1. Check the valve springs in a standard valve spring tester.

LENGTH		PRESSURE
Free	47 mm 1,850 in.	
Compressed	41 mm 1.615 in.	$28 \pm 1.4 \text{ kg}$ $61.5 \pm 3 \text{ lb}$ .
	30.1 mm	92.5 + 2.5 kg - 3.5 kg
Compressed	1.185 in.	204 + 5.5  lb. - 7.7  lb.

A pressure variation of  $\pm$  5% is allowable for used springs.

- 2. Inspect springs before installing.
- 3. Check valve stems for alignment (0.01 mm, .004 in. max.).
- 4. Check valve guides for wear.
- 5. Check valves for wear and seating.
- 6. Remove any roughness from valve stems with fine emery cloth.

## Checking Installed Valve Spring Length

## Note:

The intake and exhaust valve springs are identical and are brought to the proper installed length by inserting or removing washers.

- 1. Install special tool P 10a with spring retainer and locks on the corresponding valve.
- Read measured length and adjust with spacer washers until the required length is obtained.

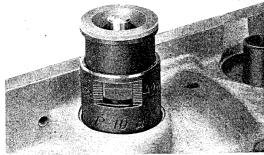


Fig. 151

3. Install valve spring with closely wound coils toward the cylinder head.

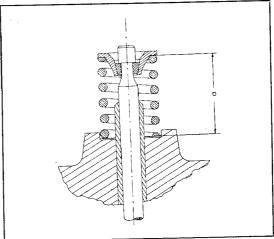


Fig. 152

138. L

Installed length of intake valve springs
42.5 mm, 1.675 in.
Installed length of exhaust valve springs
41.5 mm, 1.635 in.

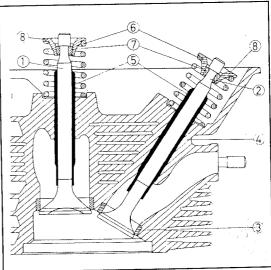


Fig. 153

- 1 Intake valve
- ② Exhaust valve
- 3 Valve seat
- (4) Cylinder head
- ⑤ Valve guides
- 6 Valve springs
- Spring retainer locks
- 8 Valve spring retainer