

# Big lifter takes up position

The biggest hydraulic cylinder to be installed in the UK is now in position to lift an 800t road bridge. The Great Wharf Road Bridge is designed to provide a new access for traffic into Canary Wharf in London's Docklands, as well as allow ships to pass through to West India Quay.

The 40t ram, designed and manufactured by Hunger Hydraulic in Germany to a brief by Bennett Associates, will lift the 800t structure 18.2m to provide a 15m by 15m navigable passage beneath.

The telescopic ram is a two-stage unit with 800mm and 910mm cylinders inside an outer casing 12.9m long by 1.2m maximum outer diameter. The ram is powered by three 132kW power packs to produce a maximum operating thrust of 6581kN that will lift the bridge in just over nine minutes and lower it in six and a



half minutes. The bridge will still lift even with one power pack operating – albeit more slowly.

Trunnion bearings at the base of the ram and a pivoting clevis at the top allow the ram to rotate approximately 7° either side of vertical as it raises and lowers the bridge. The whole assembly stands in a reinforced concrete chamber beneath the north abutment, where the master control cabinets will also be located. A slave cabinet in the south abutment will provide control and power to the vehicle and pedestrian barriers, as well as the bridge lighting ■

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