



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

Motor Shop Repairs

**Job Number 98234**

Prepared for 3M-Main Plant (10001)

310 Walter Road  
Little Rock AR 72216

# Table of Contents



Hi-Speed Industrial Service  
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## DC Recondition Repair Report

FolderID: 98234  
FormID: 10679020

### 3M-Main Plant (10001)

310 Walter Road  
Little Rock, AR 72216

Priorities Found: ● 18 - Good

#### General

1. Job Number	98234
2. Report Date	5/18/2021
3. Customer	3M

#### Name Plate Information

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4. Manufacturer

G.E.



5. Model	<b>5CD143LE007B021</b>
6. Serial Number	<b>GL-3-24-GL</b>
7. Horsepower	<b>1.5</b>
8. KW	
9. Armature Volts	<b>1801</b>
10. Armature Amps	<b>7.3</b>
11. Field Voltage	<b>200</b>
12. Field Amps	<b>.37</b>
13. RPM	<b>1750</b>

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14. Frame	186ACY
15. Enclosure	TENV
16. Service Factor	
17. Motor Mount Position	
<b>Initial Inspection</b>	
18. Lead Length	
19. Lead Size	
● 20. Lead Condition	(P) Pass



21. Lead Markings	A1 A2 F1 F2
22. Lug Size, Condition, and Type	
23. Winding RTD's	
24. Winding Rtd's Condition	
25. Shaft Run Out	
26. Does Shaft Turn Freely	no
27. Does Shaft Have Visible Damage	no
28. Bearing Rtd's	
● 29. Bearing Rtd's Condition	(NA) Not Applicable
30. Contamination	
● 31. Frame Condition	(P) Pass
● 32. Fan Condition	(P) Pass
● 33. Brush Condition	(P) Pass



34. Quantity of brushes	2
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35. Brush Holder Assembly Condition

(P) Pass



36. Broken or missing components

None

**Initial Electric Test**

37. Armature Resistance to Ground

38. Field Resistance to Ground

39. Armature Hi-Pot

40. Field Hi-Pot

41. Armature Bar to Bar Test

42. DC field frame Drop Test

(P) Pass

43. DC Field Frame Polarity Check

44. Field Frame Condition

wash and bake



45. Field Frame Failure Location

**Initial Armature Inspection**

46. Air Gap <10% Variation

47. Number of Commutator Bars

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48. Growler Test

(P) Pass



49. Commutator Condition

(P) Pass

Polish comm.



50. Armature Condition

wash and bake



51. Armature Failure Location

### Mechanical Inspection

52. Bearing Manufacture

SKF

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53. Bearing DE Size

6206 C3



54. Bearing DE Type

ball bearing

55. Bearing ODE Size

6206 C3



56. Bearing ODE Type

ball bearing

57. Insulated Bearing

no

58. Lubrication Type

grease

● 59. Grease Condition

(NA) Not Applicable

60. Bearing Retainers

(NA) Not Applicable

61. Shaft Grounding Device

(NA) Not Applicable

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

67. Cause of Failure

68. Comments

69. Service Technician

### Machine Fit Inspection Report

70. Shaft Run Out

71. Initial Shaft Run Out

72. Final Shaft Run Out

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73. DE Bearing Shaft Fit

(P) Pass



74. DE Initial Shaft Bearing Fit 1	1.1818 "
75. DE Finial Shaft Bearing Fit 1	
76. DE Initial Shaft Bearing Fit 2	1.1818 "
77. DE Finial Shaft Bearing Fit 2	
78. DE Initial Shaft Bearing Fit 3	1.1818 "
79. DE Finial Shaft Bearing Fit 3	
80. ODE Bearing Shaft Fit	(P) Pass



81. ODE Initial Shaft Bearing Fit 1	1.1812 "
82. ODE Finial Shaft Bearing Fit 1	
83. ODE Initial Shaft Bearing Fit 2	1.1812 "
84. ODE Finial Shaft Bearing Fit 2	
85. ODE Initial Shaft Bearing Fit 3	1.1812 "
86. ODE Finial Shaft Bearing Fit 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	(NA) Not Applicable

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94. DE Initial Endbell Fit Size 1	2.4475 "
95. DE Final Endbell Fit Size 1	
96. DE Initial Endbell Fit Size 2	2.4475 "
97. DE Finial Endbell Fit Size 2	
98. DE Initial Endbell Fit Size 3	2.4475 "
99. DE Final Endbell Fit Size 3	
100. DE Endbell Fit Insulated	(NA) Not Applicable
101. DE Endbell Air Seal Fit	
102. Initial Endbell Air Seal Fit Size	
103. Finial Endbell Air Seal Fit Size	
● 104. ODE Endbell Fit	(NA) Not Applicable



105. ODE Endbell Fit Insulated	(NA) Not Applicable
106. ODE Endbell Air Seal Fit	
107. ODE Initial Endbell Seal Fit Size	
108. ODE Finial Endbell Seal Fit Size	
● 109. Foot Flatness	(P) Pass
● 110. Foot Condition	(P) Pass
● 111. Flange Condition	(P) Pass
● 112. Turn and Under Cut Armature	(NA) Not Applicable

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### Balancing Report

- 114. Balance Type
- 115. Balance Operating Speed
- 116. Start Left End
- 117. Start Right End
- 118. Balancing Specification
- 119. Finish Left End
- 120. Finish Right End
- 121. Service Technician

### Assembly and Final Test

- 122. Armature Meggar Testing Reading
- 123. Armature Hi-Pot
- 124. Field Frame Meggar Testing Reading
- 125. Field Frame Hi-Pot
- 126. Test Run Field Voltage
- 127. Test Run Field Amps
- 128. Test Run Armature Voltage
- 129. Test Run Armature Amps
- 130. Brushes seated
- 131. DE Horizontal Vibration Reading
- 132. DE Vertical Vibration Reading
- 133. DE Axial Vibration Reading
- 134. ODE Horizontal Vibration Reading
- 135. ODE Vertical Vibration Reading
- 136. ODE Axial Vibration Reading
- 137. Ambient Temp at start of Test Run
- 138. Temp at 5 minutes
- 139. Temp at 10 minutes
- 140. Temp at 15 minutes
- 141. Temp at 20 minutes
- 142. Temp at 25 minutes
- 143. Temp at 30 minutes
- 144. Temp at 35 minutes
- 145. Temp at 40 minutes
- 146. Temp at 45 minutes
- 147. Temp at 50 minutes
- 148. Temp at 55 minutes
- 149. Temp at 60 minutes
- 150. Motor Paint
- 151. Service Technician



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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.
- 2. PRICE.** All quoted prices shall remain firm and binding for a period of thirty (30) days from the date of quotation or for the period specifically stated in the quotation. The price for any and all goods and/or services ordered or approved by Buyer after thirty (30) days from the date of any quotation are subject to any increase in price that may occur after the expiration of thirty (30) days from the issuance of the quotation and the date the Buyer releases any shipment.
- 3. SCOPE OF GOODS AND/OR SERVICES.** The goods and/or services provided by Hi-Speed pursuant to any quotation shall be limited exclusively to those goods and/or services expressly identified therein. Hi-Speed does not assume any responsibility and/or liability for the failure to provide any other goods and/or services not identified in any quotation. Modifications, additions or deletions to or from the scope referenced in any quotation shall only be effective if evidenced in writing and signed by Hi-Speed. The sale of any of all goods and/or services affected by such modification, addition or deletion shall be subject to these same Standard Terms and Conditions whether or not referenced therein.
- 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.
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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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10. **SEVERABILITY.** The partial or complete invalidity of any provision of these Standard Terms and Conditions shall not affect the enforceability of the remainder of these Standard Terms and Conditions. If any provision is found to be invalid or unenforceable, that portion shall be modified to make it enforceable or shall be stricken and the remainder of these Standard Terms and Conditions shall be enforced.
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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