BELZONA PREVENTS LEAKAGE IN A BALL MILL BEARING JOURNAL

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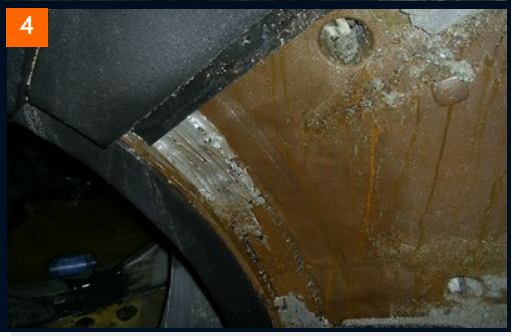

PROBLEM
Wear on the housing due to ingress of the ore particles and water into the annular space between the insert(rubberized screw conveyor) and the housing(the journal of the mill). As a consequence a severe corrosion and abrasion occured.

APPLICATION SITUATION
Ball Mills used to grind ore for copper production

APPLICATION METHOD
Application was carried out according modified versions of Belzona Know-How Leaflet GSS-9 and SOS-9. Belzona® 1321 was used to seal the annular gap at the inlet of the insert on the milling side and to prevent getting through of the milled particles between the insert and its housing (mill journal). Additionally approx. 2 kg of Belzona® 1311 were injected in each one of the certain locations along the insert length thus to create irregular shims and to support insert and to prevent its movement and vibrations.

BELZONA FACTS
Previous conventional repair by welding of the entire annular gap was not successful because of the heavy movement and vibrations so soon welds cracked. Belzona decision expanded the life of the equipment and was prooven to be time and money saving. The regular inspection 9 months after completion of the first test repair with Belzona (resp. more than 5,500 working hours of the equipment) reviewed still perfect seal of the annular gap. Additionaly two more mills were sealed, meantime with training of the customer maintenance staff. Since the mid of 2008 all similar repais have been done by trained local staff.

INDUSTRY
Mining & Quarrying

LOCATION
Copper Mining Plant, Bulgaria

APPLICATION DATE
from June, 2007 till to May,2008

PRODUCTS
Belzona 1321 (Ceramic S-Metal) Belzona 1311 (Ceramic R-Metal) Belzona 1221 (Super E-Metal)

SUBSTRATE
Mild Steel

PHOTOS
Inside view of the Ball Mill Injection ports were created axial in the front of the insert with Belzona 1221 and then Belzona 1321 was injected to complete sealing of the annular gap Injection of Belzona 1311 as irregular shimming along the insert length The applied Belzona materials still in perfect condition after 9 month and more than 5,500 working hours of the equipment