SEPCO TECH

CASE REPORT

Hull repair, heavy pitting

Heavy pitting across the hull plating of a vessel in shipyard, rebuilt with epoxy filler and recoated as a class approved temporary repair.

REPAIR TYPE

Class approved temporary repair

LOCATION

In shipyard, during a scheduled stay

APPLICATION AREA

Hull plating with heavy pitting



No steel renewal

The pitting was rebuilt in place, so no plate had to be cut out and no tank had to be gas freed.

01 The problem

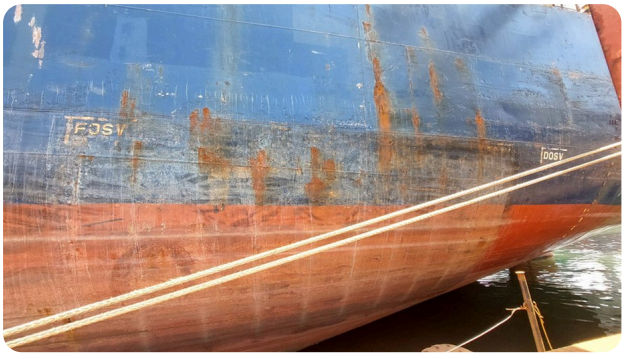
The vessel came into shipyard with heavy pitting across its hull plating. Renewing the affected steel would have meant hot work, and the fuel tanks behind the plating would first have had to be emptied, cleaned and gas freed. That sequence did not fit the time the vessel had in the yard.

KEY ISSUES

- Heavy pitting across the hull plating
- Hot work would mean emptying and gas freeing tanks
- A shipyard stay already fixed in length

The repair had to restore the pitted areas and put the hull coating system back, under a procedure the attending class representative would accept, inside the stay the vessel already had.

AS FOUND



Hull plating with heavy pitting and corrosion, as found

THE CHALLENGE

Heavy hull pitting to be made good inside a fixed shipyard stay, without steel renewal and without gas freeing.

02 The solution

APPLICATION METHOD

01

Hull areas prepared by high pressure water jetting, taking off corrosion and loose scale

02

Epoxy wetting layer applied, then the pitting rebuilt with Super Metal Filler Compound

03

Areas prepared again after cure and the hull coating system reinstated

Products used

Applied in the yard, under a repair procedure agreed in advance.

Super Metal Filler Compound

Two component solvent free epoxy filler. Selected because it provides:

- Rebuilding of deep pitting back to a uniform surface profile
- Hand application straight onto the prepared steel, with no hot work
- A cured surface the vessel's own hull coating system goes over
- A repair the attending ABS class representative accepted



Class approved

Accepted by the attending ABS class representative.

No steel renewal

No cutting and no welding, so no tanks to gas free.

Back on schedule

The vessel left the yard within the time it had.

03 The work



Deep pitting rebuilt with Super Metal Filler Compound and faired back to the plating profile



Super Metal Filler Compound, the two part epoxy used to rebuild the pitted areas



Hull coating system reinstated and the vessel back in service

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