

## Comparative study on physiological burden of a pre-hauling work of winches with a wire rope and a fiber rope

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Physiological burden of pre-hauling works in several systems were measured in a municipal forest of Hiroshima city. Cardiac rate and heart rate max of total working hours or in each work lot were used for evaluation as the heart rate levels of the systems. Without reference to inclination, cardiac rates in a simple wire system were lower than a single track fishing with a seine. On heart rate levels in a ground hauling by a mono-cable, although no significant differences were seen among systems, cardiac rate in a uphill hauling became higher than that in a downhill hauling, on the other hand cardiac rate by using fiber rope became lower than that by wire rope. Such results agreed with the hearing investigation from the workers.

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