

**LOCK-N-STITCH** Inc.  
Casting Repair Specialists  
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## **Final report**

Date: 3-7-13

Part: 1985 MAK engine block

Serial number: 40096

1. Base metal

- cast iron
- ductile iron
- cast steel
- cast aluminum
- other \_\_\_\_\_

2. Machinability

- no previous repairs
- arc-welded
- brazed
- heat-related cracks
- other \_\_\_\_\_

3. Casting shape where cracked

- flat
- inside/outside corner
- radius
- other \_\_\_\_\_

4. Cause of damage

- impact
- heat
- freezing
- normal operation
- other \_\_\_\_\_

5. Length of crack/s

- 35" @ 3/4"
- 13 1/2" @ 1"
- 6 1/2" @ 1 1/2"

6. Material thickness

See above

7. Operating pressure

4 bar in water jacket

8. Operating temperature  
180  
\_\_\_\_\_  
\_\_\_\_\_

9. Working environment  
 hot  
 cold  
 safety concerns  
describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

other Excellent

10. Remachining requirements  
 bolt holes  
 bearing bores  
 machined surfaces  
 other Goltens to complete final  
machining

13. Inspection method(s)  
Visual, prepared bath and dye penetrant

14. Damage repaired:

11. Customer's needs  
 permanent repair  
 temporary repair  
 turnaround time  
describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
 other \_\_\_\_\_

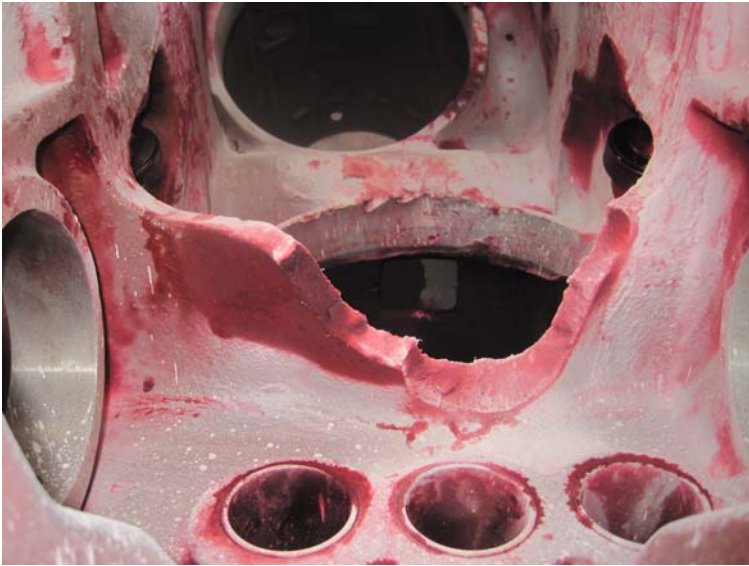
12. Accessibility  
 room for the tools?  
 room for the operator/s?  
 need for disassembly?  
describe: good \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_















Conclusion:  
Repair completed on March 4, 2013.  
Customer technicians watched and assisted  
in this repair.