

A crane is used to raise a block of mass 600 kg vertically upwards at a constant speed through a height of 15 m. There is a resistance to the motion of the block, which the crane does 10 000 J of work to overcome.

- (a) Find the total work done by the crane. [2]

This image shows a single sheet of white paper with ten horizontal dashed lines, typical of primary-ruled notebook paper. The lines are evenly spaced and extend across the width of the page. There is no handwriting or other markings on the paper.

- (b)** Given that the average power exerted by the crane is 12.5kW, find the total time for which the block is in motion. [2]

[illegible]