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

AC Recondition As Found

Almatis Inc/RCP Bauxite (10014)
4701 Alcoa Road
Bauxite, AR 72011

FolderID: 100913
FormID: 15984858

AC Recondition - Rev. 2

Location:	LR Motor Shop
Serial Number:	Z12Z263R195M
Description:	50HP US MOTORS 1800RPM 326T

Hi-Speed Job Number:	100913
Manufacturer:	US Motors/Nidec
Product Number:	79738
Serial Number:	Z12Z263R195M
HP/kW:	50 (HP)
RPM:	1775 (RPM)
Frame:	326T
Voltage:	460
Current:	57.5
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **5 - High** **2 - Good**

Overall Condition

1. Report Date

2. Nameplate Picture P37

3. Photos of all six sides of the machine. P44

4. Describe the Overall Condition of the Equipment as Received

Dirty but serviceable

Initial Mechanical/Electrical

5.	Does Shaft Turn Freely?	**(No) No**	
6.	Does Shaft Have Visible Damage?	**(No) No**	P20

7.	Assembled Shaft Runout	**0.001 Inches**	
8.	Assembled Shaft End Play		
9.	Air Gap Variation <10%		
10.	Lead Condition	**(F) Fail**	P53

11.	Lead Length	**12 Inches**
12.	Frame Condition	**good**

13.	Fan Condition	**(P) Pass**	P91

14.	Broken or Missing Components	

Initial Electrical Inspection

15.	Insulation Resistance/Megger	
16.	Winding Resistance	

1-2	1-3	2-3

17.	Perform Surge Test	**(NA) Not Applicable**	
18.	Number of Stator Slots		
19.	Stator Condition	**rewind**	

Mechanical Inspection

20.	Drive End Bearing Brand	**skf**	P15

21.	Drive End Bearing Number-		P33

22.	Drive End Bearing Qty.	**1**	
23.	Drive End Bearing Type	**(Ball) Ball Bearing**	P49

24.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
25.	Drive End Bearing Insulation or Grounding Device?	**none**	
26.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
27.	Drive End Bearing Condition	**replace**	
28.	Opposite Drive End Bearing Brand	**koyo**	P84

29.	Opposite Drive End Bearing Number-		P85

30.	Opposite Drive End Bearing Qty.	**1**	
31.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
32.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
33.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
34.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?		
35.	Opposite Drive End Bearing Condition	**complete bearing cage failure**	P96

36.	Drive End Seal		
37.	Opposite Drive End Seal		

Rotor Inspection

38.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	
39.	Growler Test		
40.	Number of Rotor Bars		

41. Rotor Condition

P38

42. List the Parts needed for the Repair Below

6311 2Z & 6211 2Z bearings. 6311 & 6211 2Z sleeves. Rewind stator & core repair.

43. Signature of Technician that Disassembled Motor **Terrence Holland**

Mechanical Fits- Rotor

44. Shaft Runout **inches**

45. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

46. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

47. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

48. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees

49. Drive End Bearing Shaft Fit Condition

50. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees

51. Opposite Drive End Bearing Shaft Fit Condition

52. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

53. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Bad

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

55. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Bad, excessive wear.

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

57. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

58. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

59. List Machine Work Needed Below

D.E. & O.D.E housing fits.

60. Technician **Terrence Holland**

Dynamic Balance Report

61. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

62. Initial Balance Readings

Drive End	Opposite Drive End

63. Final Balance Readings

Drive End	Opposite Drive End

64. Technician

Rewind

65. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

66. Core Hot Spot Test

Pre-Burnout	Post-Burnout

67. Post Rewind Electrical Test- Insulation Resistance

68. Post Rewind Polarization Index

69. Post Rewind Winding Resistance

1-2	1-3	2-3

70.	Post Rewind Surge Test
71.	Post Rewind Hi-Pot
72.	Technician

Root Cause of Failure

73.	Failure locations
74.	Root cause of failure

Mechanical Fits- Rotor - Post Repair

75.	Shaft Runout Post Repair
76.	Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

77.	Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

78.	Coupling Fit Closest to the end of the Shaft Post Repair

0 Degrees	60 Degrees	120 Degrees

79.	Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

80.	Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

81.	Shaft Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

82.	Shaft Repair Sign-off

Mechanical Fits- Bearing Housings - Post Repair

83.	Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

84.	Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

85.	Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

86.	End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

87.	End Bell Repair Sign-off

Assembly

88.	Photograph All Major Components prior to assembly
89.	Final Insulation Resistance Test
90.	Assembled Shaft Endplay
91.	Assembled Shaft Runout

92.	Test Run Voltage		
	Volts	Volts	Volts
93.	Test Run Amperage		
	Amps	Amps	Amps
94.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
95.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
96.	Ambient Temperature - Fahrenheit		
97.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
98.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
99.	Final Test Run Sign-off		
100.	Document Final Condition with Pictures after paint		
101.	Final Pics and QC Review		