




FREIGHTLINER[®]
LLC
A DaimlerChrysler Company

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A large yellow Freightliner truck is shown driving on a gravel road, tilted to the right. The truck is the central focus of the image, with its front and side visible. The background shows a hilly landscape with trees and a clear sky. The text "Designing for Maintainability" is overlaid on the truck in a large, black, sans-serif font.

Designing for Maintainability



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What is Maintainability?



Freightliner Development System (FDS)

- FDS is a series of 10 checkpoints, or Quality Gates
- The Gates represent major milestones of a development project

Quality Gate

- Ten Control Points within FDS
- Has Specific Exit Criteria that “Drive” Process Conformance
- Measures Quality and Readiness to Proceed Through the Gate
- Signoff Required of all Functional Area Managers

Gates Broadly Categorized

- Product Specification / Gates 10-8
- Product Development / Gates 7-4
- Product Manufacture / Gates 3-1

Deliverables

- Generally Describe What Has to be Done
- Requirements for Passing a Quality Gate
- Specifically Identified by Functional Area by Gate

FDS Functional Areas

- **Project Management**
- **Sales/Marketing**
- **Aftermarket Support**
- **Quality Management**
- **Styling**
- **Engineering**
- **Test**
- **Purchasing**
- **Production Planning**
- **Logistics**
- **Manufacturing**
- **Change Over**
- **Controlling/Finance**

Aftermarket Support

- Parts
- Warranty
- Service



Service

- Training
- Literature
- Field Support
- Service Engineering



Service Engineering

- Special Tools
- Service Procedures
 - Standard Repair Times
 - **MAINTAINABILITY**

Gate Workflow



- One group works to the last minute to get to **GREEN**
- Timing forces sequentially dependent groups to **RED**

Understanding the importance of reliability and maintainability, we constantly strive to meet the expectations of our customers. FDS is one tool that assists in that process.