THE UNIVERSITY OF HONG KONG

Department of Physics

PHYS2261 Introductory heat and thermodynamics

Laboratory report 2261-2: Heat engine

Full name : _____

UID : _____

Group No. : _____

Date : _____

1 Part A. Charles' law

[Present a plot of T versus V. Perform linear fit on it and analyze the result.]

Figure 1: Plot of temperature versus volume.

2 Part B. Gay-Lussac's law

[Present a plot of T versus P. Perform linear fit on it and analyze the result.]

Figure 2: Plot of temperature versus pressure.

3 Part C. Operation of a heat engine

[Present a plot of T versus V. Perform linear fit on it and analyze the result.]

The mass m is measured to be _____. The temperatures of cold water and hot water are _____, respectively. It takes _____ times of putting the air chamber into hot water bath until the mass is lifed. When a mass is lifted up to a higher position, it gains gravitational potential energy. But energy can neither be created nor destoryed. Indeed, this is energy comes from _____

4 Discussion

5 References