

AC Recondition As Found

Process And Power (002964)

FolderID: 149649 FormID: 16072332



1721 Corporate Ave Memphis Tn, TN 38132

AC Recondition - Rev. 2				
Location:	Shop			
Serial Number:	1SFEV11 101766014			

Description:60 Hp Ingersoll Rand

Hi-Speed Job Number:	149649
Manufacturer:	Ingersoll-Rand
Product Number:	47223946
Serial Number:	1SFEV11 101766014
HP/kW:	60 (HP)
RPM:	3555 (RPM)
Frame:	326TSC
Voltage:	230 / 460
Current:	142/71 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.21
Enclosure:	ODP
# of Leads:	12
J-box Included:	None
Coupling/Sheave:	None
Date Received:	02/24/2023
Bearing RTDs:	No
Stator RTDs:	Yes
Repair Stage:	Teardown Inspection
Rewind:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 🔵 2 - High

h 🕘 6 - Good

Overall Condition

- 1. Report Date
- 2. Nameplate Picture



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P2

02/27/2023

3. Photos of all six sides of the machine.











 Describe the Overall Condition of the Equipment as Received Motor tested bad on both test machines. Surge test failed, possible rewind needed

In	itial I	Mechanical/Electrical	0	
	5.	Does Shaft Turn Freely?	(Yes) Yes	
	6.	Does Shaft Have Visible Damage?	(No) No	
	7.	Assembled Shaft Runout	0 Inches	
	8.	Assembled Shaft End Play	0.001 inches	
	9.	Air Gap Variation <10%	No provisions for measurement	
	10.	Lead Condition	(P) Pass	

11. Lead Length

61.5 Inches







12.	Stator Temperature Detector Rati	ng and Function			P900
	Quantity	Rating	Quantity Passed	k	
	1	121.7	1		
	Thermistor is 155 degrees C				
13.	Frame Condition			Good	
14.	Fan Condition			(N) NA	
15.	Broken or Missing Components			None	
Initial E	Electrical Inspection				O
16.	Insulation Resistance/Megger			19 Megohms	P19
			Table J Table		

17.	Winding Resistance				P20
	1-2	1-3	2-3		
		.173	.440		
18.	Perform Surge Test			(F) Fail	P21
			Basis Test Din <thtest din<="" th=""> Test Din <th< td=""><td></td><td></td></th<></thtest>		
19.	Number of Stator Slots			36 Megohms	
20.	Stator Condition		Failed, failure are	ea not visible.	-
Mecha	nical Inspection				0
21.	Drive End Bearing Brand			NTN 621202	D25
					. 20

Shield on one side. Inner side shielded



24.	Drive End Bearing Type	(Ball) Ball Bearing
25.	Drive End Lubrication Type	(Grease) Grease Lubricated
26.	Drive End Bearing Insulation or Grounding Device?	none
27.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	none

28. Drive End Bearing Condition







29.	Opposite Drive End Bearing Brand	NSK	
30.	Opposite Drive End Bearing Number-	6212z	P33

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Bearing shows normal wear



31. Opposite Drive End Bearing Qty.

Shielded on one side. Shield is inner



32.	Opposite Drive End Bearing Type	(Ball) Ball Bearing	
33.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated	
34.	Opposite Drive End Bearing Insulation or Grounding Device?	none present	
35.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer	P38

36. Opposite Drive End Bearing Condition

bearing shows normal wear

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P34

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37.	Drive End Seal	none			
38.	Opposite Drive End Seal	none			
Rotor	Rotor Inspection				
39.	Rotor Type/Material	(Aluminum Bar) Aluminum Barred Rotor			
40.	Growler Test	(Pass) Pass			
41.	Number of Rotor Bars	28			
42.	Rotor Condition	Acceptable			
43.	List the Parts needed for the Repair Below 1-6312C3 1-6212Z				
44.	Signature of Technician that Disassembled Motor	Joe Shurtz			
Mecha	nical Fits- Rotor		0		
45.	Shaft Runout	0 inches			

46.	Rotor Runout			P57
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
	0.005	0.002	0.001	
47.	Coupling Fit Closest to Bearing H	ousing		P58
	0 Degrees	90 Degrees	120 Degrees	
	1.8742	1.8742	1.8742	
48.	Coupling Fit Closest to the end of	the Shaft		
	0 Degrees	60 Degrees	120 Degrees	
	1.8741	1.8741	1.8741	

	49.	Drive End Bearing Shaft Fit			P60
		0 Degrees	60 Degrees	120 Degrees	
		2.3628	2.3628	2.3628	
	-	60Mm=2.3622. Tolerance is 2.3623-2	2.3628		
	50.	Drive End Bearing Shaft Fit Condi	tion	(P) Pass	Dea
	51.	Opposite Drive End Bearing Shart			F02
			ou Degrees	120 Degrees	
	_	2.3037	2.3027	2.3027	
	52.	Opposite Drive End Bearing Shaft	Fit Condition	(P) Pass	
	53.	Shaft Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
		Good	N/A		
8.4	echa	nical Fits- Bearing Housings			

54.	Drive End - Endbell Bearing Fit			P65
	0 Degrees	60 Degrees	120 Degrees	
	5.1183	5.1183	5.1183	
	130mm=5.1181. Tolerance is 5.1181-	5.1191		
55.	Drive End - Endbell Bearing Fit Co	ndition	(P) Pass	
56.	Opposite Drive End - Endbell Bear	ing Fit		P67
	0 Degrees	60 Degrees	120 Degrees	
	4.3325	4.3335	4.3325	
57.	Opposite Drive End - Endbell Bear	ing Fit Condition	(F) Fail	
58.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	N/A	N/A		
59.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
	good	N/A		
60.	List Machine Work Needed Below Bore and bush ODE end bell			
61.	Technician		Brandon Woodard	

Root Cause of Failure	
62. I	Failure locations
1	Ninding Failure
63. I	Root cause of failure
	Blown Winding