

① ~~Case 4~~ ~~Long~~ ~~RB~~

② Mr. Peniston - to chase up the tongs we have kept an untraced
report on them. please. ~~JP~~

③ Mr. Maxwell
fine ~~Mr Maxwell~~
16/11.

Note One pair spring loaded tongs has
been ordered through Bristol for Speymouth.

W. H. Henders
1/10/52

Signed _____ Date _____

Please reply overleaf.

FORESTRY COMMISSION

H.Q. Mechanical Development Committee

Report 16

Hand Lifting Tongs

Origin

Tongs for handling timber have been available for many years but, with concentration on the smaller thinnings in the forests of the Commission, they have largely fallen into disuse. As the size of thinnings increases, however, the need for some form of handling tongs is likely to revive.

The use of tongs is almost universal in Sweden for all sizes of logs in the forest so investigation into two Swedish types has been undertaken.

Description

The two types were:-

1. A light spring loaded model capable of handling logs from four to eight inches in diameter. Weight = 1 lb. 2 oz.

(Photograph 1.) These tongs were supplied by:-

FORENINGEN,
VARMLANDS SKOGSARBETSSKOLEN,
U.P.A.,
FILIPSTAD, SWEDEN.

The price including freight and import duty was 19/9d. each.

2. Self gripping tongs on the scissors principle which were made in England on the lines of the Swedish E.I.A. Timmersaxer. These tongs can handle logs from 6 to 10 inches in diameter. Price = 21/- each. Weight = 3 lbs. 2 oz. (Photograph 2).

There are, in fact, three sizes of the E.I.A. Timmersaxer.

One pair of Timmersaxer tongs was imported from Sweden. It was identical with those made in England except in weight (4 lbs.).

Tests

Tests were undertaken to determine the suitability of both types of tongs in British forests.

Observations

The general opinion of users, applicable to both types, is as follows:-

1. It is easier to lift poles with the tongs than by hand and they enable larger poles to be manhandled. The spring loaded tongs were preferred on the smaller logs and the scissors type on the larger.

2. There is some difference of opinion as to the time that is saved by using the tongs. Opinions differ from a saving of 10 minutes in handling 225 cu.ft. to no saving at all.
3. There is no tendency for the logs to slip out of the tongs whether peeled or unpeeled.
4. There is no difficulty in releasing the tongs after setting down a log.
5. The handle provides a comfortable grip but users are not unanimous on the optimum length of the handle.
6. There is no sign of wear at any of the joints but the tongs have not been in use for sufficiently long to really establish durability.
7. The men using the tongs received less damage to their clothing than when loading by hand. They were also cleaner and suffered fewer minor injuries to their hands.

Conclusions

The results of these trials show that, where men are employed in moving quantities of thinnings, handling tongs are an advantage. Both types of tongs were liked by the users, the spring loaded type being preferred on logs up to about seven inches in diameter and the scissors self gripping type on logs above this size.

Photographs

The following photographs are attached to this report:-

1. The spring loaded type. (There is a sliding ring at the intersection of the two arms which compresses a spring on the upper half of each arm as the arms are opened. (These details are not clearly shown in the photograph)
2. The scissors type.


Machinery Research Officer.

8. 8. 52.

1.



THE SPRING LOADED TONGS.

2.

