15 A force of 1000 N is needed to lift the hook of a crane at a steady velocity. The crane is then used to lift a load of mass 1000 kg at a velocity of 0.50 m s^{-1}.

How much of the power developed by the motor of the crane is used in lifting the hook and the load? Assume that the acceleration of free fall g is equal to 10 m s^{-2}.

A 5.0 kW **B** 5.5 kW **C** 20 kW **D** 22 kW

Space for working