



AC Recondition As Found
US MOTORS WARRANTY REPAIR
 8100 W. FLORISSENT
 ST. LOUIS, MO 63136

FolderID: 100594
 FormID: 15247803

AC Recondition - Rev. 2

Location: LR MOTOR SHOP
Serial Number: D 04 7796198-0009 R 0001
Description: 250HP US MOTORS VERTICAL
 1800RPM H445TPA

Hi-Speed Job Number:	100594
Manufacturer:	US Motors/Nidec
Product Number:	HO250V2SLHX
Serial Number:	D 04 7796198-0009 R 0001
HP/kW:	250 (HP)
RPM:	1780 (RPM)
Frame:	H445TPA
Voltage:	460
Current:	281
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	WPI
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: ● 5 - Good

Overall Condition



1. Report Date
2. Nameplate Picture

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3. Photos of all six sides of the machine.

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

Initial Mechanical/Electrical

● 5. Does Shaft Turn Freely?	(Yes) Yes
6. Does Shaft Have Visible Damage?	(No) No
7. Assembled Shaft Runout	
8. Assembled Shaft End Play	
9. Air Gap Variation <10%	
● 10. Lead Condition	(P) Pass
11. Lead Length	22 Inches
12. Frame Condition	pass
13. Fan Condition	(N) NA
14. Broken or Missing Components	

Initial Electrical Inspection



15. Insulation Resistance/Megger

Megohms

P5



16. Winding Resistance

1-2

1-3

2-3

17. Perform Surge Test

(NA) Not Applicable

18. Number of Stator Slots

19. Stator Condition

stator windings blown

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Mechanical Inspection



20. Drive End Bearing Number-

7322

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21. Drive End Bearing Qty.

2

22. Drive End Bearing Type

(Thrust) Thrust

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23.	Drive End Lubrication Type	(Oil) Oil Lubricated	
24.	Drive End Bearing Insulation or Grounding Device?	none	
25.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	none	
26.	Drive End Bearing Condition	replace both	
27.	Opposite Drive End Bearing Number-	6215	P47
			
28.	Opposite Drive End Bearing Qty.	1	
29.	Opposite Drive End Bearing Type	(Ball) Ball Bearing	
30.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated	
31.	Opposite Drive End Bearing Insulation or Grounding Device?	in pro	P55
			
32.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?		
33.	Opposite Drive End Bearing Condition	replace	
34.	Drive End Seal		
35.	Opposite Drive End Seal	dust seal	P60

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Rotor Inspection



- | | |
|--------------------------|--|
| 36. Rotor Type/Material | (Squirrel Aluminum) Squirrel
Cage Aluminum Die Cast |
| 37. Growler Test | |
| 38. Number of Rotor Bars | |
| 39. Rotor Condition | blow hole in laminations |

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40. List the Parts needed for the Repair Below
Replace rotor, and rewind stator with minor core repair.

41. Signature of Technician that Disassembled Motor

Mechanical Fits- Rotor

- | | | | |
|--|------------|----------------------------|--------|
| 42. Shaft Runout | | | inches |
| 43. Rotor Runout | | | |
| Drive End Bearing Fit | Rotor Body | Opposite Drive End Bearing | |
| 44. Coupling Fit Closest to Bearing Housing | | | |
| 0 Degrees | 90 Degrees | 120 Degrees | |
| 45. Coupling Fit Closest to the end of the Shaft | | | |
| 0 Degrees | 60 Degrees | 120 Degrees | |
| 46. Drive End Bearing Shaft Fit | | | |
| 0 Degrees | 60 Degrees | 120 Degrees | |

47.	Drive End Bearing Shaft Fit Condition		
48.	Opposite Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	2.953	2.9528	2.953
49.	Opposite Drive End Bearing Shaft Fit Condition		
50.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	

Mechanical Fits- Bearing Housings



51.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
52.	Drive End - Endbell Bearing Fit Condition		
	(P) Pass		
53.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	5.1186	5.1187	5.1186
54.	Opposite Drive End - Endbell Bearing Fit Condition		
	(P) Pass		
55.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
		pass	

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56.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	

57.	List Machine Work Needed Below		
	<i>None</i>		

58.	Technician	Terrence. Holland
		

Root Cause of Failure



59. Failure locations

P6

Stator core damaged. Rotor laminations have small blow hole.



60. Root cause of failure

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Windings shorted in slot.

