

# EVERY DAY SINCE 1946

LR Motor Shop Repairs

## Job Number 100358

Prepared for ARKANSAS INDUSTRIAL MACHINERY

3804 N. NONA ST NORTH LITTLE ROCK AR 72118

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AC Recondition As Found - Shop



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> FolderID: 100358 FormID: 14671966

#### AC Recondition As Found

ARKANSAS INDUSTRIAL MACHINERY

3804 N. NONA ST NORTH LITTLE ROCK, AR 72118

#### AC Recondition - Rev. 2

Location:	Shop
Serial Number:	B0510081EE 1
Description OOUD	

Description:20HP SIEMENS 3600RPM 256T

Hi-Speed Job Number:	100358
Manufacturer:	Siemens
Product Number:	1LA02562SP21
Serial Number:	B0510081EE 1
HP/kW:	20 (HP)
RPM:	3525 (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:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

#### Priorities Found: **8 - Good**

- **Overall Condition** 
  - 1. Report Date
    - 2. Nameplate Picture

















	3.	Photos of all six sides of the machine.		
	4. Describe the Overall Condition of the Equipment as Received			
Initial Mechanical/Electrical				
	5.	Does Shaft Turn Freely?	(Yes) Yes	
	6.	Does Shaft Have Visible Damage?	(No) No	
	7.	Assembled Shaft Runout		
	8.	Assembled Shaft End Play		
	0	Air Can Variation <10%		

9. Air Gap Variation <10%



11. Lead Length	8 Inches
12. Frame Condition	wash and bake
13. Fan Condition	(P) Pass



#### 14. Broken or Missing Components

#### **Initial Electrical Inspection**

15. Insulation Resistance/Megger

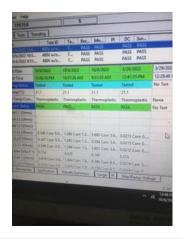


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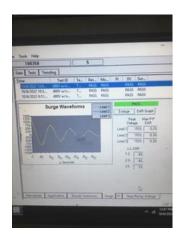
na

18985 Megohms

16. Winding Resistance			
1-2	1-3	2-3	
0.546	0.547	0.546	



#### 17. Perform Surge Test



18. Stator Condition



**Mechanical Inspection** 

wash and bake



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Printed on 10/6/2022

(P) Pass

#### 19. Drive End Bearing Number-



20. Drive End Bearing Qty.	1
21. Drive End Bearing Type	(Ball) Ball Bearing
22. Drive End Lubrication Type	(Grease) Grease Lubricated
23. Drive End Bearing Insulation or Grounding Device?	na
24. Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer



25. Drive End Bearing Condition



26. Opposite Drive End Bearing Number-

found frosting

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6309ZZ



27. Opposite Drive End Bearing Qty.	1
28. Opposite Drive End Bearing Type	(Ball) Ball Bearing
29. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
30. Opposite Drive End Bearing Insulation or Grounding Device?	na
31. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
32. Opposite Drive End Bearing Condition	found frosting



33.	Drive End Seal	
34.	Opposite Drive End Seal	
Rotor	Inspection	
35.	Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
36.	Growler Test	(Pass) Pass
37.	Number of Rotor Bars	36



39. List the Parts needed for the Repair Below				
	1-6309 2-6309 Bearing aegis ring shaft size 2.0456			
40. Signature of Technician that Disassembled Motor				
$\mathcal{A}$				
Mecha	anical Fits- Rotor			
41.	Shaft Runout		0.0003 inches	
42.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
43.	Coupling Fit Closest to Bearing Housi	ng		
	0 Degrees	90 Degrees	120 Degrees	
44.	Coupling Fit Closest to the end of the	Shaft		
	0 Degrees	60 Degrees	120 Degrees	
45.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.7718	1.7718	1.7718	



46.	Drive End Bearing Shaft Fit Condi	tion		(P) Pass
47.	Opposite Drive End Bearing Shaft	Fit		
	0 Degrees	60 Degrees	120 Degrees	
	1.7719	1.7719	1.7719	
48.	Opposite Drive End Bearing Shaft	Fit Condition		(P) Pass
49.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
	anical Fits- Bearing Housings			
50.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.9379	3.9379	3.9379	
51.	Drive End - Endbell Bearing Fit Co	ondition		(P) Pass



52.	. Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	3.9379	3.9379	3.9379

54.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	na	na	
55.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
56.	List Machine Work Needed Below 0		
57.	Technician		RW
F	24		
Root	Cause of Failure		
58.	Failure locations		
59.	Root cause of failure		
	Bearings		



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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 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. 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

**TermsAndConditions** 

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- 11. <u>GOVERNING LAW AND JURISDICTION.</u> 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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