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LR Motor Shop Repairs

**Job Number 100544**

Prepared for Arauco-Malvern MDF (10298)

1275 Willamette Rd  
Malvern AR 72104

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AC Recondition As Found - *LR MOTORSHOP*

AC Recondition - Rev. 2: *NO NP*

**1.0**

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Hi-Speed Industrial Service  
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## AC Recondition As Found

Arauco-Malvern MDF (10298)

1275 Willamette Rd  
Malvern, AR 72104

FolderID: 100544  
FormID: 15048830

### AC Recondition - Rev. 2

Location: LR MOTORSHOP

Serial Number: NO NP

Description: 60HP US MOTORS 1800RPM  
364TS

Hi-Speed Job Number: 100544

Manufacturer: US Motors/Nidec

HP/kW: 60 (HP)

RPM: 1770 (RPM)

Frame: 364TS

Voltage: 230 / 460

Current: 142/71

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.15

Enclosure: TEFC

J-box Included: Complete

Coupling/Sheave: None

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Teardown Inspection

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: ● 6 - High ● 2 - Good

### Overall Condition

1. Report Date
2. Nameplate Picture



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3. Photos of all six sides of the machine.
4. Describe the Overall Condition of the Equipment as Received

#### Initial Mechanical/Electrical

|                                    |           |
|------------------------------------|-----------|
| ● 5. Does Shaft Turn Freely?       | (Yes) Yes |
| 6. Does Shaft Have Visible Damage? | (No) No   |
| 7. Assembled Shaft Runout          |           |
| 8. Assembled Shaft End Play        |           |
| 9. Air Gap Variation <10%          |           |
| ● 10. Lead Condition               | (P) Pass  |
| 11. Lead Length                    | 12 Inches |
| 12. Frame Condition                | wash      |
| ● 13. Fan Condition                | (F) Fail  |



14. Broken or Missing Components

#### Initial Electrical Inspection

|                                  |          |
|----------------------------------|----------|
| 15. Insulation Resistance/Megger | Megohms  |
| 16. Winding Resistance           |          |
| 1-2                              | 1-3      |
|                                  | 2-3      |
| ● 17. Perform Surge Test         | (F) Fail |

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## 18. Stator Condition

Rewind due to over heating



## Mechanical Inspection

## 19. Drive End Bearing Number-

6313 2RS



## 20. Drive End Bearing Qty.

1

## 21. Drive End Bearing Type

(Ball) Ball Bearing

## 22. Drive End Lubrication Type

(Grease) Grease Lubricated

## 23. Drive End Bearing Insulation or Grounding Device?

na

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

No

## 25. Drive End Bearing Condition



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|  |                            |
|--|----------------------------|
| 27. Opposite Drive End Bearing Qty.                                  | 1                          |
| 28. Opposite Drive End Bearing Type                                  | (Ball) Ball Bearing        |
| 29. Opposite Drive End Lubrication Type                              | (Grease) Grease Lubricated |
| 30. Opposite Drive End Bearing Insulation or Grounding Device?       | Na                         |
| 31. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device? | Wavy washer                |
| 32. Opposite Drive End Bearing Condition                             | frosted                    |




|                             |  |
|-----------------------------|--|
| 33. Drive End Seal          |  |
| 34. Opposite Drive End Seal |  |

### Rotor Inspection

35. Rotor Type/Material

(Squirrel Aluminum) Squirrel  
Cage Aluminum Die Cast



|  |   |            |                            |
|--|---|------------|----------------------------|
| 36. Growler Test   | (Pass) Pass   |            |                            |
| 37. Number of Rotor Bars   | 56  |            |                            |
| 38. Rotor Condition  | Pass  |            |                            |
| 39. List the Parts needed for the Repair Below                                     | 1-6313 2RS 2-6212 2RS BOTH END BELLS NEED RESLEEVED NEEDS NEW SHAFT ALSO NEEDS NEW FAN Rewind |            |                            |
| 40. Signature of Technician that Disassembled Motor                                | RW  |            |                            |
|  |   |            |                            |
| <b>Mechanical Fits- Rotor</b>  |   |            |                            |
| 41. Shaft Runout   |   |            |                            |
| 42. Rotor Runout   |   |            |                            |
|  | Drive End Bearing Fit   | Rotor Body | Opposite Drive End Bearing |
| 43. Coupling Fit Closest to Bearing Housing  |   |            |                            |
|  | 0 Degrees   | 90 Degrees | 120 Degrees                |
| 44. Coupling Fit Closest to the end of the Shaft                                   |   |            |                            |
|  | 0 Degrees   | 60 Degrees | 120 Degrees                |
| 45. Drive End Bearing Shaft Fit  |   |            |                            |
|  | 0 Degrees   | 60 Degrees | 120 Degrees                |
|  | 2.5589  | 2.5589     | 2.5589                     |



46. Drive End Bearing Shaft Fit Condition

(F) Fail

Bad shaft bearing fit



47. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

2.3619

2.3618

2.3619

48. Opposite Drive End Bearing Shaft Fit Condition

(F) Fail

Shaft bearing fit bad



49. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

**Mechanical Fits- Bearing Housings**

50. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

5.5115

5.512

5.5123

51. Drive End - Endbell Bearing Fit Condition

(F) Fail

Resleeve



52. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

4.3389

4.335

4.342

53. Opposite Drive End - Endbell Bearing Fit Condition

(F) Fail

Resleeve

54. Bearing Cap Condition

Drive End Bearing Cap

Opposite Drive End Bearing Cap

Na

Na

55. End Bell Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

56. List Machine Work Needed Below

*Both end bells need resleeved both shaft bearing fit bad needs new shaft fan needs replaced rewind*

57. Technician

RW



#### Root Cause of Failure

58. Failure locations

*Both end bells and both shaft bearing fit bad and rewind excessive over heating needs new fan fan in pieces*

59. Root cause of failure



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