tms Maritime

Project Case Study

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

Client: Bam Nuttall

Project: Isle of Man Sea Terminal

Value: £1.5M
Duration: 9 Months

Description:
In August 2018, Teignmouth Maritime Services were contracted by BAM Nuttall to carry out various scopes of work at the Sea Terminal in Douglas Harbour, Isle of Man. These consisted of scour protection to the two Ro Ro ferry berths, linkspan hoist tower piles life extension (consisting of repair sleeve and denso sea shield), installing a new fender pile and repairs to previously damaged piles; and sea shield work to the three walkway dolphins that are situated within Douglas Harbour.

In order to protect the two berths the design was to install proserve pumped concrete mattresses to provide scour protection totaling 1150m2 over both berths. Following the removal of debris and preparing the sea-bed, layers of 2 tonne kyowa rock bags (approx. 1000 in number) were installed and guided into the correct position by divers to the edge of the scour underneath the linkspan. This layer created an even surface to lay the concrete mattresses. Once all the mattresses had been installed they were then pumped with concrete & additional 2T rock bags were installed along all edges to stop future scour occurring underneath the mattress.
Three of the eight linkspan piles required repair works due to propeller wash from vessels combined with ALWC (accelerated low water corrosion) which had caused the piles to thin. These 3 piles were firstly cleared of debris, silt and seabed inside the piles and then repair sleeves were installed prior to pumping with concrete all piles were wrapped with a denso sea shield system.

The fender pile at the end of the pier had already been removed, TMS were therefore required to socket the new pile into the original pile. Firstly, the pile stub that remained had to be cut using BROCCO (underwater cutting equipment) below the remaining damaged part of the pile where the pile had been bent over; to allow enough circular room for the new pile to be fitted. The internal area of the pile stub was then excavated to a depth of 1.3m below seabed, once secure the pile was pumped full of concrete which allowed the fender pile sleeve to be installed over the pile for the fender panel installation.