

ABSTRACT

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**MANUFACTURING PROCESS OF MOTORCYCLE UNDERBONE
FOOTSTEP USING ALUMINUM MATERIAL**

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(XII+35+Appendices)

This study aims to analyze and implement the manufacturing process of a motorcycle underbone footstep using aluminum as the primary material. The study focuses on the application of metal manufacturing principles, including turning, drilling, and grinding processes. Aluminum was selected based on its lightweight properties, corrosion resistance, good thermal conductivity, and ease of machinability, making it suitable for automotive components that require mechanical strength and weight efficiency. The manufacturing process begins with cutting the material according to the design dimensions. This is followed by a turning process to form the basic profile of the component, then drilling to produce fastening holes, and finally grinding to achieve a smooth and precise surface finish. The results show that the produced underbone footstep component meets the dimensional specifications of the technical drawings and fulfills the expected functional standards.

Bibliography (2002-2024)