

AC Inspection as Found ARKEMA, INC. 2571 Fite Road Memphis, TN 38127

FolderID: 152680 FormID: 20240862



| AC Inspection - Rev. 2 | |
|------------------------|-------------|
| Location: | MLMR Shop |
| Serial Number: | 8207 |
| Description:125 | Hp Ac Motor |

| Hi-Speed Job Number: | 152680 |
|---|---------------------|
| Manufacturer: | TECO Westinghouse |
| Product Number: | 773B975G27 |
| Serial Number: | 8207 |
| HP/kW: | 125 (HP) |
| RPM: | 1780 (RPM) |
| Frame: | 444T |
| Voltage: | 460 |
| Current: | 136 (Amps) |
| Phase: | Three |
| Hz: | 60 (Hz) |
| Service Factor: | 1.16 |
| Enclosure: | TEFC |
| # of Leads: | 3 |
| J-box Included: | Half |
| Coupling/Sheave: | None |
| Date Received: | 04/29/2024 |
| Bearing RTDs: | No |
| Stator RTDs: | No |
| Repair Stage: | Teardown Inspection |
| Shaft Machined Fit Repairs Required: | No |
| Bearing Housing Machined Fit Repairs Required: | Yes |
| Heaters: | No |
| Winding Type : | Random Wound |
| Bearing Type: | Rolling Element |
| | |

Priorities Found: 🔵 1 - High

🔵 18 - Good

Overall Condition

1. Report Date

04/30/2024

Ο



3. Photos of all six sides of the machine.







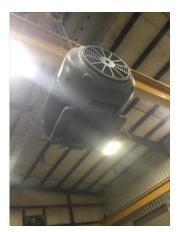


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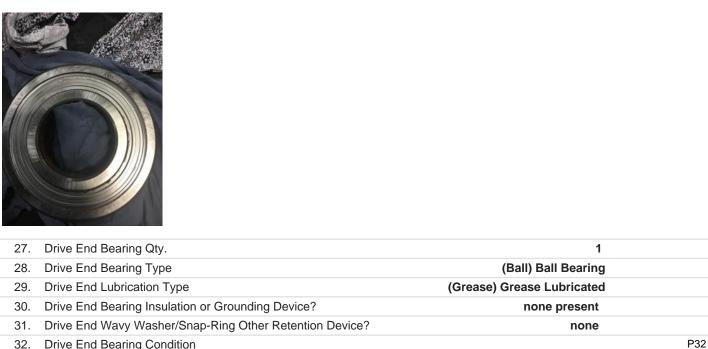
P3





| 4. Describe the Overall Condition of the Equipment as Received Initial Mechanical/Electrical 0 5. Does Shaft Turn Freely? (Y) Yes 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 Ruout 0.0005 Inches 9. Assembled Shaft End Play 0.0005 inches 10. Air Gap Variation <10% 10 provision for measurement 11. Lead Condition (P) Pass 12. Lead Length 16 Inches 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 38 hole 1-3 14. Lead Numbers 1-3 15. Frame Condition (P) Pass 16. Fan Condition (P) Pass 17. Broken or Missing Components 1-3 17. Broken or Missing Components 1-3 17. Broken or Missing Components 1-3 | | | | | |
|---|----|---------|---|------------------------------|-----|
| 5. Does Shaft Turn Freely? (Y) Yes 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 0.0005 Inches 9. Assembled Shaft End Play 0.0005 inches 10. Air Gap Variation <10% 10 provision for measurement 11. Lead Condition (P) Pass 12. Lead Length 16 Inches 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 38 hole 14. Lead Numbers 1-3 15. Frame Condition (P) Pass P16 16. Fan Condition (P) Pass 17. Broken or Missing Components | | 4. | Describe the Overall Condition of the Equipment as Received | | |
| 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 0.0005 Inches 9. Assembled Shaft Runout 0.0005 inches 10. Air Gap Variation <10% 10 provision for measurement 11. Lead Condition (P) Pass 12. Lead Length 16 Inches 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 38 hole 14. Lead Numbers 1-3 15. Frame Condition (P) Pass P16 16. Fan Condition (P) Pass P16 17. Broken or Missing Components | In | itial I | Mechanical/Electrical | | 0 |
| 7. Does Shaft Have Visible Damage? (No) No 8. Assembled Shaft Runout 0.0005 Inches 9. Assembled Shaft End Play 0.0005 inches 10. Air Gap Variation <10% 11. Lead Condition (P) Pass 12. Lead Length 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 38 hole 14. Lead Numbers 1-3 15. Frame Condition (P) Pass P16 Fan Condition (P) Pass P16 Fane Condition (P) Pass P16 Fane Condition (P) Pass P16 To condition (P) Pass P16 P17. Broken or Missing Components | | 5. | Does Shaft Turn Freely? | (Y) Yes | |
| 8. Assembled Shaft Runout 9. Assembled Shaft End Play 10. Air Gap Variation <10% 11. Lead Condition (P) Pass 12. Lead Length 13. Does it have Lugs?, If so what is the Stud Size? 38 hole 14. Lead Numbers 1-3 15. Frame Condition (P) Pass P16 | | 6. | Does the shaft require T.I.R in Lathe to identify additional repairs? | (No) No | |
| 9. Assembled Shaft End Play 10. Air Gap Variation <10% 10 provision for measurement 11. Lead Condition (P) Pass 12. Lead Length 16 Inches 13. Does it have Lugs?, If so what is the Stud Size? | | 7. | Does Shaft Have Visible Damage? | (No) No | |
| 10. Air Gap Variation <10% oprovision for measurement 11. Lead Condition (P) Pass 12. Lead Length 16 Inches 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 3/8 hole 14. Lead Numbers 1-3 15. Frame Condition 16. Fan Condition (P) Pass P16 | | 8. | Assembled Shaft Runout | 0.0005 Inches | |
| 11. Lead Condition (P) Pass 12. Lead Length 16 Inches 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 3/8 hole 14. Lead Numbers 1-3 15. Frame Condition (P) Pass P16 16. Fan Condition (P) Pass P16 | | 9. | Assembled Shaft End Play | 0.0005 inches | |
| 12. Lead Length 16 Inches 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 3/8 hole 1-3 14. Lead Numbers 1-3 15. Frame Condition (P) Pass 16. Fan Condition (P) Pass 17. Broken or Missing Components | | 10. | Air Gap Variation <10% | no provision for measurement | |
| 13. Does it have Lugs?, If so what is the Stud Size? (Yes) Yes 38 hole 1-3 14. Lead Numbers 1-3 15. Frame Condition (P) Pass 16. Fan Condition (P) Pass 17. Broken or Missing Components | | 11. | Lead Condition | (P) Pass | |
| 38 hole 14. Lead Numbers 1-3 15. Frame Condition 16. Fan Condition (P) Pass P16 To condition To condition | | 12. | Lead Length | 16 Inches | |
| 14. Lead Numbers 1-3 15. Frame Condition (P) Pass 16. Fan Condition (P) Pass P10 Image: State of the stat | | 13. | Does it have Lugs?, If so what is the Stud Size? | (Yes) Yes | |
| 15. Frame Condition (P) Pass P16 16. Fan Condition (P) Pass P16 Image: State of the state of | | • | 3/8 hole | | |
| 16. Fan Condition (P) Pass P16 Image: Comparison of Missing Components Image: Component state of the st | | 14. | | 1-3 | |
| The second se | | 15. | | | |
| | | 16. | Fan Condition | (P) Pass | P16 |
| | | | | | |
| Initial Electrical Inspection | | 17. | Broken or Missing Components | | |
| | In | itial E | Electrical Inspection | | 0 |

| 18. | Insulation Resistance/Megger | | 17145 Megohms | P18 |
|-------------------------------------|------------------------------|-------|---------------|-----|
| Ja Marcell Testano Cantor Cantor | | | | |
| 19. | Winding Resistance | | | P19 |
| | 1-2 | 1-3 | 2-3 | |
| | .0407 | .0408 | .0404 | |
| | | | | |
| 20. | | | (P) Pass | |
| 21. | | | 72 | |
| 22. | Stator Condition | | | P22 |
| 23. | Stator Thermistors/Ohms | | none present | |
| 23. | | | none present | |
| | anical Inspection | | | |
| 25. | | | SKF | |
| | <u> </u> | | | |



32. Drive End Bearing Condition







| 33. | Opposite Drive End Bearing Brand | SKF | |
|-----|------------------------------------|-----------|-----|
| 34. | Opposite Drive End Bearing Number- | 6313 C3ZZ | P34 |

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6319zz C3



| 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? | none present |
| 39. | Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device? | none present |

40. Opposite Drive End Bearing Condition







41. Drive End Seal

42. Opposite Drive End Seal

none present

none present

Rotor Inspection

43. Rotor Type/Material

(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast

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| 44. | Growler Test | | (Pass) Pass | |
|-------------|--------------------------------------|------------------|----------------------------|-----|
| 45. | Number of Rotor Bars | | | |
| 46. | Rotor Condition | | acceptable | |
| 47. | List the Parts needed for the Re | epair Below | | |
| | 6319ZZC3 bearing 6313ZZC3 bearing | | | |
| 48. | Signature of Technician that Dis | sassembled Motor | | |
| Mecha | nical Fits- Rotor | | | 0 |
| 49. | Shaft Runout | | 0.001 inches | |
| 50. | Rotor Runout | | | |
| | Drive End Bearing Fit | Rotor Body | Opposite Drive End Bearing | |
| | 0.002 | 2 | 2 | |
| 51. | Coupling Fit Closest to Bearing | Housing | | |
| | 0 Degrees | 90 Degrees | 120 Degrees | |
| | 3.375 | 3.375 | 3.375 | |
| 52. | Coupling Fit Closest to the end | of the Shaft | | |
| | 0 Degrees | 60 Degrees | 120 Degrees | |
| | 3.375 | 3.375 | 3.375 | |
| 53. | Drive End Bearing Shaft Fit | | | |
| | 0 Degrees | 60 Degrees | 120 Degrees | |
| | 3.7404 | 3.7404 | 3.7404 | |
| | Tolerance is 3.7403-3.7409 | | | |
| 5 4. | Drive End Bearing Shaft Fit Cor | ndition | (P) Pass | P54 |
| | | | | |
| | | | | |



| | 55. | Opposite Drive End Bearing Shaf | t Fit | | P55 |
|---|---|---|-----------------------------------|-----------------------|-----|
| | | 0 Degrees | 60 Degrees | 120 Degrees | |
| | | 2.5595 | 2.5595 | 2.5595 | |
| | | Tolerance is 2.5592-2.5597 | | | |
| | | | | | |
| | 56. | Opposite Drive End Bearing Shaf | t Fit Condition | (P) Pass | |
| | 57. | Shaft Air Seal Fits | | | |
| | | Drive End Air Seal | Opposite Drive End Air Seal | | |
| | | Pass | Pass | | - |
| M | | nical Fits- Bearing Housings | | | 0 |
| | 58. | Drive End - Endbell Bearing Fit | | | |
| | | 0 Degrees 7.8771 | 60 Degrees 7.8771 | 120 Degrees 7.8774 | |
| | | 7.8771 Tolerance is 7.8740-7.8751 | 7.8771 | 1.8/14 | |
| | 59. | Drive End - Endbell Bearing Fit C | ondition | (F) Fail | |
| | 60. | | onation | (1)1 an | |
| | | Opposite Drive End - Endbell Bea | | | P60 |
| | | Opposite Drive End - Endbell Bea 0 Degrees | aring Fit | 120 Degrees | P60 |
| | | 0 Degrees | aring Fit 60 Degrees | 120 Degrees 5.5127 | P60 |
| | • | | aring Fit | 120 Degrees 5.5127 | P60 |
| | | 0 Degrees 5.5127 Tolerance is 5.5118-5.5128 | aring Fit 60 Degrees 5.5127 | 5.5127 | P60 |
| | - - - - - | 0 Degrees 5.5127 Tolerance is 5.5118-5.5128 | aring Fit 60 Degrees 5.5127 | | P60 |
| | - - - - - - - - - - - - - - - - - - - | 0 Degrees 5.5127 Tolerance is 5.5118-5.5128 | aring Fit 60 Degrees 5.5127 | 5.5127 (P) Pass | P60 |
| | | 0 Degrees 5.5127 Tolerance is 5.5118-5.5128 | aring Fit 60 Degrees 5.5127 | 5.5127 (P) Pass | P60 |

| 00 | | | |
|---------------------|--|-----------------------------|---|
| 63. | End Bell Air Seal Fits | | |
| | Drive End Air Seal | Opposite Drive End Air Seal | |
| | Pass | Pass | |
| 64. | List Machine Work Needeo | Below | P |
| | Bore and bush drive end. Drive end end bell is cracke | and needs repaired | |
| 65. | Technician | Brandon Woodard | |
| | | | |
| oot C | ause of Failure | | |
| oot C 66. | ause of Failure Failure locations | | |