Fatigue Properties Database

Issues Cyclic material properties provide a key input into modern fatigue analysis methods that are finding increasing use in the product development and evaluation process throughout the ground vehicle industry.

Although a large amount of fatigue data has been generated over the past 30 years, and in spite of numerous efforts to collect this information, there still exists no central repository of properties easily accessible to the engineering community.

The limited availability of fatigue properties, in turn, limits the potential effectiveness of available fatigue analysis packages. This takes on increased significance as manufacturers shift design responsibility to Tier One suppliers.

Proposal
As a major international forum for ground vehicle fatigue technology, it is proposed that the FD&E Committee take a lead role in fatigue database development by forming a task group(s) to:

- assess the fatigue property needs of ground vehicle manufacturers and suppliers;
- identify major sources of material fatigue properties;
- develop standard formats/procedures for data exchange, analysis, storage & retrieval;
- identify appropriate data management technologies;
- develop a master plan to make fatigue properties available to the design community.

Bibliography

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Fatigue Properties Database

Issues

* Cyclic material properties a key input into modern fatigue analysis software.

* Large amount of data, no central repository.

* Lack of availability limits effectiveness of analysis tools.

Concerns

* Copyrights (ownership)

* Liability issues (data "misuse")

* Proprietary issues (competitive advantage)

* Other . . .

Proposal

* Assess property needs of ground vehicle manu-facturers and suppliers
* Identify major sources of data
* Develop standard formats/procedures for data exchange, analysis, storage & retrieval
* Identify appropriate data management technologies
* Develop master plan for database development

FD&E Material Properties Division Draft

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