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

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**A286 bihexagonal head bolts with long length MJ threads for
aerospace**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is modified to adopt ISO 3203.1993 "Aerospace bolts, ordinary twelve angles, normal rod or medium diameter rod, MJ long screw, metal material material, coated or uncoated, strength class less than or equal to 1100MPa size".

Compared with ISO 3203.1993, this document has made the following structural adjustments.

--- This document adds a "Terms and Definitions" chapter.

--- 4.1 of this document corresponds to Chapter 3 in ISO 3203.1993, adding 4.2.

The technical differences between this document and ISO 3203.1993 and the reasons are as follows.

---Increase the surface roughness of the bolt (see Figure 1), the roughness is a necessary basis for the manufacture of the bolt, and the surface roughness can be improved

Guidance for the manufacture of bolts;

--- Changed some dimensioning symbols of bolts (see Figure 1 and Table 1), which is more in line with the domestic habit of dimensioning fasteners;

---Deleted the rod diameter corresponding to the medium diameter rod (see Table 1), which is more in line with the actual use of domestic aerospace dodecagonal bolts;

--- Increase the tolerance of the P dimension of the fuse hole position of the head (see Table 1), which can better guide the manufacturing;

--- Increase the bolt length table (see Table 2) to better guide the manufacture and selection of bolts;

--- Added technical requirements such as bolt materials, heat treatment, surface treatment, threads, marking examples (see 4.2), these technical requirements are bolts

An important basis for bolt manufacturing and selection;

--- The reference document AMS5853 (see 4.2.1) for bolt materials has been added to guide the acceptance of bolt raw materials;

--- Added the reference document HB/Z83 (see 4.2.3) for bolt surface treatment, guiding the implementation of bolt surface passivation process and acceptance;

--- Added the reference document HB8367 (see 4.2.6) of the technical specification for bolts, specifying the metallurgical characteristics and mechanical properties of bolts, etc.

Technical indicators, as well as acceptance methods, are used to guide the manufacture and acceptance of bolts.

The following editorial changes have been made to this document.

--- In order to coordinate with existing standards, change the name of the standard to "A286MJ Long Thread Dodecagonal Bolts for Aerospace".

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the structure, dimensions and technology of A286MJ long thread twelve-point bolts (hereinafter referred to as "bolts") for aerospace

Require.

This document is applicable to the design, manufacture and testing of A286MJ long thread twelve-point bolts for aerospace.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

HB/Z83 stainless steel pickling passivation treatment process

HB8367 1100MPa Strength Class A286MJ Threaded Bolts and Screws Specification

ISO 3353-1 Aerospace thread leads and finishes - Part 1.Rolled external threads
(Aerospace-Lead and runout

ISO 4095 Aerospace twelve-point wrenching dimensions metric series
(Aerospace-Bihexagonaldrives-Wrenching

ISO 5855-2 Aerospace MJ threads Part 2.Limiting dimensions of bolts and nuts
(Aerospace-MJthreads-

AMS5853 steel, corrosion-resistant and heat-resistant, bar and wire,
15Cr-25.5Ni-1.2Mo-2.1Ti-0.006B-0.30V, consumable electrode melting

Chemical, solid solution at 1800 degrees F(982 degrees C), processing strengthened to
tensile strength of 160ksi(1103MPa)[Steel,Corrosionandheat-resist-

3 Terms and Definitions

This document does not have terms and definitions that need to be defined.

4.1 Structure and dimensions

The structure and size of the bolts shall comply with the regulations in Figure 1, Table 1 and Table 2.