Project Report On

ENGINE POWERD WHEEL BARROW

Submitted to partial fulfillment of the Requirements

for the award of the Diploma Under

STATE BOARD OF TECHNICAL EDUCATION, KERALA

In

Mechanical Engineering

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GROUP 5

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2022 -2023

KMCT POLYTECHNIC COLLEGE,KUTTIPPURAM

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CERTIFICATE

This is to certified that bonafide record of the project report **ENGINE POWERD WHEEEL BARROW** presented by **GROUP 5** of final year Mechanical Engineering students (2020Admission) of K.M.C.T Polytechnic College, Kuttippuram in partial fulfillment of the requirement for the award of Diploma certificate of Board of Technical Education, Government of Kerala.

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INTERNAL EXAMINER **EXTERNAL EXAMINER**

ACKNOWLEDGEMENT

First of all, we would like to Thanks GOD THE ALMIGHTY for the divine grace bestowed to us to complete this project successfully in time.

We wish to convey our gratefulness to **Mr. P.H SUBAIR**, Principal KMCT PTC, Kuttippuram for his strong support and motivation towards a great level of success in our career.

We express our sincere thanks to **Mr. VINEETH C.**, Head of the department of Mechanical engineering, for his kind cooperation, encouragement and help.

We express our hearty thanks to our guide **Mr. .NIDHIN C JOSE**, Lecturer, Department of Mechanical engineering and **Mr SASIDHARAN K** workshop superintendent and all workshop staffs for their enterprising attitude, timely suggestions and support that made the project fruitful.

My heartfelt gratitude to **Mr.HARIKRISHNAN R**, Lecturer department of mechanical engineering, for his valuable suggestions and guidance in the presentation of project report.

We would also wish to record my gratitude to all my friends and classmates for their help and support in carrying out this work successfully.

GROUP 5

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POLYTECHNIC COLLEGE, KUTTIPPURAM

Institute Vision

Be a premier technical institution of academic excellence by imparting value based professionaleducation with social responsibility.

Institute Mission

- *To produce self-motivated, skilled professionals of academic excellence.*
- *To provide value oriented quality technical education through innovative teachinglearning process.*
- *To equip students to be Responsible Professionals for the betterment.*

KMCT
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Department Vision

To achieve excellence in mechanical engineering by imparting technical and professional skills to meet industrial and social needs

Department Mission

M1: - To impart sound foundations in mechanical engineering and its related fields to excel in academics and career

M2: - To develop students as competent professionals with strong emphasis on social and ethical values

M3: - To cultivate technical and productive skills for creating young professionals to meet industrial and social challenges

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Program Outcomes (POs)

PO1: Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.

PO2: Problem analysis: Identify and analyse well-defined engineering problems using codified standard methods.

PO3: Design/ development of solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

PO4: Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

PO5: Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

PO6: Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

PO7: Life-long learning: Ability to analyze individual needs and engage in updating in the context of technological changes.

Program specific outcomes (PSOs):

PSO1: Apply the principles of mechanical engineering to design and develop innovative products useful for the safe and sustainable development of industry and society without deviating the quality of environment.

PSO2: Apply the knowledge and principles of engineering by emphasizing human values to excel in career and entrepreneurship.

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ABSTRACT

The Engine-Powered Wheelbarrow Project aimed to design and develop a novel wheelbarrow concept powered by an engine for improved efficiency and ease of use. The project focused on integrating a small-displacement engine, such as a 110cc engine, into the wheelbarrow while ensuring optimal performance and functionality. Through extensive research, design iterations, fabrication, and testing, the project sought to evaluate the feasibility and advantages of an engine-powered wheelbarrow. It highlights the successful integration of the engine into the wheelbarrow frame, resulting in increased power output and load-carrying capacity. The project encompassed performance evaluations, including speed, acceleration, maneuverability, and fuel efficiency. Safety measures were also implemented to ensure operator protection during operation.

The engine-powered wheelbarrow project demonstrated significant advantages over traditional manual wheelbarrows. It showcased enhanced productivity, reduced physical strain on the operator, and improved maneuverability in various terrains. The increased load capacity and ease of operation make it a valuable tool for tasks involving heavy material transportation. his abstract presents a concise overview of the project's objectives, methodologies, and outcomes, emphasizing the innovation and potential applications of an engine-powered wheelbarrow. The findings contribute to the body of knowledge in wheelbarrow design and provide a foundation for further research and development in the field.