



Inspection Report

Client:

Inspection Date: 21-04-2026 – 21-04-2026

Report Date: 23-04-2026

Review / Approval Date: 23-04-2026

Report Title:

Inspector: Gerwin Sip

MDE-RVI: Machine Diagnostic Engineering - Remote Visual Inspections

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INHOUDSTABEL

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1. INTRODUCTION

1.1. CONTENTS OF THE REPORT

This report describes all findings detected during the visual inspection. Due to its structure, this report is as complete as possible and aimed at being understandable for both beginners and experts in visual inspections.

MDE-RVI was requested to perform a technical quality inspection of the generator air gap using a videoscope. The scope of the inspection includes investigating the presence of debris and checking for magnet delamination greater than 2mm, as well as identifying any other deviations.

1.2. EQUIPMENT

Videoscope: Waygate Mentor Flex
Used probe: 4 mm



Videoscope: Olympus, Tough TG-5 Black
Used for other components.



This report reflects the condition of accessible components as visually observed at the time of inspection. The inspection is non-intrusive and limited to visible areas only. No guarantee is given regarding future performance or failure of components. All operational decisions based on this report remain the responsibility of the asset owner.

2. TECHNICAL INFORMATION

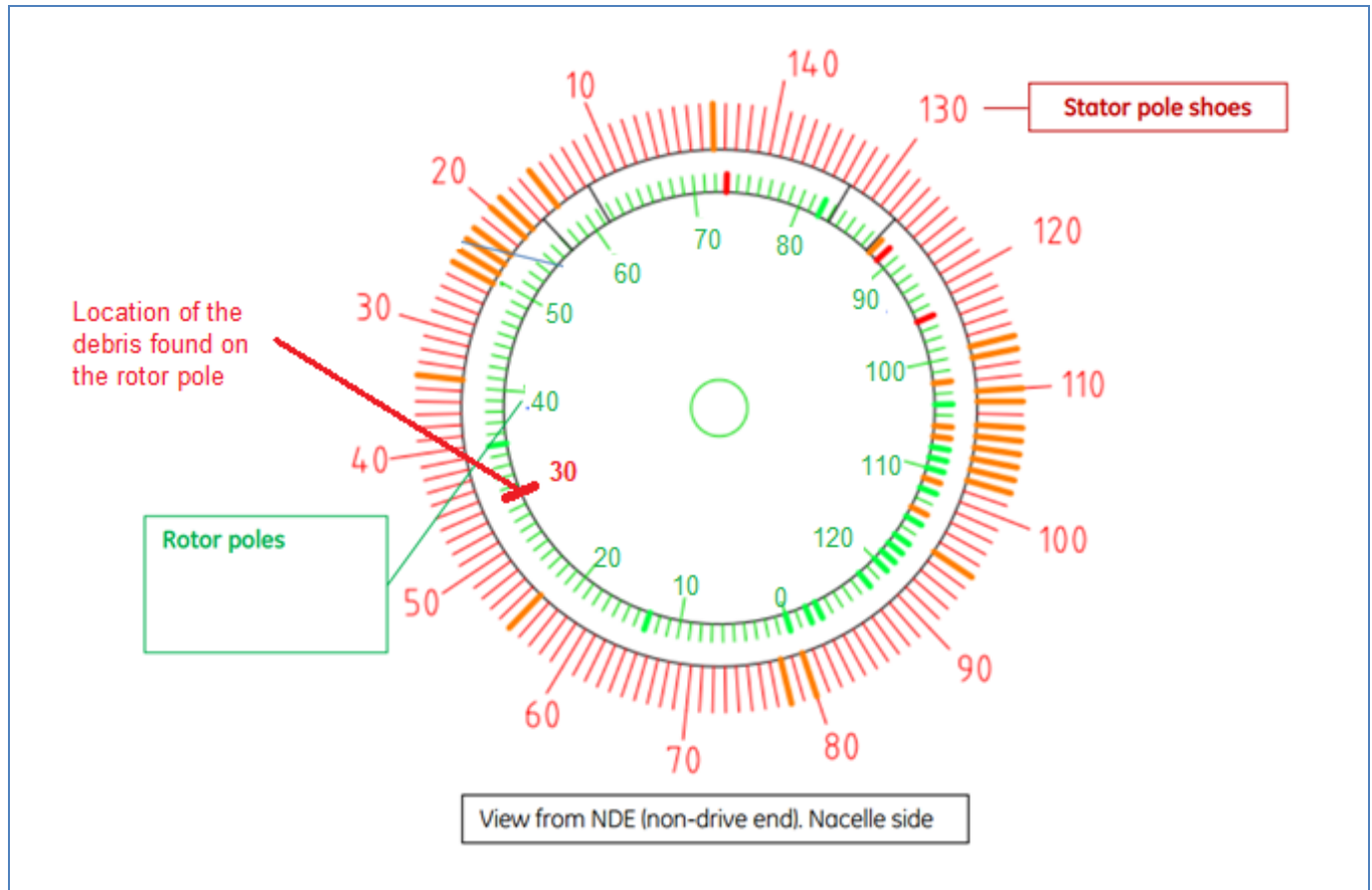


Figure 1.

2.1. INTRODUCTION OF INSPECTION AND PRIOR

This inspection was performed following the air gap inspection of wind turbine. The remaining time was used to perform a partly inspection after a blown out of the coil 23. Due to limited time, it was decided to inspect only the damaged area of the turbine from coil 22 until coil 50.

Green	No findings observed. Installation is in acceptable condition.
Blue	A finding has been observed. No immediate action required.
Yellow	A finding has been observed and should be prioritised at the next suitable opportunity.
Orange	A finding has been observed and should be addressed as soon as possible.
Red	A critical finding has been observed. Immediate action is recommended and operation should be stopped.

3. FINDINGS

3.1. MAGNETS

S/N Nr. and nr. magnet	Findings
008396, 063	Debris.
002233, 064	Debris.
065	Burned surface.
002231, 066	Burned surface.
002601, 067	Burned surface.
002441, 068	Burned surface.
008506, 069	Burned surface.
002243, 070	Debris.
T15016, 071	Debris.
003562, 072	Debris.
008248, 073	Delamination.
002227, 074	Delamination.
005156, 075	Delamination.
002671, 076	Debris.
002742, 077	Delamination.
002215, 078	Debris.
002762, 079	Debris.
002211, 080	Debris.
002565, 081	Debris.
002194, 082	Debris.
002186, 083	Debris.
002399, 084	Debris.
042138, 085	Debris.
002114, 086	Delamination.
002569, 087	Delamination.
T15015, 088	Debris.

3.2. 3.2 COILS

Findings	Photo number
Debris, paint damage.	1
Burnt coil.	2
Burnt coil.	3
Burnt coil.	4
Burnt coil.	5
Burnt coil.	6
Burnt coil.	7
Burnt coil.	8
Burnt coil.	9
Debris, paint damage.	10
Debris, paint damage.	11
Debris, paint damage.	12
Debris, paint damage.	13
Debris, paint damage.	14
Debris, paint damage.	15
Debris, paint damage.	16
Debris, paint damage.	17
Debris, paint damage.	18
Debris, paint damage.	19
Debris, paint damage.	20
Debris, paint damage.	21
Debris, paint damage.	22
Debris, paint damage.	23
Debris, paint damage.	24
Debris, paint damage.	25
Debris, paint damage.	26
Debris, paint damage.	27
Debris, paint damage.	28
Debris, paint damage.	29

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. CONCLUSIONS

The conclusions below are based solely on the partially inspected section (coils 22–50) and do not represent the condition of the full air gap.

During the inspection, the following deviations were observed:

- Debris.
- Damaged paint.
- Delaminated magnets.
- Burnt coils and magnets.

The coils and magnets have a lot of debris and damaged paint. This may result in contamination of the air gap and increases the risk of arc flash and potential damage to the rip wire. Evidence of copper overheating was observed on top of the coil insulation. As a result, the insulation appears blackened, with similar conditions observed on multiple coils up to coil 50.

4.2. RECOMMENDATIONS

- Replace magnets 63-70 and coils 22-30.
- Items 31 through 50 require reassessment for replacement because of blackened, heat-damaged insulation.
- Because the inspection was only partial, it is recommended to perform a full 360° inspection.
- It is recommended to clean and inspect due to the presence of debris inside the air gap.
- Conduct an annual inspection of the coils and magnets to detect any pollution or damage at an early stage.

APPENDIX 1: AIR GAP NUMBERED BY COILS



Photo 1: Coil 22. Debris and paint damage.



Photo 2: Coil 23. Debris and burn surface.



Photo 3: Coil 24 Debris and burn surface.

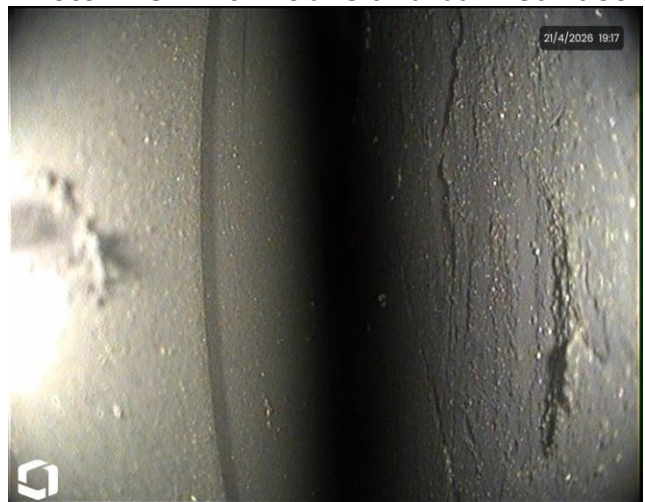


Photo 4: Coil 25. Debris and burn surface.



Photo 5: Coil 26. Debris and burn surface.



Photo 6: Coil 27. Debris and burn surface.



Photo 7: Coil 28. Debris and paint damage.

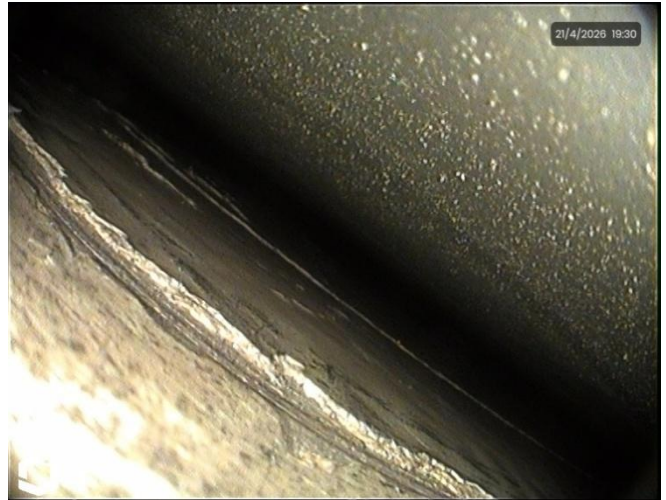


Photo 8: Coil 29. Debris and burn surface.



Photo 9: Coil 30. Debris and paint damage.

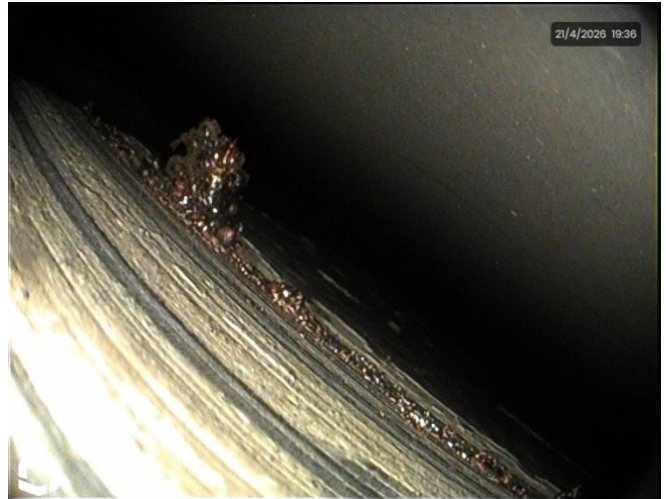


Photo 10: Coil 31. Debris and paint damage.



Photo 11: Coil 32. Debris and paint damage.

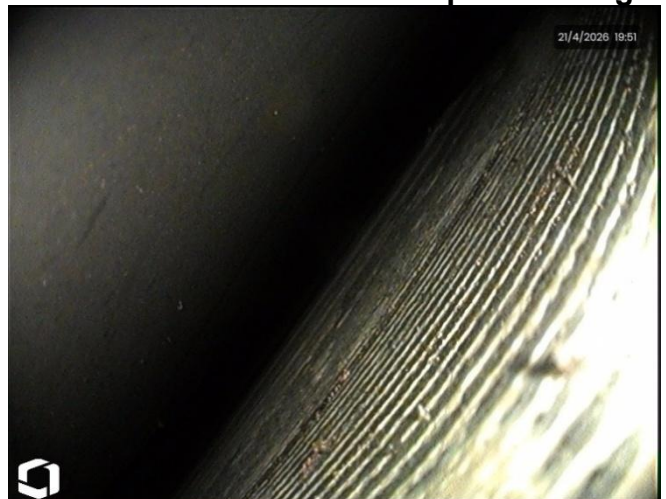


Photo 12: Coil 33. Debris and paint damage.



Photo 13: Coil 34. Debris and delamination.

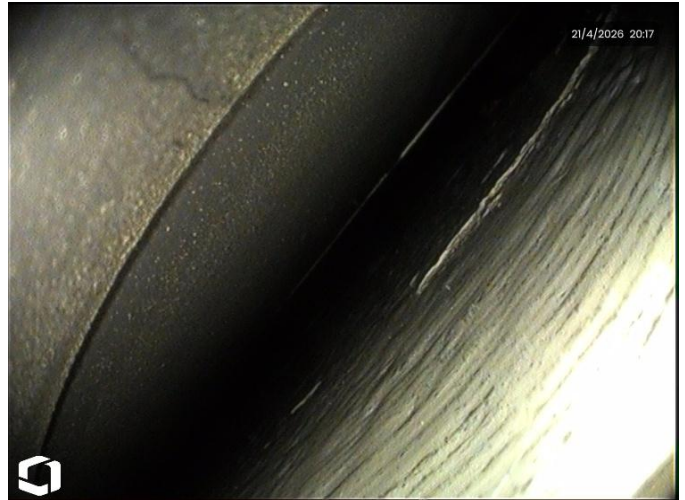


Photo 14: Coil 35. Debris and delamination.

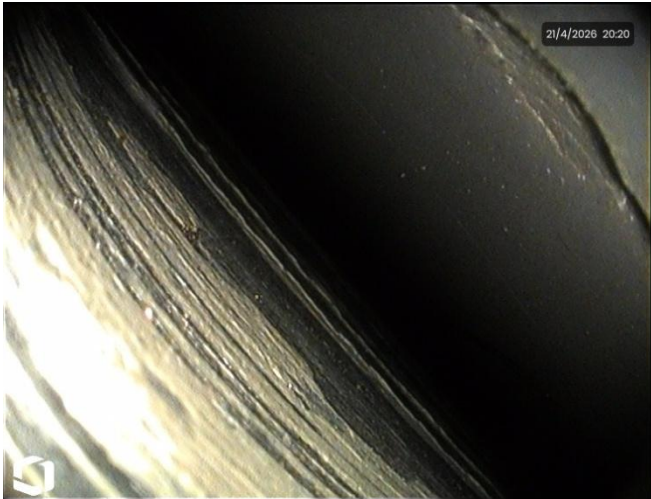


Photo 15: Coil 36. Debris and delamination.



Photo 16: Coil 37. Debris and paint damage.



Photo 17: Coil 38. Debris and delamination.



Photo 18: Coil 39. Debris and paint damage



Photo 19: Coil 40. Debris and paint damage.



Photo 20: Coil 41. Debris and paint damage.



Photo 21: Coil 42. Debris and paint damage.



Photo 22: Coil 43. Debris and paint damage.



Photo 23: Coil 44. Debris and paint damage.



Photo 24: Coil 45. Debris and paint damage.



Photo 25: Coil 46. Debris and paint damage

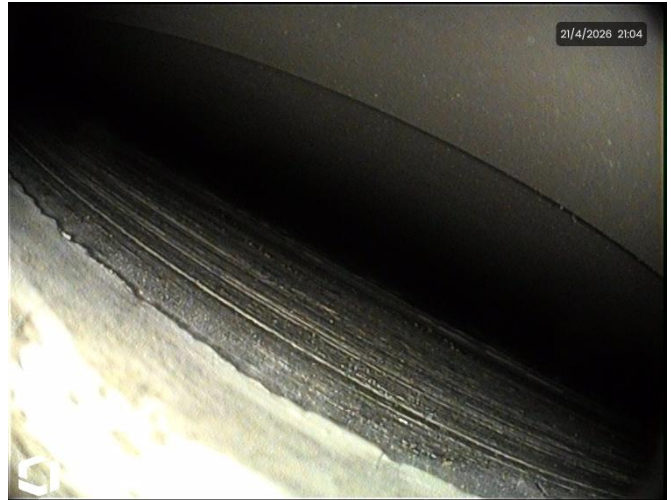


Photo 26: Coil 47. Debris and paint damage.

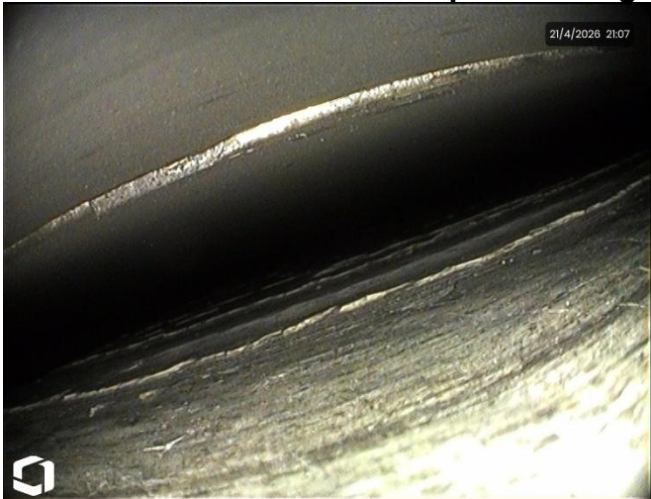


Photo 27: Coil 48. Debris and delamination.



Photo 28: Coil 49. Debris and delamination.



Photo 29: Coil 50. Debris and paint damage

5. APPENDIX 2: EXTERNAL INSPECTION



Photo 1: Coil 23. Burned.



Photo 2: Coil 24. Burned.



Photo 3: Coil 26. Burned.

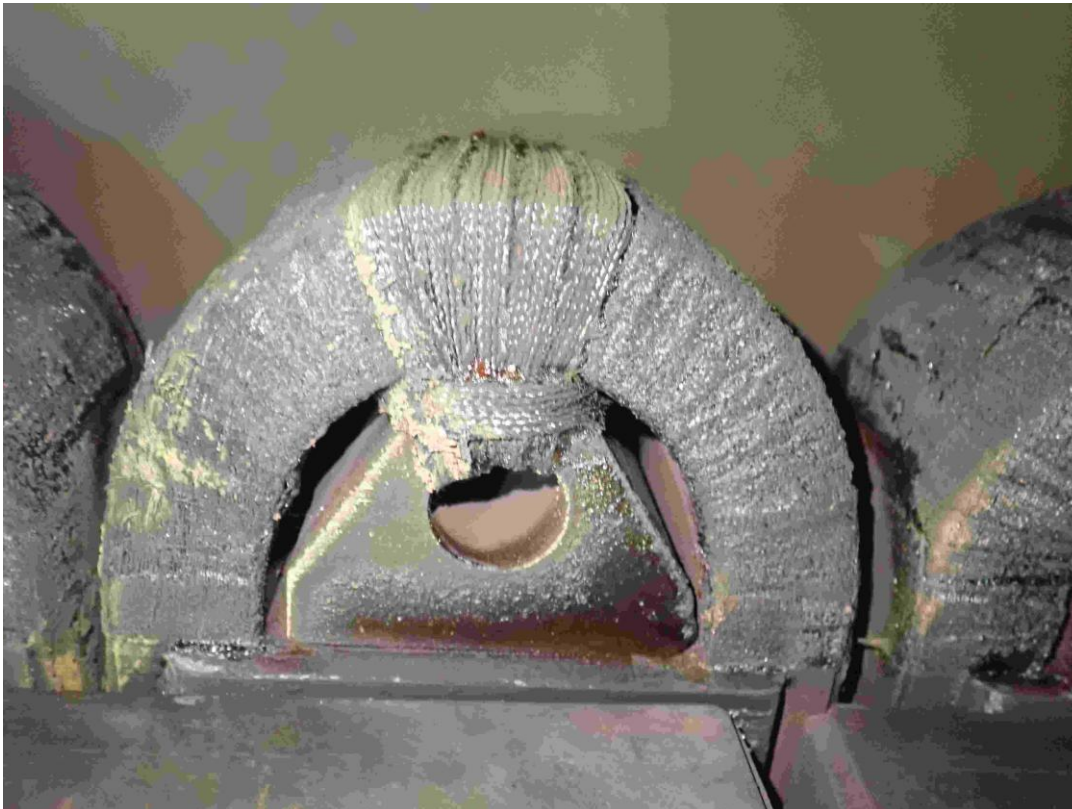


Photo 4: Coil 27. Burned.

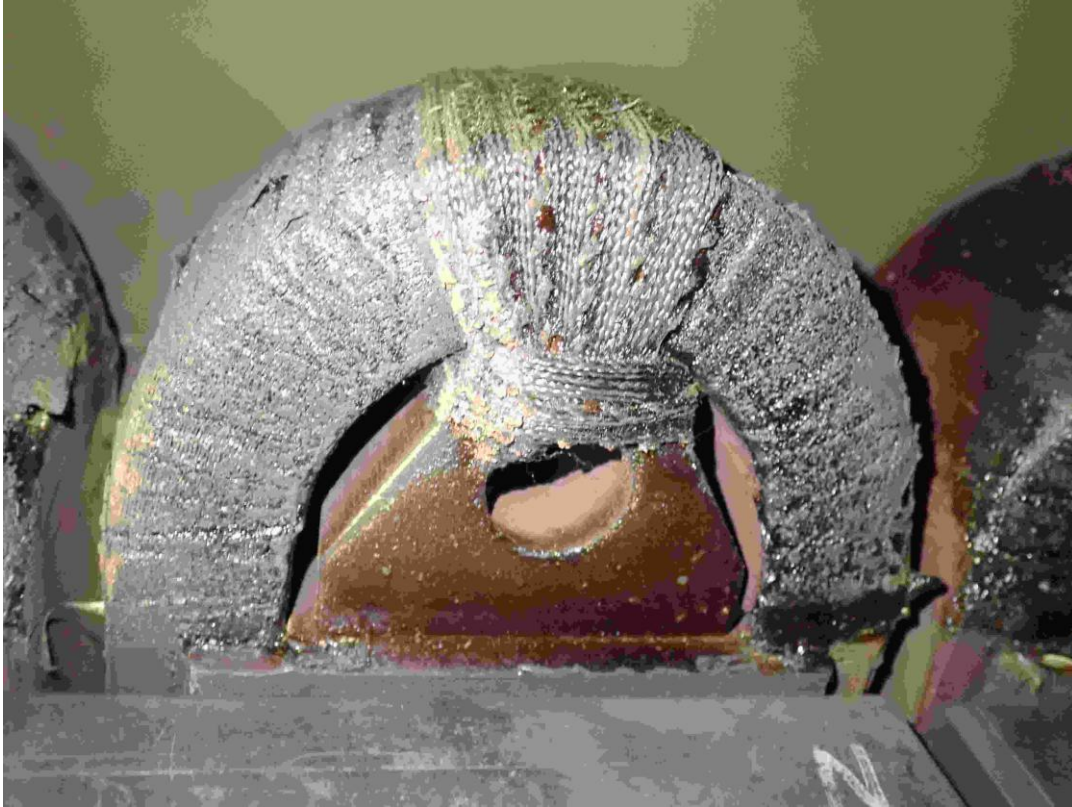


Photo 5: Coil 28. Burned.

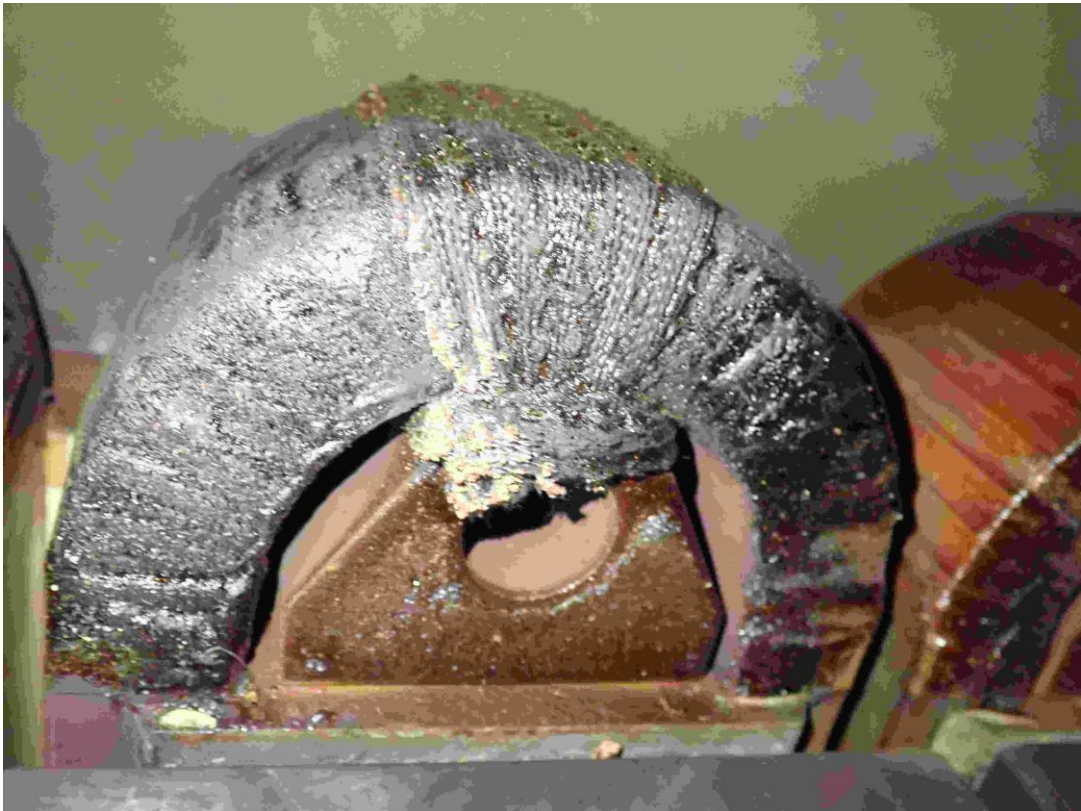


Photo 6: Coil 29. Burned.

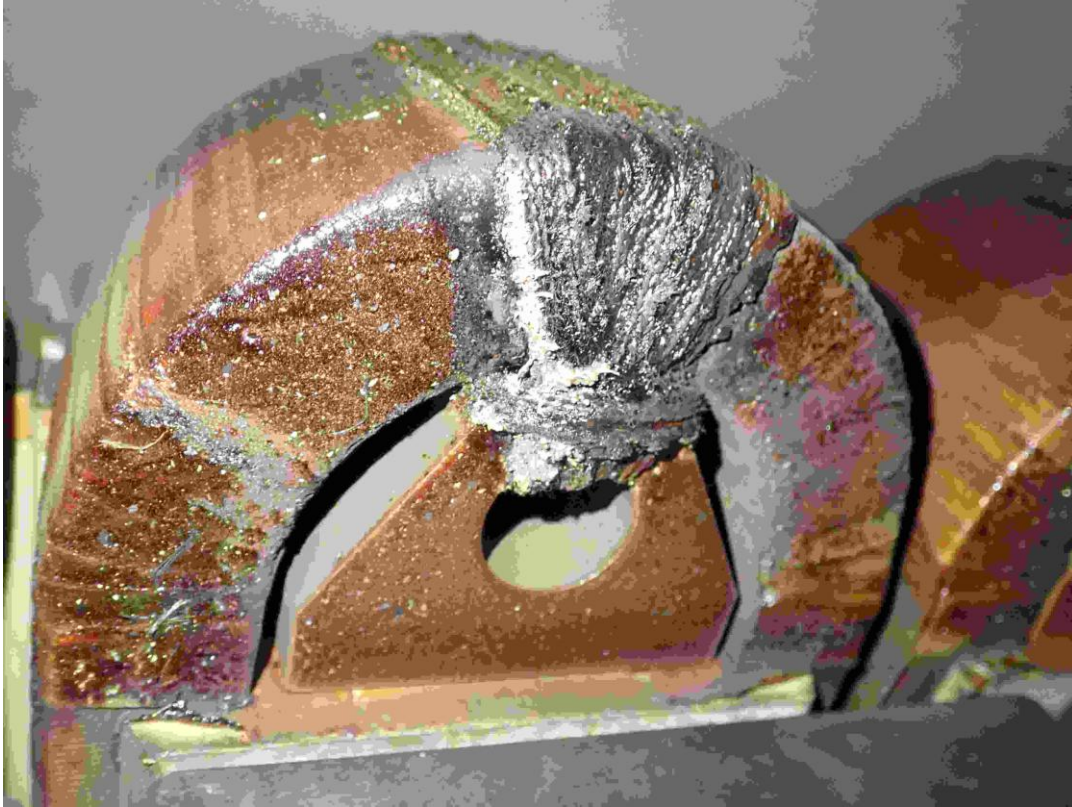


Photo 7: Coil 30. Burned.