Wismar Ship Building Hall Roof

Owner: MTW Schiffswerft GmbH
Client: Mitteldeutsche Stahlbau GmbH

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CIVIL 22

Left: the first seven double trusses have been lifted and slid into final location. Double trusses 8 and 9 (foreground) have been lifted and slid and now await double truss number 10, which is being assembled at ground level.

The roof structure for the new ship building hall comprised of fourteen double truss with in-fill members between. Each double truss, weighing between 800 and 1,000 tonnes and with a span of 155 metres, was pre-assembled at ground level and then lifted and slid into position. Fagioli PSC were contracted to provide the lifting and sliding services for these units.

Lifting was performed using four L300 jacks mounted upside down on lifting beams under each end of the double truss. The lifting cables were secured to the permanent columns on one side and to temporary support towers on the other side. Two L2/50E power packs (mounted under each lifting beam) linked to a central remote control station at ground level, were used to achieve a lift rate of 20 metres per hour.

Pulling was performed using two L180 jacks and an emergency hold-back of two L50 jacks were available in the event of a storm.

Below: Part way through roof assembly. The 2,300 tonne gantry crane in the background has been erected by Fagioli PSC. Fagioli PSC also went on to erect the ship building hall doors.