



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

Motor Shop Repairs

Job Number 97749

Prepared for FUTURE FUEL CHEMICAL

2800 GAP RD HWY 394 SO
BATESVILLE AR 72501

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AC Recondition Repair Report

1.0

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AC Recondition Repair Report

FolderID: 97749
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FUTURE FUEL CHEMICAL
2800 GAP RD HWY 394 SO
BATESVILLE, AR 72501

Priorities Found: ● 1 - High ● 11 - Good

General

1. Job Number	97749
2. Report Date	
3. Customer	FUTURE FUEL

Name Plate Information

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4. Manufacturer



5. Model	
6. Serial Number	
7. Horsepower	
8. KW	
9. Volts	460
10. Amps	
11. RPM	
12. Frame	256TDZ
13. Enclosure	

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14. Cycles	
15. Phase	
16. Service Factor	
17. Motor Mount Position	
Initial Inspection	
18. Number of Leads	6



19. Lead Length	13 Inches
20. Lead Size	
21. Lead Condition	(P) Pass



22. Lead Markings	1-6
23. Lug Size, Condition, and Type	
<i>D</i>	
24. Winding RTD's	(Y) Yes
25. Winding Rtd's Condition	
<i>Overloads s</i>	
26. Shaft Run Out	
27. Does Shaft Turn Freely	yes
28. Does Shaft Have Visible Damage	no
29. Bearing Rtd's	(NA) Not Applicable
30. Bearing Rtd's Condition	(NA) Not Applicable
31. Contamination	
<i>Lots of oil</i>	

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● 32. Frame Condition	(P) Pass
● 33. Fan Condition	(P) Pass



34. Broken or missing components
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

(F) Fail



42. Stator Condition

rewind

43. Failure Location

Initial Rotor Inspection

44. Rotor Type

cast aluminum



45. Air Gap <10% Variation

46. Number of Rotor Bars

45

47. Number of Broken Rotor Bars

48. Growler Test

(P) Pass

49. Rotor Condition

(P) Pass

Mechanical Inspection

50. Bearing Manufacture

KOYO

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51. Bearing DE Size

6309ZZ



52. Bearing DE Type

ball



53. DE Bearing Qty.

1

54. Bearing ODE Size

6209ZZ

55. Bearing ODE Type

ball



56. ODE Bearing Qty.

1

57. Insulated Bearing

no

58. Lubrication Type

59. Grease Condition

60. Bearing Retainers

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61. Shaft Grounding Device	
62. DE Seal	
63. DE Seal Type/Size	
64. ODE Seal	(NA) Not Applicable
65. ODE Seal Type/Size	42X58X8



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 Size 1	1.7722 "
75. DE Initial Shaft Bearing Fit Size 2	1.7722 "
76. DE Initial Shaft Bearing Fit Size 3	1.7722 "
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	1.772 "
82. ODE Initial Shaft Bearing Fit Size 2	1.7721 "
83. ODE Initial Shaft Bearing Fit Size 3	1.7721 "
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

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94. DE Initial Endbell Fit Size 1	3.9375 "
95. DE Initial Endbell Fit Size 2	3.9375 "
96. DE Initial Endbell Fit Size 3	3.9375 "
97. DE Final Endbell Fit Size 1	
98. DE Final Endbell Fit Size 2	
99. DE Final Endbell Fit Size 3	
100. DE Endbell Fit Insulated	
101. DE Endbell Air Seal Fit	
102. Initial Endbell Air Seal Fit Size	
103. Final Endbell Air Seal Fit Size	
104. ODE Endbell Fit	(P) Pass



105. ODE Initial Endbell Fit Size 1	3.3471 "
106. ODE Initial Endbell Fit Size 2	3.3471 "
107. ODE Initial Endbell Fit Size 3	3.3471 "
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	
112. ODE Endbell Air Seal Fit	
113. ODE Initial Endbell Seal Fit Size	
114. ODE Final Endbell Seal Fit Size	
115. Foot Flatness	(NA) Not Applicable

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116. Foot Condition	(NA) Not Applicable
● 117. Flange Condition	(P) Pass
118. Service Technician	RW
Balancing Report	
119. Balance Type	
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	
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	

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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.
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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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15. **ASSIGNMENT.** The rights and obligations of the parties shall neither be assigned nor delegated without the prior written consent of the other party. However, any party may assign or delegate its respective rights and obligations, in whole or in part, (i) to any subsidiary, (ii) pursuant to other financing, merger or reorganization or (iii) pursuant to any sale or transfer of substantially all of the assets of the assigning party. These Standard Terms and Conditions shall bind the heirs, successors and assigns of the parties hereto.
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