



Jewell on the Cutting Edge of Asia's Rail Development



- **Objectives:** Detect acceleration shifts at high speed
- **Solution:** Jewell Instruments **LSMP-2**
- **Benefits:** High-precision and fast response time
- **Results:** Broke the world rail travel speed record

Overview

Jewell Instruments has played a key role in the success of China's newly developed high-speed train, which the Shanghai Daily newspaper reported on Saturday, December 4, 2010. During a test run on the new rail line between Shanghai and Beijing the previous week, the train broke the world rail

travel speed record, achieving speeds of up to 486.1 kilometers per hour (302 miles per hour). The flagship rail line is between Shanghai and Beijing and would cut the travel time of the conventional rail system in half, reducing the journey from 8 hours to 4.

Jewell Instruments supplies the key acceleration sensing component crucial to the control of the train. Jewell's custom model LSMP-2 linear accelerometer electronically supplies the information to the train's automatic control system required for the control of the acceleration and deceleration of the train. Jewell's sensors also supply the side-to-side movement information which allows the train's control systems to automatically adjust for wind buffeting and minimize these effects for customer safety and ride comfort.

Jewell's products are fully designed, assembled, and tested at Jewell manufacturing facility in Manchester, NH USA. In a meeting in Beijing during that period, officials of the China Academy of Railway Sciences



[Jewell Instruments LSMP-2](#)



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(Locomotive and Car Research Institute) reported that “Jewell accelerometers were key in the success of the test” and that they were “very pleased at the operation of the Jewell products.”

Jewell also supplies this type of sensor throughout China and companies world-wide for use in metro systems and subways. Asia is vastly expanding its Metro and high-speed

rail systems and presents excellent growth potential for Jewell in this business sector. At the time of this Shanghai newspaper report, China alone planned to expand its high-speed rail service utilizing this system with 13,000 kilometers (8,077 miles) of new service at a cost of \$120B USD with new projects to be initiated or implemented by 2012.

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- Officials of the China Academy of Railway Sciences/Locomotive and Car Research Institute



About Jewell Instruments

Jewell Instruments is a world leader in the design, manufacture, and distribution of high-precision products. Our expertise includes acceleration and tilt sensors, electronic compasses, avionics components, solenoids, and panel meters. The extensive application knowledge we have obtained through decades of experience allows us to provide custom solutions for a diverse group of industries. In fact, customers from all over the globe contact us for solutions to aerospace, medical, industrial, and telecommunications applications - to name a few.

To find out more, visit our website!



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CSRL2 Rev. A