

A study on Tractor-Mounted Combination for Fertilizing Tilling Bedding and Seeding¹

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SUMMARY

A tractor -mounted combination for fertilizing, tillage, bedding and seeding is designed for all-in-one operation subject to seperated process of traditional machines for completing fertilizing, tillage, bedding and seeding at one time. It is mainly composed of fertilizer, tilling rotate plow, bedding device and seeding machine in sequence. Loading of this machine is by the three-point combination of the tractor, and the power is transmitted to the gear box of rotate plow through the transmitting shaft of the tractor PTO. The power is transmitted through the main shaft of the gear box by way of the gear chain to drive rotate plow and then by way of the positive gear and the gear chain to reduce the speed for driving the fertilizer. The raising and lowering operation of the hydraulic tank of the bedding device is controlled by the external hydraulic controller of the tractor. The seeding machine of vegetable seeds is hanging on the horizontal bar extended from the bedding device, and achieve the purpose of seeding when the seeding wheel is driven by the landed wheel of the seeding machine through the gear chain. If a tractor-mounted combination for fertilizing, tillage, bedding and seeding is used, the operation time each hectare is at 2~4 hours. (A save of 85% more) Because of regular linear seeding. So, the machinerized seeding operation can improve the defect of human labour seeding, reduce the waste of seeds.

keywords : Tractor-mounted, Load, Fertilize, Tillage, bedding, Seeding combination machine

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