SLOVENSKI STANDARD
SIST EN 3913:2009

01-junij-2009

Aeronavtika - Vložki, tanka stena, samozapiralni, kratki, iz toplotnoodporne zlitine na nikljevi osnovi NI-PH2601 (Ni-P100HT, Inconel 718), posrebreni, posrebren notranji navoj, za popravljanje sestavnih delov

Aerospace series - Insert, thin wall, self-locking, short, in heat resisting nickel base alloy NI-PH2601 (Ni-P100HT, Inconel 718), silver plated on internal thread, for salvage of components

Luft- und Raumfahrt - Gewindeeinsätze, dünnwandig, selbstsichernd, kurz, aus hochwarmfester Nickelbasislegierung NI-PH2601 (NI-P100HT, Inconel 718), Innengewinde versilbert, zur Reparatur von Bauteilen

Série aérospatiale - Douilles filetées, à paroi mince, à freinage interne, courtes, en alliage résistant à chaud à base de nickel NI-PH2601 (NI-P100HT, Inconel 718), argentées sur filetage intérieur, pour récupération

Ta slovenski standard je istoveten z: **EN 3913:2007**

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EUROPEAN STANDARD

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English Version

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Luft- und Raumfahrt - Gewindeeinsätze, dünnwandig, selbstsichernd, kurz, aus hochwarmfester Nickelbasislegierung NI-PH2601 (NI-P100HT, Inconel 718), Innengewinde versilbert, zur Nacharbeit von Bauteilen

This European Standard was approved by CEN on 28 August 2006.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 3913:2007) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2007, and conflicting national standards shall be withdrawn at the latest by October 2007.

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Introduction

For design and installation procedures see EN 3298 and EN 3916.

1 Scope

This standard specifies the characteristics of short, self-locking, thin wall salvage inserts with silver plated internal thread, in NI-PH2601 (NI-P100HT), for aerospace applications.

Maximum test temperature 550 °C.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data.*

ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts.*

EN 2404 [1], *Heat resisting nickel base alloy NI-P100HT — Solution treated and precipitation treated — Bars — Aerospace series.* [2]

EN 2424, *Aerospace series — Marking of aerospace products.*

EN 2786, *Aerospace series — Electrolytic silver plating of fasteners.* [3]

EN 3298, *Aerospace series — Inserts, thin wall, self-locking — Installation and removal procedure.*

EN 3915, *Aerospace series — Insert, thin wall, self-locking, Mj threads, in heat resisting nickel base alloy NI-PH2601 (NI-P100HT, Inconel 718), for salvage of components — Classification: 1 275 MPa (at ambient temperature) / 550 °C — Technical specification.* [3]

EN 3916, *Aerospace series — Insert, thin wall — Salvage procedure for components.* [3]

EN 4376, *Aerospace series — Heat resisting alloy NI-PH2601 (NiCr19Fe19Nb5Mo3) — Solution treated and precipitation treated — Bar and section — $D_e \leq 200$ mm.* [3]

EN 4377, *Aerospace series — Heat resisting alloy NI-PH2601 (NiCr19Fe19Nb5Mo3) — Non heat treated — Forging stock — a or D ≤ 300 mm.* [3]

TR 3198, *Aerospace series — Manufacturers' identification monograms and marks for EN aerospace products.* [4]

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1) Inactive for new designation, see EN 4376 and EN 4377.

2) Published as ASD Standard at the date of publication of this standard.

3) Published as ASD Prestandard at the date of publication of this standard.

4) Published as ASD Technical Report at the date of publication of this standard.

3 Required characteristics

3.1 Configuration - Dimensions - Tolerances - Masses

See Figure 1 and Table 1. Dimensions and tolerances are in millimetres. Dimensions apply after silver plating.

3.2 Material

EN 2404

3.3 Surface treatment

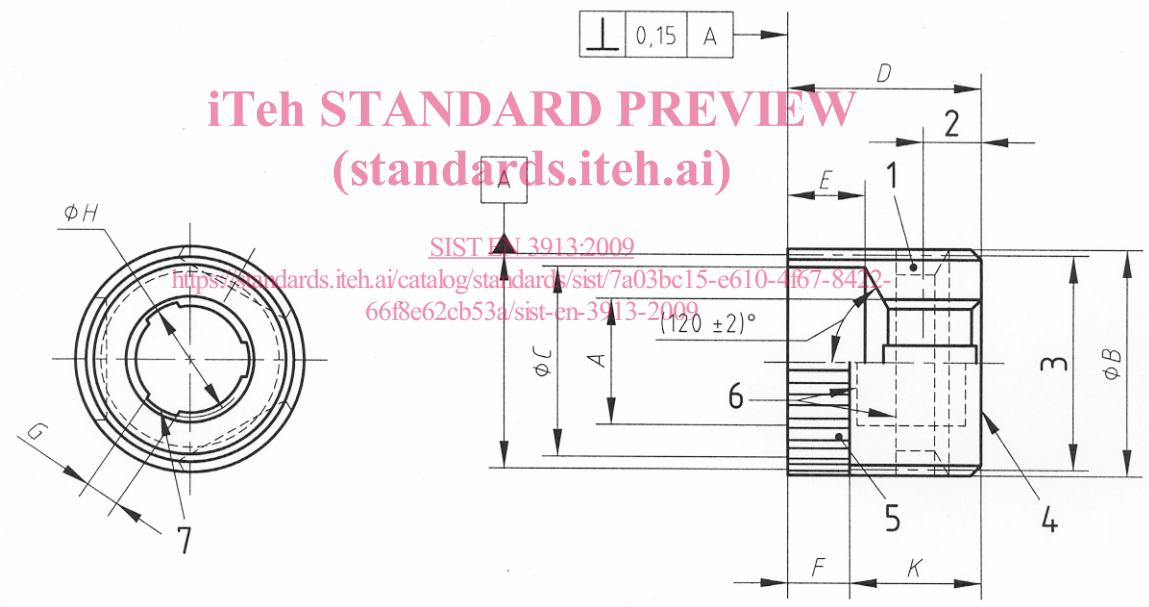
EN 2786 on internal thread and counterbore diameter C

Thickness:

— Internal threads ≥ MJ6 : 5 µm on thread flanks

— Internal threads MJ5 : shall show complete coverage, without thickness requirement

— Counterbore diameter C: shall show complete coverage, without thickness requirement



Key

1 Form may be produced out of round in this area (approx mid length of internal thread) to achieve self locking requirement tool marks permissible

2 Thread lock mid length (int. thread)

3 Thread pitch diameter

4 Manufacturers identity mark here

5 Knurl across threads to produce J serrations

6 Internal thread facilitated by either axial or radial groove or grooves, method optional

7 3 slots equi-spaced

Details of form not stated are at the manufacturer's option

Remove sharp edges 0,1 to 0,4

R_a 3,2 Values apply before silver plating

Figure 1

Table 1

Code	*A* Internal thread [a] Designation	*B* External thread [b] Designation	*B* External thread [b] Max. minor diameter	*C* + 0,12 0	*D* ± 0,3	*E* + 0,4 0	*F* + 0,6 0	*G* min.	*H* min.	*J*	Mass kg/1 000 parts ≈
050	MJ5×0,8-4H6H	M9×1-4g	8,056	7,34	8,2	1,90	1,50	1,25	4,56	27	4,398
060	MJ6×1-4H5H	M10×1-4g	9,056	8,36	9,5	2,42	1,90	1,50	5,44	28	6,213
070	MJ7×1-4H5H	M11×1-4g	10,110	9,40	11,5	2,42	1,90	1,75	6,44	32	8,256
080	MJ8×1-4H5H	M12×1-4g	11,110	10,39	13,4	2,42	1,90	2,00	7,28	33	10,931
100	MJ10×1,25-4H5H	M14×1-4g	13,116	12,40	16,8	3,05	2,42	2,50	9,14	40	17,780

[a] Threads conform to ISO 5855-2. In the self locking zone the tolerances apply before forming out of round.

[b] Threads conform to ISO 965 -1 except maximum minor diameter which shall be as stated.

Percentage thread loss values in mm^3 listed below refer to the maximum amount of thread that can be removed to enable the facilitation of internal thread locking. These values are obtained from the volume of thread available which is defined as being the circumferential volume of thread over length *K* (see Figure 1 and Table 2).

Table 2

Code	050	060	070	080	100
% Thread loss	31	26	21	17	14

4 Designation

EXAMPLE

Description block	Identity block
INSERT THIN WALL	EN3913-050

Number of this standard

Thread code (see Table 1)

NOTE If necessary, the code I9005 shall be placed between the description block and the identity block.

5 Marking and Identification

EN 2424, style G

Manufacturers identification grooves shall be V - section 0,1 - 0,2 deep, as indicated in Figure 1. For spacing, see TR 3198 List 3.

6 Technical specification

EN 3915