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Reports Nos 74-75

1 Director

I think there are great possibilities in both these pieces of equipment, and I advocate their use in appropriate circumstances

OJS 19/8

2 Mr Babbington

3 Mr Packwood

4 Mr Stocks

5 Mr MC Richardson

6 Mr Brimmer

7 Miss Mayhew

74

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Headquarters Mechanical Development Committee

Report No. 74

The Flat Bottomed Sledge for extraction on peat

Origin

The need to extract thinnings over some of the very soft peat ground on the Border led to the local development of a semi cylindrical sledge known as the tub sledge covered by H.Q.M.D.C. Report No. 46. This proved very effective as it was successful in keeping the butt ends of the logs clear of the ground and it was able to withstand the immense strains imposed by being hauled over stumps.

This particular shape, however, offered considerable resistance to movement and a redesign was undertaken to combine the benefits of the tub sledge with the better riding qualities of the conventional flat bottomed sledge.

Description

The new sledge was designed in $\frac{1}{4}$ inch M.S. plate and incorporated the same radius on the front plate and the same turntable arrangement that had proved successful on the tub sledge. Ground contact was, however, increased to 1696 sq. ins.

The new sledge was built by Roadless Traction Ltd., of Hounslow to Forestry Commission specification and the details are available on reference to Roadless Traction Drawing No. T.D.O.2478. (Not reproduced with this report).

The completed sledge can be seen in the photograph attached to this report.

Observations

1. The drawbar pull required to haul the flat bottomed sledge with a 2 ton load through deep mud was 1,200 - 2,100 lbs. compared with 1,600 - 2,500 lbs. for the tub sledge under identical conditions.

2. Ability to negotiate stumps and acute corners is reported by users as good.

3. The increased output per hour with the flat bottomed sledge is reported to be 15%.

4. Some criticism is directed at the very considerable weight of the sledge as it is too heavy to manhandle into position. It is not, however, possible to provide the strength to ride over stumps with a 2 ton load for any lesser weight.

The actual weight of the sledge has not been recorded but it is known to exceed 600 lbs.

Conclusions

The flat bottomed sledge covered by this report provides a suitable method of extraction for poles in the length under the exceptional conditions of soft peat.

R. G. Shaw.

Machinery Research Officer

August, 1958.

¾ Rear view of the Flat Bottomed Sledge.