

***STUDY OF THE EFFECT OF LOAD ON THE CURRENT OF A HOIST
CRANE MOTOR AT PT INDAH KIAT PULP AND PAPER***

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ABSTRACT

A hoist crane is lifting equipment widely used in industry to move materials with certain capacities. The electric motor is the main component in the lifting process, so changes in load can affect the current consumed by the motor. This study aims to determine the effect of load variations on the current of a hoist crane motor. The research method used was observation, measurement, and data analysis. Measurements were conducted directly on the hoist crane motor using a three-phase 380 V power supply with several load variations of 0 kg, 100 kg, 300 kg, 400 kg, and 600 kg. The results showed that the greater the load lifted, the greater the current consumed by the motor. At a load of 600 kg, the measured current was 37.7 A. Therefore, the load has a directly proportional relationship with the current of the hoist crane motor.

Keywords: *Hoist crane, three-phase motor, load, motor current, current measurement.*