Raising the Standard

Double Deck Buses from Alexander Dennis
The next generation Enviro500 raises the standard in double deck technology to a whole new level. Using the knowledge and experience gained from thousands of buses, covering millions of miles in arduous operations, the new high capacity double deck is purpose-designed for the Asia Pacific market through a process that included invaluable input from operators.

It is a fully integrated vehicle combining a new body and all-new chassis, both designed in concert as one TOTAL vehicle with a total focus on reliability, maintainability, best-in-class whole life costs, passenger comfort and safety. ADL engineers have also been careful to ensure the design is protected for Euro6 and the platform is “future proof” with the ability to adapt easily from conventional diesel power to future hybrid or full electric drivelines.

The new-look Enviro500 has stunning exterior styling, mirroring the market-leading Enviro400, plus an all-new interior that brings many benefits for operators and passengers, while the advanced chassis includes a whole range of features to improve maintainability, reliability and reduce operating costs:

- New integrated design with all-new chassis and new-look body
- Designed as a single product with total co-ordination between chassis and body
- New technical features that reduce operating costs and improve reliability and maintainability
- Reduced weight that contributes to class leading fuel economy
- The option of electronic fault diagnosis (Telematics) helping to reduce breakdown issues
- Component commonality with other ADL buses, including all-round disc brakes and main driveline units
- New ZF rear axle with economy gearing and improved reliability
- Relocated major components for ease of service and better weight distribution
- New, highly efficient, offset “T” drive designed to improve rear saloon headroom and gangway access
- New interior features with increased seating capacity and more low-floor, accessible seats
The Next Generation

All New Chassis

The all new chassis provides a whole host of added value benefits for operators

Reliability
Every detail has been carefully considered to ensure maximum levels of in-service reliability. At the major units level, ZF axles with disc brakes and a steering tag axle option – and an immense attention to detail that includes a new electronic braking system, reducing compressor duty cycles. There’s also a new cooling system with an aluminium radiator and separate charge cooler for longer cleaning intervals. The AdBlue dosing system has also been relocated to ensure optimum operation.

Improved Fuel Economy
Weight reduction throughout the whole vehicle is a major contributor to improved fuel economy. Euro5 Cummins power is specified with a choice of either Voith or ZF transmissions with SensoTop or TopoDyn fuel saving software. Advanced ADL ecotrakker Telematics has the potential to make a major contribution to improved economy through driver behaviour feedback while details such as LED lighting and reduced air consumption mean less energy is used in driving ancillaries.

Weight Reduction
Every area of the bus has been analysed in the quest for weight reduction without compromising strength and durability. Major reductions come from an optimised frame structure, purpose-designed for this next generation Enviro500, the compact ZF Ecolife transmission, a 350 litre fuel tank, ZF axles with front and rear disc brakes. These are supplemented by a whole range of further weight reductions that combine to create significant, efficiency improvements. These include lighter GRP panels, a smaller and shorter staircase, an aluminium radiator, lighter seats and reduced cables and pipe lengths.

Maintainability
Excellent access for maintenance and component replacement has been designed into the new Enviro500. The most striking feature of the engine bay is the excellent access and space around all service items. There’s also a new convenient kerbside location for the slide-out battery carrier in the rear nearside corner. The AdBlue tank is positioned for easy filling ahead of the rear axle and the radiator is easily reached under the offside access panel.
Stylish New Look and Interior Features

The new body is a huge step forward for high capacity double decks, combining style with a new, passenger-friendly layout

The ADL ‘SQUARE-CASE’
One of the most prominent new features of the interior is the ADL “SQUARE-CASE”, an imaginative solution that has the same footprint as a spiral staircase but overcomes the long, open drop of a straight staircase. It also provides for 10 seats in the flat floor area, increasing the total lower saloon seating capacity from 27 to 31. In the upper saloon there’s increased headroom and more additional seats, taking seating capacity in the upper deck to 59, along with larger cooling ducts to improve passenger comfort.

Improved Lower Saloon Seating and Gangway
The entire vehicle driveline is offset to the left hand side of the chassis creating a step free passenger gangway that reaches the final row of seats. The gangway incline is also reduced which gives the Enviro500 class-leading headroom in both saloons. Combined with the “SQUARE-CASE” the net result is improved accessibility and a 15% increase in seating capacity in the lower deck whilst remaining fully compliant with ECE Reg. 107.

31 seats in lower saloon
59 seats in upper saloon
Style with Strength

A stylish and attractive design, low cost of operation and a host of passenger-friendly features combine to make Enviro400 the definitive two-axle double deck bus.

Massively popular, thanks to a unique combination of innovation, style and seating capacity, it is available with a wide range of interior options and is fully compliant with ECWVTA legislation.

Enviro400 optimises an integral design and a 100% ADL chassis and body combination, and the range includes the diesel-electric Enviro400H, now firmly established as Europe’s most popular hybrid bus.

There is a great deal of commonality with the Next Generation Enviro500, both buses sharing major units that include the engine, transmission and axles. This is a major advantage for servicing, maintenance and parts support.

Spacious and versatile air-conditioned interior
The Enviro400 interior combines style and practicality – and has more seating capacity than any other vehicle in its class. It is welcoming and bright, featuring modern colours, textures and shapes and is available with a wide choice of finishes and features. Careful attention to packaging makes best use of space without compromising passenger leg-room and comfort. It features a wide entry, is fully compliant with ECWVTA legislation and has a gently sloping floor with wide gangways throughout the saloon.

Driving pleasure
Enviro400 drivers benefit from an attractive and ergonomically designed cab area with a fully adjustable seat and steering column. Other features include a Vehicle Information Centre monitoring all software and running data, as well as providing a rapid access portal to the vehicle’s diagnostics system.

Body and chassis
The chassis has been developed in concert with the body, ensuring a seamless interface between both technologies. The Enviro400 has exceptional manoeuvrability and a reputation for reliability, durability and low operating costs. The powertrain provides superb access for routine servicing and maintenance, minimising downtime, and uses the ever-popular Cummins six-cylinder engine with SCR emissions technology. Fitted with only premium transmission components, the Enviro400 promises years of reliable service.

Better reparability
Lower cost of operation has been achieved through attention to detail, notable examples including the use of an easily detachable nearside front chassis member and body panels and the revolutionary shape of the fuel tank. Shaped to parallel the profile of the staircase, it not only enables more seating on the lower deck but is more easily accessed for maintenance.
Service and Parts support for ADL buses is provided by Alexander Dennis (Asia Pacific) Limited, a Hong Kong based business that’s committed to providing the highest levels of back-up to bus operators throughout the region. Minimising downtime and maximising time in service. There’s a dedicated team of locally based mobile Field Service Engineers, fully equipped and trained in every aspect of ADL body and chassis technology and with all the tools, expertise and parts needed to help operators to maintain the highest levels of vehicle availability.
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