

A D Technocrats

Sales Office: G 203 Avinash Pride, Raipur Chhattisgarh- 492099

Service report for repair of coal mill separator rotor shaft dated 27.11.2021

The shaft was received by M/s A D technocrats on 28.10.2021 for repair of NDE side bearing size. After thorough check we submitted the offer for same. Initial UT results showed fusion error which were further justified when we took an undercut and shaft was preheated to start welding, a neck crack was visible which was when gauged and it was confirmed that earlier shaft was repaired using Bush sleeve method.

After submitting initial report of repair, we recommended to remove the old bush and built up entire area with welding to clear the final UT results and provide more strength to shaft bearing area for longer life.

Picture of repair of shaft are as below:



Images of shaft after precept and removal of old bush and after DP test it was verified that there is no further defect in shaft and it is ready for repair built up.



GST Number: 22BIDPS7580K1ZU

Contact No.: 8558900874/9478375065

Email: adtechnocrats@gmail.com

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K.N.SRIVASTAV NDT SERVICES

ASNT Level-III, UT, LPT, & MPI | OFFICE: C/O Lalitha Enterprises
 Ex. Quality Control Supervisor(HSCL) | OFF: T.O. B.E.C-II, NANDINI ROAD
 Bhubli, Dist- Durg (C.G.) | Industrial Estate, Bhubli, Dist- Durg (C.G.)
 EMAIL: kndtservices@gmail.com | Ph.no. 0788-2283681 (o), Mob. 9302833166

ULTRASONIC EXAMINATION REPORT

| | |
|---|-------------------|
| Report No.: UT/ADT/BCC1/2021 | Date: 25.11.2021 |
| CLIENT: A D TECHNOCRATS | DRG.No.: 1.096866 |
| MANUFACTURER: BHILAI CRANE CARRIER INDUSTRIES | Job detail: SHAFT |
| P.O.No.: ADT/BCC1/1538, Date: 07.11.2021 | |

| Technical Data | |
|---|-------------------------------------|
| Make & Model: REC-DK-322 | Material: AS GIVEN |
| Refstd/Code: ASME SEC-V, ARTICLE-23 | Job dimension: AS GIVEN |
| Test Sensitivity: >80% OF BACK WALL ECHO | Refstd/Block: I.I.V.VI BLOCK |
| Transducer/search unit: NORMAL PROBE, Ø 25 mm, 2MHz | Test Range: 0 to 300mm |
| Couplant: MOBIL OIL | Surface condition: FINISH CONDITION |
| Method/Technique: PULSE ECHO CONTACT METHOD | Energy: 240W ± 6 dB |
| Acceptance criteria: ASTM-A-388 | Scanning: WELDING AREA |

- ITEM: SHAFT (Bearing Setting Area After Welding)
- SIZE: OD 110 mm. X 3603 mm. lg.
- QTY: 01 nos.

(SCANNING ONLY WELD AREA-330 mm.)



Ultrasonic Testing Of Bearing Setting Area After Welding

Observation: Accepted as per ASTM-A-388

TESTED BY: [Signature] | CHECKED BY: | WITNESSED BY: |
 Sushil K. [Signature]
 C.No. No. : [Signature]

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The shaft was repaired using below procedures:

1. Initial UT of the shaft was done to confirm any kind of crack of any defect. It was found that fusion defect is showing in worn out area of NDE side.
2. It was confirmed with further investigation after precept that shaft was repaired earlier suing bush sleeve method
3. After removing the old bush UT test and DP test were conducted to ensure that shaft is free from any kind of defect and ready to built up.
4. Before starting the welding the shaft was preheated upto 125-150 deg C as per the carbon equivalent of MOC. After heating the shaft the welding was started and interpose temperature was maintained to avoid any kind of welding defect.
5. Each pass of welding was monitored and slag was removed with pneumatic chipper machine and with wire brush.
6. After the built of weld, shaft was prepared for machining and size of 110 mm did with g6 tolerance is made.
7. After the final size was made the final UT test was carried and it was found that shaft is free from any defect and is now ready for dispatch.
8. Final UT report is also enclosed with this report.

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