

A small crane is used in demolition and swings a large rigid ball of mass M_1 , suspended on the lifting cable over a pulley of radius R , by rotating around the vertical axis zz with a steady velocity ω . The crane consists of a supporting uniform boom structure of mass M_2 and length L inclined at an angle of θ to the horizontal plane. The boom is raised or lowered by the support cable that pulls horizontally and is attached at a distance of b from the pivot supporting the boom. Note that the lifting cable is parallel to the boom.

