

عنوان مقاله:

Underwater Habitat For Welding & Repairment

محل انتشار:

چهارمین کنفرانس بین المللی سواحل و بنادر و سازه های دریایی (سال: 1379)

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خلاصه مقاله:

Maintenance is an unavoidable activity in sea environment. All offshore structures are exposed to corrosions and should be protected from their damages. Corrosion on the sea is more complex than that in other environment, and this is due to presence of sea creatures in addition to active corrosion or indirectly. Also other factors such as bumper made into structures by floating objects and destructions happen as a result of explosions nearly, which makes maintenance for the structures. Regarding effects of the above mentioned factors on different offshore structures, justifies the necessity of maintenance & port changings requirements. Some of the maintenance can be carried out in wet environment of the sea, while others can only be accomplished in as dry condition, For example operations in deep sea where diver activities are very limited or even impossible, or surface preparations for painting do require a dry environment. To prepare such a dry condition, underwater containers are used. There are either hyperbaric (to keep it dry under high pressure) for deep sea or atmosphere (to keep it dry under one atmosphere pressure) for shallow or splash zone of the sea. To despatch divers to these habitats, a cylindrical compartement, which is chimney like, is used where its upper part is out of sea water. Using dry habitat for repair and maintenance would not only significantly reduce the cost compared to the same operation in wet environment but also yields a better quality. In this article, all points relating to the design or selection of equipment regarding structural systems, mechanical and electrical equipment, control and community systems which are, all usually taken into considerations for an operational design, have been presented. It would be noted, that at present, welding operations under high pressure (Hyperbaric) is limited to the depth a diver can dive in. This limitation in addition to the time taken for habituating divers with various pressures, lead for welding operations. Therefore welding operations under atmospheric pressure .and in underwater habitats has been increasingly innovated and developed

کلمات کلیدی:

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