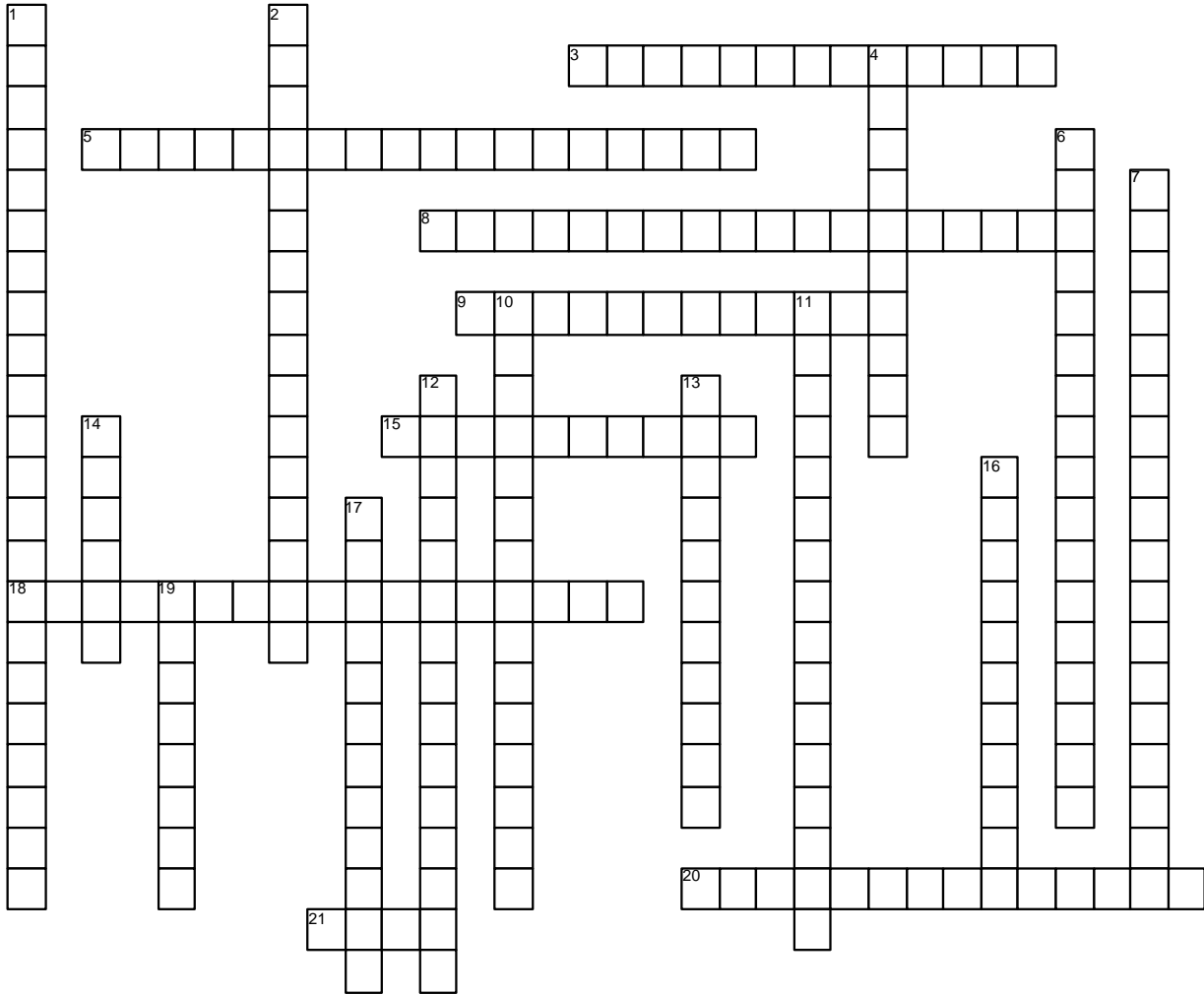


Camshaft And Valve Trains

Chapter 32



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ACROSS

- 3 Engines with the cam located in the block are called pushrod or _____ engines.
- 5 _____, which use a lightweight tubular shaft with hardened steel lobes press-fitted over the shaft.
- 8 An _____ will cause some of the valves that are open to hit the pistons, causing major engine damage if the drive belt breaks.
- 9 If the specifications vary, the camshaft is called _____.
- 15 The separation between the centerlines of the intake and exhaust lobes is called: Lobe

center, Lobe separation, LDA, or _____.

- 18 If two chains are used side by side, this type of chain is called a _____.
- 20 Another name for a cam follower is a _____.
- 21 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 _____ is the number of degrees of crankshaft (not camshaft) rotation for which a valve is

lifted off the seat.

- 4 Occasionally, engines are run at excessive speeds, this tends to throw the valve open, causing _____.
- 6 _____ are either belt or chain driven from the crankshaft and are located in the cylinder heads.
- 7 A _____ is one that causes no internal damage if the camshaft drive belt breaks when the engine is running.
- 10 The _____ operates quietly but tends to stretch with use.
- 11 The camshaft is supported in the block by _____ and driven by the crankshaft with a gear or sprocket and chain drive.
- 12 The _____ is

noisier but operates with less friction and stretches less than the silent type of chain.

- 13 _____ is the movement of the camshaft lengthwise in the engine during operation.
- 14 _____ will not occur when the engine is operated in the speed range for which it is designed.
- 16 If the lift is the same, the cam is called _____.
- 17 _____ is the number of degrees of crankshaft rotation during which both intake and exhaust valves are open.
- 19 The _____ of the cam is usually expressed in decimal inches and represents the distance that the valve lifter or follower is moved.