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

GB/T 36505-2018

Terms for railway permanent way

铁路线路词汇

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was proposed by and is under the administration of the National Railway Administration of China.

This standard was drafted under the responsibility of the Railway Engineering Research Institute of the China Academy of Railway Sciences and the Standards and Metrology Research Institute of the China Academy of Railway Sciences.

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1 Scope

China's national vocabulary for the railway permanent way - the line itself, its geometry, the track that sits on it, and the work of inspecting and maintaining both. Permanent way vocabulary is old and unusually literal, and it is unforgiving of approximation. A main line and a station track are not interchangeable words; a plan and a profile describe two different projections of the same centre line; a grade crossing and a grade separation differ by a bridge and by every accident that bridge prevents. The standard defines the basic terms and their definitions and applies them to survey, design, construction, maintenance, scientific research and teaching, which is a wider audience than most vocabularies serve and explains why the definitions are short and operational rather than academic. Its seven

clauses run from the general terms of the line, through alignment, track structure and components, continuous welded rail, track inspection and track work, and close with an index. The continuous welded rail clause is the one that carries the most weight in practice: welding rails into strings kilometres long removes the joints that make the noise and do the damage, and in exchange the rail can no longer expand freely, so it carries a large internal force that changes with the temperature. Managing that condition starts with agreeing on what the words mean.

This standard defines the basic vocabulary of the railway permanent way and its definitions.

This standard applies to the survey, the design, the construction, the maintenance, the scientific research and the teaching of railway permanent way engineering.

2 General terms for the line

2.1 permanent way: the railway line, composed of the track, the subgrade, the bridges and culverts, the tunnels and other structures, on which trains run at the prescribed speed.

2.2 standard gauge railway: a railway whose track gauge on straight track is 1 435 mm.

2.3 broad gauge railway: a railway whose track gauge on straight track is greater than the standard gauge.

2.4 narrow gauge railway: a railway whose track gauge on straight track is less than the standard gauge.

2.5 mixed passenger and freight railway: a railway which carries both passenger and freight traffic.

2.6 freight dedicated lines: a railway on which freight traffic predominates.

2.7 main line: the line which connects the stations and runs through them, or which enters a station on the straight leg of a turnout.

2.8 station track: the lines within a station other than the main line, including the arrival and departure tracks, the marshalling tracks, the goods tracks, the shunting neck and the other lines with a designated use inside the station.

2.9 connecting line: a line connecting one station (yard) with another station (yard), a station (yard) with a main line, or two main lines with each other.

2.10 single line; single track: a railway with only one main line, generally a line worked in both directions.

2.11 double line; double track: a railway with two main lines, generally lines worked in one direction each.

2.12 centre line of track: the line bisecting the track gauge (the gauge widening not being counted).

2.13 distance between centre lines of two neighbouring tracks: the distance between the centre lines of two adjacent tracks.

2.14 structure clearance: the outline of the limiting cross-section perpendicular to the centre line of the track, into which no structure or equipment may intrude, apart from the locomotives and rolling stock and the equipment which interacts directly with them.

2.15 permanent way signs: the signs set out along the railway line which mark the mileage of the line, the position of the line and bridge equipment or its main technical parameters, and the boundaries of responsibility of the organisations at each level.

2.16 grade crossing; level crossing: the crossing of a railway with another railway or with a road on the same level.

2.17 grade separation: the crossing of a railway with another railway or with a road not on the same level.

3 Alignment

3.1 railway alignment: the spatial position of the centre line of the railway, made up of the straights and curves in plan and in profile.

3.2 plan of railway line: the projection of the centre line of the line onto the horizontal plane.

3.3 horizontal alignment: the shape and position of the line in the horizontal plane, made up of straights and curves.

3.4 profile of railway line: the projection, onto the longitudinal vertical plane, of the centre line of the line after it has been developed into a straight.

3.5 vertical alignment: the shape and position of the line in the longitudinal profile, made up of gradients and vertical curves.