Camshafts And Valve Trains

Chapter 32

ACROSS

1. The ________ of the cam is usually expressed in decimal inches and represents the distance that the valve lifter or follower is moved.

2. A ____________ ______ is one that causes no internal damage if the camshaft drive belt breaks when the engine is running.

3. Some newer engines have the hydraulic adjustment in the rocker arm and are commonly called ________ ________.

4. Another name for a cam follower is a ________ ________.

5. ____________ will not occur when the engine is operated in the speed range for which it is designed.

6. The camshaft is supported in the block by ____________ ________ and driven by the crankshaft with a gear or sprocket and chain drive.

7. The ________ ________ ________ which use a lightweight tubular shaft with hardened steel lobes press-fitted over the shaft.

8. The cam is called ____________ ________ if the lift is the same.

9. If the specifications vary, the camshaft is called ____________ ________.

10. Engines with the cam located in the block are called pushrod or ________ ________ engines.

11. ____________ is the number of degrees of crankshaft rotation during which both intake and exhaust valves are open.

12. A gradual rise in the cam contour is called a ________ ________.

13. The ________ ________ ________ is noisier but operates with less friction and stretches less than the silent type of chain.

14. A camshaft ________ ________ ________ will cause some of the valves that are open to hit the pistons, causing major engine damage if the drive belt breaks.

15. Engines with the camshaft driven from the crankshaft and are located in the cylinder heads.

16. ____________ ________ ________ are either belt or chain driven from the crankshaft and are located in the cylinder heads.

17. If two chains are used side by side, this type of chain is called a ________ ________ ________.

18. A gradual rise in the cam contour is called a ________ ________ ________.

DOWN

1. Some newer engines have the hydraulic adjustment in the rocker arm and are commonly called ________ ________.

2. The ____________ ________ ________ which use a lightweight tubular shaft with hardened steel lobes press-fitted over the shaft.

3. Engines with the cam located in the block are called pushrod or ________ ________ engines.

4. Another name for a cam follower is a ________ ________.

5. ____________ will not occur when the engine is operated in the speed range for which it is designed.

6. A ____________ ________ ________ will cause some of the valves that are open to hit the pistons, causing major engine damage if the drive belt breaks.

7. If the lift is the same, the cam is called ________ ________ ________.

8. Occasionally, engines are run at excessive speeds, this tends to throw the valve open, causing ________ ________ ________.