

**SECTION 57 – GRUBBING**

1205. All stumps and heavy roots should be grubbed unless at least 12 inches below finished surface level.

1206. Holes left by grubbing must be properly filled and compacted.

**Methods of Grubbing**

1207. Grubbing by dozer. If stump will not yield by direct pushing and lifting, cut roots on three sides by “digging” with corner of blade, and then grub.

1208. Grubbing by tractor winch. The approximate line pull of crawler tractor winches is given in RESPB No. 5c Table 3.5, points to remember are:

- a. Align tractor to give a straight pull.
- b. Anchor tractor firmly to another stump or tree.
- c. Ensure that the operator can see the stump being pulled.
- d. Use slings, to avoid damaging the winch rope.

1209. Grubbing by blasting:

- a. Blasting is slow and it may only fracture roots, which must then be grubbed by hand.
- b. Successful charges leave crevices which must be back-filled and compacted. This may involve using borrow material.
- c. Charges for trees and stumps are given in Table 12.4.
- d. Hardwood stumps can be shattered for removal by tractor, by using 4-oz charges of gelignite. Six such charges, in boreholes 15 inches deep and fired simultaneously, will break up a 48 inch stump.

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**TABLE 12.4 – CHARGES FOR TREES AND STUMPS**

Diameter of stump 1 ft above ground (inches)	Approximate number of ½ lb cartridges* (50 per cent dynamite)
(a)	(b)
8	2
12	3
18	5
24	7
30	11
36	14

\*Charges may be reduced to about one half for dead trees or stumps. Charges must be placed well under the stump for tap-rooted trees