

# LR Motor Shop Repairs

## **Job Number 104726**

Prepared for George's

1810 S. ST LOUIS STREET Batesville AR 72501

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1.0





#### **AC Inspection as Found** George's

1810 S. ST LOUIS STREET Batesville, AR 72501

FolderID: 104726 FormID: 24702844

#### AC Inspection - Rev. 2

Location: LR MOTOR SHOP

Serial Number:

Description: MR PUMO COMBO NO MODEL OR SERIAL#

Hi-Speed Job Number:	104726
Manufacturer:	Other
HP/kW:	40 (HP)
RPM:	3600 (RPM)
Frame:	324-6JM
Voltage:	230 / 460
Current:	120/60 (Amps)
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
# of Leads:	12
J-box Included:	Complete
Coupling/Sheave:	Propeller
Bearing RTDs:	No
Stator RTDs:	No
Rewind:	No
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: 3 - High



12 - Good

#### **Overall Condition**

Report Date 06/16/2025

Nameplate Picture



3. Photos of all six sides of the machine.



















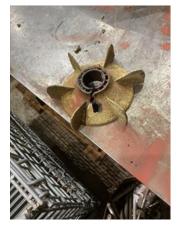


	4.	Describe the Overall Condition of the Equipment as Received  Dirty but serviceable	
	5.	Distance from the end of the shaft to the Coupling/Sheave	inches
	6.	Is this a UL Listed Motor	(No) No
	7.	Is the motor water cooled or can be pressure checked before teardown	(No) No
In	itial	Mechanical/Electrical	
	8.	Does Shaft Turn Freely?	(Y) Yes
	9.	Does the shaft require T.I.R in Lathe to identify additional repairs?	(No) No
	10.	Does Shaft Have Visible Damage?	(No) No
	11.	Assembled Shaft Runout	0.0004 Inches
	12.	Assembled Shaft End Play	0 inches
	13.	Air Gap Variation <10%	





15.	Lead Length	18 Inches
16.	Does it have Lugs?, If so what is the Stud Size?	(No) No
17.	Lead Numbers	1-12
18.	Are the Leads insulated with Chico or other material	(No) No
19.	Frame Condition	pass
20.	Fan Condition	(F) Fail



<b>2</b> 1.	Does motor have internal fan?		(No) No
22.	Broken or Missing Components		none
Initial	Electrical Inspection		
23.	Insulation Resistance/Megger		7850 Megohms
24.	Winding Resistance		
	1-2	1-3	2-3
	0.183	0.180	0.186

#### 25. Perform Surge Test (P) Pass



26. Number of Stator Slots 36

27. Stator Condition wash and dry





28. Stator Thermistors/Ohms

29. Stator Overloads/Ohms

#### **Mechanical Inspection**

30. Drive End Bearing Brand FAG

31. Drive End Bearing Number- 6212ZZ C3



Aegis ring shaft size 2.935

32. Drive End Bearing Qty.	1
33. Drive End Bearing Type	(Ball) Ball Bearing
34. Drive End Lubrication Type	(Grease) Grease Lubricated
35. Drive End Bearing Insulation or Grounding Device?	
36. Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring
37. Drive End Bearing Condition	
<ul> <li>Axial load and some frosting</li> <li>Aegis shaft size 2.935</li> </ul>	



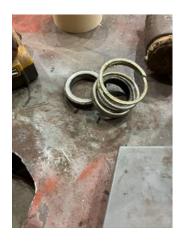
38.	Opposite Drive End Bearing Brand	FAG
39.	Opposite Drive End Bearing Number-	6212ZZ C3



40.	Opposite Drive End Bearing Qty.	1
41.	Opposite Drive End Bearing Type	(Ball) Ball Bearing
42.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
43.	Opposite Drive End Bearing Insulation or Grounding Device?	
44.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring
45.	Opposite Drive End Bearing Condition	
-	Normal wear	



46. Drive End Seal carbon ceramic



1.625. 2.375

47. Opposite Drive End Seal

#### **Rotor Inspection**

48. Rotor Type/Material

(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast

49. Growler Test

(Pass) Pass

50. Number of Rotor Bars

28



51. Rotor Condition pass

52.	List the Parts needed for the Repair Below
	2-6212 ZZ C3 Bearings

53. Signature of Technician that Disassembled Motor

RW

Mechanical Fits- Rotor

Mecha	Mechanical Fits- Rotor			
54.	Shaft Runout		0.0004 inches	
55.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
56.	Coupling Fit Closest to Bearing Housi	ng		
	0 Degrees	90 Degrees	120 Degrees	
57.	7. Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
58.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	2.3628	2.3628	2.3628	
<b>9</b> 59.	Drive End Bearing Shaft Fit Condition		(P) Pass	



60. Opposite Drive End Be	60. Opposite Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees	
2.3626	2.3626	2.3626	



62.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
-	Pass			
Mecha	Mechanical Fits- Bearing Housings			
63.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	4.3311	4.3311	4.3311	
<b>6</b> 4.	Drive End - Endbell Bearing Fit Condi	tion		(P) Pass



65. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
4.3314	4.3314	4.3314



67.	Bearing Cap Condition				
	Drive End Bearing Cap	Opposite Drive End Bearing Cap			
-	Pass				
68.					
	Drive End Air Seal	Opposite Drive End Air Seal			
	Rese				
69.	Pass List Machine Work Needed Below				
09.	None				
70.	Technician	RW			
-	Co sign: CRW				
Root Cause of Failure					
71.	Failure locations Seal and bearings				
72.	Root cause of failure  Over greased bearings and old seal				
Dynamic Balance Report					
73.	Rotor Weight and Balance Grade				
	Rotor Weight	Balance Grade			
74.	Initial Balance Readings				
	Drive End	Opposite Drive End			
75.	Final Balance Readings				
	Drive End	Opposite Drive End			
76.	Technician				
Asser	Assembly				

77.	QC Check All Parts for Cleanliness Prior to Assembly				
78.	Photograph All Major Components prior to assembly				
79.	Final Insulation Resistance Test				
80.	Assembled Shaft Endplay				
81.	Assembled Shaft Runout				
82.	Test Run Voltage				
	Volts	Volts	Volts		
83.	Test Run Amperage				
	Amps	Amps	Amps		
84.	Drive End Vibration Readings - Inches Per Second				
	Horizontal	Vertical	Axial		
05	Opposite Drive End Vibration Booding	an Inches Per Second			
65.	Opposite Drive End Vibration Reading	•	A :-1		
	Horizontal	Vertical	Axial		
86	Ambient Temperature - Fahrenheit				
	Drive End Bearing Temps - Fahrenheit				
	5 Minutes	10 Minutes	15 Minutes		
	o minutes	TO MINUSO	To Milliates		
88.	Opposite Drive End Bearing Temps - Fahrenheit				
	5 Minutes	10 Minutes	15 Minutes		
89.	Document Final Condition with Pictures after paint				
90.	Final Pics and QC Review				

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- 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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