

Truing stand

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A **truing stand** is a device for holding a spoked wheel (for a bicycle or motorcycle) in order to (re)align and stabilize the rim. It applies tension to the spoked wheel's hub and holds it in a fixed position during the truing process.

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Technical design

Clamping mechanism

Most truing stands have two center-spanning crossbars between which the hub is held. In addition to lateral clamping, a differentiation is made between two systems for holding the hub:

- An open, V-shaped, usually prismatic uptake onto which the axle ends rest
- A three-point clamp in which the circumference of the axle ends is clamped against a stop.

Different hub types require tools such as suitable adapters for holding them in the truing stand.

Measuring instrument

A measuring instrument attached to the center of the bracket can be used to easily and automatically true the rim without calculations. Throughout the truing process, a dynamic display positioned on the rim indicates the position of the rim in relation to the hub and the radial runout.

Truing stands have been registered with the German and the European patent offices.

Truing

During the truing process, the wheel's spokes are pre-tensioned using a spoke wrench. This is done by rotating the spoke nipple on the spoke thread. The aim of this process is not only to tighten the spokes but also to minimize the rim's lateral and radial runout to achieve radial precision within the prescribed tolerances.

When using modern or newer truing stands, it is not necessary to conduct calculations or calibrate the components, and the rim can be directly trued to the center. Truing gauges are no longer required.

In the case of wheel holders, the measuring instruments must first be set to the desired value by conducting a calculation, calibrating the components or using a special procedure so as to achieve the desired rim position. The result should be checked with a truing gauge.

Standard wheel holders

Non-center spanning systems are generally referred to as truing stands even though they are only used to clamp or hold a wheel.

A simpler version also referred to as a truing stand is the single arm model on which one side of the wheel is attached to the hub. The rim position must again be checked using a truing gauge.

External links

 Research into and description of the term 'truing stand' at centrimaster.de (Wilhelm Schon)

References

- Documents about patent applications at the German Patent and Trademark Office (DPMA) and the European Patent Office NL-2280 HV Rijswijk. Patent applications were lodged under the numbers:
 - o 10 2005 049 346.7
 - o DE 10 2004 049 540.8
 - o DE 10 2004 051 436.4
 - o DE 10 2005 018 215.1
 - o 11 2004 000 318-21
 - o DE 10 2006 012 478.2
 - o DE 10 2008 018 838.7
 - o PCT/EP2004/002047

Image captions

Truing stand



Single arm stand



Wheel holder

