Euro 5 E400 model – derogation rules under small series national type approval have allowed most manufacturers of buses and coaches for the UK market to continue to build and supply vehicles in Euro 4 for many years to come. Over the last two to three years, ADL has invested approximately GBP7.5m on this project, which said Robertson, was some 25% of the group’s new product development budget.

Development of the new Enviro400 was announced some two years ago as what it called its MMC project – MMC being short for major model change – and, said Robertson, its aim was to set a design platform that would underpin the business for many years to come. Over the last two to three years, ADL has invested approximately GBP7.5m on this project, which said Robertson, was some 25% of the group’s new product development budget.

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Growing international business now accounts for 50% of turnover says ADL

UK – Revenue at Britain’s largest bus builder, Alexander Dennis Ltd of Larbert exceeded GBP540m in 2013, up from GBP480m in 2012, with a record profit of circa GBP20m, stated Colin Robertson, CEO of ADL at the launch of its new Euro 6 Enviro400.

The company was now building on that strong performance in 2013. Robertson continued, pointing out that the foundations were there for future growth. He said the company had successfully re-financed the business for the next five years, started 2014 with an order book worth GBP300m (which had increased to GBP400m by the end of the first four months), and that some 50% of the business was now coming from its international operations and export sales.

Robertson pointed out that this financial and trading position was a far cry from operations just ten years ago, when the predecessor company (TransBus International) had high levels of debt and went into administration as part of the wider Mayflower Corporation parent company.

However, Robertson has no illusions about the nature of the task in hand - to achieve high margins for relatively high risk, high cash flow requirements and high levels of investment. Research and development is key to its future business success, said Robertson, and this is why the company would be re-investing all of its GBP20m profit in developing the business further.

Ken Scott, group engineering director, speaking at the new Enviro400 launch said that the new two axle decker was just one of many new product developments (NPD) projects and at an investment of GBP7.5m, this represented approximately 25% of its NPD budget over the past two years. NPD projects this year alone are at an unprecedented level, said Scott; numbering 23, which is up from 19 in 2013, nine in 2012 and 11 in 2011. New bus design is very much platform lead, said Scott, in order be able to control costs, provide high quality, whilst at the same time deliver variety.

Whilst the domestic market accounts for many of the NPD projects, due to the change in emissions standards to Euro 6 and a number of project initiatives involving alternative drive and energy systems, there is a global spread of activities and if the different adaptations of the NDP projects (this includes double deck, single deck, hybrid, electric and coach) are included this takes the number of NPD to 37. This includes double deck projects consisting of seven in the UK, two in North America, three in Asia Pacific and one in the Middle East. It also includes alternative drive / fuel projects, including a hybrid bus using a high speed flywheel, which ADL calls its Gyrodrive project and a hybrid-electric bus project (incorporating BAE Systems hybrid technology) within an extended electric range, which it is calling its ADL virtual electric bus range. Thus the company is to continue to internationalise its activities and thereby continue to de-risk the business - but Robertson stressed that it would remain a British business and that the UK would remain the bedrock of its operations.

Robertson, in his presentation, last month said that ADL had secured more than 45% of the UK city bus market (above 8t gvw – mid, single and double deck segment) for three years in a row. Last year its nearest rival, Volvo, held a market share of 16%, Wrightbus with 16%, Optare (integral) 11.6% and Scania 4.4%.

It was making strong progress with all of the major groups in the UK – for instance, in April, it signed a five year deal with National Express for 600 buses made up of a mixed fleet of Euro 6 double decks and midi vehicles worth GBP100m. Deliveries of the first 100-plus vehicles are due to be in the shops this month and a further 125 buses per year during the period 2015 to 2018, is anticipated. Another example is that ADL currently enjoys around 60% of the double deck buses being delivered to Go Ahead in the UK, said Robertson. But ADL is also making strong progress with small and medium-sized operators, claiming to share some 40-50% of the smaller retail end of the UK market in the last five years.

It has invested strongly in its aftermarket service support and this division of the business had contributed some GBP50m in 2013. In the early part of 2014, ADL says it struck a five-year parts deal with FirstGroup with a potential value of GBP65m.

Internationally, the bus builder has been highly successful in selling the Enviro500 tri-axle double deck in the left hand drive markets of North America, and in the right hand markets of the Far East (namely Hong Kong and Singapore). The latest E500 model (body and chassis combination), which after close discussions with export customers was redesigned and launched just 18 months ago in November 2012, has won orders for some 1,400 units since then, said Robertson. This includes orders received recently for some 600 of the three-axle E500 double decks, they include: 40 for Malaysia; 327 for Hong Kong (70 for Citybus, 86 for New World First Bus and 171 for KMB); 201 for SMRT in Singapore and 22 for operators in Seattle, USA. (In addition, ADL is to build 80 Enviro200 mid-buses for operation in Malaysia. “These latest Enviro500 orders are worth around GBP175m and come at a time when we are actively pursuing further initiatives to increase our build capacity in Malaysia,” Robertson announced, “which is a strategic gateway to significant new territories in the Asia region.” While the name of the Malaysian partner was being kept secret for the time being, he confirmed that the new vehicle building partner in Malaysia would give ADL both chassis and body building capability.

Models for North America are shipped currently fully-built up with a North American driveway. In the future, from the third quarter of this year, its new build partner, ABC Companies of Fairbault, Minnesota, will assemble ADL open-top and transit double decks from kits sent from Falkirk, UK, at its Nappanee facility in Indiana. This will augment the joint venture ADL currently has with New Flyer Industries of Winnipeg, Canada, the largest bus and coach manufacturer in North America, which has now launched a new midi bus for the USA and Canada based on ADL’s Enviro200 midi-bus model.

For Hong Kong, it has a build partner in Zhuhai where it now has four production lines capable of assembling up to 16 E500 units a week; it can also build the E400 model. This arrangement has been for the past four years and it has managed to source some of the body kit component externally. GRP and extrusions are sourced locally.

For Malaysia currently it has a contract chassis manufacturing site with a third party on the Malaysia / Singapore border, set up two years ago, which assembles chassis for the E200, E400 and E500 models.

In New Zealand, since 2011, it has been working in partnership with Kiwi Bus Builders Ltd, based in Tauranga, in the North Island, and ships kits of the E200 midi-bus out for assembly and sale. More than 400 ADL units are now operating in NZ.

In Australia, body builder, Custom Coaches of Victoria, New South Wales, a subsidiary company since June 2012, as well as offering Custom Coaches’ galvanised steel models it now offers ADL’s aluminium bus bodies, the E500 double deck, E200 midi-bus and the full-size E350H double-deck.

As was mentioned earlier, there is a new product development project for a double deck bus in the Middle East. Robertson explained that there have been major investments in this region in passenger transport systems, particularly in metro systems, and that there were further projects to build more metro systems out to 2020. He sees an opportunity for ADL to be a supplier to the metro and urban transit systems, as a metro is only ever as good as the feeder routes that support it. In this regard he sees an opportunity to supply ADL’s Enviro200 midi-bus as well as its three-axle Enviro500 double-deck.

In April this year, ADL exhibited at UITP’s inaugural MENA Transport Congress and Exhibition in Dubai, UAE and now has two partners in region; Al Rostamani in Dubai and the Naghi Group in Jeddah, Saudi Arabia.
**Lite-wire wins first major contract with AA**

**UK** - A new company set up some two years ago called Lite-wire Ltd of Brandon, Suffolk, UK - a partner organisation of the British automotive wiring and lighting specialist, Perei, to offer what it calls ‘a ground-breaking vehicle harness system’ requiring just a single cable type to be used throughout a complete lighting system in commercial vehicles - has been offered a major contract to fit its wire harness and lighting system into recovery vans belonging to the AA, the UK’s leading vehicle breakdown organisation.

Rob Corke, business development director at Lite-wire Ltd said at Tip-Ex 2014 in Harrogate last month said that Lite-wire had been formed as a separate entity, dedicated to the supply of this new system to the CV industry - light vans, trucks, trailers, buses as well as other non-car market segments.

The use of LED lighting and a pulse system that have enabled Lite-wire to use just a single 6mm wire throughout the vehicle. The system, although very clever, is also incredibly simple, said Corke. Lite-wire control units convert standard vehicle signal wiring into unique pulse signals allowing both lighting and other electrical products to be controlled by a single electrical feed; road lighting, beacons, switches, warning alarms, GPS and more can be connected onto the same cable. It is simple to install, said Corke, as the wire harness is modular up of different length wires with simple connectors – the connectors are standard but are surrounded with a hand-clipped moulded outer connector that requires no training or experience to put together. It is simple to connect the pulse control unit to standard vehicle lighting outputs and then add the product using the specially designed Lite-connect T-piece, said Corke, demonstrating as he spoke. The Lite-wire harness and lighting system, provided by Perei, can be fitted far quicker than the multitudes of cables used currently by many commercial vehicle builders, can provide an opportunity for much greater functionality with LED lighting and the design is highly likely to save vehicle manufacturers money, time and improve serviceability.

Corke said that it was already working with some big names in the industry (including Mercedes-Benz, Solaris and Optare). It plans to expand further into other markets using dedicated distributors per country. It commenced an awareness campaign of its new ground-breaking vehicle lighting and harness system for commercial vehicles by exhibiting at the IAA show in Hannover in September 2012 and its purpose at Tip-Ex in Harrogate was to achieve the same.

**New funds for Dearman heat-recovery project**

**UK** – A consortium of UK research and commercial enterprises, led by the London-based Dearman Engine Company, has been awarded GBP1.9m in funding by the UK government amounting to approximately 58.5% of the cost of a GBP3.25m project to develop a heat-recovery system for urban commercial vehicles. (The funding is part of the latest GBP10m funding scheme competition (under the tenth integrated delivery programme - IDP10) run by the UK’s Technology Strategy Board, which is a focused on providing support for low-carbon vehicle initiatives).

This project, says Dearman, is targeted at delivering a production-feasible waste-heat recovery system for urban commercial vehicles, which offers life-cycle carbon-dioxide savings of up to 40%, fuel savings of between 25% and 50% and a potential payback of less than three years. The project is to use the Dearman Engine, a liquid nitrogen (LiN) engine (otherwise referred to as an air engine) that uses energy from low-grade heat recovered from the vehicle.

The Dearman Engine uses a tank of liquid air (LiN), air that’s been cooled to minus 196 degrees Celsius – LiN is a common by-product of many industrial processes that is frequently produced using off-peak electricity and often just vented into the atmosphere. The engine works by passing small amounts of the liquid into a piston, where it comes into contact with another liquid at ambient temperature, which causes it to expand. The reaction causes the liquid to turn to gas, releasing the energy stored from the cooling process. The expanding gas then pumps the piston and provides power. By recovering waste heat from the normal internal combustion engine (ICE) for use as a heat source with the Dearman engine – used to expand the gas more quickly - results in a hybrid powertrain that further improves the energy efficiency of urban medium and heavy-duty commercial vehicles.

The consortium is to deliver an on-vehicle demonstration of the hybrid system over the next two years.

Commenting on the funding support, Toby Peters, founder and CEO of the Dearman Engine Company, said: “This grant from the Technology Strategy Board to support the engine’s use in a heat-recovery system is welcome validation of the important role this technology can play in creating more efficient medium- and heavy-duty vehicles, and we look forward to working with our partners on this ground-breaking programme.”

Chris Reeves, commercial manager of Future Transport Technologies at MIRA Ltd, added: “Liquid air technologies have the potential to reduce significantly well-to-wheel emissions. This exciting project builds on a programme of activity already underway jointly with Dearman and it will validate the use of liquid nitrogen hydride powertrains in urban applications.”

“The consortium includes the Dearman Engine Company, MIRA, Air Products, Productiv, The Manufacturing Technology Centre (MTC), CENEX and Transport Research Laboratory (TRL), bringing together expertise in the Dearman system, industrial gases, internal combustion engines (ICEs), vehicle systems, legislation and standards, and manufacturing.“

**Liquid Air and the Dearman Engine gains European energy saving status**

Liquid air and the Dearman Engine were recently recognized as a potential road transport energy vector by the European Road Transport Advisory Council (ERTAC). ERTAC is the European technology platform for the road transport industry, established to deliver the accelerated development of sustainable, integrated transport solutions. Called ‘Energy Carriers for Powertrains’, the ERTRAC report seeks to establish a road map for how the industrialized countries of Europe might best utilise renewable energy and greenhouse gases in the road transport sector by up to 80% by 2050 when compared with 1990 levels a goal, which the European Commission is committed.

**Hendrickson says mid-lift demand growing at 20%**

**UK / USA** – Hendrickson Europe Ltd of Wellburngborough, UK, announcing development of its third generation mid-lift axle (MLA), the axle specialist stated that demand from European truck operators was driving sales of its mid-lift axle at a growth rate of some 20%. The company supplies vehicle manufacturers and body builders with its MLA2 (second generation) axle range optimised for 22.5in, 19.5in and 17.5in wheels.

Hendrickson’s new European managing director, Mark Page, remarked that UK truck operators were finding that mid-lift axles with smaller wheels could provide a welcome boost to their profitability. Page said: “This has given us confidence to invest in a new generation of MLA that we believe will provide an outstanding return on investment for operators and welcome engineering benefits for truck manufacturers.

At the British CV Show in Birmingham in late April, Hendrickson Europe announced that its next-generation mid-lift axle system would cut weight by a further 63kg across the complete wheel-size range. Page said that this massive weight reduction has been made possible through use of the very latest design analysis and testing tools combined with a detailed review of materials specifications as well as use of an undisclosed ‘revolutionary’ manufacturing process.

Hendrickson stated that in addition to the fuel economy and tyre wear benefits of a lift axle, today’s MLA2 could already reduce un-sprung weight by up to 200kg on a typical OEM unit by eliminating the need for a second steered axle. All configurations are suitable for 44 tonne GVW on six axle applications, with suspension ratings between 4.8 tonnes and 7.5 tonnes depending on wheel size. Integral air springs are standard to improve driver comfort and vehicle protection. The specification can be optimised for customer-specific applications and options include disc or drum brakes and computer-controlled automatic engagement. The system is available for original equipment fit or through body builders.

The next generation mid-lift axle (MLA3) has been designed, developed and tested extensively at the Group’s new European headquarters in Wellburngborough, UK, (est. Q3/2014), where it will be also manufactured. It is to be launched at the IAA in September with availability shortly thereafter.

**Merger / Product**

**BPW combines telematics activities into one company**

**Germany** - Funkwerk eurotelematik GmbH and idem GmbH, the telematics provider subsidiaries of Wiehl-based BPW Group, have been merged (April 1, 2014) to form idem telematik GmbH. The headquarters of idem telematics GmbH is located in Munich; the site in Ulm, the former head office of Funkwerk eurotelematik, remains as a branch.

Funkwerk eurotelematik and idem have been working together closely for some time in solving tasks in trucks and trailer telematics, said BPW. Now by combining the truck data with the trailer information, a telematics system which covers the entire combination of truck and trailer, can be provided for the first time by the BPW Group, the company stated. Truck and trailer data captured electronically can be provided as a clear and practical display in one application.
Odyne appoints Allison distributor to install plug-in hybrid system in medium and heavy-duty trucks

USA - Odyne Systems of Waukesha, Wisconsin and Valley Power Systems Inc of City of Industry, California, (a distributor of transmissions for Allison Transmissions in California) have teamed up to install the Odyne plug-in hybrid system on new commercial trucks for the California market. Under a contract from the California Energy Commission, administered through Calstart, Valley Power is to integrate new hybrid propulsion systems on truck chassis for Odyne in California. Valley Power Systems is to also retrofit five existing work trucks in the California market with advanced Odyne plug-in systems under a recently announced California Energy Commission agreement, ARV-11-013, administered through the Electric Power Research Institute.

Odyne claims that it is currently the only plug-in hybrid system supplier in the market for medium- and heavy-duty vehicles that reduces fuel consumption both while driving and at the work site, enabling companies and government fleets to reduce operating costs, while also better meeting sustainability objectives.

Odyne hybrid system, which features Johnson Controls' lithium-ion batteries and a Remy advanced electric propulsion motor, is capable, Odyne claims, of reducing fuel consumption by up to 50% or greater, depending upon the duty cycle. This reduces emissions of carbon dioxide and allows large work vehicles to operate more quietly at a work site.

Odyne stated that it worked with Allison Transmission, an equity partner with a non-controlling interest in Odyne, to seek out Valley Power Systems as a manufacturing and installation partner of Odyne’s contracts for Odyne in California. Valley Power Systems complements Odyne’s strategy to establish a highly scalable manufacturing network, capable of integrating the Odyne hybrid system during the new vehicle build process on trucks of gross vehicle weight exceeding 14,000 pounds, and for installing systems on existing vehicles to upgrade efficiency.

Odyne’s contracts mark a significant step toward high-volume production of plug-in hybrid systems that are integrated with a wide variety of new and existing truck chassis and work seamlessly with robust, industry leading transmissions from Allison. Odyne hybrid systems interface with the vehicle’s Allison transmission through the PTO on the 3000 and 4000 series transmissions.

Whale adds environmental package to its medium-duty combination gully emptier

UK - Whale Tankers Ltd of Solhill, UK has added a new medium volume combination gully emptier, the Whale MVC, for working on mainline sewers, gullies and drains, featuring its new ‘ESN’ (Emissions, Smell and Noise) Environmental Package. The ESN package combines three optional environmental features, which, when specified together, give operators a 30% saving on their list price had they been selected as individual options, says Whale.

The three options are as follows.

The first option is to fitment to the vacuum system of a specially up-rated coalescing de-oiler system, which further removes discharged oil from the lubrication system. The upgraded unit, Whale claims, removes 99% of all oil particles, reducing emissions and improving air quality. The second is a de-odourising system fitted to the vacuum/pressure system pipe work which masks and destroys unpleasant odours. The unit uses a carefully formulated fluid that is a blend of surfactants, perfumes, biocides and dyes, all of which, says Whale, are biodegradable and soluble in water.

The third is an uprated silencer fitted to the vacuum/pressure system at a specific point where the noise and airflow produces the most impact, says Whale. This is a robust, industry leading transmission from Allison. In addition, a number of new features to improve safety and operation have been fitted on the Whale MVC. The jetting system has a ‘Jetting self start’, which ensures the jetting pressure reverts to zero after each use and ‘Jetting soft start’, which allows the pressure to start at a much lower level, thereby reducing the usual kick in the lance. A heavy-duty unloading valve gives much more responsive jetting control over a longer period of operation, facilitating greater control and reducing fatigue. On the gully arm, an anti-vibration boom control has been fitted as standard.

Appointment

Kässbohrer appoints Tinsley Special Products as dealer in UK

Turkey / UK – Kässbohrer of Adapazari, Turkey, has used a number of specialist equipment shows to launch two of its new products.

Kässbohrer's extendable low-bed trailer (K.SLH 6) and its new 3.5m axle low-loader (K.SLL 3): both trailers were first launched in February at Kässbohrer's Gothenburg facility in Germany to a broad number of interested parties, the company stated. Kässbohrer's extendable low-bed semi-trailer (K.SLH 6) is equipped with six hydraulic steering axles and wireless remote control. It has 106 tons transport capacity and is designed for all types of heavy duty transportation. It has a gooseneck capacity of 5/2 tons and is extendable up to 15.0m. Kässbohrer's 3.5m axle low-loader (K.SLL 3) has a bolted gooseneck and ground clearance height of 400mm, provides safe transport of heavy haulage goods up to 3.6m in height and is extendable by up to 5.2m.

UK / France – Jet and suction tank vehicle specialist, Whale Tankers Ltd of Solhill has diversified its vehicle portfolio with the development of a new range of lightweight vehicles designed for jetting and suction operations in urban areas where access with larger vehicles is notably difficult. Called CityWhale, the new range is a joint development project between Whale Tankers and its French partner, Baroclean of Vendeuvre-sur-Barse in northern France. In fact, the new CityWhale range, the company says, is based on a popular European concept using lightweight combination tankers in congested city centres and car parks.

Three versions featuring aluminium tanks right across the model line-up are to be available – the Micro (3.2-3.5t gvw), the Midi (3.5-4.5t) and the Major (7.5t).

The CityWhale Micro is built on a 3.2t gvw Ford Ranger chassis (it can also be specified on a Land Rover chassis at 3.5t) and offers a 1,200-litre capacity, divided into 400 litres for water and 800 litres for sludge. It features a Jupor PN33 suction pump and a Pratisoil KT22 high pressure triplex piston pump, giving a water flow of 50 litres/min at 250 bar with a half-inch steel braded jetting hose – other pumps and flow rates are available. Both pumps hydraulically driven are by the vehicle engine through an OMSI 210MKK transfer box.

The 4.5t gvw CityWhale Midi is built on the Nissan Cabstar chassis and has a larger 2,000-litre capacity aluminium tank (600 litres water, 1,400 litres sludge). The Midi model features a higher rated Jupor PN55 suction pump, although the Pratisoil KT22 high pressure pump is common to both Micro and Midi models. The transfer box is the Hydrocor PZ2 Z3 on the 4.5t gvw unit.

Available later this year, the CityWhale Major is to be based on the Mitsubishi Fuso chassis and is to have a 3,800-litre tank (800 litres water, 3,000 litre waste) with a jetting pump performance of 80 litres/min at 200bar. Whale Tankers’ commercial director, Chris Anderson remarked: “Our partnership with Baroclean, a leading European manufacturer with particular expertise in lightweight combination units, has allowed us to develop the CityWhale as an exciting additional to our product range.” The business case for the development is in response to recent UK legislation, Anderson explained: ‘The Flood and Water Management Act 2010 created the onus on clearing drain blockages in situ, rather than simply just jetting the blockage further down the drainage system. This highly flexible combination unit gives both suction and jetting capability, mounted on a popular chassis, which will allow operators to work in situations which might be inaccessible to larger machines.

The CityWhale range compliments the company’s already well-established WhaleCompact range of van mounted equipment.

Product / Diversification / Partnership

IMS offers third choice of finish in Alex RIMS wheel range

UK / Taiwan – Importer, IMS Ltd of Shepshead, UK used Tip-Ex last month to announce a third finish now available on its ALEX RIMS aluminium wheel range, it imports from Alex Global Aerospace Technology in Taiwan. The wheels are available in sizes from 16in to 24.5in in a Machined, Polished and now A-shine finish.
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Optare re-enters decker segment with MetroCity

UK / India  - MetroDecker is the name of an all-new design of double deck bus, launched by Ashok Leyland’s premium British bus building subsidiary, Optare Plc of Sherburn-in-Elmet at the London transport museum in Convent Garden, London, England last month.

Designed and built at Optare’s three year old state-of-the-art assembly facility in Leeds, the new decker is in keeping with Optare’s fully integral build philosophy using a stainless structure. Specified and built to strict Transport for London (TfL) standards, the MetroDecker measures 10.5m (L), 2.5m (W) and 4.3m (H) and weighs less than 10 tonnes gre (9,980kg unladen weight), which, according to Glenn Saint, chief technical officer, makes it the lightest decker in the market and most importantly, extremely fuel-efficient. The MetroDecker is a two door, single staircase design offering a maximum of 63 seats (41 seats on the upper deck and 22 seats on the lower deck) and 36 standees, with a total capacity of 99 persons based on a gross total weight of 18t. (Saint pointed out that it is built to a width of 2.5m rather than the limit of 2.55m, in order to be able to offer it in those markets, which are still restricted to 2.5m).

Like its other models in the Optare range, the engine and transmission are mounted as a removable power-pack, which includes an optimised Mercedes-Benz OM 934 LA, 5.1-litre, top-rated 230hp Euro 6 engine matched with ZF’s Ecolife transmission with TopoDyn and AIS. (TopoDyn is intelligent software that maps the topography of the route and optimises shifting according to load, speed and topographical parameters. AIS is an abbreviation for Automatic Idle Shift function this controls the multi-disc clutch for the gear sets of the transmission, so that when in idle as little power as possible is consumed in the torque converter and fuel consumption is minimised).

The MetroDecker is equipped with fully independent two-bag front air suspension (ZF RL75EC, which has two Koni dampers, Knorr-Bremse SN7 disc brakes and 53/42 degree lock angles) and a four-air bag rear drive axle on parallel linkage (AV132 portal axle, 6.2:1 ratio, four Koni dampers, anti-roll bar and Knorr-Bremse SB7000 disc brakes) with full electronic levelling, and precise steering, again supplied by ZF.

Saint pointed out that all chassis and access points for servicing have been placed externally without the use of any floor-access plates and a high-mounted exhaust allows the DPF cartridge to be removed in-situ, which should help the operator to keep the vehicle clean at all times.

The MetroDecker is the second of a series of products developed specifically for the London market; the first being the MetroCity single deck bus. Open top and single door designs of MetroDecker are to follow in the last few months of 2014, said Saint, and hybrid and full electric options are due to be ready to order from 2015 of 2014, said Saint, and hybrid and full electric options are due to be ready to order from 2015 and are scheduled to be available from the second and fourth quarters of that year, respectively.

DUET decker – a new urban trailer by Transdek

UK - Transdek UK Ltd of Doncaster has launched what it calls its new Double Deck Urban Eco Trailer (DUET) developed, it says, to meet growing retailer demand for greater efficiencies on last-mile deliveries in urban centres.

Designed to carry high load volumes in the city, the new DUET trailer is 10.6m long and 4m to 4.3m high, depending on customer specification. Transdek says it has a payload of 22 tonnes compared with just nine tonnes for a typical 18 tonne rigid vehicle.

To achieve optimum loading efficiency at distribution centres, the DUET is fully compatible with low-profile double deck lifts and features a unique rear door closure with separate twin sliding rear doors, which provides a number of significant benefits - the lowest possible height for safe kerbside offloading, improved load security and temperature retention for each deck. Full loading can be achieved in as little as 45-minutes. It also offers a significantly smaller turning circle than a rigid truck.

Transdek’s managing director, Mark Adams, at the launch at this year’s CV show remarked: “With our new DUET trailer, up to 100% more product can be carried per vehicle, which offers significantly improved operations for logistics companies. The DUET can effectively half the number of deliveries, slashing transport costs and CO2 emissions by up to 50%.”
Meritor fits energy recovery system to R&D

dynamometers

Italy - Meritor HVS Cameri SpA is making continuous investments in its research and development (R&D) and axle technology centre in Cameri, northern Italy.

Marco Bassi, engineering director for Meritor HVS Europe and South America, announced that it had recently completed the installation of an ABB energy recovery system to its 700hp axle dynamometer, which measures the braking performance of the axle. Prior to the braking recovery system being installed the amount of energy used daily was around 700kW, now with the braking output energy being recovered, converted to electric power and reused as input power, the dynamometer is using just a fraction (10-15%) of the energy as before - the equivalent to approximately 80 kilowatts of energy a day. Bassi said that this was one of the first of this size in Europe to be produced by ABB.

As part of this green and energy saving initiative at its axle R&D technology testing centre in Cameri, Bassi said that in June, it would begin installation of a similar energy recovery system on its 600hp axle dynamometer. He also announced that its most recent test bench investment, known as the garage and strain gauge laboratory, which tests the forces of its hub reduction axles, from September will be able to test the gears on its single reduction axle. Furthermore, this later dynamometer generates much heat and this heat will be used to help a facility in the Cameri windfarm.

Bassi pointed out that many of the different tests cells were to test durability, reliability and performance. But in order to improve the energy efficiency of its axles, which are already highly efficient - the energy efficiency of its 17X and 18X single reduction axles around 97% efficient, so the margin for improvement is just three percent - it has to have highly accurate and controlled testing facilities with ultra-fine tolerances.

Meritor in Europe has two axle plants; one in Lindesberg, Sweden, which, in fiscal year 2012 had a turnover of USD469m and 865 employees and the other in Cameri, Northern Italy.

The Lindesberg plant is highly automated; it offers flexible manufacturing processes and laser-welding. More than USD16m has been invested in the plant in the last two years. This has included installation of a new line for the single reduction axles of the 17X (44t gw, now extended to 50t gw) and 18X (up to 60t gw) as well as more flexible manufacturing processes - meaning that should an axle assembly have a fault, the jigs are laid out in such a way that the station with the faulty axle can be by-passed without holding up production line.

The Cameri axle manufacturing plant, which is the European headquarters for Meritor as well as its axle research and development centre for the EU and South American markets, in fiscal year 2012 employed 531 people and recorded a turnover of USD285m. It too is highly automated with laser-welding and flexible manufacturing processes with more than USD30m invested in the last four years. It has two other plants in Europe, these comprise an axle housing casting plant in Venissieux, France (200 employees and USD58m in FY12) and brake manufacturing plant in Cowmbran, Wales, where it has its global R&D centre for brake technology (418 employees and USD172m in FY12).

Certification / Export

WVTA for GAZelle NEXT gives GAZ green light for sales in EU countries

Russia / EU - The GAZ Group of Nizhny Novgorod, Russia, has received European Community Whole Vehicle Type Approval for its light-duty (3.5t gw) GAZelle NEXT commercial vehicle enabling it to sell the vehicle in all EU countries.

Certification tests were carried out in Russia and abroad. The Euro 5 vehicle emission standards tests were carried out by the European technical organisation, Idiada of Barcelona in Spain. It was confirmed that the vehicle complies with 43 safety requirements and 113 international certificates were received, 74 of those certificates were for the components: safety belts, tyres, glass etc.

The GAZ Group says it is negotiating with various partners in Europe about exporting GAZelle NEXT Euro-5 in 28 European Union countries, and we have the similar certificate for selling AWD Gazelle BUSINESS and Sobol BUSINESS vehicles. Moreover, the certificate itself is the official confirmation of the fact that GAZ LCVs comply with the requirements and standards set for this vehicle class in Europe.

Exports of GAZ vehicles in 2013 (mainly to CIS countries, but also South-East Asia, North Africa and Middle East) amounted to 16,400 vehicles, 15% growth compared with 2012; it accounted for 15% of total GAZ sales.

The design of GAZelle NEXT was launched in April 2013. It combines state-of-the-art engineering solutions from well-known reputable component suppliers from Western Europe enabling it to meet high levels of active and passive safety. GAZelle Next suppliers (component) include: Cummins diesel engine, ZF steering, Mando shock absorbers, Anvis silent blocks, braking system elements from Bosch and Mando, CSR Castellon adjustable steering column, Sachs clutch, Takata safety belts, Delphi HVAC, and a driving seat from Irvinghausen.

The Euro 5 standard for cars and vans (3.5t gw) became mandatory from January 1, 2011 for the registration and sale of new types of cars and vans sold in the EU market. Euro 6 becomes binding for the type approval of vehicles as of September 1, 2014 and for the registration and sale of new types of cars and vans as of September 1, 2015.

Product

New Scania 450hp SCR only engine

Sweden – Scania AB of Sodertalje has announced availability of a 450hp version of its 13-litre engine using only SCR after-treatment technology to meet Euro 6 emission standards for its heavy-duty Streamline truck and tractor range.

The Swedish builder states the new Scania engine model – DC13 147 – requires neither a variable geometry turbocharger nor an EGR cooler. The 450hp version adds to the 410hp versions offering only SCR after last autumn, as Joel Granath, Head of Product Management for Scania trucks, explains: “Our success with the 410hp version of the 13-litre engine with only SCR has spurred us to go further down the road to reduce both complexity and diesel consumption. Our customers,” he continued, “now have a range of 18 different models of Euro 6 engines to choose from. Just as with the extremely fuel-stinty 410hp model that appeared last autumn, this engine is ideal, especially for European long-haulage customers who prioritise low fuel consumption, but don’t want to give up torque or driver comfort. According to our own calculations of running a Scania Streamline, in a one-year period, a 450hp is around 3% more efficient than the previous model using both EGR and SCR – everything else being equal.”

Scania warns that engines using only SCR technology do require more AdBlue; in the case of Scania, this is normally an average of 6% of diesel fuel, while engines with EGR and SCR normally use around 3%. It says. For those that want to optimise their diesel fuel capacity, Scania says, it offers a wide assortment of AdBlue tanks, including special solutions that use vacant space inside the frame in an intelligent way. The new SCR-only engine model has a top rating of 450hp and maximum torque of 2,350Nm from 1,000 rev/min.

Scania continues to offer the 450hp 13-litre diesel engine that uses EGR and SCR after-treatment technology at Euro 6, which is also available as a specially adapted version to run on up to 100 per cent biodiesel.

Restructure

Modine restructuring sees closure of McHenry plant

USA - Thermal management technology and systems, Modine Manufacturing Company of Racine, Wisconsin is to close its manufacturing facility in McHenry, Illinois, USA over the next 18-month period as part of a restructuring programme of its global production facilities to remain cost-competitive.

The McHenry plant makes parallel flow and serpentine condensers, oil coolers and radiators for the automotive, commercial vehicle, off-highway and building heating, ventilation and air conditioning (HVAC) markets. Over a period of 18 months, Modine plans to transfer the McHenry production to other facilities in North America, including plants in Nuevo Laredo, Mexico, Lawrenceburg, Tennessee and Jefferson City, Missouri.

Total cost of the closure is calculated as being in the region of USD5m, but annual cost savings are anticipated annually of at least USD5m, once the closure is completed in fiscal 2016.

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**Reorganisation**

**MAN to move Neoplan coach production in Plauen to Ankara**

Germany / Turkey - The board of MAN Truck & Bus AG in Munich has announced that agreement reached with the representatives of MAN and Neoplan workers enabling it to transfer production, namely of the Starliner, Cityliner and Jetliner intercity buses and coaches, from the former Neoplan plant in Plauen to its bus and coach manufacturing plant in Ankara, Turkey – this is scheduled for completion by May 2015. MAN says it has already produced models such as the Neoplan Tourliner.

MAN justified the move stating the market volume for buses and coaches in Europe was at an all-time low. Due to the poor economic situation in important target markets and to the low demand for buses in the luxury sector, MAN continued, it was no longer economically viable to maintain production in Plauen.

Anders Nielsen, CEO of MAN Truck & Bus commented: “We regret this situation. This has been a hard decision to make. At MAN, we are aware of Neoplan’s long tradition in Plauen, but, ultimately, we have been left with no alternative but to move production, in order to increase efficiency within our production network. We, together with the employees and management, have succeeded in finding our NEOPLAN co-workers a new home within the Volkswagen group.”

The site at Plauen, from May 2015, is to take on a new role in the MAN structure: The site is set to become a new bus modification centre for MAN and Neoplan products for buses and coaches.

A staff of around 140 of the 420 employed currently in Plauen is to be retained to implementing the modifications to specific customer requirements, whilst the remainder are to be offered the opportunity of redeployment at the Volkswagen Sachsen car plant in nearby Zwickau. (MAN said if it was also guaranteeing all existing contracts for trainees as well as those signed up for 2014).

MAN says it has operated two truck modification centres (TMC) at Wittlich and Ismaning, both in Germany, for a number of years already. Plauen is set to become the first bus modification centre in 2015.

**Product**

**New driveline for Ford F750 & F650 in 2015**

USA - Ford Motor Company of Dearborn, Michigan, USA, has introduced a new driveline to its F-650/F-750 medium-duty truck range for introduction from the second quarter of 2015.

These Class 6/7 trucks, which are built up to 37,000 lb GVW are to be offered with Ford’s second generation 6.7-litre Power Stroke V8 diesel engine in three power ratings: 270hp (675 lb/ft of torque), 300hp (700 lb/ft) and 330hp (725 lb/ft). The engines are matched with a six-speed TorqShift HD automatic transmission, which, says Ford, has been developed and tested for medium-duty applications. The powertrain is to be offered with a five-year/250,000-mile limited warranty.

Key innovations on the 6.7-litre Power Stroke V8 turbo diesel is its compacted graphite iron engine block that enhances durability and helps reduce noise, vibration and harshness. The reverse-flow layout places the exhaust inside the engine’s V-shape, while the air intake is positioned on the outside of the V. This design says Ford, shortens the airflow from the exhaust system to the turbocharger sitting between the engine’s cylinder banks thereby improving turbo responsiveness, which, continues Ford, is key to providing torque quickly to truck customers when they need it most. Positioning the turbo inside the engine’s valley helps isolate the engine’s hottest temperatures, aiding performance and efficiency while also reducing noise, vibration and harshness for improved driver comfort.

Ford says it is the only medium-duty truck manufacturer that designs and builds its own diesel engine and transmission combination. This approach Ford states, enables its engineers to optimize vehicle performance across the entire lineup and further refine the powertrain to the specific needs of the customer.

In addition to its Power Stroke diesel, Ford remains the segment-exclusive manufacturer to offer a gasoline-powered engine for a medium duty truck. The 330hp, 440lb/ft torque 6.8-litre V10 is now available for both F-650 and F-750 models with the TorqShift® HD six-speed automatic transmission. Ford states the 6.8-litre V10 can be factory-prepped for converting to compressed natural gas or liquid propane gas.

The 2016 F-650/F-750 range (available spring 2015) is to be offered in Regular Cab, Super Cab and Crew Cab configurations as well as a new dedicated tractor model for heavy towing applications.

**New Volvo FE with low entry cab**

Sweden / Germany / UK - Volvo Trucks of Goteborg has added a low-entry version of the new medium-duty Euro-6 Volvo FE truck. Unveiled last month in Munich, Germany at IAF 2014 - one of the world’s largest exhibitions specialising in the environment and refuse handling equipment sector - the Volvo FE LEC (Low Entry Cab) has, says Volvo Trucks, been specially designed for refuse operations and city distribution. The cab is new entry, a flat floor design with three seats and space for up to four people.

As the new Volvo FE LEC is based on the new Euro 6 Volvo FE, the chassis, driveline, design, instruments and controls are all more or less identical, says Volvo Trucks. Where it differentiates itself are those properties specific to its application: The entry height is 530mm and with the kneeling function activated, this is lowered by a further 90mm to step height of just 440mm. The doors can be opened to 90 degrees and the floor is flat throughout the cab. A key feature to aid operation function and speed is that the kneeling function is activated as soon as the parking brake is applied, making it possible to exit the cab safely, quickly and conveniently. The kneeling function can also be turned on and off via a button in the instrument panel.

The new Volvo FE LEC chassis is EU Whole Vehicle Type Approved and meets both EU and Swedish legislation - in addition to, Volvo Trucks’ own stringent demands on collision safety.

**Jost fifth wheel now standard on Freightliner trucks**

USA / Germany - Daimler Trucks North America (DTNA) of Portland, Oregon, USA, has announced that the Jost JSK36 lightweight fifth wheel is to be fitted as standard on all Freightliner truck models in North America. This follows a framework agreement signed last month between the two companies.

The JSK36 is also available as an option for the DTNA's Western Star 4700 and 4900 truck models.

**Investment / Research**

**New transmissions testing facilities planned by ZF**

Germany - ZF Friedrichshafen AG has announced investment plans to construct a new testing centre for transmissions at its corporate Research & Development Centre on Graf-von-Soden-Platz at its headquarters in Friedrichshafen, Germany with the expenditure covering a two and half year period to 2016.

Explaining the investment, Dr Stefan Sommer, CEO simply said: “Strong research and development is fundamental to ZF’s continued success.” He went on to say that the lack of space in the Research & Development Centre – some 1,700 employees are currently working at the facility – would only be relieved by relocating the Group’s central departments to the new corporate headquarters in the ZF Forum. The Group also plans to merge development departments, which are currently spread out across several leased office facilities in Friedrichshafen, into the Research & Development Centre, thus returning the site to its original purpose.

The new testing centre is to be built in the western part of the research and development Centre and is to accommodate test benches and workshops. The plan, continued ZF, is to have modular interior fixtures so that the building can be used for various purposes depending on the research and development requirements. “This design allows us to respond quickly to new developments in metrology and test technology for vehicle parts,” said Dr Harald Nauheimer, head of ZF’s Corporate Research and Development. He added that it was particularly important given the increasing number of alternative drives that it needs to be at the cutting edge, and certainly in terms of technology and in providing customers with state-of-the-art and tailored solutions.

The actual design of the new research and development testing facility is still being determined but any final design of new building would, said Sommer, be focused on high energy efficiency and compliance with emissions targets.
Russian truck market drops 17% in first three months of 2014

Russia – Truck sales in Russia of vehicles 1.5t gvw and above in January–March dropped by 17.8% year-on-year to 49,100 units, according to statistics kept by ASM-Holding.

The drop was registered in all market segments, except new foreign vehicles, that demonstrated a certain increase. Deliveries of domestically branded trucks dropped by 32.4% to 20,200 and this category’s market share contracted from 50% to 41.1%. Sales of Russian-made foreign brands also contracted and by 26.4% to 4,500 units and this segment’s market share fell from 10.4% to 9.3%.

The combined market share of trucks manufactured in Russia (domestic and foreign models) decreased from 60.4% to 50.4%. Imports of new trucks grew 10.8% to 24,100 pushing its share from 36.4% to new record levels of 48%. Sales of imported used vehicles plummeted by 84% to 815 units while their market share dropped from 3.2% to 0.6%.

The volume of truck production during the first three months of 2014 fell by 25.1% to 28,845 units with foreign manufacturers constituting 17.3% of total output compared with 14.9% in January–March 2013.

Among the key market manufactures, production growth was realised by Ural Auto Plant (1,648 units, +36.4%), Fuso-KAMAZ Trucks Rus (474 units, +107.9%) and SOLLERS-Izisu (449 units, +835.4%). Meanwhile, those recording a contraction in output were: KAMAZ, it produced 7,859 units (–20.0%); AVTOAZ – 11,222 units (–25.0%); UAZ – 2,435 units (–56.5%); Volvo Vostok – 551 units (–14.6%); Mercedes-Benz Trucks Vostok (MBTV) – 345 units (–43.3%); Scania Peter – 166 units (–27.8%) and IVECO-AMT – 104 units (–37.7%).

According to estimates by analysts at ASM-Holding, Russia, in 2014, is forecast to produce 193,844 trucks. In 2012 (the best year during the previous five-year period 2009-2013) a total of 205,617 vehicles were built.

Russia - Truck production (> 1.5t gvw, incl. Chassis), January to March 2014 v 2013

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Q1-14</th>
<th>Q1-13</th>
<th>% Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAZ</td>
<td>11,422</td>
<td>15,224</td>
<td>-25.0</td>
</tr>
<tr>
<td>KAMAZ</td>
<td>7,859</td>
<td>9,821</td>
<td>-20.0</td>
</tr>
<tr>
<td>UAZ</td>
<td>2,435</td>
<td>5,592</td>
<td>-56.5</td>
</tr>
<tr>
<td>SOLLERS - Izusu</td>
<td>449</td>
<td>48</td>
<td>835.4</td>
</tr>
<tr>
<td>FORD-SOLLERS</td>
<td>1,996</td>
<td>3,183</td>
<td>-37.3</td>
</tr>
<tr>
<td>URAL</td>
<td>1,648</td>
<td>1,208</td>
<td>-36.4</td>
</tr>
<tr>
<td>BAZ</td>
<td>35</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>IVECO-AMT</td>
<td>104</td>
<td>167</td>
<td>-37.7</td>
</tr>
<tr>
<td>VAZInterservice</td>
<td>461</td>
<td>851</td>
<td>-45.8</td>
</tr>
<tr>
<td>Volvo Vostok</td>
<td>551</td>
<td>645</td>
<td>-14.6</td>
</tr>
<tr>
<td>Scania Peter</td>
<td>166</td>
<td>230</td>
<td>-27.8</td>
</tr>
<tr>
<td>MBTV</td>
<td>345</td>
<td>609</td>
<td>-43.3</td>
</tr>
<tr>
<td>Fuso-KAMAZ Trucks Rus</td>
<td>474</td>
<td>228</td>
<td>107.9</td>
</tr>
<tr>
<td>BAIRUS Motor Corporation</td>
<td>0</td>
<td>584</td>
<td>-100.0</td>
</tr>
<tr>
<td>Avto</td>
<td>784</td>
<td>20</td>
<td>3820.0</td>
</tr>
<tr>
<td>Torn</td>
<td>9</td>
<td>3</td>
<td>200.0</td>
</tr>
<tr>
<td>Caterpillar Tosno</td>
<td>8</td>
<td>28</td>
<td>-71.4</td>
</tr>
<tr>
<td>MAN Truck &amp; Bus Production RUS</td>
<td>99</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28,845</td>
<td>38,476</td>
<td>-25.0</td>
</tr>
</tbody>
</table>

Source: ASM-Holding

Statistics

Russian bus market contracts by 30.2% in Q1

Russia – According to ASM-Holding statistics, the Russian bus market experienced the biggest fall in sales of all the segments of the automotive market in the first quarter in 2014.

Compared with the first quarter of 2013, sales in the Q1 of 2014 dropped by 27.3%, to 8,450 units. The sales of domestic buses which continued to dominate the market fell 37.6% to 4,500 units bringing down their market share from 61.6% to 52.9%. The sales of Russian-made foreign models edged down by 4% to 2,800 units while their market share grew by 7.7 percentage points to 33.5%. The combined share of sales of buses made in Russia (domestic and foreign models) shrank from 87.4% to 86.4%. The sales of imported buses went up by 1.4 percentage points, while imports of used vehicles plummeted 78% to merely 19 units.

Production in January–March 2014 fell by 30.1% to 7,805 units. Out of the total number of vehicles manufactured, 4,975 were Russian models (-39%) and 2,830 foreign models (-6.3%). It is worth noting that during the period under review the share of foreign models in terms of total output was 36.3% up from 27.0% in Q1 2013.

According to early estimates by ASM-Holding analysts, the production of buses in Russia in 2014 should total some 49,957 units, 12,296 of them foreign models. In 2012 (the best year during the previous five-year period 2009-2013) a total of 57,928 buses were made.

Russian - Bus production (>1.5t gvw), January to March 2014 v 2013

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Q1-14</th>
<th>Q1-13</th>
<th>% Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAZ</td>
<td>1,692</td>
<td>2,290</td>
<td>-26.1</td>
</tr>
<tr>
<td>GOIAZ</td>
<td>-</td>
<td>62</td>
<td>-62.0</td>
</tr>
<tr>
<td>KAZV</td>
<td>72</td>
<td>110</td>
<td>-34.5</td>
</tr>
<tr>
<td>LIAZ</td>
<td>158</td>
<td>233</td>
<td>-32.2</td>
</tr>
<tr>
<td>NEFAZ</td>
<td>60</td>
<td>126</td>
<td>-52.4</td>
</tr>
<tr>
<td>PAZ</td>
<td>1,258</td>
<td>1,932</td>
<td>-34.9</td>
</tr>
<tr>
<td>UAZ</td>
<td>995</td>
<td>2,502</td>
<td>-60.2</td>
</tr>
<tr>
<td>FORD-SOLLERS</td>
<td>10</td>
<td>31</td>
<td>-67.7</td>
</tr>
<tr>
<td>URAI</td>
<td>78</td>
<td>60</td>
<td>30.0</td>
</tr>
<tr>
<td>VOLZHANIN, Volzhsky</td>
<td>18</td>
<td>98</td>
<td>-81.8</td>
</tr>
<tr>
<td>Nizhnegorodets*</td>
<td>1,622</td>
<td>1,825</td>
<td>-11.1</td>
</tr>
<tr>
<td>Kuzbuss-Avto</td>
<td>-</td>
<td>17</td>
<td>-100.0</td>
</tr>
<tr>
<td>BAIRUS Motor Corporation</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Lidue*</td>
<td>1,445</td>
<td>1,215</td>
<td>18.9</td>
</tr>
<tr>
<td>Promtech*</td>
<td>381</td>
<td>639</td>
<td>-40.4</td>
</tr>
<tr>
<td>KAMAZ-Marco</td>
<td>11</td>
<td>22</td>
<td>-50.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,800</td>
<td>11,162</td>
<td>-30.1</td>
</tr>
</tbody>
</table>

Source: ASM-Holding. Note: *Mini-buses and small buses on Russian and foreign chassis

MAZ sales dominated by tipper sales

CIS – The Belarussian manufacturer of medium and heavy-duty trucks, MAZ, posted a 38.6% drop in production in the first quarter to 2,700 vehicles, down from 4,388 units in the same period of 2013. Together with stocks deliveries to consumers totalled 3,496 vehicles, 1,538 of them rigid tippers, 903 tractors and 1,055 general-purpose vehicles.

CIS - Bus production (>1.5t gvw), January to March 2014 v 2013

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Q1-14</th>
<th>Q1-13</th>
<th>% Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELAZ</td>
<td>172</td>
<td>415</td>
<td>-58.6</td>
</tr>
<tr>
<td>ZAZ</td>
<td>205</td>
<td>63</td>
<td>325.4</td>
</tr>
<tr>
<td>KRAZ</td>
<td>192</td>
<td>111</td>
<td>73.0</td>
</tr>
<tr>
<td>MAZ</td>
<td>2,700</td>
<td>4,388</td>
<td>-38.5</td>
</tr>
<tr>
<td>MKZT</td>
<td>151</td>
<td>136</td>
<td>11.0</td>
</tr>
<tr>
<td>MOAZ</td>
<td>20</td>
<td>11</td>
<td>181.8</td>
</tr>
<tr>
<td>Bogdan</td>
<td>6</td>
<td>9</td>
<td>-33.9</td>
</tr>
<tr>
<td>MAZ</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,444</td>
<td>5,188</td>
<td>-33.6</td>
</tr>
</tbody>
</table>

Source: ASM-Holding

European Bank loan for Ford Otosan

UK / Turkey – The board of the European Bank for Reconstruction and Development (EBRD) based in London, England, has approved a EUR140m long-term loan to Ford Otomotiv Sanayi A.S. (Ford Otosan) of Gölçük, Turkey. This is to finance the development of new Ford EcoTork engines, modernization of manufacturing processes, modernization of the existing Cargo truck models, development of a new Cargo model truck and to increase truck production capacity at its Inönü plant in the Eskisehir province.

Source: www.truckandbusbuilder.com
New UMZ petrol engine for GAZ LCVs

Russia – The Ulyanovsk Engine Plant (UMZ), a subsidiary of the GAZ Group has started producing the new 125hp EvoTech 2.7 petrol engine - built to both Euro 4 and Euro 5 emissions standards - developed for GAZ's latest light commercial vehicle range, the GAZelle Business and GAZelle Next. Previously, the GAZelle Next was only offered with the Cummins’ Chinese made 125hp 2.9-litre ISF diesel engine.

The new engine has been developed jointly by the GAZ Group and South Korea's Tenergy, a leading international engineering company. It keeps its four-cylinder eight-valve design but compared with the previous generation of UMZ engines, the EvoTech 2.7 is distinguished by its smaller volume (2.7 litres instead of 2.9 litres), new design of piston block, camshaft, compression chamber and engine block and new valve train.

Significant changes have been made to the mounting blocks and attachments of the engine as well as its electrical systems, cooling, fuel injection, ignition and lubrication systems. GAZ points out that broad use of plastic elements has reduced its weight, improved vibration and sound parameters.

The engine, says GAZ, widely employs units and components produced by leading international manufacturers. The piston block, spark plugs, most of the hoses and sealing joints, as well as the crankcase, are supplied by LG of South Korea, the electronic control system is supplied by Bosch in Germany and hydraulic adjusters by Eaton of the USA.

EvoTech has a design life of 400,000km. A three-year or 150,000km warranty is offered. Compared with the previous generation of UMZ engines, GAZ suggests that it has a fuel consumption improvement of up to 10%.

Oghab targets neighbouring countries for exports

Iran / Turkey - Oghab Afshan Industrial Manufacturing Co of Tehran, Iran announced at Busworld Turkey in April that it was in the process of gaining certification to sell coaches in Turkey.

The company displayed a full size high deck 12m coach but built with a new and different Scania chassis, the KEB chassis rather than the KIB chassis it has traditionally used that features an independent front suspension for better handling and comfort. A spokesperson for Oghab said that it would concentrate on the coach segment firstly to compete with Turkey’s clear market leader, Mercedes-Benz Turkey.

It has been working with a partner company in Turkey, Cemmak Makin Ltd, for sourcing and purchasing body components (seats, racks, ceiling systems, etc) for its Iranian bus and coach production operation in Semnan, Iran, over many years and so many of the component suppliers are already very familiar with the Oghab company.

The new coach is called Dorsa, which loosely translated means precious pearl, of which, it has built ten, so far, but has orders for some 100 units from its domestic market.

As well as the Iranian markets, Oghab also plans to intensify its export activities, focussing on neighbouring countries. The recession allowed Oghab to change its production processes to become more modular in its construction approach with improvements in quality, precision and working capital. A major change is that the steel body structure, aluminium and galvanised steel panels are painted, before being mounted on the chassis, saving time and money in the production process. These new methods, said Oghab, should allow it to establish a sub-assembly operation in other countries possibly in a relatively short period of time.

Oghab said it was optimistic about annual production returning to something like its pre-2012 levels of 1200 units in 2015; in 2012, output fell to just 300 units. The market in Iran was rebounding, said Oghab, and it plans to export some 100 coaches and buses to neighbouring Iraq and Turkmenistan this year. Oghab suggested the normal annual market for coaches in Iran was some 1500 units and some 2,000 units for city bus.

It estimated some 19,000 coaches were running on the roads in Iran, of which, more than a third (37%) were Oghab units. Furthermore, as many as 7,000 are more than ten years old, said Oghab, and a recent mandatory ten-year replacement rule, requires their replacement.

New Ford Otosan plant for Transit / Tourneo Courier

Turkey - Ford Otosan of Kocaeli, Turkey, the Turkish 55-year-old joint venture between Ford Motor Company of Dearborn, Michigan, USA and Koç Holding A.S. of Istanbul, Turkey, has announced the start of light commercial vehicle production of the Ford Transit Courier small commercial vehicle and Ford Tourneo Courier entry-level people-mover at a recently built USD$11m facility in Yeniköy, Turkey. The new 70,000 sq m plant, which enjoys the same advanced and environmentally-friendly manufacturing technologies that Ford has introduced across its global production facilities, is capable of building up to 110,000 vehicles a year. It is located next to Ford Otosan’s existing Kocaeli vehicle assembly plant and it is the third Ford Otosan plant to build Ford vehicles. The Ford Transit Courier entry level people-mover and the Ford Transit Courier, Ford’s smallest commercial vehicle, are to be sold in around 46 countries.

Bill Ford, executive chairman at Ford, speaking at the official opening ceremony last month, remarked: "Ford Otosan is one of the longest-lasting and most successful joint ventures in the global auto industry and today marks another great milestone in this partnership."

Ford Otosan is a core part of the ‘One Ford’ global commercial vehicle plan. It currently builds the Cargo heavy truck, the Transit and Transit Custom medium commercial vehicles, the Tourneo Custom people-mover, and now, the new Tourneo Courier entry-level people carrier and Transit Courier small commercial vehicle. Ford Otosan says it exports Ford vehicles to 106 markets globally.