

AIM Bike Crank - Verification & Validation

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Problem Specification

1. Pre-Analysis & Start-Up
2. Geometry
3. Mesh
4. Physics Setup
5. Numerical Results, Verification & Validation

Verification & Validation

- Check that the solution agrees with the mathematical model
 - Are the boundary conditions on displacement and traction satisfied?
 - Is equilibrium satisfied?
 - Do the reaction forces balance the applied load?
- Check that the numerical error is acceptable
 - Are the ANSYS results reasonably independent of the mesh?
- Compare with hand calculations for the bending stress and maximum displacement

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