

# Component Failure Analysis

## Services:

Accident  
Reconstruction

Fire & Explosion  
Investigation

Component  
Failure  
Analysis

Structural  
Assessment

Microclimate  
Engineering

The DFA Group assesses failures of equipment, machinery and consumer products to address the following issues:

- **Fundamental sources of failure**
- **Product liability**
- **Design**
- **Protection & prevention**
- **Applicable standards compliance**
- **Recalls**

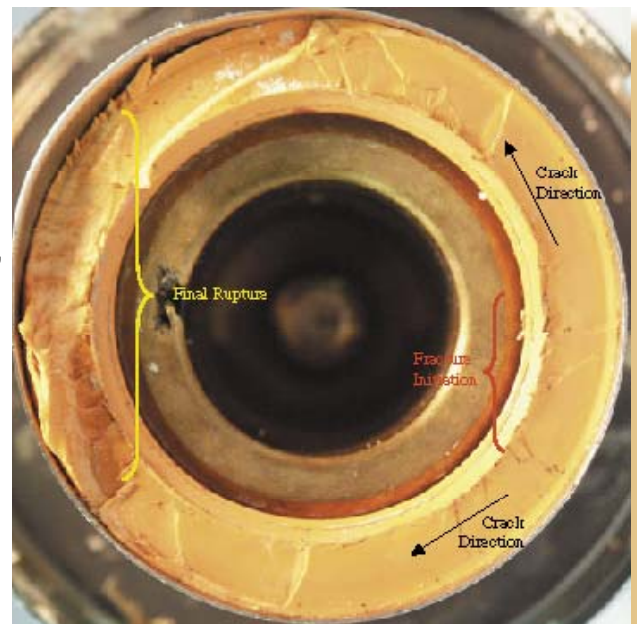
Reverse bending fatigue failure of an automotive component:



Finite element analysis (FEA) is used to study the static and dynamic behaviour of components when evaluating design and materials.

DFA engineers have performed more than 1000 failure analysis-related investigations over the past 20 years. Our professional affiliations include the Professional Engineers of Ontario, Society of Automotive Engineers, Society of Fire Protection Engineers, and American Society of Heating, Refrigerating and Air-conditioning Engineers. Our professional engineers have been admitted as expert witnesses, and offered opinion evidence at all levels of court in Ontario, and in Quebec, British Columbia and Nova Scotia.

Fatigue crack propagation in a threaded PVC pipe:



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