



Reinforcement of Secondary Steel Structure during live production



CHALLENGE faced with traditional solutions:



With the ageing of the FPSO fleet, secondary steel structures might be corroded and need to be replaced/reinforced for life extension. Due to busy shutdowns constrained with POB and time, some of those steel structures sitting on top of crude oil tank generate challenges with traditional hot work techniques (HABITAT, SIMOPS, tank cleaning and inerting, loss of production...). Naturally operators have been looking for adapted "cold work" solutions to deal with their maintenance operations during live production.

Our Solution:

a Nigerian client needed to reinforce a large secondary steel structure (10 large pipe rack support) on top of crude oil tanks. Cold Pad came up with a straightforward and certified fastening solution with no hot works. It relies on the unique features of C-CLAW®, a non-intrusive and heavy-duty fastener.



The Offshore installation was carried out by a 4 people crew during live production . The operations took 12 days and allowed to debottleneck their shutdown operations. It was rated by the onsite construction manager as "*safe, quick and efficient*" allowing to save lots of associated costs and offshore mandays,

Our Value Proposition can be summarized:

- **Debottleneck shutdown operations** : due to the absence of hot works, structural repair can now be performed during live production on top of crude oil tank
- **RELIABILITY & DURABILITY** : Technology certified for marine environments.
- **OPERATIONAL FLEXIBILITY** : Fast and reliable installation process for low disturbance at site.