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LR Motor Shop Repairs

Job Number 100329

Prepared for Caterpillar Inc. (11795)

9201 Faulkner Lake Rd.
N Little Rock AR 72117

Table of Contents



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

AC Recondition As Found

Caterpillar Inc. (11795)

9201 Faulkner Lake Rd.

N Little Rock, AR 72117

FolderID: 100329
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AC Recondition - Rev. 2

Location: MOTOR SHOP LR

Serial Number: Z1107110121

Description: 15HP BALDOR 3600RPM 254TC

Hi-Speed Job Number: 100329

Manufacturer: Baldor

Product Number: CEM2394T

Spec/ID #: 09C102Z602G1

Serial Number: Z1107110121

HP/kW: 15 (HP)

RPM: 3520 (RPM)

Frame: 254TC

Voltage: 230 / 460

Current: 35/17.5

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: ● 2 - High ● 7 - Good

Overall Condition

1. Report Date



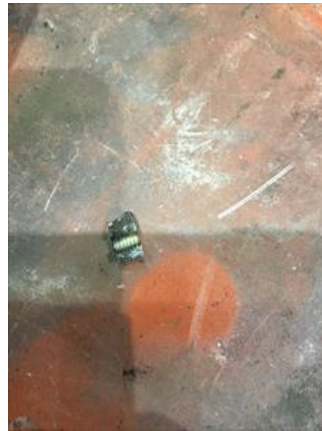
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1.0





2.	Nameplate Picture	
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	0 Inches
	8. Assembled Shaft End Play	0 inches
	9. Air Gap Variation <10%	

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10. Lead Condition	(P) Pass
11. Lead Length	12 Inches
12. Frame Condition	good
13. Fan Condition	(P) Pass
14. Broken or Missing Components	n/a
Initial Electrical Inspection	
15. Insulation Resistance/Megger	0 Megohms
16. Winding Resistance	
1-2	1-3 2-3
17. Perform Surge Test	(F) Fail
18. Stator Condition	rewind
Mechanical Inspection	
19. Drive End Bearing Number-	6309



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?	n/a
24. Drive End Wavy Washer/Snap-Ring Other Retention Device?	n/a
25. Drive End Bearing Condition	ok
26. Opposite Drive End Bearing Number-	6208
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?	n/a
31. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy
32. Opposite Drive End Bearing Condition	ok
33. Drive End Seal	n/a
34. Opposite Drive End Seal	n/a
Rotor Inspection	
35. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
36. Growler Test	(Pass) Pass
37. Number of Rotor Bars	28
38. Rotor Condition	good

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39. List the Parts needed for the Repair Below <i>Rewind, 6309, 6208, DE bearing cap</i>		
40. Signature of Technician that Disassembled Motor		David Maclin
		
Mechanical Fits- Rotor		
41. Shaft Runout		0 inches
42. Rotor Runout		
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0	0,001	0
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
1.772	17721	1.772
46. Drive End Bearing Shaft Fit Condition		(P) Pass
47. Opposite Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees
1.575	1.575	1.575
48. Opposite Drive End Bearing Shaft Fit Condition		(P) Pass
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
3.9375	3.9375	3.9375
51. Drive End - Endbell Bearing Fit Condition		(P) Pass
52. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
3.1519	3.1519	3.1519
53. Opposite Drive End - Endbell Bearing Fit Condition		(P) Pass
54. Bearing Cap Condition		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	
55. End Bell Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
56. List Machine Work Needed Below <i>Sleeve ODE</i>		

57. Technician

David Maclin



Root Cause of Failure

58. Failure locations

Stator

59. Root cause of failure

Bearing cap appears to have split and a piece of it may have flew into stator windings.



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1. **APPLICABILITY.** The sale of any and all goods and/or services by Mock, Inc. d/b/a Hi-Speed Industrial Service ("Hi-Speed") shall be specifically conditioned upon and subject to the following terms and conditions which are incorporated by reference into any contracts and purchase orders with Hi-Speed, and which shall form and become a part of any agreement related thereto. Buyer's acceptance of any offer or quotation made by Hi-Speed for sale of any goods or services is expressly made subject to the terms and conditions set forth herein and to be so effective, Buyer need not sign or approve these Terms and Conditions to be bound hereunder provided a copy of same is provided to Buyer through any means. None of the terms and conditions contained herein may be added to, expanded, changed, modified, superseded or otherwise altered except as revised in writing and duly executed by Hi-Speed, and all orders received by Hi-Speed shall be governed only by the terms and conditions contained herein, notwithstanding any terms, conditions or provisions of any purchase order, release order, authorization or any other form issued by the Buyer. Hi-Speed hereby objects to any additional, modified, changed, deleted, altered or other terms and conditions not contained herein and notifies Buyer that any such terms or provisions are expressly rejected by Hi-Speed.
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5. **DELIVERY OF GOODS AND/OR SERVICES.** Unless otherwise identified in the quotation, all shipments are F.O.B. Hi-Speed's warehouse and the title to and all risk of loss with respect to any goods shipped shall pass to Buyer when such goods are delivered to the carrier at Hi-Speed's warehouse. Hi-Speed will use its best efforts to affect delivery by the date or dates specified in the quotation. However, Hi-Speed shall not be liable for delay in or failure to make shipment, or to perform services, by any identified date for any reason whatsoever, including but not limited to, causes beyond its reasonable control, such as strikes, fires, floods, epidemics, quarantines, restrictions, severe weather, embargos, acts of God, or public enemy, war, riot, delays in transportation or the inability to obtain necessary labor, materials or manufacturing facilities.
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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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