

TMS Maritime is a leading UK specialist in marine civil engineering, ancillary floating plant and diving services

**Client:** AV Dawson

**Value:** £1,000,000

**Project:** Port of Middlesbrough failed quay : 2020/21 : 8 months

### Description:

TMS were appointed by AV Dawson to carry out the replacement of a failed section of quay in Middlesbrough Port. Due to increasing dredge depth and quay loading, the existing sheet piled quay wall had suffered partial failure and required replacement to prevent collapse and allow for future operational loading.

The full scope of the project included:

1. Installation of a temporary cofferdam around the extent of the working area that was filled to stabilise the existing quay wall.
2. Demolition of the existing reinforced concrete capping beam using diamond wire sawing and mechanical breaking.
3. Extraction of 35m (linear) of continuous sheet piles, each 28m long.
4. Installation of 70No 508mm diameter, 30m long piles to support a new relieving slab quay area.
5. Installation of 28No 1067mm, 30m long piles clutched together to make a new continuous berthing face.
6. Installation of tie bars and an anchor wall system to support the berthing face retaining wall.
7. Reinstatement of the ground and casting of a reinforced concrete quay surface slab at 700mm thick using 500m<sup>3</sup> of concrete in a single pour.
8. Reinstatement of mooring bollards and berthing fenders.

TMS were appointed as the Principal Contractor to complete works in the busy live port on the River Tees. Using our specialist maritime experience and in-house piling operatives, all piling works were carried out in-house. Working closely with both temporary and permanent works Designers we derived a full land-based methodology using a 280t crane to support the works. By eliminating all marine equipment and working collaboratively with the client to facilitate all plant/equipment/materials, we were able to deliver the works within the Client's tight budget with little disruption to the heavily trafficked port. Working closely with the port operators (AV Dawson) we were successful in maintaining access for berthing and loading of vessels at adjacent berths throughout the construction period.

