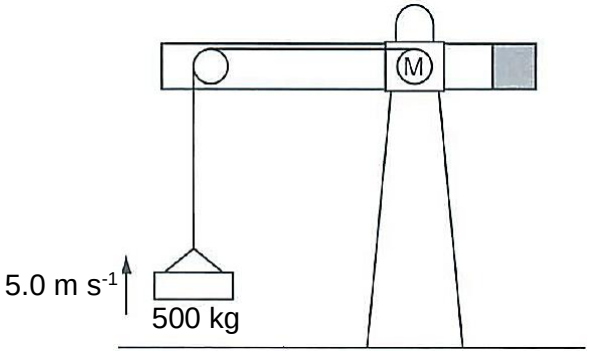
6 The motor M in a crane is used to lift a load of 500 kg vertically upwards at a constant speed of 5.0 m s^{-1}. During the lifting of the load, energy is supplied to motor M at a constant rate of 3.0×10^4 J s^{-1}.



Which of the following statement is **not** correct?

A The efficiency of motor M is 82%.

B The kinetic energy of the load is 6.3 kJ.

C The work done on the load by gravity is positive during the lifting of the load.

D The rate of gravitational potential energy gained by the load is about 2.5×10^4 W.