



KEEPING YOUR FACILITY UP TO SPEED
— EVERY DAY SINCE 1946 —

LR Motor Shop Repairs

Job Number 102545

Prepared for LAYNE (10766)

2015 S Main Street
STUTT GART AR 72160

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

AC Inspection as Found

LAYNE (10766)

2015 S Main Street
STUTTGART, AR 72160

FolderID: 102545
FormID: 19497009

AC Inspection - Rev. 2

Location: Motor Shop

Serial Number: UC2830

Description: 200HP 1785RPM VERTICAL

Hi-Speed Job Number: 102545

Manufacturer: GE

Spec/ID #: 5K445DP6005A

Serial Number: UC2830 0

HP/kW: 200 (HP)

RPM: 1785 (RPM)

Frame: L445TP16

Voltage: 460

Current: 234 (Amps)

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.15

Enclosure: DP

of Leads: 6

J-box Included: None

Date Received: 02/26/2024

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Final

Rewind: No

Shaft Machined Fit Repairs
Required: Yes

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: ● 1 - High

● 8 - Good

Overall Condition

1. Report Date

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1.0

2. Nameplate Picture



3. Photos of all six sides of the machine.

;7







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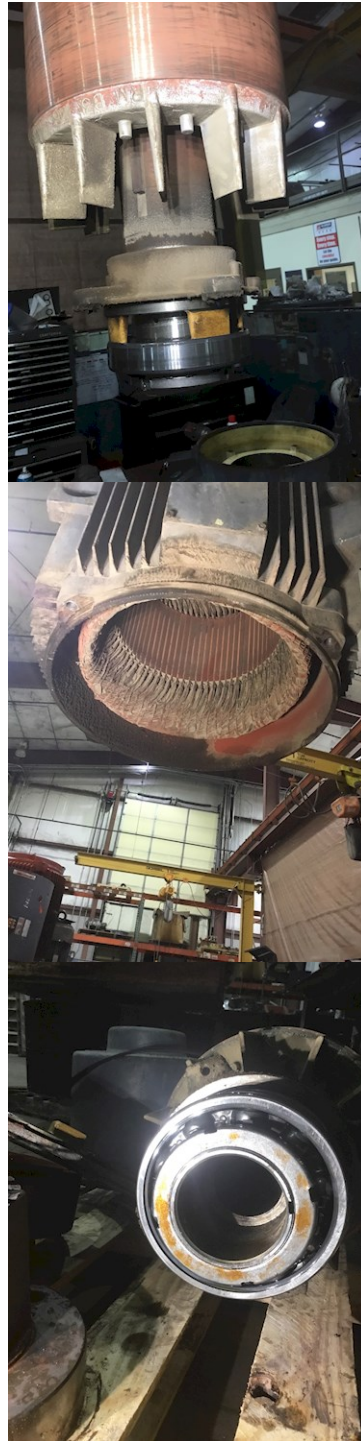
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1.5



4.	Describe the Overall Condition of the Equipment as Received	
	<i>Serviceable</i>	
5.	Distance from the end of the shaft to the Coupling/Sheave	inches
	<i>Na</i>	
Initial Mechanical/Electrical		
6.	Does Shaft Turn Freely?	
	<i>Yes</i>	
7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	(No) No
8.	Does Shaft Have Visible Damage?	(No) No
9.	Assembled Shaft Runout	Inches
	<i>Na</i>	
10.	Assembled Shaft End Play	inches
	<i>Na</i>	
11.	Air Gap Variation <10%	
	<i>Na</i>	
12.	Lead Condition	(NA) Not Applicable
13.	Lead Length	16 Inches
14.	Does it have Lugs?, If so what is the Stud Size?	(No) No
15.	Lead Numbers	1,2,3 & 7,8,9
16.	Frame Condition	
	<i>Pass</i>	

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17. Fan Condition

(N) NA

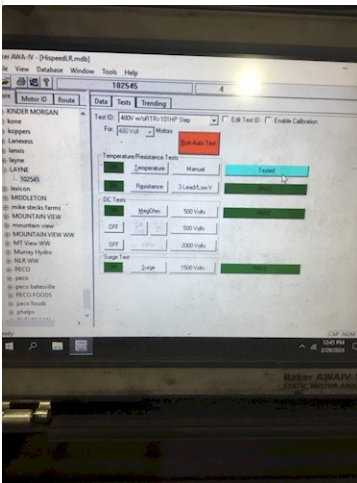
18. Broken or Missing Components

na

Initial Electrical Inspection

19. Insulation Resistance/Megger

Megohms



Time	Test ID	Te...	Res...	Mo...	PI	DC	Sur...
2/29/2024 12:46:17 PM	102545	480V w/o...	T...	PASS	PASS	PASS	PASS
8/29/2023 3:05:52 PM	102545	480V w/o...	T...	PASS	PASS	PASS	PASS
7/19/2023 2:39:00 PM	102545	480V w/o...	T...	PASS	PASS	PASS	PASS

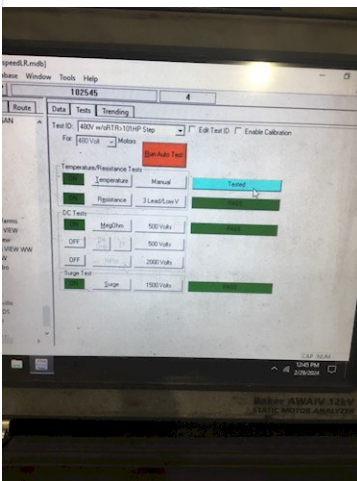
Test Date	2/29/2024	8/29/2023	7/19/2023	7/19/2023
Test Time	12:46:17 PM	3:05:52 PM	2:39:47 PM	2:32:02 PM
Temp Status	Tested	Tested	Tested	No Test
Temp (°C)	23.3	21.1	21.1	
IR Temp Corr...	Thermoplastic	Thermoplastic	Thermoplastic	None
Insulation Resistance	PASS	PASS	PASS	No Test
Ball L1 (Ohms)				
Ball L2 (Ohms)				
Ball L3 (Ohms)				
L1-L2 (Ohms)	0.0398 Cor...	0.1381 Cor...	2.762 Cor...	2.8...
L2-L3 (Ohms)	0.0398 Cor...	0.1180 Cor...	2.743 Cor...	2.7...
L3-L1 (Ohms)	0.0399 Cor...	0.1181 Cor...	2.743 Cor...	2.7...
Max Delta R %	0.340	0.080	0.637	
Coil 1 (Ohms)	0.0396 Cor...	0.1770 Cor...	4.158 Cor...	4.2...
Coil 2 (Ohms)	0.0397 Cor...	0.1769 Cor...	4.107 Cor...	4.1...

20. Winding Resistance

1-2

1-3

2-3

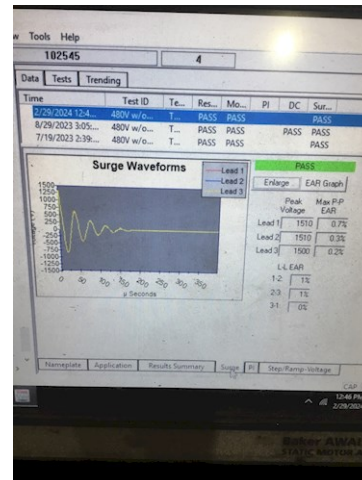
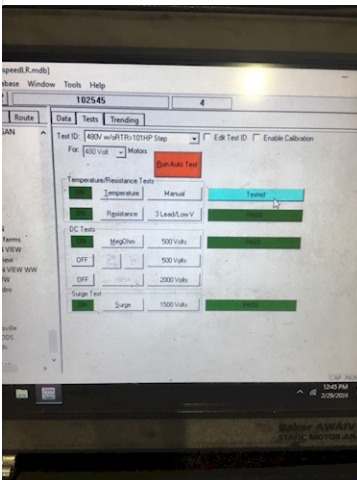


Time	Test ID	Te...	Res...	Mo...	PI	DC	Sur...
2/29/2024 12:46:17 PM	102545	480V w/o...	T...	PASS	PASS	PASS	PASS
8/29/2023 3:05:52 PM	102545	480V w/o...	T...	PASS	PASS	PASS	PASS
7/19/2023 2:39:00 PM	102545	480V w/o...	T...	PASS	PASS	PASS	PASS

Test Date	2/29/2024	8/29/2023	7/19/2023	7/19/2023
Test Time	12:46:17 PM	3:05:52 PM	2:39:47 PM	2:32:02 PM
Megohm Stat.	PASS	PASS	PASS	No Test
Volts (V)	501	504	494	
IR (uA)	0.0111	0.1034	0.0000	
Resist	45365	4874	> 999999	
At 40°C	14236	1316	27004	
PI Status	No Test	No Test	No Test	No Test
Volts (V)				
DA Ratio				
PI Ratio				
DC Status	No Test	PASS	No Test	No Test
Test Type	HiPot			
Volts (V)	200			
IR (uA)	0.0111			

21. Perform Surge Test

(P) Pass



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102545		4	
Data		Tests	
Time	Test ID	Te...	Res...
2/29/2024 12:4...	480V w/o...	T...	PASS PASS
8/29/2023 3:05...	480V w/o...	T...	PASS PASS
7/19/2023 2:39...	480V w/o...	T...	PASS PASS
Test Date		8/29/2023	7/19/2023
Test Time		12:44:17 PM	3:05:52 PM
DC Status		No Test	No Test
Test Type		HiPot	No Test
Volts (V)		2007	No Test
Result		0.4786	No Test
At 40°C		4193	No Test
Surge Status		PASS	No Test
Peak Volt(V) L1		1510	No Test
Peak Volt(V) L2		1510	No Test
Peak Volt(V) L3		1500	No Test
Max P-P EARL...		0.7/0.3/0.2	0.2/0.2/0.2
EAR 1-2/2-3/...		1/1/0	1/0/1
Nameplate		Application	Results Summary
		Surge	PI
		Step Ramp Voltage	

22. Number of Stator Slots	72
23. Stator Condition	pass
24. Stator Thermistors/Ohms	na
25. Stator Overloads/Ohms	na

Mechanical Inspection

26. Drive End Bearing Brand	Nachi
27. Drive End Bearing Number-	7228BMU C3

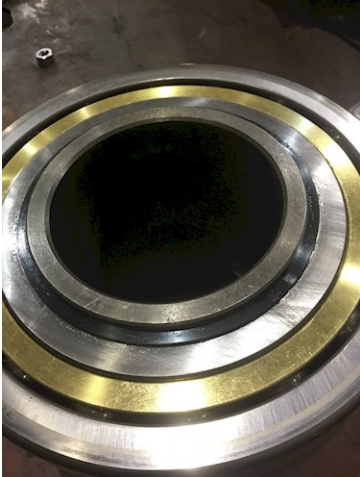


28. Drive End Bearing Qty.	2
29. Drive End Bearing Type	(Thrust) Thrust



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30. Drive End Lubrication Type	(Oil) Oil Lubricated
31. Drive End Bearing Insulation or Grounding Device?	none
32. Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring





33. Drive End Bearing Condition	replace
34. Opposite Drive End Bearing Brand	ORS 6219 C3



35. Opposite Drive End Bearing Number-	6219 C3
36. Opposite Drive End Bearing Qty.	1
37. Opposite Drive End Bearing Type	(Ball) Ball Bearing
38. Opposite Drive End Lubrication Type	(Oil) Oil Lubricated
39. Opposite Drive End Bearing Insulation or Grounding Device?	none

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40. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	none
41. Opposite Drive End Bearing Condition	replace
42. Drive End Seal	na
43. Opposite Drive End Seal	
Na	
Rotor Inspection	
44. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
 	
45. Growler Test	(Pass) Pass
46. Number of Rotor Bars	58
47. Rotor Condition	pass
48. List the Parts needed for the Repair Below	
7228 BMU/C C3 X2 6219 C3	
49. Signature of Technician that Disassembled Motor	Terrence Holland
	
Mechanical Fits- Rotor	
50. Shaft Runout	inches
Na	
51. Rotor Runout	
Drive End Bearing Fit	Rotor Body
Opposite Drive End Bearing	
Na	
52. Coupling Fit Closest to Bearing Housing	
0 Degrees	90 Degrees
120 Degrees	
Na	
53. Coupling Fit Closest to the end of the Shaft	
0 Degrees	60 Degrees
120 Degrees	
Na	

54.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	5.512	5.5118	5.5116
<div><div></div></div> 55.	Drive End Bearing Shaft Fit Condition		(F) Fail
56.	Opposite Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	3.7406	3.7406	3.7407
<div><div></div></div> 57.	Opposite Drive End Bearing Shaft Fit Condition		(P) Pass
58.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
<div><div></div></div>	Na		
Mechanical Fits- Bearing Housings			
59.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
<div><div></div></div>	Na		
<div><div></div></div> 60.	Drive End - Endbell Bearing Fit Condition		(P) Pass
61.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	6.6937	6.6938	6.6938
<div><div></div></div> 62.	Opposite Drive End - Endbell Bearing Fit Condition		(P) Pass
63.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
<div><div></div></div>	Pass		
64.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
<div><div></div></div>	Na		
65.	List Machine Work Needed Below DE bearing hub		
66.	Technician		
Root Cause of Failure			
67.	Failure locations Leads and DE bearing hub		
68.	Root cause of failure Deterioration and wear		
Dynamic Balance Report			
69.	Rotor Weight and Balance Grade		
	Rotor Weight	Balance Grade	
<div><div></div></div>	Na		

70. Initial Balance Readings

Drive End

Opposite Drive End

NEMA Spec: 1.50 mil
Balancing RPM: 411.30

Balance Cor

Start

Right End Mils: 0.51 M
Angle: 94.08 Ang
Left End Mils: 0.54 M
Angle: 253.92 Ang

Beginning unbalance: 117.11
65.83
Residual unbalance: 7.73
5.81
This item is balanced to: 46.37
34.862

Key Used
Drive End: 0.00 in wide x 0.00
Bearing End: 0.00 in wide x 0.00

71. Final Balance Readings

Drive End

Opposite Drive End

Conditions

Finish

Mils: 0.20 in/s: 0.004
Angle: 116.83
Mils: 0.28 in/s: 0.006
Angle: 266.50

117.101 g-in, 4.131 oz-in Right Side
65.831 g-in, 2.322 oz-in Left Side
7.73 g, 0.27 oz Right Side
5.81 g, 0.20 oz Left Side
46.378 g-in, 1.636 oz-in Right Side
34.862 g-in, 1.230 oz-in Left Side

side x 0.00 in thick x 0.00 in long
side x 0.00 in thick x 0.00 in long

72. Technician

Cw



Mechanical Fits- Rotor - Post Repair

73. Shaft Runout Post Repair

inches

Na

74. Rotor Runout Post Repair

Drive End Bearing Fit

Rotor Body

Opposite Drive End Bearing

Na

75. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees

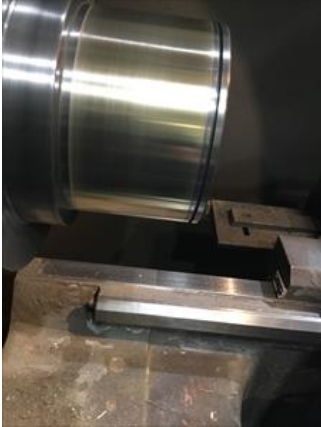
90 Degrees

120 Degrees

Na

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76. Coupling Fit Closest to the end of the Shaft Post Repair			
0 Degrees	60 Degrees	120 Degrees	
Na			
77. Drive End Bearing Shaft Fit Post Repair			
0 Degrees	60 Degrees	120 Degrees	
5.513	5.5131	5.5131	
Gary			



78. Opposite Drive End Bearing Shaft Fit Post Repair			
0 Degrees	60 Degrees	120 Degrees	
Na			
79. Shaft Air Seal Fits Post Repair			
Drive End Air Seal	Opposite Drive End Air Seal		
Na			
80. Shaft Repair Sign-off			
Mechanical Fits- Bearing Housings - Post Repair			
81. Drive End - Endbell Bearing Fit Post Repair			
0 Degrees	60 Degrees	120 Degrees	
Na			
82. Opposite Drive End - Endbell Bearing Fit Post Repair			
0 Degrees	60 Degrees	120 Degrees	
Na			
83. Bearing Cap Condition Post Repair			
Drive End Bearing Cap	Opposite Drive End Bearing Cap		
Na			
84. End Bell Air Seal Fits Post Repair			
Drive End Air Seal	Opposite Drive End Air Seal		
Na			
85. End Bell Repair Sign-off			

Assembly

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86. QC Check All Parts for Cleanliness Prior to Assembly

Cw

Kevin

87. Photograph All Major Components prior to assembly



88. Final Insulation Resistance Test

Megohms

Test Date	4/5/2024	4/5/2024
Test Time	2:43:32 PM	8:50:11 AM
Temp Status	Tested	Tested
Temp(°C)	21.1	21.1
IR Temp Com...	Thermoplastic	Thermoplastic
Resist Status	PASS	PASS
Bal L1 (Ohms)		
Bal L2 (Ohms)		
Bal L3 (Ohms)		
L1-L2 (Ohms)	0.0413 Corr 0...	0.0826 Corr...
L2-L3 (Ohms)	0.0424 Corr 0...	0.0825 Corr...
L3-L1 (Ohms)	0.0425 Corr 0...	0.0824 Corr...
Max Delta R %	2.866	0.329
Coil 1 (Ohms)	0.0608 Corr 0...	0.1241 Corr...
Coil 2 (Ohms)	0.0613 Corr 0...	0.1237 Corr...
Nameplate	Application	Results Summary

Test Date	4/5/2024	4/5/2024
Test Time	2:43:32 PM	8:43:48 AM
Megohmmeter Stat	PASS	PASS
Volts (V)	501	511
I(μA)	0.0000	0.0000
Resist	> 999999	> 999999
At 40°C	270014	270014
PI Status	No Test	No Test
Volts (V)		
PI Ratio		
DC Status	PASS	PASS
Test Type	Step-Voltage	Step-Voltage
Volts (V)	1997	2003
PI Ratio	0.0176	0.0176
Nameplate	Application	Results Summary

DC Status	PASS
Test Type	Step-Voltage
Volts (V)	15
I(μA)	0.0226
Resist	88236
At 40°C	23825
Surge Status	PASS
Peak Volt(V) L1	2000
Peak Volt(V) L2	2020
Peak Volt(V) L3	2000
Max P-P EAR(μs)	0.3/0.3/0.6
EAR 1-2/2-3/...	0/0/0
Nameplate	Application

89. Assembled Shaft Endplay

inches

Na

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90. Assembled Shaft Runout	inches	
Na		
91. Test Run Voltage		
Volts	Volts	Volts



92. Test Run Amperage		
Amps	Amps	Amps



93. Drive End Vibration Readings - Inches Per Second		
Horizontal	Vertical	Axial
0.001	0.02	0.02
94. Opposite Drive End Vibration Readings - Inches Per Second		
Horizontal	Vertical	Axial
0.02	0.02	0.02
95. Ambient Temperature - Fahrenheit		
Na		
96. Drive End Bearing Temps - Fahrenheit		
5 Minutes	10 Minutes	15 Minutes
Na		

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97. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

Na

98. Document Final Condition with Pictures after paint



99. Final Pics and QC Review

Cw

A handwritten signature in black ink, appearing to read 'Trevor Hall', is written on a white background.

Co sign: Trevor Hall



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

AC Form Coil Winding Report

FolderID: 102545
FormID: 19923028

LAYNE (10766)
2015 S Main Street
STUTT GART, AR 72160

Priorities Found:

Stator Winding

1. Core Length

"



2. Core ID
3. Back Iron Depth
4. Finger Plate Width
5. Overall Coil Length
6. Connection End Extension Length
7. Opposite Connection End Extension Length
8. Straight Length Bottom Side
9. Straight Length Top Side
10. Small knuckle drop Connection End
11. Small knuckle drop opposite connection end
12. Large knuckle drop connection end
13. Large knuckle drop opposite connection end
14. Connection Support Ring from Core
15. Opposite Connection Support Ring from core
16. Connection Support Ring Id
17. Opposite Connection Support Ring ID
18. Slot Depth
19. Slot depth under wedge
20. Slot Width
21. Lead Location
22. Coil Type
23. Tooth Width

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24.	Number of Vents
25.	Vent Width
26.	Before Burnout Core loss
27.	Flux Before Burnout
28.	Watts before burnout
29.	Watts loss per lb. before burnout
30.	After Burnout Core Loss
31.	Flux After burnout
32.	Watts After Burnout
33.	Watts loss per lb After Burnout
34.	Core Iron Condition
35.	RTD's
36.	RTD's Reading
37.	Motor Heaters
38.	Heater Qty.
39.	Heater Voltage
40.	Heater Wattage
41.	Thermistors
42.	Number of Poles
43.	Slots
44.	Number of Coils
45.	Coil Weight
46.	Lead Markings
47.	Grouping
48.	Wire Size
49.	Turns per coil
50.	Total Wires in parallel
51.	Wire Insulation
52.	Iron Skewed
53.	Pitch 1 to:
54.	Connection
55.	Lead Length
56.	Lead Size
57.	Number of Leads
58.	Megger Reading After Rewind
59.	Coil Machine Slot
60.	Coil Machine Tip
61.	Coil Machine Pitch
62.	Hi Pot Reading After Rewind
63.	Surge Pattern After Rewind
64.	Service Technician



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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. **SCOPE OF GOODS AND/OR SERVICES.** 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. **BILLING AND PAYMENT TERMS.** 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 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

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 PARTICULAR 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. **SEVERABILITY.** 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, earthquake, 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. **NONWAIVER.** 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.