

EVERY DAY SINCE 1946

LR Motor Shop Repairs

Job Number 102418

Prepared for Custom Craft Poultry

3064 E Main St Batesville AR 72501

Table of Contents

AC Inspection as Found - Shop



AC Inspection as Found

Custom Craft Poultry 3064 E Main St Batesville, AR 72501

AC Inspection - Rev. 2

Location:	Shop
Serial Number:	

Hi-Speed Job Number:	102418
Manufacturer:	Toshiba
Serial Number:	7011743-01-FB-02
HP/kW:	250 (HP)
RPM:	3565 (RPM)
Frame:	445TS
Voltage:	230 / 460
Current:	570/285
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	ODP
J-box Included:	None
Coupling/Sheave:	None
Date Received:	02/01/2024
Repair Stage:	Final

Priorities Found: **8 - Good**

Overall Condition

- 1. Report Date
- 2. Nameplate Picture



3. Photos of all six sides of the machine.

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

> FolderID: 102418 FormID: 19225444







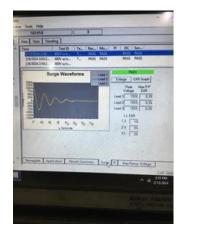


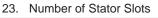




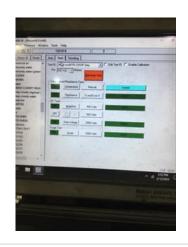


4.	Describe the Overall Condition of the	Equipment as Received	
Initial	Mechanical/Electrical		
5 .	Does Shaft Turn Freely?		(Yes) Yes
6.	Does the shaft require T.I.R in Lathe	to identify additional repairs?	
7.	Does Shaft Have Visible Damage?		(No) No
8.	Assembled Shaft Runout		
9.	Assembled Shaft End Play		
10.	Air Gap Variation <10%		na
• 11.	Lead Condition		(P) Pass
12.	Lead Length		13 Inches
13.	Lead Numbers		
	No numbers		
14.	Stator Temperature Detector Rating a	and Function	
	Quantity	Rating	Quantity Passed
-	Na		
15.	Bearing Temperature Detector Rating	•	
	Quantity	Rating	Quantity Passed
	Na		
	Frame Condition		pass
	Fan Condition		(N) NA
	Heater Quantity, Ratings		
10.	Quantity	Volts/Watts	Pass/Fail
	Quantity	Volts/ Walts	F 855/1 811
	Na		
19.	Broken or Missing Components		
	Na		
Initial	Electrical Inspection		
	Insulation Resistance/Megger		19896 Megohms
	Winding Resistance		
	1-2	1-3	2-3
	0.0217	0.0217	0.0214





24. Stator Condition





wash and bake



25.	Stator Thermistors/Ohms Na	
26.	Stator Overloads/Ohms Na	
Mecha	anical Inspection	
27.	Drive End Bearing Brand	Коуо



29. Drive End Bearing Qty.	1
30. Drive End Bearing Type	(Ball) Ball Bearing
31. Drive End Lubrication Type	(Grease) Grease Lubricated
32. Drive End Bearing Insulation or Grounding Device?	
Na	
33. Drive End Wavy Washer/Snap-Ring Other Retention Device?	nut
34. Drive End Bearing Condition	
Balls skid and contaminate grease	



35. Opposite Drive End Bearing Brand	Коуо
36. Opposite Drive End Bearing Number-	6313





Frosted and contaminated grease

37.	Opposite Drive End Bearing Qty.	1
38.	Opposite Drive End Bearing Type	(Ball) Ball Bearing
39.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
40.	Opposite Drive End Bearing Insulation or Grounding Device?	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	
42.	Opposite Drive End Bearing Condition	



Frosted and grease contamination

43.	Drive End Seal		
-	Na		
44.	Opposite Drive End Seal		
	Na		
45.	DE Sleeve Bearing Inside Diameter		
	0 degrees	120 degrees	240 degrees
	Na		
46.	DE Sleeve Bearing Outside Diameter		
	0 degrees	120 degrees	240 degrees
	Na		

47.	DE Sleeve Bearing Housing Inside Dia	ameter	
	0 degrees	120 degrees	240 degrees
-	Na		
48.	DE Sleeve Bearing to Housing Cleara		
	0 degrees	120 degrees	240 degrees
-	Na		
49.	ODE Sleeve Bearing Inside Diameter		
	0 degrees	120 degrees	240 degrees
	-	-	
-	Na		
50.	ODE Sleeve Bearing Outside Diameter	r	
	0 degrees	120 degrees	240 degrees
_	No		
	Na	Nometer	
51.			
	0 degrees	120 degrees	240 degrees
-	Na		
52.	ODE Sleeve Bearing to Housing Clear	ance	
	0 degrees	120 degrees	240 degrees
	5	5	5
	Na		
Rotor	Inspection		
53.	Rotor Type/Material		(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
54.	Growler Test		(Pass) Pass
55.	Number of Rotor Bars		40
56.	Rotor Condition		dirty



57. List the Parts needed for the Repair Below 1-6313 Bearing 2-6313 Bearing

Mech	anical Fits- Rotor		
59.	Shaft Runout		0.0013 inches
60.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	Na		
61.	Coupling Fit Closest to Bearing Hous	ing	
	0 Degrees	90 Degrees	120 Degrees

2.3743

2.3743



62.	2. Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
	2.3741	2.3743	2.3743	
63.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	2.5593	2.5593	2.5593	
64.	Drive End Bearing Shaft Fit Condition			(P) Pass



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RW

65. Opposite Drive End Bearing	5. Opposite Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees	
2.5593	2.5593	2.5593	

66. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass



67.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
	Na			
Mecha	anical Fits- Bearing Housings			
68.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	5.5125	5.5125	5.5125	
69.	Drive End - Endbell Bearing Fit Condi	tion		(P) Pass



70.	 Opposite Drive End - Endbell Bearing Fit 			
	0 Degrees	60 Degrees	120 Degrees	
	5.5126	5.5126	5.5126	

72.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	pass	pass	
73.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
-	Na		
74.	List Machine Work Needed Below None		
75.	Technician		RW
Root	Cause of Failure		
76.	Failure locations		
	Leads have no numbers		
77.	Root cause of failure		
Dyna	mic Balance Report		

	Rotor Weight	Balance Grade		
-	alone is to be a subficiency prove			
1134/349	Competencies Pression Andreasting Report			
Part plant Close back Close back Close back	N Andrews Internet N American Internet & Asymptotical American Internet Internet Andrews American Internet Internet American			
Patieneta	ng name ang name ang Name na name ang			
	 W. W. H. Land, W. W. S. Markov, W. S. Markov,			
	and deal and shares a first start of the start start start and start sta			
11 1	· 10 0 00 : 10 0 001: 10 0 00			
1				
9.	Initial Balance Readings			
	Drive End	Opposite Drive End		
	.36	.29		
0.	Final Balance Readings			
	Drive End	Opposite Drive End		
		.30		
1.	.13 Technician			David Maclin
	Technician			David Maclin
vir	Technician	\sum		David Maclin
vir	Technician d Core Test Results - Watts loss p	er Pound		David Maclin
vir	Technician Technician d Core Test Results - Watts loss p Pre-Burnout	\sum		David Maclin
wir 32.	Technician d Core Test Results - Watts loss p Pre-Burnout 0	er Pound		David Maclin
vir 2.	Technician d Core Test Results - Watts loss p Pre-Burnout 0 Core Hot Spot Test	er Pound Post Burnout		David Maclin
wir 32.	Technician d Core Test Results - Watts loss p Pre-Burnout 0 Core Hot Spot Test Pre-Burnout	er Pound		David Maclin
wir 32.	Technician d Core Test Results - Watts loss p Pre-Burnout 0 Core Hot Spot Test	er Pound Post Burnout Post-Burnout		
wir 32. 33.	Technician Technician d Core Test Results - Watts loss p Pre-Burnout 0 Core Hot Spot Test Pre-Burnout na	er Pound Post Burnout Post-Burnout		David Maclin David Maclin
wir 32. 33. 34.	Technician Technician d Core Test Results - Watts loss p Pre-Burnout 0 Core Hot Spot Test Pre-Burnout na Post Rewind Electrical Test- Insu	er Pound Post Burnout Post-Burnout		0 Megohms
wir 32. 33. 34.	Technician Technician d Core Test Results - Watts loss p Pre-Burnout 0 Core Hot Spot Test Pre-Burnout na Post Rewind Electrical Test- Insu Post Rewind Polarization Index	er Pound Post Burnout Post-Burnout	2-3	0 Megohms
wir 32. 33. 34.	Technician Technician Ad Core Test Results - Watts loss p Pre-Burnout O Core Hot Spot Test Pre-Burnout Na Post Rewind Electrical Test- Insu Post Rewind Polarization Index Post Rewind Winding Resistance	er Pound Post Burnout Post-Burnout ulation Resistance	2-3 0	0 Megohms
wir 32. 33. 34. 35. 36.	Technician Techni	er Pound Post Burnout Post-Burnout ulation Resistance e 1-3		0 Megohms 0 Polarization Index (Pass) Pass
vir 2. 33. 44. 55. 66. 77. 88.	Technician	er Pound Post Burnout Post-Burnout ulation Resistance e 1-3		0 Megohms 0 Polarization Index 9 Polarization Index 1 (Pass) Pass 0 micro-amps
wir 32. 33. 34. 35. 36. 37. 38.	Technician Techni	er Pound Post Burnout Post-Burnout ulation Resistance e 1-3		0 Megohms 0 Polarization Index (Pass) Pass
wir 32. 33. 34. 35. 36. 37. 38.	Technician	er Pound Post Burnout Post-Burnout ulation Resistance e 1-3		0 Megohms 0 Polarization Index 9 Polarization Index 1 (Pass) Pass 0 micro-amps
wir 32. 33. 34. 35. 36. 37. 38.	Technician	er Pound Post Burnout Post-Burnout ulation Resistance e 1-3		0 Megohms 0 Polarization Index 9 Polarization Index 1 (Pass) Pass 0 micro-amps

90.	Shaft Runout Post Repair		
91.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	0	0	0
92.	Coupling Fit Closest to Bearing	Housing Post Repair	
	0 Degrees	90 Degrees	120 Degrees
	0	0	0
93.	Coupling Fit Closest to the end	of the Shaft Post Repair	
	0 Degrees	60 Degrees	120 Degrees
	0	0	0
94.	Drive End Bearing Shaft Fit Pos	st Repair	
	0 Degrees	60 Degrees	120 Degrees
	0	0	0
95.	Opposite Drive End Bearing Sha	aft Fit Post Repair	
	0 Degrees	60 Degrees	120 Degrees
	0	0	0
96.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
	ok	ok	
97.	Shaft Repair Sign-off		David Maclin
	N	1	
	anical Fits- Bearing Housing	gs - Post Repair	
echa	N	-	
echa	anical Fits- Bearing Housing	-	120 Degrees
echa	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit	Post Repair	120 Degrees 0
echa	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0	Post Repair 60 Degrees 0	-
ech a 98.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0	Post Repair 60 Degrees 0	-
echa 98. 99.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Be 0 Degrees 0	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0	0
ech a 98. 99.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Re	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair	0 120 Degrees
echa 98. 99.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 0 0 Degrees 0 0 Degrees 0 Bearing Cap Condition Post Re Drive End Bearing Cap	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair Opposite Drive End Bearing Cap	0 120 Degrees
echa 98. 99.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Re Drive End Bearing Cap ok	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair Opposite Drive End Bearing Cap ok	0 120 Degrees
echa 98. 99.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 0 Degrees 0 Bearing Cap Condition Post Rep Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair Opposite Drive End Bearing Cap ok	0 120 Degrees
echa 98. 99.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Re Drive End Bearing Cap ok	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair Opposite Drive End Bearing Cap ok	0 120 Degrees
echa 98. 99. 100.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 0 Doposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Re Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal ok	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair Opposite Drive End Bearing Cap ok air Opposite Drive End Air Seal ok	0 120 Degrees
echa 98. 99. 100.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 0 0 Degrees 0 Bearing Cap Condition Post Rep 0 Bearing Cap Condition Post Rep 0 brive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal 0 bE Sleeve Bearing Inside ID Po	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 0 pair Opposite Drive End Bearing Cap ok air Opposite Drive End Air Seal ok	0 120 Degrees 0
echa 98. 99. 100.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 0 Doposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Re Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal ok	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair Opposite Drive End Bearing Cap ok air Opposite Drive End Air Seal ok	0 120 Degrees
echa 98. 99. 100. 101.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Bearing 0 Degrees 0 Bearing Cap Condition Post Rep Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal Ok DE Sleeve Bearing Inside ID Poo Measure 1 0	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 0 pair Opposite Drive End Bearing Cap ok air Opposite Drive End Air Seal ok ost Repair Measure 2 0	0 120 Degrees 0
echa 98. 99. 100. 101.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 0 0 Degrees 0 0 Bearing Cap Condition Post Re 0 Bearing Cap Condition Post Re 0 Drive End Bearing Cap 0 k End Bell Air Seal Fits Post Repa 0 k Drive End Air Seal 0 brive End Air Seal 0 Drive End Air Seal 0 Drive End Air Seal 0 DE Sleeve Bearing Inside ID Pot Measure 1 0 DE Sleeve Bearing Outside ID F	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair 0 pair Opposite Drive End Bearing Cap ok air Opposite Drive End Air Seal ok ok ost Repair Measure 2 0 Post Repair	0 120 Degrees 0 Measure 3 0
echa 98. 99. 100. 101.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Bearing 0 Degrees 0 Bearing Cap Condition Post Rep Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal Ok DE Sleeve Bearing Inside ID Poo Measure 1 0	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 0 pair Opposite Drive End Bearing Cap ok air Opposite Drive End Air Seal ok ost Repair Measure 2 0	0 120 Degrees 0 Measure 3
echa 98. 99. 100. 101. 102.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Rep 0 Bearing Cap Condition Post Rep 0 Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal Ok DE Sleeve Bearing Inside ID Po Measure 1 0 DE Sleeve Bearing Outside ID Po Measure 1 0	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 0 pair 0 pair Opposite Drive End Bearing Cap ok ok air Opposite Drive End Air Seal ok ok ost Repair Measure 2 0 Post Repair Measure 2 0	0 120 Degrees 0 Measure 3 0
echa 98. 99. 100. 101. 102.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Re Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal Drive End Air Seal Ok DE Sleeve Bearing Inside ID Po Measure 1 0 DE Sleeve Bearing Outside ID F Measure 1 0 DE Sleeve Bearing Outside ID F	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 pair 0 pair Opposite Drive End Bearing Cap ok air Opposite Drive End Air Seal ok ok ost Repair Measure 2 0 Post Repair Measure 2 0 Post Repair	0 120 Degrees 0 Measure 3 0 Measure 3 0 Measure 3 0
echa 98. 99. 100. 101. 102.	anical Fits- Bearing Housing Drive End - Endbell Bearing Fit 0 Degrees 0 Opposite Drive End - Endbell Be 0 Degrees 0 Bearing Cap Condition Post Rep 0 Bearing Cap Condition Post Rep 0 Drive End Bearing Cap ok End Bell Air Seal Fits Post Repa Drive End Air Seal Ok DE Sleeve Bearing Inside ID Po Measure 1 0 DE Sleeve Bearing Outside ID Po Measure 1 0	Post Repair 60 Degrees 0 earing Fit Post Repair 60 Degrees 0 0 pair 0 pair Opposite Drive End Bearing Cap ok ok air Opposite Drive End Air Seal ok ok ost Repair Measure 2 0 Post Repair Measure 2 0	0 120 Degrees 0 Measure 3 0 Measure 3 0

105.	. DE Sleeve Bearing Outside OD Post	Repair		
	Measure 1	Measure 2	Measure 3	
	0	0	0	
106.	End Bell Repair Sign-off	\square		David Maclin
107.	. ODE Sleeve Bearing Inside ID Post R			
	Measure 1	Measure 2	Measure 3	
	0	0	0	
108.	. ODE Sleeve Bearing Outside ID Post	Repair		
	Measure 1	Measure 2	Measure 3	
	0	0	0	
109.	. ODE Sleeve Bearing Inside OD Post	Repair		
	Measure 1	Measure 2	Measure 3	
	0	0	0	
110.	. ODE Sleeve Bearing Outside OD Pos	t Repair		
	Measure 1	Measure 2	Measure 3	
	0	0	0	
Asse	mbly			
111.	. QC Check All Parts for Cleanliness Pr	rior to Assembly		David Maclin

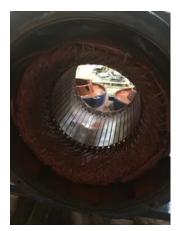
112. Photograph All Major Components prior to assembly





















1	113. Fin	nal Insulation Resistance Test		2000 Megohms	
1	114. Ass	sembled Shaft Endplay		0 inches	
• 1	15. Ass	sembled Shaft Runout		0 inches	
1	16. Tes	st Run Voltage			
	Vo	olts	Volts	Volts	
	458	8	458	460	
	Wit	tnessed by Trevor Hall			



117	. Test Run Amperage			
	Amps	Amps	Amps	
	80.8	75.59999999999999	77.5	
118	. Drive End Vibration Readings - Inches	s Per Second		
	Horizontal	Vertical	Axial	
	0.0284	0.0257	0.0183	
119	. Opposite Drive End Vibration Reading	gs - Inches Per Second		
	Horizontal	Vertical	Axial	
	0.0321	0.0528	0.0162	
120	. Ambient Temperature - Fahrenheit			70
121	. Drive End Bearing Temps - Fahrenhe	it		
	5 Minutes	10 Minutes	15 Minutes	
	70	70	70	
122	. Drive End Bearing Temps - Fahrenhe	it 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes	

	70	70	70
123.	Drive End Bearing Temps - Fahrenhe	it 35-45 Minutes	
	35 Minutes	40 Minutes	45 Minutes
	70	70	70
124.	Drive End Bearing Temps - Fahrenhe	it 50-60 Minutes	
	50 Minutes	55 Minutes	60 Minutes
	70	70	70
125.	Opposite Drive End Bearing Temps -	Fahrenheit	
	5 Minutes	10 Minutes	15 Minutes
	70	70	70
126.	Opposite Drive End Bearing Temps -	Fahrenheit 20-30 Minutes	
	20 Minutes	25 Minutes	30 Minutes
	70	70	70
127.	Opposite Drive End Bearing Temps -	Fahrenheit 35-45 Minutes	
	35 Minutes	40 Minutes	45 Minutes
	70	70	70
128.	Opposite Drive End Bearing Temps -	Fahrenheit 50-60 Minutes	
	50 Minutes	55 Minutes	60 Minutes
	70	70	70
129.	Stator Temperatures- Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
	70	70	70
130.	Stator Temperatures- Fahrenheit 20-3	30 Minutes	
	20 Minutes	25 Minutes	30 Minutes
	70	70	70
131.	Stator Temperatures- Fahrenheit 35-4	45 Minutes	
	35 Minutes	40 Minutes	45 Minutes
	70	70	70
132.	Stator Temperatures- Fahrenheit 50-6	60 Minutes	
	50 Minutes	55 Minutes	60 Minutes
	70	70	70
133.	Document Final Condition with Picture	es after paint	looks good
134.	Final Pics and QC Review		David Maclin











STANDARD TERMS AND CONDITIONS FOR PURCHASE OF GOOD AND/OR SERVICES

- 1. <u>APPLICABILITY.</u> The sale of any and all goods and/or services by Mock, Inc. d/b/a Hi-Speed Industrial Service ("Hi-Speed") shall be specifically conditioned upon and subject to the following terms and conditions which are incorporated by reference into any contracts and purchase orders with Hi-Speed, and which shall form and become a part of any agreement related thereto. Buyer's acceptance of any offer or quotation made by Hi-Speed for sale of any goods or services is expressly made subject to the terms and conditions set forth herein and to be so effective, Buyer need not sign or approve these Terms and Conditions to be bound hereunder provided a copy of same is provided to Buyer through any means. None of the terms and conditions contained herein may be added to, expanded, changed, modified, superseded or otherwise altered except as revised in writing and duly executed by Hi-Speed, and all orders received by Hi-Speed shall be governed only by the terms and conditions contained herein, notwithstanding any terms, conditions or provisions of any purchase order, release order, authorization or any other form issued by the Buyer. Hi-Speed hereby objects to any additional, modified, changed, deleted, altered or other terms and conditions not contained herein and notifies Buyer that any such terms or provisions are expressly rejected by Hi-Speed.
- 2. PRICE. All quoted prices shall remain firm and binding for a period of thirty (30) days from the date of quotation or for the period specifically stated in the quotation. The price for any and all goods and/or services ordered or approved by Buyer after thirty (30) days from the date of any quotation are subject to any increase in price that may occur after the expiration of thirty (30) days from the issuance of the quotation and the date the Buyer releases any shipment.
- 3. <u>SCOPE OF GOODS AND/OR SERVICES.</u> The goods and/or services provided by Hi-Speed pursuant to any quotation shall be limited exclusively to those goods and/or services expressly identified therein. Hi-Speed does not assume any responsibility and/or liability for the failure to provide any other goods and/or services not identified in any quotation. Modifications, additions or deletions to or from the scope referenced in any quotation shall only be effective if evidenced in writing and signed by Hi-Speed. The sale of any of all goods and/or services affected by such modification, addition or deletion shall be subject to these same Standard Terms and Conditions whether or not referenced therein.
- 4. <u>BILLING AND PAYMENT TERMS.</u> Hi-Speed shall invoice Buyer for all goods and/or services as same are rendered at the address listed on the quotation. Payments for all goods and/or services shall be due thirty (30) days from the date of the current invoice or as otherwise set forth in the quotation. Late payments are subject to a late fee of 5% of the total invoice amount. Recurring late payments may lead to a deposit requirement on future services or sale of goods. Buyer shall be liable to Hi-Speed for any and all fees and expenses incurred by Hi-Speed to collect any invoices or to enforce these Standard Terms and Conditions, including but not limited to, attorney's fees.
- 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 Buver 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 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 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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replace any defective or non-conforming goods in accordance with the applicable manufacturer's warranty. Warranty for any defective or incorrect parts is limited to the repair or replacement of those parts. Hi-Speed warrants that all services will conform in all material respects to the description of services identified in the quotation and will be performed in a good and workmanlike manner in accordance with industry practices and standards. Should the services be reasonably rejected or not conform with the foregoing warranties, Hi-Speed shall, at its sole cost, re-perform the defective or nonconforming services. Notwithstanding the foregoing, these warranties do not extend to goods or services to the extent that such goods have been subject to misuse, neglect or abuse not caused by Hi-Speed or have been used in violation of the approved written instructions furnished to Buyer. THE FOREGOING REPRESENTS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY HI-SPEED WITH RESPECT TO ALL GOODS SOLD AND IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESS OR IMPLIED. HI-SPEED EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICLAR USE OR PURPOSE. BUYER WAIVES ANY CLAIM THAT THESE EXCLUSIONS OR LIMITATIONS DEPRIVE IT OF AN ADEQUATE REMEDY AT EQUITY OR LAW OR CAUSE THIS AGREEMENT TO FAIL IN ITS ESSENTIAL PURPOSE. BUYER SHALL BE ENTITLED TO NO OTHER REMEDY OTHER THAN AS SET FORTH HEREIN, REGARDLESS OF THE CLAIM OR CAUSE OF ACTION, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, GOODS LIABILITY, STRICT LIABILITY OR OTHERWISE.

- 9. LIMITATION OF DAMAGES. HI-SPEED SHALL HAVE NO LIABILITY TO BUYER WITH RESPECT TO THE SALE OR DELIVERY OF ANY GOODS OR THE REPAIR THEREOF OR WITH RESPECT TO THE SALE OR PERFORMANCE OF ANY SERVICES, FOR LOST PROFITS, SPECIAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE OR INCIDENTAL DAMAGES OF ANY KIND OR NATURE WHETHER ARISING IN CONTRACT, TORT, GOODS LIABILITY OR OTHERWISE, EVEN IF HI-SPEED WAS ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGES. HI-SPEED SHALL NOT BE LIABLE FOR ANY DAMAGES OR DELAYS CAUSED BY ANY FAILURE TO MAKE ANY DELIVERY OF GOODS BY ANY EXPECTED TIME OR DATE OR THE FAILURE TO PROVIDE OR COMPLETE ANY SERVICES BY ANY EXPECTED DATE OR TIME. IN NO EVENT SHALL HI-SPEED BE LIABLE TO BUYER FOR ANY DAMAGES WHATSOEVER IN EXCESS OF THE TOTAL PRICE PAID FOR ALL GOODS AND/OR SERVICES HEREUNDER OR REFERENCED IN ANY QUOTATION OR THE PURCHASE ORDER.
- 10. <u>SEVERABILITY</u>. The partial or complete invalidity of any provision of these Standard Terms and Conditions shall not affect the enforceability of the remainder of these Standard Terms and Conditions. If any provision is found to be invalid or unenforceable, that portion shall be modified to make it enforceable or shall be stricken and the remainder of these Standard Terms and Conditions shall enforced.
- 11. <u>GOVERNING LAW AND JURISDICTION.</u> 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.
- 12. <u>ABANDONED EQUIPMENT.</u> Hi-Speed requires that Buyer promptly pick up or provide shipment instructions for Buyer equipment or other Buyer property in Hi-Speed's possession. If equipment or other Buyer property is left with Hi-Speed and not picked up within six (6) months after Hi-Speed's final action related to the applicable property (e.g. evaluation, teardown, estimate, completion of services), Hi-Speed will consider such property abandoned and may dispose of it in accordance with applicable law. Buyer agrees to hold Hi-Speed harmless for any damage or claim for such abandoned property and acknowledges that Hi-Speed may discard or recycle it at Hi-Speed's sole and absolute discretion. Specifically, Hi-Speed may sell Buyer's abandoned property at a private or public sale and retain the proceeds to offset Hi-Speed's storage, inspection and servicing costs. For the avoidance of doubt, Hi-Speed reserves its statutory and other lawful liens for unpaid charges related to abandoned property.
- 13. FORCE MAJEURE. Neither party shall be responsible for any delay or failure in performance of any party of the quotation, purchase order or these Standard Terms and Conditions to the extent that such delays or failures are caused by fire, flood, earth quake, explosion, war, embargo, government requirement, civil or military authority, acts of God, or any other circumstances beyond its reasonable control and not involving any fault or negligence on the party affected ("Condition"). If any such Condition occurs, the party delayed or unable to perform shall promptly give written notice to the other party and, if such Condition remains at the end of thirty (30) days, the party affected by the other party's delay and inability to perform may elect to (i) terminate such order or part thereof, or (ii) suspend the order for the duration of the Condition, if the Buyer is the suspending party, buy elsewhere comparable material to be sold under the order and apply to any commitment the purchase, price of such purchase, and resume performance of the order once the Condition ceases, with an option in the affected party to extend the period of this order up to the length of the time the Condition endures.
- 14. <u>NONWAIVER</u>. No course of dealing or failure of either party to strictly enforce any term, right, or condition of these Standard Terms and Conditions will be construed as a waiver of such term, right or condition. Any waiver by Hi-Speed will only be in writing and will waive no succeeding breach of a term, right or condition.
- 15. <u>ASSIGNMENT.</u> The rights and obligations of the parties shall neither be assigned nor delegated without the prior written consent of the other party. However, any party may assign or delegate its respective rights and obligations, in whole or in part, (i) to any subsidiary, (ii) pursuant to other financing, merger or reorganization or (iii) pursuant to any sale or transfer of substantially all of the assets of the assigning party. These Standard Terms and Conditions shall bind the heirs, successors and assigns of the parties hereto.
- 16. <u>NO INDIVIDUAL LIABILITY</u>. Notwithstanding any other agreement to the contrary, the Buyer agrees that in no event will the Buyer hold and HI-Speed owner, director, officer or employee personally liable for unintentional tortious conduct or conduct that constitutes the breach of any contract between HI-Speed and the Buyer, even if the HI-Speed owner, director, officer or employee is or could be construed to be a party to such contract.