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

AC Inspection as Found

MOTOR - KTG USA
400 Mahannah
Memphis, TN 38107

FolderID: 155299
FormID: 24119288

AC Inspection - Rev. 2

Completed by: Brandon Woodard on 04/15/2025

Location:	Motor Shop Millington
Serial Number:	TC 071766060055.1188

Hi-Speed Job Number:	155299
Manufacturer:	TECO Westinghouse
Serial Number:	TC 07176606005
HP/kW:	50 (HP)
RPM:	1180 (RPM)
Frame:	365T
Voltage:	230 / 460
Current:	116/57.8 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	12
J-box Included:	None
Coupling/Sheave:	None
Date Received:	04/10/2025
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
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** **13 - Good**

Overall Condition

1.	Report Date	**04/15/2025**

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2. Nameplate Picture

P2

3. Photos of all six sides of the machine.

P3

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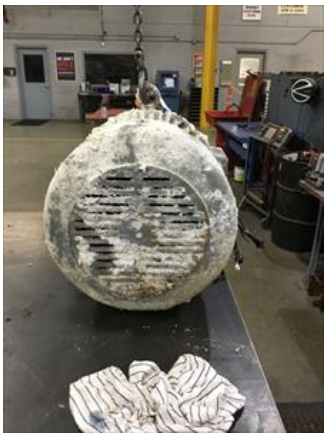

	4.	Describe the Overall Condition of the Equipment as Received ***Great condition passed all electrical tests and requires no machine work.***	
🟢	5.	Is this a UL Listed Motor	**(No) No**
🟢	6.	Is the motor water cooled or can be pressure checked before teardown	**(No) No**
Initial Mechanical/Electrical			
🟢	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	**0.001 Inches**
	11.	Assembled Shaft End Play	**0.001 inches**
	12.	Air Gap Variation <10%	**No Provisions for measurement**

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13.	Lead Condition	**(P) Pass**	P14

14.	Lead Length	**14 Inches**	
15.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**	
	5/16"		
16.	Lead Numbers	**1-12**	
17.	Are the Leads insulated with Chico or other material	**(No) No**	
18.	Frame Condition	**Pass**	
19.	Fan Condition	**(P) Pass**	P22

20.	Does motor have internal fan?	**(No) No**	
21.	Broken or Missing Components	**None**	

Initial Electrical Inspection

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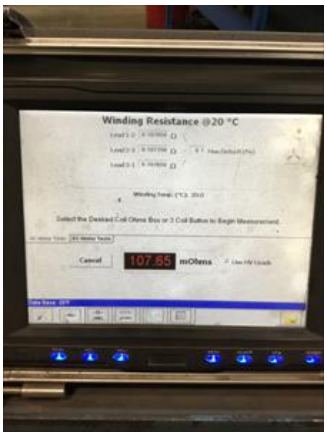
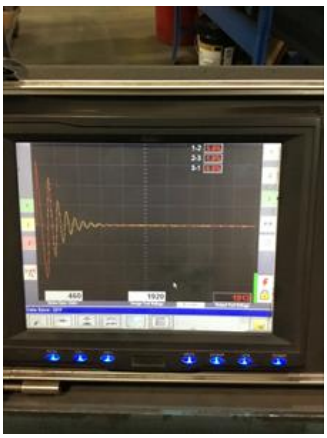
22. Insulation Resistance/Megger **92000 Megohms** P26

23. Winding Resistance P27

1-2	1-3	2-3
.10765	**.10775**	**.10765**



24. Perform Surge Test **(P) Pass** P28



25. Number of Stator Slots **72**

26. Stator Condition **Pass** P30

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27.	Stator Thermistors/Ohms	**N/A**	
28.	Stator Overloads/Ohms	**N/A**	

Mechanical Inspection

29.	Drive End Bearing Brand	**SKF**	P33

30.	Drive End Bearing Number-	**6313 C3**	
31.	Drive End Bearing Qty.	**1**	
32.	Drive End Bearing Type	**(Ball) Ball Bearing**	
33.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
34.	Drive End Bearing Insulation or Grounding Device?	**None**	
35.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**spacer behind bearing**	
36.	Drive End Bearing Condition	**Normal wear**	P40

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37.	Opposite Drive End Bearing Brand	**NSK**	P41

38.	Opposite Drive End Bearing Number-	**6213 C3**	
39.	Opposite Drive End Bearing Qty.	**1**	
40.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
41.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
42.	Opposite Drive End Bearing Insulation or Grounding Device?	**None**	
43.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**spacer behind bearing**	
44.	Opposite Drive End Bearing Condition	**Normal wear**	P48

45.	Drive End Seal	**None**	
46.	Opposite Drive End Seal	**None**	

Rotor Inspection

47.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	
48.	Growler Test	**(Pass) Pass**	
49.	Number of Rotor Bars	**56**	

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50. Rotor Condition **Pass** P62

51. List the Parts needed for the Repair Below

6313 ZZ C3
6213 ZZ C3

52. Signature of Technician that Disassembled Motor **Brandon Woodard**

Mechanical Fits- Rotor

53. Shaft Runout **0.001 inches**

54. Rotor Runout

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

55. Coupling Fit Closest to Bearing Housing P67

0 Degrees	90 Degrees	120 Degrees
2.375	**2.375**	**2.375**

56. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
2.375	**2.375**	**2.375**

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57.	Drive End Bearing Shaft Fit			P69
	0 Degrees	60 Degrees	120 Degrees	
	2.559	**2.559**	**2.559**	

Tolerance is 2.5592-2.5696. .0002 under tolerance recommend adding loctite during assembly

58.	Drive End Bearing Shaft Fit Condition		**(P) Pass**
59.	Opposite Drive End Bearing Shaft Fit		P71
	0 Degrees	60 Degrees	120 Degrees
	2.5594	**2.5594**	**2.5594**

Tolerance is 2.5592-2.5696

60.	Opposite Drive End Bearing Shaft Fit Condition		**(P) Pass**
61.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
	Pass	**Oass**	

Mechanical Fits- Bearing Housings

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62. Drive End - Endbell Bearing Fit P74

0 Degrees	60 Degrees	120 Degrees
5.5128	**5.5128**	**5.5128**

Tolerance is 5.5118-5.5128

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

64. Opposite Drive End - Endbell Bearing Fit P76

0 Degrees	60 Degrees	120 Degrees
4.7256	**4.7256**	**4.7256**

4.7244-4.7253. .0003 over tolerance recommend no machine work

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

66. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
Pass	**Pass**

67. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
Pass	**Pass**

68. List Machine Work Needed Below

None recommend

69. Technician **Brandon Woodard**

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Root Cause of Failure

70. Failure locations

None

71. Root cause of failure

Recondition

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