

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

> FolderID: 103398 FormID: 21348798

AC Inspection as Found

Lexicon (10257) 8900 Fouche Dam Pike Little Rock, AR

AC Inspection - Rev. 2

SHOP Location: Serial Number: 623471C-4 Description: 2HP REULAND EVAL

Hi-Speed Job Number:	103398
Manufacturer:	Reuland
Product Number:	16554-GG0655B
Serial Number:	623471C-4
HP/kW:	2 (HP)
RPM:	1800 (RPM)
Frame:	WE0-184/H4
Voltage:	230 / 460
Current:	6.0/3.0
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TENV
# of Leads:	9
J-box Included:	Complete
Coupling/Sheave:	Coupling
Date Received:	08/19/2024
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: 1 - High



9 - Good

Overall Condition

0

Report Date

08/20/2024



3. Photos of all six sides of the machine.

































- 4. Describe the Overall Condition of the Equipment as Received *Dirty but serviceable*
- ${\bf 5.} \quad \hbox{ Distance from the end of the shaft to the Coupling/Sheave}$

0.187 inches

P76

3/16" shaft out



Report Date [COPY] 08/20/2024						
7. Does Shaft Turn Freely? Bearings sound rough. 8. Does the shaft require T.I.R in Lathe to identify additional repairs? (No) No 9. Does Shaft Have Visible Damage? (No) No 10. Assembled Shaft Runout Inches 11. Assembled Shaft End Play inches 12. Air Gap Variation <10% 13. Lead Condition (P) Pass 14. Lead Length 6 Inches 15. Does it have Lugs?, If so what is the Stud Size? (No) No 16. Lead Numbers 17. Frame Condition 18. Fan Condition 19. Broken or Missing Components Initial Electrical Inspection 20. Insulation Resistance/Megger 1,000 Megohms 21. Winding Resistance		6.	Report Date [COPY]		08/20/2024	
Bearings sound rough. 8. Does the shaft require T.I.R in Lathe to identify additional repairs? (No) No 9. Does Shaft Have Visible Damage? (No) No 10. Assembled Shaft Runout Inches 11. Assembled Shaft End Play inches 12. Air Gap Variation <10% 13. Lead Condition (P) Pass 14. Lead Length 6 Inches 15. Does it have Lugs?, If so what is the Stud Size? (No) No 16. Lead Numbers 1-9 17. Frame Condition pass 18. Fan Condition (N) NA 19. Broken or Missing Components missing several screws on brush covers Initial Electrical Inspection 20. Insulation Resistance/Megger 1,000 Megohms 21. Winding Resistance	Init	ial N	/lechanical/Electrical			
8. Does the shaft require T.I.R in Lathe to identify additional repairs? (No) No 9. Does Shaft Have Visible Damage? (No) No 10. Assembled Shaft Runout Inches 11. Assembled Shaft End Play inches 12. Air Gap Variation <10% 13. Lead Condition (P) Pass 14. Lead Length 6 Inches 15. Does it have Lugs?, If so what is the Stud Size? (No) No 16. Lead Numbers 17. Frame Condition pass 18. Fan Condition (N) NA 19. Broken or Missing Components Initial Electrical Inspection 20. Insulation Resistance/Megger 1,000 Megohms 21. Winding Resistance		7.	Does Shaft Turn Freely?		(N) No	
9. Does Shaft Have Visible Damage? 10. Assembled Shaft Runout 11. Assembled Shaft End Play 12. Air Gap Variation <10% 13. Lead Condition 14. Lead Length 15. Does it have Lugs?, If so what is the Stud Size? 16. Lead Numbers 17. Frame Condition 18. Fan Condition 19. Broken or Missing Components 19. Broken or Missing Components 19. Insulation Resistance/Megger 19. Winding Resistance			Bearings sound rough.			
10. Assembled Shaft Runout 11. Assembled Shaft End Play 12. Air Gap Variation <10% 13. Lead Condition 14. Lead Length 15. Does it have Lugs?, If so what is the Stud Size? 16. Lead Numbers 17. Frame Condition 18. Fan Condition 19. Broken or Missing Components 19. Broken or Missing Components 10. Insulation Resistance/Megger 20. Insulation Resistance 21. Winding Resistance		8.	Does the shaft require T.I.R in La	the to identify additional repairs?	(No) No	
11. Assembled Shaft End Play 12. Air Gap Variation <10% 13. Lead Condition (P) Pass 14. Lead Length 6 Inches 15. Does it have Lugs?, If so what is the Stud Size? (No) No 16. Lead Numbers 1-9 17. Frame Condition pass 18. Fan Condition (N) NA 19. Broken or Missing Components Initial Electrical Inspection 20. Insulation Resistance/Megger 21. Winding Resistance		9.	Does Shaft Have Visible Damage	9?	(No) No	
12. Air Gap Variation <10% 13. Lead Condition (P) Pass 14. Lead Length 6 Inches 15. Does it have Lugs?, If so what is the Stud Size? (No) No 16. Lead Numbers 1-9 17. Frame Condition pass 18. Fan Condition (N) NA 19. Broken or Missing Components Initial Electrical Inspection 20. Insulation Resistance/Megger 21. Winding Resistance		10.	Assembled Shaft Runout		Inches	
13. Lead Condition (P) Pass 14. Lead Length 6 Inches 15. Does it have Lugs?, If so what is the Stud Size? (No) No 16. Lead Numbers 1-9 17. Frame Condition pass 18. Fan Condition (N) NA 19. Broken or Missing Components missing several screws on brush covers Initial Electrical Inspection 20. Insulation Resistance/Megger 1,000 Megohms 21. Winding Resistance		11.	Assembled Shaft End Play		inches	
14. Lead Length 6 Inches 15. Does it have Lugs?, If so what is the Stud Size? (No) No 16. Lead Numbers 1-9 17. Frame Condition pass 18. Fan Condition (N) NA 19. Broken or Missing Components missing several screws on brush covers Initial Electrical Inspection 1,000 Megohms 20. Insulation Resistance/Megger 1,000 Megohms 21. Winding Resistance		12.	Air Gap Variation <10%			
15. Does it have Lugs?, If so what is the Stud Size? 16. Lead Numbers 17. Frame Condition 18. Fan Condition 19. Broken or Missing Components 19. Broken or Missing Components 19. Insulation Resistance/Megger 20. Insulation Resistance 21. Winding Resistance		13.	Lead Condition		(P) Pass	
16. Lead Numbers 17. Frame Condition 18. Fan Condition 19. Broken or Missing Components 19. Broken or Missing Components 19. Initial Electrical Inspection 20. Insulation Resistance/Megger 21. Winding Resistance		14.	Lead Length		6 Inches	
17. Frame Condition pass 18. Fan Condition (N) NA 19. Broken or Missing Components missing several screws on brush covers Initial Electrical Inspection 20. Insulation Resistance/Megger 1,000 Megohms 21. Winding Resistance		15.	Does it have Lugs?, If so what is	the Stud Size?	(No) No	
18. Fan Condition 19. Broken or Missing Components Initial Electrical Inspection 20. Insulation Resistance/Megger 21. Winding Resistance (N) NA missing several screws on brush covers 1,000 Megohms		16.	Lead Numbers		1-9	
19. Broken or Missing Components Initial Electrical Inspection 20. Insulation Resistance/Megger 21. Winding Resistance Proceedings of the series of the		17.	Frame Condition		pass	
Initial Electrical Inspection 20. Insulation Resistance/Megger 21. Winding Resistance Page 1,000 Megohms Page 2.		18.	Fan Condition		(N) NA	
20. Insulation Resistance/Megger 1,000 Megohms 21. Winding Resistance		19.	Broken or Missing Components			
21. Winding Resistance	Init	tial E	Electrical Inspection			O
•	:	20.	Insulation Resistance/Megger		1,000 Megohms	
1-2 1-3 2-3		21.	Winding Resistance			P20
			1-2	1-3	2-3	





Wound rotor passed surge bat failed Meg. Will retest after wash and bake. Stator passed all electrical tests.



23. Number of Stator Slots

Stator Condition pass 24.

25. Stator Thermistors/Ohms

26. Stator Overloads/Ohms

Mechanical Inspection

0 27. Drive End Bearing Brand NTN

P32 Drive End Bearing Number-6205 z





Drive End Bearing Qty.	1
30. Drive End Bearing Type	(Ball) Ball Bearing
31. Drive End Lubrication Type	(Grease) Grease Lubricated

32. Drive End Bearing Insulation or Grounding Device? none



34.	Drive End Bearing Condition	replace	
35.	Opposite Drive End Bearing Brand	NTN	
36.	Opposite Drive End Bearing Number-	6005 Z C3	P100





37.	Opposite Drive End Bearing Qty.	1	
38.	Opposite Drive End Bearing Type	(Ball) Ball Bearing	
39.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated	
40.	Opposite Drive End Bearing Insulation or Grounding Device?	none	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring	
42.	Opposite Drive End Bearing Condition	replace	
43.	Drive End Seal		
44.	Opposite Drive End Seal		
Rotor	nspection		O



46.	Growler Test	(Pass) Pass	
47.	Number of Rotor Bars		
-	Wound rotor		
48.	Rotor Condition	pass	
49.	List the Parts needed for the Repair Below		
	Bearings.		
50.	Signature of Technician that Disassembled Motor	Terrence Holland	

Tolland

Mech	anical Fits- Rotor			
51.	Shaft Runout		0.002 inches	;
52.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
53.	Coupling Fit Closest to Bearing F	Housing		
	0 Degrees	90 Degrees	120 Degrees	
54.	Coupling Fit Closest to the end of	f the Shaft		
	0 Degrees	60 Degrees	120 Degrees	
55.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	0.9847	0.9847	0.9846	
5 6.	Drive End Bearing Shaft Fit Cond	dition	(P) Pass	;
57.	Opposite Drive End Bearing Sha	ft Fit		
	0 Degrees	60 Degrees	120 Degrees	
	0.07877000000000001	0.7786	0.778699999999999	
-	Pass			
5 8.	Opposite Drive End Bearing Sha	ft Fit Condition	(P) Pass	1

5	59.	Shaft Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
Med	char	nical Fits- Bearing Housings			
6	30.	Drive End - Endbell Bearing Fit			
		0 Degrees	60 Degrees	120 Degrees	
		2.0481	2.048	2.048	
• 6	31.	Drive End - Endbell Bearing Fit Co	ondition	(P) Pass	
6	62.	Opposite Drive End - Endbell Bea	ring Fit		
		0 Degrees	60 Degrees	120 Degrees	
		1.8505	1.8506	1.8505	
• 6	63.	Opposite Drive End - Endbell Bea	ring Fit Condition	(P) Pass	
6	64.	Bearing Cap Condition			
		Drive End Bearing Cap	Opposite Drive End Bearing Cap		
(65.	End Bell Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
(66.	List Machine Work Needed Below			
		DE housing fit			
,	/-	— H	lla)		
Roc	ot Ca	ause of Failure	lla)		
	ot C:	ause of Failure Failure locations	lla)		
			lla)		
6		Failure locations	llan)		
6	68.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p.		inside the rotor windings.	
6	68. 69.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p.	roviding lubrication to bearings.	inside the rotor windings.	
Dyr	68. 69.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p Low megs possibly due to excessive	roviding lubrication to bearings.	inside the rotor windings.	
Dyr	68. 69. nam	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p. Low megs possibly due to excessivatic Balance Report	roviding lubrication to bearings.	inside the rotor windings.	
Dyr	68. 69. nam 70.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p. Low megs possibly due to excessive ic Balance Report Rotor Weight and Balance Grade Rotor Weight	roviding lubrication to bearings. re amounts of carbon from the brushes	inside the rotor windings.	
Dyr	68. 69. nam	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p Low megs possibly due to excessiv ic Balance Report Rotor Weight and Balance Grade	roviding lubrication to bearings. re amounts of carbon from the brushes	inside the rotor windings.	
Dyr	68. 69. nam 70.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p. Low megs possibly due to excessive ic Balance Report Rotor Weight and Balance Grade Rotor Weight Initial Balance Readings Drive End	roviding lubrication to bearings. re amounts of carbon from the brushes are carbon from the brushes amounts of carbon from the brushes are carbon from the b	inside the rotor windings.	
Dyr 7	68. 69. nam 70.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not possibly due to excessive ic Balance Report Rotor Weight and Balance Grade Rotor Weight Initial Balance Readings Drive End Final Balance Readings	roviding lubrication to bearings. re amounts of carbon from the brushes Balance Grade Opposite Drive End	inside the rotor windings.	
Dyr 7	68. 69. nam 70.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not p. Low megs possibly due to excessive ic Balance Report Rotor Weight and Balance Grade Rotor Weight Initial Balance Readings Drive End	roviding lubrication to bearings. re amounts of carbon from the brushes are carbon from the brushes amounts of carbon from the brushes are carbon from the b	inside the rotor windings.	
Dyr 7	68. 69. nam 70.	Failure locations Bearings worn and rotor megs low. Root cause of failure Bearing grease hardened and not possibly due to excessive ic Balance Report Rotor Weight and Balance Grade Rotor Weight Initial Balance Readings Drive End Final Balance Readings	roviding lubrication to bearings. re amounts of carbon from the brushes Balance Grade Opposite Drive End	inside the rotor windings.	

Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.

0

Assembly



75. Photograph All Major Components prior to assembly

(Complete) Complete

76. Final Insulation Resistance Test

Megohms

P31







77. Assembled Shaft Endplay

Assembled Shaft Runout

inches

0.003 inches



457 455 459





80. Test Run Amperage

Amps Amps Amps
1.6 1.7 1.6

81. Drive End Vibration Readings - Inches Per Second

Horizontal Vertical Axial

82. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal Vertical Axial

83. Ambient Temperature - Fahrenheit

84. Drive End Bearing Temps - Fahrenheit

5 Minutes 10 Minutes 15 Minutes

85. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes 10 Minutes 15 Minutes

86. Document Final Condition with Pictures after paint

See below

87. Final Pics and QC Review Terrence Holland P132











