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

AC Inspection as Found

REMURIATE
2044 EAST COUNTY RD 876
OSCEOLA, AR 72730

FolderID: 156022
FormID: 25210882

AC Inspection - Rev. 2

Location:	MLMR
Serial Number:	LSFT322U039
Description:	500 HP AC

Hi-Speed Job Number:	156022
Manufacturer:	GE
Product Number:	Q8124
Spec/ID #:	5KS511XAA161C
Serial Number:	LSFT322U039
HP/kW:	500 (HP)
RPM:	3570 (RPM)
Frame:	5011LS
Voltage:	460
Current:	517 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	None
Date Received:	07/16/2025
Bearing RTDs:	Yes
Stator RTDs:	Yes
Repair Stage:	Teardown Inspection
Heaters:	Yes
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **4 - High** **7 - Good**

Overall Condition

1.	Report Date	**07/22/2025**

2. Nameplate Picture

P2

3. Photos of all six sides of the machine.

P3

	4.	Describe the Overall Condition of the Equipment as Received ***Passed all electrical tests. Shaft is bent and requires repair. Stator passed all electrical tests. Shaft is bent and requires repair as well as machine work to both end bells. Drive end bearing shows electrical fluting.? Recommend adding aegis ring to drive end and insulated bearing on opposite drive end.***	
	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?	**(YES) YES**
	9.	Does Shaft Have Visible Damage?	**(No) No**
	10.	Assembled Shaft Runout	**0.008 Inches**
	11.	Assembled Shaft End Play	**0.001 inches**
	12.	Air Gap Variation <10%	**No Provisions for measurement**

13.	Lead Condition	**(P) Pass**	P13

14.	Lead Length	**24 Inches**
15.	Does it have Lugs?, If so what is the Stud Size?	P15

16.	Lead Numbers	**1-3/7-9**
17.	Are the Leads insulated with Chico or other material	**(NO) NO**
18.	Stator Temperature Detector Rating and Function	

Quantity	Rating	Quantity Passed
8	**100**	**8**

19.	Bearing Temperature Detector Rating and Function	

Quantity	Rating	Quantity Passed
2	**100**	**2**

20.	Frame Condition	**Pass**
21.	Fan Condition	**(P) Pass**
22.	Does motor have internal fan?	**(YES) YES**
23.	Heater Quantity, Ratings	

Quantity	Volts/Watts	Pass/Fail
1		**Pass**

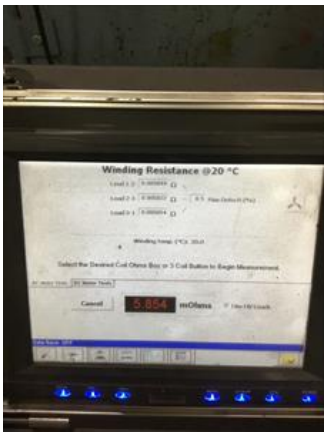
24.	Broken or Missing Components	**None**

Initial Electrical Inspection

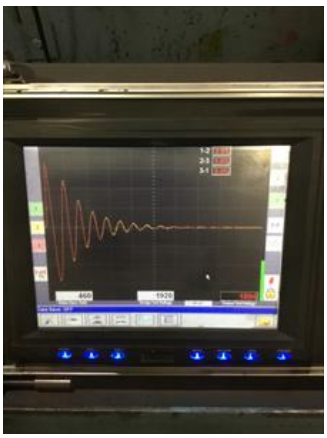
25.	Insulation Resistance/Megger	**92000 Megohms**	P25

26.	Winding Resistance		P26

1-2	1-3	2-3
.005844	**.005822**	**.005854**



27.	Perform Surge Test	**(P) Pass**	P27



28.	Number of Stator Slots	**48**
29.	Stator Condition	**Pass**
30.	Stator Thermistors/Ohms	**M/A**
31.	Stator Overloads/Ohms	**N/A**

Mechanical Inspection

32.	Drive End Bearing Brand	**C&U**	P32

33.	Drive End Bearing Number-	**6315 zC3**	
34.	Drive End Bearing Qty.	**1**	
35.	Drive End Bearing Type	**(Ball) Ball Bearing**	
36.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
37.	Drive End Bearing Insulation or Grounding Device?	**None**	
38.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**None**	
39.	Drive End Bearing Condition	**fluted**	P39

40.	Opposite Drive End Bearing Brand	**C&U**	P40

41.	Opposite Drive End Bearing Number-	**6315 zC3**	
42.	Opposite Drive End Bearing Qty.	**1**	

43.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
44.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
45.	Opposite Drive End Bearing Insulation or Grounding Device?	**None**	
46.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**Wavy Washer**	
47.	Opposite Drive End Bearing Condition	**Fluting**	P47

48.	Drive End Seal	**Labyrinth**	
49.	Opposite Drive End Seal	**Labyrinth**	

Rotor Inspection

50.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	
51.	Growler Test	**(Pass) Pass**	
52.	Number of Rotor Bars	**40**	
53.	Rotor Condition	**Pass**	
54.	List the Parts needed for the Repair Below ***Aegis ring see picture for part #*** ***6315 C3*** ***6315 C3 insulated***		P54

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

Mechanical Fits- Rotor

56.	Shaft Runout		**0.008 inches**

57. Rotor Runout

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

58. Coupling Fit Closest to Bearing Housing P58

0 Degrees	90 Degrees	120 Degrees
2.625	**2.625**	**2.625**

59. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
2.625	**2.625**	**2.625**

60. Drive End Bearing Shaft Fit P60

0 Degrees	60 Degrees	120 Degrees
2.9529	**2.9529**	**2.9529**

Tolerance is 2.9529-2.9534

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

62. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.9528	**2.9528**	**2.9528**

Tolerance is 2.9529-2.9534

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

64.	Shaft Air Seal Fits		P64
	Drive End Air Seal	Opposite Drive End Air Seal	
	Needs Repaired	**Pass**	

Mechanical Fits- Bearing Housings

65.	Drive End - Endbell Bearing Fit			P65
	0 Degrees	60 Degrees	120 Degrees	
	6.3021	**6.3021**	**6.3021**	
	Tolerance is 6.2992-6.3002			

66.	Drive End - Endbell Bearing Fit Condition		**(F) Fail**
67.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	6.3018	**6.3018**	**6.3018**
	Tolerance is 6.2992-6.3002		

68. Opposite Drive End - Endbell Bearing Fit Condition **(F) Fail** P68

69. Bearing Cap Condition

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

70. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
needs repaired	**Pass**

71. List Machine Work Needed Below

Bore and install bushings in both end bells.
Clean up shaft at seal fit.
Shaft is bend from seal fit to end of shaft .008". Shaft material needs to be tested to see if it can be weld repaired. Is so, shaft needs turned, welded, turned and new keyway milled.

72. Technician **Brandon Woodard**

Root Cause of Failure

73. Failure locations

74. Root cause of failure

Rewind

75. THERMAL DETECTION EQUIPMENT FINAL TESTING - RTD'S/KLIXONS/THERMISTORS

Assembly

76. Was a Insulated bearing or end bell tested?

77. Motor RPM