

Report No. 55

The S.B. Stumper

Origin

Various mechanical means of clearing derelict woodland have been investigated including the grubber blade covered by H.Q.M.D.C. Report No. 28. The S.B. Stumper, a British made implement designed for the removal of tree stumps has just been put on the market. The makers submitted one of these stumpers (with their own skilled operator) for the trials covered by this report.

Description

The S.B. Stumper is a fork ended lever carried on the front of a tractor and hinged both vertically and horizontally below the tractor. A general idea of the implement is seen at Photograph 1 attached to this report. The implement is lifted to any required height by the tractor winch cable which passes from the rear of the tractor by a series of pulleys. The sole concessionaires are:-

The Tree Stump Clearance Ltd.,

Albert Road North,

Reigate,

Surrey. Tel. Reigate 4384

The price varies with the type of tractor to which it is to be fitted but is about £350 - 400 including scraper bucket (assuming that a winch is already fitted to the tractor). A tractor of 70 H.P. or over is needed for satisfactory operation.

Conditions of the trial

The trial was carried out at Chawton Park near Alton Hants on two days in late July 1956 after a prolonged period of wet weather. The soil was clay. The tractor to which the stumper was fitted was a German 90 H.P. Hanomag.

*Should be brought to the
notice of Directorate M.D.C.
in case they wish
to comment.*

OTC 4 12

(i) Director

(ii) Mr. Barington *see note at end
14/12.*

(iii) Mr. Parry *5/12*

(iv) Mr. *St. John*

(v) Mr. M.C. Richardson

(vi) Mr. Brimmer *15/12*

(vii) Miss O'Shaughnessy

*on the Agency for
next M.D.C. 1/12*

Observations

1. The first stump removed was a very large Beech which had been felled a number of years earlier. The time taken to remove it was 40 minutes. See Photograph 2.

2. A number of old felled Larch stumps (8 - 12 inches diameter) were removed in times varying between three and five minutes.

3. Douglas Fir stumps of 12 inches diameter took up to 10 minutes to remove.

4. Two large coppicing Chestnut stumps were together removed in 6 minutes (See Photograph No. 3.) This was a particularly interesting case because the stumps were on the edge of a plantation and they had to be removed without damaging the standing trees which can be seen in the photograph immediately behind the two stumps.

5. In every case the stumps were left entirely severed from their roots but a considerable quantity of broken roots was left in the ground. This left the ground in suitable condition for forestry planting but a subsequent tining operation would have been necessary for agricultural use. Very little subsoil was brought to the surface.

6. A scraper blade is supplied with the stumper for backfilling so that holes can be filled in and the ground generally levelled after de-stumping. This blade fits over the fork end of the stumper and takes under 5 minutes to fit using one man to help the tractor operator. The times quoted for stump removal in Observations 1 - 4 do not include any subsequent levelling.

7. Costs The following figures must be taken with great reservation as data was only available from one short demonstration. Based on a tractor cost of £2 per hour and two men at 4/- per hour each (+ 40% overheads on labour), the stumps mentioned in observations 2-4 cost about 8/8d. each to remove. This figure allows for an average total time of 10 minutes per stump which the trial indicated would be a fair figure taking into account moving the machine from point to point etc. The large stump mentioned at Observation 1 has been omitted in arriving at these figures because it differed so much in size from the remainder but on the same basis this stump cost just under 35/- to remove.

Conclusions

The S.B. Stumper is an effective tool for the removal of stumps from old woodland, particularly, in cases where explosives cannot be used.

R. G. Shaw

Machinery Research Officer

November, 1956

I wonder if we are wise to spend time and money on trying to simplify the clearance of felled woodland areas, and if this sort of report is really in the best interests of forestry. The easier and cheaper it becomes to convert felled woodlands to agriculture, the more difficult does it become for us to acquire them for replanting.

So far as I can see, the trial was a waste of time.

I cannot see what use we are likely to have for this machine except for
purge of woodland areas!!

CAB
4/12



Photograph 1. The S.B. Stumper shown mounted on the front of a German Hanomag tractor. In this photograph the cable from the winch for raising and lowering the tool, is concealed by the chains which, in the operating position, limit the traverse of the tool.

A bucket fits onto the front of the tool for filling in holes after stump removal. The time taken to fit or remove this bucket is a few minutes.



Photograph 2. Showing a large Beech stump removed by the S.B. stumper in 40 minutes. Some idea of the size can be gathered from comparison with the 6 feet tall man standing alongside.



Photograph 3. The two large coppicing Chestnut stumps referred to at Observation 4. Note how the stumper has worked round the front and sides of the stumps without damaging the standing crop behind.

Time taken for removal of the two stumps was 6 minutes.