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

AC Inspection as Found

Weaver-Bailey Contractors
1601 Mayor Lane
Conway, AR 72032

FolderID: 104393
FormID: 23953959

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	
Description:	BALDOR MOTOR-NAMEPLATE DAMAGED

Hi-Speed Job Number:	104393
Manufacturer:	Baldor
RPM:	1780 (RPM)
Frame:	404T
Voltage:	230 / 460
Current:	236/118 (Amps)
Phase:	Three
Hz:	60 (Hz)
Enclosure:	ODP
# of Leads:	9
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	04/01/2025
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	Yes
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **2 - High** **10 - Good**

Overall Condition

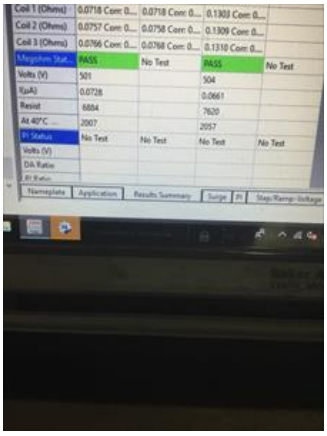
1.	Report Date	**04/07/2025**	
2.	Nameplate Picture		P37

3.	Photos of all six sides of the machine.		P45

	4.	Describe the Overall Condition of the Equipment as Received ***Coated with hardened concrete.***		
Initial Mechanical/Electrical				
●	5.	Does Shaft Turn Freely?	**(Y) Yes**	
●	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
	7.	Does Shaft Have Visible Damage?	**(No) No**	
●	8.	Assembled Shaft Runout	**0.001 Inches**	
	9.	Assembled Shaft End Play	**0 inches**	
	10.	Air Gap Variation <10%		
●	11.	Lead Condition	**(P) Pass**	P69

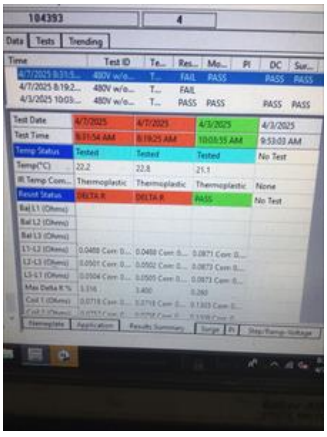
	12.	Lead Length	**10 Inches**	
●	13.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
	14.	Lead Numbers	**1-9**	
	15.	Frame Condition	**dirty**	
	16.	Fan Condition		
●	17.	Does motor have internal fan?	**(No) No**	
	18.	Broken or Missing Components	**none**	
Initial Electrical Inspection				

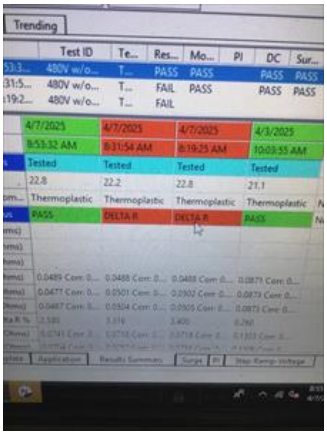
19.	Insulation Resistance/Megger	**Megohms**	P8



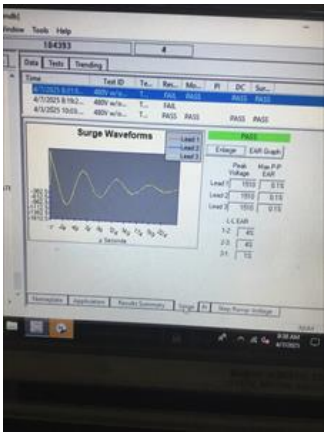
20.	Winding Resistance		P20

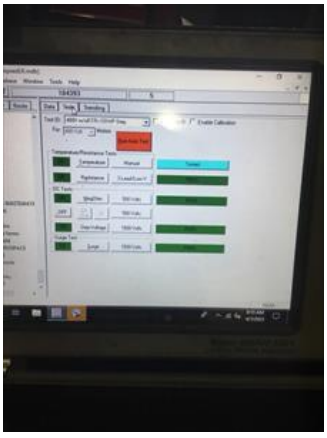
1-2	1-3	2-3
22.8	**22.2**	**22.8**





21.	Perform Surge Test	**(P) Pass**	P57





22.	Number of Stator Slots	**48**
23.	Stator Condition	**pass**
24.	Stator Thermistors/Ohms	
25.	Stator Overloads/Ohms	

Mechanical Inspection

26.	Drive End Bearing Brand	**NTN**	P12

27.	Drive End Bearing Number-	**6316 C3**	
28.	Drive End Bearing Qty.	**1**	
29.	Drive End Bearing Type	**(Ball) Ball Bearing**	P51

30.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
31.	Drive End Bearing Insulation or Grounding Device?	**none**	
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?		P77

Star washer and lock nut

33.	Drive End Bearing Condition		

Replace

34.	Opposite Drive End Bearing Brand	**FAG**	P92

35.	Opposite Drive End Bearing Number-	**6312 2Z/C3**	P99

36.	Opposite Drive End Bearing Qty.	**1**	
37.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	P106

38.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
39.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**
41.	Opposite Drive End Bearing Condition	**replace**
42.	Drive End Seal	**none**
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	**48**
47.	Rotor Condition	**pass**
48.	List the Parts needed for the Repair Below	

1) 6316 C3
1) 6312 2Z/C3
Machine ODE housing fit, DE shaft bearing fit.

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

Mechanical Fits- Rotor

50.	Shaft Runout	**0.001 inches**

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
2.8748	**2.8749**	**2.8748**

54. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.1494	**3.1495**	**3.1495**

(2) 10ths under minimum

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

See item 54

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.3629	**2.3628**	**2.3628**

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

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
6.6935	**6.6934**	**6.6936**

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

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Failed, lip worn in.

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

See item 61

63. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	**n/a**

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

65. List Machine Work Needed Below P67

ODE housing fit bad. DE shaft it measures too small.

66. Technician **Terrence Holland**

Co sign:

Root Cause of Failure

67. Failure locations

ODE housing it, and DE shaft bearing it out o tolerance. ODE bearing shows signs of fluting.

68. Root cause of failure

DE shaft fit and, ODE housing fit.

Dynamic Balance Report

69. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

70. Initial Balance Readings

Drive End	Opposite Drive End

71. Final Balance Readings

Drive End	Opposite Drive End

72. Technician

Mechanical Fits- Rotor - Post Repair

73. Shaft Runout Post Repair

74. Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

75. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

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

0 Degrees	60 Degrees	120 Degrees

77. Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

78. Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

79. Shaft Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

80.	Shaft Repair Sign-off		
Mechanical Fits- Bearing Housings - Post Repair			
81.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
82.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
83.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
84.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
85.	End Bell Repair Sign-off		
Assembly			
86.	QC Check All Parts for Cleanliness Prior to Assembly		
87.	Photograph All Major Components prior to assembly		
88.	Final Insulation Resistance Test		
89.	Assembled Shaft Endplay		
90.	Assembled Shaft Runout		
91.	Test Run Voltage		
	Volts	Volts	Volts
92.	Test Run Amperage		
	Amps	Amps	Amps
93.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
94.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
95.	Ambient Temperature - Fahrenheit		
96.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
97.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
98.	Document Final Condition with Pictures after paint		
99.	Final Pics and QC Review		