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SŽDC Acquires a Unique Car for Catenary Maintenance

Today, the railway infrastructure manager took over a special vehicle for control, maintenance and repairs of the catenary MTW 100.013/7 from its Austrian producer – the company Plasser & Theurer. This is the first delivery of a vehicle from abroad specially designed and produced for works on the catenary. In October 2015, SŽDC signed a contract with the Austrian company for the delivery of three cars with a total value of CZK 173 million. The following remaining two cars will be delivered by Austrians this autumn.

"We cannot maintain and repair railway infrastructure in an adequate way without means of mechanisation. We are quite aware that current technology has been gradually wearing out. From this point of view, purchasing new vehicles specially designed for maintenance of the catenary is truly a revolutionary step. In the past, only diesel railcars used mostly for passenger transport had their construction adapted. We appreciate indeed that our plans are being supported by the Ministry of Transport and the State Fund for Transport Infrastructure", explains Mr. Jiří Svoboda, Deputy Director General of SŽDC for rail operability. "This new vehicle brings also changes in work technology, working habits and, last but not least, considerably higher demands on personnel expertise with the objective to use the vehicle's exceptional parameters at maximum", adds Mr. Svoboda.

MTW 100.013/7 is a four-axle vehicle with hydrodynamic power transmission and 520 kW engine power. A freight crane is installed on the vehicle with a possibility of connecting a basket, a lifting platform, jibs for manipulating the catenary conductor and cable, towers for height calibration of the catenary conductor and a measuring current collector. The vehicle is specific by its length (21,400 mm), which is by 2,500 mm greater than the Series MTW 100 vehicles standardly produced. Moreover, it has a camera set which provides a driver and a crew not only with a perfect view on the vehicles' surroundings but also supervision on the state and activity of equipment and the measuring current collector.

Specifics of the MTW 100.013/7 vehicle

- Modular design of the vehicle construction according to the customer's specification.
- Innovative working technologies for facilitating physically demanding manual activities.
- Supplying power and pressurised air for connection of tackle on the vehicle side and front, on derrick platforms and in the workshop.

- Perfect lighting of the outer workplace by lighting tubes (lighting on the vehicle's side and roof) and LED spotlights. A possibility to attach additional LED spotlights on the lifting platform and the crane basket.
- Remote control of working units and vehicle running without impacts (work running regime).
- Engine stability guarantee by means of IT-controlled moment of load regulation.
- Protection against danger by live parts of the catenary.
- Protection against crossing the side delineative surface (preventing interference into the adjacent track profile).
- Extremely high occupational safety level for personnel, controlling all functions of the machine from a single workplace.
- Programme control with redundancy (two control programmes) checking and controlling work procedures and thus minimising any possibility of errors during operation.



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