

LR Motor Shop Repairs

Job Number 102091

Prepared for Georges Inc

1810 S. St. Louis Street Batesville AR 72501

Table of Contents

AC Inspection as Found - Shop

AC Inspection - Rev. 2: 109190 B

1.0





AC Inspection as Found

Georges Inc

1810 S. St. Louis Street Batesville, AR 72501

FolderID: 102091 FormID: 18432396

AC Inspection - Rev. 2

Location: Shop

Serial Number: 109190 B

Description: 3KW DERTEC 1800RPM 100L STAINLESS STEAL WITH GEARBOX

Hi-Speed Job Number:	102091
Manufacturer:	Other
Product Number:	FP22SS 100L2-4 B14A
Serial Number:	109190 B
HP/kW:	3 (kW)
RPM:	1750 (RPM)
Frame:	100L
Voltage:	230 / 460
Current:	9.03/5.2
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.23
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	Gear
Bearing RTDs:	No
Stator RTDs:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 1 - High





6 - Good

Overall Condition

Report Date

Nameplate Picture





Photos of all six sides of the machine.













4. Describe the Overall Condition of the Equipment as Received Serviceable

5. Distance from the end of the shaft to the Coupling/Sheave

inches

Initial Mechanical/Electrical

6. Does Shaft Turn Freely?

(Yes) Yes

7. Does Shaft Have Visible Damage?

(No) No



- 8. Assembled Shaft Runout
- 9. Assembled Shaft End Play
- 10. Air Gap Variation <10%

11.	Lead Condition	(P) Pass
12.	Lead Length	
13.	Lead Numbers	W1-W6
14.	Frame Condition	pass
15.	Fan Condition	(P) Pass



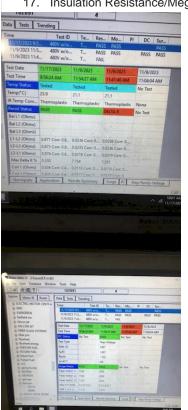
16. Broken or Missing Components

fan cover

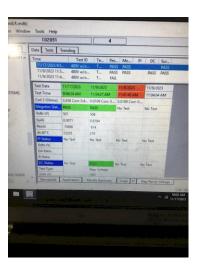


Initial Electrical Inspection

17. Insulation Resistance/Megger



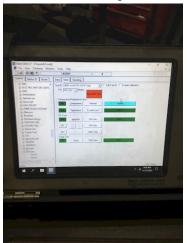
Megohms



18. Winding Resistance

1-2 1-3 2-3

19. Perform Surge Test



20. Number of Stator Slots	36
21. Stator Condition	pass
22. Stator Thermistors/Ohms	
23. Stator Overloads/Ohms	.2
Machanical Inspection	

Mechanical Inspection

24. Drive End Bearing Brand





25. Drive End Bearing Number-

6306 2RS



26. Drive End Bearing Qty.	1
27. Drive End Bearing Type	(Ball) Ball Bearing
28. Drive End Lubrication Type	(Grease) Grease Lubricated
29. Drive End Bearing Insulation or Grounding Device?	none
30. Drive End Wavy Washer/Snap-Ring Other Retention Device?	none
31. Drive End Bearing Condition	replace
32. Opposite Drive End Bearing Brand	



33. Opposite Drive End Bearing Number-

6306 2RS



34. Opposite Drive End Bearing Qty.	1
35. Opposite Drive End Bearing Type	(Ball) Ball Bearing
36. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
37. Opposite Drive End Bearing Insulation or Grounding Device?	none
38. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer



39. Opposite Drive End Bearing Condition replace
40. Drive End Seal 30*47*7



41. Opposite Drive End Seal 30*47*7

Rotor Inspection

42. Rotor Type/Material



43. Growler Test	(Pass) Pass
44. Number of Rotor Bars	31
45. Rotor Condition	pass
46. List the Parts needed for the Repair Below	
(2) 6306 2RS bearings.	
47. Signature of Technician that Disassembled Motor	Terrence Holland

Mechanical Fits- Rotor

IV	Mechanical Fits- Rotor				
	48.	Shaft Runout		0.00	1 inches
	49.	Rotor Runout			
		Drive End Bearing Fit	Rotor Body	Opposite Drive End Be	earing
	50.	Coupling Fit Closest to Bearing Housing	ng		
		0 Degrees	90 Degrees	120 Degrees	
	51.	Coupling Fit Closest to the end of the	Shaft		
		0 Degrees	60 Degrees	120 Degrees	
	52.	Drive End Bearing Shaft Fit			
		0 Degrees	60 Degrees	120 Degrees	
		1.1816	1.1817	1.1817	
	53.	Drive End Bearing Shaft Fit Condition			(P) Pass
	54.	Opposite Drive End Bearing Shaft Fit			
		0 Degrees	60 Degrees	120 Degrees	
		1.1816	1.1815	1.1815	
	55.	Opposite Drive End Bearing Shaft Fit	Condition		(P) Pass
	56.	Shaft Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		

Mechanical Fits- Bearing Housings

57.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	2.8351	2.8352	2.8351	
5 8.	Drive End - Endbell Bearing Fit Cond	ition		(P) Pass
59.	Opposite Drive End - Endbell Bearing	ı Fit		
	0 Degrees	60 Degrees	120 Degrees	
	2.8356	2.8357	2.8356	
6 0.	Opposite Drive End - Endbell Bearing	Fit Condition		(F) Fail
61.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	na	na		
62.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
63.	List Machine Work Needed Below			
	ODE housing.			
64.	Technician		Terrence	Holland
	4	1 1		

Root Cause of Failure

65. Failure locations

66. Root cause of failure

Bad ODE housing fit, needed new seals.

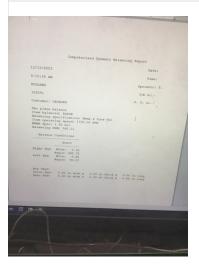
Dynamic Balance Report

67. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

68. Initial Balance Readings

Drive End Opposite Drive End



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69. Final Balance Readings

Drive End

Opposite Drive End



70.	Technician				
Rewir	Rewind				
71.	. Core Test Results - Watts loss per Pound				
	Pre-Burnout	Post Burnout			
72.	Core Hot Spot Test				
	Pre-Burnout	Post-Burnout			
72	Post Rewind Electrical Test- Insulation	Posistanos			
	Post Rewind Polarization Index	i Resistance			
	Post Rewind Winding Resistance				
75.	1-2	1-3	2-3		
	1-2	1-3	2-3		
76.	Post Rewind Surge Test				
77.	Post Rewind Hi-Pot				
78.	78. Technician				
Mech	anical Fits- Rotor - Post Repair				
79.	Shaft Runout Post Repair				
80.	Rotor Runout Post Repair				
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing		
	0 1: 5: 0!				
81.	Coupling Fit Closest to Bearing Housi	•	100 5		
	0 Degrees	90 Degrees	120 Degrees		
82	Coupling Fit Closest to the end of the	Shaft Post Renair			
02.	0 Degrees	60 Degrees	120 Degrees		
	0 D0g.000	00 D0g1000	120 Dog1000		
83.	Drive End Bearing Shaft Fit Post Repa	air			
	0 Degrees	60 Degrees	120 Degrees		
84.	Opposite Drive End Bearing Shaft Fit				
	0 Degrees	60 Degrees	120 Degrees		

85.	85. Shaft Air Seal Fits Post Repair				
	Drive End Air Seal	Opposite Drive End Air Seal			
86.	Shaft Repair Sign-off				
Mecha	anical Fits- Bearing Housings - P	ost Repair			
87.	87. Drive End - Endbell Bearing Fit Post Repair				
	0 Degrees	60 Degrees	120 Degrees		
88.	88. Opposite Drive End - Endbell Bearing Fit Post Repair				
	0 Degrees	60 Degrees	120 Degrees		
	2.8348	2.8348	2.8348		



89. Bearing Cap Condition Post Repair
Drive End Bearing Cap Opposite Drive End Bearing Cap

90. End Bell Air Seal Fits Post Repair
Drive End Air Seal Opposite Drive End Air Seal

91. End Bell Repair Sign-off Gary

Assembly

92. QC Check All Parts for Cleanliness Prior to Assembly

93. Photograph All Major Components prior to assembly











94. Final Insulation Resistance T	est		
95. Assembled Shaft Endplay			
96. Assembled Shaft Runout			
97. Test Run Voltage			
Volts	Volts	Volts	
278	278	278	

98. Test Run Ampe	rage			
Amps	Amps	Amps		
4.4	5	4.6		
99. Drive End Vibra	tion Readings - Inches Per Second			
Horizontal	Vertical	Axial		
100. Opposite Drive	End Vibration Readings - Inches Per Second			
Horizontal	Vertical	Axial		
101. Ambient Tempe	rature - Fahrenheit			
102. Drive End Beari	ng Temps - Fahrenheit			
5 Minutes	10 Minutes	15 Minutes		
103. Opposite Drive	End Bearing Temps - Fahrenheit			
5 Minutes	10 Minutes	15 Minutes		
104. Document Final	104. Document Final Condition with Pictures after paint			
105. Final Pics and C	QC Review	Trevor Hall		

Co sign: CW.

























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- 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.
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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, 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.
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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.