

LR Motor Shop Repairs

Job Number 99962

Prepared for MOHAWK (12083)

485 HWY 9 SPUR MELBOURNE AR 72556

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AC Recondition As Found - MOTOR SHOP LR

AC Recondition - Rev. 2: BN 10201523 018 /0214

1.0





AC Recondition As Found MOHAWK (12083)

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FolderID: 99962 FormID: 13908096

AC Recondition - Rev. 2

3600RPM COMPRESSOR

MOTOR SHOP LR Location: Serial Number: BN 10201523 018 /0214 Description: 4.8KW GARDNER DENVER

Hi-Speed Job Number:	99962
Manufacturer:	Siemens
Product Number:	G-BH1 2BH1610-7HH36
Serial Number:	BN 10201523 018 /0214
HP/kW:	4.8 (kW)
RPM:	3495 (RPM)
Voltage:	230 / 460
Current:	18/10.4
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	06/23/2022
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 6 5 - High

4 - Good

Overall Condition

Report Date

Nameplate Picture















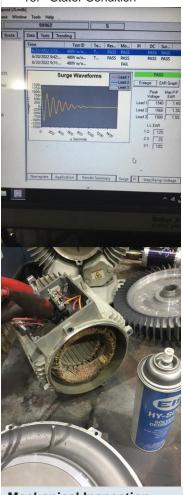
	3.	Describe the Overall Condition of the Equipment as Received	
	4.	Photos of all six sides of the machine.	
Ini	itial	l Mechanical/Electrical	
	5.	Does Shaft Turn Freely?	(No) No
	6.	Does Shaft Have Visible Damage?	(Yes) Yes
	7.	Assembled Shaft Runout	
	8.	Assembled Shaft End Play	
	9.	Air Gap Variation <10%	
	10.	Lead Condition	(P) Pass







14.	Broken or Missing Components				
Initial	Initial Electrical Inspection				
15.	Insulation Resistance/Megger			999 Megohms	
16.	Winding Resistance				
	1-2	1-3	2-3		
	2.035	1.994	2.015		
17.	Perform Surge Test			(P) Pass	





Mechanical Inspection	
19. Drive End Bearing Number-	6206 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?	no
24. Drive End Wavy Washer/Snap-Ring Other Retention Device?	сар
25. Drive End Bearing Condition	bad



26. Opposite Drive End Bearing Number-	6205ZZ
27. Opposite Drive End Bearing Qty.	1
28. Opposite Drive End Bearing Type	(Ball) Ball Bearing
29. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
30. Opposite Drive End Bearing Insulation or Grounding Device?	no
31. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	Wavy washer



32. Opposite Drive End Bearing Condition

rough



33. Drive End Seal 35 47 7



34. Opposite Drive End Seal

25 32 4



Rotor Inspection

35. Rotor Type/Material

(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast

36. Growler Test (Pass) Pass



37. Number of Rotor Bars	20
38. Rotor Condition	pass
39. List the Parts needed for the Repair Below	
40. Signature of Technician that Disassembled Motor	RW



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	Coupling Fit Closest to the end of the Shaft		
0 Degrees	60 Degrees	120 Degrees	
45. Drive End Bearing Shaft Fi	45. Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees	
1.1806	1.1806	1.1806	



46.	46. Drive End Bearing Shaft Fit Condition			(F) Fail
47.	47. Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	0.9845	0.9845	0.9845	
48. Opposite Drive End Bearing Shaft Fit Condition		(P) Pass		



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
2.4425	2.4419	2.4423

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 52. Opposite Drive End - Endbell Bearing Fit

 0 Degrees
 60 Degrees
 120 Degrees

 2.0481
 2.0481
 2.0481

53. Opposite Drive End - Endbell Bearing Fit Condition (F) Fail



54. Bearing Cap Condition

Drive End Bearing Cap Opposite Drive End Bearing Cap

na na

55. End Bell Air Seal Fits

Drive End Air Seal Opposite Drive End Air Seal

56. List Machine Work Needed Below

DE shaft bearing fit. Both end bell bearing fits

57. Technician RW



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		
Rewir			
	Core Test Results - Watts loss per Po	und	
02.	Pre-Burnout	Post Burnout	
	rie-Bulliout	FOST BUTTOUT	
63.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
_	Post Rewind Electrical Test- Insulation	n Resistance	
	Post Rewind Polarization Index		
66.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
67	Post Rewind Surge Test		
	Post Rewind Hi-Pot		
	Technician		
	Cause of Failure		
	Failure locations		
	Root cause of failure		
	anical Fits- Rotor - Post Repair		
	Shaft Runout Post Repair		
	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	Dive Life Bearing Fit	Note: Body	opposite Brive End Bearing
74.	Coupling Fit Closest to Bearing Housi	ng Post Repair	
	0 Degrees	90 Degrees	120 Degrees
75.	Coupling Fit Closest to the end of the	·	
	0 Degrees	60 Degrees	120 Degrees

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76. Drive End Bearing Shaft	76. Drive End Bearing Shaft Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees	
1.1815	1.1814	1.1814	



77.	7. 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			
Mech	Mechanical Fits- Bearing Housings - Post Repair			
80.	Drive End - Endbell Bearing Fit Post F	Repair		
	0 Degrees	60 Degrees	120 Degrees	
	2.4412	2.4412	2.4412	



81.	. Opposite Drive End - Endbell Bearing Fit Post Repair			
	0 Degrees	60 Degrees	120 Degrees	
	2.0475	2.0474	2.0474	



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				
Asser	Assembly				
85.	Photograph All Major Components prior to assembly				
86.	Final Insulation Resistance Test				
87.	Assembled Shaft Endplay				
88.	Assembled Shaft Runout				
89.	Test Run Voltage				
	Volts	Volts	Volts		
	453	452	455		



90.	Test Run Amperage		
	Amps	Amps	Amps
	5.6	5.5	5.7



91.	Drive End Vibration Readings - Inches Per Second					
	Horizontal	Vertical	Axial			
92.	Opposite Drive End Vibration Readings - Inches Per Second					
	Horizontal	Vertical	Axial			
93.	93. Ambient Temperature - Fahrenheit94. Drive End Bearing Temps - Fahrenheit					
94.						
	5 Minutes	10 Minutes	15 Minutes			
95.	95. Opposite Drive End Bearing Temps - Fahrenheit					
	5 Minutes	10 Minutes	15 Minutes			
96.	Final Test Run Sign-off					
97.	97. Document Final Condition with Pictures after paint					
98.	Final Pics and QC Review			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.
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- 4. <u>BILLING AND PAYMENT TERMS.</u> 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.
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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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- 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, earth quake, 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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