

Memo

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Rev: **00**

Title / Designation: **Snr Works Engineer (Mechanical)
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Works Engineering Department**

To: **PMS, PLANNING**

Copy to:

Date: **15 / 05 / 2025**

Subject: Lethabo & Koeberg Bearings Full Refurbishment

BEARINGS THAT REQUIRE RE-METALLING AND FINAL MACHINING

- 1.1 Perform as received inspection of bearings.
- 1.2 Dimensional inspect as received.
- 1.3 Perform NDT (PT & UT) of bearings as received and submit reports to Engineering.
- 1.4 Hold point for Engineering further scope of work
- 1.5 Inspect white metal as received.
- 1.6 Remove all white metal and inspect shell.
- 1.7 Blast clean bearing.
- 1.8 NDT bearing shell.
- 1.9 Apply a tin layer on the bearing.
- 1.10 Re-metal bearing
- 1.11 Clean bearing after re-metalling.
- 1.12 Butt, peen, scrape and rough machine bearing half joint by check halves contact.
- 1.13 Record bearing half joint blue check, share results with Works Engineer.
- 1.14 Record bearing half joint feeler gaps, share results with Works Engineer.
- 1.15 Rough machine bearing white metal inner diameter (ID) (not to final size ID).
- 1.16 Perform NDT (UT & PT) after rough machining and submit report to Engineering.
- 1.17 Perform bearing half-joint blue check, scrape to correct blue pattern if necessary.
- 1.18 Measure half joint feeler gaps after half-joint scraping(or minimum machining if necessary).
- 1.19 Final machine bearing to specified OD size, and drawings.
- 1.20 Dimensional inspect after final machining.
- 1.21 Perform NDT (UT & PT) after final machining and submit report to Engineering.
- 1.22 Debur and clean.
- 1.23 Engineering to analyze reports.
- 1.24 Verify all documentation for dispatch.

The following bearings will need full refurbishment.

Lethabo Power Station

Bearing 5, 6, 7, 8, 9, & 10

Koeberg Power Station

Bearing 1, 2, 7, 9, & 10

The following is estimated inner diameter sizes (Final Machining Inner Diameters will be issued later) for these bearings.

Lethabo Power Station	Estimated Inner Diameter (ID)
Bearing 5	530 mm
Bearing 6	530 mm
Bearing 7	530 mm
Bearing 8	530 mm
Bearing 9	530 mm
Bearing 10	530 mm

Koeberg Power Station	Estimated Inner Diameter (ID)
Bearing 1	490 mm
Bearing 2	490 mm
Bearing 7	640 mm
Bearing 9	712 mm
Bearing 10	1100 mm

Compiled by:

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