

ICS 45.120  
CCS S 19



**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 25342-2026**

Replacing GB/T 25342-2010

**Vocabulary for railway permanent way engineering -  
Construction machinery**

铁路工务工程词汇 施工机械

**Issued on: March 31, 2026**

**Implemented on: October 1, 2026**

**Issued by: State Administration for Market Regulation;  
Standardization Administration of the PRC**

## Table of Contents

- 1 Scope
- 4 Line construction machinery
  - 4.1 Terminology for the Whole Machine
  - 4.2 Component Vocabulary
- 5 Bridge construction machinery
  - 5.1 Complete Machine Vocabulary
  - 5.2 Component Vocabulary
- 6 Tunnel construction machinery

### 1 Scope

GB/T 25342-2026 is the Chinese national standard covering the vocabulary of track maintenance machinery - tampers, ballast regulators and cleaners, rail grinders, track laying machines and the rest of the fleet that works a railway at night. It replaces GB/T 25342-2010 and has been in force since 1 October 2026, under the National Railway Administration. It was issued on 31 March 2026 and takes effect on 1 October 2026, replacing GB/T 25342-2010. The document is under the responsibility of the National Railway Administration. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document defines the basic terminology for railway engineering construction machinery, including track construction machinery, bridge construction machinery, tunnel construction machinery, and track maintenance machinery. Key vocabulary related to cars. This document applies to the design, manufacture, inspection, and use of special construction machinery for railway engineering projects.

#### 4.1 Terminology for the Whole Machine

4.1.1 track-laying machine Specialized complete sets of construction equipment for laying railway track panels and long steel rails.

Note. It is divided into track laying machine and long rail laying machine.

4.1.2 It consists of a track laying vehicle, a track laying gantry, auxiliary track laying machines, and the main track laying machine, and is a specialized machine used for laying railway track panels. Complete set of construction equipment.

4.1.3 Specialized construction equipment that can travel on railway lines and perform track-laying operations.

4.1.4 Rail laying machine motorized flatcar This is a specialized construction equipment that supports rail stacks and can move them along the railway line on its own, transferring them to the main body of the rail laying machine.

4.1.5 Specialized complete sets of construction equipment for laying long railway rails.

Note. It is divided into ballast track long rail laying machine, ballastless track long rail laying machine and ballastless track adjacent line long rail laying machine unit.

4.1.6 It consists of a long rail tractor, a track-laying main unit, an auxiliary power vehicle, a sleeper transport train, and a sleeper transfer vehicle, and is used for laying ballast tracks. Equipment for sleepers and long rails.

4.1.7 It consists of long rail tractors, long rail pushers, and long rail transporters, and is used for laying long rails on ballastless lines.

4.1.8 It consists of a long rail transport vehicle, a long rail pusher vehicle, and a rail shifting device, and is used for laying long rails on the main line and adjacent lines on ballastless tracks.

4.1.9 trackpaneltrain The formation of railway vehicles that transport rail stacks.

4.1.10 long-rail towing vehicle The equipment that pulls long steel rails onto the rollers on both sides of the ballast track bed.

4.1.11 Track-laying host machine Equipment used for track laying machine traction, long rail pulling and unpulling, sleeper laying and rail positioning.

4.1.12 auxiliary vehicle Equipment that provides auxiliary traction power for track laying operations.

## 4.2 Component Vocabulary

4.2.1 Specialized construction equipment that transfers track stacks from the track laying vehicle to the auxiliary machine of the track laying machine.

4.2.2 track-shifting device It consists of multiple sets of rail guiding devices, which can gradually guide long rails from the main line into the rail bearing groove of the adjacent line.

## 5.1 Complete Machine Vocabulary

5.1.1 girder-erectingmachine Supported on the bridge structure, the precast concrete beams can automatically change their support position along the bridge direction and be erected onto designated piers and abutments using specialized supports. A set of construction equipment.

5.1.2 railway T-girder erecting machine A complete construction system for erecting precast concrete T-beams, using railway track vehicles for traction and railway-specific vehicles for support. equipment.

Note. This includes the main unit of the railway T-beam bridge erecting machine, auxiliary units of the railway T-beam bridge erecting machine, T-beam trains, and T-beam transshipment gantry frames, etc.

5.1.3 Specialized construction equipment that can travel on railway lines and perform bridge erection operations.

5.1.4 Railway T-beam bridge erecting machine motorized flatcar Specialized construction equipment that supports T-beams and can move along the railway line on its own, transferring the precast concrete T-beams it supports to the main unit.

5.1.5 T-girdertrain Railway vehicle formation for transporting precast concrete T-beams.

5.1.6 Rail-highway T-beam erecting machine Supported by outriggers on the bridge structure, the machine can automatically change its support position along the bridge direction, enabling lateral movement of the entire beam and its application in highway and railway prefabrication. Specialized construction equipment for erecting concrete T-beams.

5.1.7 The guide beam is used for feeding the beam and for the bridge erecting machine to pass through the span. The bridge erecting machine uses a crane trolley to lift and lower the precast concrete box girder into place.

5.1.8 The guide beam is only used to pass through the span. The box girder is lifted by a crane trolley, moved longitudinally into place, and then the precast concrete box girder is installed by the bridge erecting machine.

5.1.9 Continuous moving girder erecting machine A bridge erecting machine that uses outriggers to drive the main beam to move continuously across the bridge deck to achieve span operations.

5.1.10 Step-moving girder-erecting machine A bridge erecting machine that relies on the repositioning of the outriggers and the movement of the main beam relative to the outriggers to achieve the span-crossing operation.

5.1.11 guidingbeam A bridge erecting machine that integrates beam lifting, beam transportation, and beam erection, and utilizes guide beams for auxiliary operations.

5.1.12 guidingbeam A bridge erecting machine that integrates beam lifting, beam transportation, and beam erection without a guide beam.

5.1.13 It is a specialized construction equipment used for assembling precast concrete segmental beams, consisting of a main beam, a mobile support frame, and a lifting trolley.

## 5.2 Component Vocabulary

5.2.1 T-beam replacement with gantrycrane for T-girder transshipment Specialized construction equipment for transferring precast concrete T-beams from the T-beam train to the auxiliary machine of the railway T-beam bridge erecting machine.

5.2.2 main beam arm Along the route, the main metal structure used to bear the load of the suspended beam.

5.2.3 Guide beam Box-shaped steel beams used for bridge erecting machines to pass through spans or feed beams.

5.2.4 Installed at the front end of the boom and connected to the boom pin, it is used to support the boom on the bridge pier during girder erection, forming the front support of the simple support beam. Support structure.

5.2.5 No. 1 supporting mechanism Located at the front of the main vehicle body, it is a rear support structure used to support the boom to form a simple support beam.

5.2.6 No. 2 support mechanism Located behind support column 1, this structure supports the boom and drives it to perform horizontal swinging motions.

5.2.7 No. 3 supporting mechanism Located behind support column 2, this structure supports the boom when it is traveling in a high or low semi-suspended position.

5.2.8 At the front end of the main beam of the bridge erecting machine, there is a structure that supports the main beam to the bridge pier.

5.2.9 The structure that supports the main beam on the bridge deck is located in the middle of the main beam of the bridge erecting machine.

5.2.10 At the rear end of the main beam of the bridge erecting machine, there is a structure that supports the main beam on the bridge deck or on the beam transport vehicle.

5.2.11 Auxiliary support structure used during bridge erection machine operation.

5.2.12 The structure used to support the guide beam.

5.2.13 fronttrolley assembly A mechanism used to support the front end of the integrated bridge erecting machine and drive the entire machine.

5.2.14 reartrolley assembly A mechanism used to support the rear end of the integrated bridge erecting machine and drive the entire machine.

## 6 Tunnel construction machinery

6.1 Specialized mechanical equipment that achieves full-section tunnel formation through excavation and advancement, and includes a surrounding shell. [Source: GB/T 34354-2017, 2.1, with modifications]