

Fabrication Industry

CASE STUDY

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Key Facts

Sector Fabrication Industry

Category Investigation of Bearing rings.

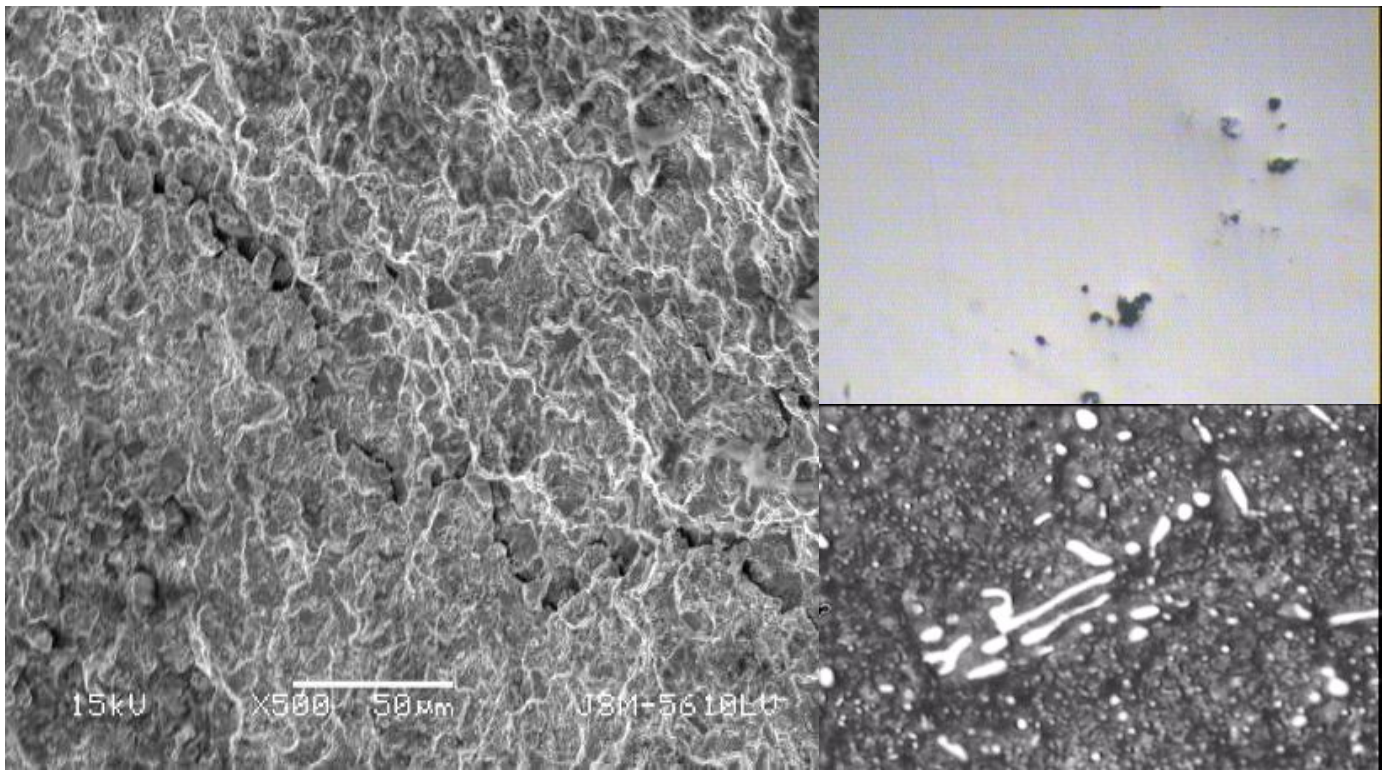
Problem

- 683 inner ring having identification no. ABC/F/01 started showing cracks during grinding operation, resulting into outright rejection, in taper bearing plant.
- Cracking is confined to about 0.1% of the rings that are manufactured. About 60 nos. are found cracking in a lot of 6 thousand pieces.
- The MOC is SAE-52100 ball bearing steel.



Diagnosis

- Cracking of the rings during grinding are predominately attributed to cumulative effect of subtle deviations in the carbide distribution, inclusions and heat treatment process variables.



Solution/Recommendations

- Slight improvement in the spheroidizing annealing cycle is recommended to eliminate elongated massive nature of grain boundary carbides.
- Recommended to check the heat treatment aspect for receiving uniform heat.

Contact Us

If you are interested to learn more about TCR Advanced,
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