

Development of the Electric Self-propelled Lifting Carrier¹

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ABSTRACT

The purpose of this research was to develop a front-wheel steering & rear-wheel driving electric self-propelled lifting carrier for production management, harvesting and carrying in greenhouse. This machine was powered by a 950W DC motor. The maximum forward / backward speed were 5.24 / 3.56 km/hr, respectively. Its turning radius was about 1.6 m. The lifting of the working deck was powered by hydraulic system. The maximum lifting height was 800 mm, the lifting capacity 200 kgf (not including operator's weight). The testing results of operation speed showed that the machine is over 3 times higher than labor in performance. Two 24V batteries in parallel made this carrier operate about 2-4 days after full recharged.

Key words: lifting carrier, self-propelled, electric, greenhouse.



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