

# PROJECT FILE:

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**Bridge Access Projects: TAY RAIL BRIDGE: Underdeck & Pier Access Platforms for Strengthening Works.**



The three large ALPS Underdeck Access Platforms are assembled on the quayside. Each platform is equipped with on board 17Kva generator, 600cfm compressor and other required equipment for the task in hand. The capacity of each platform was 10-Tons.

The complete platform is lowered to the awaiting barge and transported to the underside of the relevant bay where it is raised into place using the On-board Hoists and Back-up safety devises

The complete platform is then transferred to 10 on-board suspension chains and traversing tracks.

Once a bay has been completed the suspended platform would be lowered to the barge, transported to the next desired bay (any bay) and raised into position ready for work, the whole operation taking a few hours only.

ALPS team of Industrial Abseilers perform all daily platform inspections, moves and preventative maintenance tasks.

The on-site "Roped Access" team supplied by ALPS also carries out other "Roped Access" work on the bridge.



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ACCESS to all 74 piers was required in order to carry out necessary strengthening work.

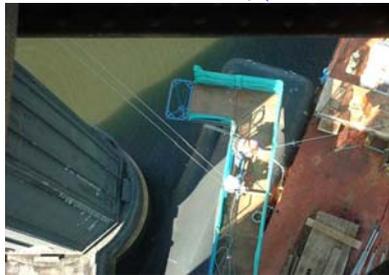
This involved the removal and replacement of rivets, steel plates followed by localized painting.

Although scaffolding was the first access method adopted it soon became obvious that the time required to erect, strip and re-erect would prove prohibitive.

ALPS were asked to design a rapid access system incorporating powered hoists, safety devices and control systems. The installed platforms wrapped around the pier and were equipped with a removable bridge section to access the “arch” Each of the 4 X Platforms has a capacity of 1.8 Tons, powered by Tirak Hoists at a speed of 5mpm and could be moved from pier to pier in a matter of a few hours, (rather than many days as with scaffolding)



Pic' 1



Pic' 2



Pic' 3

Pic' 1: The platform can be lowered to water level and elevated to the underside of the bridge in a few minutes.

Pic' 2: To move the platform from pier to pier it was simply “split” into two separate sections, each one lowered to the awaiting barge to be transported to the next pier.

Pic' 3: Suspension clamps to the outer bridge girders attach the primary lifting rope and sheave block. This two-part rigging method doubles the capacity of the 1000Kg Tirak hoist to 2000Kg.

As the platform is captive to the pier it is restrained against inclement weather conditions at all times.

4 x ALPS Industrial Abseilers with the aid of a barge perform each move in a few hours only.

Each platform has a designated operator who performs all daily inspections, monitors the correct use of the equipment and carries out all preventative maintenance tasks.

All ALPS Bridge Access Platforms can be equipped with containment system for blasting and painting works.



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