

# 05.0 Inspecting the Valve Springs

## Valve Springs

Model	Part No.	OD	Wire dia.	Length unloaded "L" mm	Length under load Preload "L 1" mm      kp		Length under load Final load "L 2" mm      kp	
		mm	mm					
M 116	inside spring 108 053 00 22	22.2	2.5	45	31	12.8 to 15.2	21	22.8 to 25.2
	outside spring 129 053 02 20	33.6	4.5	47.1	40	26 to 30	30	69 to 77
M 117	inside spring 130 053 00 22	22.2	2.5	45	33	11.2 to 12.4	21.5	22.8 to 25.2
	outside spring 130 053 02 20	33.6	4.5	51	42	33 to 36	30.5	83 to 91

**Note:** Wear limit – 10 %

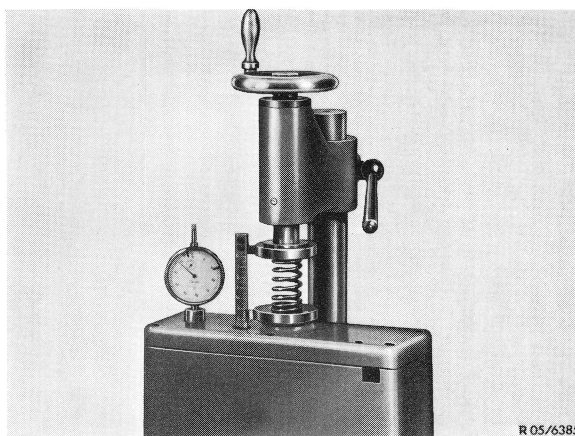
## Special Tool

Spring test balance

000 589 00 65

## Testing of Spring

- 1 Test valve springs either on the spring tester or another suitable spring testing balance (Fig. 1).
- 2 In addition to the unloaded length "L", also measure for each spring the load at length of "L 1" and "L 2".
- 3 Replace spring, when permissible load tolerances are exceeded.



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Fig. 1