

ABSTRAK

Bulldozer KOMATSU D85ESS-2 merupakan salah satu alat berat yang digunakan dalam bidang konstruksi maupun pertambangan. *Bulldozer* merupakan jenis alat berat yang digunakan untuk pekerjaan menggali, mendorong, dan suatu material seperti tanah, pasir, dan bebatuan. Dalam melakukan pekerjaan tersebut, komponen *bulldozer* seringkali mengalami keausan.

Penelitian mengenai keausan dan umur pakai ini diperlukan analisis faktor keausan pada komponen menggunakan diagram *fishbone*. Penelitian ini bertujuan untuk mengetahui penyebab dari keausan pada komponen *track shoe*, *track roller*, dan *carrier roller bulldozer* KOMATSU dan menggunakan grafik persentase keausan dan umur pakai komponen *undercarriage* pada komponen *track shoe*, *track roller*, dan *carrier roller*.

Hasil penelitian berupa tingkat keausan dan sisa umur pemakaian pada komponen *undercarriage*, diperoleh persentase tingkat keausan pada umur pakai 2213 jam komponen *track shoe* sebesar 45,31%, komponen *track roller* 26,58% , dan *carrier roller* 12,26%. Dari grafik persamaan *trendline* sisa umur pakai *track shoe* didapatkan yaitu 22822 jam, *track roller* 9050 jam, dan *carrier roller* 3879 jam.

Kata kunci: *Bulldozer*, *trendline*, *undercarriage*

ABSTRACT

The Komatsu D85ESS-2 bulldozer is one of the heavy equipment used in construction and mining. A bulldozer is a type of heavy equipment used for digging, pushing, and materials such as soil, sand, and rock, bulldozer components often experience wear and tear.

Research on wear and service life requires an analysis of the wear factor on the components using a fishbone diagram. This study aims to determine the causes of wear on the components of the track shoe, track roller, and carrier roller Komatsu bulldozer and use a graph of the percentage of wear and service life of the undercarriage components on the track shoe, track roller, and carrier roller components.

The results of this research are the level of wear and the remaining service life of the undercarriage components, the percentage of wear levels at 2213 hours of service life of the track shoe components is 45.31%, the track roller components are 26.58% and the carrier roller is 12.26%. For the graph of the trendline equation, the remaining life of the track shoes is 22822 hours, the track roller is 9050 hours and the carrier roller is 3879 hours.

Keywords : Bulldozer, trendline, undercarriage.

