

Wheel Redesign: Converting a Weldment into a Casting

3 Research and Option Comparisons



4 Design Validation



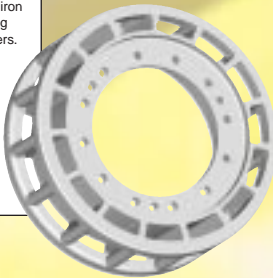
Project Description

WHEEL:

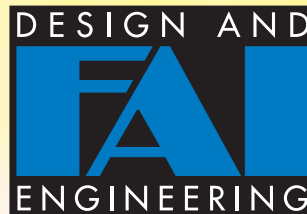
Convert the existing weldment into either a steel or ductile iron casting capable of exceeding the current design parameters.

BASIC REQUIREMENTS:

1. Exceed Minimum Strength
2. Increase Fatigue Life
3. Evaluate Material Tradeoffs
4. Reduce Machining
5. Decrease Cost of Part



The Advantages



5 Rapid Prototyping and Communication

2 Information and Requirements

Designing Solutions for Cost Reduction

We supplement your current in-house engineering capabilities

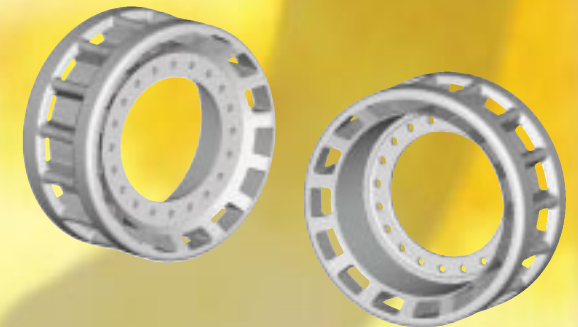
Evaluation of all possible manufacturing processes & materials

Continuous engineering project support, design through manufacturing & beyond

All engineering projects are custom tailored to your needs

Rapid response & project completion

Evaluation & optimization of the entire product life cycle



6 The Manufactured Product

1 Project Selection and Definition

Goals & Requirements

- Reduce costs by at least 25%
- Improve overall quality
- Must be compatible with existing assembly

Project Results

- Exceeded cost reduction targets
- 30+ part weldment converted to a one piece casting
- 5% increase in strength
- 50% increase in the fatigue life of the product

