



Press Release

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Indian Railways rolls out 4500 HP Diesel Electric Locomotive equipped with the latest Siemens technology

With progressive technology that is compact in design, flexible, modular, reliable and safe

Indian Railways has successfully rolled out the new 4500 HP Diesel Electric Locomotive, which is futuristic, modern and equipped with the most advance traction system as well as locomotive control system in India, supplied by Siemens. Incidentally, this is India's 200th IGBT based diesel locomotive.

The Indian Railways first introduced its diesel-electric freight / passenger locomotives (4000 HP) with three-phase AC traction technology in 1999 and has been continuously upgrading the existing locomotives. Siemens has been supplying the traction equipment for these locomotives ever since, which was upgraded to latest IGBT technology in 2006, making Diesel Locomotive Works (DLW) the first unit to introduce IGBT technology on IR locomotives. Siemens has now improvised its **SIBAS32** microcomputer as locomotive controller, thereby enhancing locomotive power to 4500 HP. This also includes features such as modern graphical display for drivers and more efficient brake system.

These upgrades will make it possible for carrying heavier loads at higher acceleration, which in turn will save considerable transit time. Additionally these upgrades are modular in nature and will enable the potential of further expansion of other required functionalities such as haulage of longer trains, wireless locomotive tracking & remote troubleshooting, sourcing of electricity from locomotive for train lighting & air conditioning in future.

The Indian Railways is planning to add 200 such upgraded diesel electric locomotives during 2010 – 11.

Speaking on the occasion of the flag off, Mr. Praveen Kumar, Member Mechanical Indian Railway Board, said, "The Indian Railways has one of the largest and busiest rail networks in the world. To make the rail network modern, robust and reliable, we are continuously introducing state-of-the-art technologies that can be implemented in our existing network.

Siemens Ltd.

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We have a successful track record of employing technology solutions from Siemens which has been launched on this occasion. With the launch of this 200th IGBT based Diesel Electric locomotive, now upgraded to 4500 HP, Indian Railways will usher in a new era of high horse power locomotives at Diesel locomotive works and will achieve a significant ramp up in manufacturing of three phase locomotives.”

Speaking about this achievement Mr. Tilak Seth, the Head of the Mobility Division (South Asia) of Siemens Ltd said, “Siemens has been a reliable technology partner for Mobility in markets across the world. Our solutions offer greater economic efficiency and safety, better comfort and environmental compatibility. Siemens and the Indian Railways have enjoyed a long term partnership over the years and we remain committed to serve the Railways with our innovative technologies, produced locally in India to support Indian Railways endeavours of localization and cost reduction.”

The **SIBAS32** control technology for controllers of locomotives and other rail vehicles is based on a modular structure and includes control units, such as the traction control unit or the central control unit. The control units of the **SIBAS32** system comprise of a number of different modules and are responsible for providing open-loop and closed-loop control. They also provide protection for onboard equipment near the converters and control information tasks on a higher overall level. All products used in this locomotive have been supplied from Siemens factories in India.

The **Siemens Mobility Division** (Erlangen, Germany) is the internationally leading provider of transportation and logistics solutions. With “Complete mobility”, the Division is focused on networking the various modes of transportation in order to ensure the efficient and environmentally compatible transport of people and goods. “Complete mobility” targets the goal of sustainability and combines the company’s competence in operations control systems for railways and traffic control systems for roadways together with solutions for airport and postal logistics, railway electrification, rolling stock for mass transit, regional and mainline services, as well as turnkey systems and forward-looking service concepts. With around 25,000 employees worldwide (September 30), Siemens Mobility posted sales of €6.4 billion in fiscal year 2009. www.siemens.com/mobility

Siemens Ltd. is the flagship listed company in India. Siemens in India, which comprises 19 legal entities, is a leading provider of industry and infrastructure solutions with a business volume aggregating about Rs. 12,000 crore. It operates in the core business areas of Industry, Energy and Healthcare. It has a nation-wide Sales and Service network, 19 manufacturing plants, a network of around 500 channel partners and employs about 16,800 people.