9.27: 

\[
r = \frac{a_{\text{rad}}}{\omega^2} = \frac{(3000)(9.80 \text{ m/s}^2)}{(5000 \text{ rev/min}) \left( \frac{\pi \text{ rad/s}}{30 \text{ rev/min}} \right)}^2 = 10.7 \text{ cm},
\]

so the diameter is more than 12.7 cm, contrary to the claim.