

OFFICE TOGOLAIS DES PHOSPHATES PHOSPHATE MINE OFFSHORE CHARGING CRANES - TOGO

The phosphate mine Office Togolais des Phosphates has placed 2 offshore charging cranes at 1.6 km in the sea. These cranes are linked to the stock department by means of a conveyor. These cranes are very mobile and weigh 325 tonnes each. The Office Togolais des Phosphates produces 2.400.000 tonnes of phosphates per year. An average of 5 ships per month is charged.





REFERENCES

Ref.: TG-CN-MA-OL-PE-
Off. Togolais-EN-09/02/07

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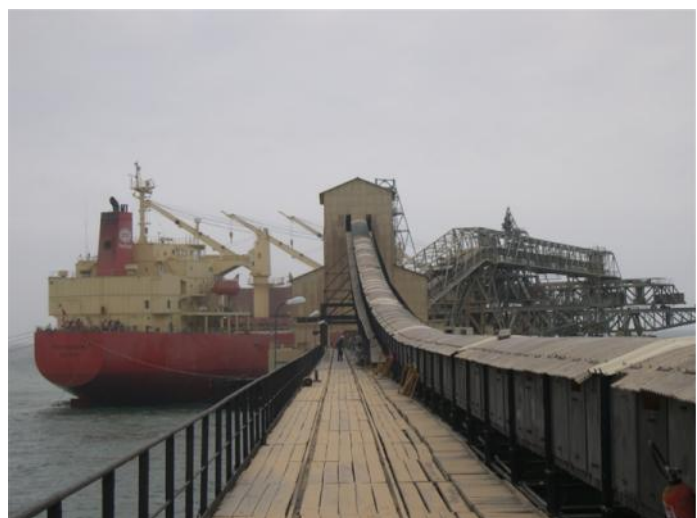
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In 1994 the cranes were repaired by the French company Africaine de Montage (Baudin Chateaufneuf). A permanent service and maintenance was obligatory during the repair of the cranes. After grit-blasting, the structures needed to be repaired by welding.



These two cranes and their passing link (the conveyer) were heavily corroded and it was decided that they had to be protected by an anti-corrosion system providing cathodic protection: **ZINGA** was chosen.

The application was done in 1995-96 under the supervision of the controlling organism **Socotec**.



Surface Preparation:

Grit blasting

System:

ZINGA 2 x 60 μ m DFT

In 2006 an **inspection** was done because an overall maintenance program was planned to extend the lifetime of the structure.



Evaluation inspection 2006 after 11 years!

- At first sight: bad condition
- At close look: phosphate dust & other deposits!
- Adhesion test: excellent
- Overall good condition of ZINGA
- Some local formation of blisters

Phosphate dust

Only some local minor repairs had to be done to remove blisters (due to solvent retention) and rust spots (due to mechanical abrasion and local bad surface preparation). The main contractor was Sogea Satom (Vinci SA).

- A very nice reference of ZINGA used as unique system
- In an extremely aggressive offshore environment
- Easy to evaluate and monitor the condition and the layer thickness of ZINGA
- It is possible to set up an ongoing maintenance program for these cranes and the conveyer
- Important: lifetime can be extended of these structures for a very long time
- Customer: high satisfaction



REFERENCES

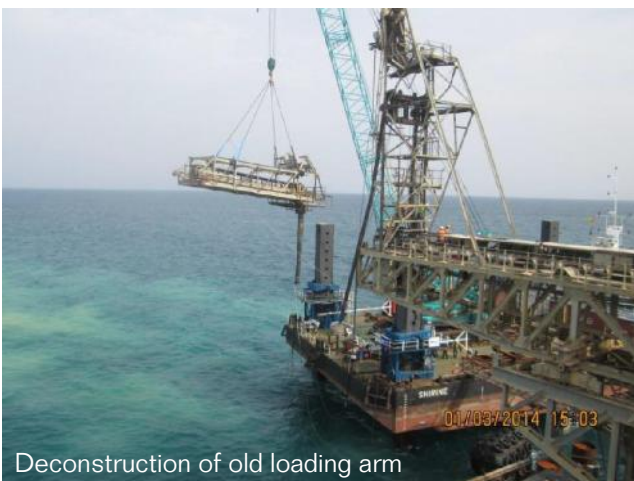
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In 2014, the loading arm and pylon was damaged and needed to be replaced.

For this replacement structure, ZINGA was also specified. In the same refurbishment project, a rail transport bridge was also protected with ZINGA.



Deconstruction of old loading arm



Placement of new loading arm