

Jacking and Bearings Replacement

Portsmouth International Ferry, Port Berth 4

Client

Portsmouth International Port

Principal Contractor

Freyssinet Limited

Designer

Freyssinet Limited

Works Commenced

October 2017

Works Completed

November 2017



Portsmouth International Port is one of the UK's busiest municipal ferry ports. In a multi-million pound transformation, a double decked linkspan draw bridge to allow vehicles on and off vessels was to be installed at Berth 4.

As works were due to take place in a working area of the port, a tightly choreographed operation to install and commission the bridge was put into place, ensuring the works had minimal impact on members of the public and port operations.

Freyssinet was enlisted to carry out jacking and bearing replacement on the roll-on/roll-off ramp at the Ferry Port. This included the supply and installation of a temporary propping and jacking system to enable to removal and replacement of 12 PSC Freyssinet bearings that were installed in 1991.

Design and installation of temporary works included:

- Taking into account the loadings of the heavy vehicles using the ramp
- Making holes in girder's stiffeners and installing joint gap fillers
- Welding taper plates to girders in purpose of jacking
- Dismounting doors and taking down parts of brick walls
- Levelling floor for temporary supports
- Building timber cribs - jacks supports
- Breaking up levelling pads

The jacking and bearing replacement works included:

- Jacking the viaduct
- Dismantling / removal of existing bearings
- Design, manufacture and installation of 12 Freyssinet Tetron pot bearings
- De-jacking the viaduct

Port operations, including the traffic of ferry passengers continued on and around the berth during all the work phases. To minimise any effects on the port and members of the public, Freyssinet works took place within segregated, enclosed areas, and Freyssinet's Site Manager maintained close co-ordination with port officials to carefully schedule the works and prevent clashes between critical operations and the boarding of ferries. As a result, works were completed successfully within the time scale.