

# Crane Bearing Maintenance



## **Ultrasonic inspection**

The periodical, visual inspection and disassembly of crane slewing rings required by the classification societies is a cost-intensive procedure.

To reduce time and cost consumption and to provide a maximum examination efficiency, FORCE Technology offers a combination of manual and automated ultrasonic inspection based on well-established methods offering unique means of data storage, visualization, analysis and documentation of inspection results.

The application of this technique means that:

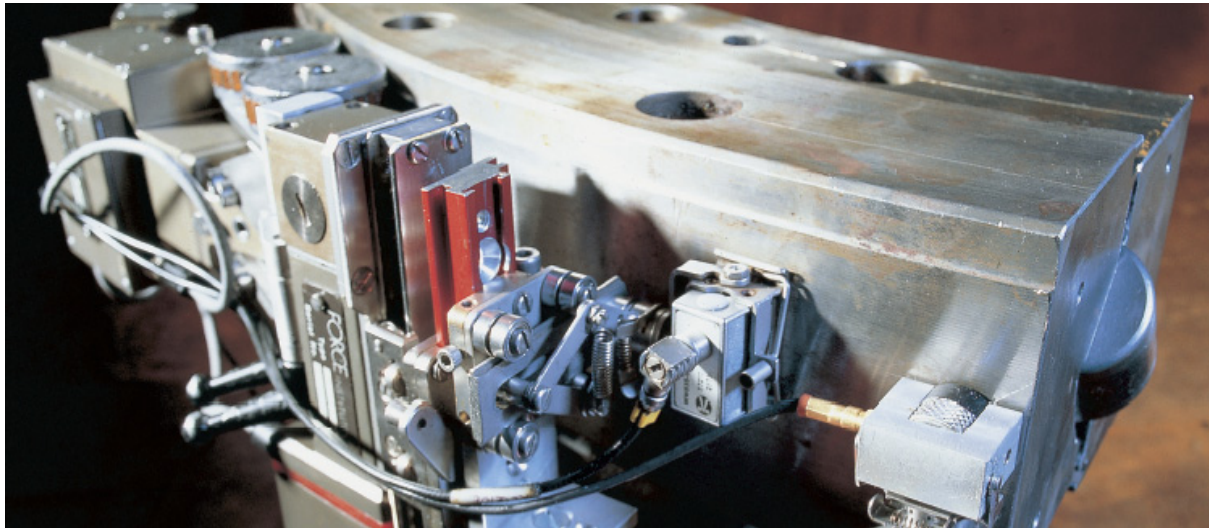
- No lifting of crane is required
- No dismantling of bearing is required
- Downtime on crane is limited to inspection period.

## **Procedure specification and approval**

The inspection technique and evaluation of results are described in a written procedure specification which is reviewed and approved prior to inspection by the classification society involved. The technique has been used since 1987 by several drilling companies.

## **Crane preparation**

For inspection of the slewing rings, access is needed to surfaces and tooth tips. They have to be cleaned to allow ultrasonic scanning, and obstructions such as lubrication tubes have to be removed.



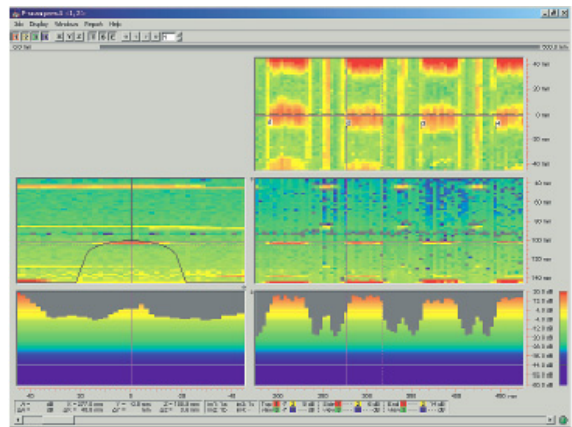
### P-scan

The automatic ultrasonic inspection is carried out with the P-scan system - a computerized ultrasonic equipment developed by FORCE Technology.

Scanners specially designed for slewing ring inspection are used for manipulation of transducers.

### P-scan documentation

The P-scan inspection results are visualized by projected images and are useful for third party evaluation and for comparison with previous inspection results.



### Personnel

The ultrasonic inspection is performed by highly trained and experienced Level 2 personnel certified according to the NORDTEST or ASNT certification schemes.



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