

# Moving mechanism design using light weight technology

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## 경량화 기술을 이용한 이동형 메커니즘 설계

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### Abstract

Moving mechanism is a device that handles and transports cargo and is the most used industrial machine in industrial field. Lift and lower weights and do lifting and lowering exercises. In addition, it operates by combining movements such as traveling and traversing horizontally.

### 1. Introduction

The moving mechanism has a high probability of large-scale accidents due to breakdowns such as brake lining wear, pin gear wear, end truck assembly disengagement, wheel wear and breakage. In order to reduce the loss cost, it is necessary to supplement major core parts.

### 2. Moving Mechanism

As shown in Fig. 1, the mobile mechanism has a high possibility of large-scale accidents due to breakdowns such as brake lining wear, pin gear wear, end truck assembly separation, wheel wear and damage. In order to reduce the loss cost, it is necessary to supplement major core parts.



(c) Wheel bearing damage



(a) Brake lining damage

(b) Pinion gear damage



(d) Crane derailment due to rail damage

[Fig. 1] Breakdown of main parts of existing hoist crane

### Reference

- [1] J. B, Jung. H. S, Ryu, "HA Study on the Selection of Mobile Crane Model for Heavy Equipments Installation," Journal of the Korean Plant Society, 2012.