Press information
13 July 2017

Low floor electric bus gets European launch at Busworld Europe 2017

*The world’s first fully low floor all electric bus is set to receive its European launch at Busworld, Kortrijk – 20 – 25 October 2017*

Mellor will be showcasing the Orion E, a fully electric 16 seat bus which has taken two years to develop. The Orion E has single step entry and a completely flat, low floor saloon, which offers a flexible seating configuration and space for up to four wheelchairs, with passenger access through either a rapid sliding side entry door or the double doors at the rear.

This ground breaking vehicle achieves its unique layout by having an electric front wheel drive system, allowing Mellor the freedom to develop the passenger area without the intrusion of a prop-shaft and rear differential. The vehicle is fitted with independent trailing arm suspension which helps to provide a large floor space that can be configured to suit customer needs.

Part of the Woodall Nicholson Group, the British coachbuilder has partnered with a renowned European electric vehicle integrator and drive train manufacturer, EMOSS, to co-develop the electrical system and driveline. Power electronics are provided by global electric vehicle component suppliers. The result is a bus with an estimated 100 mile range and a recharging time of as little as 100 minutes, using industry standard Lithium-Ion battery packs.

The Orion E has been subjected to lengthy testing, passing the latest stringent European regulations for every aspect of the design and build. It will be displayed on the Mellor stand 919A in Hall 9 at Busworld and the Rochdale based company expects to deliver the first vehicles towards the end of 2017.

Orion E has all the features of any modern electric vehicle (EV), including regenerative braking and driver economy monitoring. In use, Mellor expects a 100 mile range with relative ease, more in some patterns of use. The battery packs are expected to have a life of at least
five years, though users of the same technology and chemistry in similar bus applications are now reporting battery life in excess of seven years.

John Randerson, Managing Director of Mellor, said, “We looked at a number of suppliers for the motor and power electronics. We found that in using European based manufacturers for these components the technology and manufacturing processes were both advanced and extremely stable. Indeed, similar components from these suppliers are in use in many electric car applications currently in production.

“The current concern over particulate and NOx pollution in city centres is likely to drive an adoption of electric vehicles. We believe the Orion E will find a ready market with operators and authorities particularly in historic cities. These cities already have a green agenda and the size of the Orion E certainly works where road space is at a minimum.”

Driving the Orion E is similar to driving a conventional vehicle with an automatic gearbox: “The high torque of the motor means take-off is immediate,” said John Randerson “It quickly reaches its maximum speed of 56mph.”

Mellor has decided to add an additional low-range gear for more extreme hill starts, though in most city situations, the 2500Nm peak torque is ample for clean, gearless progression. With a range of flexible charging options available from overnight to rapid charging, the Orion E could be used on a myriad of operational duties.

Mellor considers the Orion E to be a ground breaking vehicle that addresses the needs of customers operating small buses in towns and cities today.

Ends


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