



KEEPING YOUR FACILITY UP TO SPEED
— EVERY DAY SINCE 1946 —

LR Motor Shop Repairs

Job Number 103227

Prepared for Reynolds Metals company

1333 highway 270
Malvern AR 72104

Table of Contents

AC Inspection as Found - *Shop*

AC Inspection - Rev. 2: *Ze0254494*

1.0

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Printed on 7/31/2024

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AC Inspection as Found

Reynolds Metals company

1333 highway 270

Malvern, AR 72104

FolderID: 103227

FormID: 21020372

AC Inspection - Rev. 2

Location: Shop

Serial Number: Ze0254494

Description: 100HP SHIFF DRIVE MOTOR

Hi-Speed Job Number: 103227

Manufacturer: Reliance

Serial Number: 6453313-1-002

HP/kW: 7.5 (HP)

RPM: 875 (RPM)

Frame: 256TY

Voltage: 460

Current: 11

Phase: Three

Hz: 60 (Hz)

Enclosure: TENV

of Leads: 3

J-box Included: Half

Coupling/Sheave: None

Date Received: 07/17/2024

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Final

Rewind: No

Shaft Machined Fit Repairs
Required: No

Bearing Housing Machined
Fit Repairs Required: No

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: ● 2 - High

● 8 - Good

Overall Condition

1. Report Date

07/18/2024

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1.0

2. Nameplate Picture



3. Photos of all six sides of the machine.





4. Describe the Overall Condition of the Equipment as Received
Serviceable

Initial Mechanical/Electrical

●	5. Does Shaft Turn Freely?	(N) No
●	6. Does the shaft require T.I.R in Lathe to identify additional repairs?	(No) No
	7. Does Shaft Have Visible Damage?	(No) No
	8. Assembled Shaft Runout	Inches
	9. Assembled Shaft End Play	inches
	10. Air Gap Variation <10%	

11. Lead Condition

(P) Pass



12. Lead Length 6 Inches

13. Does it have Lugs?, If so what is the Stud Size? (No) No

14. Lead Numbers 0

15. Frame Condition pass

16. Fan Condition (N) NA

17. Broken or Missing Components 0

Initial Electrical Inspection

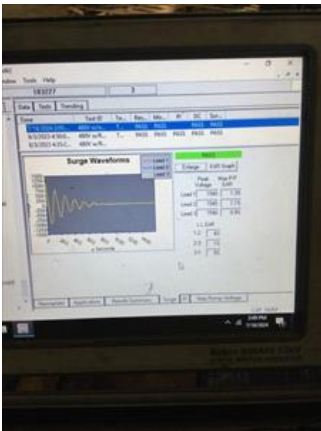
18. Insulation Resistance/Megger 140839 Megohms

19. Winding Resistance

1-2 1-3 2-3

1.307 1.307 1.310

20. Perform Surge Test (P) Pass



21. Number of Stator Slots

48

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22. Stator Condition

wash and bake



23. Stator Thermistors/Ohms

none

24. Stator Overloads/Ohms

none

Mechanical Inspection

25. Drive End Bearing Brand

Koyo

26. Drive End Bearing Number-

6316



27. Drive End Bearing Qty.

1

28. Drive End Bearing Type

(Ball) Ball Bearing

29. Drive End Lubrication Type

(Grease) Grease Lubricated

30. Drive End Bearing Insulation or Grounding Device?

Na

31. Drive End Wavy Washer/Snap-Ring Other Retention Device?

Na

32. Drive End Bearing Condition

excessive heat dried out grease



33. Opposite Drive End Bearing Brand

Koyo

34. Opposite Drive End Bearing Number-

6316



35. Opposite Drive End Bearing Qty.

1

36. Opposite Drive End Bearing Type

(Ball) Ball Bearing

37. Opposite Drive End Lubrication Type

(Grease) Grease Lubricated

38. Opposite Drive End Bearing Insulation or Grounding Device?

Na

39. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?

Wavy washer

40. Opposite Drive End Bearing Condition

axial load and trash in grease








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41. Drive End Seal	Na
42. Opposite Drive End Seal	Na
Rotor Inspection	
43. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
44. Growler Test	(Pass) Pass
45. Number of Rotor Bars	64
46. Rotor Condition	wash



47. List the Parts needed for the Repair Below	
6316 6316 bearing	

48. Signature of Technician that Disassembled Motor	RW
	

Mechanical Fits- Rotor			
49.	Shaft Runout		inches
	Na		
50.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	Na		
51.	Coupling Fit Closest to Bearing Housing		
	0 Degrees	90 Degrees	120 Degrees
	Na		
52.	Coupling Fit Closest to the end of the Shaft		
	0 Degrees	60 Degrees	120 Degrees
	Na		
53.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	3.1495	3.1496	3.1496

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54. Drive End Bearing Shaft Fit Condition

(P) Pass



55. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

3.1498

3.1498

3.1498

56. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass



57. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

58. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

6.6943

6.6943

6.694

59. Drive End - Endbell Bearing Fit Condition

(P) Pass

Resleeve



60. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

6.6938

6.6938

6.6938

61. Opposite Drive End - Endbell Bearing Fit Condition

(P) Pass



62. Bearing Cap Condition








Drive End Bearing Cap

Opposite Drive End Bearing Cap

pass

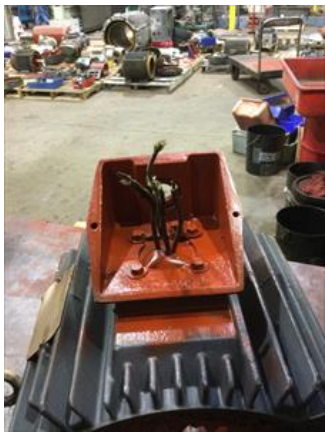
pass



63. End Bell Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
pass	pass	
64. List Machine Work Needed Below <i>De end bell bearing fit bad and De shaft bearing fit bad</i>		
65. Technician		RW
		
 Co sign: CRW		
Root Cause of Failure		
66. Failure locations <i>De end bell bearing fit bad and shaft bearing fit bad</i>		
67. Root cause of failure <i>Excessive heat dried out the grease and locked up the bearing</i>		
Dynamic Balance Report		
68. Rotor Weight and Balance Grade		
Rotor Weight	Balance Grade	
 Na		
69. Initial Balance Readings		
Drive End	Opposite Drive End	
 Na		
70. Final Balance Readings		
Drive End	Opposite Drive End	
 Na		
71. Technician		
 Na		
Assembly		
72. QC Check All Parts for Cleanliness Prior to Assembly		RW
		

73. Photograph All Major Components prior to assembly

(Complete) Complete



74. Final Insulation Resistance Test

Megohms

Passed hi pot

75. Assembled Shaft Endplay

inches

Na

76. Assembled Shaft Runout

0.0005 inches

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77. Test Run Voltage

Volts

456

Volts

455

Volts

459



Co witness CRW

78. Test Run Amperage

Amps

5.8

Amps

5.7

Amps

5.7



79. Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

Na

80. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

Na

81. Ambient Temperature - Fahrenheit

Na

82. Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

Na

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83. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

Na

84. Document Final Condition with Pictures after paint



85. Final Pics and QC Review

RW

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Co witness CRW



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