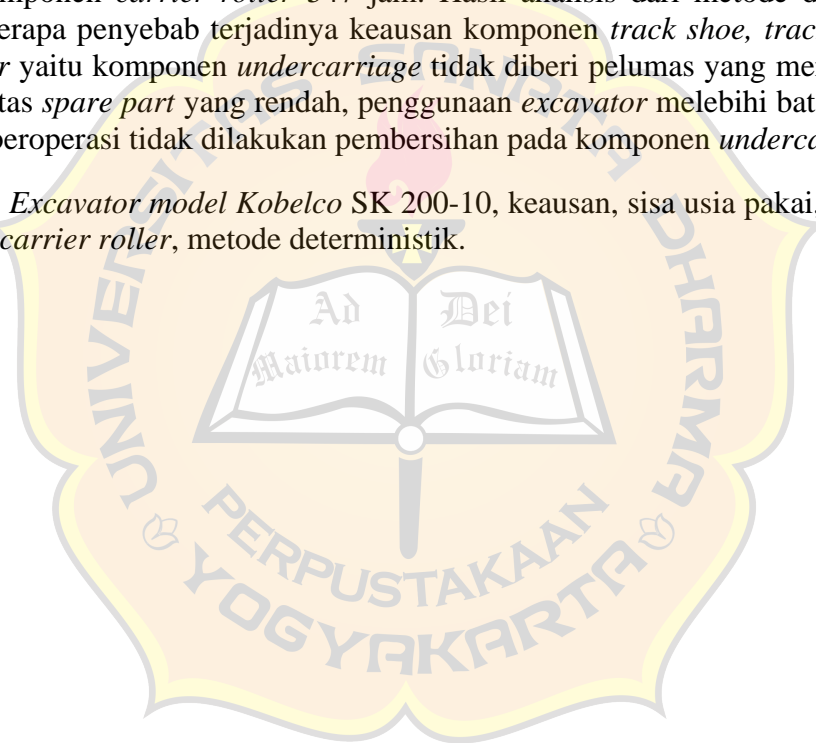


## ABSTRAK

Peranan unit *Excavator Kobelco SK 200-10* di lingkungan industri sangat bergantung pada komponen *undercarriage*. Jika komponen *undercarriage* mengalami kerusakan maka produktifitas dari *excavator* akan menurun saat beroperasi. Tujuan penelitian ini adalah untuk mengetahui persentase keausan dan sisa usia pakai pada *track shoe*, *track roller*, dan *carrier roller*. Metode yang digunakan untuk menganalisa sebab akibat dan upaya pencegahan keausan pada komponen *track shoe*, *track roller*, dan *carrier roller* adalah metode deterministik.

Hasil dari penelitian ini didapatkan persentase tingkat keausan komponen *track shoe* 69%, komponen *track roller* 51,6%, dan *carrier roller* 48% untuk jam kerja 720 jam. Diperoleh sisa usia pakai komponen *track shoe* 324 jam, komponen *track roller* 399 jam, dan komponen *carrier roller* 547 jam. Hasil analisis dari metode deterministik terdapat beberapa penyebab terjadinya keausan komponen *track shoe*, *track roller* dan *carrier roller* yaitu komponen *undercarriage* tidak diberi pelumas yang mengakibatkan korosi, kualitas *spare part* yang rendah, penggunaan *excavator* melebihi batas jam kerja dan setelah beroperasi tidak dilakukan pembersihan pada komponen *undercarriage*.

**Kata kunci:** *Excavator model Kobelco SK 200-10*, keausan, sisa usia pakai, *track shoe*, *track roller*, *carrier roller*, metode deterministik.



## ABSTRACT

The role of the Kobelco SK 200-10 Excavator in an industrial environment is very dependent on the undercarriage. If the undercarriage is damaged, the productivity of the excavator will decrease during operation. The purpose of this study was to determine the percentage of wear and remaining service life on track shoes, track rollers, and carrier rollers. The method used to analyze the cause and effect and efforts to prevent wear on the components of the track shoe, track roller, and carrier roller is a deterministic method.

The results of this study showed that the percentage of wear of the track shoe 69%, the track roller 51.6%, and carrier roller was 48% for 720 hours of work. The remaining service life of the track shoe 324 hours, the track roller 399 hours, and the carrier roller 547 hours. The results of the analysis of the deterministic method there are several causes of wear of the track shoe, track roller and carrier roller components, namely the undercarriage not lubricated which causes corrosion, the quality of spare parts is low, the use of the excavator exceeds the working hours limit and after operating the undercarriage.

**Keywords:** *Excavator Kobelco SK 200-10 model, wear, remaining life, track shoe, track roller, carrier roller, deterministic method.*

