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Background

Siemens is one of the world's leading bogie builders

Since 1995, Siemens has built and delivered 33,500 bogies for its customers worldwide

While the term 'bogies' is frequently used rather broadly, they are in fact a complex assembly consisting of many subsystems including:

Running Gear; Wheelset Guidance and Primary Suspension; Bogie Frame; Secondary Suspension; Tractive Force Transfer: Bogie - Car Body interface; Traction Motor Drive; Bogie-mounted Brake Equipment; Piping and Cabling and Additional Equipment.

Modern infrastructure operators and train operating companies demand the incorporation of the latest advances in technology and innovation based on proven technologies into both motor and trailer bogie design. This has driven all manufacturers to use modern design techniques to design bogies with significant reductions in weight.

Siemens is one of the leading bogie designers and manufacturers worldwide. Siemens' expertise in bogies incorporates a spectrum of types and designs that have been developed over the last 50 years.

At the heart of Siemens' centre of competence for bogies is the company's factory in Graz, in Austria. Dating back to 1854, the plant was gradually acquired by Siemens between 1992 and 2001. From 1997 onward the Graz factory became the bogie production centre for the Mobility division of Siemens Industry Sector as well as supplying bogies to other rolling stock manufacturers. Today it is the world's biggest research and development and production facility for bogies. At Graz Siemens makes bogies for metros, tram cars, multiple units, high-speed trains and locomotives for markets all over the world. Since 1995, Siemens has built and delivered 33,500 bogies for its customers worldwide.

Siemens has invested in the establishment of its own wheelset facility at Graz allowing the company to source axles, wheels, brake disks and other components from various suppliers and assemble the wheelsets itself, rather than relying on the supply chain.

The Graz factory produced the highly successful Siemens designed Desiro UK bogies. They were designed, manufactured and tested within 2 years incorporating many proven features of comparable bogie applications from the international market. The popular Desiro UK rolling stock has now achieved more than 1 billion miles of operational service, with the Graz design bogies clocking up a remarkable 2 billion miles of operational service.

Designs for the new Desiro City model, chosen as the preferred bidder option for Thameslink, were started back in early 2007 and the bogies are already being built now to allow extensive testing at both the Graz plant and at Siemens unique Wildenrath test centre, where trains can run on dedicated tracks night and day, years before going into passenger service.

Siemens at Graz recently completed a redesign, manufacture and supply of over 1,400 replacement bogie frames for London Underground's Central Line, where the third-party bogies originally fitted to the Derby-built trains failed to stand up to the rigours of operational service.

Thameslink SF7000 Bogie

Siemens' SF7000 bogie that will be used on Thameslink, is based on proven subsystems in both the domestic and international markets. It will have excellent environmental characteristics, while delivering for the operator minimised whole life, whole system costs by improved running behaviour, causing less track damage while complying with all relevant national and international standards and best practice. The SF7000 is ideally suited for passenger rail vehicles at speeds of up to 160 km/h, for use as suburban, local, regional and inter-regional transport.

The Siemens SF7000 bogie has a welded bogie frame produced using state of the art robotic welding technology. Its strong heritage is based on a combination of highly successful bogie principal components and subsystems with both domestic and international running experience optimized to meet the performance and functionality of the UK rail network and the Thameslink specific application.

ENDS

About Siemens in the UK:

Siemens was established in the United Kingdom 168 years ago and now employs around 16,000 people in the UK. Last year's revenues were £4.1 billion. As a leading global engineering and technology services company, Siemens provides innovative solutions to help tackle the world's major challenges, across the key sectors of energy, industry and healthcare. Siemens has offices and factories throughout the UK, with its headquarters in Frimley, Surrey. The company's global headquarters is in Munich, Germany. For more information, visit www.siemens.co.uk

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