



ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

Permanently Affiliated to JNTUK, Kakinada, Approved by AICTE, New Delhi

Recognized by UGC Under Section (2f) and 12(B) of UGC Act 1956

Aditya Nagar, ADB Road, Surampalem, 533437

Department of Mechanical Engineering

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| Project Title: | Design & Fabrication of Hydraulic Lift Pallet Truck | |
| Guide Name: | Miss R Gayathri Devi | |
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| Abstract | PO's Mapping | PSO's Mapping |
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| <p>A hydraulic lift pallet truck is mechanical device and applications for lifting of the loads to a height or level. A lift table is defined as a scissor lift used to stack, raise or lower, convey and or transfer material between two or more elevations A hydraulic lift provides most economic dependable & versatile methods of lifting loads, it has few moving parts which may only require lubrication. This lift table raises load smoothly to the desired height. The hydraulic lift can be used in combination with any of applications such as hydraulic, mechanical, etc.,</p> <p>A hydraulic jack (or) hydraulic lift pallet truck is a device used to lift heavy loads. The device itself is light, compact and portable, but is capable of exerting great force. It is a material handling device which uses a hydraulic cylinder to lift and lower objects by applying relatively smaller effort compared to the weight of the ok to be lifted, its working is based on Pascal's law.</p> <p>The main aim of this project is to design & fabricate a hydraulic lift pallet truck which operates efficiently & consistently and it should be compact and cost effective</p> | PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11, PO 12 | PSO1, PSO2, PSO3 |

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| PO1: Engineering Knowledge | PO5: Modern Tool usage | PO9: Individual & Team Work |
| PO2: Problem Analysis | PO6: Engineer & Society | PO10: Communication Skills |
| PO3: Design & Development of solutions | PO7: Environment & Sustainability | PO11: Project Management & Finance |
| PO4: Investigations on complex problems | PO8: Ethics | PO12: Life Long Learning |
| PSO1: Mechanical Engineers must be able to analyze, design and evaluate mechanical components and systems using cutting-edge software tools as required by the industries from time to time. | PSO2: The ability to work in manufacturing and other sectors' operations and maintenance plants | PSO3: As part of a team or individually, plan and manage activities in micro, small, medium and large enterprises |

Relevance to PO's and PSO's

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| PO1 | Applied the subject knowledge in calculation for design and systems |
| PO2 | Studied and problem identified after thorough analysis |
| PO3 | Nature of the problem is to develop solution for industrial problems |
| PO4 | In the Calculation part of hydraulic lift different analysis are considered |
| PO5 | Applied the modern tool of CATIA V5 |
| PO6 | The machine is used in the development of society |
| PO7 | This project need to consider environmental pollution. |
| PO8 | The project work is done with the guidance of teaching community, and from educational institute. No financial and no re copy of technology. |
| PO9 | There is 5 members in this project group, all students are shared some part of work and remaining work done as team members. With coordination as well as with good communication and co-operation |
| PO 10 | All the group members are presented seminar in the presence of project committee and project external examiner. |
| PO11 | The project is completed in phase wise with step by step |
| PO12 | There is a scope of new technology and new application tools so there is a large scope for future developments, so students should learn continuously. |
| PSO1 | Design and Analysed the complete machine using modern tool |
| PSO2 | Students followed the international standards so that they are aware of manufacturing and maintenance |
| PSO3 | There is 5 members in this project group, all students are shared some part of work equally and remaining work done as team members. With coordination as a team membets. |

