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

AC Inspection as Found

ARKANSAS INDUSTRIAL MACHINERY
3804 N. NONA ST
NORTH LITTLE ROCK, AR 72118

FolderID: 104933
FormID: 25219783

AC Inspection - Rev. 2

Location:	LR MOTOR SHOP
Serial Number:	A1908092041

Description:200 HP QUINCY COMPRESSOR PREVENTATIVE MAINTENANCE

Hi-Speed Job Number:	104933
Manufacturer:	Other
Spec/ID #:	B640139
Serial Number:	A1908092041
HP/kW:	200 (HP)
RPM:	1790 (RPM)
Frame:	447TSC
Voltage:	460
Current:	224
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	DP
# of Leads:	6
J-box Included:	Half
Coupling/Sheave:	None
Date Received:	07/23/2025
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: **1 - High** **9 - Good**

Overall Condition

1.	Report Date	**07/23/2025**

2. Nameplate Picture P38

3. Photos of all six sides of the machine. P46

	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***	
	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**	P26

●	10.	Assembled Shaft Runout	**0.003 Inches**	
	11.	Assembled Shaft End Play	**0 inches**	
	12.	Air Gap Variation <10%		
●	13.	Lead Condition	**(P) Pass**	P71

	14.	Lead Length	**12 Inches**	
●	15.	Does it have Lugs?, If so what is the Stud Size?	**(YES) YES**	
	16.	Lead Numbers	**T1-T6**	P105
		Connection: (1-6) (2-4) (3-5)		

	17.	Are the Leads insulated with Chico or other material	**(NO) NO**
	18.	Frame Condition	**pass**

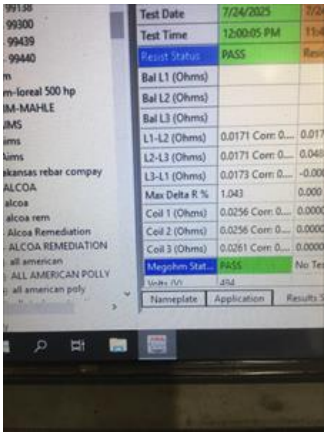
19.	Fan Condition	
20.	Does motor have internal fan?	**(NO) NO**
21.	Broken or Missing Components	**none**

Initial Electrical Inspection

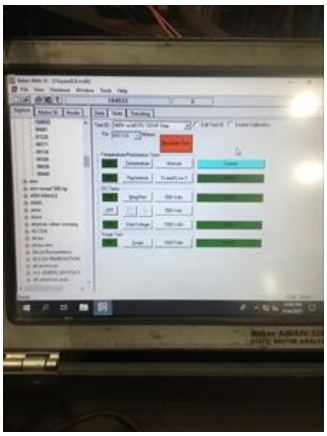
22. Insulation Resistance/Megger — **7.25 Gigohms** — P8

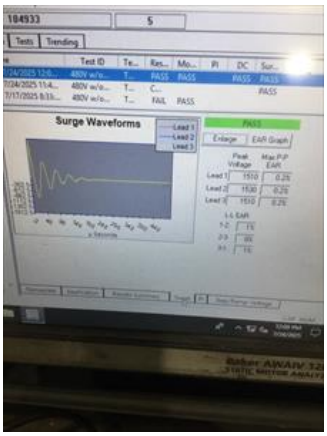
23. Winding Resistance — P16

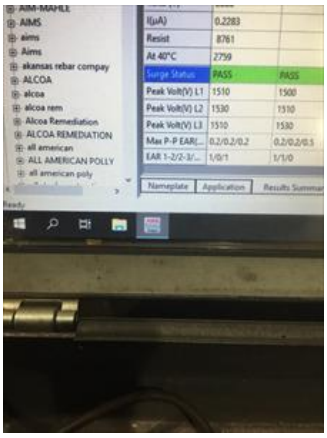
1-2	1-3	2-3
.0171	**.0173**	**.0171**



24. Perform Surge Test — **(P) Pass** — P57







25.	Number of Stator Slots	**72**	
26.	Stator Condition	**pass**	
27.	Stator Thermistors/Ohms		
28.	Stator Overloads/Ohms		

Mechanical Inspection

29.	Drive End Bearing Brand	**nachi**	P12

30.	Drive End Bearing Number-	**6318/c3**	P32

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?	**snap ring**
36.	Drive End Bearing Condition	**replace**

Contaminated grease.

37.	Opposite Drive End Bearing Brand	**nachi**	P92

38.	Opposite Drive End Bearing Number-	**6318c3**	P101

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?		
43.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P115

44.	Opposite Drive End Bearing Condition	**replace**
	Contaminated grease	
45.	Drive End Seal	
46.	Opposite Drive End Seal	

Rotor Inspection

47.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
48.	Growler Test	**(Pass) Pass**
49.	Number of Rotor Bars	**58**
50.	Rotor Condition	**pass**
51.	List the Parts needed for the Repair Below ***2) 6318 2Z/C3 bearings*** ***1) 318 sleeve for ODE housing fit***	
52.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

53.	Shaft Runout	**0.003 inches**
54.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

55.	Coupling Fit Closest to Bearing Housing	

0 Degrees	90 Degrees	120 Degrees

56.	Coupling Fit Closest to the end of the Shaft	

0 Degrees	60 Degrees	120 Degrees

57.	Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
3.5437	**3.5437**	**3.5437**

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

0 Degrees	60 Degrees	120 Degrees
3.5436	**3.5436**	**3.5435**

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	**pass**

Mechanical Fits- Bearing Housings

62.	Drive End - Endbell Bearing Fit	

0 Degrees	60 Degrees	120 Degrees
7.4813	**7.4812**	**7.4813**

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

0 Degrees	60 Degrees	120 Degrees

Fail

65. Opposite Drive End - Endbell Bearing Fit Condition **(F) Fail** P41

Excessive wear. Lip worn in housing.

66. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	**pass**

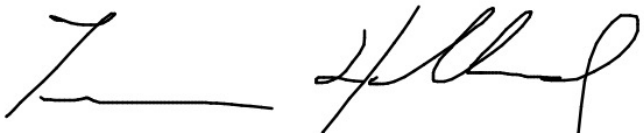
67. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
pass	**pass**

68. List Machine Work Needed Below

Sleeve ODE housing fit.

69. Technician **Terrence Holland**



Root Cause of Failure

70. Failure locations

ODE housing fit

71. Root cause of failure

Contaminated grease, and fluting

Dynamic Balance Report

72. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

73. Initial Balance Readings

Drive End	Opposite Drive End

74. Final Balance Readings

Drive End	Opposite Drive End

75. Technician

Rewind

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

Mechanical Fits- Bearing Housings - Post Repair

77. Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

78. Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

79. Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

80. End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

81. End Bell Repair Sign-off

Assembly

82. QC Check All Parts for Cleanliness Prior to Assembly
83. Photograph All Major Components prior to assembly
84. Was a Insulated bearing or end bell tested?
85. Final Insulation Resistance Test
86. Assembled Shaft Endplay
87. Assembled Shaft Runout
88. Test Run Voltage

Volts	Volts	Volts

89. Test Run Amperage

Amps	Amps	Amps

90. Motor RPM
91. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

92. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

93. Ambient Temperature - Fahrenheit
94. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

95. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

96. Document Final Condition with Pictures after paint
97. Final Pics and QC Review