

HAULER OPTIONS

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One of the major problems with cable systems in any form of limited scale logging are the expectations of the forest owner.

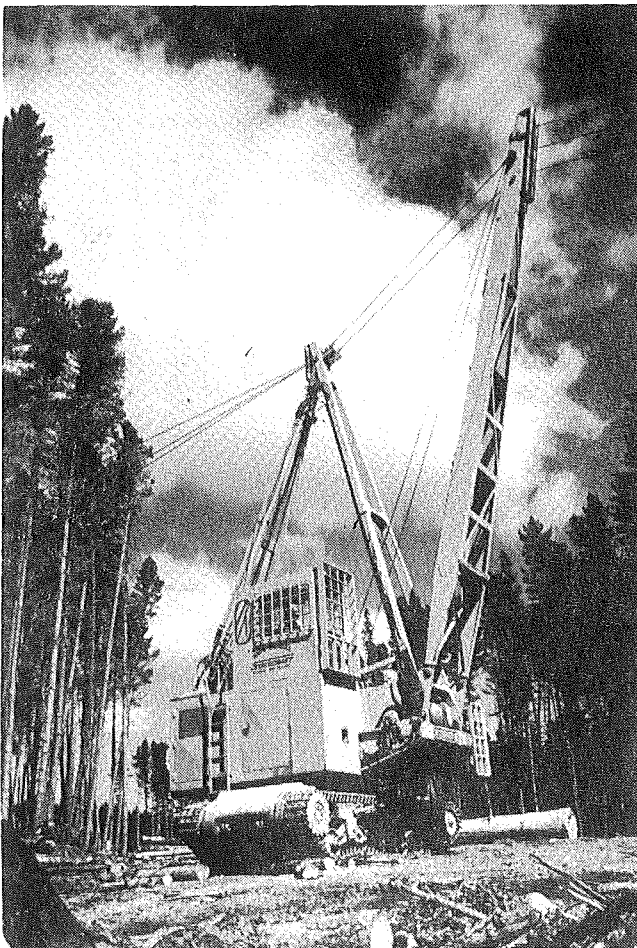
Recent published tenders are a good example.

This year alone there have been a number of hauler tenders asking for mobile self-propelled haulers, 180 kW +, with a tower height of 15-20 m. They must be capable of running a variety of systems over a range of piece sizes for what are fairly low production levels.

The first thing that happens when the tenders are opened is a loud organised roar from the forest owner on the cost of using cable systems.

What else can you expect when the tender specifications are based on a machine with a capital cost of \$500,000, yet the volume available is only one-third-one-half of what it is capable of producing?

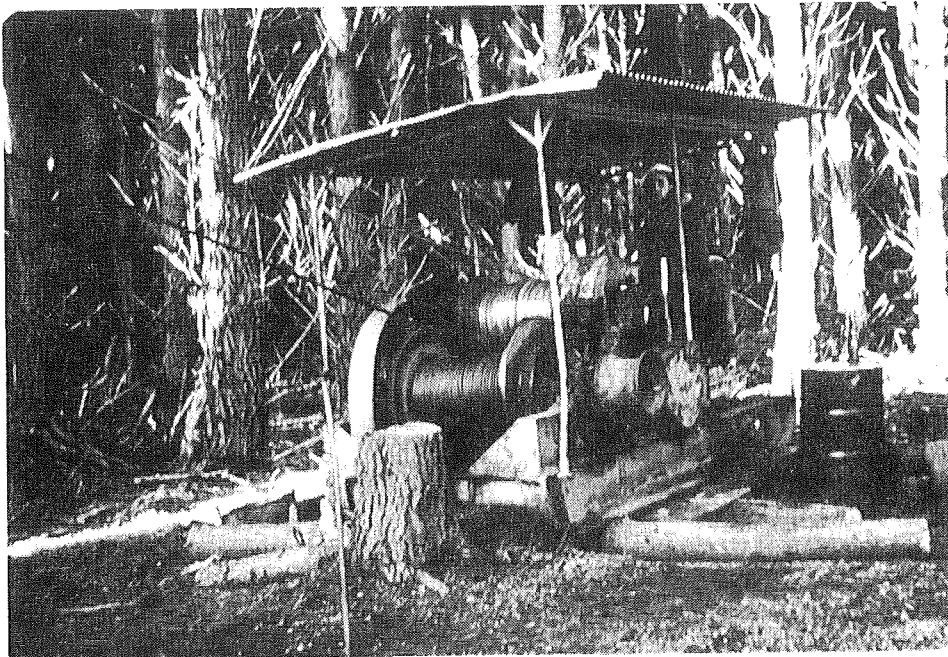
I would suggest that there is no point in asking for a machine that you would like to have, or that you consider would be ideal for your area, if you don't have the volume to make it an economic operation.



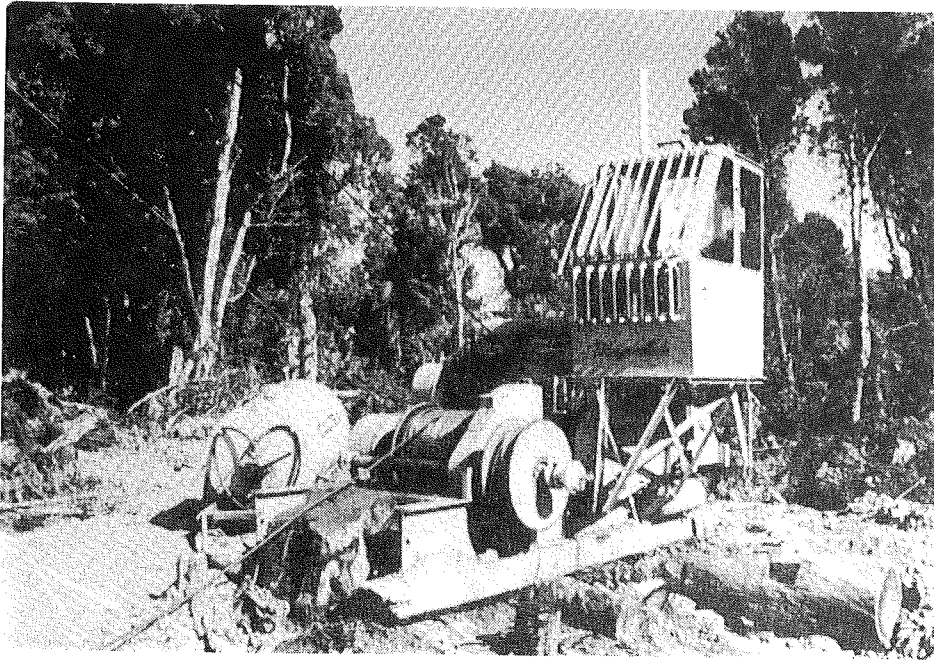
As an example, it would be nice to have the mobility, speed and system options of something like the Washington 88 but it is not realistic, practical or economic for limited scale operations.



For thinning, if the piece size is right, and more importantly if there is a market for the wood, small haulers like this are both practical and economic. The basic unit is a farm tractor, with an Igland double-drum winch driven from the P.T.O. of the tractor. There is provision to run both a skyline and strawline through drums bolted on to the rear wheels of the tractor. The tower is built locally and the all-up cost of the unit is \$20,000-\$25,000.



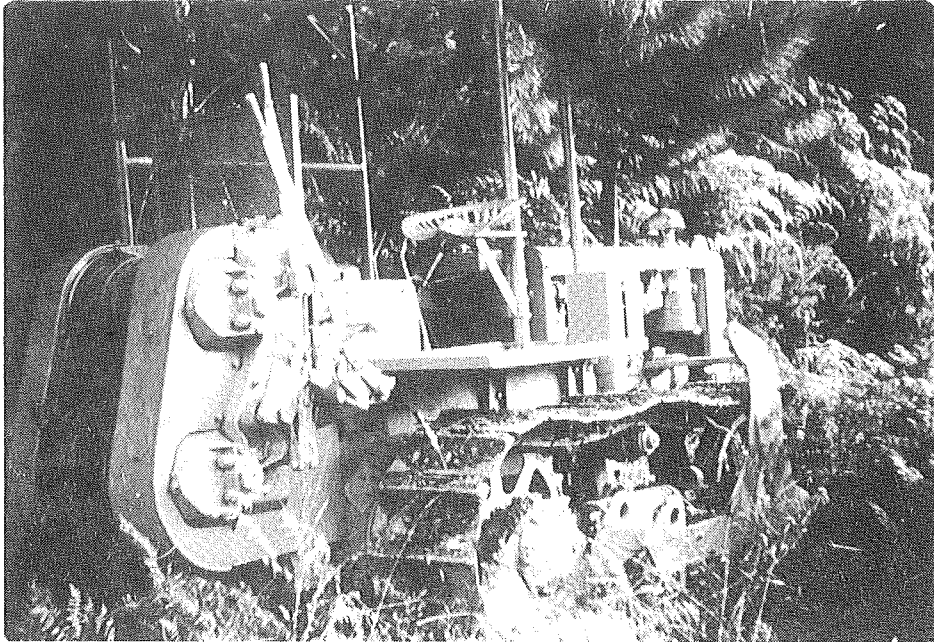
There is still a place for the older 2 drum haulers in clearfell operations, particularly where mobility, system options, high productivity and mechanical reliability are of secondary importance. These units can be brought for \$15,000-\$20,000 and could have a place in small scale operations.



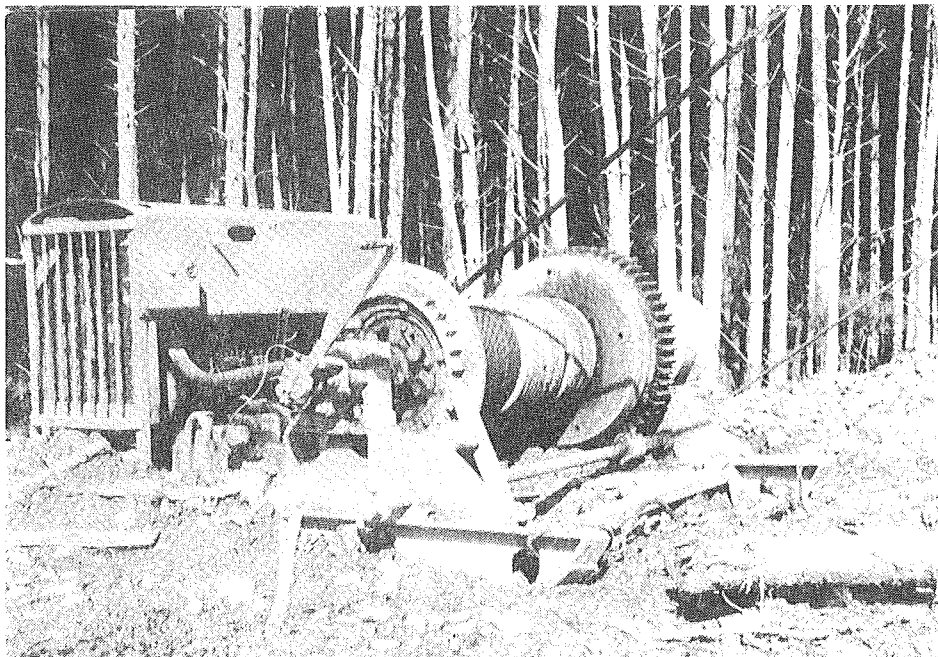
These units can be modernised and improved in a number of ways, at a reasonable cost. This machine has been re-powered, with air controls and a better cab added. Mobility wasn't considered important, so nothing was done.



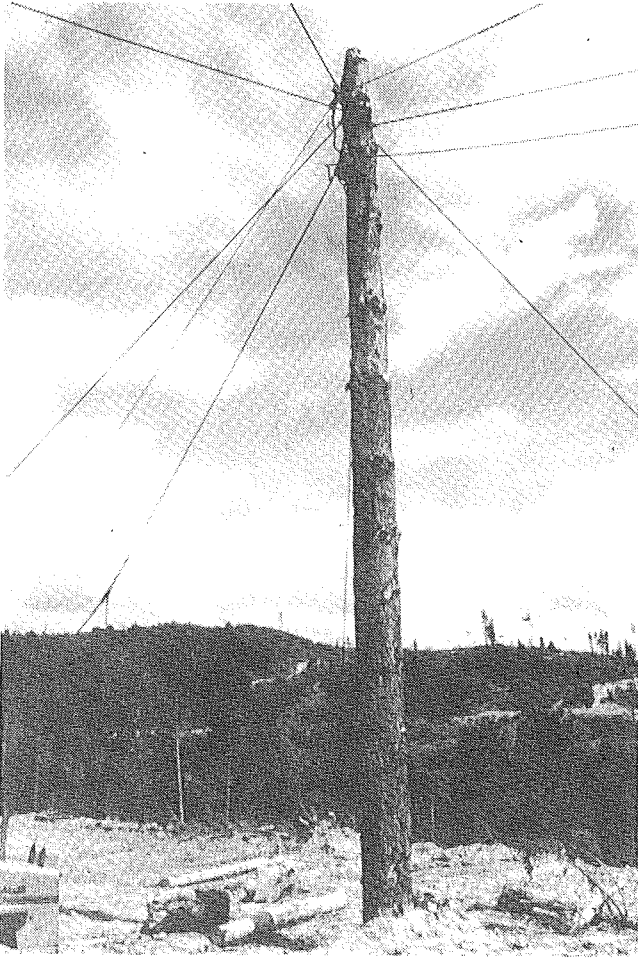
There are a number of ways to improve mobility. One of the simplest and cheapest is a trailer mount, although trucks, tractors, and crane carriers can also be used.



Another option is a double drum winch mounted on an old tractor. This can have definite advantages as it does give some flexibility in mobility and system options, at a reasonable capital cost.

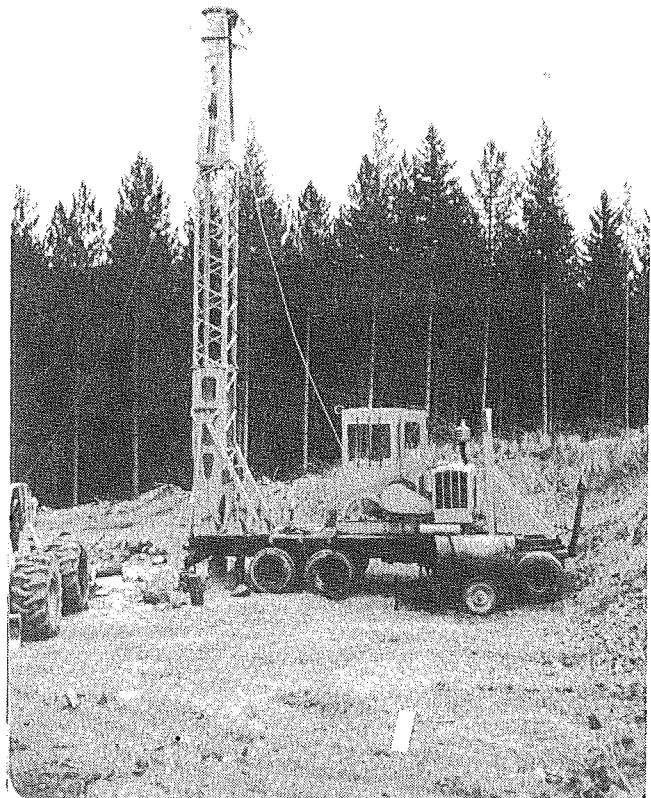


An additional drum for a skyline doesn't have to be mounted on the hauler. A realistic alternative for the older two drum machines can be to have an independent drum with its own power source.



All of the haulers you've seen so far are rigged through a standing tree. There's nothing wrong with this, but I suspect that the expertise to rig correctly and safely will be somewhat lacking in crews working a limited scale.

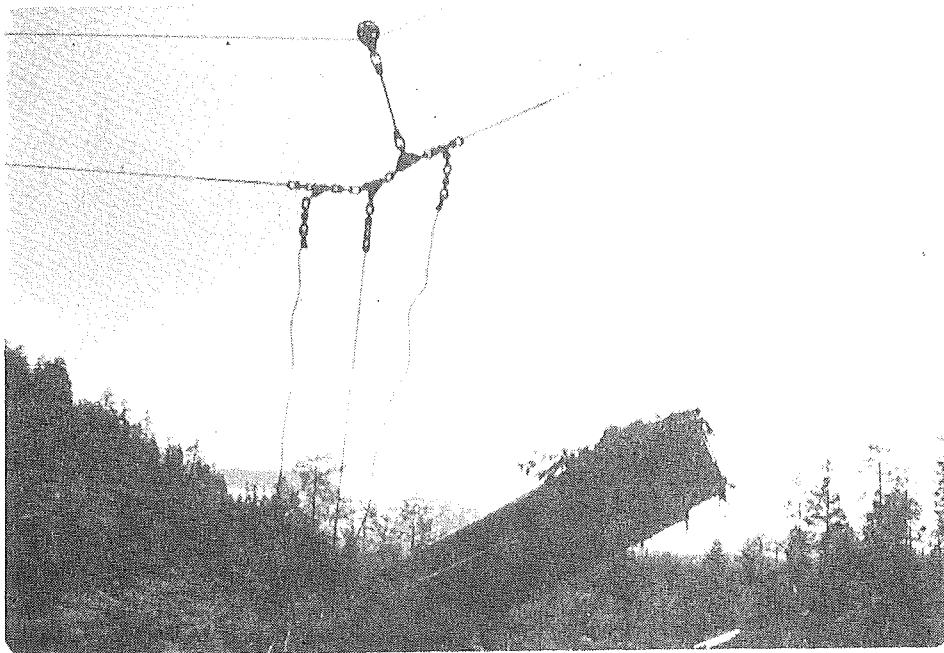
There are a number of options for adding a tower to an old hauler. The simplest and cheapest is a short lattice tower.





An option which is slowly gaining in popularity is the use of different carriages. Not all of the carriages you see here are suitable for the older two drum machines, but it does give you some idea of what is available.

The idea of using a "smart" carriage with a "dumb" hauler is certainly worth considering. The "Wyssen" follows this principle to some extent with a relatively simple hauler and a sophisticated carriage.



Carriage options can be very simple, as you see here. All it is, is a block hung over the tailrope, but it can be very effective.



Where you have the advantage of gravity, there are a number of carriages that can be used, from the very simple like this shotgun carriage, to the more complex.



Mechanical locking carriages like the Christy are also relatively simple, with the added advantages of being robust, and very effective in the right area.



A step up in complexity is hydraulically activated locking carriages like the Koller and Wyssen. Because of their internal mechanisms, the manufacturer recommends load limits for each size of carriage. For example, this Koller carriage has a load limit of 2.5 tonnes.



From the sublime to the ridiculous perhaps, but it does tend to reinforce the idea of "smart carriages" and "dumb" haulers.

Contractors in the Pacific North West use these carriages with older two drum haulers, as they are cost effective and adaptable to a wide range of piece sizes and terrain types.



The last alternative but certainly not the least important. "Cut the wood to suit the hauler". After all, there is no capital outlay involved and you will be able to use the same machine over a wide piece size range.

It is worth noting that many of the modifications and options you have seen are successful. BUT they have usually been done as a result of an adequate cash flow and contract security. Without these there is no incentive for a contractor to invest in the equipment that the Forest owner wants him to use.

