

POLITECNICO
MILANO 1863

DEPARTMENT OF MECHANICAL
ENGINEERING



Conclusions and exploitations

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DIPARTIMENTO DI ECCELLENZA
MIUR 2018-2022

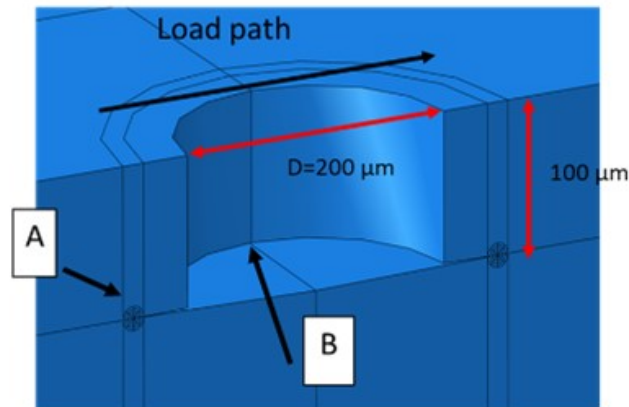


26.09.2023, Milano Bovisa

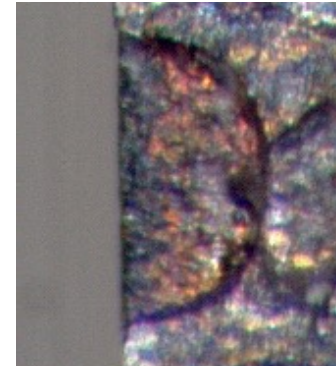
Main results of the IDERPLANE project

Based on our know-how, we have been able to correctly reproduce the phenomenon of shear-sustained growth on specimens / bi-disk tests / test articles by a deployment of different experimental techniques and **hundreds** of million test cycles /rotations and to describe it in terms of shear-driven propagation.

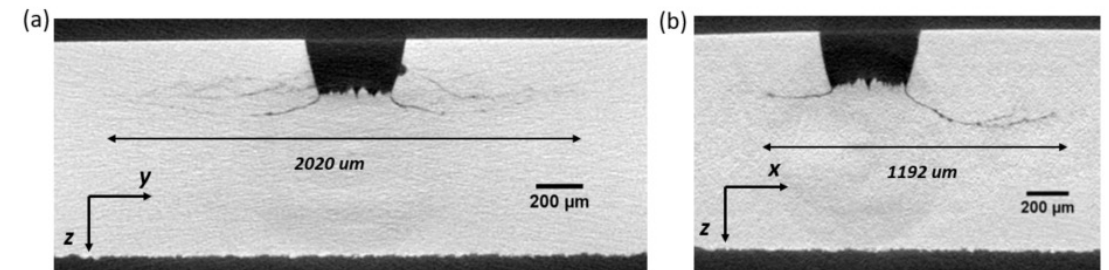
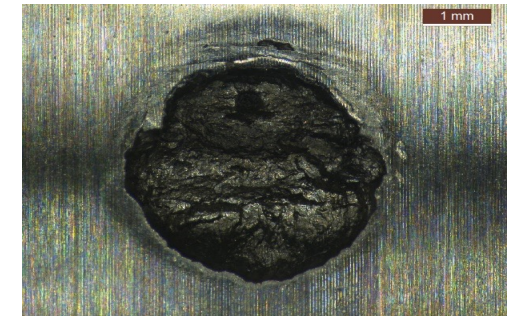
Full-scale test articles



Multiaxial specs



Bi-disk tests



Main results of the IDERPLANE project

The newly designed test bench and set-up of tests on full-scale test articles were successfully applied to:

- confirm fatigue thresholds that had been obtained on multiaxial tests
- provide **demonstration of damage tolerance** for the integrated bearings.

