

Homework Problem H32.B

Given: Two identical rubber pads (having $h \times b$ rectangular cross sections) transmit a load P applied to a rigid plate to a fixed support. The shear modulus of the rubber material making up the pads is G .

Find: For this problem:

- Determine the average shear stress on the pads on the top/bottom surfaces of the pad resulting from the applied load P .
- Determine the average shear strain in the rubber material.

For this problem, use the following parameters: $G = 0.3 \text{ MPa}$, $b = 60 \text{ mm}$, $h = 30 \text{ mm}$, $t = 150 \text{ mm}$ and $P = 500 \text{ N}$.

