

Motor Shop Repairs

Job Number 97760

Prepared for ABC BLOCK

6902 BRODIE LN LITTLE ROCK AR 72204

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AC Recondition Repair Report

ABC BLOCK 6902 BRODIE LN LITTLE ROCK, AR 72204

Priorities Found: **a** 2 - High

9 - Good

General		
1.	Job Number	97760
2.	Report Date	
3.	Customer	ABC BLOCK
Name Plate Information		

4. Manufacturer COLUMBIA













5.	Model	
6.	Serial Number	C0312150048
7.	Horsepower	30
8.	KW	
9.	Volts	230.460
10.	Amps	
11.	RPM	1775
12.	Frame	286TC
13.	Enclosure	OPEN

14. Cycles	60	
15. Phase	3	
16. Service Factor	1.15	
17. Motor Mount Position	F1	
Initial Inspection		
18. Number of Leads	12	



	19.	Lead Length	
	20.	Lead Size	
	21.	Lead Condition	
	22.	Lead Markings	
	23.	Lug Size, Condition, and Type	
	24.	Winding RTD's	
	25.	Winding Rtd's Condition	
	26.	Shaft Run Out	
	27.	Does Shaft Turn Freely	no
	28.	Does Shaft Have Visible Damage	no
	29.	Bearing Rtd's	
	30.	Bearing Rtd's Condition	
	31.	Contamination	
		Mud	
	32.	Frame Condition	(P) Pass
	33.	Fan Condition	(NA) Not Applicable
	34.	Broken or missing components	
		broken of missing components	
		NA	
In	itial		
In		NA	
In		NA I Electric Test Resistance to Ground	
In	35.	NA I Electric Test Resistance to Ground Winding Resistance 1-2	
In	35. 36.	NA I Electric Test Resistance to Ground Winding Resistance 1-2 Winding Resistance 2-3	
In	35. 36. 37.	NA I Electric Test Resistance to Ground Winding Resistance 1-2 Winding Resistance 2-3 Winding Resistance 1-3	
In	35. 36. 37. 38. 39.	Resistance to Ground Winding Resistance 1-2 Winding Resistance 2-3 Winding Resistance 1-3	
In	35. 36. 37. 38. 39.	Resistance to Ground Winding Resistance 1-2 Winding Resistance 2-3 Winding Resistance 1-3 Resistive Imbalance	

42. Stator Condition short to ground



43.	Failure Location	windings
Initial	Rotor Inspection	
44.	Rotor Type	cast aluminum



45	5. Air Gap <10% Variation	
46	6. Number of Rotor Bars	40
47	7. Number of Broken Rotor Bars	0
48	3. Growler Test	
• 49	Rotor Condition	(P) Pass
Mec	hanical Inspection	
50). Bearing Manufacture	koyo
51	I. Bearing DE Size	6310
52	2. Bearing DE Type	ball
53	B. DE Bearing Qty.	1
54	Bearing ODE Size	6309
55	5. Bearing ODE Type	ball
56	6. ODE Bearing Qty.	1
57	7. Insulated Bearing	
58	3. Lubrication Type	grease
59	O. Grease Condition	(F) Fail
60). Bearing Retainers	(Y) Yes
61	Shaft Grounding Device	

62	2. DE Seal	(NA) Not Applicable
63	B. DE Seal Type/Size	. ,
	. ODE Seal	(NA) Not Applicable
65	i. ODE Seal Type/Size	
Root	t Cause of Failure	
66	5. Component Failure	windings and bearings and ode bearing fit on shaft
67	. Cause of Failure	
	Short to ground and grease contamination	
68	3. Comments	
	Recommend rewind, new bearings, and machine work	
69). Service Technician	
Mac	hine Fit Inspection Report	
70). Shaft Run Out	
71	. Initial Shaft Run Out	
72	2. Final Shaft Run Out	
73	B. DE Bearing Shaft Fit	(P) Pass
74	DE Initial Shaft Bearing Fit Size 1	1.9686 "
75	5. DE Initial Shaft Bearing Fit Size 2	1.9686 "
76	5. DE Initial Shaft Bearing Fit Size 3	1.9686 "
77	. DE Finial Shaft Bearing Fit Size 1	
78	B. DE Finial Shaft Bearing Fit Size 2	
79	DE Finial Shaft Bearing Fit Size 3	
80	D. ODE Bearing Shaft Fit	(F) Fail
81	. ODE Initial Shaft Bearing Fit Size 1	1.7713 "
82	2. ODE Initial Shaft Bearing Fit Size 2	1.7711 "
83	B. ODE Initial Shaft Bearing Fit Size 3	1.7713 "
84	. ODE Finial Shaft Bearing Fit Size 1	
85	5. ODE Finial Shaft Bearing Fit Size 2	
86	5. ODE Finial Shaft Bearing Fit Size 3	
87	'. DE Air Seal Shaft Fit	
88	B. DE Initial Air Seal Shaft Size	
89	DE Final Air Seal Shaft Size	
90	D. ODE Air Seal Shaft Fit	
91	. ODE Initial Air Seal Shaft Size	
92	2. ODE Final Air Seal Shaft Size	

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94. DE Initial Endbell Fit Size 1	4.3309 "
95. DE Initial Endbell Fit Size 2	4.3312 "
96. DE Initial Endbell Fit Size 3	4.331 "
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	
101. DE Endbell Air Seal Fit	
102. Initial Endbell Air Seal Fit Size	
103. Finial Endbell Air Seal Fit Size	
104. ODE Endbell Fit	(P) Pass



105. ODE Initial Endbell Fit Size 1	3.9379 "
106. ODE Initial Endbell Fit Size 2	3.9374 "
107. ODE Initial Endbell Fit Size 3	3.9377 "
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 Finial Endbell Seal Fit Size	

115.	Foot Flatness	(P) Pass
116.	Foot Condition	(P) Pass
117 .	Flange Condition	(P) Pass
118.	Service Technician	
Balan	cing 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	
Asser	nbly and Final Test	
127.	Meggar Testing Reading	
	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	



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.
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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.
- **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.
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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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- 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. <u>ASSIGNMENT.</u> 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.