

ABSTRACT

AUTOMATIC ASSISTED CALIBRATION APPARATUS AND METHOD THEREOF

Disclosed are an automatic assisted calibration apparatus and a method thereof. The apparatus comprises a calibration steel ball, wherein an assist apparatus is sleeved on the outer surface of the calibration steel ball, and a calibration tube is sleeved on the outer surface of the assist apparatus. By means of a method of sleeving the assist apparatus or directly sleeving the calibration tube on the outer surface of the calibration steel ball so as to measure a distance in a sliding manner, a more accurate TCP is obtained. The present disclosure provides a quick, easily operated and precise method for TCP calibration of a tubular tool. The use of the assist apparatus can reduce the risk of a tool disengaging from the calibration steel ball during the movement of the tool, and can restrict the movement of the tool, thus achieving an automatic calibration process. Compared with traditional TCP calibration that requires the precise usage of a certain point for touching a tip, the method of using the tool to catch the calibration steel ball is easier to operate and implement. Errors caused by manual operation are avoided by using a fully automatic calibration method, and the efficiency of transport and point selection is improved by means of fully automatic calculation and automatic measurement, thus shortening a preoperative preparation time.

Figure 1