



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

Motor Shop Repairs

Job Number 100036

Prepared for Twin Rivers (12049)

3501 Jefferson Parkway
Pine Bluff AR 71602

Table of Contents



Hi-Speed Industrial Service
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Millington, Tn 38053
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AC Recondition As Found

Twin Rivers (12049)
3501 Jefferson Parkway
Pine Bluff, AR 71602

FolderID: 100036
FormID: 14048168

AC Recondition - Rev. 2

Location: Shop
Serial Number: 7K015641210836
Description: 100HP SIEMENS 1200RPM 444T

Hi-Speed Job Number:	100036
Manufacturer:	Siemens
Product Number:	1LA04446S041
Serial Number:	7K015641210836
HP/kW:	100 (HP)
RPM:	1185 (RPM)
Frame:	444T
Voltage:	460
Current:	114
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	None
Coupling/Sheave:	None
Date Received:	07/11/2022
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: ● 2 - High ● 4 - Good

Overall Condition

1. Report Date
2. Nameplate Picture



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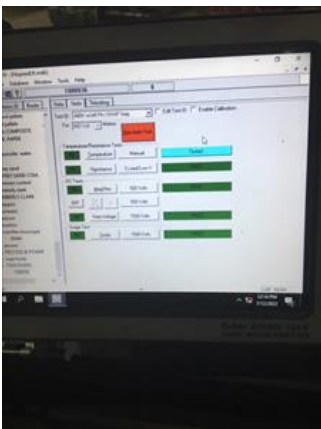
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3. Describe the Overall Condition of the Equipment as Received

Initial Mechanical/Electrical

	4. Does Shaft Turn Freely?	(Yes) Yes	
5.	Does Shaft Have Visible Damage?	(No) No	
6.	Assembled Shaft Runout		
7.	Assembled Shaft End Play		
8.	Air Gap Variation <10%		
9.	Lead Condition		
10.	Lead Length		
11.	Frame Condition		
12.	Fan Condition		
13.	Broken or Missing Components		
Initial Electrical Inspection			
14.	Insulation Resistance/Megger	20,897 Megohms	
15.	Winding Resistance		
	1-2	1-3	2-3
	0.0945	0.0945	0.0945
	16. Perform Surge Test	(P) Pass	



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17. Stator Condition

wash and bake



Mechanical Inspection

18. Drive End Bearing Number-

6318

Found frosting and cut marks in race



19. Drive End Bearing Qty.

1

20. Drive End Bearing Type

(Ball) Ball Bearing

21. Drive End Lubrication Type

(Grease) Grease Lubricated

22. Drive End Bearing Insulation or Grounding Device?

no

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23. Drive End Wavy Washer/Snap-Ring Other Retention Device?

snap ring



24. Drive End Bearing Condition

25. Opposite Drive End Bearing Number-

6316

Frosted also cut marks in races needs aegis ring installed



26. Opposite Drive End Bearing Qty.

1

27. Opposite Drive End Bearing Type

(Ball) Ball Bearing

28. Opposite Drive End Lubrication Type

(Grease) Grease Lubricated

29. Opposite Drive End Bearing Insulation or Grounding Device?

no

30. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?

wavy washer



31. Opposite Drive End Bearing Condition

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32. Drive End Seal	no
33. Opposite Drive End Seal	no
Rotor Inspection	
34. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast



35. Growler Test	(Pass) Pass	
36. Number of Rotor Bars	54	
37. Rotor Condition	wash and bake	
38. List the Parts needed for the Repair Below		
39. Signature of Technician that Disassembled Motor		
Mechanical Fits- Rotor		
40. Shaft Runout		
41. Rotor Runout		
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
42. Coupling Fit Closest to Bearing Housing		
0 Degrees	90 Degrees	120 Degrees
43. Coupling Fit Closest to the end of the Shaft		
0 Degrees	60 Degrees	120 Degrees
44. Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees
3.5434	3.5434	3.5434

45. Drive End Bearing Shaft Fit Condition

(P) Pass



46. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

3.1495

3.1495

3.1495

47. Opposite Drive End Bearing Shaft Fit Condition

(F) Fail



48. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

49. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

7.4813

7.4813

7.4813

50. Drive End - Endbell Bearing Fit Condition

(P) Pass

51. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

6.6942

6.6942

6.6942

52. Opposite Drive End - Endbell Bearing Fit Condition

(F) Fail

53. Bearing Cap Condition


Drive End Bearing Cap

Opposite Drive End Bearing Cap

pass

pass

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54. End Bell Air Seal Fits	
Drive End Air Seal	Opposite Drive End Air Seal
55. List Machine Work Needed Below <i>Ode shaft bearing fit and Ode end bell housing fit bad</i>	
56. Technician	RW
	
Root Cause of Failure	
57. Failure locations <i>Bearings should signs of frosting they also had cuts in the race's</i>	
58. Root cause of failure	



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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.
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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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10. **SEVERABILITY.** 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.
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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.
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