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

# AC Inspection as Found

**Sage V Foods**
5901 SLOAN DRIVE
LITTLE ROCK, AR 72206

FolderID: 104421
FormID: 24050547

### AC Inspection - Rev. 2

| | |
|---|---|
| **Location:** | MOTOR SHOP LR |
| **Serial Number:** | Z1512110311 |
| **Description:** | 20 HP BALDOR |

| | |
|---|---|
| **Hi-Speed Job Number:** | 104421 |
| **Manufacturer:** | Baldor |
| **Product Number:** | CAT#EM2334T |
| **Serial Number:** | Z1512110311 |
| **HP/kW:** | 20 (HP) |
| **RPM:** | 1765 (RPM) |
| **Frame:** | 256T |
| **Voltage:** | 230 / 460 |
| **Current:** | 48/24 (Amps) |
| **Phase:** | Three |
| **Hz:** | 60 (Hz) |
| **Service Factor:** | 1.15 |
| **Enclosure:** | TEFC |
| **# of Leads:** | 9 |
| **J-box Included:** | Complete |
| **Coupling/Sheave:** | None |
| **Date Received:** | 04/08/2025 |
| **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: **1 - High** **20 - Good**

## Overall Condition

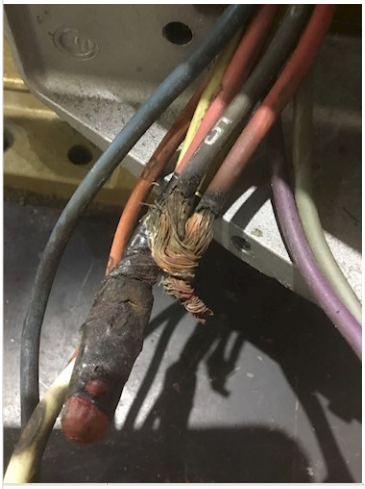
| | | |
|---|---|---|
| 1. | Report Date | **04/21/2025** |

2. Nameplate Picture P37


3. Photos of all six sides of the machine. P45

| | | | |
|---|---|---|---|
| | 4. | Describe the Overall Condition of the Equipment as Received<br>*Dirty* | |
| ● | 5. | Is this a UL Listed Motor | **(No) No** |
| ● | 6. | Is the motor water cooled or can be pressure checked before teardown | **(No) No** |
| **Initial Mechanical/Electrical** | | | |
| ● | 7. | Does Shaft Turn Freely? | **(Y) Yes** |
| ● | 8. | Does the shaft require T.I.R in Lathe to identify additional repairs? | **(No) No** |
| | 9. | Does Shaft Have Visible Damage? | **(No) No** |
| ● | 10. | Assembled Shaft Runout | **0.001 Inches** |
| | 11. | Assembled Shaft End Play | **inches** |
| | 12. | Air Gap Variation <10% | |

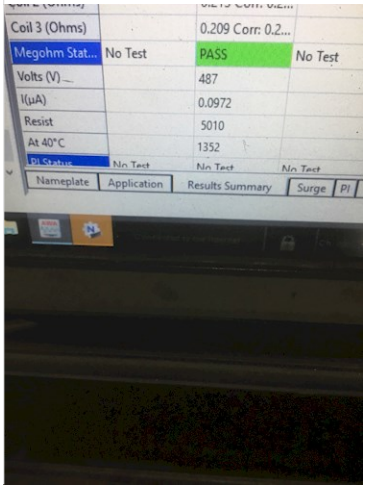
| | | | | |
|---|---|---|---|---|
| 13. | Lead Condition | **(F) Fail** | P69 |



| | | | |
|---|---|---|---|
| 14. | Lead Length | **12 Inches** | |
| 15. | Does it have Lugs?, If so what is the Stud Size? | **(No) No** | |
| 16. | Lead Numbers | **1-9** | |
| 17. | Are the Leads insulated with Chico or other material | **(No) No** | |
| 18. | Frame Condition | | |
| 19. | Fan Condition | **(P) Pass** | |
| 20. | Does motor have internal fan? | **(No) No** | |
| 21. | Broken or Missing Components | | |

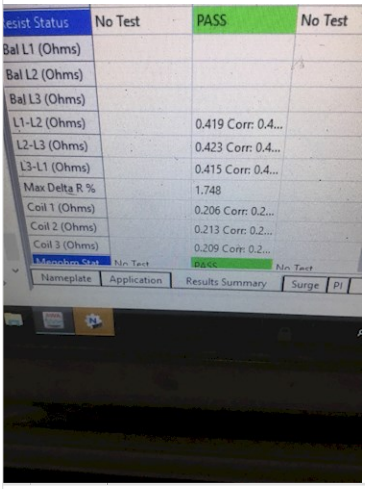
## Initial Electrical Inspection

| | | | |
|---|---|---|---|
| 22. | Insulation Resistance/Megger | **Megohms** | P8 |

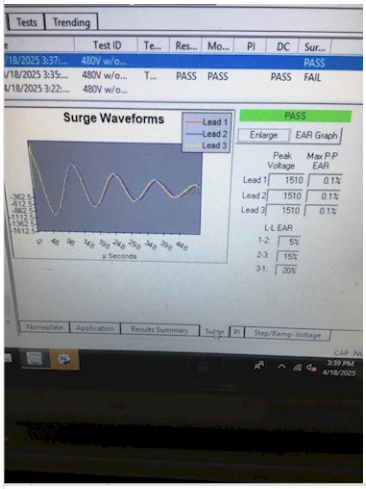


| | | | | |
|---|---|---|---|---|
| | 23. | Winding Resistance | | P20 |

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




| | | | | |
|---|---|---|---|---|
| ● | 24. | Perform Surge Test | **(P) Pass** | P57 |




| | | | | |
|---|---|---|---|---|
| | 25. | Number of Stator Slots | **48** | |
| ● | 26. | Stator Condition | | |
| | 27. | Stator Thermistors/Ohms | | |
| | 28. | Stator Overloads/Ohms | | |

## Mechanical Inspection

| | | | | |
|---|---|---|---|---|
| | 29. | Drive End Bearing Brand | **SKF** | |
| | 30. | Drive End Bearing Number- | **6309** | P32 |

| | | | |
|---|---|---|---|
| 31. | Drive End Bearing Qty. | **1** | |
| 32. | Drive End Bearing Type | **(Ball) Ball Bearing** | |
| 33. | Drive End Lubrication Type | **(Grease) Grease Lubricated** | |
| 34. | Drive End Bearing Insulation or Grounding Device? | | |
| 35. | Drive End Wavy Washer/Snap-Ring Other Retention Device? | | |
| 36. | Drive End Bearing Condition | | P83 |

*Early stages of fluting*

| | | | |
|---|---|---|---|
| 37. | Opposite Drive End Bearing Brand | **FAG** | |
| 38. | Opposite Drive End Bearing Number- | **6208** | P101 |

| | | | |
|---|---|---|---|
| 39. | Opposite Drive End Bearing Qty. | **1** | |
| 40. | Opposite Drive End Bearing Type | **(Ball) Ball Bearing** | |
| 41. | Opposite Drive End Lubrication Type | **(Grease) Grease Lubricated** | |
| 42. | Opposite Drive End Bearing Insulation or Grounding Device? | | |
| 43. | Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device? | **wavy washer** | |
| 44. | Opposite Drive End Bearing Condition | | P120 |

*Fluting*

| | | | |
|---|---|---|---|
| 45. | Drive End Seal | | |
| | *Slinger* | | |
| 46. | Opposite Drive End Seal | | |

## Rotor Inspection

| | | |
|---|---|---|
| 47. | Rotor Type/Material | **(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast** |
| 48. | Growler Test | **(Pass) Pass** |
| 49. | Number of Rotor Bars | **40** |
| 50. | Rotor Condition | |
| 51. | List the Parts needed for the Repair Below<br>*6309*<br>*6208*<br>*New leads*<br>*Aegis ring: 2.2272* | |
| 52. | Signature of Technician that Disassembled Motor | **Cw** |

## Mechanical Fits- Rotor

| | | |
|---|---|---|
| 53. | Shaft Runout | **inches** |
| 54. | Rotor Runout | |

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

| | | |
|---|---|---|
| 55. | Coupling Fit Closest to Bearing Housing | |

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

| | | |
|---|---|---|
| 56. | Coupling Fit Closest to the end of the Shaft | |

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

| | | |
|---|---|---|
| 57. | Drive End Bearing Shaft Fit | |

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

*1.7720-1.7721-1.7721*

| | | |
|---|---|---|
| 58. | Drive End Bearing Shaft Fit Condition | **(P) Pass** |

59. Opposite Drive End Bearing Shaft Fit

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

*1.5748-1.5750-1.5750*

60. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass**

61. Shaft Air Seal Fits

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

## Mechanical Fits- Bearing Housings

62. Drive End - Endbell Bearing Fit

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

*3.9374-3.9375-3.9375*

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

64. Opposite Drive End - Endbell Bearing Fit

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

*3.1497-3.1498-3.1498*

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

66. Bearing Cap Condition

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

67. End Bell Air Seal Fits

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

68. List Machine Work Needed Below

69. Technician **Cw**

*Co sign: DM*

## Root Cause of Failure

70. Failure locations

***Bearings and lead connections***

71. Root cause of failure

***Loose connection and fluting***

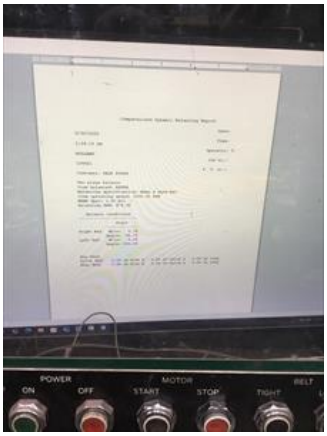
## Dynamic Balance Report

72. Rotor Weight and Balance Grade

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

73. Initial Balance Readings

| Drive End | Opposite Drive End |
|---|---|
| **.74** | **.53** |




74. Final Balance Readings

| Drive End | Opposite Drive End |
|---|---|
| **.74** | **.53** |

75. Technician **Terrence Holland**

## Assembly

76. QC Check All Parts for Cleanliness Prior to Assembly **Terrence Holland**

77. Photograph All Major Components prior to assembly P17


78. Final Insulation Resistance Test **319 Megohms** P31


| | | | | | |
|---|---|---|---|---|---|
| | 79. | Assembled Shaft Endplay | | **0 inches** | |
| | 80. | Assembled Shaft Runout | | **0.001 inches** | |
| | 81. | Test Run Voltage | | | P55 |
| | | Volts | Volts | Volts | |


| | | | | |
|---|---|---|---|---|
| 82. | Test Run Amperage | | | |
| | Amps | Amps | Amps | |
| | **10.1** | **9.5** | **9.4** | |
| 83. | Drive End Vibration Readings - Inches Per Second | | | |
| | Horizontal | Vertical | Axial | |
| | **0.04** | **0.01** | **0.04** | |
| 84. | Opposite Drive End Vibration Readings - Inches Per Second | | | |
| | Horizontal | Vertical | Axial | |
| | **0.04** | **0.03** | **0.05** | |
| 85. | Ambient Temperature - Fahrenheit | | | |
| 86. | Drive End Bearing Temps - Fahrenheit | | | |
| | 5 Minutes | 10 Minutes | 15 Minutes | |
| 87. | Opposite Drive End Bearing Temps - Fahrenheit | | | |
| | 5 Minutes | 10 Minutes | 15 Minutes | |
| 88. | Document Final Condition with Pictures after paint | | | P133 |

89. Final Pics and QC Review **Terrence Holland**

*Co witness: RRW*