

ABSTRACT

PT. Bara Mitra Energi (BME) is a company engaged in coal mining. Location coal mining area is located in the village of Sungai Danau, District Satui, Tanah Bumbu, South Kalimantan Province.

The problem that occurs is not yet achieved the desired target production of stripping the overburden is 530 BCM/hour. The research was conducted by reviewing the effective time of work and the work efficiency of loading and conveyance tools. This is due to the use of working time of unloading tools and conveyances that have not been efficient, the waiting time is quite long conveyance in the work surface, and the working system of mechanical tools has not been effective, and not the extent of the work front in the area.

Work efficiency in Fleet F PT. BME Site Gunung Buyan for excavator fit on its current 58.45%, while for the conveyance TRX Build 32D by 44% and Hino FM 320Ti conveyance of 40.9%. After repairs to improve work efficiency by reducing barriers that occur during mining operations, so that the working efficiency of excavator becomes into 63.8% while for the conveyance TRX Build 32D becomes 59.2% and conveyance Hino FM 320Ti be 56.9%.

Production capability excavator loading and conveyance theoretically at PT. BME is 470.86 BCM/hour for excavator loading and 161.484 BCM/hour for conveyance. The value of the match factor for the combination of 2 units unloading excavator Doosan 500 LCV with 9 units of conveyances TRX 32D Build 0.45, while the values match factor for the combination of 1 unit unloading excavator Doosan 500 LCV with 5 units of conveyances Hino FM 320Ti is 0,46. After upgrading the efficiency of excavator loading and conveyance equipment, an increase in the speed of the charged and returned empty conveyance, bucket fill conveyance addition, the operation of which is standby, and repair combination excavator loading and conveyance are used, the production capacity increased to 650.40 BCM/hour for excavator loading and 539.88 BCM/hour for conveyance. The value of the match factor for the combination of 2 units unloading excavator Doosan 500 LCV with 9 units of conveyances TRX Build 32D becomes 0.83, while the values match factor for the combination of 1 unit unloading excavator Doosan 500 LCV with 6 units of conveyances Hino FM 320Ti be 1.07 and values match factor for the combination of 1 unit Volvo excavator loading Eb460c Lc with 6 units of conveyances Hino FM 320Ti to 1.17.