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

AC Inspection as Found

Mondi
3501 Jefferson Pkway
Pine Bluff, AR 71602

FolderID: 103469
FormID: 21493147

AC Inspection - Rev. 2

Location:	LITTLE ROCK MOTOR SHOP
Serial Number:	8566150229
Description:	15KW INGERSOLL-RAND

Hi-Speed Job Number:	103469
Manufacturer:	Ingersoll-Rand
Spec/ID #:	CCH: 23658566
Serial Number:	8566150229
HP/kW:	15 (kW)
RPM:	970 (RPM)
Voltage:	Other
Phase:	Three
Hz:	50 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	Coupling
Date Received:	09/03/2024
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: **2 - High** **11 - Good**

Overall Condition

1.	Report Date	**09/03/2024**

2. Nameplate Picture P37

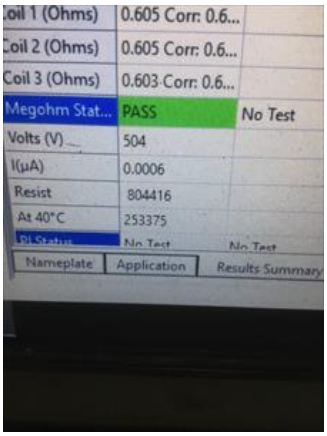
3. Photos of all six sides of the machine. P45

	4.	Describe the Overall Condition of the Equipment as Received ***Dirty***	
	5.	Distance from the end of the shaft to the Coupling/Sheave ***Flush***	**inches**
	6.	Report Date [COPY]	
Initial Mechanical/Electrical			
	7.	Does Shaft Turn Freely?	**(Y) Yes**
	8.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
	9.	Does Shaft Have Visible Damage?	**(No) No**
	10.	Assembled Shaft Runout	**Inches**
	11.	Assembled Shaft End Play	**inches**

	12.	Air Gap Variation <10%		
●	13.	Lead Condition	**(P) Pass**	
	14.	Lead Length	**8 Inches**	
●	15.	Does it have Lugs?, If so what is the Stud Size?		
		Yes		
	16.	Lead Numbers	**1x6**	
	17.	Frame Condition	**pass**	
●	18.	Fan Condition	**(P) Pass**	
	19.	Broken or Missing Components		

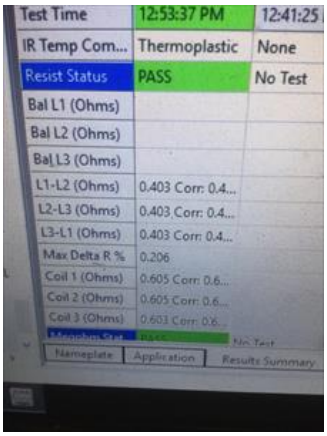
Initial Electrical Inspection

	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	**36**
24.	Stator Condition	**pass**
25.	Stator Thermistors/Ohms	
26.	Stator Overloads/Ohms	

Mechanical Inspection

27.	Drive End Bearing Brand	**SKF**
28.	Drive End Bearing Number-	**6211**
29.	Drive End Bearing Qty.	**1**
30.	Drive End Bearing Type	**(Ball) Ball Bearing**
31.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
32.	Drive End Bearing Insulation or Grounding Device?	
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**2 snap rings**
34.	Drive End Bearing Condition	P83

Signs of fluting

35.	Opposite Drive End Bearing Brand	**NSK**
36.	Opposite Drive End Bearing Number-	**6309**
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?	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**

42.	Opposite Drive End Bearing Condition		P119
	Signs of fluting		

43.	Drive End Seal		**55-70-8**
44.	Opposite Drive End Seal		**45-68-8**

Rotor Inspection

45.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**33**
48.	Rotor Condition	**pass**
49.	List the Parts needed for the Repair Below ***6211*** ***6309*** ***Seal/ 55-70-8*** ***Seal/ 45-68-8***	
50.	Signature of Technician that Disassembled Motor	**Cw**

Mechanical Fits- Rotor

51.	Shaft Runout	**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
2.1658	**2.1658**	**2.1658**

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

57. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.7717	**1.7717**	**1.7717**

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
3.9388	**3.9386**	**3.9386**

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

62. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
3.9383	**3.9383**	**3.9383**

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

64. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

65. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

66. List Machine Work Needed Below

67. Technician **Cw**

Co sign: RRW

Root Cause of Failure

68. Failure locations

Bearings

69. Root cause of failure

Contamination and fluting

Dynamic Balance Report

70. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

71. Initial Balance Readings P11

Drive End	Opposite Drive End

72. Final Balance Readings P27

Drive End	Opposite Drive End

73. Technician **Cw**

Assembly

74. QC Check All Parts for Cleanliness Prior to Assembly

See below.

75. Photograph All Major Components prior to assembly P17

76.	Final Insulation Resistance Test			**Megohms**
	Pass			
77.	Assembled Shaft Endplay			**0 inches**
78.	Assembled Shaft Runout			**0.001 inches**
79.	Test Run Voltage			P56
	Volts	Volts	Volts	
	459	**458**	**461**	

80.	Test Run Amperage			
	Amps	Amps	Amps	
	11.2	**11**	**11**	
81.	Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.02	**0.02**		
82.	Opposite Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.02	**0.02**	**0.01**	
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

Witness: RW