

球带尺使用说明书 Ball Tape Usage Manual

一、 球带尺是一种通过检验轮辋胎圈座部位的周长，来评定其标定直径是否符合有关标准的专用测量工具。球带尺适用于测量乘用车轮辋、商用车轮辋、工程轮辋、工业轮辋、农业轮辋、摩托车轮辋及航空轮辋等。1) Ball tape is the special tool that used to check if its calibrated diameter is qualified with the related standards by checking the circumference of beat seat of rim. Ball tape can also be used to check the “Passenger Car Rim”, “Commercial Vehicle Rim”, “Earthmoving Equipment Rim”, “Industrial & Lift Truck Rim”, “Agricultural Tractor & Implement Rim”, “Motorcycle Rim” and “Aviation Rim” etc.

二、 球带尺的构成 2) Structure of ball tape

球带尺是由弹簧钢丝、定位弹簧、测量球（珠）、手柄、测量头及标准圈等组成（图 1）。Ball tape consists of spring steel wire, locating spring, checking ball, handle, measure block, and standard ring etc. (See Fig. 1)

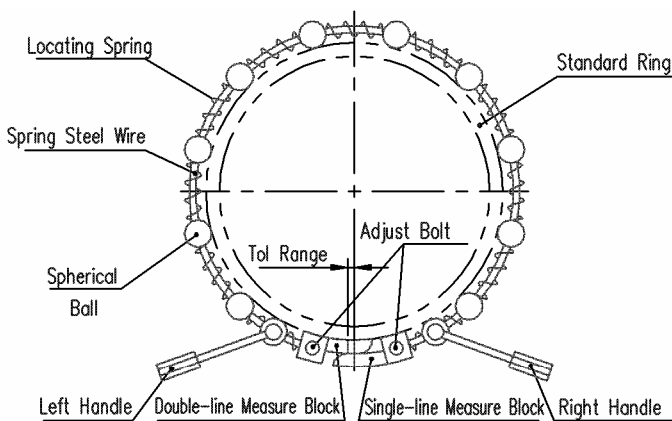


Fig. 1

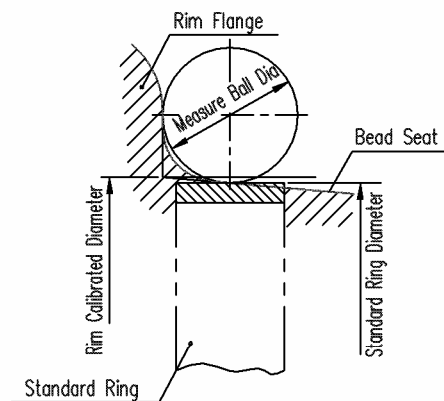


Fig. 3

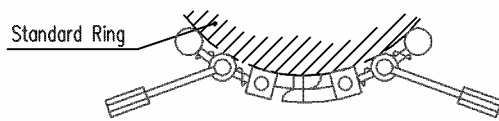


Fig. 2

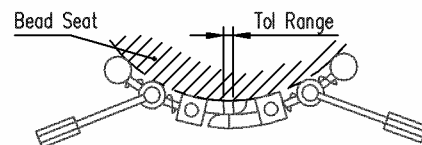


Fig. 4

三、 使用方法 3) Usage method

1. 球带尺在使用前应先进行标定。将球带尺置于标准圈上，使各测量球均接触标准圈的两个垂直面，在手柄上施加 5kg 左右的力，此时右测量头上的刻线应对准左测量头上的右刻线（图 2）。如有偏差，则调整测量头上的调整螺钉来满足上述要求。 Ball tape shall be calibrated before putting it into normal usage. Put “ball tape” onto standard ring and keep all the balls touching the two vertical sides of standard ring, after that, user applies about 5 kg forces onto the handles, and now the “Single-line” on the right measure-block shall be overlaid with double-line on the left measure-block (See Fig. 2). If there is any error, adjust the “adjust bolt” on the measure-block to meet the requirement as what mentioned above.

2. 测量工作开始前，应将被测轮辋的测量部位清洁干净。将标定好的球带尺置于轮缘和胎圈座处，使各

测量球均接触轮辋表面（图 3），在手柄上施加 5kg 左右的力，观察左右手柄的刻线位置，如右手柄的单刻线在左手柄的双刻线范围内（图 4），则表示轮辋标定直径合格；如偏离该范围，则表示不合格。Before starting to check the rim, clean the part of the rim, where needs to be checked. Put the ball tape onto the rim flange and bead seat and keep them leaning onto the surface of rim (See Fig 3.), and then user applies 5kg force onto the handles to check the lines of both handles. If the single-line on the right handle is within the range of double-line on the left handle (See Fig.4), the rim calibrated diameter is qualified with the standard requirement; if the single-line is deviated from the range of double-line, the diameter of rim is not qualified.

四、注意事项 4) Notices

1. 每一规格尺寸的球带尺只能用于检测同种规格的轮辋。Each size of ball tape can check the same size rim only.
 2. 5°和 15°一件式深槽轮辋（DC、WDC）需测量两侧胎圈座处的标定直径；半深槽轮辋（SDC）和 I、II、III型平底轮辋（WFB、FB）需测量其固定轮缘一端。The calibrated diameter of both sides of bead seat of 5° & 15° drop center rim (DC, WDC) shall be measured; the fixed rim flange end of semi-drop center rim (SDC) and I、II、III flat base rim (WFB, FB) shall be measured.
 3. 测量工作应由两人进行操作，一人辅助持尺，保证所有测量球全部接触胎圈座，另一人进行测量判定。Rim checking shall be done by two people; one holds the ball tape to keep all the measuring balls leaning onto bead seat, the other one does the checking to the rim.
 4. 球带尺应定期标定，用千分尺或三坐标测量仪在标准圈圆周均分 5 点测量 5 次，计算平均值与标准圈上标识的尺寸相对比，如误差在 $\pm 0.04\text{mm}$ 以内，可以使用。在使用时应轻拿轻放；不使用时，应置于标准圈上进行保存。为避免锈蚀，球带尺和标准圈均应涂有防锈油脂。Ball tape shall be calibrated periodically. Check the 5 evenly-distributed points on the circumference of the standard ring for 5 times with three-coordinates measuring machine. And compare the calculated average value with the ones that marked on the standard ring, if the error is within $\pm 0.04\text{mm}$, then the ball tape is qualified, user can use it to check the rims.
- User shall take the ball tape gently. If ball tape won't be used for a long time, user shall put it onto standard ring for storage. In order to avoid ball tape rusting, it shall be protected with anti-rust grease.

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