

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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