



### Landmark Offshore Project – Composite Deck Repair – No Hot Work

The existing Laydown Area suffered corrosion and deck plate distortion over a period of time, although the deck sub-structure was good and still within specification. A new strengthened deck was required, but as the deck arrangement was at high level above process equipment, no hot work was allowed. MSD Design Ltd designed, engineered, specified and manufactured a new composite deck structure onshore. The new deck was installed offshore on top of the existing deck structure using GRP laminates and shotblasted steel plus Flat Bar and Angle to create a new sub-frame onto which was bonded the new 12mm thick deck plates. The existing deck plates were also coated with 2-3mm GRP as corrosion protection prior to landing out the new deck plates. The four man offshore installation team consisted of two GRP Specialists (Laminators) and two Platers. Work was completed ahead of schedule and in time to land heavy equipment during a scheduled Shutdown.

### Composite Deck Repair – With Hot Work

The deck had suffered badly from container impacts and corrosion and client required a solution which would minimise disruption to offices below, but would provide an enhanced loading condition.

MSD Design Ltd produced an engineered solution which involved shotblasting of existing steelwork and then tack welding support flat bars onto existing deck (above sub-structure), infilling the voids between with solid fire retardant GRP and then landing on the new 12mm thick Deck Plates onto the still wet GRP matrix – they provided an immovable fixed bond steel to GRP. Once the plates were all landed, the joints between were all puddle welded.

Result: a beautiful new deck, a completely sealed roof and a new workable and strengthened Laydown area.

