



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

LR Motor Shop Repairs

Job Number 100448

Prepared for RE CYLLC

1601 HASTINGS
SEARCY AR 72143

Table of Contents



Hi-Speed Industrial Service
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AC Recondition As Found

RE CYLLC
1601 HASTINGS
SEARCY, AR 72143

FolderID: 100448
FormID: 14819447

AC Recondition - Rev. 2

Location: MOTOR SHOP LR

Serial Number: 1309111439

Description: 105KW AC-MOTOREN 1800RPM
280M XP

Hi-Speed Job Number: 100448

Manufacturer: Other

Product Number: JM 280M-4/HE

Serial Number: 1309111439

HP/kW: 105 (kW)

RPM: 1782 (RPM)

Frame: 280M

Voltage: 460

Current: 160.8

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.00

Enclosure: XP

J-box Included: Complete

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Teardown Inspection

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: ● 4 - High ● 3 - Good

Overall Condition

1. Report Date
2. Nameplate Picture



3. Photos of all six sides of the machine.

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| | | |
|--------------------------------------|---|-----------|
| 4. | Describe the Overall Condition of the Equipment as Received | |
| | <i>Dirty</i> | |
| 5. | Distance from the end of the shaft to the Coupling/Sheave | |
| Initial Mechanical/Electrical | | |
| <input checked="" type="radio"/> | 6. Does Shaft Turn Freely? | (Yes) Yes |
| <input checked="" type="radio"/> | 7. Does Shaft Have Visible Damage? | (Yes) Yes |
| <input type="radio"/> | DE bearing fit is gone | |
| | 8. Assembled Shaft Runout | |
| | 9. Assembled Shaft End Play | |

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| | |
|----------------------------|----------|
| 10. Air Gap Variation <10% | |
| 11. Lead Condition | |
| 12. Lead Length | Inches |
| 13. Frame Condition | pass |
| 14. Fan Condition | (F) Fail |
| Blades are broke | |



| | | |
|---|--|----------------------------|
| 15. Broken or Missing Components | fan, fan cover and fan cover bolts are broke | |
| Initial Electrical Inspection | | |
| 16. Insulation Resistance/Megger | | |
| 17. Winding Resistance | | |
| 1-2 | 1-3 | 2-3 |
| | | |
|  18. Perform Surge Test | (NA) Not Applicable | |
|  Windings blown | | |
| 19. Stator Condition | | |
| Mechanical Inspection | | |
| 20. Drive End Bearing Number- | | 6317 |
| 21. Drive End Bearing Qty. | | 1 |
| 22. Drive End Bearing Type | | (Ball) Ball Bearing |
| 23. Drive End Lubrication Type | | (Grease) Grease Lubricated |
| 24. Drive End Bearing Insulation or Grounding Device? | | na |

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| | |
|---|-------------|
| 25. Drive End Wavy Washer/Snap-Ring Other Retention Device? | wavy washer |
| 26. Drive End Bearing Condition | |
| <div> <div></div> <div>Contamination</div> </div> | |



Contamination

| | |
|--|----------------------------|
| 27. Opposite Drive End Bearing Number- | 6317 |
| 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? | na |
| 32. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device? | snap ring |
| 33. Opposite Drive End Bearing Condition | |
| <div> <div></div> <div>Contamination</div> </div> | |



| | |
|---|----------|
| 34. Drive End Seal | lip seal |
| <div> <div></div> <div>3.295,4.385,0.475</div> </div> | |
| 35. Opposite Drive End Seal | lip seal |
| <div> <div></div> <div>3.295,4.385,0.475</div> </div> | |

Rotor Inspection

| | |
|--------------------------|--|
| 36. Rotor Type/Material | (Squirrel Aluminum) Squirrel Cage Aluminum Die Cast |
| 37. Growler Test | (Pass) Pass |
| 38. Number of Rotor Bars | |
| 39. Rotor Condition | pass |

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40. List the Parts needed for the Repair Below

6317x2
Lip seals x2
Fan and fan cover

41. Signature of Technician that Disassembled Motor

Cw



Mechanical Fits- Rotor

42. Shaft Runout

43. Rotor Runout

Drive End Bearing Fit

Rotor Body

Opposite Drive End Bearing

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

47. Drive End Bearing Shaft Fit Condition

(F) Fail

 *Bearing fit is gone*

48. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

49. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass

50. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

51. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

52. Drive End - Endbell Bearing Fit Condition

(P) Pass

53. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

54. Opposite Drive End - Endbell Bearing Fit Condition

(F) Fail

 *Has lip worn in bearing fit*

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 <i>Shaft DE bearing fit either welded or replace shaft</i> | |
| 58. Technician  | Cw |
| Root Cause of Failure | |
| 59. Failure locations <i>Windings, DE bearing fit on shaft, and ODE end bell bearing fit</i> | |
| 60. Root cause of failure <i>DE bearing shaft fit gave way causing rotor to drop on iron causing windings to blow and ODE housing bearing fit to get excessively worn causing a lip to form. Fan is broke along with fan cover</i> | |



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8. **WARRANTIES.** Hi-Speed warrants that all goods shall conform in all material aspects to the goods identified in the quotation to Buyer and/or purchase order, and Hi-Speed makes to Buyer the manufacturer's express warranty for any goods sold to Buyer, which is offered by the manufacturer at the time of acceptance of any quotation by Buyer. This warranty is conditioned upon the installation, operation, and maintenance of the goods in accordance with the manufacturer's recommendations and/or standard industry practice and the goods at all times being operated or used under normal operating conditions for which they were designed. Hi-Speed, at its sole option, will repair or

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