



HOUSE JACKING & LIFTING SUPPORT SYSTEM, STAINES

TEMPORARY PROPPING & HYDRAULIC JACKING WORKS

HEAVY DUTY JACKING SYSTEMS

CONTRACT SERVICES - HIRE - SALES

PROJECTS

www.hydra-capsule.com

PROJECT DESCRIPTION

Recent flooding last winter in 2013 caused the heaviest rainfall in almost 250 years. Around 1,000 homes were badly damaged in Somerset and along the Thames Valley. Numerous methods are being implicated by the Environment Agency to prevent flooding happening again.

However, one gentleman decided to approach Hydra Capsule with a challenging project. To raise his house +1.50 metres.

Hydra Capsule worked with the consultant engineers to accommodate a system to lift accurate to +/- 1.00mm, which was successfully completed over 5 days.

Further details of report are on <http://news.sky.com/story/1323717/house-lifted-1-5m-to-avoid-more-flood-misery>

“Over a period of only 5 days, the house was lifted 1.5 metres accurately to +/- 1.00mm across all jacking locations. One of the largest domestic lifts in Europe”



The complete jacking operation was completed all within 5 working days, as a result of using a jack-and-pack method. This allowed jacks to be paired together and lifted alternatively for speed, control and safety.

In addition, a steel girder needling framework arrangement was installed throughout the perimeter of the house and once the cylinders had been pre-load the wall was diamond-cut to allow the building to be free of any constraints and lift freely.

Sean Davies, of Hydra Capsule said: “We’re used to doing larger bridges and structures, however, this lift was very technical and challenging due to the risks”.



PROJECT WORKS

28 number hydraulic jacks, with 50 tonnes capacity and had a 300mm maximum stroke. Were inter-linked to a computerised central –control system, which electronically controlled all the hydraulic jacks synchronously and independently to suit the requirement of the levelling and lifting of the house.

This synchronised lifting system allowed all jacks to be lifted together in 280mm stages. Each jacking location were digitally monitoring by our electronic instrumentation (ie. draw-wire potentiometer and pressure sensors), allowing Hydra Capsule to have complete control throughout the operation(s).

The total lift of the slabs were +1.55 metres in height.



Client

Private Individual

Type of Works

Hydraulic Jacking
Synchronised Control Systems
Temporary Support System(s)
Temporary Support Design
Consultancy

Completion Date

September 2014



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