

I - 2348

NUMBER GOST 17473 - 80

SHEET 1 OF 9

SUPERSEDES.

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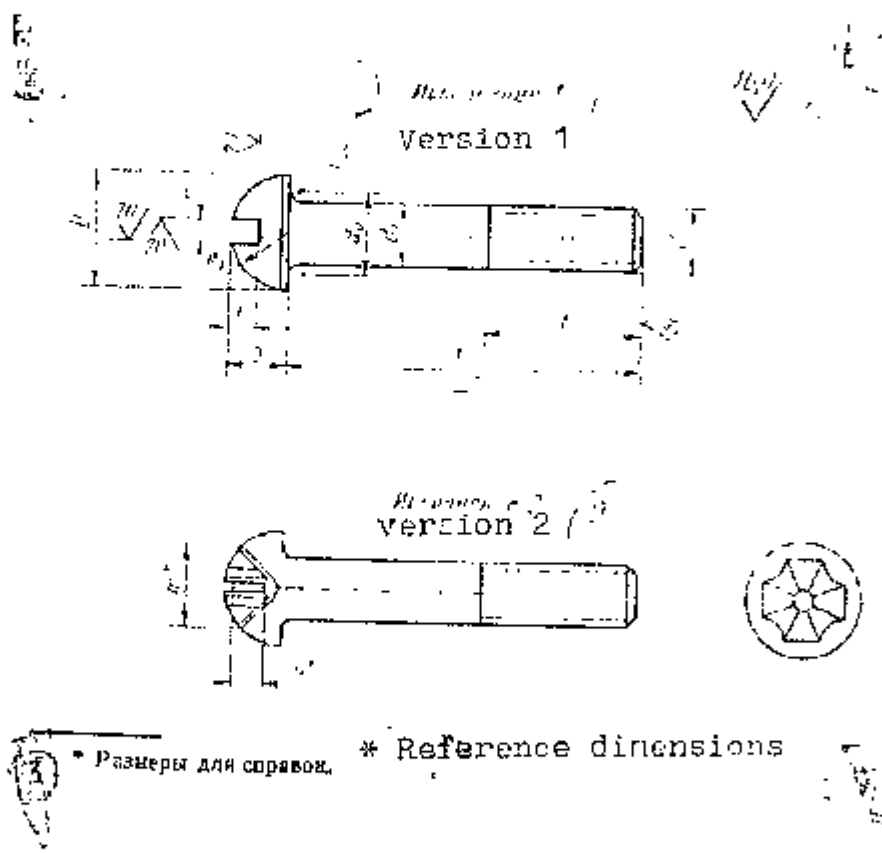
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Half - rounded head screws.
Design and dimensions.

GOST
17473 - 80
This super sedes
GOST 17473 - 72
Valid upto 1.1.1982

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1. The present standard relates to half rounded - head screws of accuracy degree A (enhanced) having a thread diameter of M 1 to M 20 and accuracy degree B, having a thread diameter of M 2.5 to M 20.
2. Design and dimensions of the screws should conform to those, shown in the drawing and Table 1 & 2.



T A B L E - 2

MM

Thread length b for nominal thread diameter d (screws with thread over the entire length of stem are marked with sign X)

Screw length l

Limit deviation

Nominal js 15 js 16

accuracy degree A B

1

1.2

1.4

1.6

2

2.5

3

3.5

4

5

6

8

10

12

14

16

18

20

2

(2.5)

3

(3.5)

4

5

6

7

8

9

10

± 0.20

± 0.30

± 0.24

± 0.38

± 0.29

± 0.45

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Contd. Table 2

mm

Screw Length L	Limit deviation	Thread length b for nominal thread diameter d (screw with thread over the entire length of stem are marked with sign π)																
		1	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20		
Nominal	Accuracy Degree	2.2	1.4	1.6	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20
	A																	
	B																	
55									18	22	26	30	34	38	42	46		
60									18	22	26	30	34	38	42	46		
65										22	26	30	34	38	42	46		
70	± 0.60									22	26	30	34	38	42	46		
75												30	34	38	42	46		
80												30	34	38	42	46		
(85)													30	34	38	42	46	
90														34	38	42	46	
(95)															38	42	46	
100	± 0.70															42	46	
110																	42	46
120																		46

Note: Lengths of screws, given in brackets are not recommended for use.

Example of conventional designation of half rounded head screw, accuracy degree A, version 1, thread diameter $d = 8 \text{ mm}$, coarse thread pitch, thread tolerance range 6g, length $l = 50 \text{ mm}$, strength class 48, without coating:

Screw A 1. M 8 - 6 g x 50.48 GOST 17473 - 80.

Same screw, of accuracy degree B, version 2, fine thread pitch, thread tolerance range 8 g, with zinc - coating of 6 microns thickness applied by cathodic reduction, chrome - plated:

Screw B 2. M 8 x 1 - 8 g x 50 . 48.016. GOST
17473 - 80.

3. Diameter of smooth section d_1 should be within the limits of peripheral and nominal diameter of thread.
4. On agreement between the consumer and the manufacturer screws with length, not specified in Table 2 may also be manufactured.
5. Tolerance range of thread 6 g or 8 g - as per GOST 16093 - 70.
6. Philips slot - as per GOST 10753 - 64.
7. Technical requirements - as per GOST 1759 - 70.
8. Theoretical weight of screws is given in appendix.1
9. Upon agreement between the manufacturer with the consumer, Screws with tolerances as per appendix 2 may be manufactured to provide inter changeability in use in the articles , designed before 1 st January, 1980.

IV Appendix - 1

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THEORETICAL WEIGHT OF SCREWS

Weight of 100 steel screws with coarse thread pitch in kg at nominal thread diameter in mm

Screw length in mm	1	1.2	1.4	1.6	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20
2	0.018																	
2.5	0.020	0.023	0.040	0.056	0.112	0.178	0.244											
3	0.022	0.031	0.049	0.067	0.121	0.189	0.257											
3.5	0.025	0.034	0.053	0.073	0.136	0.203	0.270											
4	0.027	0.041	0.059	0.079	0.157	0.232	0.307	0.382	0.457									
5	0.031	0.054	0.075	0.101	0.175	0.250	0.324	0.398	0.472	0.546								
6		0.061	0.085	0.112	0.153	0.200	0.247	0.294	0.341	0.388	0.435							
7			0.094	0.123	0.161	0.200	0.247	0.294	0.341	0.388	0.435	0.482						
8			0.103	0.135	0.173	0.229	0.276	0.323	0.370	0.417	0.464	0.511						
9			0.112	0.146	0.185	0.241	0.288	0.335	0.382	0.429	0.476	0.523						
10			0.121	0.157	0.205	0.261	0.317	0.373	0.429	0.485	0.541	0.597						
11				0.158	0.203	0.263	0.319	0.375	0.431	0.487	0.543	0.599						
12				0.168	0.215	0.278	0.341	0.404	0.467	0.530	0.593	0.656						
14				0.191	0.241	0.305	0.369	0.433	0.497	0.561	0.625	0.689						
16					0.235	0.299	0.363	0.427	0.491	0.555	0.619	0.683						
18					0.255	0.329	0.403	0.477	0.551	0.625	0.699	0.773						
20					0.275	0.359	0.443	0.527	0.611	0.695	0.779	0.863						
22					0.295	0.389	0.483	0.577	0.671	0.765	0.859	0.953						
25					0.335	0.439	0.543	0.647	0.751	0.855	0.959	1.063						
28					0.375	0.489	0.603	0.717	0.831	0.945	1.059	1.173						
30					0.395	0.519	0.643	0.767	0.891	1.015	1.139	1.263						
32					0.415	0.549	0.683	0.817	0.951	1.085	1.219	1.353						
35					0.435	0.579	0.723	0.867	1.011	1.155	1.299	1.443						
38					0.455	0.609	0.763	0.917	1.071	1.225	1.379	1.533						
40					0.475	0.639	0.803	0.967	1.131	1.295	1.459	1.623						
42					0.495	0.669	0.843	1.017	1.191	1.365	1.539	1.713						
45					0.515	0.709	0.893	1.077	1.261	1.445	1.629	1.813						
50					0.555	0.769	0.973	1.177	1.381	1.585	1.789	1.993						
55					0.595	0.829	1.053	1.277	1.501	1.725	1.949	2.173						
60					0.635	0.889	1.133	1.377	1.621	1.865	2.109	2.353						
65					0.675	0.949	1.213	1.467	1.711	1.955	2.199	2.443						
70					0.715	1.009	1.273	1.527	1.771	2.015	2.259	2.503						
75					0.755	1.069	1.347	1.607	1.851	2.095	2.339	2.583						
80					0.795	1.129	1.417	1.687	1.931	2.175	2.419	2.663						
85					0.835	1.189	1.487	1.767	2.015	2.259	2.503	2.747						
90					0.875	1.249	1.557	1.847	2.091	2.335	2.579	2.823						
100					0.955	1.369	1.677	2.007	2.251	2.495	2.739	2.983						
110					1.035	1.489	1.797	2.127	2.371	2.615	2.859	3.103						
120					1.115	1.609	1.917	2.247	2.491	2.735	2.979	3.223						
130					1.195	1.729	2.037	2.367	2.611	2.855	3.099	3.343						
140					1.275	1.849	2.157	2.487	2.731	2.975	3.219	3.463						
150					1.355	1.969	2.277	2.607	2.855	3.099	3.343	3.587						
160					1.435	2.089	2.397	2.727	2.971	3.215	3.459	3.703						
170					1.515	2.209	2.517	2.847	3.095	3.339	3.583	3.827						
180					1.595	2.329	2.637	2.967	3.219	3.463	3.707	3.951						
190					1.675	2.449	2.757	3.087	3.343	3.587	3.831	4.065						
200					1.755	2.569	2.877	3.207	3.467	3.711	3.955	4.199						
220					1.915	2.809	3.137	3.437	3.731	3.975	4.219	4.463						
240					2.075	3.049	3.367	3.607	3.855	4.103	4.347	4.591						
260					2.235	3.289	3.597	3.777	4.019	4.263	4.507	4.751						
280					2.395	3.529	3.827	3.947	4.183	4.427	4.671	4.915						
300					2.555	3.769	4.057	4.117	4.307	4.551	4.795	5.039						
320					2.715	4.009	4.287	4.257	4.447	4.691	4.935	5.179						
340					2.875	4.249	4.517	4.387	4.571	4.815	5.059	5.303						
360					3.035	4.489	4.747	4.517	4.701	4.945	5.199	5.443						
380					3.195	4.729	4.977	4.647	4.825	5.069	5.313	5.557						
400					3.355	4.969	5.207	4.777	4.939	5.183	5.427	5.671						
420					3.515	5.209	5.437	4.907	5.103	5.347	5.591	5.835						
440					3.675	5.449	5.667	5.037	5.217	5.461	5.705	5.949						
460					3.835	5.689	5.897	5.167	5.331	5.575	5.819	6.063						
480					3.995	5.929	6.127	5.297	5.445	5.689	5.933	6.177						
500					4.155	6.169	6.357	5.427	5.559	5.803	6.047	6.291						
520					4.315	6.409	6.587	5.557	5.673	5.917	6.161	6.405						
540					4.475	6.649	6.817	5.687	5.787	6.031	6.275	6.519						
560					4.635	6.889	7.047	5.817	5.901	6.145	6.389	6.633						
580					4.795	7.129	7.277	5.947	6.015	6.259	6.503	6.747						
600					4.955	7.369	7.507	6.077	6.129	6.373	6.617	6.861						
620					5.115	7.609	7.747	6.207	6.243	6.487	6.731	6.975						
640					5.275	7.849	7.987	6.337	6.357	6.601	6.845	7.089						
660					5.435	8.089	8.227	6.467	6.471	6.715	6.959	7.203						
680					5.595	8.329	8.467	6.597	6.585	6.829	7.073	7.317						
700					5.755	8.569	8.707	6.727	6.699	6.943	7.187	7.431						
720					5.915	8.809	8.947	6.857	6.813	7.057	7.301	7.545						
740					6.075	9.049	9.187	6.987	6.927	7.171	7.415	7.659						
760					6.235	9.289	9.427	7.117	7.041	7.285	7.529	7.773						
780					6.395	9.529	9.667	7.247	7.155	7.399	7.643	7.887						
800					6.555	9.769	9.907	7.377	7.269	7.513	7.757	8.001						
820					6.715	10.009	10.147	7.507	7.383	7.627	7.871	8.115						
840					6.875	10.249	10.387	7.637	7.497	7.741	7.985	8.229						
860					7.035	10.489	10.627	7.767	7.611	7.855	8.099	8.347						
880					7.195	10.729	10.867	7.897	7.725	7.969	8.213	8.455						
900					7.355	10.969	11.107	8.027	7.839	8.083	8.327	8.573						
920					7.515	11.209	11.347	8.157	7.953	8.197	8.441	8.681						
940					7.675	11.449	11.587	8.287	8.067	8.311	8.559	8.839						
960					7.835	11.689	11.827	8.417	8.181	8.425	8.677	8.997						
980					7.995	11.929	12.067	8.547	8.295	8.539	8.791	9.155						
1000					8.155	12.169	12.307	8.677	8.409	8.653	8.905	9.313						

REMARKS: For determining weight of aluminium alloy screws, the values of weights given in the Table should be multiplied by coefficient 0.355 and for brass screws - by 1.08.

GOST 17473-80

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Appendix 2

Tolerances for half-rounded head screws as per
E C A B C D and OCT systems.

Tolerance ranges	
as per CC A B	as per system OCT
js 15	CM 8
js 16	CM 9