

Emergency Sea Access Stair Replacement

Icon Engineering



Sea Access Stairs before removal of old (left) and during weld-out of new (right).



Stair Replacement

PROJECT PROFILE

| | |
|-------------------|--------------------------------|
| Client: | Icon Engineering |
| Location: | Ocean Bounty Darwin Harbour |
| Project Duration: | 21 days |
| Date: | April 2003 |
| Crew Size: | 6 |

AME Pty Ltd was contracted by Icon Engineering to provide project planning and site supervision services for the replacement of the emergency sea access stairs onboard the Ocean Bounty.

The sea access stairs were positioned under the deck of the rig, and therefore it was not possible to directly use rig crane to remove loads. Removal and replacement of the stairs was therefore carried out using a combination of a remotely positioned winch and static rigging. The rig crane was used to lower stair components over the side of the rig, where they were transferred to static rigging.

Industrial rope access techniques were employed during the demolition and preliminary steel fit-up phases of the job. Scaffolding was utilised during the weldout and painting phases.

The demolition and installation of the Ocean Bounty Emergency Sea Access Stairway was achieved using a remotely positioned pneumatic winch and static rigging.

Sheave blocks were installed to divert the winch wire from the rig cellar deck, to the sea access stair installation location.

Each stair section was supported on static rigging that was hung from a hard point above. The winch wire was connected to the load and then the load was cut free from the main structure. The stair section was then lowered onto the winch wire, and the static rigging was removed. A stinger on the crane whipline, was then lowered adjacent to the jobsite. The winch was payed out to lower the stair section until the crane stinger could be attached. The load was then transferred to the crane, and the winch wire was removed (Photo 1). Following removal of all stair sections, all installation locations were prepped for the installation of new steelwork. (Photo 1 - Inset).

Industrial rope access technicians were utilised heavily during the demolition phase, to provide quick, safe access to the worksite.

Installation of new steelwork was achieved using the reverse of the demolition procedure (Photo 2). The new stairway was installed in 16 separate pieces. Each unit weighed between 800 and 1100 kgs.

Once all steelwork was positioned and tacked, scaffolding was erected for the weld-out, NDT and painting phases. (Photo 2 - Inset)



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