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

AC Inspection as Found

Reynolds Metals company
1333 highway 270
Malvern, AR 72104

FolderID: 104265
FormID: 23704787

AC Inspection - Rev. 2

Location:	LR MOTOR SHOP
Serial Number:	
Description:	7.5 HP Reliance

Hi-Speed Job Number:	104265
Manufacturer:	Reliance
Product Number:	L000KF
Spec/ID #:	6453313-1-005
HP/kW:	7.5 (HP)
RPM:	875 (RPM)
Frame:	256TY
Voltage:	460
Current:	11 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.00
Enclosure:	TENV
# of Leads:	3
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	03/11/2025
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **2 - High** **9 - Good**

Overall Condition

1.	Report Date	**03/18/2025**

2. Nameplate Picture P37

3. Photos of all six sides of the machine. P45

4. Describe the Overall Condition of the Equipment as Received

Serviceable

Initial Mechanical/Electrical

5. Does Shaft Turn Freely? **(N) No**

6. Does the shaft require T.I.R in Lathe to identify additional repairs? **(No) No**

7. Does Shaft Have Visible Damage? P26

Minor scratches on both ends.

8. Assembled Shaft Runout **Inches**

Unable to perform due to locked up shaft.

9. Assembled Shaft End Play **0 inches**

10. Air Gap Variation <10%

11.	Lead Condition	**(P) Pass**	
12.	Lead Length	**8.5 Inches**	
13.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
14.	Lead Numbers	**1-3**	
15.	Frame Condition	**pass**	
16.	Fan Condition	**(N) NA**	
17.	Does motor have internal fan?	**(No) No**	
18.	Broken or Missing Components	**none**	

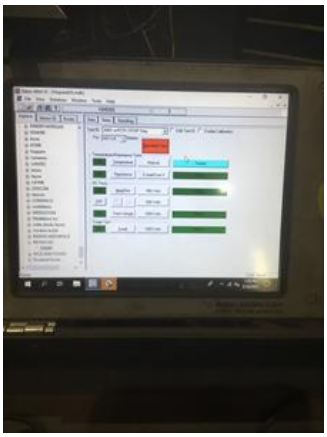
Initial Electrical Inspection

19.	Insulation Resistance/Megger	**Megohms**	P8

20.	Winding Resistance			
	1-2	1-3	2-3	

See below

21.	Perform Surge Test	**(P) Pass**	P57



22.	Number of Stator Slots	**48**	
23.	Stator Condition	**pass**	
24.	Stator Thermistors/Ohms		
25.	Stator Overloads/Ohms		

Mechanical Inspection

26.	Drive End Bearing Brand	**Koyo**	

27.	Drive End Bearing Number-	**6316 ZZ C3**	P32

28.	Drive End Bearing Qty.	**1**
29.	Drive End Bearing Type	**(Ball) Ball Bearing**
30.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
31.	Drive End Bearing Insulation or Grounding Device?	**none**
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**
33.	Drive End Bearing Condition	**replace**
34.	Opposite Drive End Bearing Brand	**koyo**
35.	Opposite Drive End Bearing Number-	**6316 ZZ C3** P99

36.	Opposite Drive End Bearing Qty.	**1**
37.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
38.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
39.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**
41.	Opposite Drive End Bearing Condition	**replace**
42.	Drive End Seal	**none**
43.	Opposite Drive End Seal	**none**

Rotor Inspection

44.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast** P3

45.	Growler Test	**(Pass) Pass**
46.	Number of Rotor Bars	**64**
47.	Rotor Condition	**pass**
48.	List the Parts needed for the Repair Below ***(2) 6316 ZZ C3***	
49.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

50.	Shaft Runout			**0.002 inches**
51.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
52.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
53.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
54.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.1503	**3.1503**	**3.1503**	
55.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
56.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.1503	**3.15**	**3.15**	
57.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**
58.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
	pass	**pass**		

Mechanical Fits- Bearing Housings

59.	Drive End - Endbell Bearing Fit			P2
	0 Degrees	60 Degrees	120 Degrees	

Lip worn in.

60.	Drive End - Endbell Bearing Fit Condition			**(F) Fail**

See above

61.	Opposite Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	6.6938	**6.6939**	**6.6938**	
62.	Opposite Drive End - Endbell Bearing Fit Condition			**(P) Pass**
63.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	pass	**pass**		

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

65. List Machine Work Needed Below

D.E housing fit.

66. Technician **Terrence Holland**

Co sign:

Root Cause of Failure

67. Failure locations

DE housings fit bad.
DE bearing locked up

68. Root cause of failure

Lack of lubrication on DE bearing, & contaminated grease.

Dynamic Balance Report

69. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

70. Initial Balance Readings

Drive End	Opposite Drive End

71. Final Balance Readings

Drive End	Opposite Drive End

72. Technician

Mechanical Fits- Bearing Housings - Post Repair

73. Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

74. Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

75. Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

76. End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

77. End Bell Repair Sign-off

Assembly

78. QC Check All Parts for Cleanliness Prior to Assembly
79. Photograph All Major Components prior to assembly
80. Final Insulation Resistance Test
81. Assembled Shaft Endplay

82.	Assembled Shaft Runout		
83.	Test Run Voltage		
	Volts	Volts	Volts
84.	Test Run Amperage		
	Amps	Amps	Amps
85.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
86.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
87.	Ambient Temperature - Fahrenheit		
88.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
89.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
90.	Document Final Condition with Pictures after paint		
91.	Final Pics and QC Review		