

TITLE OF THE INVENTION: CONSTRUCTION PROCESS OF OFFSHORE BRIDGE HIGH-RISE PILE PLATFORM

ABSTRACT

Disclosed in the present invention is a construction process of an offshore bridge high-rise pile platform. A cofferdam of a steel-concrete structure is used for construction. The cofferdam consists of a cofferdam bottom plate prefabricated by means of reinforced concrete and a steel side formwork. The construction process comprises the following stages: a preparation stage, a cofferdam mounting stage, a cofferdam lowering stage, a cofferdam bottom plate blocking and water pumping stage, and a platform concrete pouring stage. The preparation stage comprises the following steps: pile foundation casing sinking, cast-in-place pile construction, pile foundation casing pile head trimming, cofferdam bottom plate and skirt plate prefabrication, and steel side formwork manufacturing. The cofferdam mounting stage comprises: first, mounting the cofferdam bottom plate, and then mounting the steel side formwork, wherein the cofferdam bottom plate is mounted by means of suspension hangers, and each suspension hanger comprises a pile cap, an inverted hanging beam, and two first finish-rolled twisted steel bars. The cofferdam lowering stage comprises mounting a jack lowering system on the cofferdam bottom plate, wherein the cofferdam lowering system comprises I-shaped hangers, carrying pole beams, center hole jacks, and steel strands. The construction process of the present invention can greatly reduce the construction difficulty and can improve the construction efficiency.

FIG. 5