

# DESIGN AND FABRICATION OF MASTER BOOSTER ASSEMBLY

A Project report submitted in the partial fulfilment of the requirements for award of  
Degree of  
**BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING**

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**DEPARTMENT OF MECHANICAL ENGINEERING**

**AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

(PERMANENTLY AFFILIATED TO JNTU-KAKINADA, ACCREDITED BY NBA & NAAC, APPROVED BY AICTE, RECOGNISED BY UGC 12f & 2b)

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(Permanently Affiliated to JNTU-KAKINADA and Approved by AICTE)

(An N.B.A Accredited institution)

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## DEPARTMENT OF MECHANICAL ENGINEERING



## CERTIFICATE

This project is to certify that report is entitled “**DESIGN AND FABRICATION OF MASTER BOOSTER ASSEMBLY**” was carried out by **K.RAJASEKHAR (17815A0304)**, **M. SUMANTH (17815A0338)**, **K. SATYA VENKATA SAI (17815A0324)**, **P. RAJU (17815A0349)** in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in “**MECHANICAL ENGINEERING**” To JNTUK university at AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY, NARSIPATNAM, during the academic years 2016-2020

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## ABSTRACT

All we know that the design of the engine is totally depends upon the Braking System of the vehicle, Due to actuation of Braking system can create threat to vehicle while is in braking condition. The feeling of the Break Pedal is one of the most important factors for the driver confidence during brake. The **MASTER BOOSTER** assembly is a device that will reduce human effort on application the force of the brake pedal. While the vehicle is in running condition the weight of vehicle is turned into inertia force after pedal force applied on Brake pedal. So, that the requirement of Master Booster Assembly is multiplies the brake pedal force into required force and thus the reason greater braking force available from a minimum pedal effort, Smooth actuation braking will be possible and it can provide high braking force even at high speed.

As of now the Reaction Disc made up with **1:8** ratio conversion by modification of the reaction disc with different compositions **1:10** ratio conversion can be obtained. Thus, the reason pedal force multiplies into 10times of required force and it can decrease chance of brake failure as compared previous ratios with respect to time

**KEY WORDS:** Master Booster, Master Cylinder, Brake Pressure, Reaction Disc.