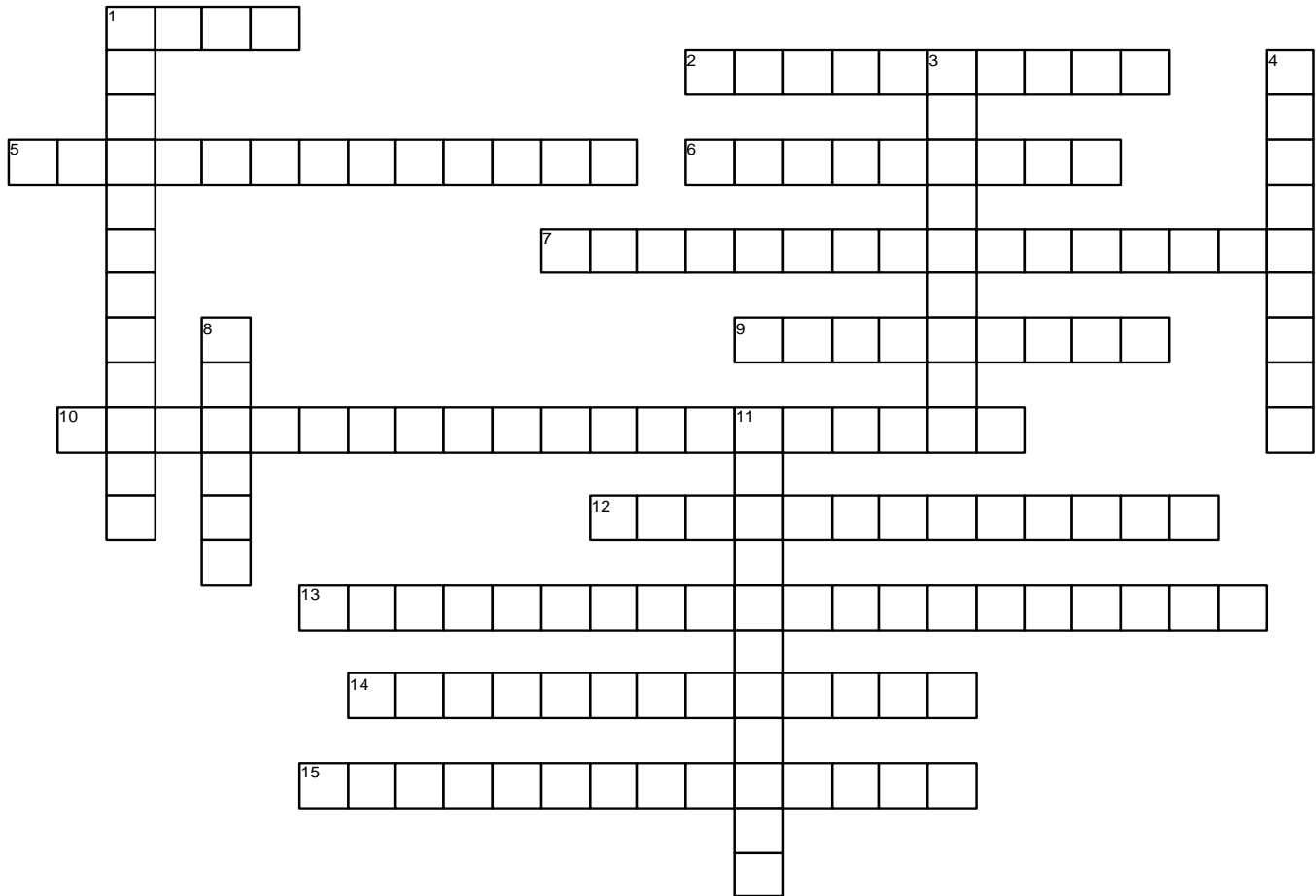


Crankshafts, Balance Shafts, And Bearings

Chapter 35



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ACROSS

- 1 On a V-8 engine, each group of four inline cylinders is called a ____.
- 2 The angle between the crankpins on the crankshaft throws is called a ____.
- 5 _____ is measured in microinches; and the smaller the number, the smoother the surface.
- 6 Another name for the rod bearing journals are the _____.
- 7 When pistons move up and down in the cylinders they create a _____, which is a strong low-frequency vibration.
- 9 When back-and-forth deflections occur at the same vibration _____ as that of another engine part, the parts will vibrate together.
- 10 A crankshaft that has counterweights on both sides of each connecting rod journal is called _____.
- 12 _____ is where only the outer portion of the crankshaft journal surface is hardened.
- 13 The crank throw is offset from the _____.
- 14 A _____ supports the thrust loads and maintains the front-to-rear position of the crankshaft in the block.
- 15 Crankshafts are balanced by _____, which are cast, forged, or machined as part of the crankshaft.

DOWN

- 1 When the bearing is installed, each end of the bearing shell is slightly above the parting surface. When the bearing cap is tightened, the ends of the two bearing shell touch and are forced together. This force is called _____.
- 3 The inertia ring size is selected to control the _____ of the crankshaft vibrations for each specific engine model.
- 4 The flange between the splayed crankpin journals is sometimes called a _____.
- 8 A _____ crankshaft is machined from a solid piece of forged steel.
- 11 A balancer usually consists of a cast-iron _____ mounted to a cast-iron hub with an elastomer sleeve.