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

AC Inspection as Found

USG Interiors
850 No Broadway
Greenville, MS 38701

FolderID: 154725
FormID: 23322559

AC Inspection - Rev. 2

Location:	Millington Motorshop
Serial Number:	S9027482-001005 AM

Description:100 HP AC

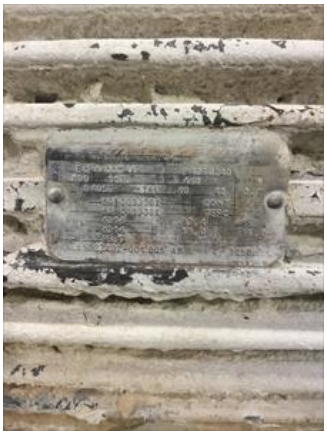
Hi-Speed Job Number:	154725
Manufacturer:	Baldor
Product Number:	ECP4400T-4
Spec/ID #:	P40G0240R
Serial Number:	S9027482-001005 AM
HP/kW:	100 (HP)
RPM:	1785 (RPM)
Frame:	405T
Voltage:	460
Current:	112 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	3
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	01/31/2025
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Rewind:	Yes
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** **9 - Good**

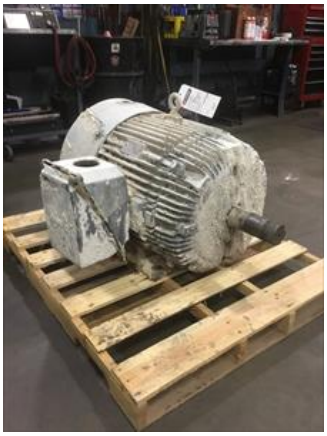
Overall Condition

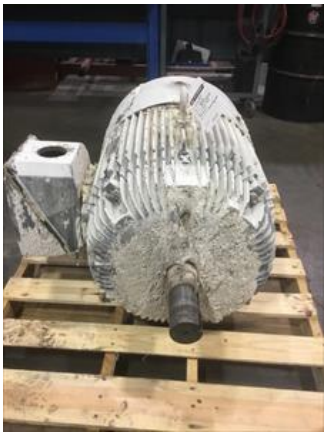
1.	Report Date	**02/06/2025**

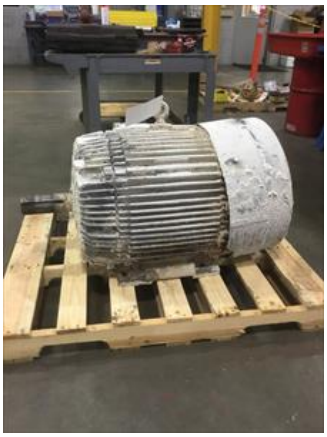
2. Nameplate Picture P2



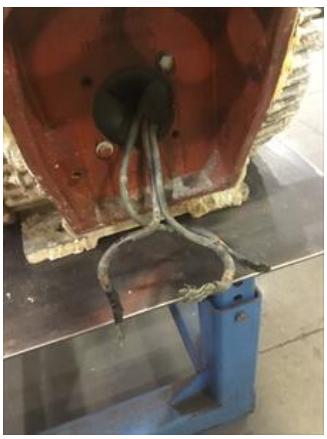
3. Photos of all six sides of the machine. P3





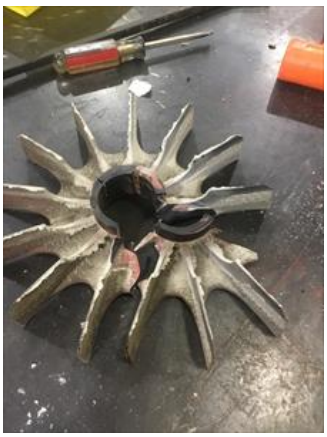


	4.	Describe the Overall Condition of the Equipment as Received ***Stator windings blown and requires rewind. No machine work required. Extra time involved with tear down due to bearings being stuck in end bells.***		
Initial Mechanical/Electrical				
●	5.	Does Shaft Turn Freely?	**(Y) Yes**	
●	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
	7.	Does Shaft Have Visible Damage?	**(No) No**	
●	8.	Assembled Shaft Runout	**0.003 Inches**	
	9.	Assembled Shaft End Play	**0.002 inches**	
	10.	Air Gap Variation <10%	**No Provisions for Measurement**	
●	11.	Lead Condition	**(P) Pass**	P11



12.	Lead Length	**14 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	**(F) Fail**	P16

Cracked and broke.



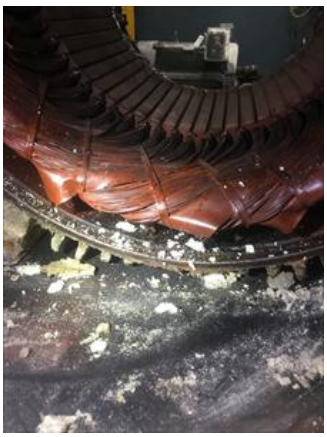
17.	Does motor have internal fan?	**(No) No**	
18.	Broken or Missing Components	**Yes**	

Initial Electrical Inspection

19.	Insulation Resistance/Megger	**0 Megohms**	
20.	Winding Resistance		

1-2	1-3	2-3
0	**0**	**0**

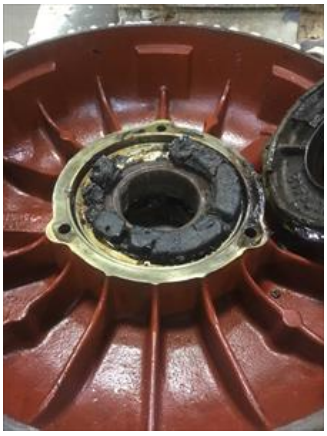
21.	Perform Surge Test	**(F) Fail**	
22.	Number of Stator Slots	**60**	
23.	Stator Condition	**Requires rewind**	P23



24.	Stator Thermistors/Ohms	**N/A**	
25.	Stator Overloads/Ohms	**N/A**	

Mechanical Inspection

26.	Drive End Bearing Brand	**SKF**	P26



27.	Drive End Bearing Number-	**6316 C3**
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	**Destroyed to remove from end bell**
34.	Opposite Drive End Bearing Brand	**SKF**
35.	Opposite Drive End Bearing Number-	**6316 C3**
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?	**Wavy Washer**
41.	Opposite Drive End Bearing Condition	**normal wear**
42.	Drive End Seal	**None**
43.	Opposite Drive End Seal	**Nine**

Rotor Inspection

44.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
45.	Growler Test	**(Pass) Pass**
46.	Number of Rotor Bars	**46**
47.	Rotor Condition	**Pass**
48.	List the Parts needed for the Repair Below ***Fan***	
49.	Signature of Technician that Disassembled Motor	**Brandon Woodard**

Mechanical Fits- Rotor

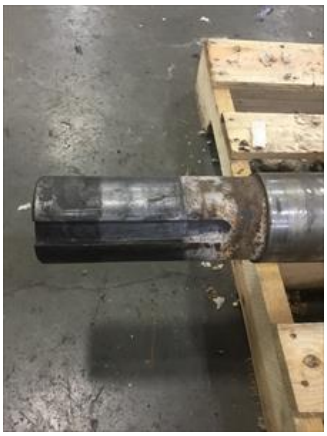
50.	Shaft Runout	**0.001 inches**

51. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0.001	**0.002**	**0.002**

52. Coupling Fit Closest to Bearing Housing P52

0 Degrees	90 Degrees	120 Degrees
2.875	**2.875**	**2.875**



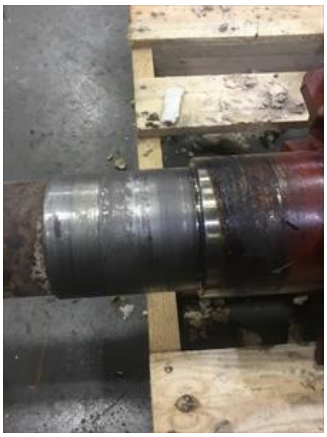
53. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
2.875	**2.875**	**2.875**

54. Drive End Bearing Shaft Fit P54

0 Degrees	60 Degrees	120 Degrees
3.1502	**3.1502**	**3.1502**

Tolerance is 3.1497-3.1502

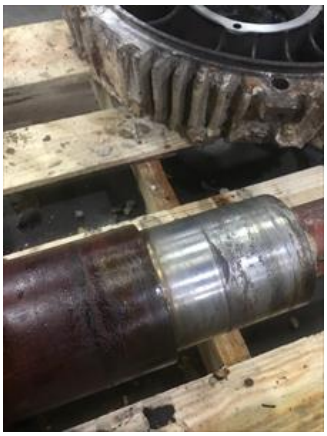


55. Drive End Bearing Shaft Fit Condition **(P) Pass**

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.1499	**3.1499**	**3.1499**

Tolerance is 3.1497-3.1502



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

0 Degrees	60 Degrees	120 Degrees
6.6937	**6.6937**	**6.6937**

Tolerance is 6.6929-6.6939

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

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
6.6939	**6.694**	**6.6938**

Tolerance is 6.6929-6.6939

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
Pass	**Pass**

65. List Machine Work Needed Below

None

66. Technician **Brandon Woodard**

Root Cause of Failure

67.	Failure locations
68.	Root cause of failure