SIKA AT WORK

UNDERWATER JACKET REPAIR AT B55 PLATFORM UNDER B127 CLUSTER, INDIA

OFFSHORE & MARINE CONSTRUCTION
CONVENTIONAL ENERGY

BUILDING TRUST

UNDERWATER JACKET REPAIR AT B55 PLATFORM UNDER B127 CLUSTER, INDIA

PROJECT DESCRIPTION

In November 2017, Sapura Energy engaged Sika to perform structural strengthening on two horizontal members of the B55 platform in the Bassein Field, Mumbai High, India. The works were executed as part of the larger B127 Cluster Pipeline RTR Project, which included extensive offshore infrastructure upgrades across pipelines, subsea cables, riser guards, and platform modifications.

Sika's role focused on underwater repair and reinforcement of critical jacket members to ensure continued structural integrity and safe platform operations.

Project name:	Underwater Jacket Repair at B55 Platform under B127 Cluster, India
Client:	Sapura Energy
Location:	Bassein Field, Mumbai High, India
Year:	2017
Application:	Repair and maintenance
Product:	A predecessor of SikaGrout®-9550

PROJECT REQUIREMENTS

Engineering assessments revealed that two horizontal members of the B55 platform were overstressed, raising concerns about their ability to sustain operational loads. The client required a robust subsea strengthening solution that could enhance the compression capacity of these members and reduce internal joint connections (IJC) stresses to acceptable levels.

A diverless, cold-work solution was preferred to minimize safety risks and avoid production downtime during offshore operations.

SIKA SOLUTIONS

Sika began by conducting a pre-engineering inspection and detailed finite element analysis (FEA) to design an optimal repair strategy. Based on the analysis, a grout infill solution was selected for the compression-critical member, as this method would enhance buckling resistance and distribute loads more effectively.

Sika supplied 33 tonnes of its proprietary ultra high-performance cementitious (UHPC) grout, known for its exceptional strength, fatigue resistance, and impermeability. The material was placed into the annular space of the targeted members using precision offshore grouting equipment deployed from the Main Work Barge S900.

All grouting operations were managed by Sika's experienced offshore team, who provided the grouting spread, tools, engineering oversight, and quality control testing, including the casting and compressive strength testing of grout cubes.

CUSTOMER BENEFITS

Sika's underwater repair solution significantly extended the service life of the aging B55 platform without interrupting production operations. Sika's UHPC grout offered ultra high-strength performance capable of enduring up to 40,000 times more stress cycles than conventional grout under the same stress range, making it exceptionally suitable for critical offshore applications.

Its shrinkage-compensated formulation and dense, impermeable microstructure ensured both mechanical durability and superior protection against water ingress. All deliverables were completed to the client's satisfaction, reinforcing Sapura Energy's offshore infrastructure and supporting the long-term resilience of the B127 Cluster development.

Any product name or reference reflects the Sika product name at the time of creation of this document and may differ from the product name or reference during past events.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.

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