

ABSTRACT

PT. Mandala Karya Prima is company operate in mining sector which this company is contractor for PT. Mandiri Inti Perkasa. PT. Mandiri Inti Perkasa is the site Sesayap mine permit owner which is located in Subdistrict Sembakung, District Nunukan and Subdistrict Sesayap, District Tanah Tidung, North Kalimantan Province. Mining operations in the year 2018 is located in Pit B Rawa Selatan. In mining operation, PT. Mandala Karya Prima manage land clearing, overburden removal, and coal getting. For overburden removal operation, the company use backhoe Komatsu PC2000 as loading and dump truck Komatsu HD785 as hauling equipment.

The current problem is loading and hauling equipment cannot reach the production target that has been determined by the company which is 600 m³/hour for a single fleet that consist of 1 unit backhoe Komatsu PC2000 and 5 units dump truck Komatsu HD785. Actual backhoe production is 566 m³/hour and actual dump truck production is 560 m³/hour. It's due to low loading and hauling equipment working efficiency which is 70% for backhoe and 69% for dump truck. Low working efficiency is caused by obstacles that arise. Work obstacles consist of avoidable obstacle and unavoidable obstacle. Avoidable obstacle is operator lacks of discipline in working so that the working time reduce.

Effort to increase production are made by reducing avoidable working obstacles so that can increase loader and hauler equipment effective working time and working efficiency. Backhoe working efficiency increase from 70% to 76% and dump truck working efficiency increase from 69% to 75%. Increased backhoe and dump truck efficiency made backhoe Komatsu PC2000 production increased from 566 m³/hour to 615 m³/hour and 5 units dump truck Komatsu HD785 production increased from 560 m³/hour to 610 m³/hour.