



KEEPING YOUR FACILITY UP TO SPEED
— EVERY DAY SINCE 1946 —

LR Motor Shop Repairs

Job Number 100193

Prepared for Welspun Tubular (11685)

9301 Frazier Pike
Little Rock AR 72206

Table of Contents



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

AC Recondition As Found

Welspun Tubular (11685)

9301 Frazier Pike
Little Rock, AR 72206

FolderID: 100193
FormID: 14368172

AC Recondition - Rev. 2

Location: LR MOTORSHOP
Serial Number: V01-512845-0001-B1-02
Description: 25HP US MOTORS VERTICAL
1800RPM 284TPA

Hi-Speed Job Number:	100193
Manufacturer:	US Motors/Nidec
Product Number:	HO25V2BLF-C
Serial Number:	V01-512845-0001-B1-02
HP/kW:	25 (HP)
RPM:	1765 (RPM)
Frame:	284TPA
Voltage:	230 / 460
Current:	60/30
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:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: ● 3 - Good

Overall Condition

1. Report Date
2. Nameplate Picture



3. Photos of all six sides of the machine.

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Printed on 9/9/2022

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4. Describe the Overall Condition of the Equipment as Received

Serviceable but dirty.

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

13 Inches

12. Frame Condition

good

13. Fan Condition

(N) NA

14. Broken or Missing Components

two connection box cover
mount mount bolts.

Initial Electrical Inspection

15. Insulation Resistance/Megger

Megohms

16. Winding Resistance

1-2

1-3

2-3

● 17. Perform Surge Test

(NA) Not Applicable

18. Stator Condition

pass

Mechanical Inspection

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19. Drive End Bearing Number-

6210 Z



20. Drive End Bearing Qty.	1
21. Drive End Bearing Type	(Ball) Ball Bearing
22. Drive End Lubrication Type	(Grease) Grease Lubricated
23. Drive End Bearing Insulation or Grounding Device?	none
24. Drive End Wavy Washer/Snap-Ring Other Retention Device?	spacers



25. Drive End Bearing Condition

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26. Opposite Drive End Bearing Number-



27. Opposite Drive End Bearing Qty.	1
28. Opposite Drive End Bearing Type	(Thrust) Thrust
29. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
30. Opposite Drive End Bearing Insulation or Grounding Device?	none
31. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	none
32. Opposite Drive End Bearing Condition	grease contaminated.
33. Drive End Seal	
34. Opposite Drive End Seal	

Rotor Inspection

35. Rotor Type/Material

(Squirrel Aluminum) Squirrel
Cage Aluminum Die Cast



36. Growler Test
37. Number of Rotor Bars
38. Rotor Condition
39. List the Parts needed for the Repair Below
40. Signature of Technician that Disassembled Motor

Mechanical Fits- Rotor

41. Shaft Runout
42. Rotor Runout
- | Drive End Bearing Fit | Rotor Body | Opposite Drive End Bearing |
|--|-----------------------------|----------------------------|
| 43. Coupling Fit Closest to Bearing Housing | | |
| 0 Degrees | 90 Degrees | 120 Degrees |
| 44. Coupling Fit Closest to the end of the Shaft | | |
| 0 Degrees | 60 Degrees | 120 Degrees |
| 45. Drive End Bearing Shaft Fit | | |
| 0 Degrees | 60 Degrees | 120 Degrees |
| 46. Drive End Bearing Shaft Fit Condition | | |
| 47. Opposite Drive End Bearing Shaft Fit | | |
| 0 Degrees | 60 Degrees | 120 Degrees |
| 48. Opposite Drive End Bearing Shaft Fit Condition | | |
| 49. Shaft Air Seal Fits | | |
| Drive End Air Seal | Opposite Drive End Air Seal | |

Mechanical Fits- Bearing Housings

50. Drive End - Endbell Bearing Fit
- | | | |
|-----------|------------|-------------|
| 0 Degrees | 60 Degrees | 120 Degrees |
|-----------|------------|-------------|
51. Drive End - Endbell Bearing Fit Condition

52. Opposite Drive End - Endbell Bearing Fit			
0 Degrees		60 Degrees	120 Degrees
53. Opposite Drive End - Endbell Bearing Fit Condition			
54. Bearing Cap Condition			
Drive End Bearing Cap		Opposite Drive End Bearing Cap	
55. End Bell Air Seal Fits			
Drive End Air Seal		Opposite Drive End Air Seal	
56. List Machine Work Needed Below			
57. Technician			
Dynamic Balance Report			
58. Rotor Weight and Balance Grade			
Rotor Weight		Balance Grade	
59. Initial Balance Readings			
Drive End		Opposite Drive End	
60. Final Balance Readings			
Drive End		Opposite Drive End	
61. Technician			
Rewind			
62. Core Test Results - Watts loss per Pound			
Pre-Burnout		Post Burnout	
63. Core Hot Spot Test			
Pre-Burnout		Post-Burnout	
64. Post Rewind Electrical Test- Insulation Resistance			
65. Post Rewind Polarization Index			
66. Post Rewind Winding Resistance			
1-2	1-3	2-3	
67. Post Rewind Surge Test			
68. Post Rewind Hi-Pot			
69. Technician			
Root Cause of Failure			
70. Failure locations			
71. Root cause of failure			
Mechanical Fits- Rotor - Post Repair			
72. Shaft Runout Post Repair			
73. Rotor Runout Post Repair			
Drive End Bearing Fit		Rotor Body	Opposite Drive End Bearing
74. Coupling Fit Closest to Bearing Housing Post Repair			
0 Degrees		90 Degrees	120 Degrees

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75. Coupling Fit Closest to the end of the Shaft Post Repair		
0 Degrees	60 Degrees	120 Degrees
76. Drive End Bearing Shaft Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees
77. Opposite Drive End Bearing Shaft Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees
78. Shaft Air Seal Fits Post Repair		
Drive End Air Seal	Opposite Drive End Air Seal	
79. Shaft Repair Sign-off		
Mechanical Fits- Bearing Housings - Post Repair		
80. Drive End - Endbell Bearing Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees
81. Opposite Drive End - Endbell Bearing Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees
82. Bearing Cap Condition Post Repair		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	
83. End Bell Air Seal Fits Post Repair		
Drive End Air Seal	Opposite Drive End Air Seal	
84. End Bell Repair Sign-off		
Assembly		
85. Photograph All Major Components prior to assembly		(Complete) Complete





86. Final Insulation Resistance Test		
87. Assembled Shaft Endplay		
88. Assembled Shaft Runout		
89. Test Run Voltage		
Volts	Volts	Volts
455	454	457

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90. Test Run Amperage

Amps

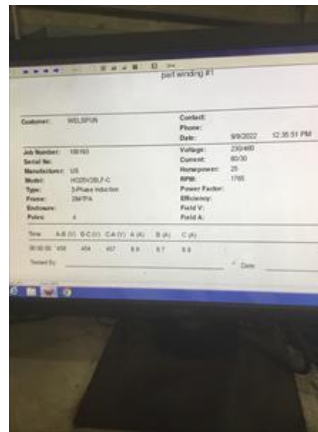
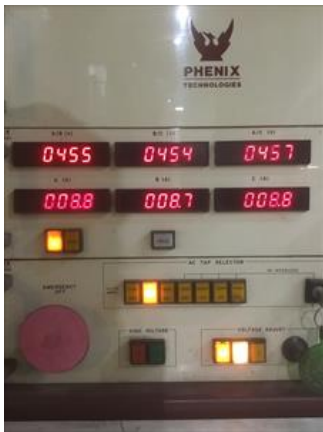
8.800000000000001

Amps

8.699999999999999

Amps

8.800000000000001



91. Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

92. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

93. Ambient Temperature - Fahrenheit

94. Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

95. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

96. Final Test Run Sign-off

97. Document Final Condition with Pictures after paint

98. Final Pics and QC Review

RW

RW





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1. **APPLICABILITY.** The sale of any and all goods and/or services by Mock, Inc. d/b/a Hi-Speed Industrial Service ("Hi-Speed") shall be specifically conditioned upon and subject to the following terms and conditions which are incorporated by reference into any contracts and purchase orders with Hi-Speed, and which shall form and become a part of any agreement related thereto. Buyer's acceptance of any offer or quotation made by Hi-Speed for sale of any goods or services is expressly made subject to the terms and conditions set forth herein and to be so effective, Buyer need not sign or approve these Terms and Conditions to be bound hereunder provided a copy of same is provided to Buyer through any means. None of the terms and conditions contained herein may be added to, expanded, changed, modified, superseded or otherwise altered except as revised in writing and duly executed by Hi-Speed, and all orders received by Hi-Speed shall be governed only by the terms and conditions contained herein, notwithstanding any terms, conditions or provisions of any purchase order, release order, authorization or any other form issued by the Buyer. Hi-Speed hereby objects to any additional, modified, changed, deleted, altered or other terms and conditions not contained herein and notifies Buyer that any such terms or provisions are expressly rejected by Hi-Speed.
2. **PRICE.** All quoted prices shall remain firm and binding for a period of thirty (30) days from the date of quotation or for the period specifically stated in the quotation. The price for any and all goods and/or services ordered or approved by Buyer after thirty (30) days from the date of any quotation are subject to any increase in price that may occur after the expiration of thirty (30) days from the issuance of the quotation and the date the Buyer releases any shipment.
3. **SCOPE OF GOODS AND/OR SERVICES.** The goods and/or services provided by Hi-Speed pursuant to any quotation shall be limited exclusively to those goods and/or services expressly identified therein. Hi-Speed does not assume any responsibility and/or liability for the failure to provide any other goods and/or services not identified in any quotation. Modifications, additions or deletions to or from the scope referenced in any quotation shall only be effective if evidenced in writing and signed by Hi-Speed. The sale of any of all goods and/or services affected by such modification, addition or deletion shall be subject to these same Standard Terms and Conditions whether or not referenced therein.
4. **BILLING AND PAYMENT TERMS.** Hi-Speed shall invoice Buyer for all goods and/or services as same are rendered at the address listed on the quotation. Payments for all goods and/or services shall be due thirty (30) days from the date of the current invoice or as otherwise set forth in the quotation. Late payments are subject to a late fee of 5% of the total invoice amount. Recurring late payments may lead to a deposit requirement on future services or sale of goods. Buyer shall be liable to Hi-Speed for any and all fees and expenses incurred by Hi-Speed to collect any invoices or to enforce these Standard Terms and Conditions, including but not limited to, attorney's fees.
5. **DELIVERY OF GOODS AND/OR SERVICES.** Unless otherwise identified in the quotation, all shipments are F.O.B. Hi-Speed's warehouse and the title to and all risk of loss with respect to any goods shipped shall pass to Buyer when such goods are delivered to the carrier at Hi-Speed's warehouse. Hi-Speed will use its best efforts to affect delivery by the date or dates specified in the quotation. However, Hi-Speed shall not be liable for delay in or failure to make shipment, or to perform services, by any identified date for any reason whatsoever, including but not limited to, causes beyond its reasonable control, such as strikes, fires, floods, epidemics, quarantines, restrictions, severe weather, embargos, acts of God, or public enemy, war, riot, delays in transportation or the inability to obtain necessary labor, materials or manufacturing facilities.
6. **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buyer agree that time is of the essence for the purchase order and that Buyer shall fully cooperate with Hi-Speed in order to allow Hi-Speed full access to prosecute its work diligently and in an orderly manner. Buyer shall assist Hi-Speed in every way possible to avoid delaying, disrupting or interfering with the progress of Hi-Speed's work at the project site. In the event Hi-Speed's work is delayed, hindered, suspended, disrupted, re-sequenced or interfered with or rendered less efficient or more costly or adversely affected in any way as a result of acts or omissions of Buyer or other contractors or employees of Buyer or by any other reason beyond Hi-Speed's control and without the fault of Hi-Speed, then, in such event, Buyer shall be liable to Hi-Speed for any damages, additional costs, expenses, labor, materials, man hours, acceleration costs, overtime, additional jobsite overhead, extended home office overhead, and any and all other direct and indirect expenses of whatsoever nature or kind, caused in whole or in part, as a result of any of the above-referenced occurrences. Hi-Speed's project records will be the basis for computing the additional costs and damages of Hi-Speed's labor, materials, expenses and overhead related to such changes. BUYER WARRANTS THAT THE SITE FOR DELIVERY OR INSTALLATION OF ANY GOODS AND/OR FOR THE PERFORMANCE OF ANY SERVICES SHALL BE READY AND ADEQUATE FOR HI-SPEED'S DELIVERY OF GOODS AND/OR PERFORMANCE OF SERVICES AND THAT HI-SPEED SHALL HAVE FULL ACCESS THERETO, FREE OF ALL OBSTRUCTIONS. BUYER SHALL ASSUME ALL EXTRA COSTS ASSOCIATED WITH HI-SPEED'S INABILITY TO INSTALL ANY GOODS OR PERFORM ANY SERVICES AS A RESULT OF BUYER'S FAILURE TO COMPLY WITH THIS PROVISION. HI-SPEED MAY NOT INSPECT THE SITE PRIOR TO DELIVERY AND/OR INSTALLATION OF GOODS AND/OR PERFORMANCE OF SERVICES AND MAKES NO WARRANTY AS TO THE SUFFICIENCY OF THE SITE FOR THE DELIVERY AND/OR INSTALLATION OF GOODS AND/OR THE PERFORMANCE OF SERVICES AT SUCH SITE.
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