

# CASE STUDY

**Industry:** Amusement & theme parks  
**Customer:** Park Operator

OFF-HIGHWAY  
**POWERTRAIN SERVICES**

## ▶ Off-Highway Powertrain Services helps to keep the roller coaster rolling

### ▶ Case Description

Even the world's largest beer festival needs powertrain experts! Our customer, an amusement ride operator, had an urgent service requirement due to vibration issues on their "Olympia Looping" rollercoaster at Munich's famous Oktoberfest.

On the rollercoaster, 62 powertrains are used to transport the wagon to the top. Due to the compact construction of the track loop, all gearboxes and cardan shafts are interconnected, which made it virtually impossible to locate the source of damaging noise using conventional methods. Off-Highway Powertrain Services (OHP Services) strategy was to pinpoint the vibration after an Hot Spot Analysis and thermography, instead of visual inspections for every component in all 62 powertrains. After identifying a loose part and pinpointing its location, the problem was a matter of a few minutes work to rectify.

The inspection methods used resulted in a highly efficient solution with **time savings of 85%**, ensuring the problem was fixed before the next operation. By performing a preventative repair a potential unplanned shutdown was also avoided which on average incurs a loss of revenue

### ▶ Technology Snapshot

#### Hot Spot Analysis and Repair

Different technologies such as vibration measurement, thermographic measurement and alignment checks are used to determine the root cause of the problem.

Our service experts analyse powertrain components and systems in detail, through multiple measurements and result comparisons to give a complete picture and to optimise the use of maintenance resources.



Access ramp "Olympia Looping" Munich Oktoberfest

of circa 35,000 Euros. OHP Services is one of the few partners which is able to deliver replacement parts with a 3.1 Inspection Certificate, ensuring the high quality standards that are imperative for passenger transport applications. Using a global distribution network; OHP Services ensures timely service to the customer.

The customer was extremely satisfied with our expertise and product quality and OHP Services is now the preferred service partner and supplier.

Detailed reports with confirmed facts are generated to support maintenance decision making. The main benefits include early identification of fundamental powertrain faults and a minimised risk of unplanned downtime.

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▶ **Challenge:**

- ▶ Avoid downtime which impacts turnover, especially in the peak season
- ▶ Avoid component breakage during operation!

▶ **Solution:**

- ▶ Vibration measurement and thermography to identify the failed component and its precise location
- ▶ Repair and replacement within 30 minutes
- ▶ Alignment check and adjustment to ensure the powertrain is running smooth



“Olympia Looping” rollercoaster, Munich Oktoberfest

▶ **Customer Value:**

- ▶ Unplanned shutdowns leading to loss of revenue of circa €35,000 was avoided
- ▶ **Time saving of 85%** achieved by employing Hot Spot Analysis
- ▶ Trusted Supplier of 3.1 inspection certified components
- ▶ Safe and enjoyable ride experience to end users through reduced vibrations

▶ **What’s special?**

- ▶ OHP Services, as a reliable partner was available at short notice to work on the powertrain overnight, avoiding business interruption and potential reputation damage for the customer.

**WORLDWIDE**

Off-Highway Powertrain Services collaborates with manufacturers and logistics partners worldwide: benefit from our extensive network. By means of our Service Parts Availability Module, you can define which parts are to be available, and how quickly they can be delivered to your location – regardless of manufacturers. We also offer customized spare parts to our clients on stock.

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This case study is exemplary only. Any and all information, data, values, products, procedures etc. which are mentioned in this case study vary from case to case and can be different. For calculation pertaining to your business, please refer to a Off-Highway Powertrain Services employee.