

C. Frumau *Machinekat met traverseerinrichting voor de Carrier Crane.*
Engineering Assignment, Report 2000.TT.5424, Transport Engineering and Logistics.

In order to load and unload the next generation containervessels within 24 hours, a containercrane, with a higher capacity, is needed. For this reason, a new type of containercrane, the Carrier Crane, is being developed at the Technical University of Delft, section Transport Technology. In this report a design of a machinery trolley with traverse mechanism is described.

The trolley consists of two parts, the mainframe and a sub-trolley. The sub-trolley can move over a distance of 14,80 meters.

Since the required distance between the sheaves and the main winches cannot be established when the winches are located on the trolley, the main winches are located on the mainframe. The main winches are electrically driven.

The drives of the mainframe are directly connected to the wheels. Two of the four wheels are driven.

The sub-trolley is pulled by a cable. A cable pulled trolley can operate independent of the friction between the wheels and the track.

The calculations for the cables are conform standard NEN 3508. The drives and structures are checked using NEN 2018, NEN 2019 and NEN 2020.

The total weight of the trolley is about 35 tonnes.

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