

**BUREAU OF INDIAN STANDARDS**  
**PRODUCTION AND GENERAL ENGINEERING DEPARTMENT**

**MINUTES**

<b>MEETING</b>	<b>DATE and DAY</b>	<b>TIME</b>	<b>VENUE</b>
<b>Thirteenth Meeting of General Engineering and Fasteners Standards Sectional Committee, PGD 37</b>	<b>12 October 2023, Thursday</b>	<b>11:00 AM</b>	<b>BIS Chandigarh Branch Office, Plot No. 4-A, Madhya Marg, Sector 27, B, Chandigarh 160019</b>

**1. CHAIRMAN:** Shri N. Srinivasa Murthy, In Personal Capacity

**2. MEMBER SECRETARY:** Shri Monarch Joshi, Scientist 'B'

**MEMBERS PRESENT**

<b>SI No.</b>	<b>Name of Member</b>	<b>Organization</b>
<b>3.</b>	Shri Murthy	In Personal Capacity
<b>4.</b>	Shri Sukhjeevan Singh Nokewal	Deepak Fasteners Limited, Ludhiana
<b>5.</b>	Shri Sukhdev Singh	
<b>6.</b>	Shri Sanjeev Katoch	Institute for Auto Parts and Hand Tools Technology, Ludhiana
<b>7.</b>	Shri Amol	
<b>8.</b>	Shri M. R. Senthil Kumar	BEML Ltd., Bengaluru
<b>9.</b>	Shri Parag Prakash Shah	Precise Fasteners Private Ltd., Mumbai
<b>10.</b>	Shri Prashant Dasharath Sathe	Hilti India Private Ltd., New Delhi
<b>11.</b>	Shri Shounak Mitra	
<b>12.</b>	Shri K. V. Subba Reddy	In Personal Capacity
<b>13.</b>	Shri Anoop Toby	Tata Motors Ltd., Pune
<b>14.</b>	Shri K. Sreenivasa Rao	Bharat Dynamics Ltd., Hyderabad
<b>15.</b>	Shri S K Verma	Central Manufacturing Technology Institute, Bengaluru
<b>16.</b>	Shri Narinder Singh Bhamra	Fastener Manufacturers Association Of India, Ludhiana
<b>17.</b>	Shri Kannadasan B	Sundram Fasteners Limited, Chennai

**Invitees:**

<b>SI No.</b>	<b>Name of member</b>	<b>Organization</b>
<b>18.</b>	Shri Raghav Aggarwal	Northern India Screw Manufactures Association, Amritsar
<b>19.</b>	Shri Raghu	Apt Tools & Machinery India Pvt. Ltd., Coimbatore

## 1 GENERAL

### 1.1 Welcome by the Member Secretary

The Member Secretary welcomed all the members present to the thirteenth meeting of General Engineering and Fasteners Sectional Committee, PGD 37.

### 1.2 Opening Remarks by the Chairman

Shri N. Srinivasa Murthy, Chairman extended a hearty welcome to all the members to the 13th Meeting of General Engineering and Fasteners Standards Sectional Committee, PGD 37. He urged the members for better involvement in deliberations for formulation of Indian standards as per the agenda fruitfully.

### Item 2 CONFIRMATION OF PROCEEDINGS OF THE LAST MEETING

There being no comments, the committee formally confirmed the minutes of the twelfth meeting of the General Engineering and Fasteners Standards Sectional Committee, PGD 37 held on 04 August, 2023 through WebEx and circulated on 8 August 2023.

### Item 3 ISSUES ARISING OUT OF THE PREVIOUS MEETING

The summary of actions taken on the decision of the committee in the last meeting are enclosed below:

Sl. No	Subject	Decision of last meeting	Remarks/Current Status before the meeting	Decision in the Current Meeting
1.	Revision of: 1) IS 6649 : 1985 Specification for Hardened and Tempered Washers For High Strength Structural Bolts and Nuts 2) IS 3757 : 1985 Specification for High Strength Structural Bolts. 3) IS 6623 : 1985 Specification for High Strength Structural Nuts	Please see <b>Annex A</b> of the Agenda for the decision of the committee.	The drafts are under preparation for IS 6649, IS 3757 and IS 6623. Also, BIS had received nominations from RDSO for formulation of new standards as per EN 14399. RDSO has nominated Shri Nitin Mehrotra in PGD 37. However, the RDSO specifications for HFSG Fasteners had been preprepared by their Bridges and Construction division. So, the Member Secretary has requested for new nominations. The nomination is yet to be received. For preparing the drafts it is proposed to conduct a Panel meeting once new nominations have been received from RDSO.	The Member Secretary informed the committee members that new nominations from RDSO(B&S) had been received via mail dated 10 October, 2023. Further, the committee decided to create a Panel with the following members to formulate new Indian Standards as per EN 14399: 1) Shri Sukhjeevan Singh Nokewal, Deepak Fasteners Limited, Ludhiana 2) Shri Garish Gupta, Pioneer Nuts and Bolts Private Ltd., Ludhiana 3) Shri Manish Kumar, RDSO  The committee requested the Member Secretary to schedule a Panel Meeting in consultation with the

				Panel Members for deliberations on these standards.
2.	<p>Revision of:</p> <p>a) IS 2473 : 1975 Dimensions for centre holes (<i>first revision</i>)</p> <p>b) IS 3406-1 : 1986 Dimensions for countersinks and counterbores: Part 1 countersinks (<i>second revision</i>)</p>	<p>The committee had requested Shri Murthy to review these standards.</p>	<p>Draft for IS 2473 : 1975 Dimension of centre holes as received from Murthy Sir has been attached as <b>Annex B.</b> (attached separately with the Agenda). The draft has been prepared in line with latest</p> <p>a) ISO 866 : 2016 Centre drills for centre holes without protecting chamfers — Type A</p> <p>b) ISO 2540 : 2016 Centre drills for centre holes with protecting chamfer — Type B; and</p> <p>c) ISO 2541 : 2016 Centre drills for centre holes with radius form — Type R.</p> <p>For IS 3406 (Part 1) Dimensions for countersinks. The following comments have been received from Murthy Sir:</p> <p>a) This standard is based on DIN 74 : 1980 which covers dimensions of countersunk (Type A to Type E) for different types of countersunk screws.</p> <p>b) We need to review DIN 74 : 2020 to prepare draft IS 3406 (Part 1).</p> <p>c) Also, ISO 15065 available on the subject covers only one type countersink which is applicable for all types of countersunk head screws.</p>	<p>The committee requested the Member Secretary to circulate the draft of IS 2473 received from Shri Murthy as a preliminary draft for a period of 30 days. If no comments are received on the P-draft, the draft to be wide-circulated for a period of 2 months.</p> <p>For IS 3406 (Part 1), the committee requested the Member Secretary to procure DIN 74 : 2020 and circulate it along with ISO 15065 to the committee members for their comments.</p>
3.	<p>Review of IS 1367 (Part 12) : 1981 Technical supply conditions for threaded steel fasteners: Part 12 Phosphate coatings on threaded fasteners (<i>second revision</i>)</p>	<p>The committee had requested Shri Sukhjjevan Singh and Shri Sukhdev Singh, Deepak Fasteners to review this standard and submit their comments to BIS within 45 days of</p>	<p>Comments on these drafts were yet to be received.</p>	<p>The Member Secretary presented the draft received from Shri Sukhjjevan Singh, Deepak Fasteners via mail dated 10 October 2023.</p> <p>Further, the committee requested the Member Secretary to circulate this draft as a Preliminary</p>

		circulation of minutes.		draft for a period of 30 days. If no comments are received on the P-draft, the draft to be wide-circulated for a period of 2 months.
4.	Review of: a) IS 2769 : 1969 Sizes for squares and square holes for general engineering purposes ( <i>first revision</i> )  b) IS 3403 : 1981 Dimensions for knurls ( <i>first revision</i> )	The committee requested Shri Garish Gupta, Pioneer Fasters to review this standard and submit his comments to BIS within 30 days of circulation of minutes.	Comments on these drafts were yet to be received.	The committee suggested the Member Secretary to write to Shri Garish Gupta for his comments.

#### Item 4 DRAFT INDIAN STANDARDS UNDER WIDE CIRCULATION DUE FOR FINALISATION

**4.1** The committee deliberated on the comments received (*see Annex C* of the Agenda) from Shri Prashant Dasharath Sathe, Hilti India Pvt. Ltd., on Document No. (23025, 23026, 23027, 23028, 23035, 23036 and 23037) and decided that in the future, a new specification on screws installation, details of coating as per specific environment conditions etc. can be developed if necessary. However, these details are not required to be mentioned in the current drafts.

**4.2** The committee deliberated on the comments received from Shri Sanjeev Katoch, IAPHT on 'Doc. No. (23036) Drywall Screws — Specification' and decided to specify both the hardness value and the hardness symbol of drywall screws in clause **7.1** and **7.2** of the standard. Accordingly, the committee requested Shri Raghav Aggarwal, NISMETA to share the values of the same with Member Secretary. Regarding the comment received to specify if it is effective or total case depth in clause **7.1** of the standard, the committee decided to mention it as total case depth. Further, the committee decided to send this document into printing after inclusion of hardness number, hardness symbol and mentioning total case depth in clause **7.1** of the draft.

**4.3** The committee deliberated on the rest of the drafts which are due for finalization and decided as mentioned in the table given below:

Sl. No.	Revision of IS/New Standard	Document Number	Title	Decision of the Committee
1	IS 7178 : 2018	22056	Fasteners — Heat treated tapping screws — Mechanical and physical properties	The committee decided to discuss this document in the next meeting after the wide-circulation period is over.
2	New Indian Standard	23037	Chipboard screws — Specification	Since there being no comments received in the wide-circulation period, the committee decided to send this document into printing.
3	New Indian Standard	23035	Cross-recessed countersunk head wood screws —	-Do-

			Specification	
4	New Indian Standard	23025	Fasteners — Hexagon washer head drilling screws with tapping screw thread	-Do-
5	IS 1364 (Part 4) : 2003	22752	Hexagon head bolts screws and nuts of product grades A and B: Part 4 Hexagon thin nuts (Size range M16 to M64)	-Do-
6	IS 1364 (Part 3) : 2018	22813	Hexagon Head Bolts Screws and Nuts of Product Grades A and B: Part 3 Hexagon Nuts Style 1 (Size range M5 To M39)	-Do-
7	New Indian Standard	23189	Cross recessed tapping screws: Part 2 Countersunk flat head	-Do-
8	New Indian Standard	23028	Fasteners — Cross recessed drilling screws with tapping screw thread: Part 3 Raised countersunk head	-Do-
9	New Indian Standard	23026	Fasteners — Cross recessed drilling screws with tapping screw thread: Part 1 Pan head	-Do-
10	New Indian Standard	23192	Cross recessed tapping screw Part 3: Raised countersunk oval head	-Do-
11	New Indian Standard	23187	Cross recessed tapping screws: Part 1 Pan head	-Do-
12	New Indian Standard	23027	Fasteners — Cross recessed drilling screws with tapping screw thread Part 2 Countersunk head	-Do-
13	IS 1367 (Part 6) : 2018	22055	Technical supply conditions for threaded steel fasteners Part 6 Mechanical properties of fasteners made of carbon steel and alloy steel nuts with specified property classes	-Do-
14	New Indian Standard	22766	Fasteners terminology: Part 2 Vocabulary and definitions for coatings	-Do-
15	New Indian Standard	22772	Fasteners vocabulary: Part 4 Control inspection delivery acceptance and quality	-Do-
16	New Indian Standard	22650	Mechanical properties of corrosion resistant stainless-steel fasteners: Part 4 Tapping screws	-Do-

## Item 5 REVIEW/REAFFIRMATION OF PUBLISHED INDIAN STANDARDS

The committee reviewed the list of standards falling under 5 years review criterion and decided as mentioned in the table given below:

Sl No.	IS No.	Title	Decision of the committee
1.	IS 14962 (Part 1) : 2018/ ISO 965-1 : 2013	ISO general purpose metric screw threads — Tolerances: Part 1 principles and basic data ( <i>first revision</i> )	The committee decided to re-affirm this standard.
2.	IS 1363 (Part 3) : 2018/ ISO 4034 : 2012	Hexagon head bolts, screws and nuts of product grade C Part 3 (Style 1) Hexagon nuts (Size range M5 to M64) ( <i>fifth revision</i> )	Please see Item <b>6.10</b> of the Agenda. (draft revision under preparation)
3.	IS 1367 (Part 14/Sec 3) : 2018/ISO 3506-3 : 2009	Technical supply conditions for threaded steel fasteners: Part 14 mechanical properties of corrosion-resistant stainless-steel fasteners Section 3 Set screws and similar fasteners not under tensile stress ( <i>fourth revision</i> )	The committee decided to re-affirm this standard.
4.	IS 15582 : 2018/ISO 4162 : 2012	Hexagon Bolts with Flange – Small Series — Product grade A with driving feature of product grade B ( <i>first revision</i> )	-do-
5.	IS 6101 : 2018/ ISO 1580 : 2011	Slotted pan head screws — Product grade A ( <i>third revision</i> )	-do-
6.	IS 7002 : 2018/ ISO 7040 : 2012	Prevailing torque type hexagon regular nuts (With non-metallic insert) — Property classes 5, 8 and 10 ( <i>third revision</i> )	-do-
7.	IS 7169 : 2018/ ISO 1483 : 2011	Slotted raised countersunk (Oval) head tapping screws ( <i>second revision</i> )	-do-
8.	IS 7170 : 2018/ ISO 1482 : 2011	Slotted countersunk (Flat) head tapping screws ( <i>second revision</i> )	-do-
9.	IS 7173 : 2018/ ISO 1481 : 2011	Slotted pan head tapping screws (Second Revision)	-do-
10.	IS 7483 : 2018/ ISO 7045 : 2011	Pan head screws with Type H or type Z cross recess — Product grade A ( <i>third revision</i> )	-do-
11.	IS 7485 (Part 1) : 2018/ ISO 7046-1 : 2011	Countersunk flat head screws (common head style) with Type H or Type Z cross recess — Product Grade A Part 1 Steel screws of property class 4.8 ( <i>third revision</i> )	-do-
12.	IS 7485 (Part 2) : 2018/ISO 7046-2 : 2011	Countersunk flat head screws (common head style) with type H or Type Z Cross Recess – Product Grade A part 2 Steel Screws of Property Class 8.8, Stainless Steel Screws and Non –	-do-

		Ferrous Metal Screws ( <i>third revision</i> )	
13.	IS 7486 : 2018/ ISO 7047 : 2011	Raised countersunk head screws (Common Head Style) with type H or type Z cross recess — Product grade A ( <i>third revision</i> )	-do-
14.	IS 8911 : 2018/ ISO 2010 : 2011	Slotted raised countersunk head screws — Product grade A ( <i>second revision</i> )	-do-
15.	IS 15581 : 2018/ ISO 4161 : 2012	Hexagon nuts with flange, style 2 — Coarse thread ( <i>first revision</i> )	-do-
16.	IS 1367 (Part 5) : 2018/ISO 898-5 : 2012	Technical supply conditions for threaded steel fasteners: Part 5 mechanical properties of fasteners made of carbon steel and alloy steel — Set screws and similar threaded fasteners with specified hardness classes — Coarse thread and fine pitch thread ( <i>fourth revision</i> )	-do-

## ITEM 6 DRAFT STANDARDS UNDER PREPARATION

The committee noted the information given in the Agenda.

## Item 7 QUERIES RECEIVED ON THE STANDARDS ISSUED FOR QCO

The committee deliberated on the queries received from various stakeholders on the standards on Bolts, Nuts and Fasteners issued for (Quality Control Order), on 21st July 2023 vide notification no. S.O.3267(E), by Department for Promotion of Industry & Internal Trade (DPIIT), Ministry of Commerce & Industry and recommended as:

- a) The scope of IS 1363(Part 1 to 3) and 1364 (Part 1 and 2) only covers metric coarse pitch threads. Nuts, screws and bolts with metric fine pitch threads are not covered under the scope of these standards.
- b) Bolts, nuts and screws with flanges are not covered under the scope of IS 1363(Part 1 to 3) and 1364 (Part 1 and 2).
- c) Bolts, nuts and screws with integral washers (not separable) are not covered under the scope of IS 1363(Part 1 to 3) and 1364 (Part 1 and 2).
- d) Bolts, screws and studs with inch threads are not covered under the scope of IS 1363(Part 1 to 3) and 1364 (Part 1 and 2).

Further, the committee also decided to form a Panel with the following members in order to resolve the queries raised by various stakeholders:

Sl. No.	Name	Organization
1.	Shri Sukhjeevan Singh	Deepak Fasteners Ltd., Ludhiana
2.	Shri Garish Gupta	Pioneer Fasteners Ltd., Ludhiana
3.	Shri Parag Prakash Shah	Precise Fasteners Private Ltd., Mumbai
4.	Shri Kannadasan B	Sundram Fasteners Ltd., Chennai

**Item 8. COMPOSITION OF THE SECTIONAL COMMITTEE**

The Committee reviewed the composition of PGD 37 and decided to co-opt the following organizations:

<b>Sl. No.</b>	<b>Organization</b>
1.	Apt Tools & Machinery India Pvt. Ltd., Coimbatore
2.	Northern India Screw Manufacturers and Trade Association, Amritsar
3.	Best Quality Fasteners Pvt. Ltd., Delhi

**Item 9. PROGRAM OF WORK OF THE SECTIONAL COMMITTEE**

The committee noted the information in the given Agenda.

**Item 10. DATE AND PLACE OF THE NEXT MEETING**

The committee decided to hold the next meeting of PGD 37 in the month of December 2023 virtually.

**Item 11. ANY OTHER BUSINESS**

In view of the urgency to formulate an Indian Standard on 'Concrete Nails' as per the request received from DPIIT, the committee requested the Member Secretary to prepare a draft in consultation with Shri Raghu, Apt Tools & Machinery India Pvt. Ltd and circulate it as a preliminary draft for a period of 1 month. If no comments are received in the P-draft stage, the draft to be wide circulated for a period of 1 month.