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

AC Inspection as Found

DELTA PLASTICS OF THE SOUTH
3104 SOUTH MAIN STREET
STUTTGART, AR 72160

FolderID: 103851
FormID: 22522835

AC Inspection - Rev. 2

Location:	Shop
Serial Number:	TGR9216632001
Description:	300HP TECO 1188RPM

Hi-Speed Job Number:	103851
Manufacturer:	TECO Westinghouse
Product Number:	CAT: EP3006R
Spec/ID #:	TYPE: AEH118N
Serial Number:	TGR9216632001
HP/kW:	300 (HP)
RPM:	1188 (RPM)
Frame:	449T
Voltage:	460
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **1 - High** **8 - Good**

Overall Condition

1. Report Date **12/18/2024**
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 ***N/a***	**inches**
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 ***Unable to capture***	**Inches**
	10.	Assembled Shaft End Play ***None***	**inches**
	11.	Air Gap Variation <10%	
●	12.	Lead Condition	**(P) Pass**
	13.	Lead Length ***Inches***	**13 Inches**
●	14.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**
	15.	Lead Numbers	**1-6**
	16.	Bearing Temperature Detector Rating and Function	

Quantity	Rating	Quantity Passed

N/a

	17.	Frame Condition	**good**

18.	Fan Condition	**(P) Pass**	
19.	Broken or Missing Components	**none**	

Initial Electrical Inspection

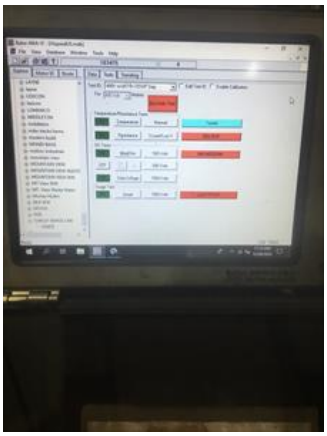
20.	Insulation Resistance/Megger	**Megohms**	
	Unable to capture		
21.	Winding Resistance		

1-2	1-3	2-3

Unable to capture

22.	Perform Surge Test	P57

Unable to perform test. -water in housing



After baking

23.	Number of Stator Slots	**72**	
24.	Stator Condition	**serviceable**	
25.	Stator Thermistors/Ohms		
	N/a		
26.	Stator Overloads/Ohms		

Mechanical Inspection

27.	Drive End Bearing Brand	**ntn**	
28.	Drive End Bearing Number-	**NU 320**	P32

29.	Drive End Bearing Qty.	**1**	
30.	Drive End Bearing Type	**(Roller) Roller Bearing**	
31.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	

32.	Drive End Bearing Insulation or Grounding Device?	**none present**	
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none present**	
34.	Drive End Bearing Condition	**replace**	
35.	Opposite Drive End Bearing Brand	**skf**	
36.	Opposite Drive End Bearing Number-	**6316**	P99

37.	Opposite Drive End Bearing Qty.	**1**
38.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
39.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
40.	Opposite Drive End Bearing Insulation or Grounding Device?	**none present**
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none present**
42.	Opposite Drive End Bearing Condition	**replace**
43.	Drive End Seal	**none present**
44.	Opposite Drive End Seal	**none present**

Rotor Inspection

45.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**58**
48.	Rotor Condition	**rusty**
49.	List the Parts needed for the Repair Below ***Rewind stator***	
50.	Signature of Technician that Disassembled Motor	**Jeremey Edwards**

Mechanical Fits- Rotor

51.	Shaft Runout	**inches**
	Unable to capture	
52.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

53. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

N/a

54. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

N/a

55. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.9376	**3.9378**	**3.9376**

3.9380"

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

57. Opposite Drive End Bearing Shaft Fit P89

0 Degrees	60 Degrees	120 Degrees
3.1498	**3.1499**	**3.15**

3.5415"-shoulder
3.1498"-shaft

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

59. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

N/a

Mechanical Fits- Bearing Housings

60. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
8.4665	**8.4663**	

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

62. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
6.6942	**6.6942**	**6.6942**

6.694"

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

64. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

Acceptable

65. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

N/a

66. List Machine Work Needed Below

N/a

67. Technician **Jeremey Edwards**

Co sign: TRH

Root Cause of Failure

68. Failure locations

Windings & DE housing fit bad

69. Root cause of failure P18

Water penatration

Dynamic Balance Report

70. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

71. Initial Balance Readings

Drive End	Opposite Drive End

72. Final Balance Readings

Drive End	Opposite Drive End

73. Technician

Rewind

74.	Core Test Results - Watts loss per Pound		
	Pre-Burnout	Post Burnout	
75.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
76.	Post Rewind Electrical Test- Insulation Resistance		
77.	Post Rewind Polarization Index		
78.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
79.	Post Rewind Surge Test		
80.	Post Rewind Hi-Pot		
81.	Technician		

Mechanical Fits- Rotor - Post Repair

82.	Shaft Runout Post Repair		
83.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
84.	Coupling Fit Closest to Bearing Housing Post Repair		
	0 Degrees	90 Degrees	120 Degrees
85.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
86.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
87.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
88.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
89.	Shaft Repair Sign-off		

Mechanical Fits- Bearing Housings - Post Repair

90.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
91.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
92.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	

93.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
94.	End Bell Repair Sign-off		
Assembly			
95.	QC Check All Parts for Cleanliness Prior to Assembly		
96.	Photograph All Major Components prior to assembly		
97.	Final Insulation Resistance Test		
98.	Assembled Shaft Endplay		
99.	Assembled Shaft Runout		
100.	Test Run Voltage		
	Volts	Volts	Volts
101.	Test Run Amperage		
	Amps	Amps	Amps
102.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
103.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
104.	Ambient Temperature - Fahrenheit		
105.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
106.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
107.	Document Final Condition with Pictures after paint		
108.	Final Pics and QC Review		