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NATIONAL METROLOGY VERIFICATION REGULATION OF THE PEOPLE'S REPUBLIC OF CHINA

JJG 1183-2021

Structure height gauges for Railway Frogs

铁路辙叉结构高度测量器检定规程

(English Translation)

Issued on: December 28, 2021 **Implemented on: June 28, 2022**

Issued by: State Administration for Market Regulation

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Appendix A (Reference) Verification Record of Railway Frog Structure Height Measuring Instrument (5)

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Introduction

This regulation is based on TB/T 3467-2016 "Alloy Steel Combination Frog", TB/T 447-2004 "High Manganese Steel Frog" "Technical Conditions", TG/GW115-2012 "Rules for Repair of Ballastless Track Lines of High-speed Railway" and TG/GW116-in 2013, it was compiled from the relevant requirements in the "Rules for the Repair of Ballasted Track Lines of High-speed Railway".

This regulation is published for the first time.

Rules for the Verification of Height Measuring Instruments for Railway Frog Structures

1 Scope

This regulation is applicable to the initial verification and subsequent verification of the height measuring device of the railway frog structure (hereinafter referred to as the measuring device).

and in-use checks.

2 Overview

The measuring instrument is a special railway measuring instrument used to measure the height difference between the top surface of the frog core rail and the top surface of the wing rail.

The display mode is divided into ruler type measuring instrument and digital measuring instrument. The schematic diagram of its structure is shown in Figure 1 and Figure 2.

Figure 1 Ruler-type measuring device

1,5-positioning ruler;2-main ruler;3-measurement ruler;4-vernier

Figure 2 Digital measuring instrument

1,5-positioning ruler; 2-main ruler; 3-measuring ruler; 4-reading device

3 Measurement performance requirements

3.1 Length of main ruler the length of the main ruler of the measuring instrument should not be less than 300mm.

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3.2 Measuring range

The measuring range of the measuring ruler should cover (-15~15) mm.

3.3 Surface roughness of working face the surface roughness Ra value of each working surface of the measuring instrument should not be greater than 0.8μm.

3.4 Ruler Marks

For the ruler type measuring device, the marking width of the measuring ruler and the vernier is (0.12~0.25) mm, and the marking width is different.

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