

FINAL YEAR PROJECT REPORT

DIPLOMA IN MECHANICAL ENGINEERING  
SCHOOL OF ENGINEERING  
MARA INSTITUTE OF TECHNOLOGY  
SHAH ALAM  
SELANGOR

ASSEMBLY OF PETROL ENGINE AND CONVERSION TO LPG SYSTEM

BY:

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## 1.0. INTRODUCTION

### 1.1. FRAME

There are two separate frames made in this project.

- i. Frame for engine petrol.
- ii. Frame for L.P.G. system.

All the dimensions for the frames are measured according to the engine and L.P.G. equipments sizes. The components of the frames are joint by using arc welding. The types of joint used is square butt-joint. (See Fig: 1.1a and 1.1b Page and )

#### 1.1.1. PROCEDURE FOR ARC WELDING

- i. The place to be welded must be clean and free from dust, paint or any other contaminants.
- ii. Set the voltage according to the thickness of the plate to be joint.
- iii. Set correct clearance between two plate to be joint.

### 1.2. THE PETROL ENGINE

The function of the internal combustion engine is to convert the energy on the fuel into heat and the heat into mechanical energy. The heat is produced by a chemical reaction between the different elements of the fuel and air, in other words - burning. This takes places on a sealed cylinder and chamber and causes the gases formed to expend and exert a pressure in all directions. The only movable object in the sealed chamber is the piston which is driven down by the expending gases, hence transferring the power produced on the cylinder to the crankshaft of the engine and creating mechanical energy.

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