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

AC Inspection as Found

ARKANSAS INDUSTRIAL MACHINERY
3804 N. NONA ST
NORTH LITTLE ROCK, AR 72118

FolderID: 104286
FormID: 23740374

AC Inspection - Rev. 2

Location:	LR MOTOR SHOP
Serial Number:	A170217208.4
Description:	250 HP BALDOR

Hi-Speed Job Number:	104286
Manufacturer:	Baldor
Product Number:	A44-8935-0152
Serial Number:	A170217208.4
HP/kW:	250 (HP)
RPM:	1785 (RPM)
Frame:	449TDZ
Voltage:	460
Current:	278 (Amps)
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	Gear
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
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: **16 - Good**

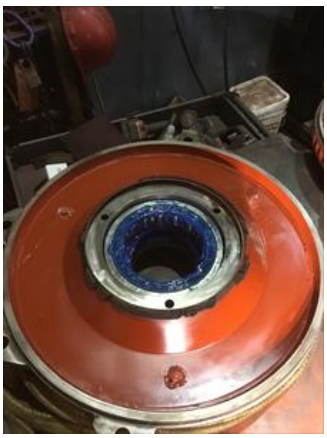
Overall Condition

1.	Report Date	**03/24/2025**

2. Nameplate Picture P37

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

6mm. Shaft in.

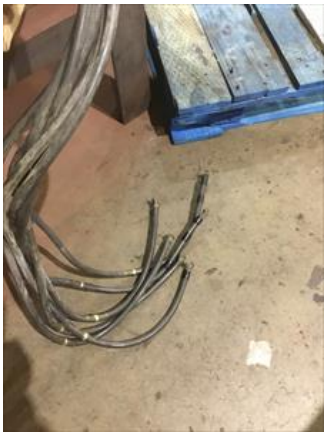


4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***		
5.	Distance from the end of the shaft to the Coupling/Sheave	**0 inches**	P76

Initial Mechanical/Electrical

6.	Does Shaft Turn Freely?	**(Y) Yes**	
7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
8.	Does Shaft Have Visible Damage?	**(No) No**	
9.	Assembled Shaft Runout	**0.002 Inches**	
10.	Assembled Shaft End Play	**0 inches**	
11.	Air Gap Variation <10%		
12.	Lead Condition	**(P) Pass**	

	13.	Lead Length	**83 Inches**	
		6'11"		
●	14.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	P93

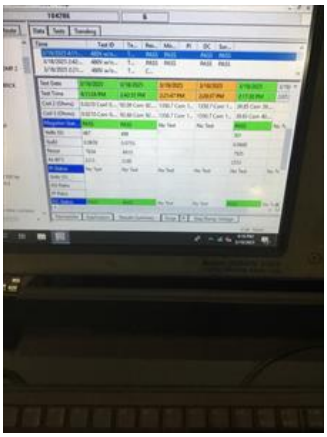


	15.	Lead Numbers	**1-6**	
	16.	Frame Condition	**pass**	
●	17.	Fan Condition	**(P) Pass**	
●	18.	Does motor have internal fan?	**(No) No**	P118

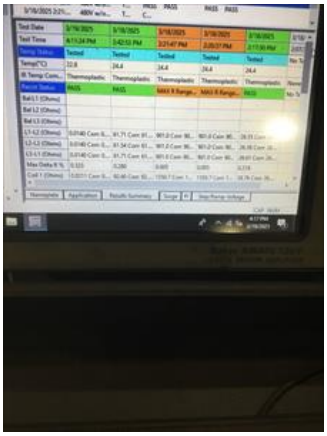
	19.	Broken or Missing Components	**none**	

Initial Electrical Inspection

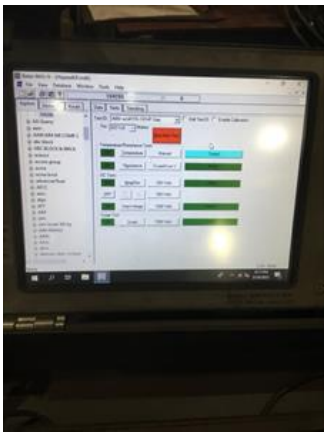
	20.	Insulation Resistance/Megger	**Megohms**	P8

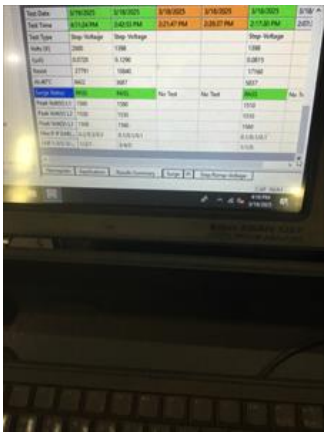


21.	Winding Resistance			P20
	1-2	1-3	2-3	



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





23.	Number of Stator Slots	**72**	
24.	Stator Condition	**pass**	
25.	Stator Thermistors/Ohms		
26.	Stator Overloads/Ohms		

Mechanical Inspection

27.	Drive End Bearing Brand	**FAG**	P12

28.	Drive End Bearing Number-	**NU 222-E-XL-M1-C3**	P32

29.	Drive End Bearing Qty.	**1**
30.	Drive End Bearing Type	**(Roller) Roller Bearing**
31.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
32.	Drive End Bearing Insulation or Grounding Device?	**none**
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	
	Snap ring	
34.	Drive End Bearing Condition	**good**
35.	Opposite Drive End Bearing Brand	**FAG** P92

36.	Opposite Drive End Bearing Number-	**6318-2Z-C3**
37.	Opposite Drive End Bearing Qty.	**1**

38.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
39.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
40.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**	
42.	Opposite Drive End Bearing Condition		P117

43.	Drive End Seal	**none**
44.	Opposite Drive End Seal	**none**

Rotor Inspection

45.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**58**
48.	Rotor Condition	
	Good	
49.	List the Parts needed for the Repair Below	
	(1) NU 222-E-XL-M1-C3 ***(1) 6318-2Z-C3***	
50.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

51.	Shaft Runout	**0.003 inches**
52.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

53.	Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

54.	Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

55. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
4.332	**4.332**	**4.33**

56. Drive End Bearing Shaft Fit Condition **(P) Pass**

57. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.5438	**3.5437**	**3.5438**

58. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass**

59. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

60. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
4.333	**4.333**	**4.333**

61. Drive End - Endbell Bearing Fit Condition **(P) Pass**

62. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
7.481	**7.481**	**7.4809**

63. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass**

64. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
good	**good**

65. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

66. List Machine Work Needed Below

None

67. Technician **Terrence Holland**

Co sign: RRW

Root Cause of Failure

68. Failure locations

None. See below.

69. Root cause of failure

None. Motor recondition was requested by owning agency.

Dynamic Balance Report

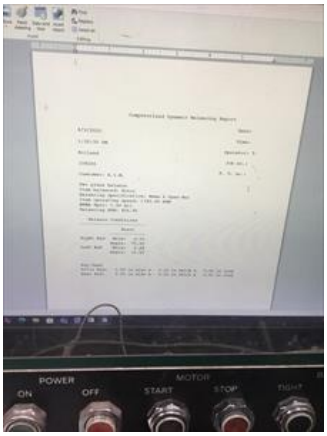
70. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

See below

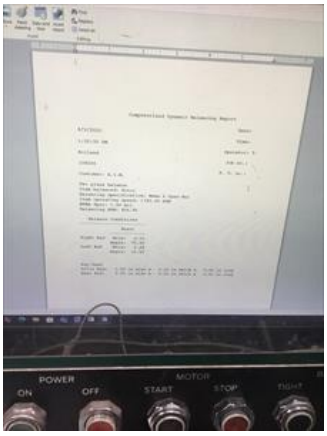
71. Initial Balance Readings P11

Drive End	Opposite Drive End
.10	**.24**



72. Final Balance Readings P27

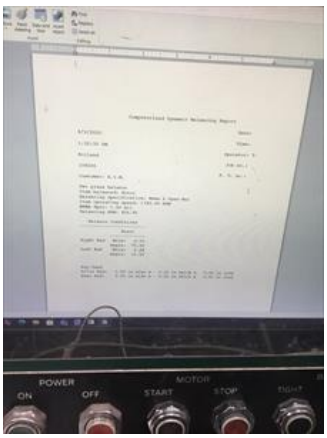
Drive End	Opposite Drive End
.10	**.24**



73. Technician **Terrence Holland**

Assembly

74. QC Check All Parts for Cleanliness Prior to Assembly P4



75. Photograph All Major Components prior to assembly

See above

76.	Final Insulation Resistance Test	**34.96 Gigohms**	P31

77.	Assembled Shaft Endplay	**0 inches**	
78.	Assembled Shaft Runout	**0.002 inches**	
79.	Test Run Voltage		P55

Volts	Volts	Volts

80.	Test Run Amperage			P65
	Amps	Amps	Amps	

81.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.04	**0.05**	**0.04**
82.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.03	**0.04**	**0.05**
83.	Ambient Temperature - Fahrenheit		
84.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
85.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes

86.	Document Final Condition with Pictures after paint	**see below**	
87.	Final Pics and QC Review	**Terrence Holland**	P132

Co sign: RRW