

ICS 77.140.75

H 48



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

**中华人民共和国国家标准**

GB/T 3093-2002

Replace GB/T 3093-1986

---

**High-pressure seamless steel tubes for diesel  
engine**

**柴油机用高压无缝钢管**

**Issued on September 11, 2002**

**Implemented on February 01, 2003**

**Issued by General Administration of Quality Supervision, Inspection and  
Quarantine of the People's Republic of China**

# Contents

<b>Foreword</b> .....	1
<b>1 Scope</b> .....	3
<b>2 Normative References</b> .....	3
<b>3 Order contents</b> .....	4
<b>4 Category and code</b> .....	5
<b>5 Dimension, shape, weight and allowable deviation</b> .....	5
<b>6 Technical requirements</b> .....	7
<b>7 Test methods</b> .....	9
<b>8 Inspection rules</b> .....	10
<b>9 Packaging, marking, and quality certificate</b> .....	10

## Foreword

This Standard uses but not equivalent to DIN 73000-1986 *Internal Tubes for Combustion Engine Fuel Injection Equipment and High Pressure Fuel Injection* combined with our national circumstances, to revise GB/T 3093—1986 *High-Pressure Seamless Steel Tubes for Diesel Engine*. In comparison with German Standard, dimension series range of this Standard is relatively smaller, external diameter allowable deviation equivalence, inner diameter allowable deviation: the precision of Grade B and C is equivalent to that of Level A and B of German Standard, but it is slightly different in scope division; 10A Grade steel chemical composition and mechanical properties in material series is equivalent to the grade of German Standard St30Al.

The revision of this Standard has modified following provisions:

- Deleted Article 4.1 of the original Standard, respectively expressed dimensions series and deviation;
- Added values of the minimum bend radius of bending work (based on central axis of steel tubes);
- Modified the value of difference between the maximum wall thickness and the minimum wall thickness in any cross-section of steel tubes;
- Modified allowable deviation value between the batch weight of theoretical weight delivery and the weight of single steel tube;
- Added new steel grades, reduced the content of sulfur and phosphorus in various grades of steel;
- Canceled the method for open hearth steelmaking;
- Specified mechanical properties of the new grades of steel;
- Specified the maximum test pressure of hydraulic tests.

Implementation date of this Standard is on February 1, 2003. This Standard replaces GB/T 3093 —1986 *High-Pressure Seamless Steel Tubes for Diesel Engine* from the date of its implementation.

This Standard is proposed by original State Bureau of Machine-Building Industry.

This Standard is under the jurisdiction of the National Steel Standardization Technical

Committee.

Unit drafted this Standard: Shanghai Steel Pipe Plant of Baosteel Group

The main drafters of this Standard are: Cai Yaping, and Luo Yuqing.

Issuances of previous versions of standard replaced by this Standard are as follows:

GB/T 3093-1982; GB/T 3093-1986.

# High-pressure seamless steel tubes for diesel engine

## 1 Scope

This Standard specifies the order contents, classification code, dimensions, appearance, weight, allowable deviation, technical requirements, test methods, inspection rules, packaging, marking and quality certificate of high-pressure seamless steel tubes for diesel engine.

This Standard applies to cold drawing seamless steel tubes for manufacturing high-pressure fuel tubes of injection system for diesel engine.

## 2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 222 Permissible tolerances for chemical composition of steel products

GB/T 223.12 Methods for chemical analysis of iron, steel and alloy The sodium carbonate separation-diphenyl carbazide photometric method for the determination of chromium content

GB/T 223.53 Methods for chemical analysis of iron, steel and alloy; The flame atomic absorption spectrophotometric method for the determination of copper content (eqv ISO/DIS 4943)

GB/T 223.54 Methods for chemical analysis of iron, steel and alloy; The flame atomic absorption spectrophotometric method for the determination of nickel content (eqv ISO/DIS 4940)

GB/T 223.60 Methods for chemical analysis of iron, steel and alloy The perchloric acid dehydration gravimetric method for the determination of silicon content

GB/T 223.62 Methods for chemical analysis of iron, steel and alloy; The butyl acetate extraction photometric method for the determination of phosphorus content

---

---

## 完整版本请在线下单

或咨询：

TEL: 400-678-1309

QQ: 19315219

Email: [info@lancarver.com](mailto:info@lancarver.com)

<http://www.lancarver.com>

---

---

## 线下付款方式：

### 1. 对公账户：

单位名称：北京文心雕语翻译有限公司

开户行：中国工商银行北京清河镇支行

账 号：0200 1486 0900 0006 131

---

---

### 2. 支付宝账户：info@lancarver.com

---

---

注：付款成功后，请预留电邮，完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱，如需索取发票，下单成功后的三个工作日内安排开具并寄出，预祝合作愉快！

---



银联特约商户