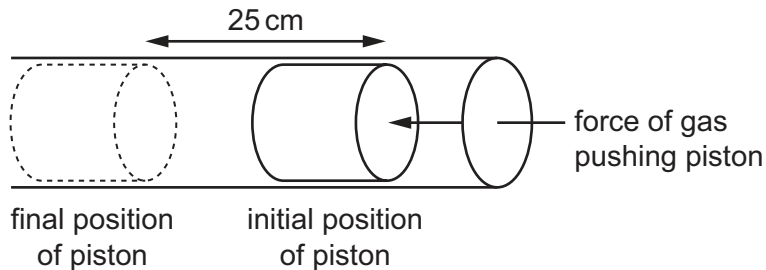14 The gas in an engine does work on a piston of cross-sectional area $80\,cm^2$. The pressure on the piston has a constant value of $4.6 \times 10^5\,Pa$.

25 cm

force of gas
pushing piston

final position
of piston

initial position
of piston

How much work is done by the gas on the piston when it moves through a distance of 25 cm?

A $9.2 \times 10^2\,J$ **B** $9.2 \times 10^4\,J$ **C** $9.2 \times 10^6\,J$ **D** $9.2 \times 10^8\,J$