ISO/FDIS 11772:2024(E)

ISO/TC 17/SC 3

~~Date: 2024-01-09~~

Secretariat: AFNOR

Date: 2024-02-26

Hot-rolled longitudinally profiled steel plate

Tôle d'acier profilée longitudinalement laminée à chaud

FDIS stage

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 3, *Steels for structural purposes*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Hot-rolled longitudinally profiled steel ~~plates~~plate

1 Scope

This document specifies requirements for hot-rolled longitudinally profiled steel plates (LP steel plates).

This document applies to hot-rolled LP steel plates with thickness between 4 mm and 400 mm for general structural and engineering purposes.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 630-1, Structural steels — Part 1: General technical delivery conditions for hot-rolled products

ISO 630-2, Structural steels — Part 2: Technical delivery conditions for structural steels for general purposes

ISO 630-3, Structural steels — Part 3: Technical delivery conditions for fine-grain structural steels

ISO 630-4, Structural steels — Part 4: Technical delivery conditions for high-yield-strength quenched and tempered structural steel *plates and wide flats*

ISO 630-5, Structural steels — Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance

ISO 630-6, Structural steels — Part 6: Technical delivery conditions for seismic-*proof* improved structural steels for building

ISO 7452, Hot-rolled steel plates — Tolerances on dimensions and shape

ISO 7788, Surface finish of hot-rolled plates and wide flats — Delivery requirements

ISO 10474, Steel and steel products — Inspection documents

ISO 17577, Steel — Ultrasonic testing of steel flat products of thickness equal to or greater than 6 mm

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at ~~https://www.iso.org/obp~~https://www.iso.org/obp

— IEC Electropedia: available at ~~https://www.electropedia.org/~~https://www.electropedia.org/

3.1
longitudinally profiled steel plates
LP steel plates
steel plates with regular changes in thickness along rolling direction (longitudinal direction)

3.2
equal thickness section
longitudinally profiled steel section with parallel upper and lower surfaces

3.3
variable thickness section
longitudinally profiled steel section with non-parallel upper and lower surfaces

3.4
slope
k
gradient of thickness between the two ends of variable thickness section

Note 1 to entry: The slope is calculated as follows: Half thickness of the thick end minus half thickness of the thin end of the variable thickness section, divided by the length of the variable thickness section. The unit of the slope is %.

~~EXAMPLE:~~
~~The slope of type LP01: $k=(h_2/2-h_1/2)/L_1$~~
~~where~~
~~k is the slope of type LP01 steel plate~~
~~h_1 is the thickness of the thin end section~~
~~h_2 is the thickness of the thick end section~~
~~L_1 is the length of the LP steel plate~~

EXAMPLE

The slope of type LP01: $k=(h_2/2-h_1/2)/L_1$

where

k is the slope of type LP01 steel plate

h_1 is the thickness of the thin end section

h_2 is the thickness of the thick end section

L_1 is the length of the LP steel plate

4 Classification and designation

4.1 Classification

There are 10 different commonly used types of LP steel plates, from Type 01 to Type 10. ~~Figure 1~~Figure 1 shows the shapes of the different types. Other types of LP steel plates may also be supplied by agreement between the purchaser and manufacturer.

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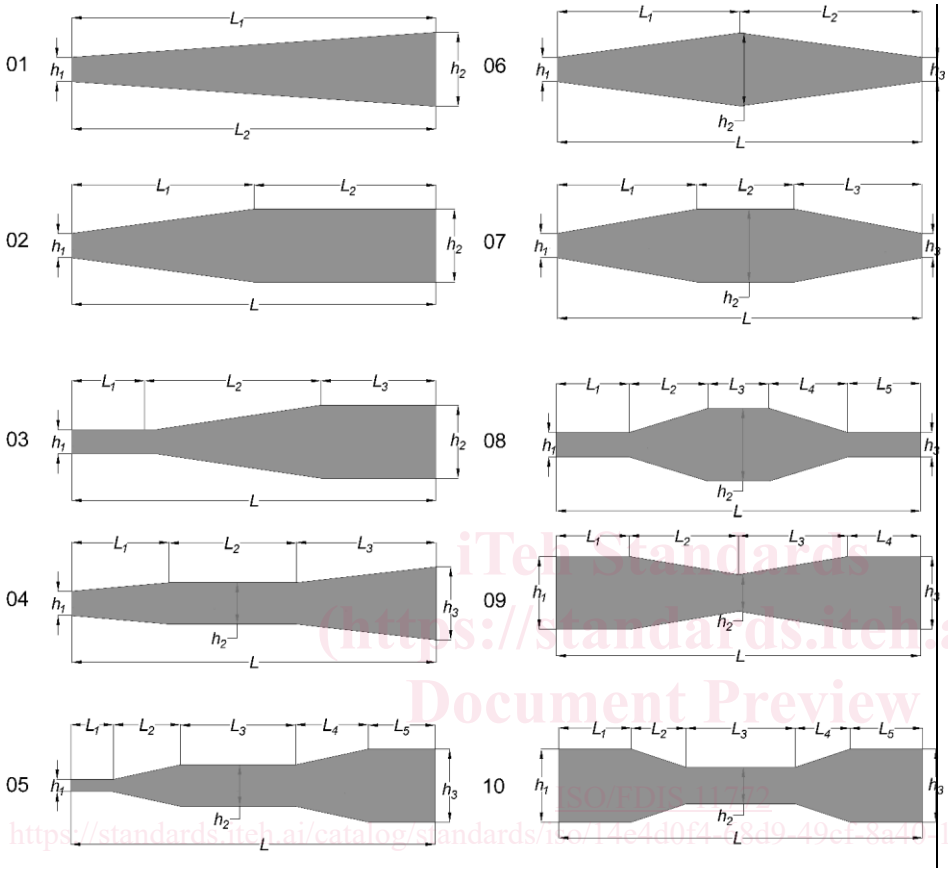

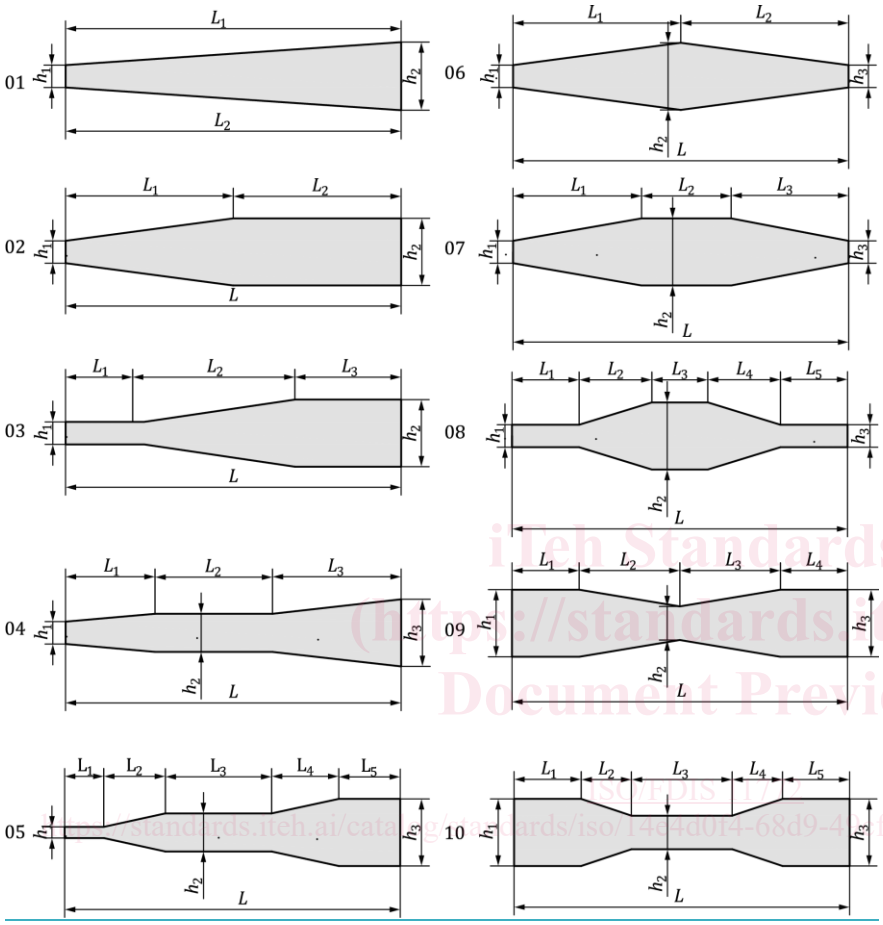

Key

01 to 10	types of LP steel plates	~~L~~	~~total length of LP steel plate~~
$h_1/h_2/h_3$	thickness in different sections of LP steel plate		
L	total length of LP steel plate		
~~$h_1/h_2/h_3$~~	~~thickness in different sections of LP steel plate~~	$L_1/L_2/L_3/L_4/L_5$	length in different sections of LP steel plate

NOTE LP plate from type 01 to 05 has the thickest and thinnest sections on both ends. LP plate from type 06 to type 10 has the thickest and thinnest sections on the middle of length.

Figure 1 — Commonly used types of LP steel plates

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