Rawmill Inlet Trunion Head Crack Repairing

**Job Description**: Rawmill inlet trunion head crack repair

**Parent Equip & Age**: Raw mill 25yers

**Capacity of Mill**: 150 tph

**Dia of Mill**: 4600mm

**Dia of Trunion**: 1800mm

**Thickness of Trunion**: 280mm

**Cost of Trunion**: 2.3 crores

**Length of Crack**: 4500mm

**Depth**: 120mm

**Width**: 90-100mm

**Core Activities**

- C-Clamps were welded along the crack, on the outer periphery of the trunion head.
- Total weight of mill was decreased by lifting the mill by hydraulic jack.
- Total crack was divided into 9 parts each 500mm.
- Material was removed by using air gouging.
- Preheating up to 150 deg cent. Have done.
- Welding was started at the two ends of crack simultaneously.
- Root run started with 800ELH, 3.15mm.
- Two layers of welding over the root run & one layer side walls of the V groove.
- SS tube inserted over the root run, which is having the dia of 12mm & wall thickness 4mm.
- Joining of SS tube by using 925-4mm.
- Complete buildup of V-groove was done by using Superaloy-1770-3.15mm & 4mm.
- After completion of welding stiffners were provided on the welded portion.
- Post Heating up to 550 Deg Cent have done.
- Finally Ultrasonic Test have done.

**Cost Analysis: Total Material Consumption**

- Diffusaloy 800ELH: 40 Kgs
- Diffusaloy 925: 25 Kgs
- Superaloy 1770: 100 Kgs

Total Cost Of Electrodes is 8.2 Lacks. Cost of New Trunion is 2.3 Crores Job completed in 7 Days.

Since last 3 months the repaired crack is found intact and till date, 2,40,000 production have taken successfully.