

## **ABSTRACT**

### **Analysis Of Work Posture In Land Processing Using A Hand Tractor**

**By**

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This study aims to analyze the working posture of hand tractor operators in soil processing with an ergonomic approach using the Rapid Entire Body Assessment (REBA) and Nordic Body Map (NBM) methods. The use of hand tractors could improve work efficiency, but still requires significant physical effort and is at risk of causing musculoskeletal disorders (MSDs) due to unergonomic postures. The study was conducted in Banjar Agung Village, East Lampung, involving two operators aged 30–40 years and two operators aged 40–50 years. Data were collected through recording the work activities of five main elements: installing wheels, installing implements, starting the tractor, running the tractor, and turning the tractor, as well as filling out the NBM questionnaire. The results of the analysis showed that the activities of installing wheels, starting the tractor, and turning the tractor had high REBA scores, especially in operators aged 40–50 years, indicating the need for immediate corrective action. The NBM results also showed that operators aged 40–50 years experienced higher physical complaints with a high risk level. This study concluded that older operators have a higher ergonomic risk, so it is necessary to improve work posture and redesign tools or work procedures to improve operator safety and comfort.

**Keywords:** Hand tractor, Rapid Entire Body Assessment (REBA), Nordic Body Map (NBM), musculoskeletal disorders (MSDs), work posture.

## **ABSTRAK**

### **ANALISIS POSTUR KERJA PADA PENGOLAHAN TANAH MENGUNAKAN TRAKTOR TANGAN**

**Oleh**

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Penelitian ini bertujuan untuk menganalisis postur kerja operator traktor tangan dalam pengolahan tanah dengan pendekatan ergonomi menggunakan metode *Rapid Entire Body Assessment* (REBA) dan *Nordic Body Map* (NBM). Penggunaan traktor tangan dapat meningkatkan efisiensi kerja, namun masih memerlukan tenaga fisik signifikan dan berisiko menimbulkan gangguan muskuloskeletal (MSDs) akibat postur tidak ergonomis. Penelitian dilakukan di Desa Banjar Agung, Lampung Timur, dengan melibatkan dua operator berusia 30–40 tahun dan dua operator berusia 40–50 tahun. Data dikumpulkan melalui rekaman aktivitas kerja lima elemen utama: memasang roda, memasang implemen, menghidupkan traktor, menjalankan traktor, dan membelokkan traktor, serta pengisian kuesioner NBM. Hasil analisis menunjukkan bahwa aktivitas memasang roda, menghidupkan traktor, dan membelokkan traktor memiliki skor REBA tinggi, khususnya pada operator usia 40–50 tahun, menandakan perlunya tindakan perbaikan segera. Hasil NBM juga menunjukkan bahwa operator usia 40–50 tahun mengalami keluhan fisik yang lebih tinggi dengan tingkat risiko tinggi. Penelitian ini menyimpulkan bahwa operator berusia lebih tua memiliki risiko ergonomi yang lebih tinggi, sehingga perlu dilakukan perbaikan postur kerja dan desain ulang alat atau prosedur kerja untuk meningkatkan keselamatan dan kenyamanan operator.

Kata Kunci: Traktor tangan, *Rapid Entire Body Assessment* (REBA), *Nordic Body Map* (NBM), gangguan *muskuloskeletal* (MSDs), postur kerja.