



AC Inspection as Found

Welspun Tubular (11685)

9301 Frazier Pike

Little Rock, AR 72206

FolderID: 103634
FormID: 21947538



AC Inspection - Rev. 2

Location: LR MOTORSHOP

Serial Number: CAT: H0150V2SLG

Description: 150HP US MOTORS 1780RPM

Hi-Speed Job Number:	103634
Manufacturer:	US Motors/Nidec
Product Number:	M: DN11
Spec/ID #:	A047712362-009 R 0004
Serial Number:	CAT: H0150V2SLG
HP/kW:	150 (HP)
RPM:	1780 (RPM)
Frame:	H444TP
Voltage:	460
Current:	164 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	WPI
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	None
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:	Yes
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found:  3 - High  6 - Good

Overall Condition



1. Report Date

10/21/2024

2. Nameplate Picture

P37



3. Photos of all six sides of the machine.

P45



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


Heater ohms



4.	Describe the Overall Condition of the Equipment as Received	
	<i>Serviceable</i>	
5.	Report Date [COPY]	
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	
10.	Assembled Shaft End Play	inches

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11.	Air Gap Variation <10%		
12.	Lead Condition	(P) Pass	
13.	Lead Length	22 Inches	
14.	Does it have Lugs?, If so what is the Stud Size?	(Yes) Yes	P94
			
15.	Lead Numbers	1,2,3-7,8,9	
16.	Frame Condition	pass	
17.	Fan Condition		
18.	Heater Quantity, Ratings		P118
	Quantity	Volts/Watts	Pass/Fail
	1	115/192	
<div>   </div>			
19.	Broken or Missing Components		
	No connection box.		
Initial Electrical Inspection			



21. Winding Resistance

1-2

1-3

2-3

22. Perform Surge Test

(P) Pass

P57



23. Number of Stator Slots

72

24. Stator Condition

rusty but passed surge & Meg

25. Stator Thermistors/Ohms

26. Stator Overloads/Ohms

.1

Mechanical Inspection



27. Drive End Bearing Brand

FAG

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29. Drive End Bearing Qty.

1

30. Drive End Bearing Type

(Thrust) Thrust

P51



31. Drive End Lubrication Type

(Oil) Oil Lubricated

32. Drive End Bearing Insulation or Grounding Device?

none

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

none

34. Drive End Bearing Condition

replace

35. Opposite Drive End Bearing Brand

in- readable

36. Opposite Drive End Bearing Number-

6215 J

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?

 *Aegis ring attached to bearing cap*

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

snap-ring

42. Opposite Drive End Bearing Condition

rusted and worn with cage
failure

P119



43. Drive End Seal

44. Opposite Drive End Seal

dust seal

Rotor Inspection

45. Rotor Type/Material

(Squirrel Aluminum) Squirrel
Cage Aluminum Die Cast

 *Hollow shafted.*

46. Growler Test

(Pass) Pass

47. Number of Rotor Bars

57

48. Rotor Condition

pass

49. List the Parts needed for the Repair Below

Sleeve ODE housing fit.

50. Signature of Technician that Disassembled Motor

Terrence Holland



Mechanical Fits- Rotor

51. Shaft Runout

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

54. Coupling Fit Closest to the end of the Shaft

0 Degrees

60 Degrees

120 Degrees

55. Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

4.3302

4.3301

4.3301

 56. Drive End Bearing Shaft Fit Condition

(F) Fail

57.	Opposite Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	2.9522	2.9523	2.9523
	<div> <div></div> <div>Minimum allowed</div> </div>		
58.	Opposite Drive End Bearing Shaft Fit Condition		(F) Fail
59.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
Mechanical Fits- Bearing Housings			
60.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
61.	Drive End - Endbell Bearing Fit Condition		(P) Pass
62.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	<div> <div></div> <div>Has lip worn in.</div> </div>		
63.	Opposite Drive End - Endbell Bearing Fit Condition		(F) Fail
64.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
65.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
66.	List Machine Work Needed Below <i>Sleeve lower end bell housing, and repair upper and lower bearing shaft fits. Replace worn shaft grounding ring.</i>		
67.	Technician		Terrence Holland
			
Root Cause of Failure			
68.	Failure locations <i>Lower bear was rusted and grease was contaminated. Lower bearing housing has lip worn in and upper bearing shaft fit measures too small.</i>		
69.	Root cause of failure <i>Water contaminated grease in lower bearing.</i>		
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		
Mechanical Fits- Rotor - Post Repair			
74.	Shaft Runout Post Repair		
75.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
76.	Coupling Fit Closest to Bearing Housing Post Repair		
	0 Degrees	90 Degrees	120 Degrees
77.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
78.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
79.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
80.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
81.	Shaft Repair Sign-off		
Mechanical Fits- Bearing Housings - Post Repair			
82.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
83.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
84.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
85.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
86.	End Bell Repair Sign-off		
Assembly			
87.	QC Check All Parts for Cleanliness Prior to Assembly		
88.	Photograph All Major Components prior to assembly		
89.	Final Insulation Resistance Test		
90.	Assembled Shaft Endplay		
91.	Assembled Shaft Runout		

92.	Test Run Voltage		
	Volts	Volts	Volts
93.	Test Run Amperage		
	Amps	Amps	Amps
94.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
95.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
96.	Ambient Temperature - Fahrenheit		
97.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
98.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
99.	Document Final Condition with Pictures after paint		
100.	Final Pics and QC Review		