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

AC Recondition Repair Report

FolderID: 99353
FormID: 12769662

US MOTORS WARRANTY REPAIR
8100 W. FLORISSENT
ST. LOUIS, MO 63136

Priorities Found: **7 - High** **18 - Good**

General

1.	Job Number	**99353**
2.	Report Date	**02/07/2022**
3.	Customer	**US Motors Warranty Division**
	For Lone Star Blower Co.	

Name Plate Information

4.	Manufacturer	**US Motors**	P5

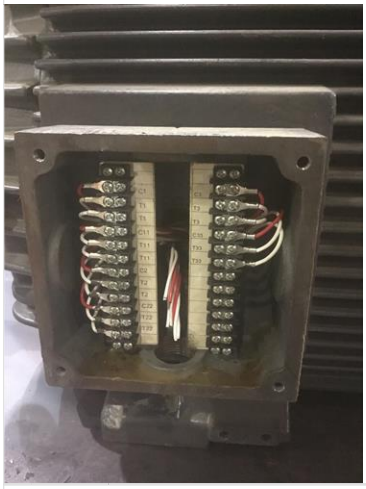



5.	Model	
6.	Serial Number	**A 0820190501-0001 R 0002**
7.	Horsepower	**400**
8.	KW	
9.	Volts	**460**
10.	Amps	**426**
11.	RPM	**3565**
12.	Frame	**449TS**
13.	Enclosure	**TEFC**
14.	Cycles	**60**
15.	Phase	**3**
16.	Service Factor	**1.15**
17.	Motor Mount Position	

Initial Inspection

18.	Number of Leads	**12**
19.	Lead Length	**24 Inches**
20.	Lead Size	
21.	Lead Condition	**(P) Pass**
22.	Lead Markings	**1111, 2222, 3333**
23.	Lug Size, Condition, and Type	

24.	Winding RTD's	**(Y) Yes**	P73



25.	Winding Rtd's Condition	**(P) Pass**	
26.	Shaft Run Out	**0.001**	
27.	Does Shaft Turn Freely	**no**	
	Locked up		
28.	Does Shaft Have Visible Damage	**no**	P94

29.	Bearing Rtd's	**(Y) Yes**	P97

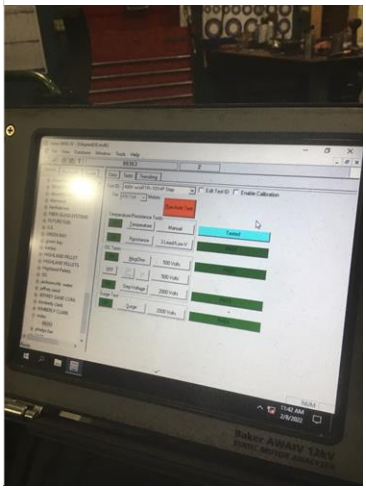
30.	Bearing Rtd's Condition	**(P) Pass**	
	108 ohms		
31.	Contamination		P104
	A small amount of melted grease		

●	32.	Frame Condition	**(P) Pass**	
●	33.	Fan Condition	**(P) Pass**	P109

	34.	Broken or missing components		

Initial Electric Test

	35.	Resistance to Ground	**7000 Mohm**	
	36.	Winding Resistance 1-2		
	37.	Winding Resistance 2-3		
	38.	Winding Resistance 1-3		
	39.	Resistive Imbalance		
	40.	Hi-Pot	**Ua**	
●	41.	Surge Test	**(P) Pass**	P58



42.	Stator Condition	**recondition**	P65

43.	Failure Location		

Initial Rotor Inspection

44.	Rotor Type	**cast aluminum**	
45.	Air Gap <10% Variation		
46.	Number of Rotor Bars	**34**	
47.	Number of Broken Rotor Bars	**0**	
48.	Growler Test	**(P) Pass**	P41

49.	Rotor Condition	**(P) Pass**	

Mechanical Inspection

50.	Bearing Manufacture	**kbc**	P1

51.	Bearing DE Size	**6315-b-c3**	P15

52.	Bearing DE Type	**ball**	
53.	DE Bearing Qty.	**1**	
54.	Bearing ODE Size	**6315-b-c3**	
55.	Bearing ODE Type	**ball**	
56.	ODE Bearing Qty.	**1**	
57.	Insulated Bearing	**no**	P62
	Shaft is insulated		

58.	Lubrication Type	**pink grease**	
59.	Grease Condition	**(F) Fail**	P74

60.	Bearing Retainers		**(Y) Yes**	P80

61.	Shaft Grounding Device	**(N) No**	
62.	DE Seal	**(Y) Yes**	
	Labrynth		
63.	DE Seal Type/Size		

64. ODE Seal **(Y) Yes** P95

Labrynth

65. ODE Seal Type/Size

Root Cause of Failure

66. Component Failure **drive end shaft, bearings, bearing cap** P2

67. Cause of Failure

Drive end bearing crashed likely due to lack of lubrication. When the bearing dropped this damaged the shaft fit and the drive end bearing cap.

68. Comments

69. Service Technician

Machine Fit Inspection Report

70.	Shaft Run Out	**(P) Pass**	
71.	Initial Shaft Run Out	**0.001 "**	
72.	Final Shaft Run Out		
73.	DE Bearing Shaft Fit	**(F) Fail**	P39

74.	DE Initial Shaft Bearing Fit Size 1	**2.9515 "**	
75.	DE Initial Shaft Bearing Fit Size 2	**2.9515 "**	
76.	DE Initial Shaft Bearing Fit Size 3	**2.9515 "**	
77.	DE Finial Shaft Bearing Fit Size 1	**2.9532 "**	P71

78.	DE Finial Shaft Bearing Fit Size 2	**2.9532 "**	
79.	DE Finial Shaft Bearing Fit Size 3	**2.9532 "**	
80.	ODE Bearing Shaft Fit	**(F) Fail**	P93

Undersized

81.	ODE Initial Shaft Bearing Fit Size 1	**2.9527 "**	
82.	ODE Initial Shaft Bearing Fit Size 2	**2.9523 "**	
83.	ODE Initial Shaft Bearing Fit Size 3	**2.952 "**	
84.	ODE Finial Shaft Bearing Fit Size 1	**2.9533 "**	P107

Sleeved bearing cap.

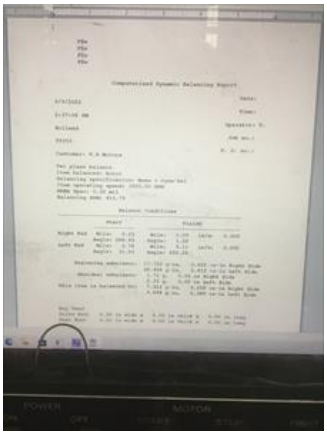
85.	ODE Finial Shaft Bearing Fit Size 2	**2.9533 "**	
86.	ODE Finial Shaft Bearing Fit Size 3	**2.9533 "**	
87.	DE Air Seal Shaft Fit		
88.	DE Initial Air Seal Shaft Size		
89.	DE Final Air Seal Shaft Size		
90.	ODE Air Seal Shaft Fit		
91.	ODE Initial Air Seal Shaft Size		
92.	ODE Final Air Seal Shaft Size		

93.	DE Endbell Fit		**(F) Fail**	P129

94.	DE Initial Endbell Fit Size 1		**6.3027 "**
95.	DE Initial Endbell Fit Size 2		**6.3027 "**
96.	DE Initial Endbell Fit Size 3		**6.3027 "**
97.	DE Final Endbell Fit Size 1		
98.	DE Finial Endbell Fit Size 2		
99.	DE Final Endbell Fit Size 3		
100.	DE Endbell Fit Insulated		**(N) No**
101.	DE Endbell Air Seal Fit		
102.	Initial Endbell Air Seal Fit Size		
103.	Finial Endbell Air Seal Fit Size		
104.	ODE Endbell Fit		**(P) Pass**
	Housing is .001 oversized		
105.	ODE Initial Endbell Fit Size 1		**6.3012 "**
106.	ODE Initial Endbell Fit Size 2		**6.3012 "**
107.	ODE Initial Endbell Fit Size 3		**6.3012 "**
108.	ODE Final Endbell Fit Size 1		
109.	ODE Final Endbell Fit Size 2		
110.	ODE Final Endbell Fit Size 3		
111.	ODE Endbell Fit Insulated		**(N) No**
112.	ODE Endbell Air Seal Fit		
113.	ODE Initial Endbell Seal Fit Size		
114.	ODE Finial Endbell Seal Fit Size		
115.	Foot Flatness		**(P) Pass**
116.	Foot Condition		**(P) Pass**
117.	Flange Condition		
118.	Service Technician		**Trevor Hall**

Balancing Report

119.	Balance Type	**nema standard**

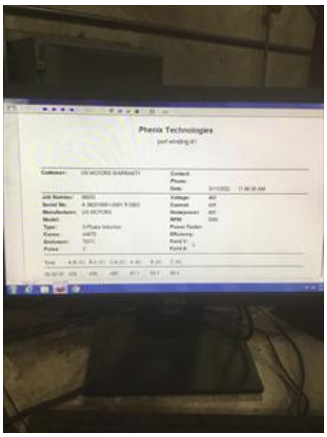


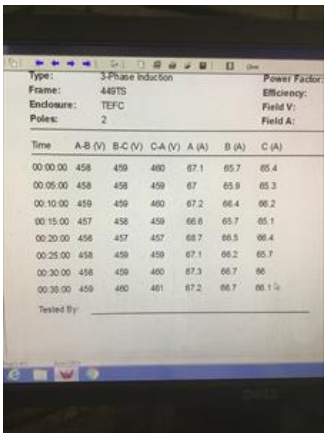
120.	Balance Operating Speed
121.	Start Left End
122.	Start Right End
123.	Balancing Specification
124.	Finish Left End
125.	Finish Right End
126.	Service Technician

Assembly and Final Test

127.	Meggar Testing Reading
128.	Surge Test
129.	Hi-Pot
130.	Winding Resistance 1-2
131.	Winding Resistance 2-3
132.	Winding Resistance 1-3
133.	Test Run Voltage Phase A
134.	Test Run Amps A
135.	Test Run Voltage Phase B
136.	Test Run Amps B
137.	Test Run Voltage Phase C
138.	Test Run Amps C
139.	DE Horizontal Vibration Reading
140.	DE Vertical Vibration Reading

141.	DE Axial Vibration Reading		
142.	ODE Horizontal Vibration Reading		
143.	ODE Vertical Vibration Reading		
144.	ODE Axial Vibration Reading		
145.	Ambient Temp at start of Test Run		
146.	Temp at 5 minutes		
147.	Temp at 10 minutes		
148.	Temp at 15 minutes		
149.	Temp at 20 minutes		
150.	Temp at 25 minutes		
151.	Temp at 30 minutes		
152.	Temp at 35 minutes		
153.	Temp at 40 minutes		
154.	Temp at 45 minutes		
155.	Temp at 50 minutes		
156.	Temp at 55 minutes		
157.	Temp at 60 minutes		
158.	Motor Paint	**(P) Pass**	P136





159. Service Technician **Terrence. Holland**