

# LR Motor Shop Repairs

## **Job Number 102418**

Prepared for Custom Craft Poultry

3064 E Main St Batesville AR 72501

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AC Inspection as Found - Shop

AC Inspection - Rev. 2

1.0





### **AC Inspection as Found Custom Craft Poultry**

3064 E Main St Batesville, AR 72501

FolderID: 102418 FormID: 19225444

AC	Inspection - Re	v. 2
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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**

- Report Date
- Nameplate Picture



Photos of all six sides of the machine.









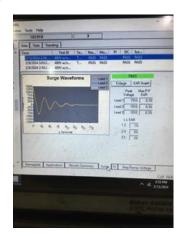






4	D 7 4 0 10 10 10 10	F :	
4.	Describe the Overall Condition of the	Equipment as Received	
Initial	Mechanical/Electrical		
<b>5</b> .	Does Shaft Turn Freely?		(Yes) Yes
6.		to identify additional repairs?	
7.	Does Shaft Have Visible Damage?		(No) No
8.	Assembled Shaft Runout		
9.	Assembled Shaft End Play		
10.	Air Gap Variation <10%		na
<ul><li>11.</li></ul>	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
7	Na		
15.	Bearing Temperature Detector Rating		
	Quantity	Rating	Quantity Passed
	Na		
	Frame Condition		<b>***</b>
	Fan Condition		pass (N) NA
			(N) NA
10.	Heater Quantity, Ratings	Valta AMatta	Dogg/Foil
	Quantity	Volts/Watts	Pass/Fail
-	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
		···	···-·

#### 22. Perform Surge Test (P) Pass





23. Number of Stator Slots 48

#### 24. Stator Condition wash and bake





25. Stator Thermistors/Ohms

Na

26. Stator Overloads/Ohms

Na

#### **Mechanical Inspection**

27. Drive End Bearing Brand Koyo



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?	
	2 T-06	
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	nut
		nut



35.	. Opposite Drive End Bearing Brand	Koyo
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?  Na	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?  Nut	
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 Diameter			
	0 degrees	120 degrees	240 degrees	
•	Na			
48.				
	0 degrees	120 degrees	240 degrees	
	Na			
49.				
49.	•		240 dograpa	
	0 degrees	120 degrees	240 degrees	
-	Na			
50.	ODE Sleeve Bearing Outside Diamete	er		
	0 degrees	120 degrees	240 degrees	
	•	•	•	
-	Na			
51.		Diameter		
		Diameter 120 degrees	240 degrees	
51.	ODE Sleeve Bearing Housing Inside 0 degrees		240 degrees	
51.	ODE Sleeve Bearing Housing Inside 0 degrees	120 degrees	240 degrees	
51.	ODE Sleeve Bearing Housing Inside to degrees  Na  ODE Sleeve Bearing to Housing Clear	120 degrees	·	
51.	ODE Sleeve Bearing Housing Inside 0 degrees	120 degrees	240 degrees 240 degrees	
51.	ODE Sleeve Bearing Housing Inside to degrees  Na  ODE Sleeve Bearing to Housing Clear	120 degrees	·	
51. 52.	ODE Sleeve Bearing Housing Inside to degrees  Na  ODE Sleeve Bearing to Housing Clear O degrees  Na	120 degrees	·	
51. 52.	ODE Sleeve Bearing Housing Inside 0 degrees  Na  ODE Sleeve Bearing to Housing Clear 0 degrees	120 degrees	·	
51. 52. Rotor 53.	ODE Sleeve Bearing Housing Inside to degrees  Na  ODE Sleeve Bearing to Housing Clear 0 degrees  Na  Inspection	120 degrees	240 degrees  (Squirrel Aluminum) Squirrel	
51.  52.  Rotor 53.  54.	ODE Sleeve Bearing Housing Inside 0 degrees  Na  ODE Sleeve Bearing to Housing Clea 0 degrees  Na  Inspection  Rotor Type/Material	120 degrees	240 degrees  (Squirrel Aluminum) Squirrel Cage Aluminum Die Cast	



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



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

2.3743

2.3743



2.4743

62.	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	
<b>6</b> 4.	Drive End Bearing Shaft Fit Condition			(P) Pass



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65. Opposite Drive End Bea	65. Opposite Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees		
2.5593	2.5593	2.5593		
66. Opposite Drive End Bea	ring Shaft Fit Condition	(P) Pass		



<b>6</b> 9.	Drive End - Endbell Bearing Fit Condi	tion		(P) Pass
	5.5125	5.5125	5.5125	
	0 Degrees	60 Degrees	120 Degrees	
68.	Drive End - Endbell Bearing Fit			
Mecha	anical Fits- Bearing Housings			
-	Na			
	Drive End Air Seal	Opposite Drive End Air Seal		
67.	Shaft Air Seal Fits			



70. Opposite Drive End - Endbe	l 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		
74.	None		
75.	Technician		RW
Root (	Cause of Failure		

## 77. Root cause of failure

Leads have no numbers

76. Failure locations

#### **Dynamic Balance Report**



79.	Initial Balance Readings		
	Drive End	Opposite Drive End	
	.36	.29	
80.	Final Balance Readings		
	Drive End	Opposite Drive End	
	.13	.30	
81.	Technician		David Maclin



			d	

82.	Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

## 83. Core Hot Spot Test Pre-Burnout

	na	
4	Post Rewind Flectrical Test- Insulation Resistance	0

Post-Burnout

1-3

84.	Rewir	

1-2

84. Post Rewind Electrical Test- Insulation Resistance	0 Megohms
95 Post Powind Polarization Index	0 Polarization Index

85.	Post Rewind Polarization Index	U Polarization index

2-3

#### 86. Post Rewind Winding Resistance

0		0	0	
	 _			

#### 87. Post Rewind Surge Test (Pass) Pass

- 88. Post Rewind Hi-Pot 0 micro-amps
- 89. Technician **David Maclin**

Mechanical Fits- Rotor - Post Repair

90	Shaft Runout Post Repair		0 inches
	Rotor Runout Post Repair		o monos
01.	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	0	0	0
02	Coupling Fit Closest to Bearing Hous	•	U .
32.			120 Dogroop
	0 Degrees	90 Degrees 0	120 Degrees 0
02	Coupling Fit Closest to the end of the	•	U .
93.		•	120 Degrees
	0 Degrees	60 Degrees	120 Degrees
0.4	O	0	0
94.	Drive End Bearing Shaft Fit Post Rep		400 Damasa
	0 Degrees	60 Degrees	120 Degrees
0.5	0	0	0
95.	Opposite Drive End Bearing Shaft Fit		400 B
	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
Maak	anical Fite Paging Hausings - F	Read Page in	
	anical Fits- Bearing Housings - P	-	
	Drive End - Endbell Bearing Fit Post I	Repair	120 Doggood
	Drive End - Endbell Bearing Fit Post I 0 Degrees	Repair 60 Degrees	120 Degrees
98.	Drive End - Endbell Bearing Fit Post I 0 Degrees 0	Repair 60 Degrees 0	120 Degrees 0
98.	Drive End - Endbell Bearing Fit Post I  O Degrees  O Opposite Drive End - Endbell Bearing	Repair 60 Degrees 0 Fit Post Repair	0
98.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees	Repair 60 Degrees  Tit Post Repair 60 Degrees	0 120 Degrees
98.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0	Repair 60 Degrees 0 Fit Post Repair	0
98.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0	0 120 Degrees
98.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair  Drive End Bearing Cap	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap	0 120 Degrees
98.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0	0 120 Degrees
98.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair	Repair 60 Degrees 0 9 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok	0 120 Degrees
98.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair  Drive End Air Seal	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal	0 120 Degrees
98. 99. 100.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0 Opposite Drive End - Endbell Bearing  0 Degrees  0 Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair  Drive End Air Seal  ok	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok	0 120 Degrees
98. 99. 100.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0 Opposite Drive End - Endbell Bearing  0 Degrees  0 Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair  Drive End Air Seal  ok  DE Sleeve Bearing Inside ID Post Re	Repair 60 Degrees 0 9 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok pair	0 120 Degrees 0
98. 99. 100.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0 Opposite Drive End - Endbell Bearing  0 Degrees  0 Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair  Drive End Air Seal  ok	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok	0 120 Degrees
98. 99. 100.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0 Opposite Drive End - Endbell Bearing 0 Degrees  0 Bearing Cap Condition Post Repair Drive End Bearing Cap  ok End Bell Air Seal Fits Post Repair Drive End Air Seal  ok DE Sleeve Bearing Inside ID Post Re Measure 1  0	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok pair Measure 2 0	0 120 Degrees 0
98. 99. 100.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair  Drive End Air Seal  ok  DE Sleeve Bearing Inside ID Post Re  Measure 1  0  DE Sleeve Bearing Outside ID Post Re	Repair 60 Degrees 0 9 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok pair Measure 2 0 Repair	120 Degrees 0  Measure 3 0
98. 99. 100.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0 Opposite Drive End - Endbell Bearing 0 Degrees  0 Bearing Cap Condition Post Repair Drive End Bearing Cap  ok End Bell Air Seal Fits Post Repair Drive End Air Seal  ok DE Sleeve Bearing Inside ID Post Re Measure 1  0	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok pair Measure 2 0	120 Degrees 0  Measure 3
98. 99. 100. 101.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair  Drive End Air Seal  ok  DE Sleeve Bearing Inside ID Post Re  Measure 1  0  DE Sleeve Bearing Outside ID Post Re  Measure 1  0	Repair 60 Degrees 0 9 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok pair Measure 2 0 Repair Measure 2 0	120 Degrees 0  Measure 3 0
98. 99. 100. 101.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0 Opposite Drive End - Endbell Bearing 0 Degrees  0 Bearing Cap Condition Post Repair Drive End Bearing Cap  ok End Bell Air Seal Fits Post Repair Drive End Air Seal  ok DE Sleeve Bearing Inside ID Post Re Measure 1  0 DE Sleeve Bearing Outside ID Post Re Measure 1  0 DE Sleeve Bearing Inside OD Post Re	Repair 60 Degrees 0 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok pair Measure 2 0 Repair Measure 2 0 epair	120 Degrees 0  Measure 3 0  Measure 3 0
98. 99. 100. 101.	Drive End - Endbell Bearing Fit Post I  0 Degrees  0  Opposite Drive End - Endbell Bearing  0 Degrees  0  Bearing Cap Condition Post Repair  Drive End Bearing Cap  ok  End Bell Air Seal Fits Post Repair  Drive End Air Seal  ok  DE Sleeve Bearing Inside ID Post Re  Measure 1  0  DE Sleeve Bearing Outside ID Post Re  Measure 1  0	Repair 60 Degrees 0 9 Fit Post Repair 60 Degrees 0 Opposite Drive End Bearing Cap ok Opposite Drive End Air Seal ok pair Measure 2 0 Repair Measure 2 0	120 Degrees 0  Measure 3 0  Measure 3

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105.	DE Sleeve Bearing Outside OD Post I	Repair		
	Measure 1	Measure 2	Measure 3	
	0	0	0	
106.	End Bell Repair Sign-off			David Maclin
107.	ODE Sleeve Bearing Inside ID Post R	epair		
	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 I	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	
Assen	nbly			
111.	QC Check All Parts for Cleanliness Pr	ior to Assembly		David Maclin
112.	Photograph All Major Components pri	or to assembly		





















113. Final Insulation Resista	nnce Test	20	000 Megohms
114. Assembled Shaft Endp	lay		0 inches
115. Assembled Shaft Runo	ut		0 inches
116. Test Run Voltage			
Volts	Volts	Volts	
458	458	460	
Witnessed by Trevor Ha	II .		



117.	Test Run Amperage			
	Amps	Amps	Amps	
	80.8	75.5999999999999	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	s - Inches Per Second		
	Horizontal	Vertical	Axial	
	0.0321	0.0528	0.0162	
120.	Ambient Temperature - Fahrenheit			70
121.	Drive End Bearing Temps - Fahrenhei	t		
	5 Minutes	10 Minutes	15 Minutes	
	70	70	70	
122.	Drive End Bearing Temps - Fahrenhei	t 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes	

70	70	70	
23. Drive End Bearing Temps	Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
35 Minutes	40 Minutes	45 Minutes	
70	70	70	
Drive End Bearing Temps - Fahrenheit 50-60 Minutes			
50 Minutes	55 Minutes	60 Minutes	
70	70	70	
<ol><li>Opposite Drive End Bearir</li></ol>	. Opposite Drive End Bearing Temps - Fahrenheit		
5 Minutes	10 Minutes	15 Minutes	
70	70	70	
26. Opposite Drive End Bearir	Opposite Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
20 Minutes	25 Minutes	30 Minutes	
70	70	70	
<ol><li>Opposite Drive End Bearing</li></ol>	ng Temps - Fahrenheit 35-45 Minutes		
35 Minutes	40 Minutes	45 Minutes	
70	70	70	
<ol><li>Opposite Drive End Bearing</li></ol>	. Opposite Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
50 Minutes	55 Minutes	60 Minutes	
70	70	70	
29. Stator Temperatures- Fah	renheit		
5 Minutes	10 Minutes	15 Minutes	
70	70	70	
30. Stator Temperatures- Fah	renheit 20-30 Minutes		
20 Minutes	25 Minutes	30 Minutes	
70	70	70	
31. Stator Temperatures- Fah	Stator Temperatures- Fahrenheit 35-45 Minutes		
35 Minutes	40 Minutes	45 Minutes	
70	70	70	
32. Stator Temperatures- Fah	. Stator Temperatures- Fahrenheit 50-60 Minutes		
50 Minutes	55 Minutes	60 Minutes	
70	70	70	
33. Document Final Condition	with Pictures after paint	looks good	
34. Final Pics and QC Review		David Maclin	











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- 5. <u>DELIVERY OF GOODS AND/OR SERVICES.</u> 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.
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- 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. <u>WARRANTIES.</u> 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

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. <u>LIMITATION OF DAMAGES.</u> 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. **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.
- 12. ABANDONED EQUIPMENT. 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. **ASSIGNMENT.** 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. NO INDIVIDUAL LIABILITY. 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.