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

AC Inspection as Found

Reynolds Metals company
1333 highway 270
Malvern, AR 72104

FolderID: 103894
FormID: 22643428

AC Inspection - Rev. 2

Location:	LITTLE ROCK MOTOR SHOP
Serial Number:	01319840-8
Description:	75HP MARATHON

Hi-Speed Job Number:	103894
Manufacturer:	Marathon
Product Number:	9J365TTFS6036DUW
Serial Number:	01319840-8/15-02
HP/kW:	75 (HP)
RPM:	1780 (RPM)
Frame:	365T
Voltage:	230 / 460
Current:	172 / 86 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	3
J-box Included:	None
Coupling/Sheave:	Coupling
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

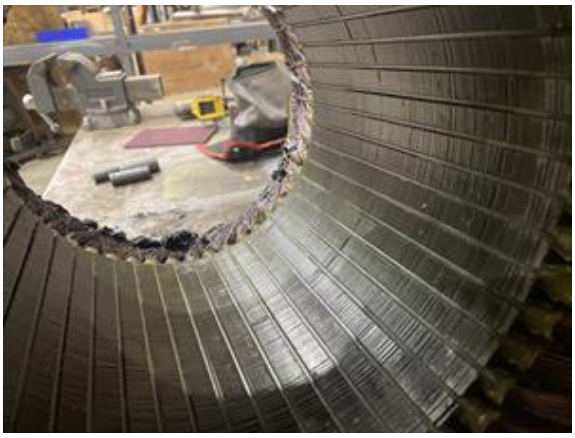
Priorities Found: **1 - High** **14 - Good**

Overall Condition

1.	Report Date	**12/26/2024**

2. Nameplate Picture P37

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



4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***		
5.	Distance from the end of the shaft to the Coupling/Sheave	**0.125 inches**	P76

Initial Mechanical/Electrical

6.	Does Shaft Turn Freely?	**(Y) Yes**	
7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
8.	Does Shaft Have Visible Damage?	**(No) No**	
9.	Assembled Shaft Runout	**0.001 Inches**	
10.	Assembled Shaft End Play	**0 inches**	
11.	Air Gap Variation <10%	**n/a**	
12.	Lead Condition	**(P) Pass**	P69

13.	Lead Length	**9 Inches**	
14.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**	
15.	Lead Numbers		
	1-9		
16.	Frame Condition		
	Pass		
17.	Fan Condition	**(P) Pass**	P115

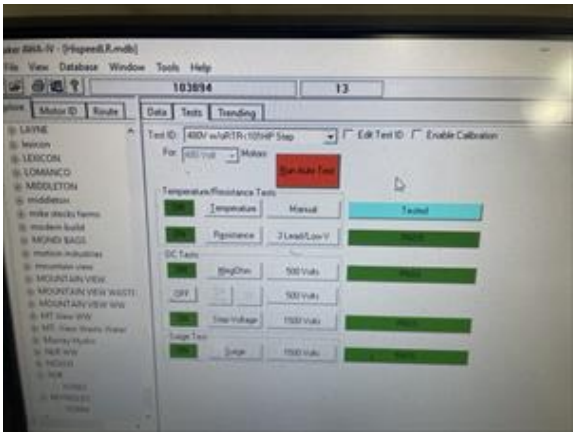
18.	Broken or Missing Components		
	Na		

Initial Electrical Inspection

19.	Insulation Resistance/Megger	**Megohms**	
	Pass		
20.	Winding Resistance		

1-2	1-3	2-3

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



22.	Number of Stator Slots	**48**	
23.	Stator Condition		
	Pass		
24.	Stator Thermistors/Ohms		
	Na		

25. Stator Overloads/Ohms

Na

Mechanical Inspection

26. Drive End Bearing Brand P12

Ntn

27. Drive End Bearing Number- P32

28. Drive End Bearing Qty.

1

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

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

31. Drive End Bearing Insulation or Grounding Device?

Na

32. Drive End Wavy Washer/Snap-Ring Other Retention Device?

Na

33. Drive End Bearing Condition

Replace

34. Opposite Drive End Bearing Brand P92

Skf

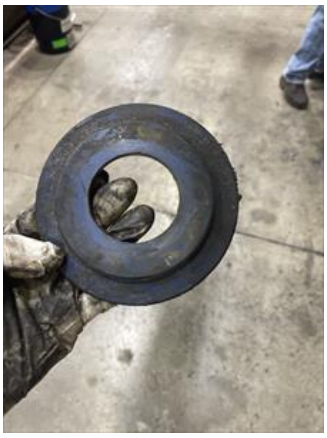
35. Opposite Drive End Bearing Number- P99

6312

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?	
	Na	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	
	Na	
41.	Opposite Drive End Bearing Condition	
	Replace	
42.	Drive End Seal	P120
	Yes	



43.	Opposite Drive End Seal	
	Na	

Rotor Inspection

44.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
45.	Growler Test	**(Pass) Pass**
46.	Number of Rotor Bars	**40**
47.	Rotor Condition	
	Good	
48.	List the Parts needed for the Repair Below	
	Bearings 6314 & 6312 2Z/C3 bearings ***Sleeve ODE housing fit***	

49.	Signature of Technician that Disassembled Motor			**Jason Peeples**

Co-sign TRH

Mechanical Fits- Rotor

50.	Shaft Runout			**inches**

.001

51. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

Na

52. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

Na

53. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

2.374

54. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.7565	**2.7563**	**2.7563**

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

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.3624	**2.3624**	**2.3623**

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

58. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Na

Mechanical Fits- Bearing Housings

59. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.906	**5.906**	**5.6061**

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

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Excessive wear

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

63. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

Na

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Na

65. List Machine Work Needed Below

ODE housing fit

66. Technician **Jason Peeples**

Co-sign TRH

Root Cause of Failure

67. Failure locations

Bearings, and ODE housing

68. Root cause of failure

Contaminated grease

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- Bearing Housings - Post Repair

73. Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

74. Opposite Drive End - Endbell Bearing Fit Post Repair P19

0 Degrees	60 Degrees	120 Degrees
5.1184	**5.1184**	**5.1184**

75. Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

76. End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

77. End Bell Repair Sign-off **RW**

Assembly

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

79. Photograph All Major Components prior to assembly P17

80. Final Insulation Resistance Test **57 Gigohms** P31

81.	Assembled Shaft Endplay		**0 inches**
82.	Assembled Shaft Runout		**0.002 inches**

83. Test Run Voltage P56

Volts	Volts	Volts
460	**4599**	**462**

84. Test Run Amperage P65

Amps	Amps	Amps
28.8	**27.4**	**27.6**

85. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial
0.03	**0.02**	**0.04**

86. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial
0.04	**0.02**	**0.01**

87. Ambient Temperature - Fahrenheit

88. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

89. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

90. Document Final Condition with Pictures after paint

See below

91. Final Pics and QC Review **Terrence Holland** P131

Co sign: DM