Damaged MAK engine block 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” @ ¾”
   - 13 ½” @ 1”
   - 6 ½” @ 1 ½”

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: ________________
   ________________
   ________________
   X other Excellent

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

11. Customer’s needs
    X permanent repair
    temporary repair
    turnaround time
    describe: ________________
    ________________
    ________________
    other ________________

12. Accessibility
    room for the tools?
    room for the operator/s?
    need for disassembly?
    describe: ________________
    ________________
    ________________
    X other In Customer Shop

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

14. Damage repaired:
Conclusion:
Repair completed March 4, 2013.

Warranty available:

This limited warranty covers our materials and workmanship for the repair of your part. Disassembly and downtime are not covered by this warranty. The limited warranty is for a period of one year from the date of completion of the repair. If there should be any failure in our repair during that period of time due to faulty materials and or workmanship, we will again repair the part at our cost including all labor, materials and travel expense, or we could choose to refund the money you paid for the repair in part or full. We reserve the right to make the final decision whether to repair or refund. This is the limit of our liability. Be aware that we are not responsible for failures due to faulty installation or improper operation and maintenance of the part. If the problem that caused the original damage has not been remedied this warranty will become null and void.