

Motor Shop Repairs

Job Number 99273

Prepared for Bridgestone (005113)

2700 E Main Street Russellville AR 72802

Table of Contents



Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.

Printed on 1/26/2022 Powered by INSPECTALL Table of Contents



FolderID: 99273

FormID: 12632459



DC Rewind Repair Report

Bridgestone (005113) 2700 E Main Street Russellville, AR 72802

Priorities Found: 6 - High

13 - Good

General			
1.	Job Number	99273	
2.	Report Date	1/21/2022	
3.	Customer	Bridgestone	
Name	Plate Information		
4.	Manufacturer	Reliance	



























6203 6205 bearing







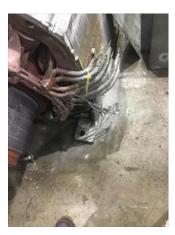






5.	Model	1U339897-T1-ZH
6.	Serial Number	
7.	Horsepower	700
8.	KW	
9.	Armature Volts	500
10.	Armature Amps	1098
11.	Field Voltage	300
12.	Field Amps	6.72
13.	RPM	1150
14.	Frame	B687ATZ
15.	Enclosure	DPGFV
16.	Service Factor	
17.	Motor Mount Position	
Initial	Inspection	
18.	Lead Length	
19.	Lead Size	





21.	Lead Markings	
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	(NA) Not Applicable
29.	Bearing Rtd's Condition	(NA) Not Applicable
30.	Contamination	
31.	Frame Condition	(P) Pass
32.	Fan Condition	(NA) Not Applicable
33.	Brush Condition	(P) Pass
	Brushes pass but they need to be replaced because of remaining length	



34.	Quantity of brushes	20	
35.	Brush Holder Assembly Condition	(P) Pass	



36. Broken or missing components

Initial Electric Test

37. Armature Resistance to Ground 12,920 Mohm



38. Field Resistance to Ground 42,700 Mohm



- 39. Armature Hi-Pot
- 40. Field Hi-Pot
- 41. Armature Bar to Bar Test
- 42. DC field frame Drop Test

(P) Pass

43. DC Field Frame Polarity Check

44. Field Frame Condition wash and bake





45. Field Frame Failure Location

Initial Armature Inspection

- 46. Air Gap <10% Variation
- 47. Number of Commutator Bars
- 48. Growler Test(P) Pass



49. Commutator Condition

Turn and under cut

(F) Fail



50. Armature Condition wash and bake



51. Armature Failure Location

Mechanical Inspection

52. Bearing Manufacture Koyo

53. Bearing DE Size 6224ZX





Found frosting but also the start of fluting

54. Bearing DE Type ball bearing
55. Bearing ODE Size 6224ZX





Found frosting but also the start of fluting

56.	Bearing ODE Type	ball bearing
57.	Insulated Bearing	no
58.	Lubrication Type	grease
59.	Grease Condition	(P) Pass



	Searing Retainers	
	Shaft Grounding Device	(N) No
62. D	DE Seal	(NA) Not Applicable
	DE Seal Type/Size	
64. C	DDE Seal	(NA) Not Applicable
65. C	DDE Seal Type/Size	
Root Ca	use of Failure	
66. C	Component Failure	
67. C	Cause of Failure	
C	Comm. needs to be turned and undercut.motor was full of powder	
68. C	Comments	
69. S	Service Technician	
Commu	tator Data	
70. F	ront V Ring Ext.	
71. T	otal Copper Segment Length	
72. L	ength Brush Surface	
73. R	Rear V Ring Ext.	
74. N	Max Comm Dia.	
75. C	Comm Dia.	
76. D	ia Over V Ring	
77. F	ront Bore Dia.	
78. R	Rear Bore Dia.	
79. D	ia. Over V Ring	
80. R	tiser Dia.	
81. N	lumber of Copper Segments	
82. V	Vire Size	
83. N	lica Segment Thickness	
84. V	Vires/riser slot	
85. E	qualizer Size	
86. E	qualizer/riser slot	

87.	Equalizer seq. on comm.
88.	Commutator Type
89.	Shaft Diamater Keyway alignment with center line of
90.	Key way size
	Riser Type
	Commutator Condition
	Riser to Core dimension
	Armature Core Length
	Comm End Coil Ext
96.	Knuckle End Coil Ext
97.	Armature Core Diameter
98.	Armature Throw
99.	Service Technician
Armat	ure Winding Sheet
	Slots
	Wire Size
	Bars
	Turns per coil
	Wires in Mult
	Slot span 1 to
	Coil per slot
107.	Wire Type
108.	Comm Span 1 to
109.	Wire Weight
110.	Number of Equalizers
	Span 1 to
	Equalizers Wire Size
	Compensating Winding Wire Size
	Compensating Turns per slot
	•
	Compensating or Face Winding
	Wave Winding Leads from Slot 1 to Bar
	Lap Winding leads from slot 1 to bar
	Total Slot Depth
	Slot Depth under wedge
120.	Slot Width
121.	Coil Knuckle Type
122.	Service Technician
Field I	Frame Winding Sheet
123.	Winding Type
	Coils Wound on Flat or Edge
	Coils would left or right handed
	Interpoles
	·
	Permanent Magnet Shut Cail Dimensions
	Shut Coil Dimensions
	Number of Shunt Coils
	Number of Circuits
131.	Turns per coil

132. W	/ire Size	
133. Lb	bs. Per Coil	
134. Se	eries Coil Dimensions	
135. Nu	umber of Series Coils	
136. Nu	umber of Series Coil Circuits	
137. Se	eries Turns per coil	
138. Se	eries Coil Wire Size	
139. Se	eries coil lbs per coil	
140. Int	nterpole Coil Dimensions	
141. Nu	umber of Interpole Coils	
142. Nu	umber of Interpole Circuits	
143. Int	nterpole Turns per coil	
144. Int	nterpole wire size	
145. Int	nterpole lbs per coil	
146. Se	ervice Technician	
Machine	Fit Inspection Report	
147. Sh	haft Run Out	
148. Ini	nitial Shaft Run Out	
149. Fir	inal Shaft Run Out	
● 150. DE	E Bearing Shaft Fit (I	F) Fail



151. DE Initial Shaft Bearing Fit 1	
152. DE Finial Shaft Bearing Fit 1	
153. DE Initial Shaft Bearing Fit 2	
154. DE Finial Shaft Bearing Fit 2	
155. DE Initial Shaft Bearing Fit 3	
156. DE Finial Shaft Bearing Fit 3	



158.	ODE Initial Shaft Bearing Fit 1	
159.	ODE Finial Shaft Bearing Fit 1	
160.	ODE Initial Shaft Bearing Fit 2	
161.	ODE Finial Shaft Bearing Fit 2	
162.	ODE Initial Shaft Bearing Fit 3	
163.	ODE Finial Shaft Bearing Fit 3	
164.	DE Air Seal Shaft Fit	
165.	DE Initial Air Seal Shaft Size	
166.	DE Final Air Seal Shaft Size	
167.	ODE Air Seal Shaft Fit	
168.	ODE Initial Air Seal Shaft Size	
169.	ODE Final Air Seal Shaft Size	
170.	DE Endbell Fit	(F) Fail
-	Resleeve	
171.	DE Initial Endbell Fit Size 1	
172.	DE Final Endbell Fit Size 1	
173.	DE Initial Endbell Fit Size 2	
174.	DE Finial Endbell Fit Size 2	
175.	DE Initial Endbell Fit Size 3	
176.	DE Final Endbell Fit Size 3	
177.	DE Endbell Fit Insulated	(NA) Not Applicable
178.	DE Endbell Air Seal Fit	
179.	Initial Endbell Air Seal Fit Size	
180.	Finial Endbell Air Seal Fit Size	
181.	ODE Endbell Fit	(F) Fail
-	Resleeve	
182.	ODE Endbell Fit Insulated	
183.	ODE Endbell Air Seal Fit	
184.	ODE Initial Endbell Seal Fit Size	
185.	ODE Finial Endbell Seal Fit Size	
186.	Foot Flatness	(P) Pass
187.	Foot Condition	(P) Pass
188.	Flange Condition	(NA) Not Applicable
189.	Turn and Under Cut Armature	(F) Fail

Yes RW 190. Service Technician **Balancing Report** 191. Balance Type 192. Balance Operating Speed **RPM** 193. Start Left End 194. Start Right End 195. Balancing Specification 196. Finish Left End 197. Finish Right End 198. Service Technician Assembly and Final Test 199. Armature Meggar Testing Reading 200. Armature Hi-Pot 201. Field Frame Meggar Testing Reading 202. Field Frame Hi-Pot 203. Test Run Field Voltage 204. Test Run Field Amps 205. Test Run Armature Voltage 206. Test Run Armature Amps 207. Brushes seated 208. DE Horizontal Vibration Reading 209. DE Vertical Vibration Reading 210. DE Axial Vibration Reading 211. ODE Horizontal Vibration Reading 212. ODE Vertical Vibration Reading 213. ODE Axial Vibration Reading 214. Ambient Temp at start of Test Run 215. Temp at 5 minutes 216. Temp at 10 minutes 217. Temp at 15 minutes 218. Temp at 20 minutes 219. Temp at 25 minutes 220. Temp at 30 minutes 221. Temp at 35 minutes 222. Temp at 40 minutes 223. Temp at 45 minutes 224. Temp at 50 minutes 225. Temp at 55 minutes

Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.

226. Temp at 60 minutes

227. Motor Paint



STANDARD TERMS AND CONDITIONS FOR PURCHASE OF GOOD AND/OR SERVICES

- 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.
- 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 bee 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. <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.
- **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buver 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.
- 7. INSPECTION/ACCEPTANCE. All goods and services ordered pursuant to any quotation shall be subject to inspection by Buyer after delivery or performance to determine conformity with the quotation and/or purchase order and Hi-Speed's advertised or published specifications. Buyer shall have a period of thirty (30) days from shipment of goods at the delivery destination specified in the quotation within which to inspect the goods for conformity with the quotation, order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. Buyer shall have a period of thirty (30) days following completion of any services within which to inspect the services for conformity with the quotation, purchase order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. If the goods delivered or services performed do not so conform, upon delivery of notice to Hi-Speed of any discrepancy, nonconformance or rejection, Hi-Speed shall have sixty (60) days to cure the alleged discrepancy and/or nonconformance. If Hi-Speed fails to cure in this time period, Buyer shall have the right to reject such goods or services. After the cure period, goods that have been delivered and rejected, in whole or in part, shall be returned to Hi-Speed. Buyer shall notify Hi-Speed and arrange for the return of the goods as required. Should such non-conforming services be rejected Hi-Speed shall, at its sole cost, re-perform the non-conforming services. Inspection or failure to inspect on any occasion shall not affect Buyer's rights under the warranty provisions herein.
- 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

replace any defective or non-conforming goods in accordance with the applicable manufacturer's warranty. Warranty for any defective or incorrect parts is limited to the repair or replacement of those parts. Hi-Speed warrants that all services will conform in all material respects to the description of services identified in the quotation and will be performed in a good and workmanlike manner in accordance with industry practices and standards. Should the services be reasonably rejected or not conform with the foregoing warranties, Hi-Speed shall, at its sole cost, re-perform the defective or nonconforming services. Notwithstanding the foregoing, these warranties do not extend to goods or services to the extent that such goods have been subject to misuse, neglect or abuse not caused by Hi-Speed or have been used in violation of the approved written instructions furnished to Buyer. THE FOREGOING REPRESENTS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY HI-SPEED WITH RESPECT TO ALL GOODS SOLD AND IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESS OR IMPLIED. HI-SPEED EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICLAR USE OR PURPOSE. BUYER WAIVES ANY CLAIM THAT THESE EXCLUSIONS OR LIMITATIONS DEPRIVE IT OF AN ADEQUATE REMEDY AT EQUITY OR LAW OR CAUSE THIS AGREEMENT TO FAIL IN ITS ESSENTIAL PURPOSE. BUYER SHALL BE ENTITLED TO NO OTHER REMEDY OTHER THAN AS SET FORTH HEREIN, REGARDLESS OF THE CLAIM OR CAUSE OF ACTION, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, GOODS LIABILITY, STRICT LIABILITY OR OTHERWISE.

- 9. <u>LIMITATION OF DAMAGES.</u> HI-SPEED SHALL HAVE NO LIABILITY TO BUYER WITH RESPECT TO THE SALE OR DELIVERY OF ANY GOODS OR THE REPAIR THEREOF OR WITH RESPECT TO THE SALE OR PERFORMANCE OF ANY SERVICES, FOR LOST PROFITS, SPECIAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE OR INCIDENTAL DAMAGES OF ANY KIND OR NATURE WHETHER ARISING IN CONTRACT, TORT, GOODS LIABILITY OR OTHERWISE, EVEN IF HI-SPEED WAS ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGES. HI-SPEED SHALL NOT BE LIABLE FOR ANY DAMAGES OR DELAYS CAUSED BY ANY FAILURE TO MAKE ANY DELIVERY OF GOODS BY ANY EXPECTED TIME OR DATE OR THE FAILURE TO PROVIDE OR COMPLETE ANY SERVICES BY ANY EXPECTED DATE OR TIME. IN NO EVENT SHALL HI-SPEED BE LIABLE TO BUYER FOR ANY DAMAGES WHATSOEVER IN EXCESS OF THE TOTAL PRICE PAID FOR ALL GOODS AND/OR SERVICES HEREUNDER OR REFERENCED IN ANY QUOTATION OR THE PURCHASE ORDER.
- 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.
- 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, earth quake, 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.
- 14. <u>NONWAIVER.</u> No course of dealing or failure of either party to strictly enforce any term, right, or condition of these Standard Terms and Conditions will be construed as a waiver of such term, right or condition. Any waiver by Hi-Speed will only be in writing and will waive no succeeding breach of a term, right or condition.
- 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.
- 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.