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

AC Recondition Repair Report

FolderID: 97804
FormID: 9873684

ARKANSAS INDUSTRIAL MACHINERY
3804 N. NONA ST
NORTH LITTLE ROCK, AR 72118

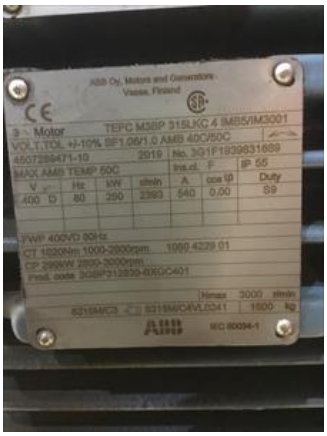
Priorities Found: **2 - High** **9 - Good**

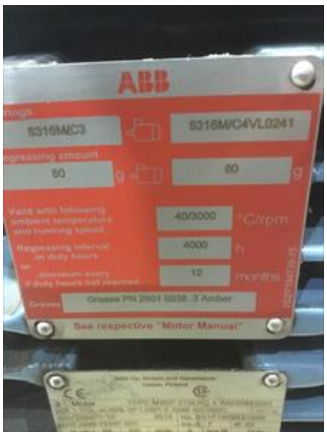
General

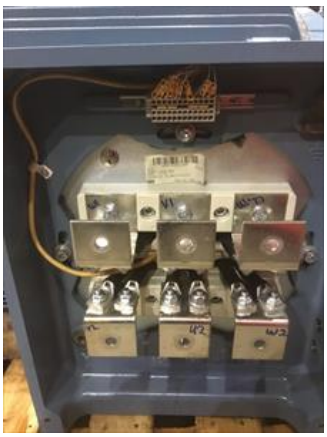
1.	Job Number	**97804**	
2.	Report Date		
3.	Customer	**AIM**	

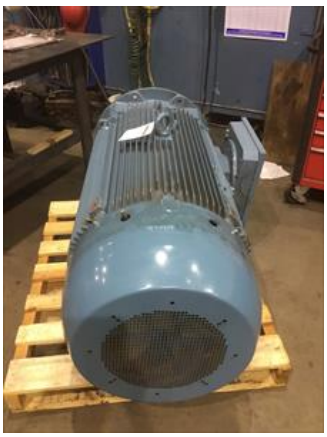
Name Plate Information

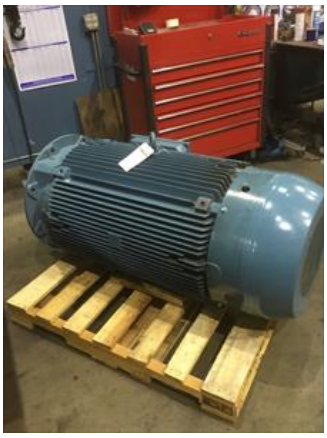
4.	Manufacturer	**ABB**	P5

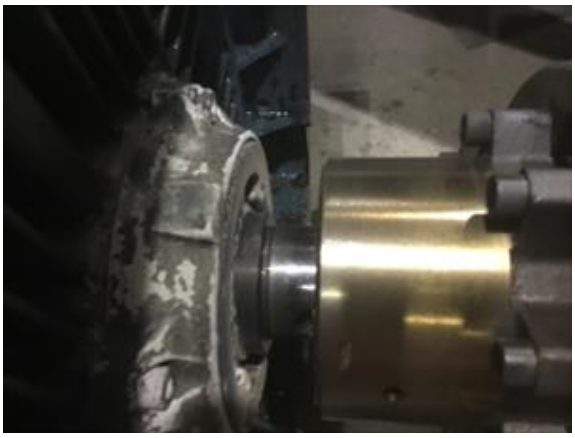


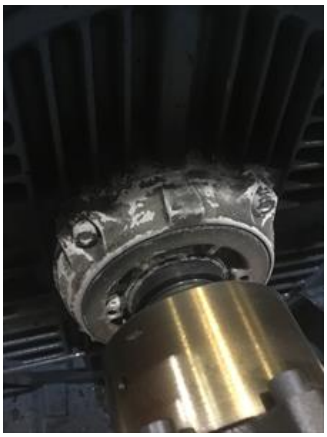


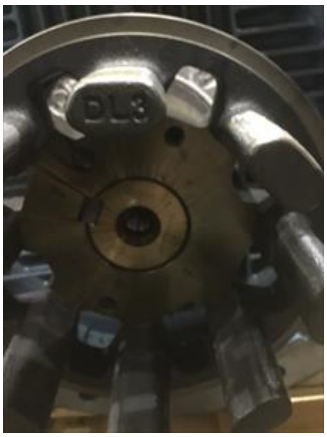




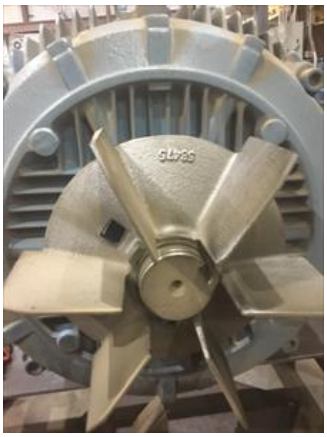


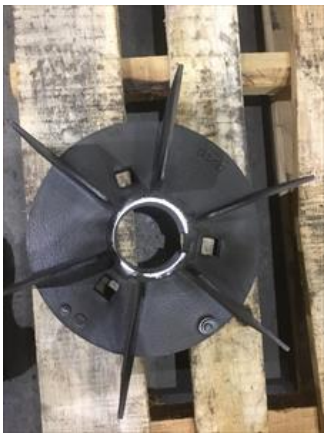


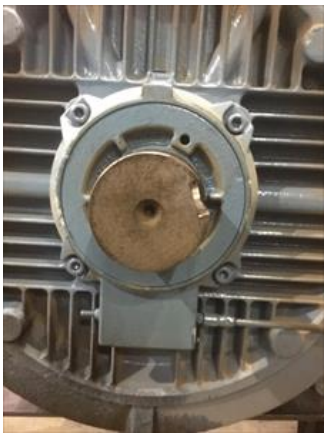


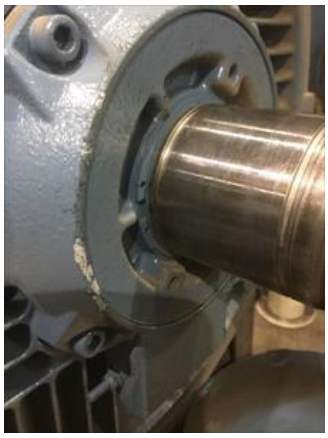


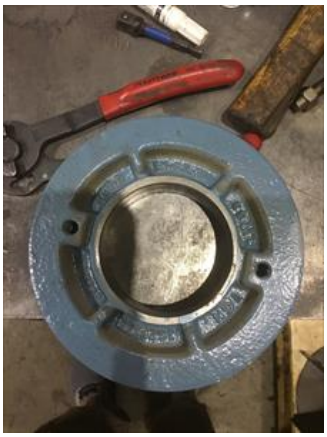
Shaft 1/8 th inch recessed

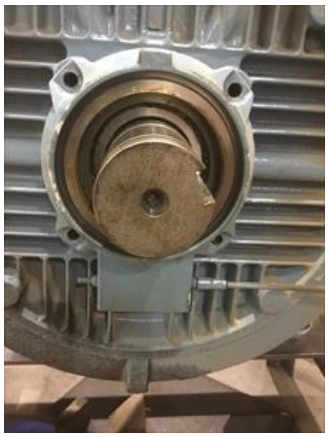


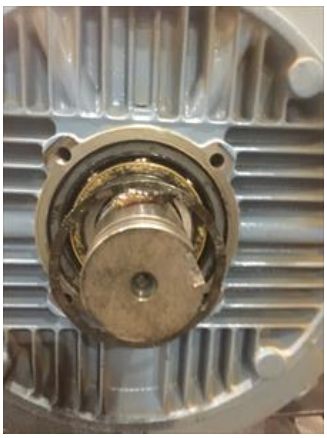


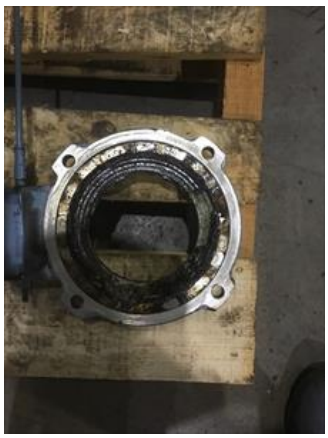


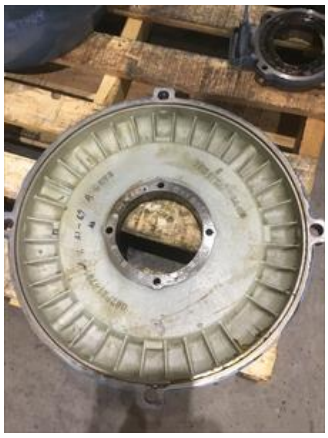


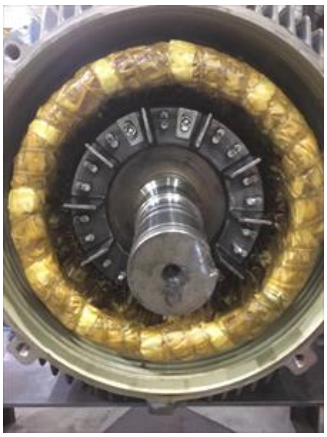


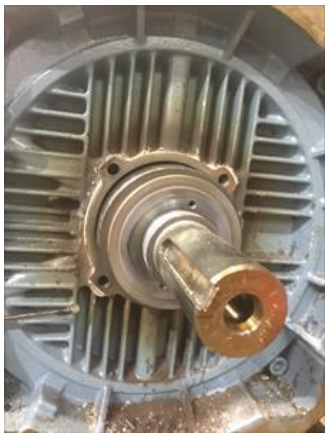


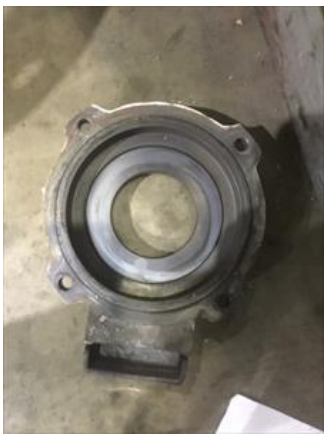


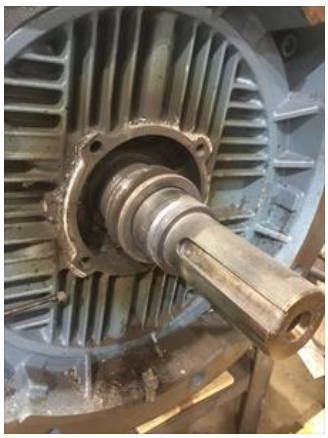


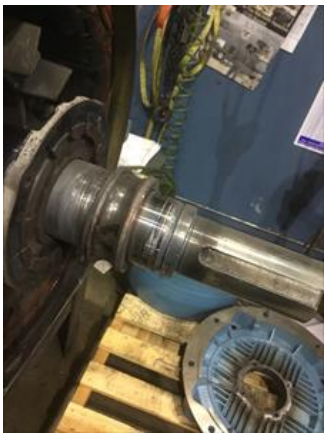


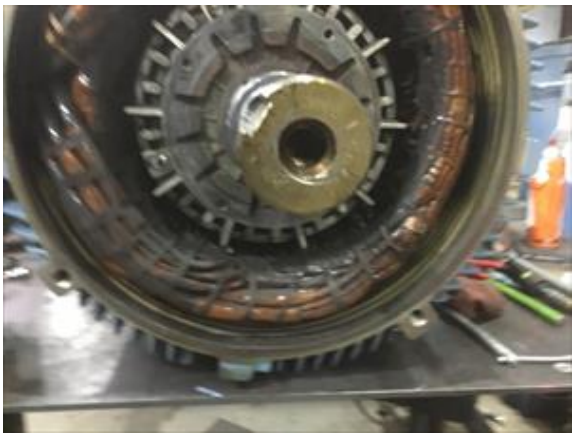


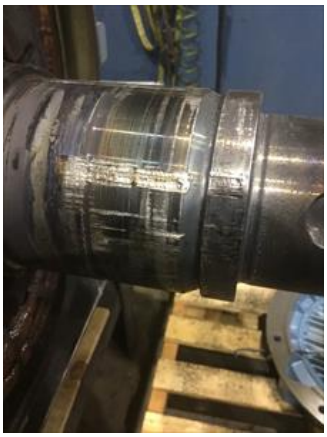


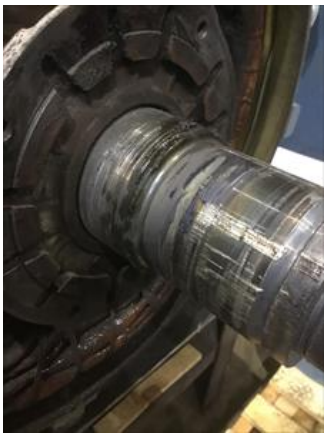


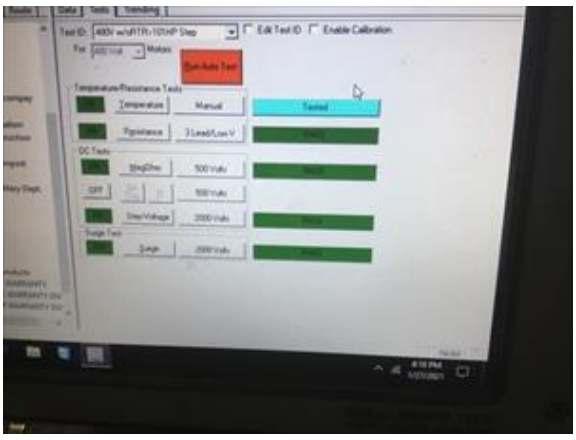


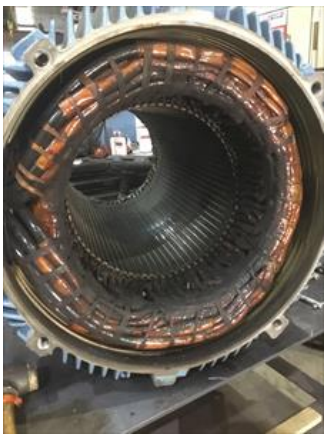


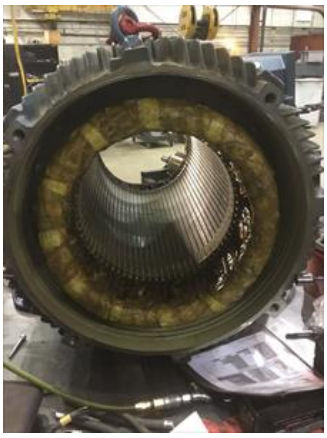












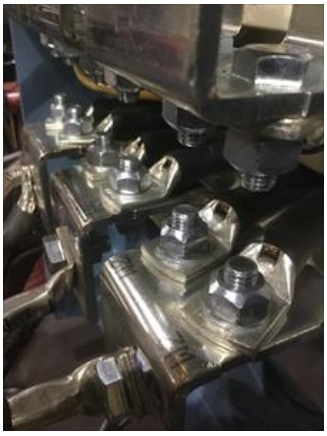
5.	Model	**4507289471_4507289471_4507 289471 450728947110**	
6.	Serial Number	**3G1F1939631669**	
7.	Horsepower		
8.	KW	**250**	
9.	Volts	**400**	
10.	Amps	**540 Amps**	
11.	RPM	**2393 RPM**	
12.	Frame	**315lkc**	
13.	Enclosure	**TEFC**	
14.	Cycles	**80 HZ**	
15.	Phase	**3 PH**	
16.	Service Factor		
17.	Motor Mount Position		

Initial Inspection

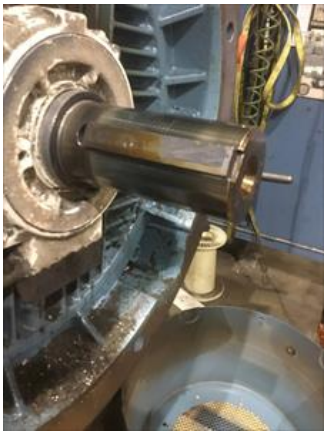
18.	Number of Leads	**12**	
19.	Lead Length		
20.	Lead Size		
21.	Lead Condition	**(P) Pass**	P42

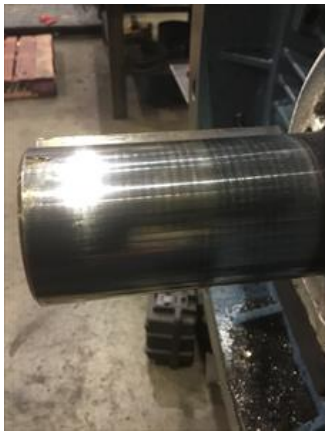
22.	Lead Markings		

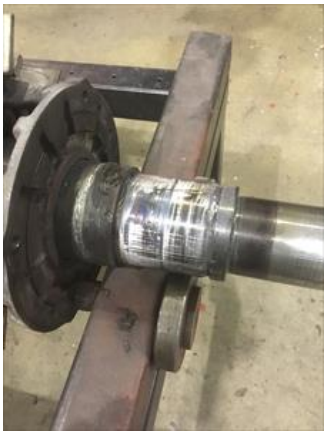
23.	Lug Size, Condition, and Type		P67



24.	Winding RTD's		
25.	Winding Rtd's Condition		
26.	Shaft Run Out		
27.	Does Shaft Turn Freely	**no**	
28.	Does Shaft Have Visible Damage	**yes**	P94

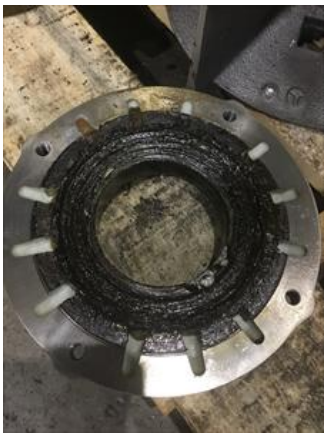




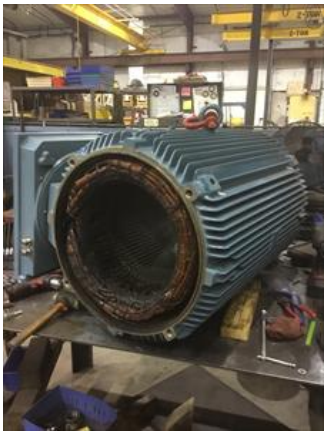


29.	Bearing Rtd's		
30.	Bearing Rtd's Condition		
31.	Contamination		P104

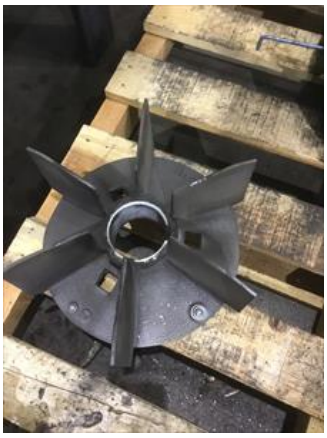
Grease dirty



32.	Frame Condition	**(P) Pass**	P106



33.	Fan Condition	**(P) Pass**	P109



34.	Broken or missing components	

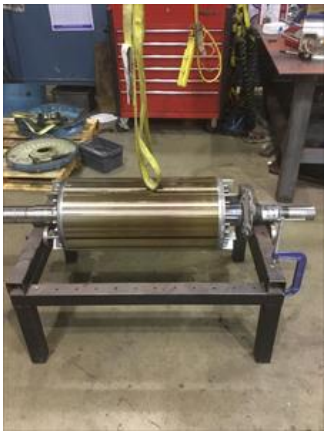
Initial Electric Test

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

42.	Stator Condition	**good**	
43.	Failure Location	**drive end bearing**	

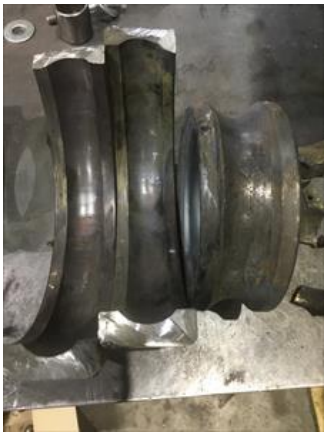
Initial Rotor Inspection

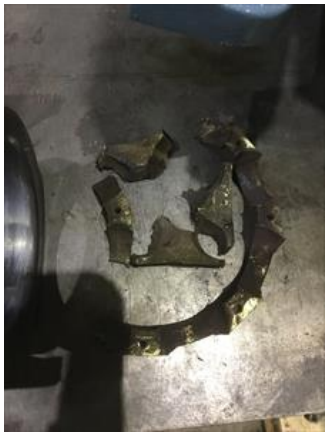
44.	Rotor Type	**squirrel cage**	
45.	Air Gap <10% Variation		
46.	Number of Rotor Bars	**58**	
47.	Number of Broken Rotor Bars	**0**	
48.	Growler Test	**(P) Pass**	
49.	Rotor Condition	**(P) Pass**	P50



Mechanical Inspection

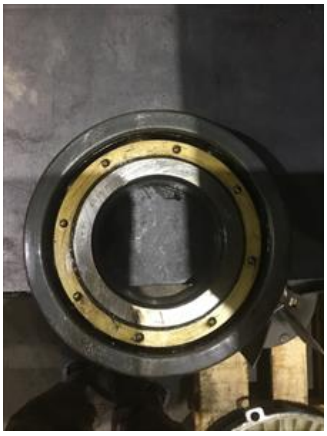
50.	Bearing Manufacture	**skf**	
51.	Bearing DE Size	**6316M/C4VL 0241**	
52.	Bearing DE Type	**ceramic ball bearing**	P23

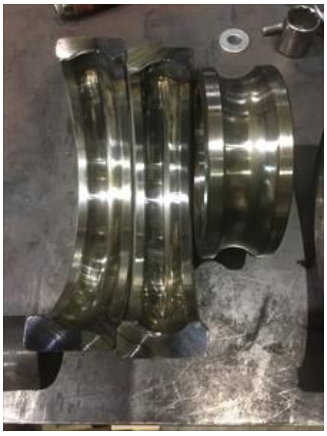




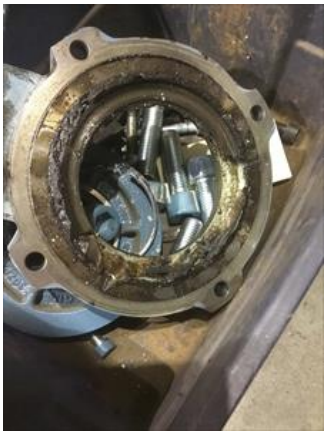
53.	DE Bearing Qty.	**1**	
54.	Bearing ODE Size	**3.150**	
55.	Bearing ODE Type	**skf 6316 m/c4 vl 0241**	

56.	ODE Bearing Qty.	**1**	P59

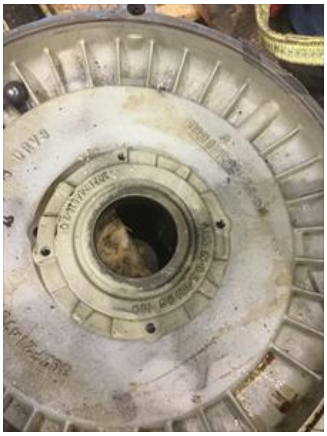


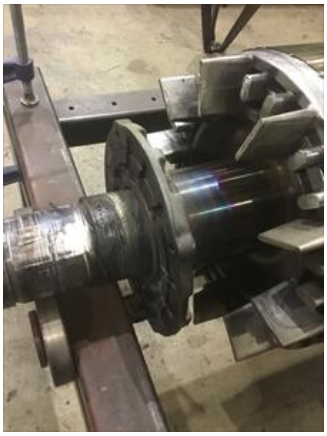


57.	Insulated Bearing	**yes**	
58.	Lubrication Type	**grease**	
59.	Grease Condition	**(F) Fail**	P74



60.	Bearing Retainers	**(NA) Not Applicable**	P80





61.	Shaft Grounding Device		
62.	DE Seal		
63.	DE Seal Type/Size		
64.	ODE Seal		
65.	ODE Seal Type/Size		

Root Cause of Failure

66.	Component Failure	**drive end bearing**
67.	Cause of Failure	
	Drive end bearing suffered catastrophic cage failure.	
68.	Comments	
	D.e. Shaft is possibly crystalized from bearing failure. Machine work required to remove bearing cap. Windings tested good.	
69.	Service Technician	**Terrence Holland**

Machine Fit Inspection Report

70.	Shaft Run Out	
71.	Initial Shaft Run Out	
72.	Final Shaft Run Out	
73.	DE Bearing Shaft Fit	
74.	DE Initial Shaft Bearing Fit Size 1	**3.1494 "**
75.	DE Initial Shaft Bearing Fit Size 2	**3.1493 "**
76.	DE Initial Shaft Bearing Fit Size 3	**3.1494 "**
77.	DE Finial Shaft Bearing Fit Size 1	
78.	DE Finial Shaft Bearing Fit Size 2	
79.	DE Finial Shaft Bearing Fit Size 3	
80.	ODE Bearing Shaft Fit	**(P) Pass**
81.	ODE Initial Shaft Bearing Fit Size 1	**3.15 "**
82.	ODE Initial Shaft Bearing Fit Size 2	**3.1501 "**
83.	ODE Initial Shaft Bearing Fit Size 3	**3.15 "**
84.	ODE Finial Shaft Bearing Fit Size 1	
85.	ODE Finial Shaft Bearing Fit Size 2	
86.	ODE Finial Shaft Bearing Fit Size 3	
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**
	Excessive wear from bearing failure.	
94.	DE Initial Endbell Fit Size 1	
95.	DE Initial Endbell Fit Size 2	
96.	DE Initial Endbell Fit Size 3	
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	
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**
105.	ODE Initial Endbell Fit Size 1	**6.693 "**
106.	ODE Initial Endbell Fit Size 2	**6.6932 "**
107.	ODE Initial Endbell Fit Size 3	**6.6931 "**
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	
112.	ODE Endbell Air Seal Fit	
113.	ODE Initial Endbell Seal Fit Size	
114.	ODE Finial Endbell Seal Fit Size	
115.	Foot Flatness	**(NA) Not Applicable**
116.	Foot Condition	**(NA) Not Applicable**
117.	Flange Condition	**(P) Pass**
118.	Service Technician	**Terrence Holland**

Drive end bearing suffered catastrophic failure. This resulted in both the shaft fit and the housing fit being worn out of tolerance. Also the shaft was possibly crystalized from the heat generated from friction. The d.e. Bearing cap is stuck on the shaft and requires machining to be removed. The windings tested good.

Balancing Report

119.	Balance Type	
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
159.	Service Technician