

Report No. 70

The Hesford Heavy Linkage Winch

Origin

This winch was obtained on loan for trial on the Ferguson 35 tractor by arrangement with Massey Ferguson and C. M. Hesford and Co., Ltd.

Description

The main feature of this winch is that it is carried on the 3 point linkage of the tractor and is driven by shaft from the tractor power take off. This gives the great advantage of enabling the tractor to be fitted with a heavy duty winch or returned to standard form in a matter of minutes.

The winch stands on a frame which folds out of the way when the winch is on the tractor. The drum diameter is 6 inches and it carries 150 feet of $\frac{1}{16}$ diameter steel rope. (See photograph 1).

The price is £162.15.0 (Retail).

The manufacturers are: C. M. Hesford & Co. Ltd.,
Ormskirk,
Lancashire.

Observations

1. The time required to mount the winch is 5 - 10 minutes and the time required to remove it is 3 minutes. Mounting time varies very much with ground conditions and it was found that if the winch when not in use is kept standing on wooden bottoms so that it is level and at a convenient height only one man, the tractor driver, is required.
2. The manufacturers claim a pulling capacity of 12,000 lbs. During the trials the only available dynamometer was calibrated only up to 10,000 lbs. but readings right off the dial were obtained with the anchor in use so it is reasonable to assume that the makers' figure can be reached.
3. The total weight of the winch (with cable) is 1036 lbs.
4. With standard front wheel (no wheel weights) no appreciable affect was noticed on the tractor steering when travelling with the winch mounted.

Please Circulate

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Return Miss O'Shaughnessy
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P.A.

5. The pull required to pull out the rope with the drum free is 30 lbs. when the full 150 feet of rope is on the drum and 45 lbs. when only the last layer of rope is on the drum.
6. Tests to determine the holding power of the brake showed this to be 8,600 lbs. with an empty drum.
7. With slightly different linkage gear the winch will fit the earlier model Ferguson which was actually used in some later tests. The makers also claim that the winch will fit the Fordson tractor equally easily.
8. No mechanical defect arose in the winch during the trial.
9. A certain amount of adjustment on the clutch was necessary in the early stages of the trial to obtain maximum pull but this was probably due to the bedding down of new linings.

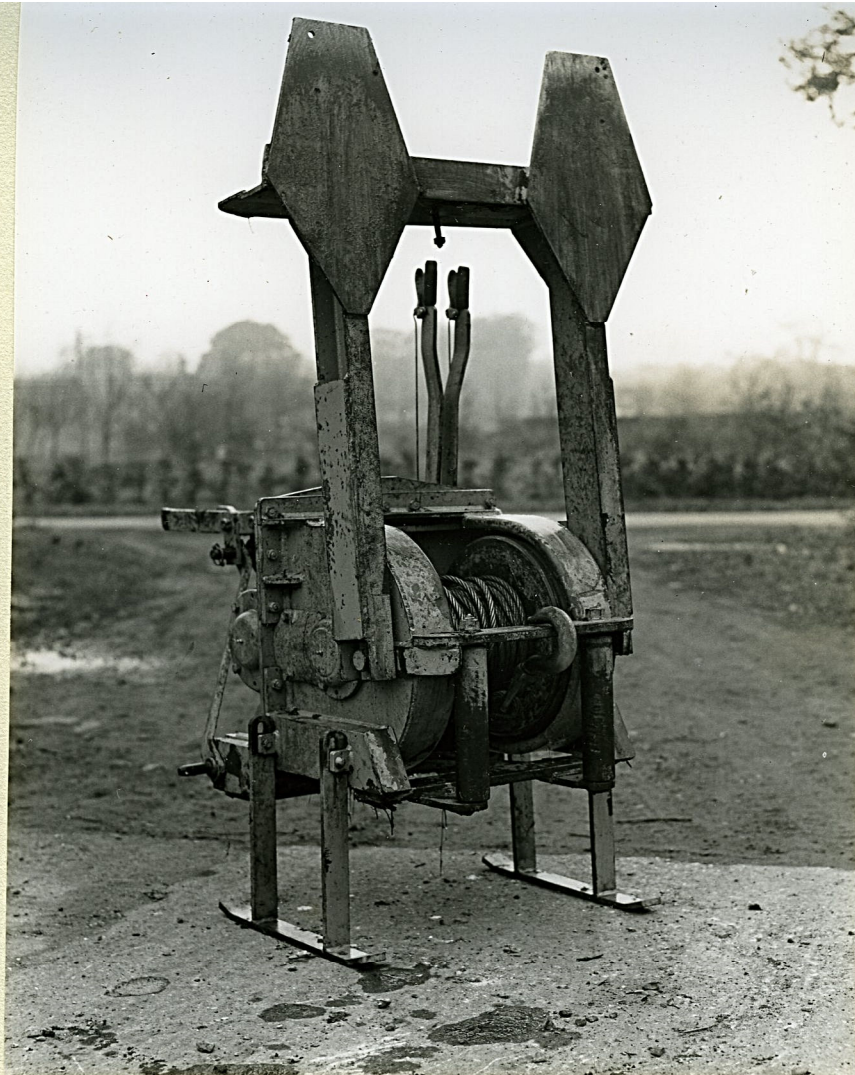
Conclusions

The combination of the Ferguson 35 and this mounted winch makes a most useful and handleable timber extraction unit. The ease with which the changeover from winch to cultivating equipment and vice versa is accomplished is of immense value in cases where one tractor has to fill the two roles.

R. G. SHAW
Machinery Research Officer
February, 1958

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Photograph 1. The Hesford Heavy Linkage Winch ready to be picked up by the tractor. Note the retractable stand which folds up when the winch is mounted on the tractor.



Photograph 2. The winch on the 3 point linkage of a Ferguson 35 tractor hauling timber at Alice Holt.