

Bill Boley

“Controlled Hydraulic Movement”

in action



Bridge slide procedure minimises traffic disruption on one of Devon’s busiest roads. Leading controlled hydraulic movement specialists Bill Boley Ltd have completed a complex bridge sliding project on the A30 in Devon for contractors Dean & Dyball.



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Leading controlled hydraulic movement specialists Bill Boley Ltd have completed a complex bridge sliding project on the A30 in Devon.



The A30 dual carriageway is one of the busiest arterial routes into the south west and when it became clear that the aging Dunheved Bridge spanning the River Tamar needed replacing, the local authorities decided it would cause too much congestion if the road was restricted to a single carriageway for any lengthy period whilst bridge sections were demolished and rebuilt. To overcome this, the selected contractors Dean & Dyball built half of the new bridge on temporary piers on a newly constructed embankment along side the

existing one. When this was completed, westbound traffic was diverted across this new section and eastbound traffic switched to the old south deck. The north deck of the bridge was then demolished and rebuilt in situ. Once this was completed, eastbound traffic was switched back to this carriageway, the old south deck demolished and new piers built, all without affecting traffic flow.

It was at this stage that Bill Boley’s expertise came into play. It’s no mean feat to move 1500 tonnes of steel and concrete the necessary 20 metres and the company has pioneered special techniques for such bridge sliding exercises. During the complex operations, the A30 was



now temporarily restricted to

one carriageway so that Boley engineers could install their system. The project involved jacking up the bridge onto eight bespoke self-levelling, guided sledges with Teflon coated bases, in turn sitting on stainless steel runners on the central piers. Four additional skids on each end of the bridge deck ensured structural integrity. Four 100 tonne capacity specially designed strand jacks, located on the piers at the

base of the new north section of the bridge, were then used to slowly pull the new south deck across into position.

This whole procedure ensured the road was restricted to one carriageway for a much shorter time than if both new decks had been built in situ.



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