INTISARI

Pembangunan Jalan Perbatasan Oksibil – Towe Hitam dilakukan untuk peningkatan dan memperlancar arus lalu lintas antar kabupaten di Provinsi Papua. Untuk menunjang kegiatan pembangunan jalan tersebut diperlukan penggunaan alat berat yang efisien, sehingga perencanaan alat berat mencapai target yang telah ditetapkan.

Tujuan penelitian ini untuk mengetahui perencanaan dan efisiensi penggunaan alat berat pada pekerjaan galian. Alat berat yang digunakan adalah *excavator*, *hydraulic breaker* dan *bulldozer*. Metodologi yang digunakan pada penelitian ini adalah metode observasi (pengamatan langsung di lapangan), metode wawancara, metode deskriptif (mencari literatur penelitian) dan metode analisis.

Berdasarkan hasil analisis dapat diambil kesimpulan bahwa taksiran produktivitas alat yang direncanakan didapatkan produktivitas alat *excavator* 62,58 bcm/jam, *hydraulic breaker* 8,07 bcm/jam, dan *bulldozer* 75,58 bcm/jam. Untuk produktivitas alat berat *real* di lapangan didapatkan produktivitas alat berat *excavator* 74,41 bcm/jam, *hydraulic breaker* 11,93 bcm/jam, dan *bulldozer* 86,07 bcm/jam. Biaya operasional alat berat yang direncanakan untuk 7 *excavator* sebesar Rp. 2.274.941.941,00, 1 *hydraulic breaker* sebesar Rp. 448.798.070,00, dan 2 *bulldozer* sebesar Rp. 640.841.211,00. Total biaya operasional alat berat rencana adalah Rp. 3.364.581.222,00. Sedangkan biaya operasional alat berat *real* di lapangan untuk 7 *excavator* sebesar Rp. 1.949.950.236,00, 1 *hydraulic breaker* sebesar Rp. 309.515.910,00, dan 2 *bulldozer* sebesar Rp. 578.824.319,00. Total biaya operasional alat berat *real* di lapangan adalah Rp. 2.838.290.465,00.

Kata kunci : produktivitas, biaya operasional, *excavator*, *hydraulic breaker*, *bulldozer*

ABSTRACT

The Construction of the Oksibil – Towe Hitam Border Road is carried out to increase and facilitate the flow of traffic between regencies in Papua Province. To support the road construction activities, it is necessary to use efficient heavy equipment, so that heavy equipment planning reaches the set target.

The purpose of this study was to determine the planning and efficiency of using heavy equipment in excavation work. The heavy equipment used are excavator, hydraulic breaker and bulldozer. The methodology used in this research is the observation method (direct observation in the field), interview method, descriptive method (searching the research literature) and analytical method.

Based on the results of the analysis, it can be concluded that the estimated the planned tool productivity obtained excavator tool productivity 62.58 bcm/hour, hydraulic breaker 8.07 bcm/hour, and bulldozer 75.58 bcm/hour. For real heavy equipment productivity in the field, heavy equipment productivity is obtained excavator 74.41 bcm/hour, hydraulic breaker 11.93 bcm/hour, and bulldozer 86.07 bcm/hour. The planned operating cost of the 7 excavators is Rp. 2,274,941,941.00, 1 hydraulic breaker Rp. 448,798,070.00, and 2 bulldozer Rp. 640,841,211.00. Total operational cost of the planned heavy equipmentis Rp. 3,364,581,222.00. Meanwhile, real heavy equipment operating costsfield for 7 excavators of Rp. 1,949,950,236.00, 1 hydraulic breaker of Rp. 309,515,910.00, and 2 bulldozers of Rp. 578,824,319.00. Total real heavy equipment operating costs in the field is Rp. 2,838,290,465.00.

Keywords : productivity, cost operational, excavator, hydraulic breaker, bulldozer