



DB Fahrzeuginstandhaltung GmbH, Meiningen: Moving a locomotive into a museum

Full steam ahead for historic steam locomotive

A cross-site team spent a year and a half planning this special project: moving a 39-tonne Prussian T 13 steam locomotive into the Dampfloek Erlebnisswelt, a museum devoted to railway history in Meiningen. Colleagues from SCHOLPP Kran & Transport GmbH provided support with a 220-tonne truck-mounted crane. The engineers had designed a special external platform and transfer tracks for lifting and positioning.

Even the most experienced fitters don't get to lift a cargo as special as this every day: a Prussian T 13 steam locomotive, built in 1912. The locomotive was restored by DB Fahrzeuginstandhaltung and is now the main exhibit at Dampfloek Erlebnisswelt, a new steam locomotive adventure world in Meiningen. Our fitters used a truck-mounted crane to effortlessly hoist 39 tonnes of steel through the air and into the building.

Complex planning: Drawing up a technical feasibility concept

But what looked so easy to the onlookers was actually quite a challenge. It took 10 years from the initial idea to the locomotive's complex restoration and its moving-in.

Our engineers in Dietzenbach and Chemnitz spent 18 months planning the project in advance. A feasibility study was carried out, which involved complex calculations of the loads that would occur in the event of asymmetric load distribution in the locomotive. The process of slinging, lifting and moving the locomotive was planned and calculated individually for each step in the project.

The heavy cargo was transported from the site where it was restored to the museum using a low-bed truck trailer (10-axle semi low-loader). The project took 15 days to complete, nine of which were spent preparing the museum grounds to set up the truck-mounted



crane, lifting gear and moving-in equipment at the construction site.

Custom-built platform and transfer tracks for the move-in

The key element of the moving-in concept was an external platform with transfer tracks, which was specially designed by SCHOLPP. This heavy-duty platform was positioned in front of the museum building to bridge the height difference between the outdoor area and the exhibition space. The transfer tracks connected seamlessly and ran into the museum. One of the challenges was balancing the centre of gravity when lifting the locomotive due to its asymmetric load distribution.

The steam locomotive was lifted directly from the heavy goods vehicle onto the outside platform using the truck-mounted crane and pulled into the museum's hall step by step on the transfer tracks using hydraulic grippers. After several hours, the steam locomotive arrived safely at its destination. As complex as the project was, thanks to good planning, the team managed to complete the move-in operation with just six experienced fitters and a crane operator. Two further exhibits weighing 8 and 10 tonnes were then brought into the museum.



Customer:

DB Fahrzeuginstandhaltung GmbH,
Meiningen

Task:

Moving in a historic steam locomotive (39.0 tonnes) and two other exhibits (8.0 and 10.0 tonnes)

Location:

Dampflok Erlebnisswelt
steam locomotive adventure world,
Meiningen

Special equipment:

Custom-built external heavy-duty platform, designed by the SCHOLPP engineering team, with transfer tracks running into the building

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