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

# AC Recondition As Found

**Baptist Health Medical Center**
**P.O. Box 8516**
**Little Rock, AR 72215**

FolderID: 100507
FormID: 14967049

### AC Recondition - Rev. 2

| | |
|---|---|
| **Location:** | MOTOR SHOP LR |
| **Serial Number:** | 0990910 |
| **Description:** | 50HP BALDOR 1800RPM 326T |

| | |
|---|---|
| **Hi-Speed Job Number:** | 100507 |
| **Manufacturer:** | Baldor |
| **Product Number:** | M2534T |
| **Spec/ID #:** | 40H005W951H1 |
| **Serial Number:** | 0990910 |
| **HP/kW:** | 50 (HP) |
| **RPM:** | 1765 (RPM) |
| **Frame:** | 326T |
| **Voltage:** | 230 / 460 |
| **Current:** | 124/62 |
| **Phase:** | Three |
| **Hz:** | 60 (Hz) |
| **Service Factor:** | 1.15 |
| **Enclosure:** | ODP |
| **J-box Included:** | Complete |
| **Coupling/Sheave:** | None |
| **Bearing RTDs:** | No |
| **Stator RTDs:** | No |
| **Repair Stage:** | Final |
| **Heaters:** | No |
| **Winding Type :** | Random Wound |
| **Bearing Type:** | Rolling Element |

Priorities Found: **1 - High** **5 - Good**

## Overall Condition

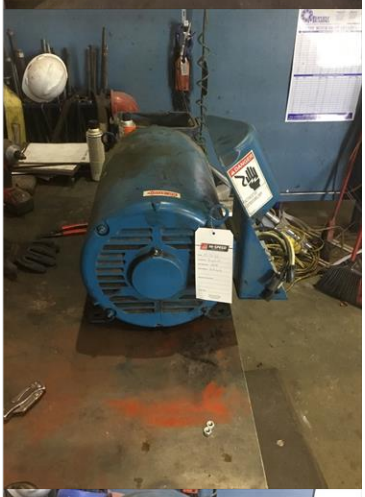
1. Report Date

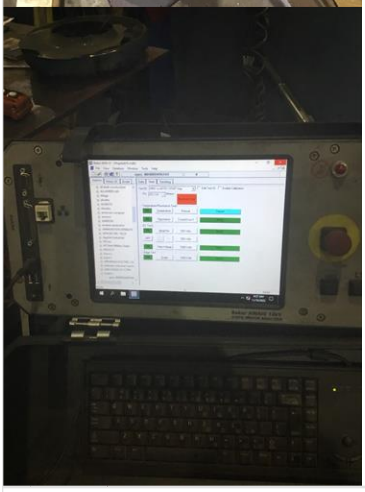
2. Nameplate Picture P21



3. Photos of all six sides of the machine. P27





4. Describe the Overall Condition of the Equipment as Received

***Serviceable but two broken baffles.***

## Initial Mechanical/Electrical

5. Does Shaft Turn Freely? **(Yes) Yes**

| | | | |
|---|---|---|---|
| 6. | Does Shaft Have Visible Damage? | **(No) No** | P12 |

| | | | |
|---|---|---|---|
| 7. | Assembled Shaft Runout | **Inches** | |
| 8. | Assembled Shaft End Play | | |
| 9. | Air Gap Variation <10% | | |
| 10. | Lead Condition | | P32 |

| | | | |
|---|---|---|---|
| 11. | Lead Length | **4.5 Inches** | |
| 12. | Frame Condition | **pass** | P51 |

| | | | |
|---|---|---|---|
| 13. | Fan Condition | **(N) NA** | |
| 14. | Broken or Missing Components | | |

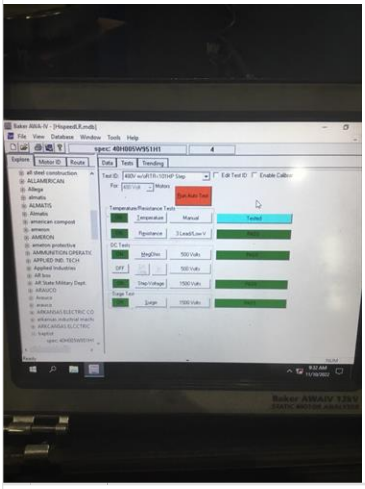
## Initial Electrical Inspection

15. Insulation Resistance/Megger **Megohms** P5


16. Winding Resistance

| 1-2 | 1-3 | 2-3 |
|---|---|---|

17. Perform Surge Test **(P) Pass** P35



18. Number of Stator Slots

19. Stator Condition P39

## Mechanical Inspection

20. Drive End Bearing Brand

| | | | |
|---|---|---|---|
| 21. | Drive End Bearing Number- | **6312 C3** | P8 |

| | | | |
|---|---|---|---|
| 22. | Drive End Bearing Qty. | **1** | |
| 23. | Drive End Bearing Type | **(Ball) Ball Bearing** | P20 |

| | | | |
|---|---|---|---|
| 24. | Drive End Lubrication Type | **(Grease) Grease Lubricated** | P26 |

| | | | |
|---|---|---|---|
| 25. | Drive End Bearing Insulation or Grounding Device? | **none** | |
| 26. | Drive End Wavy Washer/Snap-Ring Other Retention Device? | **none** | |
| 27. | Drive End Bearing Condition | **replace** | |
| 28. | Opposite Drive End Bearing Brand | | |
| 29. | Opposite Drive End Bearing Number- | **6309** | |
| 30. | Opposite Drive End Bearing Qty. | **1** | P47 |

| | | |
|---|---|---|
| 31. | Opposite Drive End Bearing Type | **(Ball) Ball Bearing** |
| 32. | Opposite Drive End Lubrication Type | **(Grease) Grease Lubricated** |
| 33. | Opposite Drive End Bearing Insulation or Grounding Device? | **none** |
| 34. | Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device? | **yes** |
| 35. | Opposite Drive End Bearing Condition | **replace** |

| | | | |
|---|---|---|---|
| 36. | Drive End Seal | **none** | |
| 37. | Opposite Drive End Seal | **none** | |

## Rotor Inspection

| | | | |
|---|---|---|---|
| 38. | Rotor Type/Material | **(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast** | P3 |

| | | |
|---|---|---|
| 39. | Growler Test | **(Pass) Pass** |
| 40. | Number of Rotor Bars | |
| 41. | Rotor Condition | **pass** |
| 42. | List the Parts needed for the Repair Below<br>***Replace both bearings and both end bell baffles. D.E housing fit bad.*** | |
| 43. | Signature of Technician that Disassembled Motor | **Terrence Holland** |

## Mechanical Fits- Rotor

| | | | |
|---|---|---|---|
| 44. | Shaft Runout | | **0.002 inches** |
| 45. | Rotor Runout | | |
| | Drive End Bearing Fit | Rotor Body | Opposite Drive End Bearing |
| | | | |
| 46. | Coupling Fit Closest to Bearing Housing | | |
| | 0 Degrees | 90 Degrees | 120 Degrees |
| | | | |
| 47. | Coupling Fit Closest to the end of the Shaft | | |
| | 0 Degrees | 60 Degrees | 120 Degrees |
| | | | |
| 48. | Drive End Bearing Shaft Fit | | |
| | 0 Degrees | 60 Degrees | 120 Degrees |
| | **2.3628** | **2.3629** | **2.3628** |
| 49. | Drive End Bearing Shaft Fit Condition | | **(P) Pass** |
| 50. | Opposite Drive End Bearing Shaft Fit | | |
| | 0 Degrees | 60 Degrees | 120 Degrees |
| | **1.772** | **1.772** | **1.772** |
| 51. | Opposite Drive End Bearing Shaft Fit Condition | | **(P) Pass** |

52. Shaft Air Seal Fits

| Drive End Air Seal | Opposite Drive End Air Seal |
|---|---|
| | |

## Mechanical Fits- Bearing Housings

53. Drive End - Endbell Bearing Fit

| 0 Degrees | 60 Degrees | 120 Degrees |
|---|---|---|
| **5.1203** | **5.1202** | |

54. Drive End - Endbell Bearing Fit Condition **(F) Fail**

55. Opposite Drive End - Endbell Bearing Fit

| 0 Degrees | 60 Degrees | 120 Degrees |
|---|---|---|
| **3.9379** | **3.9378** | **3.9378** |

56. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass**

57. Bearing Cap Condition

| Drive End Bearing Cap | Opposite Drive End Bearing Cap |
|---|---|
| | |

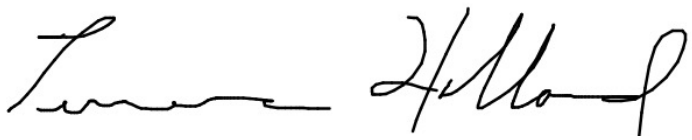
58. End Bell Air Seal Fits

| Drive End Air Seal | Opposite Drive End Air Seal |
|---|---|
| | |

59. List Machine Work Needed Below

***Sleeve D.E. Housing fit.***

60. Technician **Terrence Holland**



## Dynamic Balance Report

61. Rotor Weight and Balance Grade

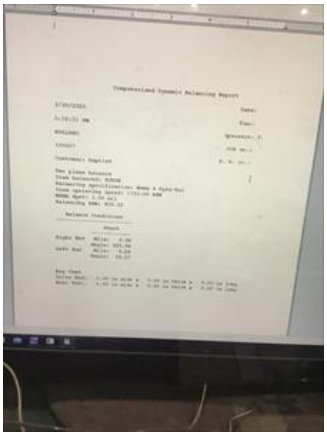
| Rotor Weight | Balance Grade |
|---|---|
| | |

62. Initial Balance Readings

| Drive End | Opposite Drive End |
|---|---|
| | |

63. Final Balance Readings

| Drive End | Opposite Drive End |
|---|---|



64. Technician

## Rewind

65. Core Test Results - Watts loss per Pound

| Pre-Burnout | Post Burnout |
|---|---|

66. Core Hot Spot Test

| Pre-Burnout | Post-Burnout |
|---|---|

67. Post Rewind Electrical Test- Insulation Resistance

68. Post Rewind Polarization Index

69. Post Rewind Winding Resistance

| 1-2 | 1-3 | 2-3 |
|---|---|---|

70. Post Rewind Surge Test

71. Post Rewind Hi-Pot

72. Technician

## Root Cause of Failure

73. Failure locations

***D.E. Housing fit out of tolerance. Replace both end bell baffles.***

74. Root cause of failure

## Mechanical Fits- Rotor - Post Repair

75. Shaft Runout Post Repair

76. Rotor Runout Post Repair

| Drive End Bearing Fit | Rotor Body | Opposite Drive End Bearing |
|---|---|---|

77. Coupling Fit Closest to Bearing Housing Post Repair

| 0 Degrees | 90 Degrees | 120 Degrees |
|---|---|---|

78. Coupling Fit Closest to the end of the Shaft Post Repair

| 0 Degrees | 60 Degrees | 120 Degrees |
|---|---|---|

| | | | |
|---|---|---|---|
| 79. | Drive End Bearing Shaft Fit Post Repair | | |
| | 0 Degrees | 60 Degrees | 120 Degrees |
| 80. | Opposite Drive End Bearing Shaft Fit Post Repair | | |
| | 0 Degrees | 60 Degrees | 120 Degrees |
| 81. | Shaft Air Seal Fits Post Repair | | |
| | Drive End Air Seal | Opposite Drive End Air Seal | |
| 82. | Shaft Repair Sign-off | | |
| **Mechanical Fits- Bearing Housings - Post Repair** | | | |
| 83. | Drive End - Endbell Bearing Fit Post Repair | | |
| | 0 Degrees | 60 Degrees | 120 Degrees |
| 84. | Opposite Drive End - Endbell Bearing Fit Post Repair | | |
| | 0 Degrees | 60 Degrees | 120 Degrees |
| 85. | Bearing Cap Condition Post Repair | | |
| | Drive End Bearing Cap | Opposite Drive End Bearing Cap | |
| 86. | End Bell Air Seal Fits Post Repair | | |
| | Drive End Air Seal | Opposite Drive End Air Seal | |
| 87. | End Bell Repair Sign-off | | |
| **Assembly** | | | |
| 88. | QC Check All Parts for Cleanliness Prior to Assembly | | |
| 89. | Photograph All Major Components prior to assembly | | |
| 90. | Final Insulation Resistance Test | | |
| 91. | Assembled Shaft Endplay | | |
| 92. | Assembled Shaft Runout | | |
| 93. | Test Run Voltage | | |
| | Volts | Volts | Volts |
| 94. | Test Run Amperage | | |
| | Amps | Amps | Amps |
| 95. | Drive End Vibration Readings - Inches Per Second | | |
| | Horizontal | Vertical | Axial |
| 96. | Opposite Drive End Vibration Readings - Inches Per Second | | |
| | Horizontal | Vertical | Axial |
| 97. | Ambient Temperature - Fahrenheit | | |
| 98. | Drive End Bearing Temps - Fahrenheit | | |
| | 5 Minutes | 10 Minutes | 15 Minutes |

| | | | | |
|---|---|---|---|---|
| 99. | Opposite Drive End Bearing Temps - Fahrenheit | | | |
| | 5 Minutes | 10 Minutes | 15 Minutes | |
| 100. | Document Final Condition with Pictures after paint | | | |
| 101. | Final Pics and QC Review | | **Terrence Holland** | P2400 |