

EVERY DAY SINCE 1946 —

LR Motor Shop Repairs

Job Number 103598

Prepared for Tyson Foods (10914)

1238 Market Street Clarksville AR 72830

Table of Contents

AC Inspection as Found - MOTOR SHOP LR

AC Inspection - Rev. 2: 22020075507

1.0





AC Inspection as Found

Tyson Foods (10914)

1238 Market Street Clarksville, AR 72830

FolderID: 103598 FormID: 21832512

AC Inspection - Rev. 2

Location: MOTOR SHOP LR Serial Number: 22020075507

Description:75HP TOSHIBA 3550RPM

Hi-Speed Job Number:	103598
Manufacturer:	Toshiba
Serial Number:	22020075507
HP/kW:	75 (HP)
RPM:	3550 (RPM)
Frame:	365TSC
Voltage:	230 / 460
Current:	172/86 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	12
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	Yes
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 6 5 - High





9 - Good

Overall Condition

1. Report Date

2. Nameplate Picture



3. Photos of all six sides of the machine.





































	4.	Describe the Overall Condition of the Equipment as Received	
	5.	Report Date [COPY]	
In	itial	Mechanical/Electrical	
	6.	Does Shaft Turn Freely?	(N) No
	7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	(No) No
	8.	Does Shaft Have Visible Damage?	(Yes) Yes



	9.	Assembled Shaft Runout	Inches
	10.	Assembled Shaft End Play	inches
	11.	Air Gap Variation <10%	
	12.	Lead Condition	(P) Pass
	13.	Lead Length	14 Inches
	14.	Does it have Lugs?, If so what is the Stud Size?	(No) No
	15.	Lead Numbers	1-12
	16.	Frame Condition	pass
	17.	Fan Condition	(P) Pass
	18.	Broken or Missing Components	j-box is missing
Ir	nitial	Electrical Inspection	

19. Insulation Resistance/Megger





20.	Winding Resistance			
	1-2	1-3	2-3	
21	Perform Surge Test			(P) Pass



22.	Number of Stator Slots	48	
23.	Stator Condition	dirty	
24.	Stator Thermistors/Ohms		
25.	Stator Overloads/Ohms		
Mecha	nical Inspection		
26.	Drive End Bearing Brand	C&U	
27.	Drive End Bearing Number-	6312	
28.	Drive End Bearing Qty.	1	
29.	Drive End Bearing Type	(Ball) Ball Bearing	
30.	Drive End Lubrication Type	(Grease) Grease Lubricated	
31.	Drive End Bearing Insulation or Grounding Device?		
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	na	



34.	Opposite Drive End Bearing Brand	C&U
35.	Opposite Drive End Bearing Number-	6312
36.	Opposite Drive End Bearing Qty.	1
37.	Opposite Drive End Bearing Type	(Ball) Ball Bearing
38.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
39.	Opposite Drive End Bearing Insulation or Grounding Device?	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
41.	Opposite Drive End Bearing Condition	
-	Frosting and contamination	



Rotor	Inspection
43.	Opposite Drive End Seal
42.	Drive End Seal

44.	Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
45.	Growler Test	(Pass) Pass
46.	Number of Rotor Bars	42
47.	Rotor Condition	pass

48. List the Parts needed for the Repair Below
 6312x2
 New shaft or weld
 Sleeving material for DE end bell air gap and bearing fit

49. Signature of Technician that Disassembled Motor

Treein

Mecha	anical Fits- Rotor			
	Shaft Runout			inches
	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Be	earing
	Ŭ	,	* *	J
52.	Coupling Fit Closest to Bearing Housi	ng		
	0 Degrees	90 Degrees	120 Degrees	
F2	Coupling Fit Closest to the end of the	Chaft		
55.			120 Dogrado	
	0 Degrees	60 Degrees	120 Degrees	
5 4.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	•	-	-	
-	Bearing welded to shaft			
5 5.	Drive End Bearing Shaft Fit Condition			(F) Fail
56.	11 9			
	0 Degrees	60 Degrees	120 Degrees	
	2.3621	2.3621	2.3621	
57 .		Condition		(P) Pass
58.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
Mech:	anical Fits- Bearing Housings			
	Drive End - Endbell Bearing Fit			
00.	0 Degrees	60 Degrees	120 Degrees	
	0 Deg. 600	oo Degrees	120 Degrees	
-	Lip worn into fit			
6 0.	Drive End - Endbell Bearing Fit Condi	tion		(F) Fail
61.	Opposite Drive End - Endbell Bearing	Fit		
	0 Degrees	60 Degrees	120 Degrees	
	5.1186	5.1187	5.1186	
6 2.	Opposite Drive End - Endbell Bearing	Fit Condition		(P) Pass
6 3.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
64.	End Bell Air Seal Fits			
04.	Drive End Air Seal	Opposite Drive End Air Seal		
	Divo Liid / III Oodi	Opposite Drive Life All Ocal		
65.	List Machine Work Needed Below			
	Shaft, DE end bell bearing fit and air ga	p		

Cw

66. Technician Cw

Mui

Co sign:

Root Cause of Failure

67. Failure locations

Bearings, shaft, DE end bell bearing fit and air gap

68. Root cause of failure

DE bearing cage failed causing bearing to lock up and spin on shaft and housing taking down the bearing fits and air gap

Dynamic Balance Report

69. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

70. Initial Balance Readings

Drive End Opposite Drive End

71. Final Balance Readings

Drive End Opposite Drive End

72. Technician

Mechanical Fits- Rotor - Post Repair

- 73. Shaft Runout Post Repair
- 74. Rotor Runout Post Repair

Drive End Bearing Fit Rotor Body Opposite Drive End Bearing

75. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees 90 Degrees 120 Degrees

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

0 Degrees 60 Degrees 120 Degrees

77. Drive End Bearing Shaft Fit Post Repair

0 Degrees 60 Degrees 120 Degrees

78. Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees 60 Degrees 120 Degrees

79. Shaft Air Seal Fits Post Repair

Drive End Air Seal Opposite Drive End Air Seal

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

82.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
83.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
0.4	E 10 "A: 0 1E; D 1D .		
84.	End Bell Air Seal Fits Post Repair	0 " D: E IA: 0 I	
	Drive End Air Seal	Opposite Drive End Air Seal	
85	End Bell Repair Sign-off		
Assen			
	QC Check All Parts for Cleanliness Pr	ior to Assembly	
	Photograph All Major Components pri		
	Final Insulation Resistance Test		
	Assembled Shaft Endplay		
	Assembled Shaft Runout		
	Test Run Voltage		
	Volts	Volts	Volts
92.	Test Run Amperage		
	Amps	Amps	Amps
93.	Drive End Vibration Readings - Inches		
	Horizontal	Vertical	Axial
94	Opposite Drive End Vibration Reading	s - Inches Per Second	
34.	Horizontal	Vertical	Axial
	Tionzontai	Voltical	Mai
95.	Ambient Temperature - Fahrenheit		
96.	Drive End Bearing Temps - Fahrenhei	t	
	5 Minutes	10 Minutes	15 Minutes
97.	Opposite Drive End Bearing Temps -	Fahrenheit	
	5 Minutes	10 Minutes	15 Minutes
00	Dogument Final Condition with Birtun	a after point	
98.	Document Final Condition with Picture Final Pics and QC Review	es alter pairit	
99.	Filial Fics allu QC Review		

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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

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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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- 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.
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- 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.