



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

Motor Shop Repairs

**Job Number 98491**

Prepared for Reynolds Metals company

1333 highway 270  
Malvern AR 72104

# Table of Contents

DC Recondition Repair Report

1.0

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*Table of Contents*



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

## DC Recondition Repair Report

FolderID: 98491  
FormID: 11185824

Reynolds Metals company  
1333 highway 270  
Malvern, AR 72104

Priorities Found: ● 4 - High ● 14 - Good

### General

1. Job Number	98491
2. Report Date	7/22/2021
3. Customer	12368

### Name Plate Information

4. Manufacturer	GE MOTORS
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5. Model	5CD203PA
6. Serial Number	PL-7-7-PL
7. Horsepower	125
8. KW	
9. Armature Volts	
10. Armature Amps	202
11. Field Voltage	300
12. Field Amps	2.95
13. RPM	2100
14. Frame	
15. Enclosure	TEUC
16. Service Factor	
17. Motor Mount Position	
<b>Initial Inspection</b>	
18. Lead Length	
19. Lead Size	

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20. Lead Condition  
 A1 Lead needs replaced

(P) Pass



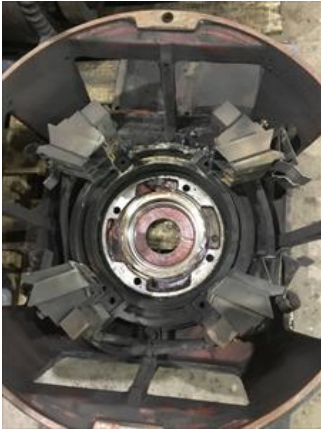
21. Lead Markings	A1 A2 S1 S2 F1 F2 F3 F4
22. Lug Size, Condition, and Type	
23. Winding RTD's	
24. Winding Rtd's Condition	
25. Shaft Run Out	
26. Does Shaft Turn Freely	yes
27. Does Shaft Have Visible Damage	no
28. Bearing Rtd's	
29. Bearing Rtd's Condition	
30. Contamination	
31. Frame Condition	(P) Pass
32. Fan Condition	
33. Brush Condition	(F) Fail
34. Quantity of brushes	8



35. Brush Holder Assembly Condition

(F) Fail

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36. Broken or missing components  
*Brush spring needs replaced*



### Initial Electric Test

37. Armature Resistance to Ground

**276.3 Mohm**







39. Armature Hi-Pot

40. Field Hi-Pot

41. Armature Bar to Bar Test

(P) Pass

*But needs to be rewind  
Armature has been very hot*

42. DC field frame Drop Test

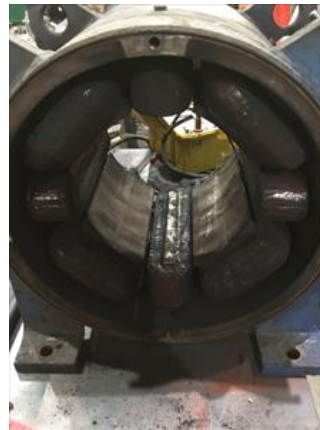
(P) Pass

*But needs to be rewind fields have been very hot*

43. DC Field Frame Polarity Check

44. Field Frame Condition

Wash and bake



45. Field Frame Failure Location

### Initial Armature Inspection

46. Air Gap &lt;10% Variation

47. Number of Commutator Bars

48. Growler Test

(P) Pass



49. Commutator Condition

(P) Pass

Turn and under cut



50. Armature Condition

Wash and bake



51. Armature Failure Location

**Mechanical Inspection**

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ⓘ *Bearing fluted needs aegis ring  
Aegis ring shaft size 3.124*



57. Insulated Bearing	no
58. Lubrication Type	grease



59. Grease Condition	(NA) Not Applicable
----------------------	---------------------



Mixed grease

60. Bearing Retainers	(Y) Yes
61. Shaft Grounding Device	(NA) Not Applicable
62. DE Seal	(NA) Not Applicable
63. DE Seal Type/Size	
64. ODE Seal	(NA) Not Applicable

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65. ODE Seal Type/Size	
<b>Root Cause of Failure</b>	
66. Component Failure	
67. Cause of Failure	
68. Comments	
69. Service Technician	
<b>Machine Fit Inspection Report</b>	
70. Shaft Run Out	
71. Initial Shaft Run Out	
72. Final Shaft Run Out	
73. DE Bearing Shaft Fit	(P) Pass



74. DE Initial Shaft Bearing Fit 1	2.7562 "
75. DE Finial Shaft Bearing Fit 1	
76. DE Initial Shaft Bearing Fit 2	2.7562 "
77. DE Finial Shaft Bearing Fit 2	
78. DE Initial Shaft Bearing Fit 3	2.7562 "
79. DE Finial Shaft Bearing Fit 3	
80. ODE Bearing Shaft Fit	(P) Pass



81. ODE Initial Shaft Bearing Fit 1	2.5596 "
82. ODE Finial Shaft Bearing Fit 1	
83. ODE Initial Shaft Bearing Fit 2	2.5596 "
84. ODE Finial Shaft Bearing Fit 2	

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85. ODE Initial Shaft Bearing Fit 3	2.5596 "
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
  Sleeve	



94. DE Initial Endbell Fit Size 1	4.924 "
95. DE Final Endbell Fit Size 1	
96. DE Initial Endbell Fit Size 2	4.924 "
97. DE Finial Endbell Fit Size 2	
98. DE Initial Endbell Fit Size 3	4.924 "
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	(F) Fail
  Resleeve	



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105. ODE Endbell Fit Insulated

(Y) Yes



106. ODE Endbell Air Seal Fit

107. ODE Initial Endbell Seal Fit Size

108. ODE Final Endbell Seal Fit Size

109. Foot Flatness (P) Pass

110. Foot Condition (P) Pass

111. Flange Condition

112. Turn and Under Cut Armature (NA) Not Applicable

Turn and under cut



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

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121. Service Technician
<b>Assembly and Final Test</b>
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.
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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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