



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

LR Motor Shop Repairs

**Job Number 102894**

Prepared for Sinco

21 Ranchette Rd  
Conway AR 72032

# Table of Contents

AC Inspection as Found - *LR MOTORSHOP*

AC Inspection - Rev. 2: 1071107542

1.0

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Hi-Speed Industrial Service  
7030 Ryburn Dr  
Millington, Tn 38053  
901-873-5300

## AC Inspection as Found

Sinco

21 Ranchette Rd  
Conway, AR 72032

FolderID: 102894  
FormID: 20295817

### AC Inspection - Rev. 2

Location: LR MOTORSHOP

Serial Number: 1071107542

Description: 50HP 60HZ WEG

Hi-Speed Job Number: 102894

Manufacturer: WEG

Serial Number: 1071107542

HP/kW: 50 (HP)

RPM: 1775 (RPM)

Frame: 324/6TS

Voltage: 208-230/460

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.25

Enclosure: TEFC

# of Leads: 12

J-box Included: Complete

Coupling/Sheave: None

Date Received: 05/06/2024

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Final

Rewind: Yes

Shaft Machined Fit Repairs  
Required: No

Bearing Housing Machined  
Fit Repairs Required: No

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: ● 4 - High ● 28 - Good

### Overall Condition

1. Report Date

5/8/2024

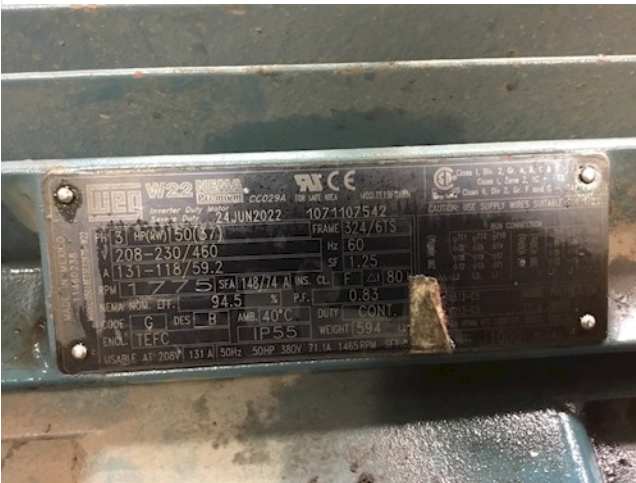
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## 2. Nameplate Picture



## 3. Photos of all six sides of the machine.



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1.1





4. Describe the Overall Condition of the Equipment as Received

*Overall appearance is good.*

#### Initial Mechanical/Electrical

5.	Does Shaft Turn Freely?	(Y) Yes
6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	(No) No
7.	Does Shaft Have Visible Damage?	(No) No
8.	Assembled Shaft Runout	.002
9.	Assembled Shaft End Play	.001
10.	Air Gap Variation <10%	
11.	Lead Condition	(P) Pass
12.	Lead Length	50 Inches
13.	Does it have Lugs?, If so what is the Stud Size?	(No) No
14.	Lead Numbers	1-4
15.	Frame Condition	Good
16.	Fan Condition	(F) Fail



17. Broken or Missing Components

Broken Fan

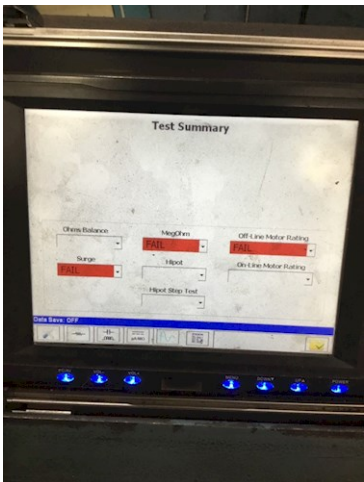


Initial Electrical Inspection

18. Insulation Resistance/Megger

0 Megohms

Ground

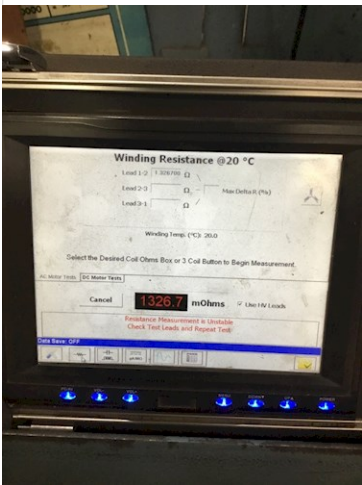


19. Winding Resistance

1-2

1-3

2-3



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20. Perform Surge Test

(F) Fail



21. Number of Stator Slots	41
22. Stator Condition	GOOD
23. Stator Thermistors/Ohms	N/A
24. Stator Overloads/Ohms	N/A
<b>Mechanical Inspection</b>	
25. Drive End Bearing Brand	C&S
26. Drive End Bearing Number-	6312
27. Drive End Bearing Qty.	1
28. Drive End Bearing Type	(Ball) Ball Bearing
29. Drive End Lubrication Type	(Grease) Grease Lubricated
30. Drive End Bearing Insulation or Grounding Device?	NO
31. Drive End Wavy Washer/Snap-Ring Other Retention Device?	NONE PRESENT
32. Drive End Bearing Condition	GOOD



33. Opposite Drive End Bearing Brand	C&S
34. Opposite Drive End Bearing Number-	6212
35. Opposite Drive End Bearing Qty.	1
36. Opposite Drive End Bearing Type	(Ball) Ball Bearing
37. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
38. Opposite Drive End Bearing Insulation or Grounding Device?	NONE PRESENT

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

WAVY WASHER



40. Opposite Drive End Bearing Condition

GOOD



41. Drive End Seal

REPLACE

2.358



42. Opposite Drive End Seal

REPLACE

2.410





Rotor Inspection			
43. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast		
44. Growler Test	(Pass) Pass		
45. Number of Rotor Bars	41		
46. Rotor Condition	pass		
47. List the Parts needed for the Repair Below	6312ZZ 6212ZZ C3		
48. Signature of Technician that Disassembled Motor			
Mechanical Fits- Rotor			
49. Shaft Runout	0 inches		
50. Rotor Runout			
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
51. Coupling Fit Closest to Bearing Housing			
0 Degrees	90 Degrees	120 Degrees	
52. Coupling Fit Closest to the end of the Shaft			
0 Degrees	60 Degrees	120 Degrees	
53. Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
2.3628	2.3628	2.3628	
54. Drive End Bearing Shaft Fit Condition	(P) Pass		
55. Opposite Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
2.3622	2.3621	2.3622	
DW			

56. Opposite Drive End Bearing Shaft Fit Condition

(F) Fail



57. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

pass

pass

**Mechanical Fits- Bearing Housings**

58. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

5.1191

5.1191

5.1191

59. Drive End - Endbell Bearing Fit Condition

(P) Pass



60. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

4.3325

4.3325

4.3325

DW



62. Bearing Cap Condition

Drive End Bearing Cap

Opposite Drive End Bearing Cap

**pass**

63. End Bell Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

64. List Machine Work Needed Below

*Ode end bell bearing fit bad*

65. Technician

**RW**
**Root Cause of Failure**

66. Failure locations

*Ode bearing fits and bearing, winding*

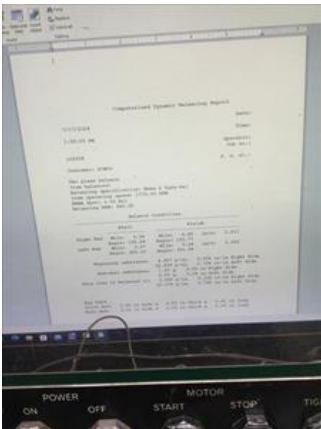
67. Root cause of failure



**Dynamic Balance Report**

68. Rotor Weight and Balance Grade

Rotor Weight

Balance Grade



69. Initial Balance Readings		
Drive End	Opposite Drive End	
0.56	0.27	
70. Final Balance Readings		
Drive End	Opposite Drive End	
0.48	0.24	
71. Technician		RW
		
<b>Rewind</b>		
72. Core Test Results - Watts loss per Pound		
Pre-Burnout	Post Burnout	
73. Core Hot Spot Test		
Pre-Burnout	Post-Burnout	
74. Post Rewind Electrical Test- Insulation Resistance		Megohms
75. Post Rewind Polarization Index		Polarization Index
76. Post Rewind Winding Resistance		
1-2	1-3	2-3
77. Post Rewind Surge Test		
78. Post Rewind Hi-Pot		micro-amps
79. Technician		
<b>Assembly</b>		
80. QC Check All Parts for Cleanliness Prior to Assembly		RW
		



81. Photograph All Major Components prior to assembly

(Complete) Complete



82. Final Insulation Resistance Test

Megohms

*Pass the hi pot*

83. Assembled Shaft Endplay

0 inches

84. Assembled Shaft Runout

0.0002 inches

85. Test Run Voltage

Volts

Volts

Volts

459

458

460



Co witness GM

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86. Test Run Amperage

Amps	Amps	Amps
23.4	23.3	22.9



87. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial
0.1	0.02	0.01

88. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial
0.08	0.02	0.03

89. Ambient Temperature - Fahrenheit

90. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes
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91. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes
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92. Document Final Condition with Pictures after paint





93. Final Pics and QC Review

RW

A handwritten signature in black ink, appearing to be 'RW', written over a large, empty rectangular box intended for a signature.

 Co witness GM



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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.
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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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