

世界钢号对照手册

(第二版)



HANDBOOK OF COMPARATIVE
WORLD STEEL STANDARDS

(THE SECOND EDITION)

冶金部信息标准研究院

CHINA METALLURGICAL INFORMATION &
STANDARDIZATION RESEARCH INSTITUTE

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WORLD STEEL MARKINGS

— Second Edition —

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前 言

《世界钢号对照手册》自 1994 年第一版出版发行以来,深受国内外读者欢迎,它给生产、设计、使用、外贸、科研、教学等部门的有关人员带来极大方便,并为我国钢铁标准与国际标准接轨作出了积极贡献。

但是,在过去的四年里,国内外钢铁标准均有不少改动,特别是我国标准改动较大,如手册中的 45 个标准有 10 个进行了修订或被新标准所代替、有 1 个被废除。为了保持本手册的实用性和先进性,并使之更臻完善,我们对手册进行了全面修改补充。在新版本中,我国钢铁标准由原来 45 个增加到 50 个。并补充了我国标准与欧洲标准化委员会标准(EN)的对照。此外,书后还附有日本工业标准化协会所编的 JIS 标准与外国标准的对照资料,供读者参考。

本手册是当今国内外同类书籍中较适用的一本钢号工具书,可供冶金、化工、机械、建筑、汽车、造船、航空、宇航、兵工、外贸商检、物资管理、科研及教育部门的有关人员实际工作参考。

编 者

1998 年 12 月

Preface

Since the first edition was published in 1994, the Handbook of Comparative World Steel Standards has been well received by readers both at home and abroad. The handbook has provided great facilities to the people engaged in steel fields such as production, design, utilization, foreign trade, research and education etc, and made positive contributions to homologize Chinese iron and steel standards to international standards.

Over the past four years, however, both Chinese and foreign iron and steel standards have changed more or less, and in particular, Chinese standards changed greatly, e. g. among the 45 standards included in the first edition of the handbook, ten were revised or substituted by new standards, and one was withdrawn. In order to keep the practicality of the handbook and make it more advanced and more perfect, we have revised and supplemented the handbook thoroughly. In the new edition, the number of Chinese standards increased to 50 from 45, and the comparison of Chinese standards to the standards of European Committee for Standardi-

zation (EN) was added also. Besides, the comparison of JIS to standards of other countries, which was compiled by Japan Industrial Standardization Association, is also given in the appendix of the book for reference.

The handbook is a very useful reference tool for steel designations among the books of similar kind published both at home and abroad. It could give comprehensive reference to the people concerned in their working practice, who may engaged in steel related fields such as metallurgical engineering, chemical engineering, mechanical engineering, civil engineering, automobile manufacturing, ship — building, aviation, aerospace, munitions, commodity inspection, and goods and materials administration etc.

The Editor

DEC. , 1998

编写说明

《世界钢号对照手册》新版本将我国碳素结构钢、优质碳素结构钢、合金结构钢、不锈钢、耐热钢等 50 个主要现行标准的约 700 个钢号与日、美、德、英、法、前苏联等主要产钢国家、国际标准化组织、欧洲标准化委员会的最新标准的相应钢号进行逐一对照。表中空白部分表示无对应钢号。

本书的编写原则是以中国现行标准中所列的钢号为基准,与国外标准中的钢号进行对比,多数钢种以化学成分相近作为对照依据。但是,以下几个钢种的编写原则例外:

1. 低合金高强度结构钢,世界各国特别是 ISO(国际标准化组织)标准中,钢号是以强度等级表示的,对化学成分规定不严。因此,对这类钢,我们以强度对比为主,化学成分不作为对比的主要依据。

2. 钢轨钢,是以每米钢轨重量作为对照依据,因为每米重量相同则用途应当一致。本手册中亦列出化学成分,但不一定可比。

3. 冷轧电工钢带(片),各国标准中都不规定化学成分,本手册主要是以取向和无取向硅钢的铁损和磁感作为对比依据。

4. 钢筋钢,许多国家对钢筋钢只规定硫和磷含量,其它成分由生产厂控制。本手册中的钢筋钢是按强度等级相近的钢号进行对比。

为便于读者查找,书后附有钢号索引。钢号索引是按数字及外文字母顺序编排的。

此外,本手册还吸纳了 JIS 标准与外国相应标准的比较,供读者参考。

编 者

1998 年 12 月

Direction of Editorial Process

In the World Steel Designations Cross — Reference, 50 currently in effect Chinese steel standards and more than 700 designations of ordinary and quality carbon structural steels, alloy structural steel, stainless steel, heat resistant steel etc. are set in comparison one by one with the corresponding standards and designations of Japan, USA, Germany, United Kingdom, France, Former USSR major steel producing countries as well as those of the International Organization for Standardization and the Committee European of Normalization. The blank in table represents that there is no such a corresponding designation.

In compilation of the handbook, steel designations of current Chinese standards are chosen as the bases for comparison with steel designations of other countries. For most cases the comparison is made according to similar chemical compositions of related steel designations, with exceptions for steels listed below.

1. High strength low alloy steel (HSLA steels)

Designations of HSLA steels are all expressed in terms of strength level in standards of standardization organizations, particularly ISO, in various countries. Chemical compositions are generally not so strictly specified. For HSLA steels, therefore, the strength level is used as the base for

comparison and the chemical composition is not taken into main account.

2. Rail steels

Rail steels are conventionally classified according to rail weight per meter as the usage should be similar for rails of same weight per meter, so that it is used as a base for comparison in the handbook. Chemical compositions of rail steel are also listed for reference, but they are not necessarily comparable.

3. Cold rolled silicon steel strip(sheet)

In many countries, chemical compositions of silicon steel are not specified, in this handbook the iron core loss and magnetic induction density of oriented and nonoriented silicon steel are adopted as a base for comparison.

4. Rebar steel

In many countries only sulfur and phosphorus contents are specified for rebar steel, and other elements are controlled by producers. In this handbook, the comparisons are conducted by designations of similar strength level.

Index of steel designations, which is arranged in numerical and alphabetical order, is attached at the back of the book to facilitate readers to find what they need.

本手册选用的标准代号表

The standard codes used in this handbook

标准代号 Code No. of Standards	标准化机构 Standardization organization
GB	中国国家技术监督局 China State Bureau of Technical Supervision
ISO	国际标准化组织 The International Organization for Standardization
IEC	国际电工委员会 International Electrotechnical Commission
ГОСТ	前苏联国家质量管理和标准委员会 State Committee of for Management Quality Product and Standard Former U. S. S. R
ASTM	美国材料与试验协会 American Society for Testing and Materials
AWS	美国焊接协会 American Welding Society
JIS	日本工业标准化协会 Japanese Industrial Standard Association
BS	英国标准化协会 British Standards Institution
LR	劳埃德船级社 Lloyd's Register of Shipping
DIN	德国标准化协会 Germany Standards Institute
NF	法国标准化协会 Association France for Standardization
EN	欧洲标准化委员会 The European Committee for Standardization

目 录

CONTENTS

1	碳素结构钢.....	(1)
	Carbon Structural Steels	
2	优质碳素结构钢	(14)
	Quality Carbon Structural Steels	
3	低合金高强度结构钢	(47)
	High strength Low Alloy Structural Steels	
4	合金结构钢	(80)
	Alloy Structural Steels	
5	保证淬透性结构钢.....	(148)
	Structural Steels With Specified Hardenability Bands	
6	弹簧钢.....	(162)
	Spring Steels	
7	碳素工具钢.....	(181)
	Carbon Tool Steels	
8	合金工具钢.....	(190)
	Alloy Tool Steels	
9	高速工具钢.....	(218)
	High Speed Tool Steels	
10	易切削结构钢.....	(232)
	Free Cutting Steels	
11	高碳铬轴承钢.....	(242)

High Carbon Chromium Bearing Steels

- 12 高碳铬不锈轴承钢..... (247)

High Carbon Chromium Stainless Bearing Steels

- 13 渗碳轴承钢..... (249)

Carburizing Steels of Bearings

- 14 不锈钢棒..... (256)

Stainless Steel Bars

- 15 耐热钢棒..... (330)

Heat-Resisting Steel Bars

- 16 内燃机汽阀钢钢棒..... (374)

Valve Steel Bars For Internal Combustion Engines

- 17 汽轮机叶片用钢..... (381)

Steels for Vane of Steam Turbine

- 18 煤机用热轧异型钢..... (392)

Hot Rolled Profiled Steels For Coal Mechanism

- 19 冷镦钢..... (396)

Cold Heading Steels

- 20 冷轧电工钢带(片)..... (419)

Cold Rolled Magnetic Steel Sheets And Strips

- 21 凿岩钎杆用中空钢..... (466)

Rock Drilling Equipment Hollow Drill Steels In Bar form

- 22 桥梁用结构钢..... (467)

Structural Steels For Bridges

23	船体用结构钢.....	(473)
	Hull Structural Steels	
24	造船用球扁钢.....	(484)
	Bulb Flat Steel For Shipbuilding	
25	高耐候性结构钢.....	(486)
	Superior Atmospheric Corrosion Resisting Structural Steels	
26	焊接结构用耐候钢.....	(491)
	Atmospheric Corrosion Resisting Steels For Welded Structure	
27	钢筋混凝土用热轧带肋钢筋.....	(498)
	Hot Rolled Ribbed Steel Bars For Concrete Reinforcement	
28	钢筋混凝土用热轧光圆钢筋.....	(505)
	Hot Rolled Plain Steel Bars For Concrete Reinforcement	
29	钢筋混凝土用余热处理钢筋.....	(506)
	Remained Heat Treatment Ribbed Steel Bars For Concrete Reinforcement	
附表 1	光圆钢筋(国际标准)	(507)
	Hot Rolled Plain Steel Bars(ISO)	
附表 2	螺纹钢筋(国际标准)	(507)
	Steel Bars with Ribs For Concrete Reinforcement(ISO)	
附表 3	钢筋混凝土结构用热轧钢筋(原苏联)	(508)
	Hot Rolled Steel Bars For Concrete Reinforcement (U. S. S. R)	
附表 4	螺纹和光圆钢筋(美国)	(509)

Deformed and Plain Steel Bars For Concrete Reinforcement(U. S. A)

- 附表 5 钢筋混凝土用钢筋(日本) (510)
Steel Bars For Concrete Reinforcement(Japan)
- 附表 6 钢筋混凝土用钢筋(德国) (511)
Steel Bars For Concrete Reinforcement(Germany)
- 附表 7 钢筋混凝土用钢筋(英国) (511)
Steel Bars For Concrete Reinforcement(U. K)
- 附表 8 预应力混凝土用钢筋(日本) (512)
Steel Bars For Prestressed concrete (Japan)
- 30 熔化焊用钢丝..... (513)
Steel Wires For Melt Welding
- 31 气体保护焊用钢丝..... (537)
Steel Wires For Gas Shielded Welding
- 32 焊接用不锈钢丝..... (543)
Stainless Steel Wires For Welding
- 33 铁路用每米 38 公斤以上钢轨 (565)
Steel Rails($\geq 38\text{kg/m}$)for Railway Use
- 34 轻轨..... (567)
Light Rails
- 35 铁路机车、车辆用车轴钢坯 (568)
Axle's Blooms For Railway Locomotives And Wagons
- 36 无缝气瓶用钢坯..... (572)