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— EVERY DAY SINCE 1946 —

Motor Shop Repairs

**Job Number 99993**

Prepared for Delta Plastics (11016)

8801 Frazier Pike  
Little Rock AR 72206

# Table of Contents



Hi-Speed Industrial Service  
7030 Ryburn Dr  
Millington, Tn 38053  
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## AC Recondition As Found

Delta Plastics (11016)

8801 Frazier Pike  
Little Rock, AR 72206

FolderID: 99993  
FormID: 13969698

### AC Recondition - Rev. 2

Location: MOTOR SHOP LR  
Serial Number: 3G1P163500601  
Description: 400KW ABB 1800RPM 355M

Hi-Speed Job Number:	99993
Manufacturer:	ABB
Product Number:	M3BP 355 MLA 4 IMB3/IM1001
Serial Number:	3G1P163500601
HP/kW:	400 (kW)
RPM:	1790 (RPM)
Frame:	355
Voltage:	460
Current:	635
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	06/30/2022
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: ● 2 - High ● 3 - Good

### Overall Condition

1. Report Date
2. Nameplate Picture



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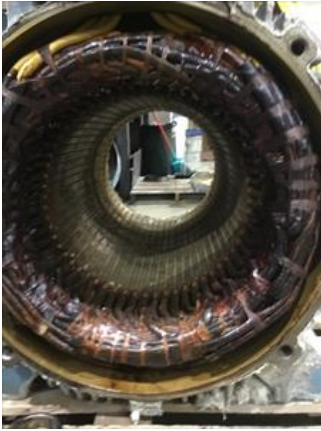


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Printed on 7/7/2022

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3. Describe the Overall Condition of the Equipment as Received

#### Initial Mechanical/Electrical

4. Does Shaft Turn Freely?

5. Does Shaft Have Visible Damage?

6. Assembled Shaft Runout

7. Assembled Shaft End Play

8. Air Gap Variation <10%

9. Lead Condition

10. Lead Length

11. Stator Temperature Detector Rating and Function

Quantity

Rating

Quantity Passed

12. Bearing Temperature Detector Rating and Function

Quantity

Rating

Quantity Passed

13. Frame Condition

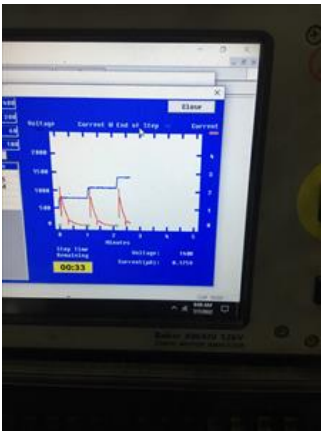
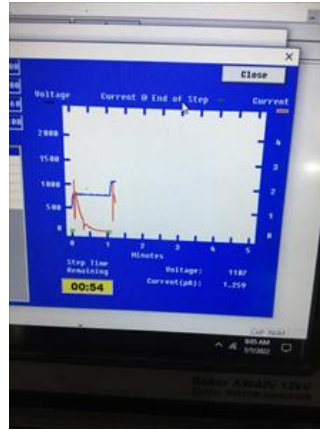
14. Fan Condition

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 (F) Fail
19. Stator Condition rewind


**Mechanical Inspection**

20. Drive End Bearing Number- NU 322EC



21. Drive End Bearing Qty. 1
22. Drive End Bearing Type (Roller) Roller Bearing

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23. Drive End Lubrication Type	(Grease) Grease Lubricated		
24. Drive End Bearing Insulation or Grounding Device?			
25. Drive End Wavy Washer/Snap-Ring Other Retention Device?	spacer behind bearing		
26. Drive End Bearing Condition	bad		
27. Opposite Drive End Bearing Number-	6316 Insucote		
28. Opposite Drive End Bearing Qty.	1		
29. Opposite Drive End Bearing Type	(Ball) Ball Bearing		
30. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated		
31. Opposite Drive End Bearing Insulation or Grounding Device?	insulatedbearing		
32. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	stainless washer and snap ring		
33. Opposite Drive End Bearing Condition	bad		
34. Drive End Seal	labyrinth (good)		
35. Opposite Drive End Seal	labyrinth (good)		
<b>Rotor Inspection</b>			
36. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast		
37. Growler Test	(Pass) Pass		
38. Number of Rotor Bars	50		
39. Rotor Condition	good		
40. List the Parts needed for the Repair Below <i>Rewind, NU322, Insulated 6316, sleeve DE end bell</i>			
41. Signature of Technician that Disassembled Motor	David Maclin		
			
<b>Mechanical Fits- Rotor</b>			
42. Shaft Runout			
43. Rotor Runout			
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
44. Coupling Fit Closest to Bearing Housing			
0 Degrees	90 Degrees	120 Degrees	
45. Coupling Fit Closest to the end of the Shaft			
0 Degrees	60 Degrees	120 Degrees	
46. Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
4.3312	4.3312	4.3312	
47. Drive End Bearing Shaft Fit Condition	(P) Pass		
48. Opposite Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
49. Opposite Drive End Bearing Shaft Fit Condition	(P) Pass		



50. Shaft Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
<b>Mechanical Fits- Bearing Housings</b>		
51. Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
52. Drive End - Endbell Bearing Fit Condition <b>(F) Fail</b>		
53. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
<b>6.6935</b>	<b>6.6935</b>	<b>6.6935</b>
54. Opposite Drive End - Endbell Bearing Fit Condition <b>(P) Pass</b>		
55. Bearing Cap Condition		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	
<div> <div></div> <div>Good</div> </div>		
56. End Bell Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
57. List Machine Work Needed Below <i>Sleeve DE end bell</i>		
58. Technician	David Maclin	
		
<b>Root Cause of Failure</b>		
59. Failure locations <i>Bearings</i>		
60. Root cause of failure <i>Improper lubrication</i>		



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5. **DELIVERY OF GOODS AND/OR SERVICES.** Unless otherwise identified in the quotation, all shipments are F.O.B. Hi-Speed's warehouse and the title to and all risk of loss with respect to any goods shipped shall pass to Buyer when such goods are delivered to the carrier at Hi-Speed's warehouse. Hi-Speed will use its best efforts to affect delivery by the date or dates specified in the quotation. However, Hi-Speed shall not be liable for delay in or failure to make shipment, or to perform services, by any identified date for any reason whatsoever, including but not limited to, causes beyond its reasonable control, such as strikes, fires, floods, epidemics, quarantines, restrictions, severe weather, embargos, acts of God, or public enemy, war, riot, delays in transportation or the inability to obtain necessary labor, materials or manufacturing facilities.
6. **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buyer agree that time is of the essence for the purchase order and that Buyer shall fully cooperate with Hi-Speed in order to allow Hi-Speed full access to prosecute its work diligently and in an orderly manner. Buyer shall assist Hi-Speed in every way possible to avoid delaying, disrupting or interfering with the progress of Hi-Speed's work at the project site. In the event Hi-Speed's work is delayed, hindered, suspended, disrupted, re-sequenced or interfered with or rendered less efficient or more costly or adversely affected in any way as a result of acts or omissions of Buyer or other contractors or employees of Buyer or by any other reason beyond Hi-Speed's control and without the fault of Hi-Speed, then, in such event, Buyer shall be liable to Hi-Speed for any damages, additional costs, expenses, labor, materials, man hours, acceleration costs, overtime, additional jobsite overhead, extended home office overhead, and any and all other direct and indirect expenses of whatsoever nature or kind, caused in whole or in part, as a result of any of the above-referenced occurrences. Hi-Speed's project records will be the basis for computing the additional costs and damages of Hi-Speed's labor, materials, expenses and overhead related to such changes. BUYER WARRANTS THAT THE SITE FOR DELIVERY OR INSTALLATION OF ANY GOODS AND/OR FOR THE PERFORMANCE OF ANY SERVICES SHALL BE READY AND ADEQUATE FOR HI-SPEED'S DELIVERY OF GOODS AND/OR PERFORMANCE OF SERVICES AND THAT HI-SPEED SHALL HAVE FULL ACCESS THERETO, FREE OF ALL OBSTRUCTIONS. BUYER SHALL ASSUME ALL EXTRA COSTS ASSOCIATED WITH HI-SPEED'S INABILITY TO INSTALL ANY GOODS OR PERFORM ANY SERVICES AS A RESULT OF BUYER'S FAILURE TO COMPLY WITH THIS PROVISION. HI-SPEED MAY NOT INSPECT THE SITE PRIOR TO DELIVERY AND/OR INSTALLATION OF GOODS AND/OR PERFORMANCE OF SERVICES AND MAKES NO WARRANTY AS TO THE SUFFICIENCY OF THE SITE FOR THE DELIVERY AND/OR INSTALLATION OF GOODS AND/OR THE PERFORMANCE OF SERVICES AT SUCH SITE.
7. **INSPECTION/ACCEPTANCE.** All goods and services ordered pursuant to any quotation shall be subject to inspection by Buyer after delivery or performance to determine conformity with the quotation and/or purchase order and Hi-Speed's advertised or published specifications. Buyer shall have a period of thirty (30) days from shipment of goods at the delivery destination specified in the quotation within which to inspect the goods for conformity with the quotation, order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. Buyer shall have a period of thirty (30) days following completion of any services within which to inspect the services for conformity with the quotation, purchase order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. If the goods delivered or services performed do not so conform, upon delivery of notice to Hi-Speed of any discrepancy, nonconformance or rejection, Hi-Speed shall have sixty (60) days to cure the alleged discrepancy and/or nonconformance. If Hi-Speed fails to cure in this time period, Buyer shall have the right to reject such goods or services. After the cure period, goods that have been delivered and rejected, in whole or in part, shall be returned to Hi-Speed. Buyer shall notify Hi-Speed and arrange for the return of the goods as required. Should such non-conforming services be rejected Hi-Speed shall, at its sole cost, re-perform the non-conforming services. Inspection or failure to inspect on any occasion shall not affect Buyer's rights under the warranty provisions herein.
8. **WARRANTIES.** Hi-Speed warrants that all goods shall conform in all material aspects to the goods identified in the quotation to Buyer and/or purchase order, and Hi-Speed makes to Buyer the manufacturer's express warranty for any goods sold to Buyer, which is offered by the manufacturer at the time of acceptance of any quotation by Buyer. This warranty is conditioned upon the installation, operation, and maintenance of the goods in accordance with the manufacturer's recommendations and/or standard industry practice and the goods at all times being operated or used under normal operating conditions for which they were designed. Hi-Speed, at its sole option, will repair or

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11. **GOVERNING LAW AND JURISDICTION.** Any controversy arising out of any quotation, the purchase order, the goods sold or delivered, repair or replacement thereof, or any services provided pursuant to any quotation or any purchase order, or these Standard Terms and Conditions shall be governed by the laws of the state of Tennessee without regard to any choice of law provisions and any cause of action related in any manner thereto shall be brought only in the state or federal courts of Shelby County, Tennessee.
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