LR Field Services

Prepared for HWRT Terminal- NLR (11670

2626 Central Airport RD
North Little Rock AR 72117

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

Field Service Ticket

FolderID: 104125
FormID: 23533611

HWRT Terminal- NLR (11670
2626 Central Airport RD
North Little Rock, AR 72117

Job Information

1.	Hi-Speed Job Number	**104125**
2.	Asset Type	**motor alignment**
3.	Make	**NIDEC MOTOR CORPORATION**



4.	Model	**FB44**
5.	Serial Number	**X 09 7655396-0002 M 0002**
6.	Customer Asset ID/Asset Name	**NWRT OIL CO.**

Service Call Details

7. Service Objectives

Align motor

8. Services Performed

Aligned motor

9. Service Technician Recommendations

Approval Signatures

10. Service Technician Signature **Cw**

11. Customer Signature **Steve Leslie**

Hi-Speed Industrial Service
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AC Inspection as Found

HWRT Terminal- NLR (11670
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FolderID: 104125
FormID: 23719838

AC Inspection - Rev. 2

Location:	LR MOTOR SHOP
Serial Number:	CAT# X50P2B

Description:50 HP NIDEC
UL# B74002696

Hi-Speed Job Number:	104125
Manufacturer:	Other
Product Number:	FB44
Spec/ID #:	X097655396-0002H0002
Serial Number:	CAT# X50P2B
HP/kW:	50 (HP)
RPM:	1780 (RPM)
Frame:	326T
Voltage:	230 / 460
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.00
Enclosure:	TEFC
Repair Stage:	Final

Overall Condition

1. Report Date
2. Nameplate Picture
3. Photos of all six sides of the machine.
4. Describe the Overall Condition of the Equipment as Received
5. Distance from the end of the shaft to the Coupling/Sheave

Initial Mechanical/Electrical

6. Does Shaft Turn Freely?
7. Does the shaft require T.I.R in Lathe to identify additional repairs?
8. Does Shaft Have Visible Damage?
9. Assembled Shaft Runout
10. Assembled Shaft End Play
11. Air Gap Variation <10%
12. Lead Condition
13. Lead Length
14. Does it have Lugs?, If so what is the Stud Size?
15. Lead Numbers
16. Stator Temperature Detector Rating and Function

Quantity	Rating	Quantity Passed

17. Bearing Temperature Detector Rating and Function

Quantity	Rating	Quantity Passed

18. Frame Condition
19. Fan Condition

20.	Does motor have internal fan?		
21.	Heater Quantity, Ratings		
	Quantity	Volts/Watts	Pass/Fail
22.	Broken or Missing Components		
Initial Electrical Inspection			
23.	Insulation Resistance/Megger		
24.	Winding Resistance		
	1-2	1-3	2-3
25.	Perform Surge Test		
26.	Number of Stator Slots		
27.	Stator Condition		
28.	Stator Thermistors/Ohms		
29.	Stator Overloads/Ohms		
Mechanical Inspection			
30.	Drive End Bearing Brand		
31.	Drive End Bearing Number-		
32.	Drive End Bearing Qty.		
33.	Drive End Bearing Type		
34.	Drive End Lubrication Type		
35.	Drive End Bearing Insulation or Grounding Device?		
36.	Drive End Wavy Washer/Snap-Ring Other Retention Device?		
37.	Drive End Bearing Condition		
38.	Opposite Drive End Bearing Brand		
39.	Opposite Drive End Bearing Number-		
40.	Opposite Drive End Bearing Qty.		
41.	Opposite Drive End Bearing Type		
42.	Opposite Drive End Lubrication Type		
43.	Opposite Drive End Bearing Insulation or Grounding Device?		
44.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?		
45.	Opposite Drive End Bearing Condition		
46.	Drive End Seal		
47.	Opposite Drive End Seal		
48.	DE Sleeve Bearing Inside Diameter		
	0 degrees	120 degrees	240 degrees
49.	DE Sleeve Bearing Outside Diameter		
	0 degrees	120 degrees	240 degrees
50.	DE Sleeve Bearing Housing Inside Diameter		
	0 degrees	120 degrees	240 degrees
51.	DE Sleeve Bearing to Housing Clearance		
	0 degrees	120 degrees	240 degrees
52.	ODE Sleeve Bearing Inside Diameter		
	0 degrees	120 degrees	240 degrees

53.	ODE Sleeve Bearing Outside Diameter		
	0 degrees	120 degrees	240 degrees
54.	ODE Sleeve Bearing Housing Inside Diameter		
	0 degrees	120 degrees	240 degrees
55.	ODE Sleeve Bearing to Housing Clearance		
	0 degrees	120 degrees	240 degrees
Rotor Inspection			
56.	Rotor Type/Material		
57.	Growler Test		
58.	Number of Rotor Bars		
59.	Rotor Condition		
60.	List the Parts needed for the Repair Below		
61.	Signature of Technician that Disassembled Motor		
Mechanical Fits- Rotor			
62.	Shaft Runout		
63.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
64.	Coupling Fit Closest to Bearing Housing		
	0 Degrees	90 Degrees	120 Degrees
65.	Coupling Fit Closest to the end of the Shaft		
	0 Degrees	60 Degrees	120 Degrees
66.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
67.	Drive End Bearing Shaft Fit Condition		
68.	Opposite Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
69.	Opposite Drive End Bearing Shaft Fit Condition		
70.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
Mechanical Fits- Bearing Housings			
71.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
72.	Drive End - Endbell Bearing Fit Condition		
73.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
74.	Opposite Drive End - Endbell Bearing Fit Condition		
75.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	

76.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
77.	List Machine Work Needed Below		
78.	Technician		
Root Cause of Failure			
79.	Failure locations		
80.	Root cause of failure		
Dynamic Balance Report			
81.	Rotor Weight and Balance Grade		
	Rotor Weight	Balance Grade	
82.	Initial Balance Readings		
	Drive End	Opposite Drive End	
83.	Final Balance Readings		
	Drive End	Opposite Drive End	
84.	Technician		
Rewind			
85.	Core Test Results - Watts loss per Pound		
	Pre-Burnout	Post Burnout	
86.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
87.	Post Rewind Electrical Test- Insulation Resistance		
88.	Post Rewind Polarization Index		
89.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
90.	Post Rewind Surge Test		
91.	Post Rewind Hi-Pot		
92.	Technician		
Mechanical Fits- Rotor - Post Repair			
93.	Shaft Runout Post Repair		
94.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
95.	Coupling Fit Closest to Bearing Housing Post Repair		
	0 Degrees	90 Degrees	120 Degrees
96.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
97.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
98.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees

99.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
100.	Shaft Repair Sign-off		
Mechanical Fits- Bearing Housings - Post Repair			
101.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
102.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
103.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
104.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
105.	DE Sleeve Bearing Inside ID Post Repair		
	Measure 1	Measure 2	Measure 3
106.	DE Sleeve Bearing Outside ID Post Repair		
	Measure 1	Measure 2	Measure 3
107.	DE Sleeve Bearing Inside OD Post Repair		
	Measure 1	Measure 2	Measure 3
108.	DE Sleeve Bearing Outside OD Post Repair		
	Measure 1	Measure 2	Measure 3
109.	End Bell Repair Sign-off		
110.	ODE Sleeve Bearing Inside ID Post Repair		
	Measure 1	Measure 2	Measure 3
111.	ODE Sleeve Bearing Outside ID Post Repair		
	Measure 1	Measure 2	Measure 3
112.	ODE Sleeve Bearing Inside OD Post Repair		
	Measure 1	Measure 2	Measure 3
113.	ODE Sleeve Bearing Outside OD Post Repair		
	Measure 1	Measure 2	Measure 3
Assembly			
114.	QC Check All Parts for Cleanliness Prior to Assembly		
115.	Photograph All Major Components prior to assembly		
116.	Final Insulation Resistance Test		
117.	Assembled Shaft Endplay		
118.	Assembled Shaft Runout		
119.	Test Run Voltage		
	Volts	Volts	Volts

120.	Test Run Amperage		
	Amps	Amps	Amps
121.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
122.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
123.	Ambient Temperature - Fahrenheit		
124.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
125.	Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
126.	Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
127.	Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
128.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
129.	Opposite Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
130.	Opposite Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
131.	Opposite Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
132.	Stator Temperatures- Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
133.	Stator Temperatures- Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
134.	Stator Temperatures- Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
135.	Stator Temperatures- Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
136.	Document Final Condition with Pictures after paint		
137.	Final Pics and QC Review		