Results:

1. Inertia Forces:

   Vertical inertia force: 950 kN

   Horizontal inertia force: 400 kN

   Vertical acceleration: 3.8 g

2. Time Analysis:

   Time for vertical velocity to become zero: 0.0993 s

3. Rotational Analysis:

   Angular acceleration: 3.89 rad/s²

   Angular velocity: 0.386477 rad/s