



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

AC Recondition Repair Report

FUTURE FUEL CHEMICAL
2800 GAP RD HWY 394 SO
BATESVILLE, AR 72501

FolderID: 100570
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Priorities Found: ● 1 - High ● 13 - Good

General

1. Job Number	100504
2. Report Date	10/31/2022
3. Customer	FUTURE FUEL

Name Plate Information



4. Manufacturer	RELIANCE	P5
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




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5. Model	21MN400240
6. Serial Number	P40G 240M G3 SS
7. Horsepower	100
8. KW	
9. Volts	460
10. Amps	111
11. RPM	1785
12. Frame	405T
13. Enclosure	TEFC
14. Cycles	60 HZ
15. Phase	3

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16. Service Factor	1.15	
17. Motor Mount Position		
Initial Inspection		
18. Number of Leads	3	P13
		
19. Lead Length	13 Inches	
20. Lead Size		
● 21. Lead Condition	(P) Pass	P42
		
22. Lead Markings		
23. Lug Size, Condition, and Type		
24. Winding RTD's		
25. Winding Rtd's Condition		
26. Shaft Run Out	0.001	
27. Does Shaft Turn Freely	yes	

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28. Does Shaft Have Visible Damage

none

P94



29. Bearing Rtd's

30. Bearing Rtd's Condition

31. Contamination

Water inside stator.

P104



32. Frame Condition

(P) Pass

P106



33. Fan Condition

(P) Pass

P109



34. Broken or missing components
3 each fan cover bolts broken off and require drill and tap.

P113



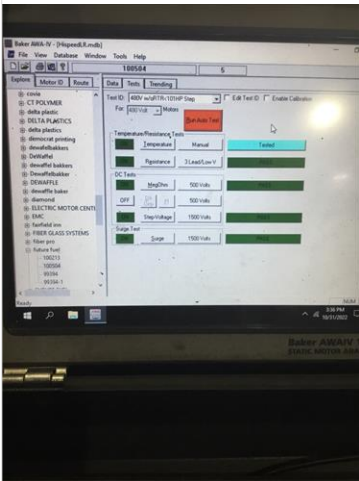
Initial Electric Test



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

P58



42. Stator Condition

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43. Failure Location

Initial Rotor Inspection



44. Rotor Type

squirrel cage laminate

P4



45. Air Gap <10% Variation

46. Number of Rotor Bars

47. Number of Broken Rotor Bars

48. Growler Test

49. Rotor Condition

Mechanical Inspection



50. Bearing Manufacture





KBC

51. Bearing DE Size

6316

P15



52. Bearing DE Type	regular ball bearing	P23
		
53. DE Bearing Qty.	1	
54. Bearing ODE Size	6316	P43
  		
55. Bearing ODE Type	regular ball bearing	
56. ODE Bearing Qty.	1	
57. Insulated Bearing	no	
58. Lubrication Type	grease	
● 59. Grease Condition	(F) Fail	P74



60.
Bearing Retainers

(Y) Yes

P80



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	bearings. ODE housing fit pitted.
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67. Cause of Failure	P14
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Water contaminated grease.



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68. Comments
69. Service Technician

Terrence. Holland



Machine Fit Inspection Report



70.	Shaft Run Out	(P) Pass
71.	Initial Shaft Run Out	0.001 "
72.	Final Shaft Run Out	
73.	DE Bearing Shaft Fit	(P) Pass
74.	DE Initial Shaft Bearing Fit Size 1	3.1498 "
75.	DE Initial Shaft Bearing Fit Size 2	3.1498 "
76.	DE Initial Shaft Bearing Fit Size 3	3.1498 "
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	3.1497 "
82.	ODE Initial Shaft Bearing Fit Size 2	3.1498 "
83.	ODE Initial Shaft Bearing Fit Size 3	3.1498 "
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	(P) Pass
94.	DE Initial Endbell Fit Size 1	6.6931 "
95.	DE Initial Endbell Fit Size 2	6.693 "
96.	DE Initial Endbell Fit Size 3	6.6932 "
97.	DE Final Endbell Fit Size 1	
98.	DE Finial Endbell Fit Size 2	
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	

 *Pitted*



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

(NA) Not Applicable

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

(NA) Not Applicable

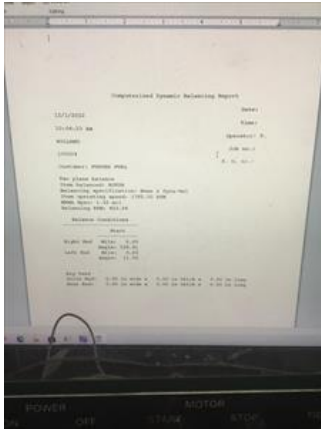
118. Service Technician

Terrence Holland

 *Bearing grease contaminated with water.*

Balancing Report





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

Terrence. Holland

Assembly and Final Test

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
159.	Service Technician