

**AC Recondition As Found** 

Process And Power (002964)

FolderID: 149801 FormID: 16256843



1721 Corporate Ave Memphis Tn, TN 38132

AC Recondition - Rev. 2					
Location: Shop					
Serial Number:					
Description:300	Description:300 Hp AC Stator				

Hi-Speed Job Number:	149801
Manufacturer:	Reliance
Product Number:	39244272 RCP-406
Spec/ID #:	01MIN87052 G001 KC
HP/kW:	300 (HP)
RPM:	1785 (RPM)
Frame:	449 TDZ
Voltage:	460
Current:	336 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	DP
# of Leads:	12
J-box Included:	None
Coupling/Sheave:	None
Date Received:	03/17/2023
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	Yes
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **2 - High** 

🔵 6 - Good



3. Photos of all six sides of the machine.

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Ρ3

























Insulation is deteriorating





4. Describe the Overall Condition of the Equipment as Received Leads need replaced and insulation is deteriorating due to oil filled stator for a reliable machine I would recommend rewinding







Initial Mechanical/Electrical				
<b>5</b> .		Does Shaft Turn Freely?	(Yes) Yes	
6.		Does Shaft Have Visible Damage?	(No) No	
<b>7</b> .		Assembled Shaft Runout	0.0025 Inches	
8.		Assembled Shaft End Play	0.01 inches	
9.		Air Gap Variation <10%	no provisions for measuring	

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Ρ4

• 10. •	Lead Condition Several splices on the outside and split I recommend all new leads	ts in insulation			(F) Fail	P11
11.	Lead Length				91 Inches	
12.	Frame Condition				good	
13.	Fan Condition				(N) NA	
14.	Heater Quantity, Ratings					
	Quantity Vo	lts/Watts	Pa	ass/Fail		
	2		pa	ass		
	No tag on motor stating volts orwatts					
15.	Broken or Missing Components			eye bolt hole checked	needs to be seems loose	
Initial E	Electrical Inspection					0
16.	Insulation Resistance/Megger				25 Megohms	P19
10 Testar Tana Hay 1888() 1988() 1988()						
And and a second s						
	Constant Constant					

17.	Winding Resistance				P20
	1-2	1-3	2-3		
	.0135	.0134	.0135		
18.	Perform Surge Test			(P) Pass	P21
19. 20	Number of Stator Slots			72 Megohms	P23
	Stator condition	sulation in winding due to prolonge	d oil in Stator		
Mecha	nical Inspection				0



22. Drive End Bearing Number-





Drive End Bearing Qty.
 Drive End Bearing Type

NU222R

koyo





(Roller) Roller Bearing

1

P27

P24

P25



25.	Drive End Lubrication Type	(Grease) Grease Lubricated	
26.	Drive End Bearing Insulation or Grounding Device?	none present	
27.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring	P30



28. Drive End Bearing Condition



No grease left

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P31

## 29. Opposite Drive End Bearing Brand





031022 03	F 33
1	
(Ball) Ball Bearing	
(Grease) Grease Lubricated	
none present	
ves yes	F30
	6318zz c3

36. Opposite Drive End Bearing Condition

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P39

P32

FAG



Water in the end bell

37.	Drive End Seal		none present			
38.	Opposite Drive End Seal		none present			
Rotor Inspection						
39.	Rotor Type/Material		(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast			
40.	Growler Test		(Pass) Pass			
41.	Number of Rotor Bars		58			
42.	Rotor Condition		acceptable			
43.	List the Parts needed for the Repa	air Below				
	NU222R Koyo roller bearing 6318ZZ C3 FAG ball bearing					
44.	Signature of Technician that Disa	·	Brian Goines			
Mecha	nical Fits- Rotor			o		
45.	Shaft Runout		0.0005 inches			
46.	Rotor Runout					
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing			
	0.0015	0.002	0.002			

47.	Coupling Fit Closest to Bearing Housing				
	0 Degrees	90 Degrees	120 Degrees		
A CAUTION	3.5	3.5	3.5		
40.	Coupling Fit Closest to the end of		120 Dogrado		
	0 Degrees	80 Degrees	120 Degrees		
10	Drive End Bearing Shaft Fit	5.5001	3.5001		
49.		60 Degrees	120 Degrees		
	4 3321	4 3321	4 3321		
	4.002 T	4.3321	4.3321		
	110mm=4.3307 Tolerance IS 4.337	/-4.5.5.5()			
50	Drive End Bearing Shaft Fit Cond	2-4.3330	(P) Pass		
50. 51	Drive End Bearing Shaft Fit Cond	<i>2-4.3330</i> lition	(P) Pass	P62	
50. 51.	Drive End Bearing Shaft Fit Cond Opposite Drive End Bearing Shaft	ition t Fit	(P) Pass	P62	
50. 51.	Drive End Bearing Shaft Fit Cond Opposite Drive End Bearing Shaft 0 Degrees	2-4.3330 lition t Fit 60 Degrees	(P) Pass	P62	
50. 51.	Tromm=4.3307. Tolerance is 4.3322. Drive End Bearing Shaft Fit Cond Opposite Drive End Bearing Shaf 0 Degrees 3.5443 90mm=3.5433. Tolerance is 3.5434-	ilition t Fit 60 Degrees 3.5443 3.5440	(P) Pass 3.5443	P62	
50. 51.	Tromm=4.3307. Tolerance is 4.3322. Drive End Bearing Shaft Fit Cond Opposite Drive End Bearing Shaft 0 Degrees 3.5443 90mm=3.5433. Tolerance is 3.5434-	t Fit 60 Degrees 3.5443 3.5440	(P) Pass 3.5443	P62	
50. 51. • •	<ul> <li>Tromm=4.3307. Tolerance is 4.3322.</li> <li>Drive End Bearing Shaft Fit Cond Opposite Drive End Bearing Shaft</li> <li>0 Degrees</li> <li>3.5443</li> <li>90mm=3.5433. Tolerance is 3.5434-</li> </ul> <b>With a state of the state o</b>	Itition t Fit 60 Degrees 3.5443 3.5440 If it is constructed to the formula of the formula o	(P) Pass 3.5443	P62	
50. 51.	Tromm=4.3307. Tolerance is 4.3322. Drive End Bearing Shaft Fit Cond Opposite Drive End Bearing Shaft 0 Degrees 3.5443 90mm=3.5433. Tolerance is 3.5434- Tolerance is 3.5434- Opposite Drive End Bearing Shaft Shaft Air Seal Fits Drive End Air Seal	ition t Fit Condition Condition Terms of the seal of t	(P) Pass 3.5443	P62	
50. 51.	Tromm=4.3307. Tolerance is 4.3322. Drive End Bearing Shaft Fit Cond Opposite Drive End Bearing Shaft 0 Degrees 3.5443 90mm=3.5433. Tolerance is 3.5434-	lition t Fit 60 Degrees 3.5443 3.5440	(P) Pass 3.5443 (P) Pass (P) Pass	P62	

54. Drive End - Endbell Bearing Fit					P65
		0 Degrees	60 Degrees	120 Degrees	
		7.876	7.876	7.8761	
		200mm=7.8740. Tolerance is 7.8740	-7.8751001 over tolerance and pitted.	Requires bore and bush.	
	55.	Drive End - Endbell Bearing Fit Co	ondition	(F) Fail	
	56.	Opposite Drive End - Endbell Bea	ring Fit		
		0 Degrees	60 Degrees	120 Degrees	
		7.4812	7.4812	7.4812	
		190mm=7.4803. Tolerance is 7.4803	-7.4814		
	57.	Opposite Drive End - Endbell Bea	ring Fit Condition	(P) Pass	
	58.	Bearing Cap Condition			
		Drive End Bearing Cap	Opposite Drive End Bearing Cap		
		good	good		
	59.	End Bell Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
		good	good		
	60.	List Machine Work Needed Below Bore and bush de end bell			
	61.	Technician		Brandon Woodard	
R	loot C	ause of Failure			
	62.	Failure locations			
		Windings and lead wires			
	63.	Root cause of failure Oil Contamination			