



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

LR Motor Shop Repairs

Job Number 100150

Prepared for Central Arkansas Water-Wilson(10195-01)

Central Arkansas Water Wilson
Little Rock AR 72212

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Hi-Speed Industrial Service
7030 Ryburn Dr
Millington, Tn 38053
901-873-5300

AC Recondition As Found
Central Arkansas Water-Wilson(10195-01)
Central Arkansas Water Wilson
Little Rock, AR 72212

FolderID: 100150
FormID: 14281743

AC Recondition - Rev. 2

Location: MOTOR SHOP LR

Serial Number: Z 12 20187509-0001

Description:125HP US MOTORS 1800RPM
H445TPA

Hi-Speed Job Number: 100150

Manufacturer: US Motors/Nidec

Serial Number: Z 12 20187509-0001

HP/kW: 125 (HP)

RPM: 1800 (RPM)

Frame: H445TPA

Voltage: 460

Current: 147

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.15

Enclosure: WPI

Bearing RTDs: No


Stator RTDs: No

Repair Stage: Teardown Inspection

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found:  **7 - Good**

Overall Condition

1. Report Date

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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
5. Distance from the end of the shaft to the Coupling/Sheave

Initial Mechanical/Electrical

- ☒ 6. Does Shaft Turn Freely? (Yes) Yes

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7. Does Shaft Have Visible Damage?

(No) No



8. Assembled Shaft Runout

9. Assembled Shaft End Play

10. Air Gap Variation <10%

● 11. Lead Condition

(P) Pass



12. Lead Length

20 Inches

13. Frame Condition

14. Fan Condition

15. Broken or Missing Components

Initial Electrical Inspection



17. Winding Resistance

1-2

1-3

2-3

☒ 18. Perform Surge Test

(P) Pass

19. Stator Condition

☐ Rewind per customers request
Mechanical Inspection

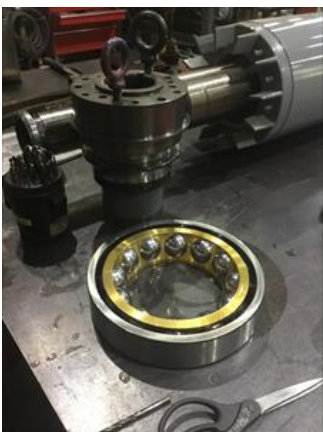
20. Drive End Bearing Number-

7322



21. Drive End Bearing Qty.

1



22. Drive End Bearing Type	(Thrust) Thrust
23. Drive End Lubrication Type	(Oil) Oil Lubricated
24. Drive End Bearing Insulation or Grounding Device?	hub is insulated
25. Drive End Wavy Washer/Snap-Ring Other Retention Device?	
26. Drive End Bearing Condition	worn
27. Opposite Drive End Bearing Number-	6215-j




28. Opposite Drive End Bearing Qty.	1
29. Opposite Drive End Bearing Type	(Ball) Ball Bearing
30. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
31. Opposite Drive End Bearing Insulation or Grounding Device?	aegis ring



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32. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring
33. Opposite Drive End Bearing Condition	worn
34. Drive End Seal	
35. Opposite Drive End Seal	
Rotor Inspection	
36. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast



37. Growler Test	(Pass) Pass
38. Number of Rotor Bars	58
39. Rotor Condition	
40. List the Parts needed for the Repair Below	
41. Signature of Technician that Disassembled Motor	Trevor Hall
	

Mechanical Fits- Rotor

42.	Shaft Runout		0.0001 inches
43.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	0.002	0.002	0.002
44.	Coupling Fit Closest to Bearing Housing		
	0 Degrees	90 Degrees	120 Degrees
45.	Coupling Fit Closest to the end of the Shaft		
	0 Degrees	60 Degrees	120 Degrees
46.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	4.3318	4.3317	4.3317

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47. Drive End Bearing Shaft Fit Condition

(P) Pass



48. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.9529	2.9531	2.9529

49. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass

At minimum

50. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
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Mechanical Fits- Bearing Housings

51. Drive End - Endbell Bearing Fit

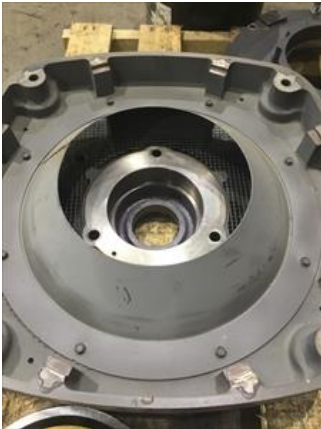
0 Degrees	60 Degrees	120 Degrees
9.4498	9.4498	9.4498



52. Drive End - Endbell Bearing Fit Condition

(P) Pass

53. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
5.119	5.119	5.1189



54. Opposite Drive End - Endbell Bearing Fit Condition		(P) Pass
55. Bearing Cap Condition		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	pass	



56. End Bell Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	

57. List Machine Work Needed Below	
58. Technician	Trevor Hall
	

Root Cause of Failure

59. Failure locations
60. Root cause of failure
<i>Bearings worn. Windings tripping to ground once they get hot.</i>



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AC Random Coil Rewind Report

FolderID: 100150
FormID: 14281746

Central Arkansas Water-Wilson
(10195-01)

Central Arkansas Water Wilson
Little Rock, AR 72212

Priorities Found:

General

1. Job Number
2. Report Date
3. Customer

Stator Winding

4. Core Length
5. Core ID
6. Back Iron Depth
7. Slot Depth
8. Tooth Width
9. Number of Vents
10. Vent Width
11. Before Burnout Core loss
12. Flux Before Burnout
13. Watts before burnout
14. Watts loss per lb. before burnout
15. After Burnout Core Loss
16. Flux After burnout
17. Watts After Burnout
18. Watts loss per lb After Burnout
19. Core Iron Condition
20. RTD's
21. RTD's Reading
22. Motor Heaters
23. Heater Qty.
24. Heater Voltage
25. Heater Wattage
26. Thermistors
27. Number of Poles
28. Slots
29. Number of Coils
30. Coil Weight
31. Lead Markings
32. Grouping
33. Multiple Wires
34. Wire Size

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35. Turns per coil
36. Pitch 1 to:
37. Connection
38. Lead Length
39. Lead Size
40. Number of Leads
41. Megger Reading After Rewind
42. Coil Machine Slot
43. Coil Machine Tip
44. Coil Machine Pitch
45. Hi Pot Reading After Rewind
46. Surge Pattern After Rewind
47. Service Technician



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