Second edition
2022-12

Fasteners — Hexalobular socket countersunk flat head screws (common head style) with reduced loadability

Fixations — Vis à tête fraisée (tête commune) à six lobes internes à capacité de charge réduite

Reference number
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Contents

Page

Foreword

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This document was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 11, *Fasteners with metric external thread,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 185, *Fasteners*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 14581:2013), which has been technically revised.

The main changes are as follows:

— the whole standard (including title) has been improved to clearly point out that these hexalobular socket countersunk flat head screws with common head style have reduced loadability because of their head design (head dimensions and penetration of the hexalobular socket);

— for M2 to M4, partially threaded screws without underhead reinforcement (formerly designated as “shoulder”) and normative reference to ISO 3508 for x_{max} (see figure footnote e) have been added (see Figure 1 b);

— for M5 to M10, underhead reinforcement has been modified from a radius to a conical shape as adjustment to manufacturing conditions and normative reference to ISO 3508 for x_{max} (see figure footnote e) has been added (see Figure 2 b);

— detailed head configuration has been added (see Figure 3);

— shank diameter d_s has been added in Table 1;

— minimum head height k_{min} has been added as reference dimension in Table 1;

— radius r has been specified for all head configurations (see Figures 1 and 2), and r_{min} has been added in Table 1;

— shortest standard lengths l_{nom} have been increased in Table 1;

— calculations for M2 and M2,5 have been added in Table 3 for steel screws; as their minimum ultimate tensile loads for full loadability are not specified in ISO 898-1 and ISO 3506-1, they have been calculated with the same formulae accordingly (see Table A.1, Annex A);

— the minimum ultimate tensile loads were recalculated and have been changed to more precise values for steel screws with property classes 4.8 (M3 and M6), 8.8 (M5), and for stainless steel screws with property classes 50 (M3, M6 and M8) and 70 (M3, M6, M8 and M10); see Table 3;

— property class 10.9 has been added (see Table 2);

— specifications for labelling have been added as new subclause 6.2;

— reference to ISO 15065 for countersinks has been added.

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