

# — EVERY DAY SINCE 1946 —

# Motor Shop Repairs

# Job Number 97848

Prepared for Wonder State Box

584 Commerce Rd Conway AR 72058

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# **AC Recondition Repair Report**

**Wonder State Box** 584 Commerce Rd Conway, AR 72058 Performed By: Motor Shop LR 2 Date Completed: 3/4/2021

Priorities Found: 2 - High 12 - Good

		<del>-</del>	
General			
1	Job Number		97848
2. F	Report Date		
3. (	Customer		WONDER STATE BOX
Name Plate Information			

4. Manufacturer Lenze











5.	Model	MHERAXX132-21V1
6.	Serial Number	170121019
7.	Horsepower	HP
8.	KW	8.6 KW
9.	Volts	460 Volts
10.	Amps	13.6 Amps
11.	RPM	3515 RPM
12.	Frame	
13.	Enclosure	TEFC

14. Cycles	60 HZ
15. Phase	3 PH
16. Service Factor	
17. Motor Mount Position	
Initial Inspection	
18. Number of Leads	6



19. Lead Length 6 Inches



20.	Lead Size	16
21.	Lead Condition	(P) Pass
22.	Lead Markings	U1 V1 W1 U2 V2 W2
23.	Lug Size, Condition, and Type	
<b>2</b> 4.	Winding RTD's	(Y) Yes
<b>2</b> 5.	Winding Rtd's Condition	(P) Pass
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	
32.	Frame Condition	(P) Pass
<ul><li>33.</li></ul>	Fan Condition	(P) Pass



34.	Broken or missing components		
Initia	Initial Electric Test		
35.	Resistance to Ground	Mohm	
36.	Winding Resistance 1-2		
37.	Winding Resistance 2-3		
38.	Winding Resistance 1-3		
39.	Resistive Imbalance		
40.	Hi-Pot		
41.	Surge Test	(NA) Not Applicable	
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	26
	47.	Number of Broken Rotor Bars	
	48.	Growler Test	(P) Pass
	49.	Rotor Condition	(P) Pass
N	lecha	anical Inspection	
	50.	Bearing Manufacture	FAG

51. Bearing DE Size 6308ZZ



52. Bearing DE Type ball



53. DE Bearing Qty.

54. Bearing ODE Size 6308ZZ



55. Bearing ODE Type ball



56. ODE Bearing Qty.	1
57. Insulated Bearing	no
58. Lubrication Type	grease
59. Grease Condition	(NA) Not Applicable
60. Bearing Retainers	
61. Shaft Grounding Device	(NA) Not Applicable
62. DE Seal	(NA) Not Applicable
63. DE Seal Type/Size	
64. ODE Seal	
65. ODE Seal Type/Size	
Doot Course of Esilves	

### **Root Cause of Failure**

66. Component Failure

Drive end end bell housing fit bad







- 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

## 73. DE Bearing Shaft Fit





74.	DE Initial Shaft Bearing Fit Size 1	1.575 "
75.	DE Initial Shaft Bearing Fit Size 2	1.575 "
76.	DE Initial Shaft Bearing Fit Size 3	1.575 "
77.	DE Finial Shaft Bearing Fit Size 1	
78.	DE Finial Shaft Bearing Fit Size 2	
79.	DE Finial Shaft Bearing Fit Size 3	
<b>8</b> 0.	ODE Bearing Shaft Fit	(P) Pass



81	. ODE Initial Shaft Bearing Fit Size 1	1.575 "
82	. ODE Initial Shaft Bearing Fit Size 2	1.575 "
83	. ODE Initial Shaft Bearing Fit Size 3	1.575 "
84	ODE Finial Shaft Bearing Fit Size 1	
85	. ODE Finial Shaft Bearing Fit Size 2	
86	5. 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



94. DE Initial Endbell Fit Size 1	3.5483 "
95. DE Initial Endbell Fit Size 2	3.5484 "
96. DE Initial Endbell Fit Size 3	3.5484 "
97. DE Final Endbell Fit Size 1	3.544 "



98. DE Finial Endbell Fit Size 2	3.5439 "
99. DE Final Endbell Fit Size 3	3.544 "
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



105. ODE Initial Endbell Fit Size 1	3.5452 "
106. ODE Initial Endbell Fit Size 2	3.5452 "
107. ODE Initial Endbell Fit Size 3	3.5452 "
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 Finial Endbell Seal Fit Size	
115. Foot Flatness	(NA) Not Applicable
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	56159 Mohm
128. Surge Test	(P) Pass
129. Hi-Pot	· ·
130. Winding Resistance 1-2	
131. Winding Resistance 2-3	
132. Winding Resistance 1-3	



134. Test Run Amps A

5.4 Amps

135. Test Run Voltage Phase B





136. Test Run Amps B 5.1 Amps

137. Test Run Voltage Phase C 458 Volts



138. Test Run Amps C

139. DE Horizontal Vibration Reading

5.3 Amps

140. DE Vertical Vibration Reading141. 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	(P) Pass



159. Service Technician RW



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- 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.
- 5. <u>DELIVERY OF GOODS AND/OR SERVICES.</u> 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. <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.