



Severn Tunnel OLE Blockade

Project Location: Wales and Western

Project Timeframes:
12th September 2016 to 21st Oct 2016

Client: Network Rail

AmcoGiffen Discipline/Sector:
Infrastructure, Rail, Civils

Project Overview

As part of the wider scheme to electrify the Great Western Route (GWR) between London Paddington and Cardiff, AmcoGiffen were contracted to provide the installation of all Overhead Line Equipment (OLE) in the tunnels from Bristol Patchway to Cardiff.

Covering 33 miles of route, 5 stations, 7 tunnels and 4 viaducts, we successfully delivered all enabling and installation works, utilising the Rigid Overhead Conductor Rail System (ROCS), manufactured by Furrer & Frey.

AmcoGiffen's Scope of Works

With the overhead line equipment blockade taking place over a concentrated, 6-week period, the work was equivalent to five years of rules of the route access to the tunnels.

Our overall scope of works included:

- All prior enabling works
- Collaboration with tunnel maintainers to identify and clear over 2000m² of soot from the tunnel brickwork
- Drilling and fixing over 5000 anchors
- Installation of 1700 drop tubes and registration arms
- Installation of conductor rail, including 14km of contact wire and 14km of Auto-Transformer Feeder (ATF) cable
- Post-fix testing and handback to client



Over the last 6 weeks I have seen some incredibly impressive team work, problem solving and commitment to make this blockade a success. The ability of this team to deliver...is second to none and has been well recognised throughout the industry" - Dan Tipper, Project Director, Network Rail



Innovation Applied

The ROCS system, an innovation in its own right, provides a reduced clearance solution for electrifying tunnels, offering very low maintenance for the future. Unlike the standard open route OLE, the contact wire is held in a 'conductor rail' suspended from the Small Part Steel (SPS) which are affixed to the tunnel lining. The contact wire itself is not under tension and thereby avoids associated consequences.

As a pioneering project for the nation, this blockade was the first successful installation of the ROCS system on ballast track on the UK rail network.

Benefits Provided

Utilising advanced plant methodologies to achieve automation of the drilling and remove all safety risks associated with manual techniques, AmcoGiffen delivered 300000 man-hours of safe work, completing the project on time and to budget.

Further benefits of the project include:

- Safer and more efficient rail travel
- Modernisation of the UK rail network
- Decreased maintenance need for generations to come

Further benefits provided by AmcoGiffen:

- A robust and comprehensive understanding of the technical scope
- A strong commitment to around the clock health and safety
- The ability to promptly adjust to project modifications



Project Contact

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