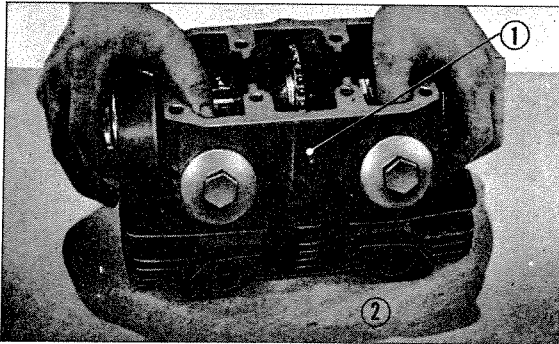


① Cam chain ② Joint clip

Fig. 3-12. Disconnecting the cam chain



① Cylinder head ② Bluing or red lead

Fig. 3-13. Checking the cylinder head for warpage

C. Inspection

1. The cylinder head is exposed to the high pressure and temperature resulting from the combustion of the fuel mixture, further, when the head is unevenly torqued, it may develop cracks or warpage and will cause defective sealing between the head and the cylinder resulting in gas leak, air sucking with consequent drop in compression.

The warpage of the cylinder head does not develop suddenly and it may be overlooked, therefore, caution should be exercised during reassembly since the uneven torquing of the cylinder head is a very common fault.

To inspect for warpage of the cylinder head, apply a thin coat of bluing or red lead on a surface plate and work the mating surface of the cylinder head on the surface plate; the warpage can be determined by the transfer of the bluing on to the cylinder head. (Fig. 3-13)

To correct the warpage, lap the cylinder head on the surface plate with a #200 sandpaper, finally finish by using a #400 sandpaper, and then inspect again with the bluing.

2. Inspect the combustion chamber, inlet and exhaust ports for cracks.
3. Inspect the valve guide and valve stem. Check the valve guide diameter at the top, center and bottom in both the X and Y axis, using a precision cylinder gauge. Check the valve stem with micrometer.

If the valve guide inside diameter is beyond serviceable limit, it may be repaired by using a reamer (Tool No. 07008-00101) and replacing the valve with one of an oversize.

	Item	Standard Value	Serviceable Limit
Inlet valve	Outside diameter	5.48~5.49 mm (0.2158~0.2162 in) with in 0.02 mm (0.0008 in)	Replace if under 5.46 mm (0.215 in)
	Contact face runout		
Inlet valve guide	Inside diameter	5.5~5.515 mm (0.2165~0.2171 in)	Replace if over 5.555 mm (0.219 in)
	Outside diameter	10.055~10.065 mm (0.3959~0.3963 in)	
	Interference fit	0.04~0.065 mm (0.0016~0.0026 in)	
	Inlet valve clearance	0.01~0.035 mm (0.0004~0.0014 in)	Replace if over 0.08 mm (0.028 in)
Exhaust valve	Outside diameter	5.46~5.47 mm (0.2150~0.2154 in) with in 0.02 mm (0.0008 in)	Replace if under 5.44 mm (0.214 in)
	Contact face runout		
Exhaust valve guide	Inside diameter	5.5~5.515 mm (0.2165~0.2171 in)	Replace if over 5.555 mm (0.219 in)
	Outside diameter	10.055~10.065 mm (0.3959~0.3963 in)	
	Interference fit	0.04~0.065 mm (0.0016~0.0026 in)	
	Exhaust valve clearance	0.03~0.055 mm (0.0012~0.0022 in)	Replace if over 0.1 mm (0.0039 in)