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What is claimed is:

1. A jig for measuring a resilient force of a coil spring, the jig comprising:
a cylindrical holder;
a guide pipe slidably mounted in the cylindrical holder, the guide pipe having an inner diameter substantially equal to an outer diameter of the coil spring.
2. A jig according to claim 1, wherein the holder and the guide pipe have sliding friction therebetween at such a resistance value as to prevent the guide pipe from moving by its own weight alone.

Detailed Description of the Invention

[0001]

1. Field of the Invention

The present invention relates to a jig for holding a coil spring in an upright position during measurement of a specified load of the coil spring at a specified height.

[0002]

2. Description of the related art

A related art will be explained referring to FIGs. 6 and 7. Numeral 101 denotes a measuring table of a spring load measuring device and a fixing pipe 112 is placed thereon for fixedly holding a coil spring 111 in an upright position. The coil spring 111 is partially inserted in an internal hole 113 of the fixing pipe 112. Numeral 114 denotes a load measuring part for measuring a specified load (a resilient force) of the coil spring 111 when compressed to a specified height.

Problems to be solved by the Invention

[0003]

However, the aforementioned related art has the following problems. Specifically, more than half of the coil spring 111 protrudes from the upper end of the fixing pipe 112. In measurement, the coil spring 111 therefore may buckle at its middle portion, as viewed in FIG. 7, when the load measuring part 114 is moved down. This may result in a measurement failure. In another possible specified load measurement on a coil spring at a high specified height, the fixing pipe 112 may be designed to be longer. In another specified load measurement at a low specified height, in contrast, such long fixing pipe 112 cannot be used and the aforementioned problem would be caused inevitably.

[0005]

The guide member is allowed to slide with respect to the guide pipe, changing the height of the jig. This makes it possible to reduce a protruding length of the coil spring from the upper end of the guide pipe regardless of the specified height of the coil spring to be measured and thus prevent the coil spring from buckling.

Description of Preferred Embodiment

[0006]

A cylindrical holder 1 made of a metallic material has an internal hole 2 in which a guide pipe 3 is slidably mounted so that a clearance 4 is provided between the guide pipe 3 and the holder 1. The guide pipe 3, which is hollow, has a through hole 5 whose diameter is substantially equal to the outer diameter of a coil spring to be measured. Further, the guide pipe 3 is formed with peripheral grooves 6 and 7 extending above and below in the periphery thereof. Rubber O-rings 8 and 9 are fitted in those grooves 6 and 7 respectively so as to make a contact with the surface of the hole 2 of the holder 1. Owing to the contact force, the guide pipe 3 has such a sliding frictional force to the holder 1 as to prevent the guide pipe 3 from moving down by its own weight but allow it to move down by a slight external force.