ABSTRACT

PT. Pamapersada is a coal mining contractor who trusted by PT. Adaro Indonesia, as the holder of working agreements or PKP2B Coal Mining Company in the District. Tabalong, Prov. South Kalimantan. At the overburden stripping, one thing to note is the transport layer of the cover by means of conveyance from the loading point towards disposal.

Problems encountered today is the excessive fuel ratio in the last week, which exceeds the maximum use of 1 ltr/bcm of truck Komatsu HD 785-7 at the loading point I and Komatsu HD 1500 in the loading point II. Distance transport towards disposal for loading point I and II are 5.5 km and 4.5 km. Things that influence the level of fuel consumption is workload tool, geometry, haul road conditions and overburden haulage distance towards disposal. Based on observations of actual working conditions, the slope of the road transport still below the company's standard of 8%, but for the haul road conditions much damaged by subsidence wheel more than 5cm (medium severity).

Evaluation method is by analyzing the effect of haul road conditions against the rising fuel ratio of truck. For Komatsu HD 785-7, each additional 1% grade resistance will increase fuel consumption by 0.635 liters / km charged state and 0,103 ltr / km empty, while on each additional 1% grade asistance will reduce fuel consumption by 0.257 liters / charged state and 0.109 km ltr / km is empty. For Komatsu HD 1500, each additional 1% grade resistance will increase fuel consumption of 1.16 liters / km charged state and 0.128 ltr / km empty, while on each additional 1% grade asistance will reduce fuel consumption by 0.373 liters / charged state and 0,113 km ltr / km is empty.

Fuel consumption and actual production of transport equipment Komatsu HD 785-7 is 71.74 lt / hour and 57.09 bcm / hour, while for Komatsu HD 1500 is 96.76 lt / hour and 81.3 bcm / hour. So that the actual fuel ratio at this time is 1.26 ltr / bcm for Komatsu HD 785-7 and 1.19 ltr / bcm for Komatsu HD 1500.

Fuel consumption of truck HD 785-7 Komatsu and Komatsu HD 1500 is based on a different calculation rimpull with the actual data that is equal to 67.78 liters / hour and 93.58 ltr / hour and production distribution theory based on observation time of 61.6 bcm / hour and 86.7 bcm / hour, while for the production should be based on the calculation rimpull is 64.5 bcm / hour and 89.92 bcm / hour.

After the improvements with the addition of haul road base material so that subsidence of the wheels equal to not more than 5 cm on the surface haul roads, fuel consumption and production of transport equipment Komatsu HD 785-7 became 63.92 lt / hour and 68.58 bcm / hour, while for Komatsu HD 1500 is 82.65 lt / hour and 94.89 bcm / hour. So that fuel ratio is 0.93 ltr / bcm for Komatsu HD 785-7 and 0.87 ltr / bcm for Komatsu HD 1500.