

■ Bornemann

Finest precision for heavy loads



Threaded spindles for lifting jacks

The expansion of high speed rail network is progressing in Europe. The SNCF is about to develop its TGV trains in a new generation, just as the German Railways is doing. Even a private competition is rising in the ring of Italy against the "Freccie Rosse" and from year 2014 there will be a high speed link from Cologne to London. Also Russia plans to develop a network of high speed train services for the 2018 FIFA World Cup such as high speed trains from Moscow to St Petersburg, to Nizhny Novgorod and to Kazan, with a possible extension to Yekaterinburg.

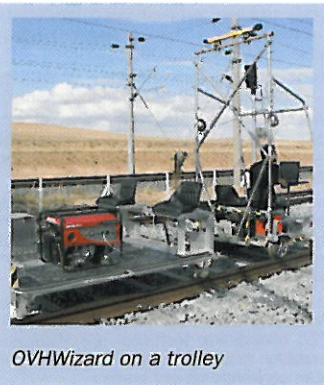
All these trains are serviced at frequent intervals and for this reason they have to be lifted completely. The threaded spindles or screws used in the lifting jacks must be able to withstand extreme loads and on the other hand, work pre-

cisely in order to prevent jamming. Here, the whirling process has established itself as a superior manufacturing process for the screws, as proven by the success of Bornemann Gewindetechnik GmbH from Delligsen.

Since the past few decades, the Bornemann Gewindetechnik GmbH & Co. KG in Lower Saxony, Delligsen has been a specialist in the manufacturing of threaded spindles for lifting jacks for railway equipment. In this market segment, the company supplies several reputed manufacturers of lifting jacks for trains in Europe as well as overseas. The high quality of the screws that could be achieved through the whirling manufacturing process has been crucial to the market success of Bornemann. (uh) www.bornemann.de

■ OVHWizard

Ultrasonic contact wire measuring system



OVHWizard on a trolley

The OVHWizard is a mobile, non-tactile contacts wire measuring system for determining the contact wire height and side position as well as an assessment of the tendency of the contact wire to wear. The system operates with ultrasound according to the principle of runtime measurement. Its weight of only about 4 kg makes it easy to handle and it can be installed on any vehicle roof in just a few simple steps. A simple RS232 connection to the PC or Laptop enables communication with the measuring software.

■ G. Zwiehoff GmbH

ROTRAC E2 road/rail shunting vehicle



Shunter ROTRAC E2

Admittedly, Zwiehoff's ROTRAC E2 shunter does not look all that impressive, but concealed beneath its compact steel bodywork there is a powerful shunting engine capable of moving trailing loads of more than 200 tonnes. Since it is equipped with rigid, electrically driven axles, it is ideally suited for operating on rails. It is capable of running on gauges of between 1000 mm and 1676 mm. Its infinitely variable speed control and its self-adjusting, compensating rail guidance ensure safe and dependable operation on rails. The ROTRAC E2 is, however, not limited to running on rails. With its four hub motors and the solid rubber tyres around its wheels, the shunting vehicle is also capable of running on roads. Changes in direction are brought about by a novel type of rigid-axle steering, so that it is even capable of rotating on the spot.

Each of the four motors has a boost function giving them an output of up to 26.5 kW from a standing start. All of the components are part of an electric transmission mass-produced in large numbers by Linde. Thanks to the use of these motors, the ROTRAC E2 works with a low emission level and produces no exhaust. In addition to that, its energy consumption is minimised, thanks to the recuperation of braking energy. The ROTRAC E2 has been designed for remote control. A multi-function display provides information on the most important data and also acts as an onboard diagnostic system. The principal areas of deployment envisaged by the manufacturer are industrial and transport undertakings. The ROTRAC E2 ought, however, also to be of interest for operations specialised in maintenance and for manufacturers of railway vehicles. (uh) www.zwiehoff.com

Power is supplied to the OVHWizard by the integrated batteries so that no other power supply needs to be provided or wired for the measuring instrument on the vehicle roof.

A pulse transmitter consisting of a light barrier and a self-adhesive reflector for attaching to the wheel can be connected to the measuring system for determining the distance travelled. Pulse signals from a rotary encoder or similar on the vehicle can also be read in as a possible option.

The measured data are recorded by the enclosed software and displayed and saved graphically or in table form. The post processing enables an exact evaluation of the measuring runs on site or at the office.

The system is suitable for recurrent control of the contact wire for railways and trams as well as for documentation of maintenance work. Since the beginning of 2010, the system is DB-certified for use on road railers. (uh)

www.drwehrhahn.de

GREAT PERFORMANCE UNDER HEAVY LOADS

Custom made trapezoidal spindles for LIFTING JACKS with integrated lubrication pockets - effectively fighting the STICK-SLIP-EFFECT.

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