Bike Crank - Pre-Analysis & Start-Up

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Problem Specification
1. Pre-Analysis & Start-Up
2. Geometry
3. Mesh
4. Physics Setup
5. Numerical Solution
6. Numerical Results
7. Verification & Validation
Exercises
Comments

Pre-Analysis & Start-Up

Pre-Analysis

In the pre-analysis step, we review the:

- Mathematical model
- Numerical solution strategy
- Hand calculations of expected results

Governing Equations

Additional Equations

Traction at the Boundary

Boundary Conditions

Numerical Solution Strategy

Hand Calculations

Check Your Understanding

Which one of the following assumptions is contained in the *strain-displacement* relations in the mathematical model that we will solve using ANSYS? (See edX module for answer)

a. Acceleration at any point in the structure is zero

b. Material is in the elastic range

c. Material is isotropic

d. Strains are small

e. All of the above

Go to Step 2: Geometry

Go to all ANSYS Learning Modules