

PERANCANGAN DAN PEMBUATAN *STAND ENGINE CUTTING*
SEPEDA MOTOR HONDA TIPE C100
(Sistem Transmisi)

Anang Fuudi Awalludin

20133020004

ABSTRAK

Dalam hal perkembangan teknologi, media praktik *engine cutting* sepeda motor ini dapat di gunakan sebagai media pembelajaran dasar pada mesin sepeda motor. Media praktik *engine cutting* sepeda motor dapat membantu mempermudah dalam proses penyampaian teori maupun praktik, untuk menyampaikan cara kerja maupun fungsi dari komponen-komponen pada engine motor.

Pada proses pembuatan media praktikum *engine cutting* harus didasari kajian teori mengenai fungsi dari masing-masing komponen yang terdapat di dalamnya, sehingga proses *engine cutting* dapat dilakukan dengan benar. Perancangan *engine stand* sepeda motor honda tipe C100 ini didesain menggunakan software AutoCAD 2013, pembuatan stand terdapat beberapa tahap yaitu pemotongan material, pengelasan, dan pengecatan. Dalam proses pemotongan bagian *engine (engine cutting)* melalui beberapa tahapan, tahapan pertama adalah membongkar komponen *engine*, kemudian membersihkan komponen *engine*, memotong/*cutting* komponen *engine*, mengecat *cutting engine*, merangkai komponen *engine*, dan terakhir merangkai *engine* ke *stand*. Pembuatan *Engine cutting* Mesin Honda Tipe C100 ini nantinya akan digunakan pada bengkel otomotif Program vokasi UMY sebagai sarana penunjang praktek Teknik Sepeda Motor (TSM).

“Perancangan dan Pembuatan *Stand Engine Cutting* Sepeda Motor Honda Tipe C100“ pada analisis kecepatan tranmisi dapat disimpulkan semakin kecil rasio transmisi yang dihasilkan melalui perbandingan antara *main axle* dan *drive axle* berpengaruh terhadap kecepatan maksimum dari kendaraan tersebut. Hasil analisis pada transmisi diperoleh hasil kecepatan pada 8,000 Rpm, pada kecepatan transmisi 1st diperoleh kecepatan = 23,07 km/jam, 2nd = 38,40 km/jam 3rd = 53,10 km/jam dan kecepatan maksimum pada gigi 4th = 68,75 km/jam.

Kata kunci : *Engine Cutting, Honda Tipe C100, Rasio Tranmisi.*

**DESIGN AND MANUFACTURE OF CUTTING MOTORCYCLE STAND
HONDA ENGINE TYPE C100
(Transmission System)**

ANANG FUUDI AWALLUDIN

20133020004

ABSTRACT

In terms of technological development, the media practice of cutting motorcycle engine can be used as a learning medium base on a motorcycle engine. Media practice of cutting motorcycle engine can help simplify the process of delivering theoretical and practical, to convey the workings and functions of the components in the engine of the motor.

In the process of making media lab cutting engine should be based on the study of theory about the function of each of the components contained in it, so that the engine cutting process can be done right. Design honda motorcycle engine stand C100 type is designed using AutoCAD software in 2013, the manufacture of stand, there are several stages, material cutting, welding, and painting. In the process of cutting parts of the engine (engine cutting) through several stages, the first stage is to dismantle the engine components, then cleaning engine components, cutting / cutting engine components, cutting engine paint, assemble engine components, and finally assemble the engine to stand. Manufacture Engine Type Honda C100 cutting machine will be used in automotive repair UMY vocational programs as a means of supporting the practice of Motorcycle Engineering (TSM).

"Designing and Making Cutting Stand Honda Motorcycle Engine Type C100" on transmission speed analysis concluded the smaller transmission ratio generated through combining beetwen playing axle and drive axle affect the maximum speed of the vehicle. The analysis of the results obtained transmission speed at 8,000 rpm, the transmission speed obtained 1st speed = 23.07 km / h, 2nd = 38.40 km / h 3rd = 53.10 km / h and a maximum speed in 4th gear = 68, 75 km / h.

Keywords : Engine Cutting , Honda Type C100 , Transmission Ratio