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

AC Inspection as Found

Nucor-Yamato Steel Co. (0000418)
5929 Highway 18 E.
Armorel, AR 72310

FolderID: 152741
FormID: 20429712

AC Inspection - Rev. 2

Location:	Motorshop
Serial Number:	281M1016 E
Description:	15 HP

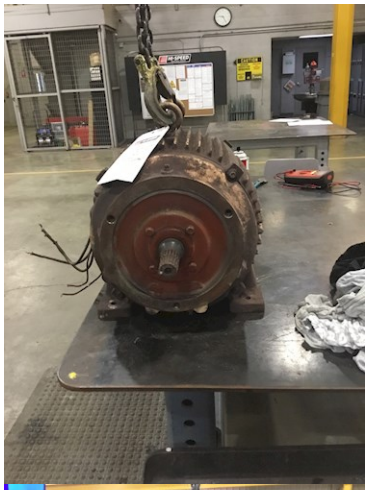
Hi-Speed Job Number:	152741
Manufacturer:	P&H
Product Number:	1017-94
Serial Number:	281M1016 E
HP/kW:	15 (HP)
RPM:	1145 (RPM)
Frame:	284AF
Voltage:	460
Current:	20.30 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TENV
# of Leads:	3
J-box Included:	None
Coupling/Sheave:	None
Date Received:	05/20/2024
Bearing RTDs:	No
Stator RTDs:	Yes
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

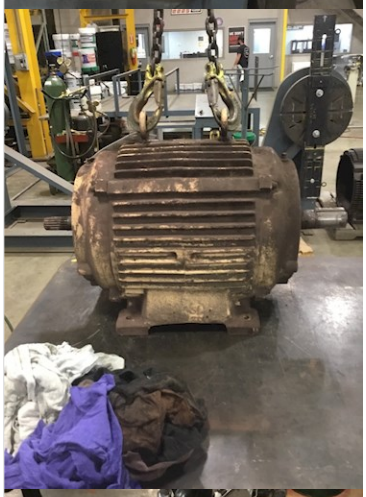
Priorities Found: **4 - Good**

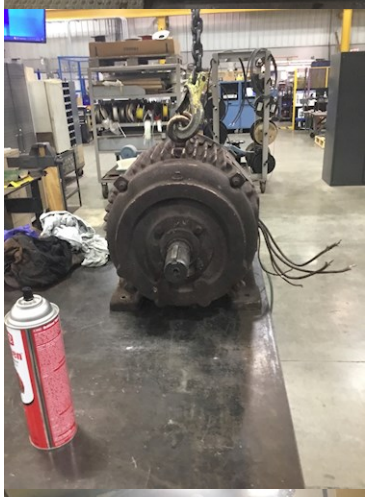
Overall Condition

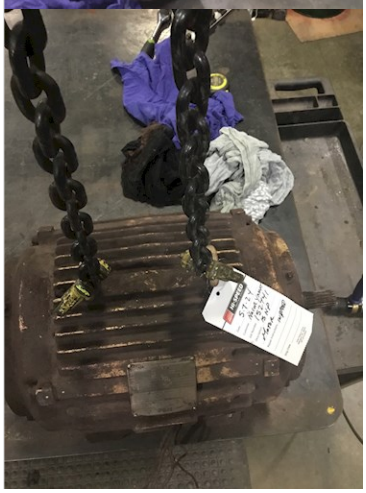
1. Report Date **05/20/2024**
2. Nameplate Picture P2

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









	4.	Describe the Overall Condition of the Equipment as Received	P4

Initial Mechanical/Electrical

●	5.	Does Shaft Turn Freely?	**(Y) Yes**
	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	
	7.	Does Shaft Have Visible Damage?	**(Yes) Yes** P8

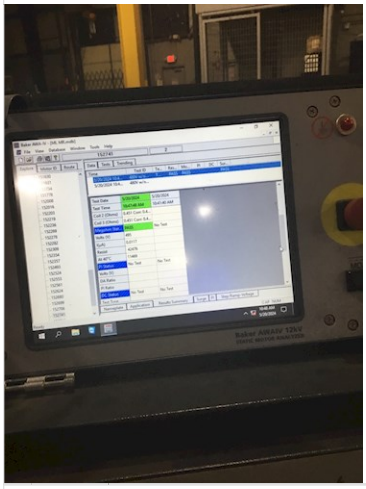
	8.	Assembled Shaft Runout	**0.001 Inches**
	9.	Assembled Shaft End Play	**0.003 inches**
	10.	Air Gap Variation <10%	**no provisions for measuring**
●	11.	Lead Condition	**(P) Pass**
	12.	Lead Length	**12 Inches**
●	13.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**
	14.	Lead Numbers	**1 2 3**
	15.	Stator Temperature Detector Rating and Function	

Quantity	Rating	Quantity Passed
1	**.6**	**1**

16.	Frame Condition	**acceptable**
17.	Fan Condition	**(N) NA**
18.	Broken or Missing Components	**none present**

Initial Electrical Inspection

19.	Insulation Resistance/Megger	**11469 Megohms**	P22



20.	Winding Resistance		
	1-2	1-3	2-3
	.902	**.902**	**.902**

21.	Perform Surge Test	**(P) Pass**	P24

22.	Number of Stator Slots	**36**
23.	Stator Condition	**acceptable**
24.	Stator Thermistors/Ohms	**none**
25.	Stator Overloads/Ohms	**yes**

Mechanical Inspection

26.	Drive End Bearing Brand	**SKF**	P29

27.	Drive End Bearing Number-	**6210 2RSC3**	P30

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 present**
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none present**
33.	Drive End Bearing Condition	P36

34.	Opposite Drive End Bearing Brand	**SKF**	
35.	Opposite Drive End Bearing Number-	**62092RSC3**	P38

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 present**	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**	P43

41. Opposite Drive End Bearing Condition P44

42.	Drive End Seal	**none present**
43.	Opposite Drive End Seal	**none**

Rotor Inspection

44.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
45.	Growler Test	**(Pass) Pass**
46.	Number of Rotor Bars	**43**
47.	Rotor Condition	**acceptable** P58

48. List the Parts needed for the Repair Below

6210 2RSC3 bearing
62092RSC3 bearing

49.	Signature of Technician that Disassembled Motor	**Brian Goines**

Mechanical Fits- Rotor

50.	Shaft Runout
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

55.	Drive End Bearing Shaft Fit Condition
56.	Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees

57.	Opposite Drive End Bearing Shaft Fit Condition
58.	Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

59.	Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

60.	Drive End - Endbell Bearing Fit Condition
61.	Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

62.	Opposite Drive End - Endbell Bearing Fit Condition
63.	Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

64.	End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

65.	List Machine Work Needed Below
66.	Technician

Root Cause of Failure

67.	Failure locations
68.	Root cause of failure