

ICS 01.040.73

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

GB/T 15663.10-2008

Replacing GB/T 15663.10-1995

**Terms relating to coal mining - Part 10: Winning machinery and
developing machinery**

煤矿科技术语 第10部分：采掘机械

Issued on: July 29, 2008

Implemented on: May 1, 2009

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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Foreword

GB/T 15663 Terms relating to coal mining is divided into the following parts: Part 1 Coal geology and exploration; Part 2 Shaft and roadway engineering; Part 3 Underground mining; Part 4 Surface mining; Part 5 Hoisting and transport; Part 6 Mine surveying; Part 7 Mining subsidence and special mining methods; Part 8 Coal mine safety; Part 10 Winning machinery and developing machinery; Part 11 Coal mine electrical engineering.

This part is Part 10 of GB/T 15663.

This part replaces GB/T 15663.10-1995 Terms relating to coal mining - Winning machinery and developing machinery.

Compared with GB/T 15663.10-1995, the main changes are as follows: the Chinese names of a number of terms were revised; the English equivalents of a number of terms were revised; the definitions of a number of terms were revised; the definition of the name of one term was revised; a substantial number of new terms were added; and a number of terms were deleted. The foreword lists, entry by entry, the clause numbers concerned in the 1995 edition and in the present edition.

This part was proposed by the China National Coal Association.

This part is under the jurisdiction of the National Technical Committee on Coal of Standardization Administration of China.

The drafting organizations of this part are the Shanghai Branch, the Taiyuan Research Institute and the Mine Construction Branch of the China Coal Research Institute, the Mining Design and Research Branch of the China Coal Research Institute, and Kaisheng Heavy Industry Co. Ltd.

The previous edition of the standard replaced by this part was GB/T 15663.10-1995.

1 Scope

The vocabulary of coal winning and roadway development machinery, fixed as a Chinese national standard. A longwall face is described by half a dozen trades at once - the machine builder, the mine planner, the maintenance shift, the safety inspector and the standards writer - and each of them arrived with its own words for the same thing. The same drum is a cutting drum in one document and a coal drum in another; haulage means the chain that pulls the shearer in one shop and the drive that moves it in the next. A terminology standard settles this by naming one preferred term for each concept, listing the synonyms that are still met in the literature, marking the ones that are now deprecated, giving the definition in Chinese and the English equivalent, so that a specification, a purchase order and an accident report can be read against each other. This part of GB/T 15663 fixes the general terms and the terms for coal winning machinery, for developing machinery and for hydraulic supports, and it applies to all documents, standards, codes, specifications, books, textbooks and manuals concerned with winning and developing machinery and hydraulic supports. It closes with a Chinese pinyin index and an English index, so that a term can be found from either language. The 2008 edition revised a long list of Chinese terms, English equivalents and definitions taken from the 1995 edition, added a substantial number of new terms and deleted terms that had fallen out of use. Its users are equipment manufacturers, mine engineering departments, translators and the drafters of the mining standards that cite it.

This part of GB/T 15663 specifies the general terms and the terms for coal winning machinery, developing machinery and hydraulic supports.

This part applies to all documents, standards, codes, specifications, books, textbooks and manuals relating to winning and developing machinery and to hydraulic supports.

2 General terms

Clause 2 carries the terms common to both winning and developing machines, numbered 2.1 to 2.31. Each entry gives the preferred Chinese term, the English equivalent and any admitted synonyms, the deprecated synonyms where they exist, and the definition.

2.1 winning machinery and developing machinery: the collective name for coal winning machinery and developing machinery.

2.2 cutting unit: the collective name for the cutting mechanism of a winning or developing machine together with its transmission or driving device and its accessory devices. The synonym coal cutting unit is deprecated.

2.3 cutting mechanism: the assembly of the components on a winning or developing machine that directly perform the cutting function.

2.4 travel unit; traction unit: the collective name for the travelling mechanism of a winning or

developing machine together with its travel driving device, which performs the function of moving the machine.

2.5 travel mechanism; traction mechanism, also called haulage mechanism: the actuating mechanism of the travel unit of a winning or developing machine.

2.6 travel driving unit: the collective name for the speed regulating device and the transmission device of the travel unit of a winning or developing machine.

2.7 tractive force; pull force, also called haulage force or haulage pull: the force that drives a winning or developing machine along.

2.8 travel speed, also called haulage speed: the value of the speed at which a winning or developing machine moves along the length of the face.

The clause continues with the terms for hydraulic, mechanical and electrical adjustable speed; for the pick and its variants, the flat pick and the conical pick, the pick seat, the lacing pattern, the line of cut and the cutting groove; for cutting speed, cutting height, dinting depth, cutting depth and web; for the consumption rate of picks and the specific energy of cutting; for climbing, dipping and feeding; and for the water-spraying system in its outer and inner forms.

3 Terms for coal winning machinery

Clause 3 carries the terms for the machines that win coal at the face, numbered 3.1 to 3.43, in the same entry format.

3.1 coal winning machinery; coal getting machinery: machinery used at the coal winning face which has all or part of the functions of cutting or breaking coal and of loading coal.

3.2 coal winning aggregate: coal winning equipment that performs the operations of winning, conveying and supporting at the coal face in a coordinated way, the operations being interlocked with one another and the equipment forming a structural whole.

3.3 air pick; pneumatic pick: a hand-held machine driven by compressed air that breaks down coal and other minerals or objects by impact.

3.4 electric coal drill: an electric machine used for drilling holes in the coal body. The synonym given is deprecated.

3.5 coal cutter: coal winning machinery used to cut a groove within the coal seam.

3.10 shearer; shearer loader: coal winning machinery whose cutting mechanism is a cutting drum.

3.16 continuous miner: a machine that wins coal or drives a roadway with a cutting mechanism that cuts on the full face.

The clause continues with the terms for machine height, underneath clearance, vertical and

roll steering; for the floor-based, conveyor-mounted, trepanner and auger types of shearer; for integral, independent, chain and chainless haulage; for the cutting drum, the helical vane drum, the ranging arm, the cowl and the cable handler; and for the coal plough and its parts and control modes, including the articulated bottom plate, the sliding guide, constant pressure control and constant distance control.

4 Terms for developing machinery

Clause 4 carries the terms for the machines that drive roadways, numbered 4.1 to 4.62, in the same entry format.

4.1 developing machinery; road heading machinery, tunneling machinery: machinery used at the development face which has all or part of the functions of drilling, breaking coal and rock, and loading.

4.2 roadheader; heading machine, roadway ripping machine: mechanical equipment used for driving a roadway, having the functions of breaking, loading and transferring.

4.3 full-section tunneling machine; full-face tunneling machine: a development machine whose working mechanism rotates and advances continuously, breaking the whole cross-section of the roadway. The synonym tunnel boring machine is deprecated.

4.4 selective roadheader; partial-size tunneling machine: a roadheader whose working mechanism, by swinging, breaks part of the roadway cross-section in sequence and finally completes the cutting of the full section.

4.5 boom-type roadheader; boom roadheader, boom miner: a roadheader whose cutting mechanism is carried on a boom.

4.6 transverse cutting-type roadheader: a boom-type roadheader whose cutting head rotation axis is perpendicular to the boom axis.

4.7 longitudinal cutting-type roadheader: a boom-type roadheader whose cutting head rotation axis is parallel to the boom axis.

4.8 bolter-miner: mechanical equipment having the functions of driving and of drilling and installing roof bolts.

4.9 transship conveyor for developing: transfer equipment suitable for use between the developing machine and the conveying equipment behind it.

The clause continues with the terms for the dust collector of the development face, the cutting head, the turret, the bearing unit, the gantry height, the load-conveying unit, the loading mechanism, the spinner disc, the boom, the apron, track adhesion, passable gradient, minimum turn radius and ground clearance; with the loaders and their gathering arms, shovels and buckets; and with the drilling equipment, including bits of several forms, the drill rod and its head and shank, the leg, the pusher, the down-the-hole hammer and