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

AC Recondition As Found

SWEET HOME, HIGGINS & RED OAK
PO BOX 281
SWEET HOME, AR 72164

FolderID: 101001
FormID: 16061152

AC Recondition - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	127.185-0859 248
Description:	11HP FLYGT SUBMERSIBLE PUMP

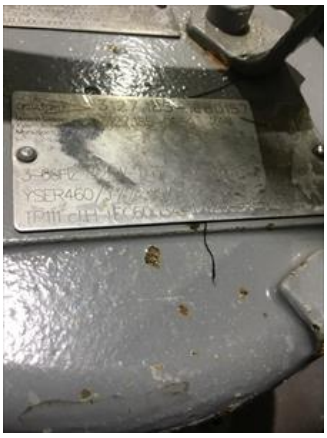
Hi-Speed Job Number:	101001
Product Number:	3127.185-1680157
Serial Number:	127.185-0859 248
HP/kW:	11 (HP)
Voltage:	230 / 460
Current:	13/6.5
Phase:	Three
Hz:	60 (Hz)
Enclosure:	Submersible
J-box Included:	Complete
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **1 - High** **4 - Good**

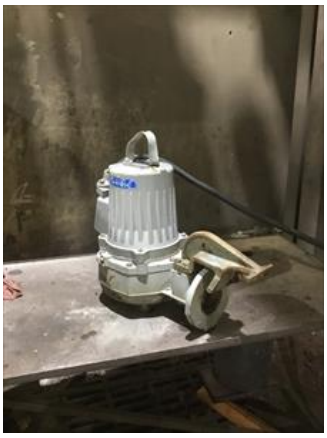
Overall Condition

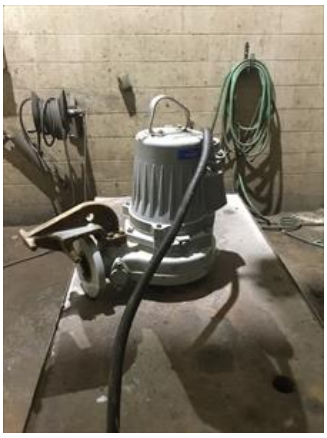
1. Report Date

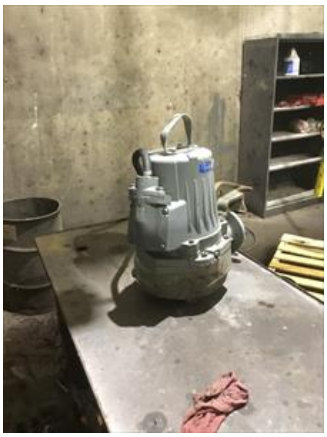
2. Nameplate Picture P37

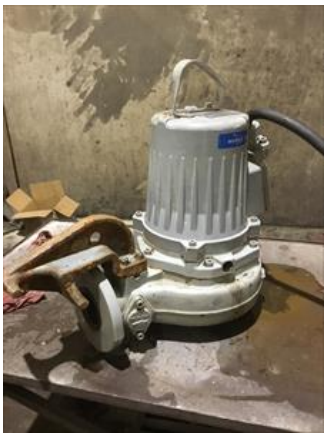


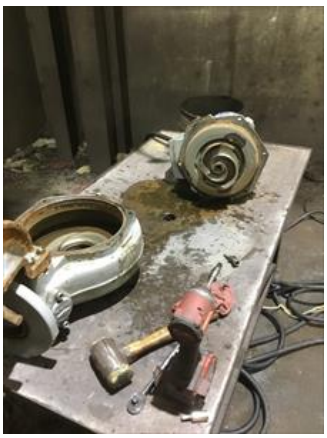
3. Photos of all six sides of the machine. P44

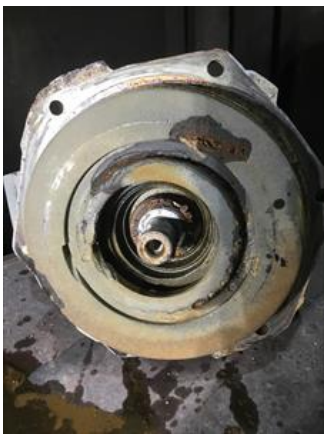


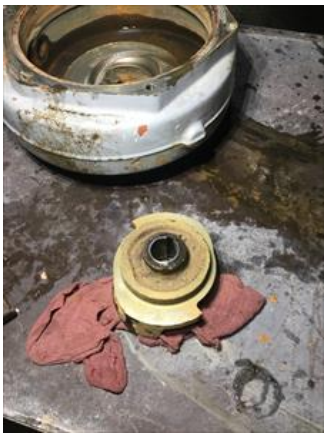


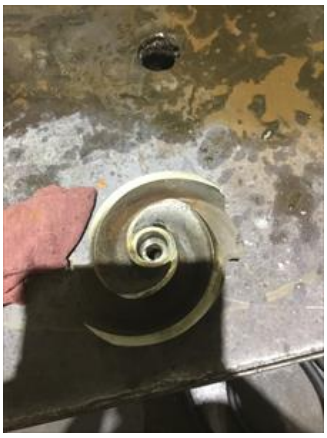


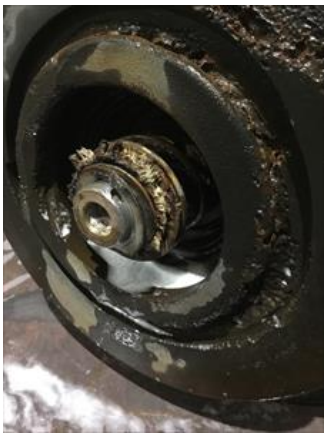


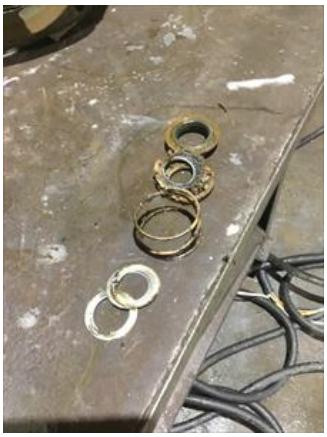


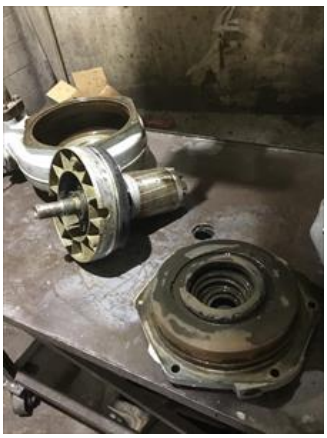


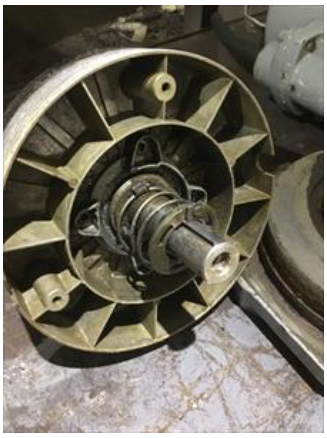


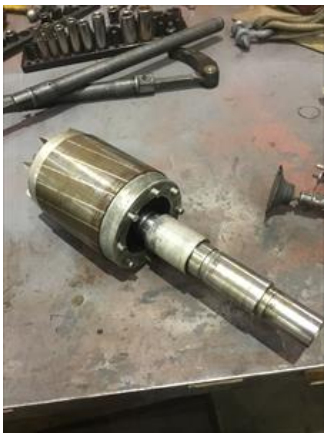


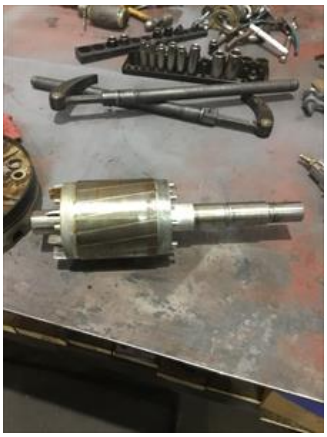


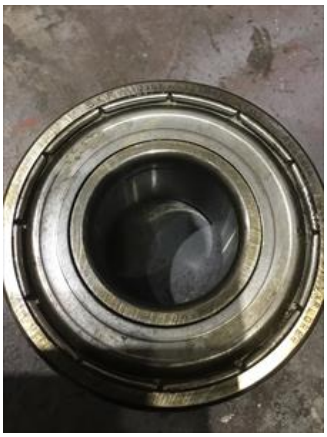


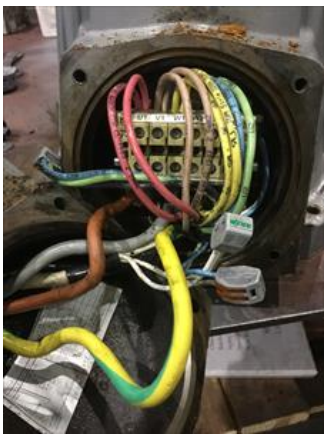


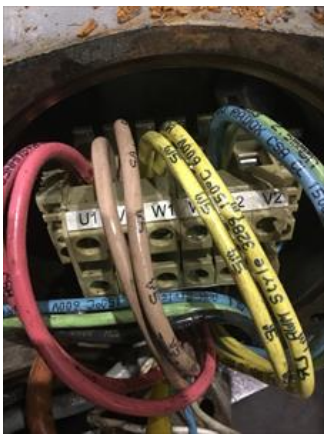


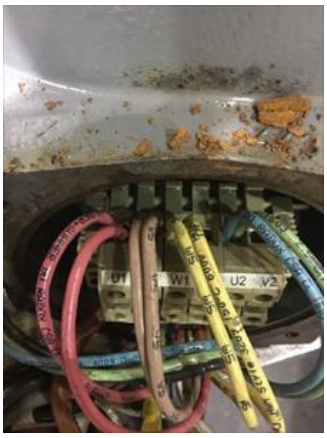


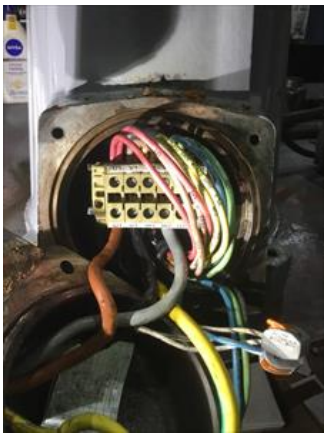


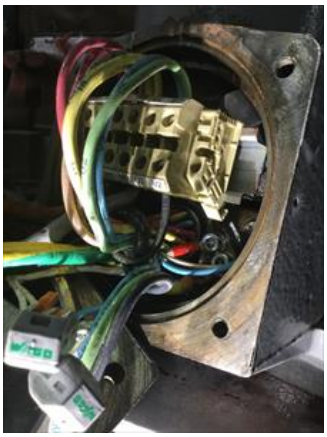


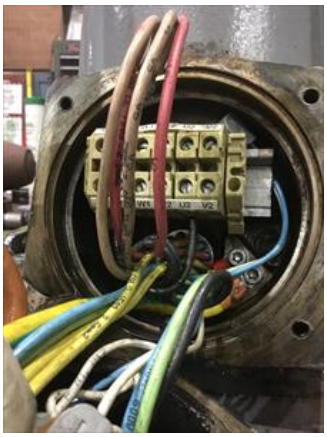


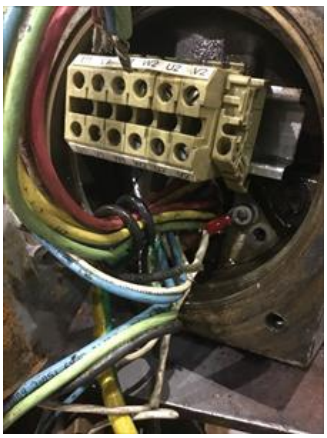


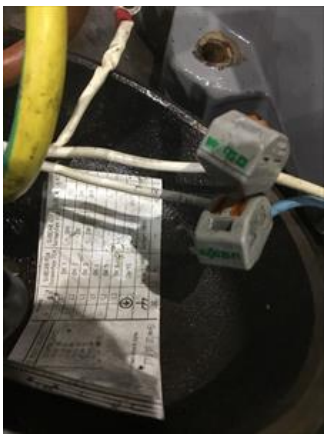


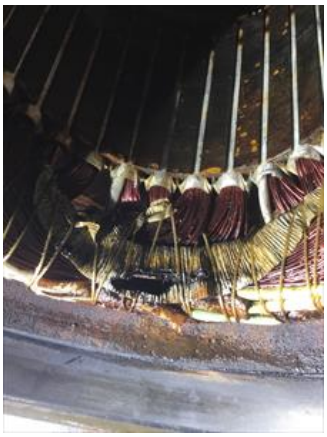


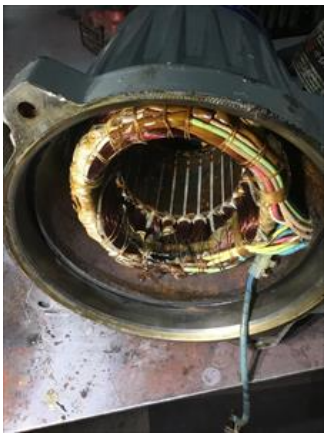












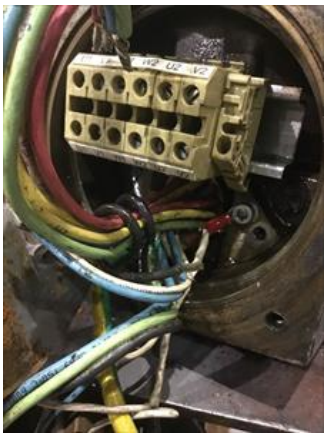
4. Describe the Overall Condition of the Equipment as Received

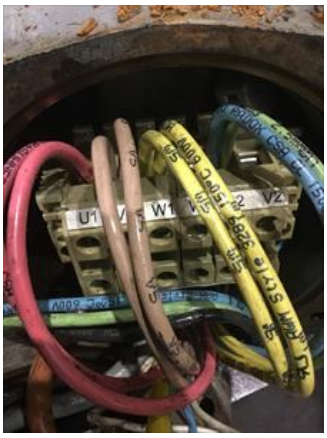
   Serviceable

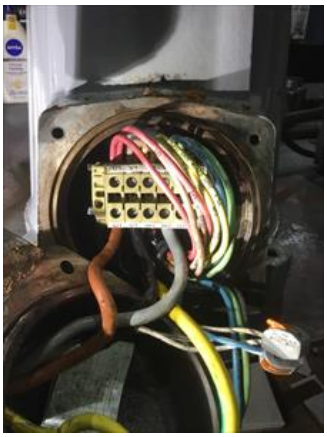
5. Distance from the end of the shaft to the Coupling/Sheave

Initial Mechanical/Electrical

6. Does Shaft Turn Freely?
7. Does Shaft Have Visible Damage?
8. Assembled Shaft Runout
9. Assembled Shaft End Play
10. Air Gap Variation <10%
11. Lead Condition P53







12. Lead Length

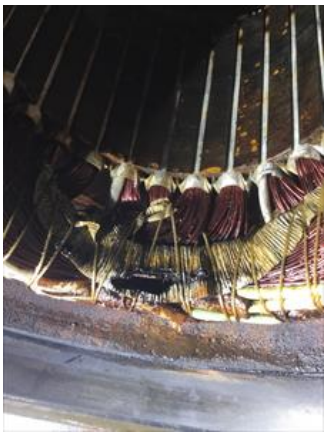
13.	Frame Condition	**serviceable**	
14.	Fan Condition	**(N) NA**	
15.	Broken or Missing Components		

Initial Electrical Inspection

16.	Insulation Resistance/Megger	**Megohms**	
17.	Winding Resistance		

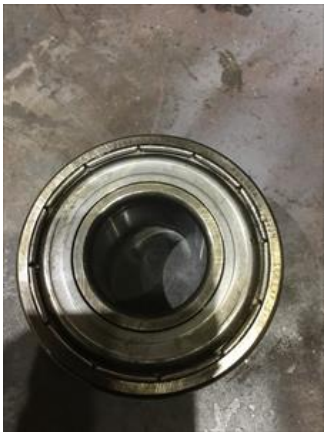
1-2	1-3	2-3

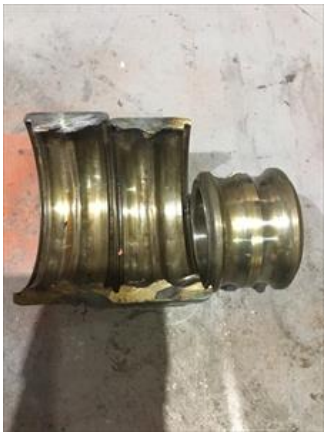
18.	Perform Surge Test	**(NA) Not Applicable**	
19.	Number of Stator Slots		
20.	Stator Condition	**rewind**	P70



Mechanical Inspection

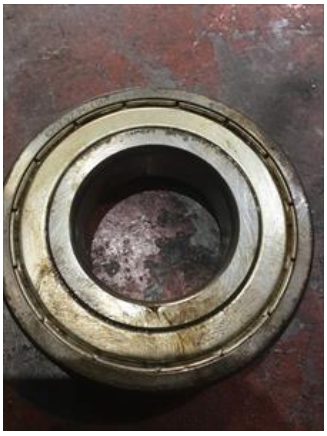
21.	Drive End Bearing Brand	**Skf**	
22.	Drive End Bearing Number-	**3307 A-2Z TN9/C3**	P33

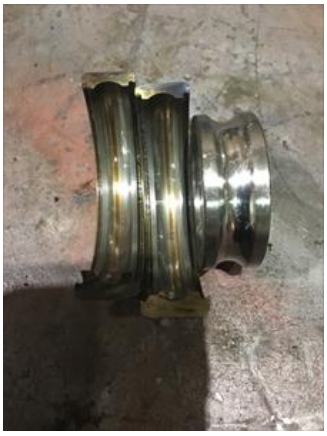




23.	Drive End Bearing Qty.	**1**	
24.	Drive End Bearing Type	**(Ball) Ball Bearing**	
	Double wide double row.		
25.	Drive End Lubrication Type	**(Oil) Oil Lubricated**	
26.	Drive End Bearing Insulation or Grounding Device?	**none**	
27.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**bearing cap**	
28.	Drive End Bearing Condition	**worn**	
29.	Opposite Drive End Bearing Brand	**Fag**	

30.	Opposite Drive End Bearing Number-	**6207 2Z**	P86

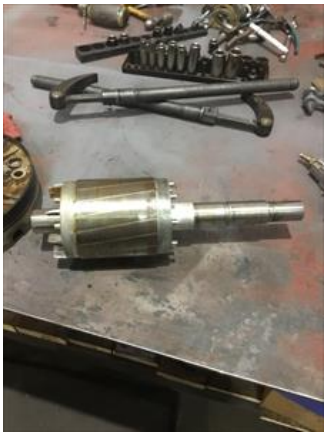




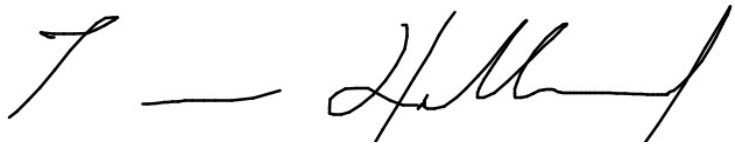
31.	Opposite Drive End Bearing Qty.	**1**
32.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
33.	Opposite Drive End Lubrication Type	**(Oil) Oil Lubricated**
34.	Opposite Drive End Bearing Insulation or Grounding Device?	
35.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**
36.	Opposite Drive End Bearing Condition	**worn**
37.	Drive End Seal	**replace**
38.	Opposite Drive End Seal	

Rotor Inspection

39.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	P3



40.	Growler Test	
41.	Number of Rotor Bars	
42.	Rotor Condition	**pass**
43.	List the Parts needed for the Repair Below ***Seal kit/o ring kit. Bearings: 3307 & 6207 2Z***	
44.	Signature of Technician that Disassembled Motor	**Terrence Holland**



Mechanical Fits- Rotor

45. Shaft Runout

46. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

47. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

48. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

49. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.378	**1.378**	**1.378**

50. Drive End Bearing Shaft Fit Condition **(P) Pass**

51. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.3782	**1.3782**	**1.3782**

52. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass**

53. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

54. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
1.3783	**1.3782**	**1.3783**

55. Drive End - Endbell Bearing Fit Condition **(P) Pass**

56. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Excessive wear.

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

58. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

Pass

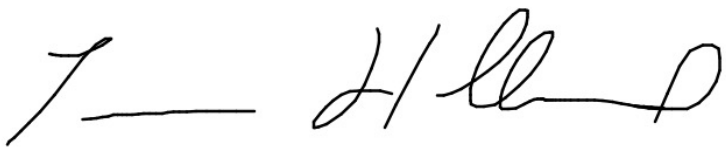
59. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

60. List Machine Work Needed Below

Upper housing needs to e re-sleeved.

61. Technician **Terrence Holland**



Dynamic Balance Report

62. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

63. Initial Balance Readings

Drive End	Opposite Drive End

64. Final Balance Readings

Drive End	Opposite Drive End

65. Technician

Rewind

66. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

67. Core Hot Spot Test

Pre-Burnout	Post-Burnout

68. Post Rewind Electrical Test- Insulation Resistance

69. Post Rewind Polarization Index

70. Post Rewind Winding Resistance

1-2	1-3	2-3

71. Post Rewind Surge Test

72. Post Rewind Hi-Pot

73. Technician

Root Cause of Failure

74. Failure locations

75. Root cause of failure

Seal failure.

Mechanical Fits- Rotor - Post Repair

76. Shaft Runout Post Repair

77. Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

78. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

79. Coupling Fit Closest to the end of the Shaft Post Repair

0 Degrees	60 Degrees	120 Degrees

80. Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

81. Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

82.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
83.	Shaft Repair Sign-off		
Mechanical Fits- Bearing Housings - Post Repair			
84.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
85.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
86.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
87.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
88.	End Bell Repair Sign-off		
Assembly			
89.	Photograph All Major Components prior to assembly		
90.	Final Insulation Resistance Test		
91.	Assembled Shaft Endplay		
92.	Assembled Shaft Runout		
93.	Test Run Voltage		
	Volts	Volts	Volts
94.	Test Run Amperage		
	Amps	Amps	Amps
95.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
96.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
97.	Ambient Temperature - Fahrenheit		
98.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
99.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
100.	Final Test Run Sign-off		
101.	Document Final Condition with Pictures after paint		
102.	Final Pics and QC Review		