

# **Motor Shop Repairs**

**EVERY DAY SINCE 1946** 

## Job Number 98234

Prepared for 3M-Main Plant (10001)

310 Walter Road Little Rock AR 72216

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> FolderID: 98234 FormID: 10679020

## **DC Recondition Repair Report**

**3M-Main Plant (10001)** 310 Walter Road

Little Rock, AR 72216

Priorities Found:	<b>2</b> - High	18 - Good
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General		
1.	Job Number	98234
2.	Report Date	5/18/2021
3.	Customer	3M
Name Plate Information		

4. Manufacturer G.E.





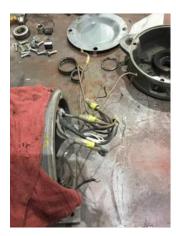






5.	Model	5CD143LE007B021
6.	Serial Number	GL-3-24-GL
7.	Horsepower	1.5
8.	KW	
9.	Armature Volts	1801
10.	Armature Amps	7.3
11.	Field Voltage	200
12.	Field Amps	.37
13.	RPM	1750

14.	Frame	186ACY
15.	Enclosure	TENV
16.	Service Factor	
17.	Motor Mount Position	
Initial	Inspection	
18.	Lead Length	
19.	Lead Size	
<b>2</b> 0.	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	
<b>2</b> 9.	Bearing Rtd's Condition	(NA) Not Applicable
30.	Contamination	
<b>3</b> 1.	Frame Condition	(P) Pass
32.	Fan Condition	(P) Pass
<b>3</b> 3.	Brush Condition	(P) Pass



34. Quantity of brushes



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

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

53. Bearing DE Size 6206 C3





54. Bearing	g DE Type	ball bearing
55. Bearing	g 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	
Machi	ne Fit Inspection Report	
70.	Shaft Run Out	
71.	Initial Shaft Run Out	
72.	Final Shaft Run Out	

#### 73. DE Bearing Shaft Fit





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	
<b>8</b> 0.	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	(F) Fail



94. DE Initial Endbell Fit Size 1	2.4475 "
95. DE Final Endbell Fit Size 1	2.4412 "



96. DE Initial Endbell Fit Size 2	2.4475 "
97. DE Finial Endbell Fit Size 2	2.4412 "
98. DE Initial Endbell Fit Size 3	2.4475 "
99. DE Final Endbell Fit Size 3	2.4411 "
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	





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
113.	Service Technician	RW



#### **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



127. Test Run Field Amps	0.5 Amps
128. Test Run Armature Voltage	178.7 Volts



129.	Test Run Armature Amps	0.5 Amps
130.	Brushes seated	(P) Pass
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 (P) Pass



151. Service Technician RW

BW



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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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- 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 bee 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. <u>BILLING AND PAYMENT TERMS.</u> 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.
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- **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buver 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. <u>WARRANTIES.</u> 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. <u>SEVERABILITY.</u> 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 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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- 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.