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Field Note N°: Skidding/Forwarding - 4
Previous Reference Sheet N°: None

CABLE SKIDDER REMOTE WINCH CONTROL

INTRODUCTION

Unhooking a load of trees brought to the landing by cable skidder is a dangerous and often disliked part of the work. Chokers frequently are hard to reach or their release is hindered by the way the load sits. In such cases, the operator normally uses the skidder winch to shake up the load and expose or free these hard-to-reach chokers. This practice necessitates frequent, potentially hazardous mounting and dismounting of the skidder during unloading.

A system developed and used for many years by Spruce Falls Power and Paper in Kapuskasing, Ont. is proving beneficial in terms of both production and reduction of the accident risk. This company has installed manually-activated remote winch controls which eliminate the need for the operator to climb back into the cab to engage the winch.

DESCRIPTION

The control is simple yet rugged, consisting of two cables guided by pulleys and/or linkages which are connected to the cab winch lever controls (Figure 1). There are two slightly different designs, one which emphasizes pulleys and the other linkages, although both activate the main winch control lever inside the cab from a pull-ring mechanism located on the butt plate of the skidder.

Pulling the first of the two cables activates the winch lever and increases engine speed to compensate for the extra load. Winching ceases when the cable is released. The second cable initiates "free-spool" so the load can be dropped and unchoked.

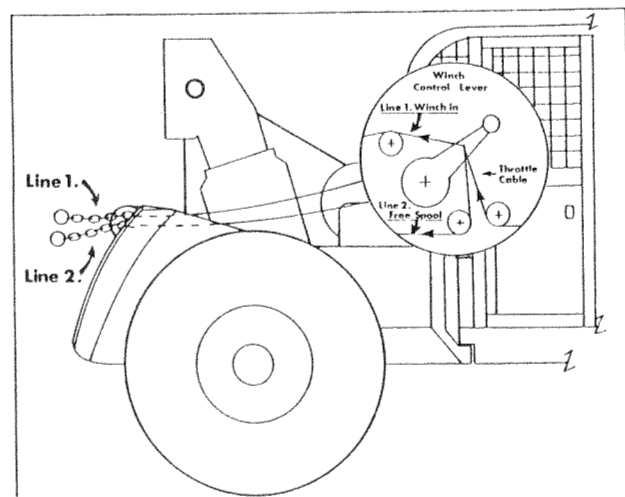


Figure 1. Skidder remote winch control.

SAFETY PROCEDURES WITH THE USE OF THE REMOTE WINCH CONTROL

Using the remote winch control not only involves mechanical changes to the existing system, but also requires changes to the usual unloading practice to ensure safety and efficiency. First, the winch should be used *only* at the landing. Because the operator stands outside the skidder, it would be extremely dangerous to winch in a load of trees in the stump area. At the landing, the skidder should be positioned about 3 to 5 metres away from the pile. The hand brake should be on and the blade down to prevent roll back. The operator stands to the side of the back tire and faces the load. The winch can then be safely operated (Figure 2).

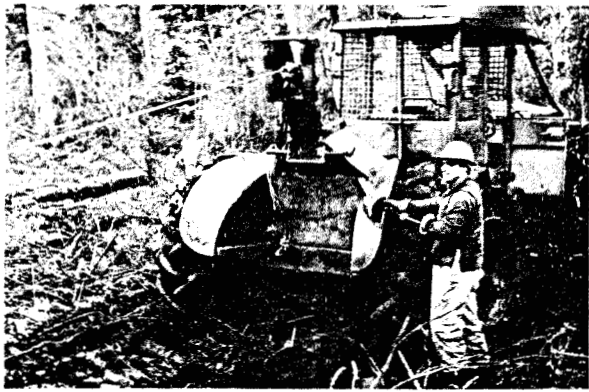


Figure 2. Recommended position for operating winch control.

PERFORMANCE

FERIC conducted a short study of a skidder equipped with a remote control winch. During this study, the average productivity per productive machine hour was 17.3 m^3 with an average load volume of 3.5 m^3 and an average tree volume of 0.45 m^3 . Because of their large size, an average of only eight trees were skidded per turn. During the study, the unloading time averaged a relatively quick 1.5 minutes. This was related in part to the low number of trees per load, but also to the use of the remote-control winch which was activated an average of 1.8 times per turn. During a typical shift, the use of the remote control can eliminate over 50 mountings and dismountings of the machine for the operator.

Considering the potential productivity gains and the fact that no winch-related accidents have been recorded since the implementation of the remote control winch at Spruce Falls Power and Paper in the late seventies, this device should prove interesting to any cable skidder owner/operator who is looking to increase production and reduce the risk of injury.

FURTHER INFORMATION

Further information pertaining to the remote control winch can be obtained from Spruce Falls Power and Paper. Contact:

Mr. Naci Vardar
Woodlands Development Superintendent
Spruce Falls Power & Paper
P.O. Box 100
Kapusking, Ontario
P5N 2Y2
Tel.: (705) 337-1311

J.B. McPhee
Wood Harvesting Group

