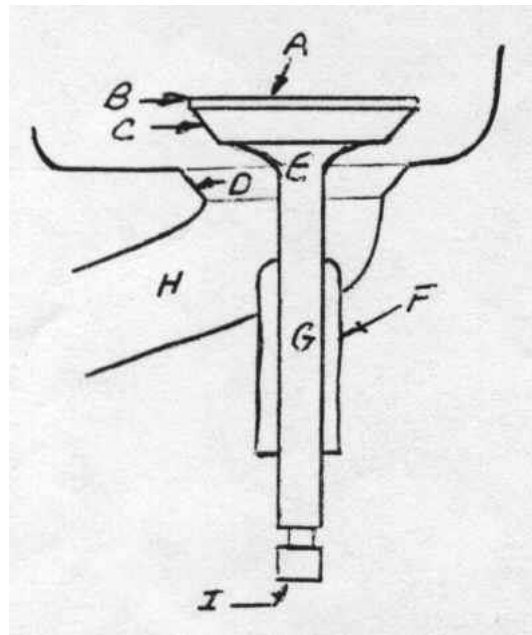


3. What is the purpose of the following parts?

- a. Valve Seals
- b. Combustion Chamber
- c. Rocker Arms
- d. Camshaft
- e. Lifters

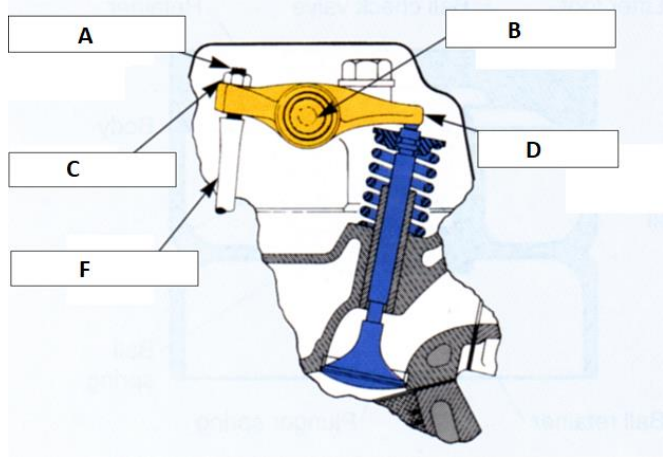
4. Identify the parts in the diagram:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____
- h. _____
- i. _____



5. Identify the parts of the valvetrain:

- a.
- b.
- c.
- d.
- e.
- f.

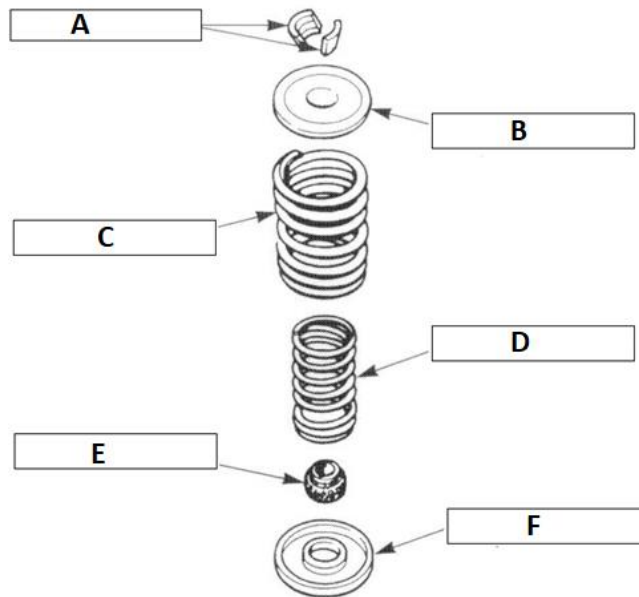


6. Movement equals wear. Looking at the valvetrain parts above, name 5 parts (or surfaces) of the valvetrain that wear during the life of an engine (there are at least 10)

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

7. Identify the parts in the diagram:

- a.
- b.
- c.
- d.
- e.
- f.



8. List 5 tips for disassembling the valvetrain:

a.

b.

c.

d.

e.

9. What is the best method to clean valves?

10. What are three things you need to inspect a cylinder head for?

a.

b.

c.

11. Draw a picture of a worn out Valve Seat:

12. Draw a picture of a worn out Valve Face:

13. How do you know if valve guides are worn out?

14. How is *knurling* done on a valve guide?

15. How are STEEL valve guide inserts replaced?

16. What angle are valve seats and faces usually ground at?

17. Many people brag about a "three-angle valve job." But a proper valve job actually has three angles done anyway. What are the THREE angles (in degrees), and what are they called?"

a.

b.

c.

18. Why MUST valve spring shims be used on ALL aluminum heads?

19. Why should you run a tap to clean the garbage out of ALL threaded holes?

20. What lubricant MUST camshafts use for proper break-in?

21. Describe the procedure to torque the cylinder head bolts

22. What happens if the valve clearances are set too tight?

23. What is the best way to keep your cleaned and assembled cylinder head protected from crud and stuff floating around the shop?