

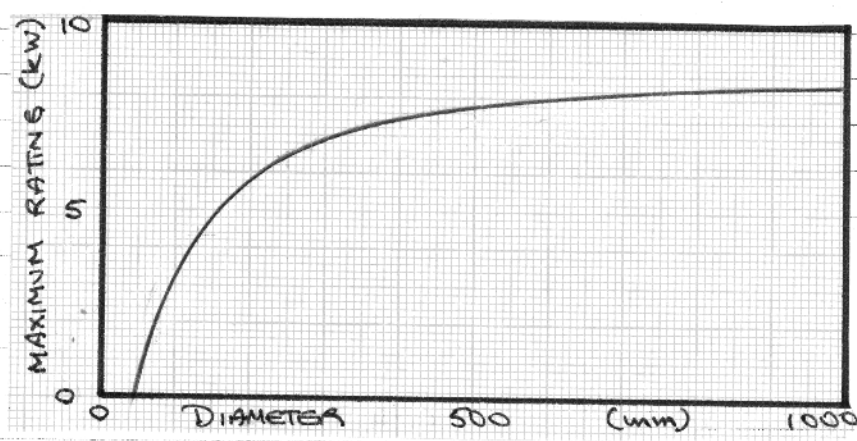
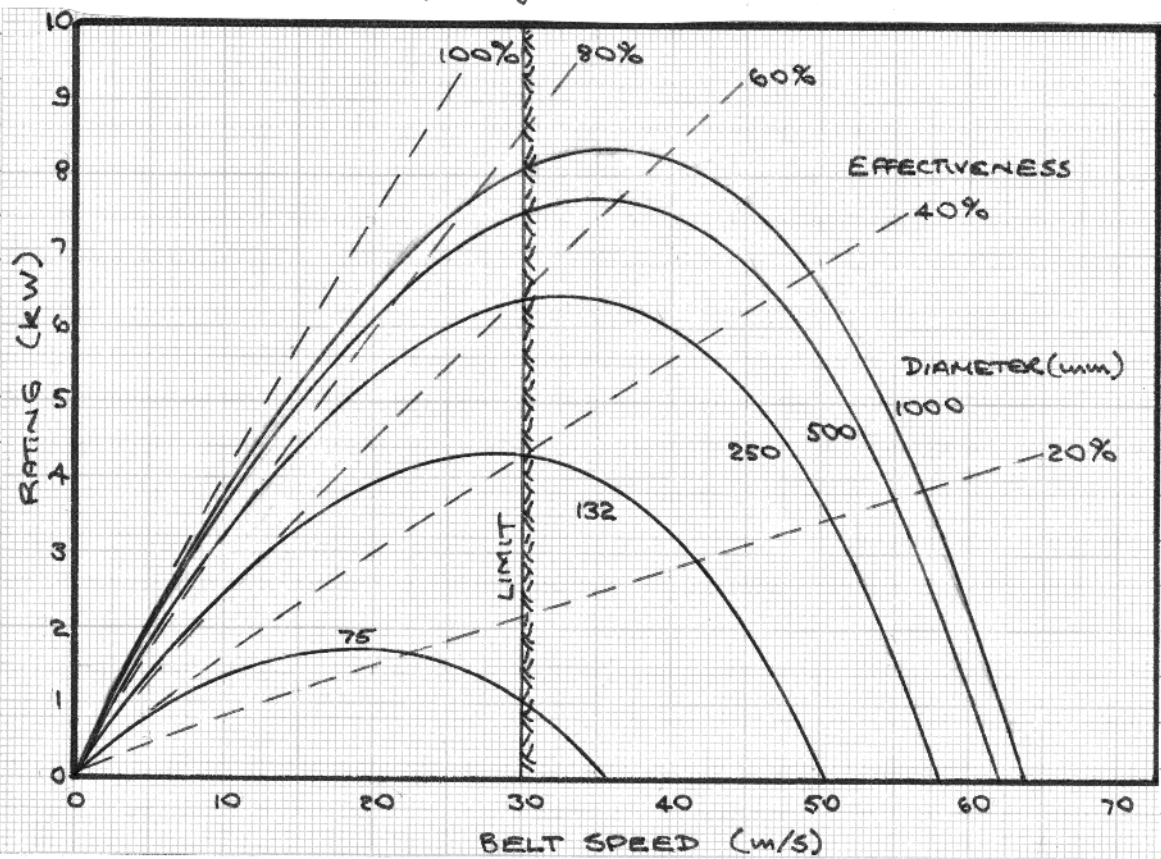
3 could i.e. $P = 2.056 P_m v^{-0.91}$

- that is, trajectories of constant effectiveness in the P-v plane are given by:-

$$P = 0.4963 P_m v^{0.91}$$

which are plotted below, for $v = 0.2, 0.4, \dots$ etc.

The trends should be appreciated - e.g. it is difficult to achieve an effectiveness of 60% using a 132 mm pulley, whereas the effectiveness with a 250 mm pulley hardly drops below 60% in the practical range of velocities.



4. From (2b) $C = 671 \text{ mm}$ $R = \frac{400}{200} = 2$
 From Code tables

Basic rating = $5.90 + 0.46 = 6.36 \text{ kW}$
 Arc factor $\left(\frac{D_2 - D_1}{C} = 0.30\right) = 0.96$