

# LR Motor Shop Repairs

## **Job Number 100255**

Prepared for HARRISON ENERGY PARTNERS

1501 WESTPARK DR LITTLE ROCK AR 72204

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AC Recondition As Found - MOTOR SHOP LR

AC Recondition - Rev. 2: 1-5139-GR60308-01

1.0



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### **AC Recondition As Found HARRISON ENERGY PARTNERS**

1501 WESTPARK DR LITTLE ROCK, AR 72204

AC Recondition - Rev. 2

MOTOR SHOP LR Location: Serial Number: 1-5139-GR60308-01

**Description:**7.5HP SIEMENS-ALLIS

1200/600RPM 254TDV

Hi-Speed Job Number:	100255
Manufacturer:	Siemens
Product Number:	104
Serial Number:	1-5139-GR60308-01
HP/kW:	7.5 (HP)
RPM:	1200 (RPM)
Frame:	254TDV
Voltage:	460
Current:	13.5/5.4
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.0
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 8 - Good

### **Overall Condition**

1. Report Date

2. Nameplate Picture



Photos of all six sides of the machine.





































	4.	4. Describe the Overall Condition of the Equipment as Received		
In	Initial Mechanical/Electrical			
	5.	Does Shaft Turn Freely?	(Yes) Yes	
	6.	Does Shaft Have Visible Damage?	(No) No	
	7.	Assembled Shaft Runout		
	8.	Assembled Shaft End Play		
	9.	Air Gap Variation <10%		
	10.	Lead Condition	(P) Pass	
	11.	Lead Length	10 Inches	





14.	Broken or Missing Components			na
Initial Electrical Inspection				
15.	Insulation Resistance/Megger			
16.	Winding Resistance			
	1-2	1-3	2-3	
17.	Perform Surge Test			(P) Pass



18. Stator Condition			
Mechanical Inspection			
19. Drive End Bearing Number-	6209		
20. Drive End Bearing Qty.	1		
21. Drive End Bearing Type	(Ball) Ball Bearing		
22. Drive End Lubrication Type	(Grease) Grease Lubricated		
23. Drive End Bearing Insulation or Grounding Device?	na		
24. Drive End Wavy Washer/Snap-Ring Other Retention Device?	na		



26. Opposite Drive End Bearing Number-	6208
27. Opposite Drive End Bearing Qty.	1
28. Opposite Drive End Bearing Type	(Ball) Ball Bearing
29. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
30. Opposite Drive End Bearing Insulation or Grounding Device?	na
31. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
32. Opposite Drive End Bearing Condition	



33.	Drive End Seal	na		
34.	Opposite Drive End Seal	na		
Rotor	Rotor Inspection			
35.	Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast		
36.	Growler Test	(Pass) Pass		
37.	Number of Rotor Bars			
38.	Rotor Condition	pass		
39.	List the Parts needed for the Repair Below			
40.	Signature of Technician that Disassembled Motor	Cw		

M	Mechanical Fits- Rotor				
	41. Shaft Runout				
	42.	Rotor Runout			
		Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
	43.	Coupling Fit Closest to Bearing Housing	-		
		0 Degrees	90 Degrees	120 Degrees	
	44	Coupling Fit Closest to the end of the	Shaft		
	77.	0 Degrees	60 Degrees	120 Degrees	
		o Degrees	00 Degrees	120 Degrees	
	45.	Drive End Bearing Shaft Fit			
		0 Degrees	60 Degrees	120 Degrees	
		Drive End Bearing Shaft Fit Condition		(P) Pass	
	47.	Opposite Drive End Bearing Shaft Fit			
		0 Degrees	60 Degrees	120 Degrees	
	48	Opposite Drive End Bearing Shaft Fit	Condition	(P) Pass	
		Shaft Air Seal Fits		(1)1 000	
		Drive End Air Seal	Opposite Drive End Air Seal		
M		anical Fits- Bearing Housings			
	50.	Drive End - Endbell Bearing Fit			
		0 Degrees	60 Degrees	120 Degrees	
	51	Drive End Endhall Bearing Eit Condi	tion	(P) Pass	
		Drive End - Endbell Bearing Fit Condition  Opposite Drive End - Endbell Bearing Fit		(F) Fass	
	52.	O Degrees	60 Degrees	120 Degrees	
		o Deglees	oo begrees	120 Deglees	
	53.	Opposite Drive End - Endbell Bearing	Fit Condition	(P) Pass	
	54.	Bearing Cap Condition			
		Drive End Bearing Cap	Opposite Drive End Bearing Cap		



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55.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
56.	List Machine Work Needed Below			
	Na			
57.	Technician		Cw	
ı	LIZ.			
Root	Root Cause of Failure			
58.	Failure locations			
	Bearings			
59.	Root cause of failure			
	DE bearing has false brinelling			



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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. 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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- 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.
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- 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.
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