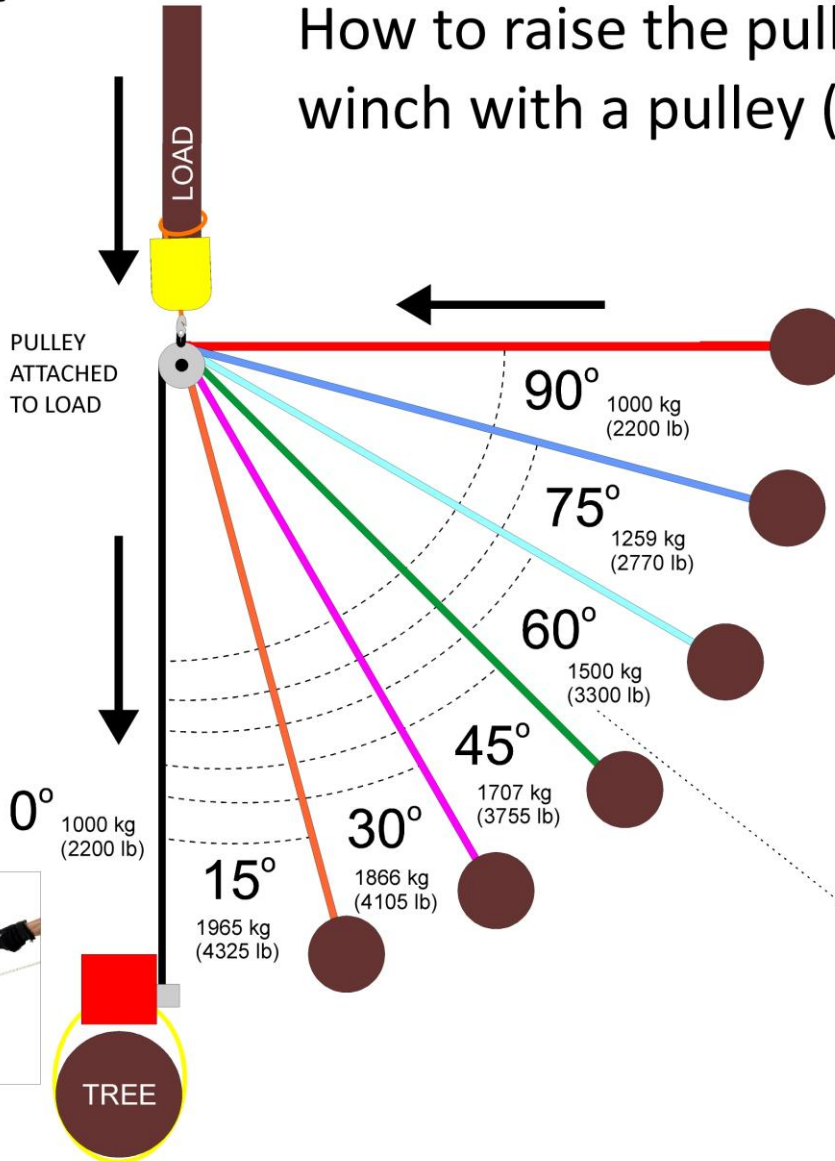


# AERIAL VIEW

## How to raise the pulling power of your winch with a pulley (*it's all in the angles*)



PULLEY ATTACHED TO LOAD



In all cases, the end of the rope is attached to a second tree with a sling and a carabiner or a shackle.

Formula:  $AF = WF + (WF \times \cos \text{Angle})$   
 Terminology: AF: Applied force to load  
 WF: Winch force  
 Cos: Cosine

Cos Angle values:  
 15 degrees: 0.9653  
 30 degrees: 0.866  
 45 degrees: 0.7071  
 60 degrees: 0.5  
 75 degrees: 0.2588  
 90 degrees: 0

Example with a 60° angle:  
 WF = 1000 kg (PCW5000 capacity)  
 $AF = 1000 + (1000 \times 0.5)$   
 AF = 1500 kg applied to load

● = End of rope anchor point



PORTABLE WINCH ATTACHED TO TREE