

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

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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.

CONTENTS

PREFACE	iii
ACKNOWLEDGEMENTS	iv
CONTENTS	v
LIST OF DIAGRAMS	vi
CHAPTER: I	
I.0 INTRODUCTION.....	I
I.1 Frame.....	I
I.1.1 Procedure For Arc Welding.....	I
I.2 The Petrol Engine.....	I
I.2.1 Cylinder, Piston and Piston Ring.....	2
I.2.2 Connecting Rod and Gudgeon Pin.....	2
I.2.3 Crankshaft and Flywheel.....	2
I.2.4 Engine Valves.....	3
I.2.5 Cams.....	3
I.2.6 Camshaft.....	4
I.2.7 The Four Stroke Cycle.....	4
I.2.7.1 Induction Stroke.....	4
I.2.7.2 Compression Stroke.....	4
I.2.7.3 Power Stroke.....	5
I.2.7.4 Exhaust Stroke.....	5
I.2.8 Firing Orders.....	5
I.2.9 Cylinder Block and Crankcase.....	6
I.2.10 Cylinder Head.....	7
I.2.11 Oil Sump.....	8

CHAPTER : 2

2.0 FUNDAMENTALS OF L.P.G. SYSTEM.....	II
2.1 What Is L.P.G ?.....	II
2.1.1 L.P.G Analysed.....	II
2.1.2 Weight and Consumption.....	I2
2.2 Why Are L.P.G. System Used.....	I2
2.2.1 To Avoid Knocking Occurs In Engine.....	I2
2.2.2 The Life Expectancy of An Engine Increased.....	I3
2.2.3 Reducing The Amount of Toxic Materials in Exhaust Gases.....	I3
2.2.4 Valves And Valve Seating.....	I4
2.2.5 Saving in Running Costs.....	I4
2.2.6 L.P.G. has an Expansion Factor of 259:1.....	I4
2.3 Safety of L.P.G. System.....	I6
2.3.1 Smoking is Prohibited while Filling The L.P.G. Fuel.....	I6
2.3.2 Avoid Direct Contact with Liquid L.P.G. to The Skin.....	I6
2.3.3 What Happen if There is a Fire ?.....	I6
2.3.4 What Happen if Involve in An Accident, The Service Valve cannot be Turned Off ?.....	I6
2.3.5 Will The Tank Explode During Collision ?	I7

CHAPTER:3

3.0 EQUIPMENT AND THE FUNCTION OF L.P.G. SYSTEM	18
3.1 Storage Tank	18
3.1.1 Outside Filler Valve.....	18
3.1.2 Ullage Valve.....	19
3.1.3 Fuel contents Gauge.....	20
3.1.4 Safety Relief Valve.....	21
3.1.5 Service Valve.....	22
3.2 The Stop Cocks.....	22
3.3 The evaporater Pressure Regulator.....	23
3.4 Electro Magnetic Choke/Primer Solenoid	24
3.5 Mixing Units	24
3.6 L.P.G. Changeover Switch	24

CHAPTER : 4

4.0 OPERATION AND PROMLEM OF L.P.G. SYSTEM	39
4.1 Principal of Operation	39
4.2 Changing From One Fuel To The Other	40
4.2.1 L.P.G. To Petrol	40
4.2.2 Petrol To L.P.G.	40
4.3 Starting On L.P.G.	40
4.3.1 Cold Starting	41
4.3.2 Starting On Hot Engine	41
4.4 Warning	41
4.5 Fault Finding And Problem Diagnosis	42
4.5.1 Freezing of The Evaporator	42
4.5.2 The Engine Will idle, but does not give full Power	43