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

GB/T 15759-2023

Replacing GB/T 14779-1993

Design and requirements for the body templates

人体模板设计和使用要求

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. This document replaces GB/T 15759-1995 "Requirements for the Design and Use of Human Body Templates" and GB/T 14779-1993 "Seated Human Body Templates" Functional design requirements". This document is mainly revised with GB/T 15759-1995 and integrates the contents of GB/T 14779-1993. and Compared with GB/T 15759-1995, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

1 Scope

GB/T 15759-2023 is the Chinese national standard on design and requirements for the body templates, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 6 August 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 March 2024. Classification: ICS 13.180, CCS A25. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the design requirements and usage requirements for adult human body templates for four height classes. This document is applicable to the ergonomic assistance of products or systems such as work spaces, operating positions, seats, and

control devices in standing and sitting postures. Design and evaluation.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 12985-1991 General principles for application of human body size percentiles in product design

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 bodytemplatesbodytemplates A two-dimensional human body model that represents the human body's contours and movement function characteristics.

3.2 body axis bodyaxis A vertical line projected laterally through the center point of the human hip joint.

3.3 humanjointcenter humanjointcenter Simplified center point of human joint rotation.

3.3.1 cervicaljointcentercervicaljointcenter The center point of rotation of the cervical spine.

3.3.2 The center point of shoulder joint rotation.

3.3.3 The center point of rotation of the thoracic joint.

3.3.4 waist joint centerlumbarjointcenter The center point of rotation of the waist joint.

4.1 Basic Conditions" (see

4.1 of GB/T 15759-1995);

---Based on the National Adult Body Size Survey conducted from.2014 to.2018, all body size data have been changed (see Table 1 and Table 2, Table 1 and Table 2 of GB/T 15759-1995);

---Added "sitting height", "eye height, sitting posture", "shoulder height, sitting posture", "shoulder joint center height, sitting posture", "elbow height, sitting posture", "upper limbs stretched forward" and "knees" High, sitting position" "Hip joint center to posterior hip distance, sitting position" "Hip-knee distance, sitting position" "Hip-popliteal distance, sitting position" "Thick thighs, sitting position" "Poplite 12 items of design size data (see Table 2), including "height, sitting posture", and "hip width" (see Table 2 of GB/T 15759-1995);

---Added "Human Template Joint Angle Illustration" and "Human Template Joint Angle Adjustment Range" (see 4.3.2, GB/T 14779- Figure 2 and Table 3 of.1993);

4.4 Design drawing of human body template" (see

4.4 of GB/T 15759-1995);

---Added requirements for the use form of human body templates (see 5.2);

---Added template hand model selection requirements (see 5.6,

4.3 of GB/T 14779-1993). Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents. This document is proposed and coordinated by the National Ergonomics Standardization Technical Committee (SAC/TC7). This document was drafted by: China Institute of Standardization, China Automotive Technology and Research Center Co., Ltd., Chongqing Changan Automobile Co., Ltd. Company, Guangzhou Automobile Group Co., Ltd., Shanghai Aircraft Design and Research Institute, Tsinghua University, Shanghai Automotive Group Co., Ltd., China Agricultural University of Technology, Huayan Huike (Anhui) Intelligent Technology Co., Ltd., Northeast Normal University, Donghua University, Beijing Union University, and University of Science and Technology Beijing. The main drafters of this document. Ran Linghua, Zhang Xin, Hu Huimin, Ju Weinan, Liu Taijie, Zhao Chaoyi, Wenquan, Peng Sujuan, Hua Bo, Dong Dayong, Zhao Mengyang, Xu Shucui, Cao Yong, Liu Liping, Xu Hongqi, Jin Xiaoping, Luo Guozheng, Zheng Rong, Ma Hongxia, Yin Jiwei, Yang Aiping, Zhao He, Wang Zhongting, Niu Jianwei, Wang Rui, He Yue, Wu Haimei. The previous versions of this document and the documents it replaces are as follows:

---First published as GB/T 15759-1995 in.1995;

---First published as GB/T 14779-1993 in.1993;

---This is the first revision, integrating the contents of GB/T 14779-1993 into GB/T 15759. Human body template design and usage requirements