

Testing Valve Springs

The valve springs should either be tested on the Spring Tester Part No. 000 589 00 65 or another suitable spring tester. In addition to the no-load length L of each spring measure the load P_1 and P_2 needed to compress the spring to the length L_1 and L_2 respectively. If the permissible load tolerances are exceeded, the faulty spring must be replaced.

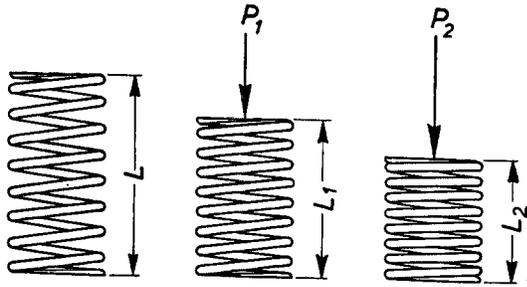


Figure 05-14/1

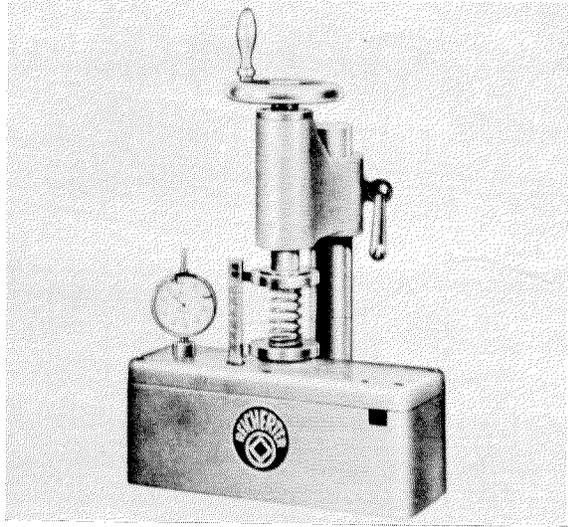


Figure 05-14/2

Table for Testing Valve Springs

Model	Outer diameter mm		Diameter of wire mm	Length L no-load mm	Length L_1 compressed mm		Load P_1 kg	Length L_2 under final load mm		Load P_2 kg
	top	bottom								
OM 636	29.5	30.5	4.25	62	52	27.6	43	53 ± 5.3		
OM 621 inner spring only with intake valve	19.5		2.0	37	28.2	4.9 ± 0.5	20.5	9.3 ± 0.9		
OM 621 outer valve spring	30.6		4.0	47	38.4	23.1	29.9	45.9 + 4.5 - 2.2		

Note: Mount the valve springs of the OM 636 in such a way that the smaller outer dia. is top at the side of the valve spring retainer.
 Loading tolerance with new valve springs + 10 %
 - 5 %
 wear limit - 10 %