

## **Damage and failure investigations**

– Where, why and how?



Accidents don't just happen – in most cases they are the result of a number of in time interconnected errors and incidents.

## **Damages and failures**

At the time after damages or failures have occurred, many immediate questions need answering. It might be whether the damage or failure will have significant consequences as regards safety issues, and how such damages and failures may be avoided in the future and how shall insurance claim/ responsibility issues be clarified? Questions of this kind may be answered through a failure and damage investigation, which will often provide the answer to why the incident occurred.

## Many years' experience

FORCE Technology holds many years' experience in this field. Thus we know what you need in the situation, fast, competent and impartial input for failure and damage investigations.

FORCE Technology has Denmark's largest metallurgical laboratory, at which we daily perform a large number of tasks and assignments in relation to damage and failure investigations.

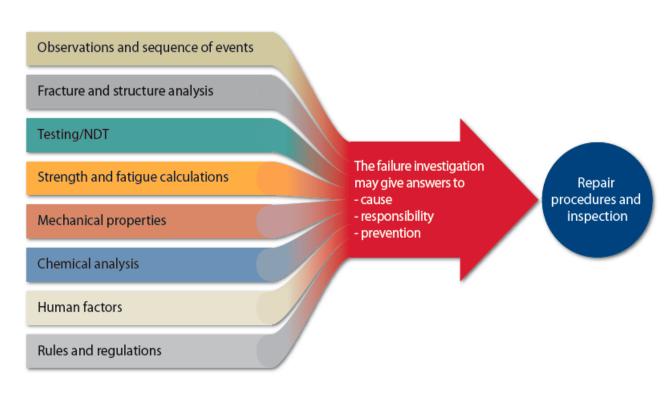
In addition hereto come all the many other service that are often in use, when the failure has occurred, such as e.g. assistance from our engineers, who make strength and fracture mechanical calculations on components and structures, testing of the materials' mechanical properties, Non-Destructive Testing of the damaged part or similar parts still in operation or participation from one of our psychologists who investigates the human factors.

Also when it comes to polymer materials, we hold huge experience. We undertake and perform all tasks, with the utmost confidentiality.

## Prevention

The result of a failure and damage investigation will often be used to prevent such accidents from happening again. But prevention may also take place in the actual construction phase of a component, and our experience may help you at an early stage. For instance, we may help you modify a design to achieve better fatigue properties or choose the right material for a given environment.

"Only through failure analysis can a failure's actual causes and progress be determined and reiterations be avoided".



A failure and damage investigation may be dealt with in many ways, depending on the requirements to be met. Sometimes it requires only few and simple examinations to clarify specific technical questions and sometimes a more thorough examination is required, to determine causes etc., called Root Cause Analysis (RCA).

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