



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

Motor Shop Repairs

Job Number 99743

Prepared for ARKANSAS INDUSTRIAL MACHINERY

3804 N. NONA ST
NORTH LITTLE ROCK AR 72118

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AC Recondition As Found - *Shop*

AC Recondition - Rev. 2: *E00T0117*

1.0

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AC Recondition As Found
ARKANSAS INDUSTRIAL MACHINERY
3804 N. NONA ST
NORTH LITTLE ROCK, AR 72118

FolderID: 99743
FormID: 13479627



AC Recondition - Rev. 2

Location: Shop

Serial Number: E00T0117

Description: 20HP Siemens 3600RPM 256T

Hi-Speed Job Number: 99743

Manufacturer: Siemens

Product Number: 1LA0256-2FP21

Serial Number: E00T0117

HP/kW: 20 (HP)

RPM: 3575 (RPM)

Frame: 256T

Voltage: 230 / 460

Current: 46/23

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.15

Enclosure: TEFC

J-box Included: Complete

Coupling/Sheave: Coupling

Date Received: 05/03/2022

Repair Stage: Teardown Inspection

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: ● 3 - High ● 6 - Good

Overall Condition

1. Report Date **05/05/2022**
2. Nameplate Picture



3. Describe the Overall Condition of the Equipment as Received
Fairly clean, bearings feel rough

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

1.25 inches



Initial Mechanical/Electrical

5. Does Shaft Turn Freely? (Yes) Yes

Bearings feel very rough

6. Does Shaft Have Visible Damage?

(No) No

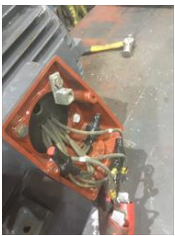


7. Assembled Shaft Runout 0.0005 Inches

8. Assembled Shaft End Play

9. Air Gap Variation <10%

10. Lead Condition (P) Pass



11. Lead Length 12 Inches

12. Stator Temperature Detector Rating and Function

Quantity

Rating

Quantity Passed

13. Bearing Temperature Detector Rating and Function

Quantity

Rating

Quantity Passed









14. Frame Condition

wash and bake

15. Fan Condition (P) Pass



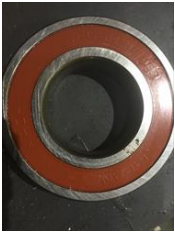
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16. Broken or Missing Components			0
Initial Electrical Inspection			
17. Insulation Resistance/Megger			
18. Winding Resistance			
1-2	1-3	2-3	
19. Perform Surge Test			(P) Pass
			
20. Stator Condition			wash and bake
<div></div>			
Mechanical Inspection			
21. Drive End Bearing Number-			6209 2RS
22. Drive End Bearing Qty.			1
23. Drive End Bearing Type			(Ball) Ball Bearing
24. Drive End Lubrication Type			(Grease) Grease Lubricated
25. Drive End Bearing Insulation or Grounding Device?			no
26. Drive End Wavy Washer/Snap-Ring Other Retention Device?			wavy washer
			
27. Drive End Bearing Condition			fluting water contamination
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28. Opposite Drive End Bearing Number-

6208 2RS



29. Opposite Drive End Bearing Qty.	1
30. Opposite Drive End Bearing Type	(Ball) Ball Bearing
31. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
32. Opposite Drive End Bearing Insulation or Grounding Device?	no
33. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	none
34. Opposite Drive End Bearing Condition	
35. Drive End Seal	
36. Opposite Drive End Seal	

Rotor Inspection

37. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
38. Growler Test	(Pass) Pass
39. Number of Rotor Bars	36
40. Rotor Condition	Good









41. List the Parts needed for the Repair Below	
42. Signature of Technician that Disassembled Motor	RW



RW

Mechanical Fits- Rotor

43. Shaft Runout	
44. Rotor Runout	
Drive End Bearing Fit	Rotor Body
Opposite Drive End Bearing	
45. Coupling Fit Closest to Bearing Housing	
0 Degrees	90 Degrees
1.625	1.625
	120 Degrees
	1.625

46. Coupling Fit Closest to the end of the Shaft			
0 Degrees	60 Degrees	120 Degrees	
1.625	1.625	1.625	
			
47. Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
1.772	1.772	1.772	
			
	48. Drive End Bearing Shaft Fit Condition		(P) Pass
49. Opposite Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
1.575	1.575	1.575	
			
	50. Opposite Drive End Bearing Shaft Fit Condition		(P) Pass
51. Shaft Air Seal Fits			
Drive End Air Seal		Opposite Drive End Air Seal	
Mechanical Fits- Bearing Housings			
52. Drive End - Endbell Bearing Fit			
0 Degrees	60 Degrees	120 Degrees	
3.3482	3.3482	3.3482	
			

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53. Drive End - Endbell Bearing Fit Condition	(F) Fail	
54. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
3.1591	3.1591	3.1591
		
55. Opposite Drive End - Endbell Bearing Fit Condition	(F) Fail	
56. Bearing Cap Condition		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	
57. End Bell Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
58. List Machine Work Needed Below		
59. Technician	RW	
		
Root Cause of Failure		
60. Failure locations		
61. Root cause of failure		
Drive bearing fluting and moisture corrosion		



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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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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.
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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.