

ABSTRACT

PT. Lahai Coal is a mining company located in Batu Tuhup Raya District, Murung Raya Regency, Central Kalimantan Province. The mining system used by PT. Lahai Coal is a Surface Mining system. Overburden was carried out using a combination of Komatsu PC-1250 excavator - loading and Komatsu HD 785-7 transportation equipment to the disposal area with a transport distance of 2043 meters.

The problem that arises is the ratio of excess fuel to the stripping cover that exceeds the standard use of 1 ltr / bcm in the Komatsu HD 785-7 transport device. There are several things that affect the increase in fuel consumption, namely the workload of the tool, geometry, haul road conditions, alignment of the road, and the hauling distance from the Pit North-2 loading point to the Disposal Area RL-100. Based on observations of actual working conditions, there are still 4 roads with a slope that exceeds the company standard of 8 %, the condition of the hauling road which still has an amblacement of more than 5 cm (medium severity).

The evaluation method is carried out by analyzing the effect of hauling road conditions on increasing the fuel ratio of the conveyance. For the Komatsu HD 787-7, every 1% increase in class riding conditions will increase fuel consumption by 0.83 ltr / km from filled conditions, while for each 1% increase in class the road conditions will increase consumption fuel is 0.18 ltr / km which is filled empty. The data are taken from fecometer that is attached to Komatsu HD 785-7.

Fuel consumption and actual production of Komatsu HD785-7 transportation equipment are 140,11 ltr / hour and 115,9 bcm / hour. So that currently the actual Fuel Ratio is 3,38 ltr / bcm. Fuel consumption of Komatsu HD 785-7 transportation equipment based on rimpull RPM calculation is 110,99 ltr / hour and based on the circulation time the theoretical calculation tool for production capability is 189,32 bcm / hour.

After improving the haul road conditions at medium severity or wheel ambliivity not more than 5 cm on the surface of the haul road and hauling road slope adjusted to company standards that are $\leq 8\%$, so the fuel consumption and production capability of Komatsu HD 785-7 transportation equipment is 100,60 ltr / hour and 275 bcm / hour.