

FLUORESCENT MAGNETIC PARTICLE AND DYE PENETRANT INSPECTION REPORT

JOB NO:	O754 777F Final Drive	REPORT No:	A2404-076
CLIENT:	Hunter Valley Rebuild Centre	TEST DATE:	4 April 2024
CONTACT:	Corey O'Connor	ORDER NO:	PO2349
LOCATION:	27 Kyle St, Rutherford	REPORT DATE:	4 April 2024
SUBJECT:	100% of accessible surfaces	TECHNICIAN:	Geoffery Abbott

TECHNICAL DATA - MAGNETIC PARTICLE INSPECTION

Test Specification:	AS 1171-1998	APEC Test Procedure:	APEC.NDT.008
Material:	Carbon Steel	Test Method:	A.C. Sustained Magnetic Flow
Acceptance Standard:	Evaluation for cracking	Demagnetised	No
Surface Condition:	Complies with clause 3.2	Test Restrictions:	Painted surfaces not inspected.
Black Light:	Labino S/N: 18574	Magnetising Unit:	Yoke S/N: MP4343
Media:	Fluoro #0623602	Lighting:	UV >10W/m ² at 380mm <20Lux

TECHNICAL DATA - LIQUID DYE PENETRANT INSPECTION

Test Specification:	AS 2062-1997	APEC Test Procedure:	APEC.NDT.009
Material:	Not specified	Test System:	Type 2, Method A, Form d, CI 1
Acceptance Standard:	Evaluation for cracking	Lighting:	Natural > 1000lux
Surface Condition:	Machined	Test Restrictions:	NIL
Media:	Penetrant #27722 Developer #26322		

EXAMINATION NOTES

A Fluorescent Magnetic particle Inspection was carried out on all accessible unpainted surfaces associated with 777F Final Drive components, to determine the extent of potential cracking. In addition, a Dye Penetrant inspection was carried out on bearing journals. Please refer to the following table and photographs for detail and inspection results. NOTE: A Black/White MPI was used on cracked areas for reference purposes.

EXAMINATION SUMMARY

Description of Component Inspected	Results
Job No: O754 Project: 777F Final Drive Item: Barrel	No cracking detected
Job No: O754 Project: 777F Final Drive Item: Spindle	No cracking detected
Job No: O754 Project: 777F Final Drive Item: Anchor Gear	No cracking detected
Job No: O754 Project: 777F Final Drive Item: Ring Gear	No cracking detected



Geoffery Abbott
Technician ISO9712 Level 2
Non Destructive Testing



Stephen Baillie
Technician ISO9712 Level 2
Non Destructive Testing



Accredited for compliance with ISO/IEC 17025 - Testing. This document will not be reproduced except in full. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards Accreditation # 20615 Site # 24711



Photo 1 - Overview of Hub inspected.



Photo 2 - Overview of Spindle inspected. Bearing journals sprayed white indicate extent of Dye Penetrant Testing.



Photo 3 - Overview of Anchor Gear.



Photo 4 - Overview of Ring Gear.

APEC Report Disclaimer

- a) Where only a percentage of the product has been inspected by the company, the company cannot and will not guarantee the serviceability or compliance of the remaining areas or items not inspected.
- b) Where results in this report have relied upon information provided by the client, the company cannot confirm the accuracy of this information. This information will be identified by *italic's*.
- c) When deviation is acknowledged and customer instructs to proceed with testing or calibration, the laboratory is to include a disclaimer in the report indicating that the results may be affected. (Example: UT AS2207 of a 5mm WT weld, client instruction to procedure)
- d) Magnetic Particle Testing: To detect cracking - MU statement not required
- e) Penetrant Testing: To detected cracking - MU statement not required