WM PLANT HIRE
long reach excavators

Case Study - Sea outfall excavation, Margate

Client: Jenkins Marine
Duration: 3 weeks
Location: Foreness Point, Margate, Kent

Background
EU directives for improved water quality led to the construction of a wastewater treatment scheme for Margate and Broadstairs linked to a vital sea outfall some 12km away. The marine works were a key element to the success of the project

Scope of Works
An underwater reception chamber had to be constructed offshore in the chalk bedrock to enable the recovery of the tunnel boring machine and regulate the periodic discharge through the sea outfall.

Solution
Positioned on the deck of the self propelled dredge pontoon, WM Plant Hire provided a 22m reach CAT 330 fitted with an underwater dig profile system. Reaching to a depth of around 16m at high tide, the machine excavated the 30m long reception pit in the sea bed loading the material into a split hopper barge.

Rock tips were fitted to the digging bucket and a hydraulic rockwheel attachment used to profile the chalk rock faces. This is a heavy duty milling tool for different types of rock material, using tungsten heads and a variable speed of rotation to enable a high quality and precise profile.

Despite the sometimes squally conditions off Foreness Point with strong tidal currents, the pit was excavated and backfilled with gravel awaiting the completion of the tunnel boring. The technology of the purpose built excavator was key to the project success using underwater vision and the ideal ratio of reach and power.

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