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

AC Recondition As Found

KTG USA (0003468)
400 Mahannah Ave.
Memphis, TN 38107

FolderID: 149550
FormID: 15972549

AC Recondition - Rev. 2

Location:	Default
Serial Number:	

Hi-Speed Job Number:	149550
Manufacturer:	Toshiba
Product Number:	02250101-109R00
Serial Number:	991110765
HP/kW:	75 (HP)
RPM:	1775 (RPM)
Frame:	365TSC
Voltage:	230 / 460
Current:	178/89 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.2
Enclosure:	DP
# of Leads:	12
J-box Included:	Half
Coupling/Sheave:	Coupling
Date Received:	02/13/2023
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **5 - High** **4 - Good**

Overall Condition

1.	Report Date	**02/14/2023**

2. Nameplate Picture P2

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

	4.	Describe the Overall Condition of the Equipment as Received ***Good condition needs end bells bore and bush.***	
	5.	Distance from the end of the shaft to the Coupling/Sheave	**0.25 inches** P5

Initial Mechanical/Electrical

●	6.	Does Shaft Turn Freely?	**(Yes) Yes**
	7.	Does Shaft Have Visible Damage?	**(No) No**
●	8.	Assembled Shaft Runout	**0.001 Inches**
	9.	Assembled Shaft End Play	**0.098 inches**
	10.	Air Gap Variation <10%	**no Provisions To Measure**
●	11.	Lead Condition	**(P) Pass**
		Missing lead # tags	

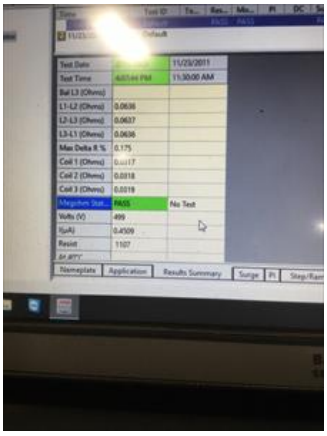
12.	Lead Length	**8 Inches**	P12

13.	Frame Condition	**good**
14.	Fan Condition	**(N) NA**
15.	Broken or Missing Components	P18

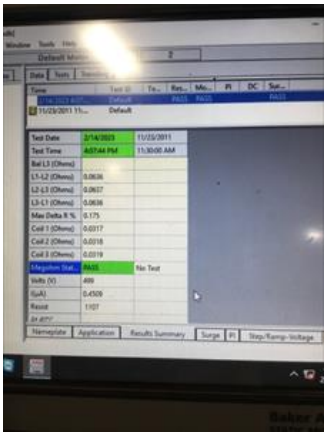
Missing top bolt of c face

Initial Electrical Inspection

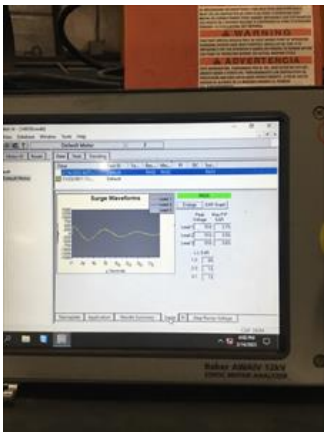
16.	Insulation Resistance/Megger	**1107 Megohms**	P19



17.	Winding Resistance			P20
	1-2	1-3	2-3	
	.0636	**.0637**	**.0636**	



18.	Perform Surge Test	**(P) Pass**	P21



19.	Number of Stator Slots	**48 Megohms**	
20.	Stator Condition	**good**	P23

Iron needs cleaned

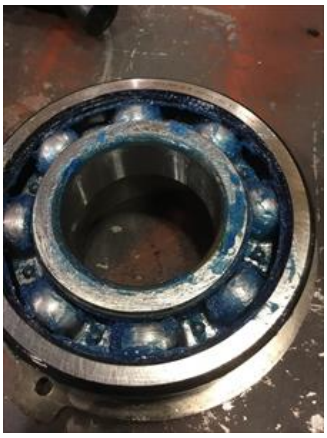
Mechanical Inspection

21.	Drive End Bearing Brand	**NTN**	P24

22.	Drive End Bearing Number-	**6313C3 Z**	P25

23.	Drive End Bearing Qty.	**1**
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	**normal wear** P31

29.	Opposite Drive End Bearing Brand	**NTN**	P32



30.	Opposite Drive End Bearing Number-	**6313C3 Z**	P33

31.	Opposite Drive End Bearing Qty.	**1**	
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**	
35.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P38

36.	Opposite Drive End Bearing Condition	**normal wear**	P39

37.	Drive End Seal	**none**	
38.	Opposite Drive End Seal	**cap on end bell**	

Rotor Inspection

39.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	P50

40.	Growler Test	**(Pass) Pass**
41.	Number of Rotor Bars	**40**
42.	Rotor Condition	**good**
43.	List the Parts needed for the Repair Below ***2-6313*** ***2-313 bushings***	
44.	Signature of Technician that Disassembled Motor	**Brandon Woodard**

Mechanical Fits- Rotor

45.	Shaft Runout	**0.001 inches**

46. Coupling Fit Closest to Bearing Housing P58

0 Degrees	90 Degrees	120 Degrees
1.875	**1.875**	**1.875**

47. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
1.875	**1.875**	**1.875**

48. Drive End Bearing Shaft Fit P60

0 Degrees	60 Degrees	120 Degrees
2.5591	**2.5591**	**2.5591**

65mm=2.5690. Tolerance is 2.55912-2.5697. .0001 under tolerance recommend no machine work

49. Drive End Bearing Shaft Fit Condition **(F) Fail**

50. Opposite Drive End Bearing Shaft Fit P62

0 Degrees	60 Degrees	120 Degrees
2.5591	**2.559**	**2.5591**

65mm=2.5690. Tolerance is 2.55912-2.5697. .0001 under tolerance recommend no machine work

51. Opposite Drive End Bearing Shaft Fit Condition **(F) Fail**

52. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
good	**good**

Mechanical Fits- Bearing Housings

53. Drive End - Endbell Bearing Fit P65

0 Degrees	60 Degrees	120 Degrees
5.5135	**5.5135**	**5.5135**

140mm=5.5118. Tolerance is 5.5118-5.5128. .0007 out of tolerance recommend bore and bush

54. Drive End - Endbell Bearing Fit Condition **(F) Fail**

55. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.5134	**5.5134**	**5.5134**

140mm=5.5118. Tolerance is 5.5118-5.5128. .0006 out of tolerance recommend bore and bush

56. Opposite Drive End - Endbell Bearing Fit Condition **(F) Fail**

57. Bearing Cap Condition

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

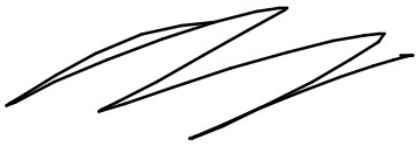
58. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
good	**good**

59. List Machine Work Needed Below

Bore and bush both end bells

60. Technician **Brandon Woodard**



Dynamic Balance Report

61. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade
180	**ISO 1940-1 G1**

62. Initial Balance Readings P100

Drive End	Opposite Drive End

63. Final Balance Readings P200

Drive End	Opposite Drive End

64. Technician **Brandon Woodard**

Root Cause of Failure

65. Failure locations

66. Root cause of failure

Mechanical Fits- Bearing Housings - Post Repair

67. Drive End - Endbell Bearing Fit Post Repair P0

0 Degrees	60 Degrees	120 Degrees
5.5123	**5.5123**	**5.5123**

68. Opposite Drive End - Endbell Bearing Fit Post Repair P100

0 Degrees	60 Degrees	120 Degrees
5.5122	**5.5122**	**5.5122**

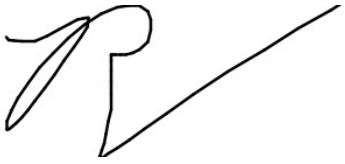
69. Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

70. End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

71. End Bell Repair Sign-off **Roger Ventrini**



Assembly

72. Photograph All Major Components prior to assembly P0

	73.	Final Insulation Resistance Test	**1000 Megohms**	
	74.	Assembled Shaft Endplay	**0.001 inches**	
●	75.	Assembled Shaft Runout	**0.001 inches**	
	76.	Test Run Voltage		P400
		Volts Volts Volts		

77.	Test Run Amperage			P500
	Amps	Amps	Amps	

78.	Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.038	**0.034**	**0.045**	
79.	Opposite Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.023	**0.04**	**0.038**	
80.	Ambient Temperature - Fahrenheit			**69**
81.	Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
	90	**92**	**94**	
82.	Opposite Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
	82	**83**	**86**	
83.	Final Test Run Sign-off			**Brandon Woodard**

84.	Document Final Condition with Pictures after paint	**ready to ship**	P2200

85. Final Pics and QC Review