

ICS 23.040.99

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

GB/T 17116.3-2018

Replacing GB/T 17116.3-1997

**Pipe supports and hangers - Part 3: Middle connection
attachments and building structure attachments**

管道支吊架 第3部分:中间连接件和建筑结构连接件

Issued on: March 15, 2018

Implemented on: October 1, 2018

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

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Foreword

GB/T 17116 "Pipe hangers" is divided into the following three parts.

--- Part 1. Technical specifications;

--- Part 2. Pipe connection parts;

--- Part 3. Intermediate connectors and building structural connectors. This part is Part 3 of GB/T 17116. This section was drafted in accordance with the rules given in GB/T 1.1-2009. This Part replaces GB/T 17116.3-1997 "Pipe hangers - Part 3. Interconnects and structural structural connectors". versus Compared with GB/T 17116.3-1997, the main technical changes are as follows:

--- Updated normative references;

--- Modify the specification of the thread and the maximum use load of the boom and its accessories. The boom with a nominal diameter greater than or equal to 56mm was modified to Fine thread with 4mm pitch is used;

--- Increased the type and size of the short spiral buckle;

---The size series of thin nuts and flat washers were modified according to relevant national standards;

--- Increased channel steel beam clamp type and main dimensions;

---Modified the dimensions of the H-beam (HW, HN) reinforcement plate. This part is proposed by China Machinery Industry Federation. This part is under the jurisdiction of the National Pipeline Annex Standardization Technical Committee (SAC/TC237). This section is responsible for the drafting unit. China Machine Productivity Promotion Center. Participated in the drafting of this section. China Electric Power Engineering Consulting Group East China Electric Power Design Institute Co., Ltd., China National Electric Power Engineering Co., Ltd. Division, China Electric Power Engineering Consulting Group Northwest Electric Power Design Institute Co., Ltd., China Petroleum Engineering Construction Corporation East China Design Branch, China Day Chen Engineering Co., Ltd., Jiangsu Xin Technology Co., Ltd., Shanghai Xinqi Hardware Co., Ltd., China Energy Construction Group

Guangdong Electric Power Design and Research Institute Co., Ltd., Jiangsu Electric Power Equipment Co., Ltd. The main drafters of this section. Feng Feng, Lin Lei, Lin Qiluo, Ma Xinqiang, Shen Zhongguang, Liu Jian, Liu Jun, Pu Wansheng, Deng Hongwei, Su Yinping, Liu Hongfu, Cao Yandong. The previous editions of the standards replaced by this section are.

--- GB/T 17116.3-1997. Pipe hanger Part 3. Intermediate Connectors and Building Structure Connectors

1 Scope

China's national dimensional standard for the middle of a pipe hanger and for the end that fastens to the building. It is Part 3 of GB/T 17116, specifying the typical structures and the main connection dimensions for pipe supports and hangers in nominal sizes NS10 to NS125, and it applies to the intermediate connecting components and the building structure attachments of supporting and hanging devices. Between the clamp on the pipe and the steel of the building there is a chain of parts, and every one of them carries the full load. This part standardises that chain. The hanger rods come first: double-threaded rods, fully threaded rods, and eye rods threaded at one or both ends. Then the fittings that join and adjust them - turnbuckles, coupling nuts, U-nuts, eye nuts, two-hole and three-hole connecting plates, hexagon nuts and thin nuts, plain washers and spherical or conical seating washers, which matter because a rod that hangs at an angle loads a flat washer on one edge and a spherical one evenly. Then struts and pin connections for the cases where the load is taken in compression or where rotation has to be allowed. And finally the building structure attachments, which are the components most often improvised on site and least often calculated: beam clamps, connection angles, reinforcing beams, pads, single-eye plates, U-shaped and inverted U-shaped hanger plates. Standardising them fixes the dimensions, the thread sizes and the materials so that a hanger assembled from parts of several suppliers carries its rated load, and so that a designer specifying an assembly knows what will actually arrive. Issued on 15 March 2018 and in force since 1 October 2018, it replaces GB/T 17116.3-1997.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article Pieces. For undated references, the latest version (including all amendments) applies to this document. GB/T

95 Flat Washer Class C

GB/T 706-2008 hot-rolled section steel

GB/T 849 spherical washer GB/T 850 cone washer

GB/T 6170 type 1 hexagon nut GB/T 6171 Type

GB/T 6172.1 Hexagon Thin Nut

GB/T 6173 Hexagon Thin Nut Fine Teeth

GB/T 11263 hot-rolled H-section steel and split T-shaped steel GB/T 15389 screw

GB/T 17116.1-2018 pipe hangers Part 1. Technical specifications

GB/T 17116.2 Pipe Hangers Part 2. Pipe Connection Parts

3 Nominal dimensions and thread series of booms and their accessories

3.1 The nominal dimensions of the boom and its accessories shall be the same as the nominal nominal diameter of the thread. According to the different pitch, the boom and its accessories may be divided into A. Series and B series, and should comply with the provisions of Table 1.

3.2 The threads of the boom and its accessories can be divided into right-hand threads (indicated by RH) and left-hand threads (indicated by LH). Left thread only for snails One end of the spinner and the thread of the suspender attached to it.

3.3 The material of threaded rods shall comply with the requirements of Table 7 of GB/T 17116.1-2018.

3.4 The matching of the nominal size of the boom and its fittings to the nominal size of the hanger tube and the load series shall comply with the provisions of GB/T 17116.2.