



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

Motor Shop Repairs

Job Number 99440

Prepared for ARKANSAS INDUSTRIAL MACHINERY

3804 N. NONA ST
NORTH LITTLE ROCK AR 72118

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AC Recondition Repair Report

1.0

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Millington, Tn 38053
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AC Recondition Repair Report

ARKANSAS INDUSTRIAL
MACHINERY
3804 N. NONA ST
NORTH LITTLE ROCK, AR 72118

FolderID: 99440
FormID: 12966892

Priorities Found: ● 4 - High ● 12 - Good

General

1. Job Number	99440
2. Report Date	3/1/2022
3. Customer	Arkansas Industrial Machinery

Name Plate Information

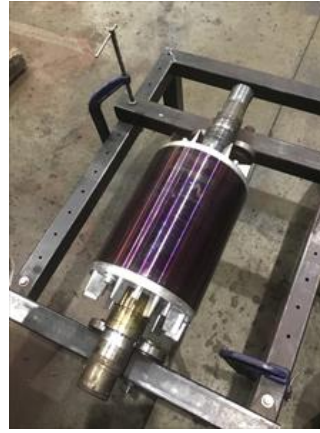
4. Manufacturer	Siemens
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5. Model	1CV2257B
6. Serial Number	1PC30042CB700EB1
7. Horsepower	
8. KW	90
9. Volts	380
10. Amps	181
11. RPM	2960
12. Frame	250M
13. Enclosure	TEFC
14. Cycles	99

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15. Phase	3
16. Service Factor	1.25
17. Motor Mount Position	
Initial Inspection	
18. Number of Leads	6
19. Lead Length	84 Inches
20. Lead Size	
21. Lead Condition	(P) Pass
22. Lead Markings	1-1/2-2/3-3
23. Lug Size, Condition, and Type	
24. Winding RTD's	
25. Winding Rtd's Condition	
26. Shaft Run Out	
27. Does Shaft Turn Freely	no
28. Does Shaft Have Visible Damage	no
29. Bearing Rtd's	
30. Bearing Rtd's Condition	
31. Contamination	
32. Frame Condition	(P) Pass
33. Fan Condition	(F) Fail



34. Broken or missing components

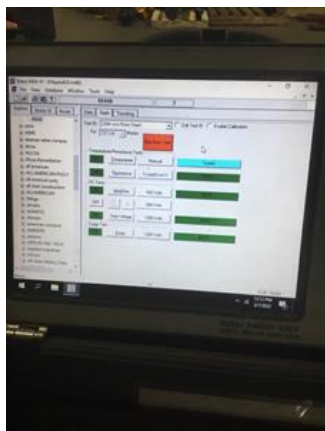
DE bearing cap is broke



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Initial Electric Test

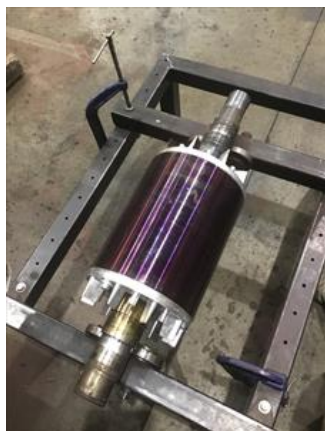
35. Resistance to Ground	
36. Winding Resistance 1-2	
37. Winding Resistance 2-3	
38. Winding Resistance 1-3	
39. Resistive Imbalance	
40. Hi-Pot	
41. Surge Test	(P) Pass



42. Stator Condition	
43. Failure Location	

Initial Rotor Inspection

44. Rotor Type	squirrel cage laminate
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45. Air Gap <10% Variation	
46. Number of Rotor Bars	
47. Number of Broken Rotor Bars	0
48. Growler Test	(P) Pass
49. Rotor Condition	(P) Pass

Mechanical Inspection

50. Bearing Manufacture	FAG
51. Bearing DE Size	6215
52. Bearing DE Type	ball bearing
53. DE Bearing Qty.	1

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54. Bearing ODE Size

6215-j20AB-C4



55. Bearing ODE Type

ceramic

56. ODE Bearing Qty.

1

57. Insulated Bearing

yes



58. Lubrication Type

grease

☒ 59. Grease Condition

(F) Fail



☒ 60. Bearing Retainers

(Y) Yes

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61. Shaft Grounding Device	
62. DE Seal	(NA) Not Applicable
63. DE Seal Type/Size	
64. ODE Seal	(NA) Not Applicable
65. ODE Seal Type/Size	
Root Cause of Failure	
66. Component Failure	bearings, DE bearing fit for end bell and shaft
67. Cause of Failure	
<i>Wear, mixing of grease on ODE, and lack of lubrication</i>	

68. Comments

Recommend reconditioning, machine work on DE bearing fit in the end bell, and either weld or replace shaft. Machined new shaft. See pictures



69. Service Technician

Machine Fit Inspection Report

70. Shaft Run Out

71. Initial Shaft Run Out

72. Final Shaft Run Out

73. DE Bearing Shaft Fit **(F) Fail**

Inner race of bearing got hot and welded itself to the shaft

74. DE Initial Shaft Bearing Fit Size 1

75. DE Initial Shaft Bearing Fit Size 2

76. DE Initial Shaft Bearing Fit Size 3

77. DE Final Shaft Bearing Fit Size 1

78. DE Final Shaft Bearing Fit Size 2

79. DE Final Shaft Bearing Fit Size 3

80. ODE Bearing Shaft Fit **(P) Pass**

81. ODE Initial Shaft Bearing Fit Size 1

82. ODE Initial Shaft Bearing Fit Size 2

83. ODE Initial Shaft Bearing Fit Size 3

84. ODE Final Shaft Bearing Fit Size 1

85. ODE Final Shaft Bearing Fit Size 2

86. ODE Final Shaft Bearing Fit Size 3

87. DE Air Seal Shaft Fit

88. DE Initial Air Seal Shaft Size

89. DE Final Air Seal Shaft Size

90. ODE Air Seal Shaft Fit

91. ODE Initial Air Seal Shaft Size

92. ODE Final Air Seal Shaft Size

93. DE Endbell Fit
Lip is worn into bearing fit

(F) Fail



94. DE Initial Endbell Fit Size 1
95. DE Initial Endbell Fit Size 2
96. DE Initial Endbell Fit Size 3
97. DE Final Endbell Fit Size 1

5.1188 "



98. DE Final Endbell Fit Size 2
99. DE Final Endbell Fit Size 3
100. DE Endbell Fit Insulated
101. DE Endbell Air Seal Fit
102. Initial Endbell Air Seal Fit Size
103. Final Endbell Air Seal Fit Size

5.1188 "

5.1188 "

104. ODE Endbell Fit

(P) Pass

105. ODE Initial Endbell Fit Size 1
106. ODE Initial Endbell Fit Size 2
107. ODE Initial Endbell Fit Size 3
108. ODE Final Endbell Fit Size 1
109. ODE Final Endbell Fit Size 2
110. ODE Final Endbell Fit Size 3
111. ODE Endbell Fit Insulated
112. ODE Endbell Air Seal Fit
113. ODE Initial Endbell Seal Fit Size

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114. ODE Finial Endbell Seal Fit Size	
● 115. Foot Flatness	(P) Pass
● 116. Foot Condition	(P) Pass
● 117. Flange Condition	(P) Pass
118. Service Technician	
Balancing Report	
119. Balance Type	
120. Balance Operating Speed	
121. Start Left End	
122. Start Right End	
123. Balancing Specification	
124. Finish Left End	
125. Finish Right End	
126. Service Technician	
Assembly and Final Test	
127. Meggar Testing Reading	
● 128. Surge Test	(P) Pass
129. Hi-Pot	
130. Winding Resistance 1-2	
131. Winding Resistance 2-3	
132. Winding Resistance 1-3	
133. Test Run Voltage Phase A	
134. Test Run Amps A	Amps



135. Test Run Voltage Phase B
136. Test Run Amps B
137. Test Run Voltage Phase C
138. Test Run Amps C
139. DE Horizontal Vibration Reading
140. DE Vertical Vibration Reading
141. DE Axial Vibration Reading
142. ODE Horizontal Vibration Reading
143. ODE Vertical Vibration Reading
144. ODE Axial Vibration Reading
145. Ambient Temp at start of Test Run

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146. Temp at 5 minutes
147. Temp at 10 minutes
148. Temp at 15 minutes
149. Temp at 20 minutes
150. Temp at 25 minutes
151. Temp at 30 minutes
152. Temp at 35 minutes
153. Temp at 40 minutes
154. Temp at 45 minutes
155. Temp at 50 minutes
156. Temp at 55 minutes
157. Temp at 60 minutes
158. Motor Paint



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159. Service Technician

Trevor Hall



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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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4. **BILLING AND PAYMENT TERMS.** Hi-Speed shall invoice Buyer for all goods and/or services as same are rendered at the address listed on the quotation. Payments for all goods and/or services shall be due thirty (30) days from the date of the current invoice or as otherwise set forth in the quotation. Late payments are subject to a late fee of 5% of the total invoice amount. Recurring late payments may lead to a deposit requirement on future services or sale of goods. Buyer shall be liable to Hi-Speed for any and all fees and expenses incurred by Hi-Speed to collect any invoices or to enforce these Standard Terms and Conditions, including but not limited to, attorney's fees.
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.
6. **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buyer agree that time is of the essence for the purchase order and that Buyer shall fully cooperate with Hi-Speed in order to allow Hi-Speed full access to prosecute its work diligently and in an orderly manner. Buyer shall assist Hi-Speed in every way possible to avoid delaying, disrupting or interfering with the progress of Hi-Speed's work at the project site. In the event Hi-Speed's work is delayed, hindered, suspended, disrupted, re-sequenced or interfered with or rendered less efficient or more costly or adversely affected in any way as a result of acts or omissions of Buyer or other contractors or employees of Buyer or by any other reason beyond Hi-Speed's control and without the fault of Hi-Speed, then, in such event, Buyer shall be liable to Hi-Speed for any damages, additional costs, expenses, labor, materials, man hours, acceleration costs, overtime, additional jobsite overhead, extended home office overhead, and any and all other direct and indirect expenses of whatsoever nature or kind, caused in whole or in part, as a result of any of the above-referenced occurrences. Hi-Speed's project records will be the basis for computing the additional costs and damages of Hi-Speed's labor, materials, expenses and overhead related to such changes. BUYER WARRANTS THAT THE SITE FOR DELIVERY OR INSTALLATION OF ANY GOODS AND/OR FOR THE PERFORMANCE OF ANY SERVICES SHALL BE READY AND ADEQUATE FOR HI-SPEED'S DELIVERY OF GOODS AND/OR PERFORMANCE OF SERVICES AND THAT HI-SPEED SHALL HAVE FULL ACCESS THERETO, FREE OF ALL OBSTRUCTIONS. BUYER SHALL ASSUME ALL EXTRA COSTS ASSOCIATED WITH HI-SPEED'S INABILITY TO INSTALL ANY GOODS OR PERFORM ANY SERVICES AS A RESULT OF BUYER'S FAILURE TO COMPLY WITH THIS PROVISION. HI-SPEED MAY NOT INSPECT THE SITE PRIOR TO DELIVERY AND/OR INSTALLATION OF GOODS AND/OR PERFORMANCE OF SERVICES AND MAKES NO WARRANTY AS TO THE SUFFICIENCY OF THE SITE FOR THE DELIVERY AND/OR INSTALLATION OF GOODS AND/OR THE PERFORMANCE OF SERVICES AT SUCH SITE.
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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

replace any defective or non-conforming goods in accordance with the applicable manufacturer's warranty. Warranty for any defective or incorrect parts is limited to the repair or replacement of those parts. Hi-Speed warrants that all services will conform in all material respects to the description of services identified in the quotation and will be performed in a good and workmanlike manner in accordance with industry practices and standards. Should the services be reasonably rejected or not conform with the foregoing warranties, Hi-Speed shall, at its sole cost, re-perform the defective or nonconforming services. Notwithstanding the foregoing, these warranties do not extend to goods or services to the extent that such goods have been subject to misuse, neglect or abuse not caused by Hi-Speed or have been used in violation of the approved written instructions furnished to Buyer. THE FOREGOING REPRESENTS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY HI-SPEED WITH RESPECT TO ALL GOODS SOLD AND IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESS OR IMPLIED. HI-SPEED EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE OR PURPOSE. BUYER WAIVES ANY CLAIM THAT THESE EXCLUSIONS OR LIMITATIONS DEPRIVE IT OF AN ADEQUATE REMEDY AT EQUITY OR LAW OR CAUSE THIS AGREEMENT TO FAIL IN ITS ESSENTIAL PURPOSE. BUYER SHALL BE ENTITLED TO NO OTHER REMEDY OTHER THAN AS SET FORTH HEREIN, REGARDLESS OF THE CLAIM OR CAUSE OF ACTION, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, GOODS LIABILITY, STRICT LIABILITY OR OTHERWISE.

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11. **GOVERNING LAW AND JURISDICTION.** Any controversy arising out of any quotation, the purchase order, the goods sold or delivered, repair or replacement thereof, or any services provided pursuant to any quotation or any purchase order, or these Standard Terms and Conditions shall be governed by the laws of the state of Tennessee without regard to any choice of law provisions and any cause of action related in any manner thereto shall be brought only in the state or federal courts of Shelby County, Tennessee.
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14. **NONWAIVER.** No course of dealing or failure of either party to strictly enforce any term, right, or condition of these Standard Terms and Conditions will be construed as a waiver of such term, right or condition. Any waiver by Hi-Speed will only be in writing and will waive no succeeding breach of a term, right or condition.
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16. **NO INDIVIDUAL LIABILITY.** Notwithstanding any other agreement to the contrary, the Buyer agrees that in no event will the Buyer hold and Hi-Speed owner, director, officer or employee personally liable for unintentional tortious conduct or conduct that constitutes the breach of any contract between Hi-Speed and the Buyer, even if the Hi-Speed owner, director, officer or employee is or could be construed to be a party to such contract.