

ABSTRAK

Excavator Komatsu PC-200 merupakan salah satu alat berat yang sering digunakan dalam bidang kontuksi maupun pertambangan. Fungsi dari *excavator* itu sendiri yaitu penggalian dan juga pemuatan material kedalam truck. *Excavator* memiliki dua jenis penggerak yaitu *Wheel Excavator* dan *Crawler Excavator*. Pada jenis *Crawler Excavator* memiliki system penggerak yaitu *undercarriage*, *undercarriage* adalah bagian *excavator* yang terletak pada bagian bawah yang langsung bersentuhan dengan permukaan tanah.

Penelitian digunakan untuk mengidentifikasi akar penyebab dari suatu permasalahan pada *Excavator Komatsu PC-200* dan dapat menggambarkan grafik persentase keausan dan usia pakai komponen *undercarriage* pada komponen *idler*, *carrier roller*, dan *track shoe*.

Hasil dari penelitian berupa tingkat keausan dan sisa umur pemakaian pada komponen *undercarriage*, diperoleh persentase tingkat keausan untuk 2674 jam komponen *idler* sebesar 58,33% dan sisa umur 933 jam, komponen *carrier roller* 74% dan sisa umur 697 jam, dan *track shoe* 87% dan sisa umur 399 jam. Dari metode *Fishbone* juga didapat upaya pencegahan untuk mengurangi persentase keausan yang terjadi pada komponen *undercarriage*, serta melakukan perawatan yang benar pada *undercarriage*.

Kata Kunci: *Excavator Komatsu PC-200*, FISHBONE, *Undercarriage*

ABSTRACT

The Komatsu PC-200 excavator is one of the heavy equipment that is often used in construction and mining. The function of the excavator itself is digging and also loading material into the truck. Excavators have two types of drive, namely Wheel Excavator and Crawler Excavator. In this type of Crawler Excavator has a drive system, namely the undercarriage, the undercarriage is the part of the excavator that is located at the bottom which is directly in contact with the ground surface.

This research is used to identify the root causes of a problem in the Komatsu PC-200 Excavator and to graph the percentage of wear and wear on the undercarriage components on the idler, carrier roller and track shoe components.

The results of the research in the form of wear levels and remaining service life on the undercarriage components, obtained the percentage of wear levels for 2674 hours of idler components of 58.33% and remaining life of 933 hours, carrier roller components 74% and remaining life of 697 hours, and track shoes 87% and remaining life of 399 hours. From the Fishbone method, prevention efforts are also obtained to reduce the percentage of wear that occurs on the undercarriage components, as well as carry out proper maintenance on the undercarriage.

Keywords: Excavator Komatsu PC-200, FISHBONE, Undercarriage

