



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

LR Motor Shop Repairs

Job Number 102923

Prepared for Green Bay Packaging, Pinecrest (11362)

3610 Hwy 64 East
Plummerville AR 72127

Table of Contents

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

AC Inspection as Found
Green Bay Packaging, Pinecrest (11362)
3610 Hwy 64 East
Plummerville, AR 72127

FolderID: 102923
FormID: 20370143

AC Inspection - Rev. 2

Location: Shop

Serial Number:

Description: 20HP 256TC MOTOR EVAL

Hi-Speed Job Number: 102923

Manufacturer: Baldor

Spec/ID #: 09K146T459G1

Serial Number: Z2305231437

HP/kW: 20 (HP)

RPM: 1770 (RPM)

Frame: 256TC

Voltage: 230 / 460

Current: 20.8/10.4 (Amps)

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.00

Enclosure: TEFC

of Leads: 9

J-box Included: Half

Coupling/Sheave: None

Date Received: 05/13/2024

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Final

Rewind: No


Shaft Machined Fit Repairs
Required: No

Bearing Housing Machined
Fit Repairs Required: No

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found:  **12 - Good**

Overall Condition

1. Report Date

05/16/2024

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Printed on 6/4/2024

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1.0

WALDO'S RELIABLE
INVERTER POWER SYSTEMS

SAT. NO. 10W/03034
 SPEC. 09W/145-89901
 FRAGRE 258TC H.P. 20 PS

VOLTS 120/410
 AMPS 20.3 48/24 FL AMPS

COR. 1770 I.P.M. MAX 2200
 HZ 60 PH. 3 LBS. #

SER. # 1200 SL HZ 1
 REMA. NO. OFF 93 Mkt. 242 LB. FT.

BATTNG 40C AMB-CONST
 CO. 35E B309 CCC 625A
 CO. 15W/222032437
 Mkt. CHE 7996



Printed on 6/4/2024



4. Describe the Overall Condition of the Equipment as Received

Covered in wood chips

Initial Mechanical/Electrical

5.	Does Shaft Turn Freely?	(Y) Yes
6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	(No) No
7.	Does Shaft Have Visible Damage?	(No) No
8.	Assembled Shaft Runout	0.002 Inches
9.	Assembled Shaft End Play	inches
	Na	

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10. Air Gap Variation <10%	Na
11. Lead Condition	(P) Pass



12. Lead Length	9 Inches
13. Does it have Lugs?, If so what is the Stud Size?	(No) No
14. Lead Numbers	1-9
15. Frame Condition	dirty
16. Fan Condition	(P) Pass



17. Broken or Missing Components			Na
Initial Electrical Inspection			
18. Insulation Resistance/Megger			7020 Megohms
19. Winding Resistance			
1-2	1-3	2-3	
.358	.361	.355	

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20. Perform Surge Test

(P) Pass



21. Number of Stator Slots

48

22. Stator Condition

rewind ?



23. Stator Thermistors/Ohms

Na

24. Stator Overloads/Ohms

yes .5 ohms

Mechanical Inspection

25. Drive End Bearing Brand

Fag

26. Drive End Bearing Number-

6309 open



27. Drive End Bearing Qty.

1

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28. Drive End Bearing Type	(Ball) Ball Bearing
29. Drive End Lubrication Type	(Grease) Grease Lubricated
30. Drive End Bearing Insulation or Grounding Device?	no
31. Drive End Wavy Washer/Snap-Ring Other Retention Device?	bearing cap
32. Drive End Bearing Condition	frosted

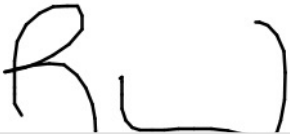





33. Opposite Drive End Bearing Brand	Fag
34. Opposite Drive End Bearing Number-	6208 open



35. Opposite Drive End Bearing Qty.	
36. Opposite Drive End Bearing Type	(Ball) Ball Bearing
37. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
38. Opposite Drive End Bearing Insulation or Grounding Device?	no
39. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
40. Opposite Drive End Bearing Condition	frosted



41. Drive End Seal	Na		
42. Opposite Drive End Seal	Na		
Rotor Inspection			
43. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast		
44. Growler Test	(Pass) Pass		
45. Number of Rotor Bars	39		
46. Rotor Condition	pass		
47. List the Parts needed for the Repair Below			
6309 6208			
48. Signature of Technician that Disassembled Motor	RW		
			
Mechanical Fits- Rotor			
49. Shaft Runout	0.001 inches		
50. Rotor Runout			
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
 Na			
51. Coupling Fit Closest to Bearing Housing			
0 Degrees	90 Degrees	120 Degrees	
 Na			
52. Coupling Fit Closest to the end of the Shaft			
0 Degrees	60 Degrees	120 Degrees	
 Na			
53. Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
1.7722	1.7722	1.7722	

54. Drive End Bearing Shaft Fit Condition

(P) Pass



55. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

1.5752

1.5752

1.5752

56. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass



57. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Na

Mechanical Fits- Bearing Housings

58. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

3.9379

3.9379

3.9379

59. Drive End - Endbell Bearing Fit Condition

(P) Pass



60. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

3.1502

3.1502

3.1502

61. Opposite Drive End - Endbell Bearing Fit Condition

(P) Pass



62. Bearing Cap Condition

Drive End Bearing Cap

Opposite Drive End Bearing Cap

pass

pass

63. End Bell Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Na

64. List Machine Work Needed Below

None

65. Technician

RW

Handwritten signature of the technician, RW.

Co witness TRH

Root Cause of Failure

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66. Failure locations
Encoder lose on shaft

67. Root cause of failure
Frosted bearings

Dynamic Balance Report

68. Rotor Weight and Balance Grade

Rotor Weight

Balance Grade



69. Initial Balance Readings

Drive End

Opposite Drive End

.73

.68

70. Final Balance Readings

Drive End

Opposite Drive End

.28

.27

71. Technician

RW

Assembly

72. QC Check All Parts for Cleanliness Prior to Assembly

RW

73. Photograph All Major Components prior to assembly

(Complete) Complete



74. Final Insulation Resistance Test

Megohms

Passed hipot

75. Assembled Shaft Endplay

inches

76. Assembled Shaft Runout

0.0008 inches

77. Test Run Voltage

Volts

Volts

Volts

457

458

459

Co witness DM



78. Test Run Amperage

Amps

8.6

Amps

8.800000000000001

Amps

8.699999999999999



79. Drive End Vibration Readings - Inches Per Second

Horizontal

0.04

Vertical

0.04

Axial

0.03

80. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal

0.04

Vertical

0.04

Axial

0.03

81. Ambient Temperature - Fahrenheit

82. Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

83. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

84. Document Final Condition with Pictures after paint





85. Final Pics and QC Review

RW

hW

Co witness CRW



STANDARD TERMS AND CONDITIONS FOR PURCHASE OF GOOD AND/OR SERVICES

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.
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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.
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8. **WARRANTIES.** Hi-Speed warrants that all goods shall conform in all material aspects to the goods identified in the quotation to Buyer and/or purchase order, and Hi-Speed makes to Buyer the manufacturer's express warranty for any goods sold to Buyer, which is offered by the manufacturer at the time of acceptance of any quotation by Buyer. This warranty is conditioned upon the installation, operation, and maintenance of the goods in accordance with the manufacturer's recommendations and/or standard industry practice and the goods at all times being operated or used under normal operating conditions for which they were designed. Hi-Speed, at its sole option, will repair or

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11. **GOVERNING LAW AND JURISDICTION.** Any controversy arising out of any quotation, the purchase order, the goods sold or delivered, repair or replacement thereof, or any services provided pursuant to any quotation or any purchase order, or these Standard Terms and Conditions shall be governed by the laws of the state of Tennessee without regard to any choice of law provisions and any cause of action related in any manner thereto shall be brought only in the state or federal courts of Shelby County, Tennessee.
12. **ABANDONED EQUIPMENT.** Hi-Speed requires that Buyer promptly pick up or provide shipment instructions for Buyer equipment or other Buyer property in Hi-Speed's possession. If equipment or other Buyer property is left with Hi-Speed and not picked up within six (6) months after Hi-Speed's final action related to the applicable property (e.g. evaluation, teardown, estimate, completion of services), Hi-Speed will consider such property abandoned and may dispose of it in accordance with applicable law. Buyer agrees to hold Hi-Speed harmless for any damage or claim for such abandoned property and acknowledges that Hi-Speed may discard or recycle it at Hi-Speed's sole and absolute discretion. Specifically, Hi-Speed may sell Buyer's abandoned property at a private or public sale and retain the proceeds to offset Hi-Speed's storage, inspection and servicing costs. For the avoidance of doubt, Hi-Speed reserves its statutory and other lawful liens for unpaid charges related to abandoned property.
13. **FORCE MAJEURE.** Neither party shall be responsible for any delay or failure in performance of any party of the quotation, purchase order or these Standard Terms and Conditions to the extent that such delays or failures are caused by fire, flood, earthquake, explosion, war, embargo, government requirement, civil or military authority, acts of God, or any other circumstances beyond its reasonable control and not involving any fault or negligence on the party affected ("Condition"). If any such Condition occurs, the party delayed or unable to perform shall promptly give written notice to the other party and, if such Condition remains at the end of thirty (30) days, the party affected by the other party's delay and inability to perform may elect to (i) terminate such order or part thereof, or (ii) suspend the order for the duration of the Condition, if the Buyer is the suspending party, buy elsewhere comparable material to be sold under the order and apply to any commitment the purchase price of such purchase, and resume performance of the order once the Condition ceases, with an option in the affected party to extend the period of this order up to the length of the time the Condition endures.
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