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AMENDMENT 1
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**Basic human body measurements for
technological design —**

Part 2:
**Statistical summaries of body
measurements from national
populations**

AMENDMENT 1

*Définitions des mesures de base du corps humain pour la conception
technologique —*

*Partie 2: Résumés statistiques des mesurages du corps de
populations nationales*

AMENDEMENT 1



Reference number
ISO/TR 7250-2:2010/Amd.1:2013(E)

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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 documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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The committee responsible for this document is ISO/TC 159, *Ergonomics*, Subcommittee SC 3, *Anthropometry and biomechanics*. Amendment 1 to ISO/TR 7250-2:2010 refines the title of ISO/TR 7250-2 in order to make clear that the statistical summaries presented by ISO/TR 7250-2 are of the *national* populations of countries whose national standards bodies are ISO members. It adds a statistical summary for the People's Republic of China, updates or corrects other national statistics and references, and provides a web address from which the most recent data can be accessed by users of ISO/TR 7250-2.

ISO 7250 consists of the following parts, under the general title *Basic human body measurements for technological design*:

- *Part 1: Body measurement definitions and landmarks*
- *Part 2: Statistical summaries of body measurements from national populations*

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Basic human body measurements for technological design —

Part 2: Statistical summaries of body measurements from national populations

AMENDMENT 1

Cover page and page 1

Change the part title of this part of ISO 7250 from *Statistical summaries of body measurements from individual ISO populations* to

Statistical summaries of body measurements from national populations.

Page 1, Clause 2

Add the year of publication, 2010, to the normative reference ISO 20685.

Page 5, Clause 7

Insert the following new Clause 7, consequently modifying the numbering of succeeding clauses/subclauses (the former Clause 7 becomes Clause 8, 7.1 becomes 8.1, etc.).

Modify the title of what now becomes Clause 8 from “Statistics for ISO member bodies” to “Statistics for ISO national members”. Throughout, delete the phrase “ISO member body” from the subclause headings (8.1, etc.), leaving the names of the actual countries.

7 Up-to-date data

An online version of this Technical Report — updated as new data becomes available (and with a text document giving the update history) — can be accessed at the following web address:

<http://standards.iso.org/iso/7250/-2/>

Page 16, Table 4 (Italy)

Delete the numerical data of line No. 33, 4.3.4, Index finger length, from the table.

Page 24, Table 9 (Korea)

Change the data in 2.1, Working age, from “18 to 55” to “18 to 60”.

Page 52

Add the following new subclause and tables between Table 16 and Annex A.

8.10 People's Republic of China

Organization: China National Institute of Standardization (CNIS)

URL: <http://www.cnis.gov.cn/>

Name of study: —

Table 17 — People's Republic of China — Database

1 Measurement		
1.1	Measured side (right/left)	Right
1.2	Measurement definitions different from those described in ISO 7250-1	4.1.11 Chest breadth standing: measured at the nipple level. 4.3.3 Hand breadth: distance between the first and the fifth metacarpal heads (Hand breadth, diagonal). 4.3.12 Head circumference: tape measure passes Glabella.
1.3	Substituted measurements	None
1.4	Number of measurements not described in ISO 7250-1	8 dimensions
2 Age range		
2.1	Working age	18 to 60 for males, 18 to 55 for female
2.2	Age range of subjects	18 to 60 for males, 18 to 55 for female
3 Background data		
3.1	Time period of examination	1986-1987
3.2	Location of examination	16 provinces in China
3.3	Survey sample	22,314
3.4	Publication	Reference [16]
4 Representativeness of the sample		
4.1	Sampling method	Stratified random cluster sampling
4.2	Information on secular change	None
5 Accuracy and reliability of measurements		
5.1	Intra- and inter-observer error rates	No information
5.2	Measurements from 3-D scanners	None
5.3	Other measurement not taken using instruments described in ISO 7250-1	None
5.4	Type of clothing	Undergarment

Table 18 — People's Republic of China — Data

No.	ISO 7250-1 measurement			Sample size <i>n</i>	Mean	SD	P1	P5	P50	P95	P99
		Age	Male								
			Female								
			Total								
1	4.1.1	Body mass (weight), kg	Male	11 164	60	8	44	48	59	75	83
			Female	11 150	52	8	39	42	52	66	74
			Total								
2	4.1.2	Stature (body height)	Male	11 164	1678	59	1543	1583	1678	1775	1814
			Female	11 150	1571	54	1449	1484	1570	1659	1697
			Total								
3	4.1.3	Eye height	Male	11 164	1568	58	1436	1474	1568	1664	1705
			Female	11 150	1455	53	1337	1371	1454	1541	1579
			Total								
4	4.1.4	Shoulder height	Male	11 164	1367	53	1244	1281	1367	1455	1494
			Female	11 150	1272	47	1166	1195	1271	1350	1385
			Total								
5	4.1.5	Elbow height	Male	11 164	1024	44	925	954	1024	1096	1128
			Female	11 150	961	38	873	899	960	1023	1050
			Total								
6	4.1.6	Iliac spine height, standing	Male								
			Female								
			Total								
7	4.1.7	Crotch height	Male	11 164	791	39	701	728	790	856	887
			Female	11 150	732	36	648	673	732	792	819
			Total								
8	4.1.8	Tibial height	Male	11 164	444	22	394	409	444	481	498
			Female	11 150	410	21	363	377	410	444	459
			Total								
9	4.1.9	Chest depth, standing	Male								
			Female								
			Total								
10	4.1.10	Body depth, standing	Male								
			Female								
			Total								
11a	4.1.11	Chest breadth, standing	Male	11 164	282	19	242	253	280	315	331
			Female	11 150	262	20	219	233	260	299	319
			Total								
12	4.1.12	Hip breadth, standing	Male	11 164	307	16	273	282	306	334	346
			Female	11 150	317	18	275	290	317	346	360
			Total								

Table 18 (continued)

No.	ISO 7250-1 measurement			Sample size <i>n</i>	Mean	SD	P1	P5	P50	P95	P99
13	4.2.1	Sitting height (erect)	Male	11 164	908	30	836	858	908	958	979
			Female	11 150	855	28	789	809	855	901	920
			Total								
14	4.2.2	Eye height, sitting	Male	11 164	798	30	729	749	798	847	868
			Female	11 150	739	27	678	695	739	783	803
			Total								
15	4.2.3	Cervicale height, sitting	Male	11 164	658	26	599	615	657	701	719
			Female	11 150	618	24	563	579	617	657	675
			Total								
16	4.2.4	Shoulder height, sitting	Male	11 164	598	26	539	557	598	641	659
			Female	11 150	556	23	504	518	556	594	609
			Total								
17	4.2.5	Elbow height, sitting	Male	11 164	263	22	214	228	263	298	312
			Female	11 150	250	21	201	215	251	284	299
			Total								
18	4.2.6	Shoulder-elbow length	Male								
			Female								
			Total								
19	4.2.7	Elbow-wrist length	Male								
			Female								
			Total								
20	4.2.8	Shoulder (biacromial) breadth	Male	11 164	374	18	330	344	375	403	415
			Female	11 150	350	17	304	320	351	377	387
			Total								
21	4.2.9	Shoulder (bideltoïd) breadth	Male	11 164	432	22	383	398	431	469	486
			Female	11 150	398	23	347	363	397	438	458
			Total								
22	4.2.10	Elbow-to-elbow breadth	Male	11 164	425	36	353	371	422	489	518
			Female	11 150	407	39	326	348	404	478	509
			Total								
23	4.2.11	Hip breadth, sitting	Male	11 164	323	18	284	295	321	355	369
			Female	11 150	345	22	295	310	344	382	400
			Total								
24	4.2.12	Lower leg length (popliteal height)	Male	11 164	414	20	372	383	413	448	463
			Female	11 150	379	19	331	342	382	405	417
			Total								
25	4.2.13	Thigh clearance	Male	11 164	131	12	103	112	130	151	160
			Female	11 150	131	11	107	113	130	151	160
			Total								

Table 18 (continued)

No.	ISO 7250-1 measurement			Sample size <i>n</i>	Mean	SD	P1	P5	P50	P95	P99
26	4.2.14	Knee height	Male	11 164	493	23	441	456	493	532	549
			Female	11 150	458	21	410	424	458	493	507
			Total								
27	4.2.15	Abdominal depth, sitting	Male								
			Female								
			Total								
28	4.2.16	Thorax depth at the nipple	Male	11 164	213	18	176	186	212	245	261
			Female	11 150	201	21	159	170	199	239	260
			Total								
29	4.2.17	Buttock-abdomen depth sitting	Male								
			Female								
			Total								
30	4.3.1	Hand length	Male	11 164	183	8	164	170	183	196	202
			Female	11 150	171	8	154	159	171	183	189
			Total								
31	4.3.2	Palm length perpendicular	Male								
			Female								
			Total								
32a	4.3.3	Hand breadth at metacarpals	Male	11 164	82	4	73	76	82	89	91
			Female	11 150	76	4	67	70	76	82	84
			Total								
33	4.3.4	Index finger length	Male	11 164	69	4	60	63	69	76	79
			Female	11 150	66	4	57	60	66	72	76
			Total								
34	4.3.5	Index finger breadth, proximal	Male	11 164	19	1	17	18	19	21	21
			Female	11 150	17	1	15	16	17	19	20
			Total								
35	4.3.6	Index finger breadth, distal	Male	11 164	16	1	14	15	16	18	19
			Female	11 150	15	1	13	14	15	16	17
			Total								
36	4.3.7	Foot length	Male	11 164	247	10	223	230	247	264	272
			Female	11 150	229	9	208	213	229	244	251
			Total								
37	4.3.8	Foot breadth	Male	11 164	96	5	86	88	96	103	107
			Female	11 150	88	4	78	81	88	95	98
			Total								
38	4.3.9	Head length	Male	11 164	184	7	168	173	184	195	200
			Female	11 150	176	7	161	165	176	187	191
			Total								