95. The time for one cycle is $T = (50\,\text{s})/20 = 2.5$ s. Thus, from Eq. 16-23, we find

$$I = \kappa \left(\frac{T}{2\pi}\right)^2 = (0.50)\left(\frac{2.5}{2\pi}\right)^2 = 0.079 \text{ kg}\cdot\text{m}^2 \ .$$