



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

Motor Shop Repairs

**Job Number 99380**

Prepared for ALCOA REMEDIATION

1401 BAUXITE CUTOFF  
BAUXITE AR 72011

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AC Recondition Repair Report

1.0

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

## AC Recondition Repair Report

FolderID: 99380  
FormID: 12818861

ALCOA REMEDIATION  
1401 BAUXITE CUTOFF  
BAUXITE, AR 72011

Priorities Found: ● 4 - High ● 13 - Good

### General

1. Job Number	99380
2. Report Date	2/11/2022
3. Customer	Alcoa Remediation

### Name Plate Information

4. Manufacturer	WEG
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5. Model	30018ET3G449T-W22
6. Serial Number	1053447476
7. Horsepower	300
8. KW	
9. Volts	460
10. Amps	330
11. RPM	1780
12. Frame	449T
13. Enclosure	TEFC
14. Cycles	60
15. Phase	3
16. Service Factor	1.15
17. Motor Mount Position	
<b>Initial Inspection</b>	
18. Number of Leads	12
19. Lead Length	25 Inches
20. Lead Size	
21. Lead Condition	(P) Pass
22. Lead Markings	1-12
23. Lug Size, Condition, and Type	
24. Winding RTD's	

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25. Winding Rtd's Condition	
26. Shaft Run Out	0.001
27. Does Shaft Turn Freely	yes
28. Does Shaft Have Visible Damage	no
29. Bearing Rtd's	
30. Bearing Rtd's Condition	
31. Contamination <i>Water</i>	
32. Frame Condition	(P) Pass
33. Fan Condition	(P) Pass



34. Broken or missing components	
<b>Initial Electric Test</b>	
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	recondition
43. Failure Location	
<b>Initial Rotor Inspection</b>	
44. Rotor Type	cast aluminum
45. Air Gap <10% Variation	
46. Number of Rotor Bars	40
47. Number of Broken Rotor Bars	0
48. Growler Test	(P) Pass



49. Rotor Condition

(P) Pass



**Mechanical Inspection**

50. Bearing Manufacture






skf



51. Bearing DE Size

6322 c3



52. Bearing DE Type			ball
53. DE Bearing Qty.			1
54. Bearing ODE Size			6319 c3
55. Bearing ODE Type			ball
56. ODE Bearing Qty.			1
57. Insulated Bearing			no
58. Lubrication Type			polyrex
<div></div> 59. Grease Condition <div>Has water in grease</div>			(F) Fail
<div></div> 60. Bearing Retainers			(Y) Yes

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61. Shaft Grinding Device	(N) No
62. DE Seal	
63. DE Seal Type/Size	
64. ODE Seal	
65. ODE Seal Type/Size	
<b>Root Cause of Failure</b>	
66. Component Failure	bearings and grease
67. Cause of Failure	<i>Spalling and frosting of the bearings</i>
68. Comments	
69. Service Technician	
<b>Machine Fit Inspection Report</b>	
70. Shaft Run Out	(P) Pass
71. Initial Shaft Run Out	0.001 "



72. Final Shaft Run Out	
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73. DE Bearing Shaft Fit

(P) Pass



74. DE Initial Shaft Bearing Fit Size 1	4.3318 "
75. DE Initial Shaft Bearing Fit Size 2	4.3318 "
76. DE Initial Shaft Bearing Fit Size 3	4.3318 "
77. DE Finial Shaft Bearing Fit Size 1	
78. DE Finial Shaft Bearing Fit Size 2	
79. DE Finial Shaft Bearing Fit Size 3	

80. ODE Bearing Shaft Fit

(P) Pass



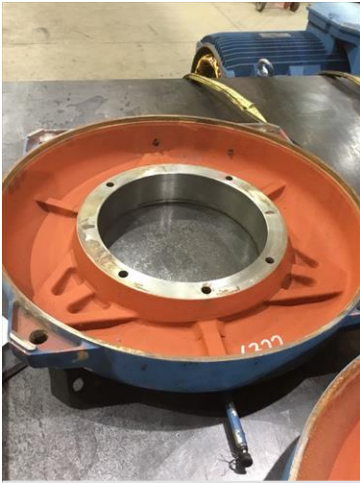
81. ODE Initial Shaft Bearing Fit Size 1	3.7409 "
82. ODE Initial Shaft Bearing Fit Size 2	3.7409 "
83. ODE Initial Shaft Bearing Fit Size 3	3.7409 "
84. ODE Finial Shaft Bearing Fit Size 1	
85. ODE Finial Shaft Bearing Fit Size 2	
86. ODE Finial Shaft Bearing Fit Size 3	
87. DE Air Seal Shaft Fit	
88. 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

(F) Fail

Too tight

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94. DE Initial Endbell Fit Size 1	9.4476999999999999 "
95. DE Initial Endbell Fit Size 2	9.4479000000000001 "
96. DE Initial Endbell Fit Size 3	9.4474 "
97. DE Final Endbell Fit Size 1	9.4489 "



98. DE Finial Endbell Fit Size 2	9.449 "
99. DE Final Endbell Fit Size 3	9.4489 "
100. DE Endbell Fit Insulated	
101. DE Endbell Air Seal Fit	
102. Initial Endbell Air Seal Fit Size	
103. Finial Endbell Air Seal Fit Size	

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104. ODE Endbell Fit

(P) Pass



105. ODE Initial Endbell Fit Size 1 7.8743 "

106. ODE Initial Endbell Fit Size 2 7.8743 "

107. ODE Initial Endbell Fit Size 3 7.8745 "

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 (N) No

112. ODE Endbell Air Seal Fit

113. ODE Initial Endbell Seal Fit Size

114. ODE Final Endbell Seal Fit Size

115. Foot Flatness (P) Pass

116. Foot Condition (P) Pass

117. Flange Condition

118. Service Technician Trevor Hall

### Balancing Report

119. Balance Type nema standard



120. Balance Operating Speed

121. Start Left End

122. Start Right End

123. Balancing Specification

124. Finish Left End

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125. Finish Right End
126. Service Technician
<b>Assembly and Final Test</b>
127. Meggar Testing Reading
128. Surge Test
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
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
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





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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.
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



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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.
12. **ABANDONED EQUIPMENT.** Hi-Speed requires that Buyer promptly pick up or provide shipment instructions for Buyer equipment or other Buyer property in Hi-Speed's possession. If equipment or other Buyer property is left with Hi-Speed and not picked up within six (6) months after Hi-Speed's final action related to the applicable property (e.g. evaluation, teardown, estimate, completion of services), Hi-Speed will consider such property abandoned and may dispose of it in accordance with applicable law. Buyer agrees to hold Hi-Speed harmless for any damage or claim for such abandoned property and acknowledges that Hi-Speed may discard or recycle it at Hi-Speed's sole and absolute discretion. Specifically, Hi-Speed may sell Buyer's abandoned property at a private or public sale and retain the proceeds to offset Hi-Speed's storage, inspection and servicing costs. For the avoidance of doubt, Hi-Speed reserves its statutory and other lawful liens for unpaid charges related to abandoned property.
13. **FORCE MAJEURE.** Neither party shall be responsible for any delay or failure in performance of any party of the quotation, purchase order or these Standard Terms and Conditions to the extent that such delays or failures are caused by fire, flood, earthquake, explosion, war, embargo, government requirement, civil or military authority, acts of God, or any other circumstances beyond its reasonable control and not involving any fault or negligence on the party affected ("Condition"). If any such Condition occurs, the party delayed or unable to perform shall promptly give written notice to the other party and, if such Condition remains at the end of thirty (30) days, the party affected by the other party's delay and inability to perform may elect to (i) terminate such order or part thereof, or (ii) suspend the order for the duration of the Condition, if the Buyer is the suspending party, buy elsewhere comparable material to be sold under the order and apply to any commitment the purchase price of such purchase, and resume performance of the order once the Condition ceases, with an option in the affected party to extend the period of this order up to the length of the time the Condition endures.
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