**application of the cableway then adapter forest wheeled tractors**

aplikácia LANOvkovej nadstavby ako adaptéra pre lesné kolesové traktory

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**Abstract:** Field conditions, high proportion of mountain forests and forest health condition requires ecological forest machinery. Skidding by cable systems is the most ecologically friendly skidding method. On the basis of the need of greater use of timber skidding by cable systems we started to work on a proposal of cable system based on transportation-circulating cable as adapters of forest wheeled tractors.

**Key words:** skidding, cable system, forest wheeled tractors, adapters

**Abstrakt:** Terénne podmienky, vysoký podiel horských lesov a zdravotný stav lesov si vyžaduje ekologicky vhodnú lesnú techniku. K najšetrnejšiemu spôsobu sústreďovania dreva patrí sústreďovanie lanovkami. Na základe potreby rozšírenia sústreďovania dreva lanovkami sa pristúpilo k návrhu nového lanového zariadenia na báze dopravno-obežného lana ako adaptéra na lesný kolesový traktor.

**Kľúčové slová:** približovanie, lanovka, lesný kolesový traktor, adaptér

**Introduction**

Introduction should describe the current state of knowledge in the problem. It should be brief and concise. It must include the formulation of the scientific problem and relationship to previous work with similar problems. In the end, it is necessary to clearly define the scope and objectives of the article.

**material and methods**

It contains a description of the materials, methods and techniques. Standard procedures can be indicated by reference to the source, the original is necessary to describe in detail. The main objective of this section is to given sufficient details for a competent researcher to be able to repeat the measurement and to reproduce the results.

**results**

This section should evaluate the achieved results. Present results are processed and described in tables and graphs.

Fig. 1.Database file of grinders divided by correlation between weight and power

Obr. 1. Databázový súbor drvičov rozdelený podľa závislosti hmotnosti od výkonu

1)Hmotnosť, 2)Výkon

Table 1. The categorization of forestry mulchers

Tabuľka 1. Kategorizácia drvičov

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **K1t** | **K2t** | **K3t** | **K4t** | **K5t** | **K6t** |
| Engine performance1) [*kW*] | 0 ÷ 75 | 75 ÷ 100 | 100 ÷ 125 | 125 ÷ 175 | 175 ÷ 225 | < 225 |
| Weight2)[*t*] | 0 ÷ 1,3 | 1,3 ÷ 1,7 | 1,7 ÷ 2,0 | 2,0 ÷ 2,8 | 2,8 ÷ 3,5 | < 3,5 |
| Grinding diameter3) [*cm*] | 0 ÷ 22 | 22 ÷ 26 | 26 ÷ 30 | 30 ÷ 38 | 38 ÷ 46 | < 46 |
|  | **K1hm** | **K2hm** | **K3hm** | **K4hm** | **K5hm** | **K6hm** |
| Flow rating4) [*kW*] | 0 ÷ 75 | 75 ÷ 100 | 100 ÷ 150 | 150 ÷ 175 | 175 ÷ 200 | < 200 |
| Weight2)[*t*] | 0 ÷ 0,55 | 0,55 ÷ 0,7 | 0,7 ÷ 1,0 | 1,0 ÷ 1,2 | 1,2 ÷ 1,35 | < 1,35 |
| Grinding diameter3) [*cm*] | 0 ÷ 12 | 12 ÷ 16 | 16 ÷ 23 | 23 ÷ 26 | 26 ÷ 30 | < 30 |

1)Výkon motora, 2)Hmotnosť, 3)Priemer nárastu, 4)Prietokové množstvo

Equations should be formatted as follows:

$Q=V\_{G}∙n\_{G}∙η\_{G}$ (1)

where *ηG* is flow hydraulic pump efficiency [-],

*Q* is flow rate [m3.s-1],

*VG* is geometric volume of hydrogenerator [m3.ot-1].

**discussion**

The achieved results should be critically discussed and compared with the results of other authors. It should be focused on the basic established principles and evaluated whether they have been confirmed. The discussion should be limited only to the area of achievement.

**conclusion**

It should present a brief summary of the major results of the work and deduct fulfillment of set goals.

**literature**

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