S T A T E S T A N D A R D O F U S S R

BOLTS WITH HEXAGONAL HEAD OF CLASS OF ACCURACY A

Design and dimensions

GOST 7805-70

Official Publication

State Committee of USSR on standards

MOSCOW

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S T A T E S T A N D A R D O F U S S R

Bolts with hexagonal head of class of accuracy A

Design and dimensions

GOST 7805-70

(СТ СЭВ 4727-84)

ОКП 12 8200

Date of introduction 01.01.72

As a part of dimension << for spanner >> *S* = 13 mm.

01.01.73

1. This standard pertains to the bolts with hexagonal heads of class of accuracy A with diameter of thread from 1.6 upto 48 mm.

Standard completely corresponds to СТ СЭВ 4727-84.

(Amended edition, amendment No. 4).

2. Design and dimensions of bolts should corresponds to those specified in drawing and in table 1 and 2.

(Amended edition, amendment No. 2-6).

3. Thread – according to GOST 24705. Run out and under cut of threads - according to GOST 27148. Ends of bolts – according to GOST 12414.

(Amended edition, amendment No. 5).

3а. Radius for head – according to GOST 24670.

3б. Dimensional tolerances, deviation of shapes and position of surface and inspection methods- according to GOST 1759.1 are not established by this standard.

3в. Permissible surface defects of bolts and inspection method – according to GOST 1759.2.

3а – 3в. **(Introduced additionally, amendment No. 4).**

4. According to the agreement between manufacturer and consumer, it is permitted to manufacture the bolts with nominal diameter of threads from 36 upto 48 mm with pitch of thread 2 mm.

(Amended edition, amendment No. 4).

5. Manufacturer sets the alternate for making of head.

5а. It is permitted to manufacture the bolts with diameter of smooth portion of shank d_1 approximately equal to the average diameter of threads.

(Introduced additionally, amendment No. 3).

5б. For application of marking signs, it is permitted to manufacture the bolts of make 1 and 2 with hole on the end face of surface of head with dimensions, which do not decrease the strength of head, in this case the depth of hole should be not more than 0.4 k.

(Introduced additionally, amendment No. 5).

6. Technical requirement – according to GOST 1759.0.

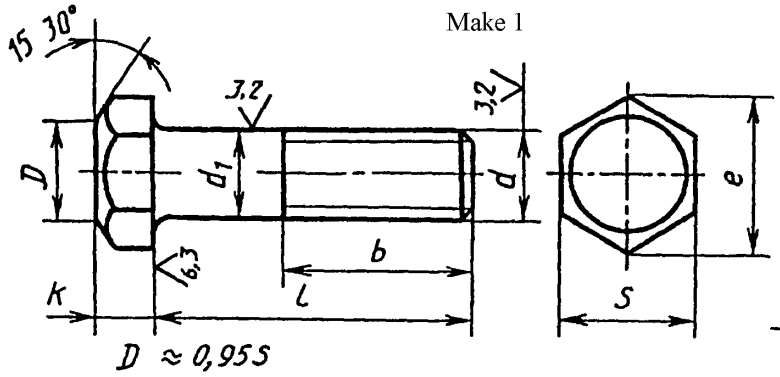
7. **(Deleted, amendment No. 2).**

8. Weight of bolts, specified in appendix 1.

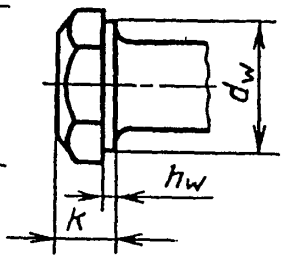
9. **(Deleted, amendment No. 4).**

12,5 (V)

Make 1

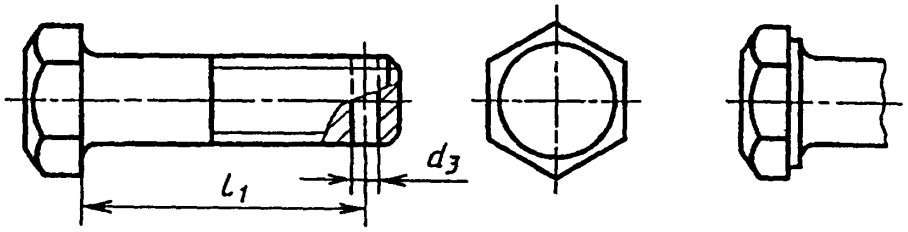


Alternate make of head



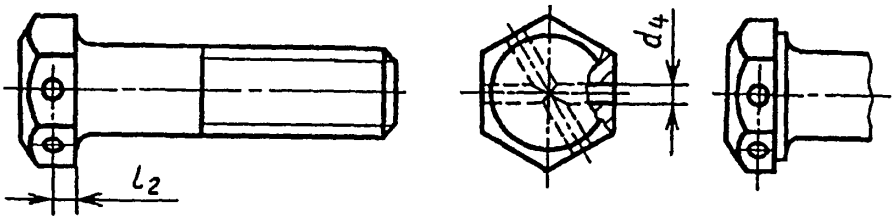
Make 2

Alternate make of head



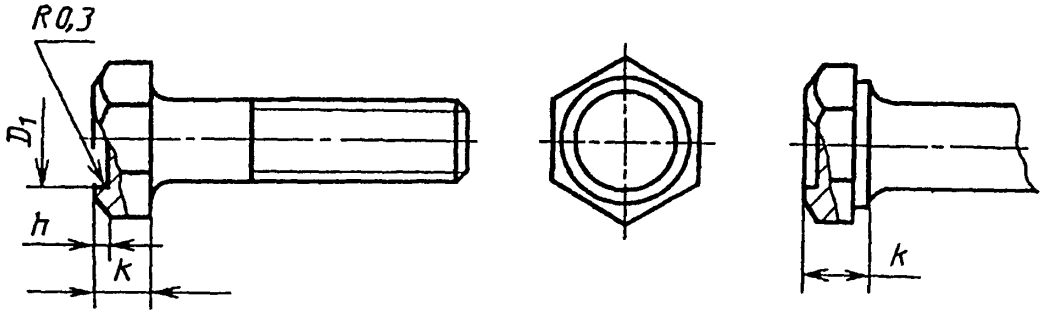
Make 3

Alternate make of head



Make 4

Alternate make of head



$D_1 \leq 0{,}8\ S$
$h = (0{,}2 + 0{,}4)\ k$

MM

Nominal diameter of threads d		1,6	2	2,5	3	(3,5)	4	5	6	8	10	12	(14)	16	(18)	20	(22)	24	(27)	30	36	42	48
Pitch of thread	Coarse	0,35	0,4	0,45	0,5	0,6	0,7	0,8	1	1,25	1,5	1,75	2		2,5			3		3,5	4	4,5	5
	Fine	—								1	1,25		1,5					2			3		
Diameter of shank, d_1		1,6	2	2,5	3	3,5	4	5	6	8	10	12	14	16	18	20	22	24	27	30	36	42	48
Width across flat, S		3,2	4	5	5,5	6	7	8	10	13	16	18	21	24	27	30	34	36	41	46	55	65	75
Head height, k		1,1	1,4	1,7	2,0	2,4	2,8	3,5	4,0	5,3	6,4	7,5	8,8	10,0	12,0	12,5	14,0	15,0	17,0	18,7	22,5	26,0	30,0
Diameter of circumscribed circle e, not less than		3,4	4,3	5,5	6,0	6,6	7,7	8,8	11,1	14,4	17,8	20,0	23,4	26,8	30,1	33,5	37,7	40,0	45,6	51,3	61,3	72,6	83,9
d_w, not less than		2,3	3,1	4,1	4,6	5,1	5,9	6,9	8,9	11,6	14,6	16,6	19,6	22,5	25,3	28,2	31,7	33,6	38,0	42,7	51,1	61,0	70,5
h_w	Not less than	—			0,15									0,20								0,25	
	Not more than	—			0,4			0,5		0,6				0,8									
Diameter of hole in rod d_3		—					1,0	1,2	1,6	2,0	2,5	3,2		4,0			5,0			6,3		8,0	
Diameter of hole in head d_4 H15		—					1,0	1,2	2,0	2,5		3,2		4,0							5,0		
Distance from supporting surface upto the axis of hole in head l_2 js15		—					1,4	1,8	2,0	2,8	3,5	4,0	4,5	5,0	6,0	6,5	7,0	7,5	8,5	9,5	11,5	13,0	15,0

Note:

1. It is not recommended to use the dimension of bolts, which are enclosed in brackets.
2. It is permitted to manufacture the bolts with dimensions, specified in appendix 2.

mm

Length of bolts l	Length of threads b and distance from supporting surface at head upto axis of hole in rod l_1 at																			
	1,6	2	2,5	3	3,5	4		5		6		8		10		12		(14)		
	b	b	b	b	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	
2	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3	×	×	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4	×	×	×	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5	×	×	×	×	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6	×	×	×	×	×	—	×	—	×	—	—	—	—	—	—	—	—	—	—	
8	×	×	×	×	×	—	×	—	×	—	×	—	×	—	—	—	—	—	—	
10	×	×	×	×	×	7,5	×	—	×	—	×	—	×	—	×	—	—	—	—	
12	9	×	×	×	×	9,5	×	9,5	×	—	×	—	×	—	×	—	—	—	—	
14	9	10	11	12	13	11,5	×	11,5	×	10	×	—	×	—	×	—	×	—	—	
16	—	10	11	12	13	13,5	14	13,5	×	12	×	12	×	—	×	—	×	—	×	
(18)	—	10	11	12	13	15,5	14	15,5	16	14	×	14	×	14	×	—	×	—	×	
20	—	—	11	12	13	17,5	14	17,5	16	16	×	16	×	16	×	15	×	—	×	
(22)	—	—	11	12	13	19,5	14	19,5	16	18	18	18	×	18	×	17	×	17	×	
25	—	—	11	12	13	22,5	14	22,5	16	21	18	21	×	21	×	20	×	20	×	
(28)	—	—	—	12	13	25,5	14	25,5	16	24	18	24	22	24	×	23	×	23	×	
30	—	—	—	12	13	27,5	14	27,5	16	26	18	26	22	26	×	25	×	25	×	
(32)	—	—	—	—	—	29,5	14	29,5	16	28	18	28	22	28	26	27	×	27	×	
35	—	—	—	—	—	32,5	14	32,5	16	31	18	31	22	31	26	30	30	30	×	
(38)	—	—	—	—	—	35,5	14	35,5	16	34	18	34	22	34	26	33	30	33	×	
40	—	—	—	—	—	37,5	14	37,5	16	36	18	36	22	36	26	35	30	35	34	
45	—	—	—	—	—	42,5	14	42,5	16	41	18	41	22	41	26	40	30	40	34	
50	—	—	—	—	—	47,5	14	47,5	16	46	18	46	22	46	26	45	30	45	34	
55	—	—	—	—	—	52,5	14	52,5	16	51	18	51	22	51	26	50	30	50	34	
60	—	—	—	—	—	57,5	14	57,5	16	56	18	56	22	56	26	55	30	55	34	
65	—	—	—	—	—	—	—	62,5	16	61	18	61	22	61	26	60	30	60	34	
70	—	—	—	—	—	—	—	67,5	16	66	18	66	22	66	26	55	30	65	34	
75	—	—	—	—	—	—	—	72,5	16	71	18	71	22	71	26	70	30	70	34	
80	—	—	—	—	—	—	—	77,5	16	76	18	76	22	76	26	75	30	75	34	
(85)	—	—	—	—	—	—	—	—	—	81	18	81	22	81	26	80	30	80	34	
90	—	—	—	—	—	—	—	—	—	86	18	86	22	86	26	85	30	85	34	
(95)	—	—	—	—	—	—	—	—	—	—	—	91	22	91	26	90	30	90	34	
100	—	—	—	—	—	—	—	—	—	—	—	96	22	96	26	95	30	95	34	
(105)	—	—	—	—	—	—	—	—	—	—	—	—	—	101	26	100	30	100	34	
110	—	—	—	—	—	—	—	—	—	—	—	—	—	106	26	105	30	105	34	
(115)	—	—	—	—	—	—	—	—	—	—	—	—	—	111	26	110	30	110	34	
120	—	—	—	—	—	—	—	—	—	—	—	—	—	116	26	115	30	115	34	
(125)	—	—	—	—	—	—	—	—	—	—	—	—	—	121	26	120	30	120	34	
130	—	—	—	—	—	—	—	—	—	—	—	—	—	126	32	125	36	125	40	
140	—	—	—	—	—	—	—	—	—	—	—	—	—	136	32	135	36	135	40	
150	—	—	—	—	—	—	—	—	—	—	—	—	—	146	32	145	36	145	40	
160	—	—	—	—	—	—	—	—	—	—	—	—	—	156	32	155	36	155	40	
170	—	—	—	—	—	—	—	—	—	—	—	—	—	166	32	165	36	165	40	
180	—	—	—	—	—	—	—	—	—	—	—	—	—	176	32	175	36	175	40	
190	—	—	—	—	—	—	—	—	—	—	—	—	—	186	32	185	36	185	40	
200	—	—	—	—	—	—	—	—	—	—	—	—	—	196	32	195	36	195	40	
220	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	215	49	215	53	
240	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	235	49	235	53	
260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	255	49	255	53	
280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	275	53	
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	295	53	

Note: It is recommended to use the bolts with dimensions of length enclosed in brackets.

Example of conventional code: Bolts of make 1 with diameter of thread of d 12 mm, with strength class 5.8, without coating:

Also, make 2, with width across flat S 19 mm, with fine pitch of thread with with tolerance

Table 2

Nominal dimension of threads d (Sign X mark of bolts with thread on total length of rod)																			
16		(18)		20		(22)		24		(27)		30		36		42		48	
l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b	l_1	b
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	×	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	×	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19	×	—	×	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22	×	22	×	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—
24	×	24	×	24	×	—	×	—	—	—	—	—	—	—	—	—	—	—	—
26	×	26	×	26	×	25	×	—	×	—	—	—	—	—	—	—	—	—	—
29	×	29	×	29	×	28	×	28	×	—	×	—	—	—	—	—	—	—	—
32	×	32	×	32	×	31	×	31	×	—	×	—	—	—	—	—	—	—	—
34	×	34	×	34	×	33	×	33	×	32	×	—	×	—	—	—	—	—	—
39	38	39	×	39	×	38	×	38	×	37	×	36	×	—	—	—	—	—	—
44	38	44	42	44	×	43	×	43	×	42	×	41	×	40	×	—	—	—	—
49	38	49	42	49	46	48	×	48	×	47	×	46	×	45	×	—	×	—	—
54	38	54	42	54	46	53	50	53	×	52	×	51	×	50	×	48	×	—	—
59	38	59	42	59	46	58	50	58	54	57	×	56	×	55	×	53	×	—	×
64	38	64	42	64	46	63	50	63	54	62	60	61	×	60	×	58	×	58	×
69	38	69	42	69	46	68	50	68	54	67	60	66	66	65	×	63	×	56	×
74	38	74	42	74	46	73	50	73	54	72	60	71	66	70	×	68	×	68	×
79	38	79	42	79	46	78	50	78	54	77	60	76	66	75	×	73	×	73	×
84	38	84	42	84	46	83	50	83	54	82	60	81	66	80	78	78	×	78	×
89	38	89	42	89	46	88	50	88	54	87	60	86	66	85	78	83	×	83	×
94	38	94	42	94	46	93	50	93	54	92	60	91	66	90	78	88	×	88	×
99	38	99	42	99	46	98	50	98	54	97	60	96	66	95	78	93	90	93	×
104	38	104	42	104	46	103	50	103	54	102	60	101	66	100	78	98	90	98	×
109	38	109	42	109	46	108	50	108	54	107	60	106	66	105	78	103	90	103	102
114	38	114	42	114	46	113	50	113	54	112	60	111	66	110	78	108	90	108	102
119	38	119	42	119	46	118	50	118	54	117	60	116	66	115	78	113	90	113	102
124	44	124	48	124	52	123	56	123	60	122	66	121	72	120	84	118	96	118	108
134	44	134	48	134	52	133	56	133	60	132	66	131	72	130	84	128	96	128	108
144	44	144	48	144	52	143	56	143	60	142	66	141	72	140	84	138	96	138	108
154	44	154	48	154	52	153	56	153	60	152	66	151	72	150	84	148	96	148	108
164	44	164	48	164	52	163	56	163	60	162	66	161	72	160	84	158	96	158	108
174	44	174	48	174	52	173	56	173	60	172	66	171	72	170	84	168	96	168	108
184	44	184	48	184	52	183	56	183	60	182	66	181	72	180	84	178	96	178	108
194	44	194	48	194	52	193	56	193	60	192	66	191	72	190	84	188	96	188	108
214	57	214	61	214	65	213	69	213	73	212	79	211	85	210	97	208	109	208	121
234	57	234	61	234	65	233	69	233	73	232	79	231	85	230	97	228	109	228	121
254	57	254	61	254	65	253	69	253	73	252	79	251	85	250	97	248	109	248	121
274	57	274	61	274	65	273	69	273	73	272	79	271	85	270	97	268	109	268	121
294	57	294	61	294	65	293	69	293	73	292	79	291	85	290	97	288	109	288	121

width across flat S = 18 mm, Length l = 60 mm, with coarse pitch of thread with tolerance zone 6g,
Bolt M12 – 6g x 60.58 (S18) GOST 7805-70
zone 6g, strength class 10.9, made of steel grade 40X, with coating of thickness having 6 microns:
Bolt 2M12 x 1.25 – 6g x 60.109.40X.016 GOST 7805-70

Appendix 1
Reference

Weight of steel bolts (make 1) with coarse pitch of thread

Length of bolts *l*, in mm	Theoretical weight of 1000 pieces ofbolts in kg ≈, at nominal diameter of thread, *d* in mm																					
	1.6	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20	22	24	27	30	36	42	48
2	0,104	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	0,118	0,216	0,390	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	0,132	0,238	0,425	0,609	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	0,146	0,260	0,460	0,660	0,887	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	0,160	0,282	0,495	0,711	0,951	1,461	2,190	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	0,188	0,326	0,565	0,813	1,080	1,641	2,472	4,306	8,668	—	—	—	—	—	—	—	—	—	—	—	—	—
10	0,216	0,370	0,635	0,915	1,209	1,821	2,754	4,712	9,394	16,68	—	—	—	—	—	—	—	—	—	—	—	—
12	0,250	0,414	0,705	1,017	1,337	2,001	3,036	5,118	10,120	17,82	—	—	—	—	—	—	—	—	—	—	—	—
14	0,281	0,469	0,787	1,122	1,466	2,181	3,318	5,524	10,850	18,96	27,89	—	—	—	—	—	—	—	—	—	—	—
16	—	0,518	0,864	1,234	1,595	2,368	3,600	5,930	11,570	20,10	29,48	43,98	—	—	—	—	—	—	—	—	—	—
18	—	0,567	0,941	1,344	1,723	2,566	4,062	6,336	12,300	21,23	31,12	46,21	65,54	—	—	—	—	—	—	—	—	—
20	—	—	1,019	1,456	1,852	2,763	4,371	6,742	13,020	22,37	32,76	48,45	68,49	95,81	—	—	—	—	—	—	—	—
22	—	—	1.096	1,567	1,981	2,961	4,679	7,204	13,750	23,51	34,40	50,69	71,44	99,52	—	—	—	—	—	—	—	—
25	—	—	1,211	1,733	2,174	3,257	5,142	7,871	14,840	25,22	36,86	54,05	75,87	105,10	133,3	—	—	—	—	—	—	—
28	—	—	—	1,900	2,367	3,553	5,605	8,537	16,330	26,92	39,32	57,40	80,29	110,60	140,2	—	—	—	—	—	—	—
30	—	—	—	2,011	2,496	3,750	5,913	8,981	17,120	28,52	40,96	59,64	83,24	114,30	144,8	193,0	—	—	—	—	—	—
32	—	—	—	—	—	3,948	6,222	9,426	17,910	29,43	42,59	61,87	86,19	118,00	149,4	198,6	237,0	—	—	—	—	—
35	—	—	—	—	—	4,244	6,685	10,090	19,090	31,28	45,34	65,24	90,62	123,60	156,3	207,0	246,9	340,6	—	—	—	—
38	—	—	—	—	—	4,540	7,147	10,760	20,280	33,18	48,00	68,59	95,04	129,20	163,2	215,4	256,9	353,3	—	—	—	—
40	—	—	—	—	—	4,738	7,456	11,200	21,070	34,36	49,78	71,25	97,99	132,90	167,8	221,0	263,5	361,8	474,8	—	—	—
45	—	—	—	—	—	5,231	8,227	12,310	23,040	37,45	54,22	77,30	105,70	142,10	179,4	235,0	280,1	373,0	500,9	—	—	—
50	—	—	—	—	—	5,725	8,999	13,420	25,020	40,53	58,67	83,35	113,60	152,40	190,9	249,0	296,7	404,1	526,9	834,5	—	—
55	—	—	—	—	—	6,218	8,769	14,530	26,990	43,62	63,11	89,39	121,50	162,40	203,7	263,1	313,3	425,3	553,0	872,1	1304	—
60	—	—	—	—	—	6,712	10,540	15,640	28,970	46,70	67,55	95,44	129,40	172,40	216,0	278,9	329,9	446,5	579,0	909,8	1356	—
65	—	—	—	—	—	—	11,310	16,760	30,940	49,79	71,99	101,50	137,30	182,40	228,4	293,8	348,8	467,7	605,1	947,4	1407	2009
70	—	—	—	—	—	—	12,080	17,870	32,910	52,87	76,44	107,50	145,20	192,40	240,7	308,8	366,5	491,1	631,1	985,0	1458	2076
75	—	—	—	—	—	—	12,850	18,980	34,890	55,96	80,88	113,60	153,10	202,40	253,0	323,7	384,3	513,6	659,7	1023,0	1509	2143
80	—	—	—	—	—	—	13,630	20,090	36,860	59,04	85,33	119,60	161,00	212,40	265,0	338,6	402,1	536,1	687,5	1061,0	1561	2211
85	—	—	—	—	—	—	—	21,200	38,840	62,13	89,77	125,70	168,90	222,40	277,7	353,6	419,8	558,6	715,2	1098,0	1612	2278

Continuation

Length of bolts *l*, in mm	Theoretical weight of 1000 pieces of bolts in kg ≈, at nominal diameter of thread, *d* in mm																				
	1.6	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20	22	24	27	30	36	42	48
90	—	—	—	—	—	—	—	22,310	40,810	65,21	94,20	131,70	176,80	232,40	290,1	368,5	437,6	581,0	743,0	1141,0	1663	2345
95	—	—	—	—	—	—	—	—	42,790	68,30	98,64	137,80	184,70	242,40	302,4	383,4	455,4	603,5	770,8	1181,0	1715	2412
100	—	—	—	—	—	—	—	—	44,760	71,38	103,10	143,80	192,60	252,40	314,7	398,3	473,2	626,0	798,5	1221,0	1766	2479
105	—	—	—	—	—	—	—	—	—	74,47	107,50	149,90	200,50	262,40	327,1	413,3	490,9	648,5	826,3	1261,0	1826	2546
110	—	—	—	—	—	—	—	—	—	77,55	112,00	155,90	208,40	272,30	339,4	428,2	508,7	671,0	854,1	1301,0	1880	2614
115	—	—	—	—	—	—	—	—	—	80,63	116,40	162,00	216,30	282,30	351,8	443,1	526,5	693,5	881,8	1341,0	1934	2690
120	—	—	—	—	—	—	—	—	—	83,72	120,90	168,00	224,20	292,30	364,1	458,1	544,2	716,0	909,6	1381,0	1989	2760
125	—	—	—	—	—	—	—	—	—	86,80	125,30	174,00	232,10	302,30	376,4	473,0	562,0	738,5	937,4	1421,0	2043	2831
130	—	—	—	—	—	—	—	—	—	89,89	129,70	180,10	240,00	312,30	388,8	487,9	579,8	761,0	965,2	1461,0	2098	2903
140	—	—	—	—	—	—	—	—	—	96,06	138,60	192,20	255,80	332,30	413,5	517,8	615,3	806,0	1021,0	1541,0	2207	3045
150	—	—	—	—	—	—	—	—	—	102,18	147,50	204,30	271,60	352,30	438,1	547,6	650,8	850,1	1076,0	1621,0	2315	3187
160	—	—	—	—	—	—	—	—	—	108,38	156,40	216,40	287,40	372,30	462,8	577,5	686,4	895,9	1132,0	1701,0	2424	3329
170	—	—	—	—	—	—	—	—	—	114,58	165,30	228,50	303,20	392,30	487,5	607,4	721,9	940,9	1188,0	1780,0	2533	3471
180	—	—	—	—	—	—	—	—	—	120,68	174,20	240,60	319,00	412,30	512,2	637,2	757,5	985,9	1243,0	1860,0	2642	3614
190	—	—	—	—	—	—	—	—	—	126,88	183,10	252,70	333,80	432,30	536,9	667,1	793,0	1031,0	1299,0	1940,0	2751	3756
200	—	—	—	—	—	—	—	—	—	133,08	191,90	264,70	350,60	452,20	561,5	697,0	828,6	1076,0	1354,0	2020,0	2860	3898
220	—	—	—	—	—	—	—	—	—	—	209,70	228,90	382,20	492,20	610,9	756,7	899,6	1166,0	1465,0	2180,0	3077	4182
240	—	—	—	—	—	—	—	—	—	—	227,50	313,10	413,80	532,20	660,3	816,4	970,8	1256,0	1576,0	2340,0	3295	4466
260	—	—	—	—	—	—	—	—	—	—	245,20	337,60	445,40	572,20	709,6	876,1	1042,0	1346,0	1687,0	2500,0	3513	4751
280	—	—	—	—	—	—	—	—	—	—	—	361,50	476,90	612,20	759,0	935,9	1113,0	1436,0	1798,0	2660,0	3730	5035
300	—	—	—	—	—	—	—	—	—	—	—	385,70	508,50	652,20	808,3	995,6	1184,0	1526,0	1910,0	2820,0	3948	5319

For determination of weight of bolts made of other materials, value of weight, specified in table should be multiplied by the coefficient: 0.356 – for aluminium alloys: 1.080 - for brass.

APPENDIX 1. **(Amended edition, amendment No. 4).**

APPENDIX 2
Reference

Additional requirement, which are reflecting the needs of national economy
Dimension in mm

Nominal diameter of threads *d*	10	12	14	22	Nominal diameter of threads *d*	10	12	14	22
Width across flat, *S*	17	19	22	32	Width across flat, *S*	17	19	22	32
Diameter of circumscribed circle, *e*, not less than	18.9	21.1	24.5	35.7	Diameter of circumscribed circle, *e*, not less than	18.9	21.1	24.5	35.7
d_w, not less than	15.6	17.4	20.6	30.0	d_w, not less than	15.6	17.4	20.6	30.0

Length of bolt, *l*	Theoretical weight of 1000 pieces of bolts (make 1) with coarse pitch of thread, in kg ≈					Length of bolt, *l*	Theoretical weight of 1000 pieces of bolts (make 1) with coarse pitch of thread, in kg ≈				
10	18,10	–	–	–		85	63,55	91,63	128,20	341,2	
12	19,24	–	–	–		90	66,63	96,06	134,20	356,1	
14	20,38	29,75	–	–		95	69,72	100,50	140,30	371,0	
16	21,52	31,34	46,52	–		100	72,80	105,00	146,30	385,9	
18	22,65	32,98	48,75	–		105	75,89	109,40	152,40	400,9	
20	23,79	34,62	50,09	–		110	78,97	113,90	158,40	415,8	
22	24,93	36,26	53,23	–		115	82,05	118,30	164,50	430,7	
25	26,64	38,72	56,59	–		120	85,14	122,80	170,50	445,7	
28	28,34	41,18	59,94	–		125	88,22	127,20	176,50	460,6	
30	29,48	42,82	62,18	180,6		130	91,31	131,60	182,60	475,5	
32	30,85	44,45	64,41	186,2		140	97,48	140,50	194,70	505,4	
35	32,70	47,20	67,78	194,6		150	103,60	149,40	206,80	535,2	
38	34,55	49,86	71,13	203,0		160	109,80	158,30	218,90	565,1	
40	35,78	51,64	73,79	208,6		170	116,00	167,20	231,00	595,0	
45	38,87	56,08	79,84	222,6		180	122,10	176,10	243,10	624,8	
50	41,95	60,53	85,89	236,6		190	128,30	185,00	255,20	654,7	
55	45,04	64,97	91,93	250,7		200	134,50	193,80	267,20	684,6	
60	48,12	69,41	97,98	266,5		220	–	211,60	291,40	744,3	
65	51,21	73,85	104,00	281,4		240	–	229,40	315,60	804,0	
70	54,29	78,30	110,00	296,4		260	–	247,10	339,80	863,7	
75	57,38	82,74	116,10	311,3		280	–	–	364,00	923,5	
80	60,46	87,19	122,10	326,2		300	–	–	388,20	983,2	

APPENDIX 2**. (Amended edition, amendment No. 6).**

REFERENCE OF NORMATIVE- TECHNICAL DOCUMENTS

Code of НТД on which reference is given	Point Number	Code of НТД on which reference is given	Point Number
GOST 1759.0-87	6	GOST 24670-81	3а
GOST 1759.1-82	3б	GOST 24705-81	3
GOST 1759.2-82	3в	GOST 27148-86	3
GOST 12414-94	3		

Restriction of validity is removed under the protocol No 5-94 of intergovernmental inter state council, on standardization, metrology and certification. (ИУС 11-12-94)

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