

LOCK-N-SIII CII Inc.Casting Repair Specialists209 632-23451015 S. Soderquist Rd.Fax 209-632-174024 05380www.locknstitch.cc *LOCK-N-STITCH* Inc. 800-736-8261

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Gas turbine shell crack repair final report

Customer: Exelon Power Generation Contact: Carlos Lopez

Address: 10202 Strang Rd City, State, Zip: La Porte, TX 77571 Phone: (817) 791-7269 Alt phone: Fax: Date: 10/24/13

Part: GT-1

Serial number:

- 1. Base metal x cast iron ductile iron cast steel cast aluminum other _____
- 2. Machinability x no previous repairs arc-welded brazed heat-related cracks other _____
- 3. Casting shape where cracked x flat inside/outside corner radius other _____

4. Cause of damage impact heat freezing x normal operation other _____

Inspected by: David Werther

- 5. Length of crack/s 54 total inches
- 6. Material thickness 3/8" to 1 3⁄4"
- 7. Operating pressure

8.	Operating	temperature
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9.	Working environment hot cold safety concerns describe:
	other

- 10. Remachining requirements bolt holes bearing bores machined surfaces other _____
- 13. Inspection method(s): Visual and NDT

11.	Customer's needs
	x permanent repair
	temporary repair
	turnaround time
	describe:

|--|

describe:

12. Accessibility Y room for the tools? Y room for the operator/s? Y need for disassembly?

other _____

- 14. Damage found:
- #1 Bolt hole on A side of upper shell



Drilling for lock after metal stitching



Completed repair after finish work



Inspection Report

#2 Bolt hole on B side of upper shell



Facing off the insert to match part



Completed repair after finish work



#3 Bolt hole on B side of upper shell flange



Metal stitching in process

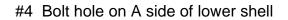


Stitching, locks, and insert complete



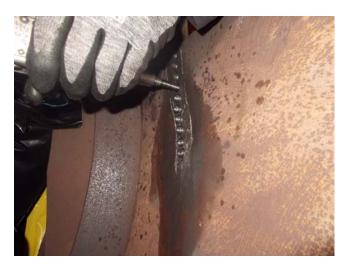
Inspection Report

LOCK-N-STITCH Inc.





Installing Castmaster stitching pins



Stitching and locks completed



#5 Bolt hole on B side of lower shell



Stitching using Castmaster pins



Hand finishing to match part



Installation of custom manufactured inserts to reinforce cracked bolt holes







Reinforcement brackets were manufactured and installed on both sides for additional strength





Conclusion: The repair was completed using Castmaster stitching pins and Full-*Torque* inserts in order to remove and seal the cracks that were found in the unit. Locks and reinforcement brackets were installed for added strength.

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