



## 4-stroke Internal Combustion Engine



### Job – Spark Plug & Air Cleaner

Maintenance is key to both engine reliability and longevity. This job will have you perform two common maintenance tasks, servicing your engine's spark plug and air cleaner.

#### Spark Plug Inspection & Service

- When installing a spark plug it should be tightened properly using a torque wrench. What is the recommended torque value and unit for your engine's spark plug? (Don't guess use reference)

\_\_\_\_\_ /1

value      unit

- Remove your engine's spark plug.

- Look up the recommended plug gap and record it: \_\_\_\_\_ /1

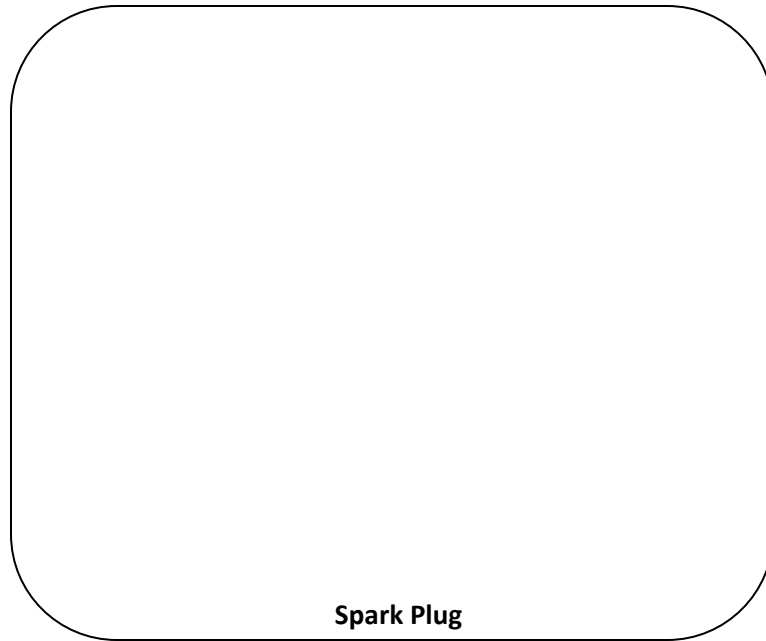
Gap as found: \_\_\_\_\_ /1

value      unit

- Using accepted methods, clean and adjust your spark plug to ensure optimum performance.
- Put a drop of oil on the spark plug's threads, replace it and torque the plug to the recommended value (see step 1).

7. In the space provided, Neatly draw a spark plug and label these parts:

- Centre Electrode
- Side Electrode
- Insulator
- Shell
- Terminal



*Marks will be deducted for sloppy work*

/5

### **Air Cleaner Inspection & Service**

1. Remove the air cleaner from your engine.
2. List the four steps involved in cleaning the air cleaner:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_

/4

3. Service the air cleaner in accordance with the steps listed in the previous question.
4. There are several different types of air cleaners/filters, what is the name given to the type of filter that your engine uses?

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5. Poorly maintained engine components such as spark plugs and air cleaners can have both immediate and long term negative effects on engine performance and longevity. Answer the following questions concerning this.
  - a. What effect might setting a spark plug's gap too large have on an engine's performance?
  - b. What effect might setting a spark plug's gap too small have on an engine's performance?
  - c. Why would it not be a good idea to run an engine for a long period of time without its air cleaner?
  - d. Running an engine with a clogged, or partially clogged air cleaner would result in?

/4