



RRS GROUP

Specialist Lifting,
Moving & Installation
Defence Sector

rrs.group

Our Core Values:

Dependable

'Consistently delivering on obligations & promises'

Accountable

'Own your decisions, actions & outcomes'

Resourceful

'Find efficient & innovative ways to overcome challenges'

Adaptable

'Adjust, modify & respond quickly to changing circumstances'

Passionate

'Be excited about what you do'

Royal Navy Ships Repair Programme Specialist Lifting, Moving & Installation Defence Sector

Project Overview: RRS was contracted to execute the removal, replacement and installation of several critical pieces of plant & machinery aboard a ship, including 40-ton generators. Utilizing specialist jacking and skidding equipment, RRS efficiently managed the complex logistics of this project, ensuring minimal disruption to the vessel's operations while maintaining high safety and precision standards.

Diesel Generator Removal: The first diesel generator was extracted using a hydraulic gantry system and air hoists. The hydraulic gantry lifted the generator through the soft patch, ensuring a controlled and secure removal. To facilitate transportation, RRS designed and manufactured bespoke transit frames for both the generator and the alternator. A full contract lift was undertaken to transfer the components to the quayside for repairs.

Water Plant Removal: RRS removed water plants from two different areas of the ship by jacking the equipment and fleeting structural rails underneath. The Hydra Slide system was then employed to skid the equipment out efficiently and safely.

Additional Generator Removal: Subsequent generators were removed using the same methodology as the water plants. This involved jacking the equipment from the bed plate up to 1.8 meters to enable safe extraction.

Generator Installation:

1. **Contract Lift:** A comprehensive contract lift operation was conducted using a 1000-ton crane equipped with a luffing fly jib. RRS supplied all required lifting equipment to hoist the new generators onto the designated towers.
2. **Skidding and positioning:** The generators were then skidded into their respective compartments using the Hydra Slide system. Once positioned, the equipment had to be jacked down 1.8 meters onto the bed plate to secure it in place.

Switch Panel and Water Plant Installation: New switch panels were skidded into place using the Hydra Slide. Similarly, the refurbished water plants were repositioned using the reverse method of their initial extraction, ensuring precise alignment and secure placement.

Shaft Alignment System: RRS engineered a specialized system allowing the Hydra Slide to skid the shafts back into the ship with finite tolerances on the couplings, ensuring precise alignment critical for operational efficiency.

Labour and Equipment Support: RRS provided full labour and equipment support, ensuring seamless execution of lifting and transportation activities. This included:

1. Supply of eight slingers and an Appointed Person to oversee shipboard lifting operations.
2. Onsite management of all lifting works for both maintenance and improvement efforts.
3. Deployment of fully stocked tackle containers, ensuring complete self-sufficiency throughout the project.

Our Approach & Conclusion: By leveraging advanced lifting and skidding technologies, RRS successfully executed the removal and installation of heavy-duty equipment within a ship repair environment. Their expertise in contract lifting, custom fabrication, and precise alignment solutions ensured that the project was completed efficiently, safely, and with minimal operational downtime. RRS's ability to provide end-to-end logistical and technical support reinforced their position as a trusted partner in complex marine engineering projects.

