

Figure 3-58. Removing the valve rocker arm

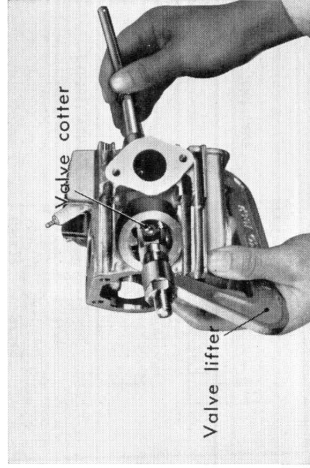


Figure 3-59. Removing valve cotter

- (3) Check for proper tappet clearance (both inlet and exhaust should be 0.05mm (0.002 in.), too small a clearance will cause the valves to remain partly open, causing compression leak and result in hard starting.
- (4) Check for proper valve timing.
- (5) Check to see that the cam chain is not stretched.

**c. Reassembly**

- (1) Assemble in the same procedure as the disassembly with the use of the valve lifter.

**9. CAM CHAIN TENSIONER**

An oil damper type of a cam chain damper is employed to suppress the vibration of the cam chain, thereby, making it possible to control the cam chain for high speed operation and also preventing chain noise.

Before the engine starts, the chain tensioner spring compartment is flooded with the oil which enters from the oil damper strainer.

After the engine starts, the air remaining above the starting oil level in the tensioner spring compartment, passes from the hole A in the guide to hole B due to the reciprocating motion of the tensioner spring guide and enters the crankcase. When the engine starts the oil level rises above the oil hole B.

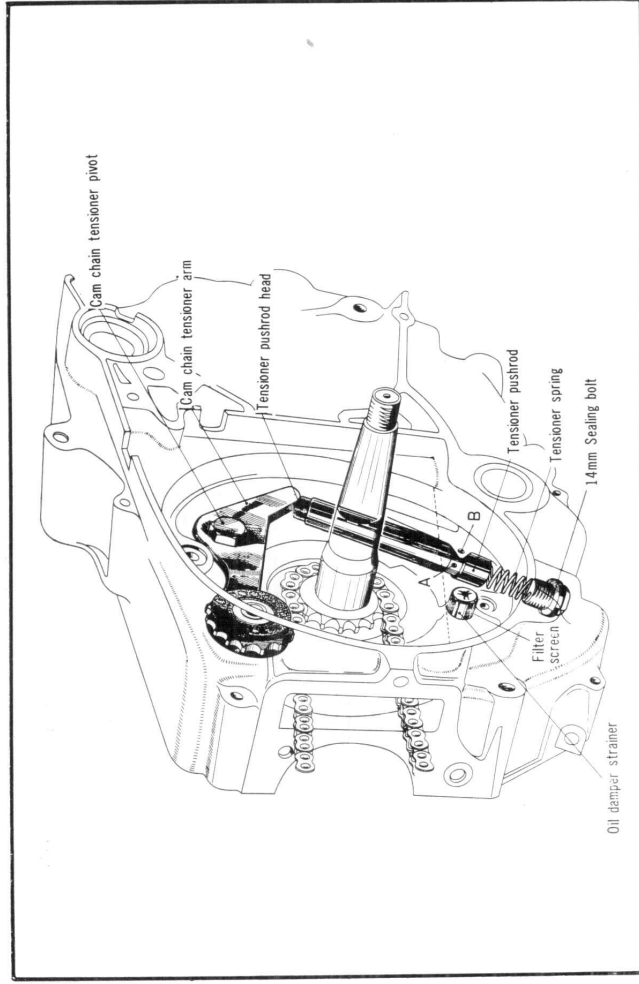


Figure 3-60. Cam chain tensioner detail diagram

In addition to the air in the tensioner spring compartment being ejected from hole A to B, the oil is sent into the tension spring compartment from hole B to A. In this way the tensioner spring compartment is constantly and completely flooded with oil, performing the function of a damper. Therefore, it is necessary to check the orifice of the tensioner spring guide and the operation of the tensioner spring. (Fig. 3-60)

**a. Disassembly**

- (1) Remove the flywheel and starter assembly.
- (2) The damper component parts may be disassembled by removing the 14mm sealing bolt.

**b. Inspection**

- (1) Cam chain tensioner spring. (Fig. 3-61)

	Standard Value	Serviceable Limit
Free length:	77.2 (3.04 in.)	Replace if under 73.5 mm (2.89 in.)
Compression force	0.45±0.04 kg/22.2 mm (0.99±0.08 lb/0.874 in.)	Replace if under 0.36 kg/22.2 mm (0.79 lb/0.87 in.)

- (2) Cam chain tensioner roller diameter

Standard value→35.3mm (0.391 in)  
Serviceable limit→Replace if under 34.5mm (1.359 in)

**c. Reassembly**

- (1) Assemble the cam chain tensioner component parts. (Fig. 3-62)

**(Note)**

Check the operation of the tensioner after reassembly.

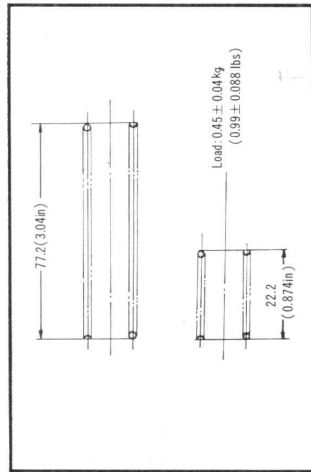


Figure 3-61. Cam chain tensioner spring

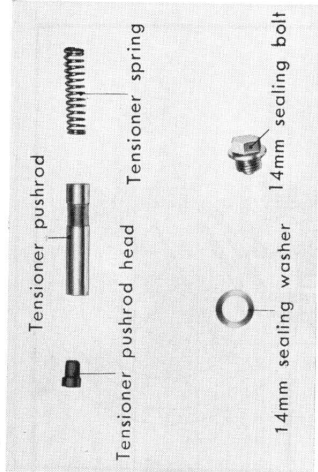


Figure 3-62. Component parts of cam chain tensioner

**3.3 RIGHT CRANKCASE COVER**

The right crankcase cover is made of heat resisting aluminum alloy. An oil pump is incorporated into the right front lower section.

The oil delivered under pressure from the oil pump enters the right crankcase oil well and is diverted to the cylinder head and the right crankcase cover. (Fig. 3-63)

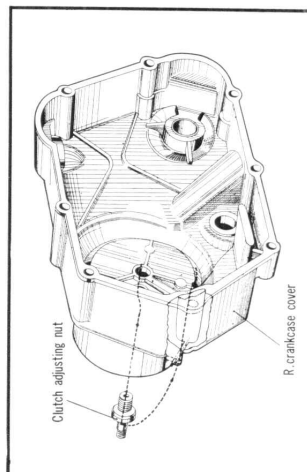


Figure 3-63. R. crankcase cover oil passage