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

AC Inspection as Found

Tyson Foods (10914)
1238 Market Street
Clarksville, AR 72830

FolderID: 104128
FormID: 23360165

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	

Description:5 HP PUMP
GOULDS WATER TECHNOLOGY

Hi-Speed Job Number:	104128
Manufacturer:	Other
Product Number:	WS5012D4
HP/kW:	5 (HP)
RPM:	1725 (RPM)
Voltage:	Other
Current:	26.5 (Amps)
Phase:	Single
Hz:	60 (Hz)
Service Factor:	1
Enclosure:	Submersible
# of Leads:	Other
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
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: **4 - High** **7 - Good**

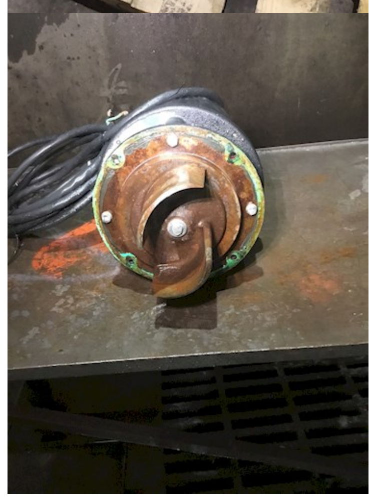
Overall Condition

1. Report Date **02/13/2025**

2. Nameplate Picture **WEG** P37

Sn: 1076937356

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








Power cord

4. Describe the Overall Condition of the Equipment as Received

   Debris has impeller locked up.

Initial Mechanical/Electrical

5.	Does Shaft Turn Freely?	**(N) No**
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 ***Locked up, unable to perform***	**Inches**
9.	Assembled Shaft End Play	**inches**
10.	Air Gap Variation <10%	

11.	Lead Condition		**(F) Fail**	P69

12.	Lead Length		**10 Inches**
13.	Does it have Lugs?, If so what is the Stud Size?		**(No) No**
	Terminals		
14.	Lead Numbers		
	Not numbered		
15.	Frame Condition		**pass**
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**
	Rewind		
20.	Winding Resistance		

1-2	1-3	2-3

Rewind

21.	Perform Surge Test		**(F) Fail**	P57

22.	Number of Stator Slots		**36**
23.	Stator Condition		**rewind**
24.	Stator Thermistors/Ohms		
25.	Stator Overloads/Ohms		

Mechanical Inspection

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

27. Drive End Bearing Number- **6206 Z C3**

28. Drive End Bearing Qty. **1**

29. Drive End Bearing Type **(Ball) Ball Bearing**

30. Drive End Lubrication Type **(Oil) Oil Lubricated**

31. Drive End Bearing Insulation or Grounding Device? **none**

32. Drive End Wavy Washer/Snap-Ring Other Retention Device? **none**

33. Drive End Bearing Condition **replace**

34. Opposite Drive End Bearing Brand **Koyo**

35. Opposite Drive End Bearing Number- **6204 Z** P99

36. Opposite Drive End Bearing Qty. **1**

37. Opposite Drive End Bearing Type **(Ball) Ball Bearing**

38. Opposite Drive End Lubrication Type **(Oil) Oil 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

Viton elastomer & Tungsten

43. Opposite Drive End Seal

Carbon ceramic with viton elastomer

Rotor Inspection

44. Rotor Type/Material **(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**

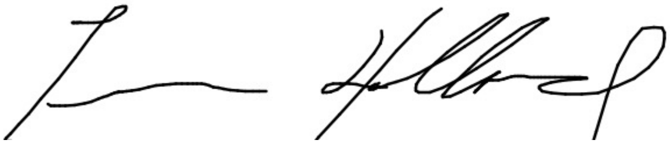
45. Growler Test **(Pass) Pass**

46.	Number of Rotor Bars	**48**
47.	Rotor Condition	**pass**

48. List the Parts needed for the Repair Below

Rewind stator. Replace bearings: 6206Z & 6204Z
Replace both capacitors and O-rings plus power cord grommet
Inner seal: Carbon-Ceramic with viton elastomer OD 1.7575: ID 1.1250
Outer seal: Tungsten with viton elastomer: OD 1.7575: ID 1.1250

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



Co sign:

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

54. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.1814	**1.1815**	**1.1814**

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

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
0.07874	**0.7875**	**0.7873**

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
2.442	**2.4422**	**2.4421**

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

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
1.8509	**1.8508**	**1.8508**

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

63. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

65. List Machine Work Needed Below

D.E. Housing fit

66. Technician **Terrence Holland**

Co sign RW

Root Cause of Failure

67. Failure locations

Windings
D.E. housing fit

68. Root cause of failure

Outer seal failure due to excessive debris, allowed water to penetrate the stator windings causing shorted windings.

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 **Terrence Holland**

Rewind

73. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

74. Core Hot Spot Test

Pre-Burnout	Post-Burnout

75. Post Rewind Electrical Test- Insulation Resistance **Megohms**

76. Post Rewind Polarization Index **Polarization Index**

77. Post Rewind Winding Resistance

1-2	1-3	2-3

78. Post Rewind Surge Test

79. Post Rewind Hi-Pot **micro-amps**

80. Technician

Mechanical Fits- Bearing Housings - Post Repair

81. Drive End - Endbell Bearing Fit Post Repair P5

0 Degrees	60 Degrees	120 Degrees
2.4413	**2.4413**	**2.4413**

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

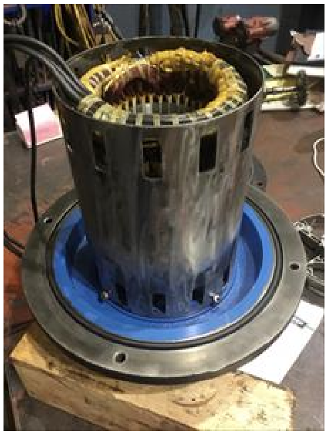
85. End Bell Repair Sign-off **Gary**

Assembly

86. QC Check All Parts for Cleanliness Prior to Assembly **Terrence Holland**

See pics below.

87. Photograph All Major Components prior to assembly P17



0833 hrs.

0845hrs


PHENIX
0232
0230
0232
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	88.	Final Insulation Resistance Test	**Megohms**
	89.	Assembled Shaft Endplay	**0 inches**
●	90.	Assembled Shaft Runout	**0.002 inches**

91. Test Run Voltage P55

Volts	Volts	Volts
227	**228**	

No load

92. Test Run Amperage

Amps	Amps	Amps
6.2	**6**	

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 P130

99. Final Pics and QC Review **Terrence Holland**

Witness: CRW