



HYDRAULIC JACKING TO TEMPORARY PROPPING & MONITORING EQUIPMENT

STOCKLEY JUNCTION VIADUCT FLYOVER

HEAVY DUTY JACKING SYSTEMS

# CONTRACT SERVICES - HIRE - SALES

## PROJECTS

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### PROJECT DESCRIPTION

Stockley Flyover is a £90 million Crossrail project that is being delivered by Network Rail. The objective is to construct a new flyover to facilitate Crossrail and Heathrow Express services between London and Heathrow Airport, whilst allowing trains to Reading and beyond to pass through the junction unhindered.

The works consist of constructing a viaduct structure of numerous support piers of approximately 1.5 km distance.

At each pier location a temporary propping support system was installed to support the newly installed RC beams, which were required to be preloaded and assist with bearing installation.



*“Over 100 hydraulic jacks were supplied as part of a computerised control system to accommodate beam alignment and load transfer into newly installed bridge bearings”*

### PROJECT WORKS

Over 100 number 100 tonne capacity hydraulic jacks, were supplied to the contractor with all the applicable hydraulic accessories (ie. manifolds, hoses and hydra-packs to control jacks individually, and/or as pairs and sets.

This synchronised lifting system allowed all jacks to be lifted and monitored by real-time instruments for accurately levelling each reinforced concrete beam as per the Consultant Engineers’ specifications. In addition, the jacks were used part of the bridge sliding operation.

Each bridge deck have a number of hydraulic jacks interlinked to control the alignment of the bridge bearings and support the pier decks until the super-structures had achieved the recommended strength.



Such projects require carefully planning and project management due to all the works being completed within tight time schedules.

Hydra Capsule were able to provide a 24/7 back-up service and team for assistance throughout the project. Ensuring all programmes were achieved.

The monitoring equipment provided by Hydra Capsule were manufactured “in-house” and provided movement sensors accurate to +/- 0.10mm and load / pressure monitoring to +/- 1 kNs.



**Client**

Crossrail and Network Rail

**Type of Works**

Hydraulic Jacking  
Synchronised Control Systems  
Monitoring & Pressurising Equip  
Temporary Support System(s)  
Training and Consultancy

**Commence Date**

January 2014

**Completion Date**

September 2014

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