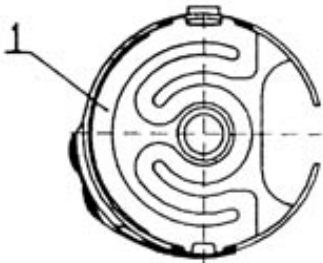


Three different executions can exist for one single bobbin case:

- bobbin case without NBL spring;
- NBL – i.e. with no backlash spring;
- MF – i.e. with adjustable NBL spring (see following paragraph)
- Magnet –

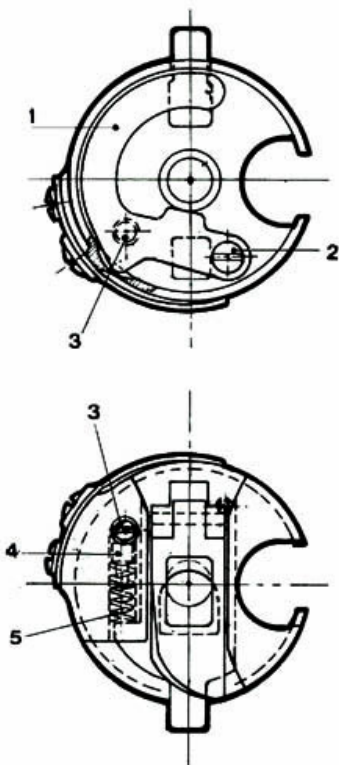
The choice of the correct bobbin case depends on the usage.

NBL



No backlash spring bobbin case The NBL device prevents excessive thread feeding off the bobbin also in case of lower thread pulls during the sewing or during the automatic trimming of the threads. This is very important for sewing machines equipped with a trimming device. The NBL device consists of a spring set (1) on the inside bottom of the bobbin case. The spring presses the upper flange of the bobbin against the bottom of the bobbin case holder (base), causing a breaking effect. The shape of the setting spring depends upon the different bobbin cases on which it is mounted.

MF



Adjustable no backlash spring bobbin case This patented execution of the NBL device has the advantage, compared to the prior system, to can adjust the pressure of the spring against the bobbin. It is so possible to regulate the breaking of the bobbin case according to the intensity of the pulling stress on the thread during the trimming operation and of the inertial force of the bobbin produced by the type of thread used. It is thus possible to achieve a superior breaking for heavy threads and a weaker breaking for light threads, without influencing excessively the tension of the lower thread while sewing. This tension must be in fact determined only by the tension spring on the outside of the bobbin case. The adjustable NBL device consists of a sickle-shaped spring (1) fixed to the inside of the bobbin case, which can be finely adjusted to apply light pressure to the bobbin. The amount of pressure that can be applied to the bobbin can adjusted by a screw (3). In order to avoid, during sewing, the unscrewing of the adjusting screw by vibration, CERLIANI has created a device to prevent this. It has been accomplished by inserting a small plug of synthetic material (4) underneath the pressure spring for the bobbin case latch (5) into which the screw thread of the adjusted screw bites, holding the screw firmly.