

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

MT/T 187.8-1991

**Fasteners of scraper conveyors Non-metal insert hexagonal
locking nuts
(English Translation)**

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Scraper conveyor fasteners Non-Metal Insert Hex Lock Nuts

1 Topic content and scope this standard specifies a thread size of M27, performance levels of grades 8 and 10, and grade B non-metallic insert hexagonal lock nuts (hereinafter referred to as locks) Tight nuts) product classification, technical requirements, test methods, acceptance inspection, marking and packaging.

This standard applies to non-metallic insert hexagonal lock nuts for scraper conveyors and scraper transferers in coal mines.

2 Reference standards GB 196 basic thread size (diameter 1 ~ 600mm) GB 197 Tolerance and fit of common thread (diameter 1 ~ 355mm) GB 3098.2 mechanical properties of fasteners nuts GB 3103.1 Tolerances for fasteners Bolts, screws and nuts GB 5779.2 General requirements for nuts with surface defects on fasteners GB 90 Fastener acceptance inspection, marking and packaging

3 Product Categories

3.1 The product type and size are shown in Figure 1 and Table 1. For manufacturing

drawings, refer to Appendix A.

figure 1

Table 1 mm

Thread size D

da dw ehmm 'S

max min min min max min min max min min M27 29.1 27 38 45.2 30.1 22.5 14.85 41 40

3.2 Marking example.

Coarse general thread, specification D = 27mm, performance level is grade 8, grade B non-metallic insert hexagonal lock nut.

Nut. MT 27-8

3.3 Marking description

4 Technical requirements

4.1 The lock nut shall comply with the provisions of this standard and shall be manufactured in accordance with the drawings and technical documents approved by the prescribed procedures.

4.2 Locknuts are grades 8 and 10 and shall meet the mechanical performance requirements specified in GB 3098.2.

4.3 The surface of the lock nut should be galvanized and passivated.

4.4 Lock nut The non-metallic insert material of the lock part is nylon. It is recommended to use nylon 66 or nylon 1010. When the bolt is screwed into the nut at this time, nylon inserts are not allowed to have nylon cutting, but allow excess nylon material to squeeze out the screw holes.

4.5 Refer to Appendix A for the tightening torque of the lock nut by the supplier and the buyer.

4.6 The threaded part of the lock nut shall meet the following requirements.

- a. The basic size of the thread is in accordance with the provisions of GB 196;
- b. The thread tolerance is according to GB 197, and the thread tolerance is 6H;
- c. The maximum allowable value of the surface roughness Ra of the thread is 6.3 μm.

4.7 The marking system for the performance level of lock nuts shall be implemented in accordance with the provisions of GB 3098.2.

4.8 The surface defect of the lock nut shall meet the requirements of GB 5779.2.

4.9 The tolerance of lock nut is in accordance with the provisions of GB 3103.1, and the product grade is B grade.

5 Test method

5.1 The mechanical property test items and test methods of the product shall meet the requirements of GB 3098.2.

5.2 The locking performance test method of the product can be tested by torque transfer or by agreement between the supply and demand parties.

6 Acceptance inspection, marking and packaging

6.1

The product shall be inspected by the quality inspection department of the manufacturer. The manufacturer shall ensure that each batch of products shipped meets the requirements of this standard and is accompanied by Product certification.

6.2

The product acceptance inspection, marking and packaging shall be in accordance with the provisions of GB 90.

Appendix A

Manufacturing drawing and tightening torque of lock nut (Reference) the manufacturing drawing of A1 lock nut is shown in Figure A1.

Figure A1

The tightening torque of A2 lock nut is shown in Table A1.

Table A1

Thread specifications Tightening torque, Nm Performance level 8 Performance level 10
Screw in for the first time max Unscrew for the first time min Fifth unscrewing min Screw in
for the first time max Unscrew for the first time min Fifth unscrewing min M27 94 13.5 10
123 17 12 Additional information.

This standard was proposed by the General Research Institute of Coal Science.

This standard is under the jurisdiction of the Taiyuan Branch of the Coal Research Institute.