What are the physical forces forest workers have to apply? What is the intensity of the metabolic strain?

Methodology

- Mini forestry crawler
- Ø 12 mm steel cable, 0.73 kg/m
- Spiroergometric device
- Video for time stamp
- Tensile force
- LAN
- 50-m corridors
- 2 subjects

Results

- Flat: 0-5%
- Uphill, angled: 15%
- Uphill: 25%
- Flat: 31.5kg
- Uphill, angled: 25.7kg
- Uphill: 20.5kg
- Flat: 70 %HRR 11.6 METs
- Uphill: 60 %HRR 9.2 METs
- Uphill, angled: 47 %HRR 8.8 METs

Conclusions

- Winching over 50 m is a vigorous physical activity
- Work intensity: Flat > Uphill, angled > Uphill
- Preliminary professional occupational health check for accurate values
- Acceptable average winching distance: 30 m