

Case Study
14" Structural Reinforcement
using Clock Spring® Extended
Snap Wrap



14” Structural Reinforcement using Clock Spring® Extended Snap Wrap

1 Defect area

An offshore 14” structural beam supporting 4x8” risers was found to have high corrosion spread across the whole structure and on all orientations. This required immediate structural reinforcement either by welding or “Extended Clock Spring Snap Wrap”. Since welding was a hazard to the operation, a composite solution was engineered. All 4 clamps were removed and the surface was prepared to SA 2½.



2 Clock Spring® Snap Wrap Application

The structure after being repaired using the “Extended Clock Spring Snap Wrap”.



3 Clock Spring® Snap Wrap Application

SKPS designed the repair and applied 8 layers. The final repair designed to be a permanent repair for the expected lifetime of the structure and will permanently arrest any future corrosion thus marking another success for SKPS’ Engineered Composite Repairs”.



4 Design Criteria

Actual Wall Thickness : 19.05mm

Minimum Remaining Wall Thickness : 9.1mm

Defect Type : External Corrosion

Size : 14”

Material : Carbon Steel Structural Beam Riser Support

Defect Analysis : Maximum Wall loss of 58%
Average Wall loss of 28%