

POST OFFICE TELECOMMUNICATIONS HEADQUARTERS

SPECIFICATION S 16Q

FOR

BELL-GONGS

1. GENERAL

1.1 Specification D 1000 shall be taken as forming part of this specification.

1.2 The bell-gongs to which this specification applies are listed in Table 2 together with the relative drawings.

1.3 The dimensions, materials, weights and finishes, where these do not appear on the drawings, are quoted in Table 1.

2. MATERIALS

2.1 Bell-metal shall be an alloy of 81% Copper to British Standard Specification 1038, and 19% of Standard Tin.

2.2 Chilled Cast Iron shall be white cast iron as used for the manufacture of malleable iron to British Standard Specification 309, unannealed.

2.3 Brass for pressed bell-gongs shall be to British Standard Specification 2870:1969, CZ 108, or as stated on the drawing.

2.4 Steel shall be to BS 1449 Part 1 (1972) Grade 3 Condition CS or Grade 4 Condition CS $\frac{1}{4}$ hard.

3. MANUFACTURE

3.1 Bell-gongs of $\frac{1}{4}$ in diameter or less, and Bell-gong No. 15A, may be cast or pressed from sheet metal. Bell-gongs over $\frac{1}{4}$ in diameter (except Bell-gong No.15) shall be cast.

3.2 Cast bell-gongs shall be cleanly cast and free from sand holes and other flaws.

3.3 Pressed brass bell-gongs shall be manufactured from 0.080-0.085 in sheet or strip except Bell-gongs No. 2A which shall be manufactured from 0.046-0.051 in sheet or strip. Bell-gongs No. 24.. shall be in accordance with Drawing 91846.

3.4 Pressed brass bell-gongs shall be stress relieved at a temperature of 250°-270°C (482°-518°F) for one hour after pressing.

3.5 Bell-gong No. 17 shall be pressed from steel sheet 0.080-0.085 in thick before pressing.

3.6 Bell-gong No. 12 complete. The pillar, head and nut shall be to the dimensions shown on Drawing CD 256. The pillar shall be of mild steel, copper plated, oxidized and lacquered. The head and nut shall be of hard brass finished to match the bell-gong.

TABLE 1

Bell-gong No. ...	Diameter	Greatest Height	Projection of boss on cast gongs	Diameter of boss on cast gongs		Fixing Hole Eccentricity in.	Diameter of Fixing Hole in.	Approx Weight oz.	Material (See Para 2)	Finish	
	in.	in.	in.	D	E						
	A	B	C								
2	2½	0.868 ± 0.010	1/20	5/8	9/16	1/16	3/16	3	Brass	External: Ni P Matt (Cu/Ni 20p dull to BS 1224) followed by Enamel Self-etching Matt black (to Spec. M 296). Internal: Ni P Matt (Cu/Ni 5p dull to BS 1224)*	
2A	2½	0.852 ± 0.010	1/20	5/8	9/16	1/16	3/16	1¾	"		
7	4	1½	1/20	13/16	¾	1/16	3/16	8½	"	External: Ni P (Cu/Ni 20p dull to BS 1224) followed by Enamel Self-etching Matt black (to Spec M 296). Internal: Ni P (Cu/Ni 5p polished to BS 1224)*	
7A	4	1½				1/16	3/16	8	Steel		
8	4½	1½	1/20	7/8	13/16	1/16	7/32	12	Bell metal	Ni P Polished (Cu/Ni 5p polished to BS 1224).	
9	6	15/16	1/10	1	15/16	1/16	C1 5/16 BSW	24	" "	Ni P Matt (Cu/Ni 20p dull to BS 1224).	
12	← SEE DRAWING CD 255 →							4-5½	" "	Ni P Matt (Cu/Ni 20p dull to BS 1224) followed by Enamel Self-etching Matt black (to Spec M 296).	
15	6	1½	-	-	-	1/8 to 5/32	C1 5/16 BSW	18	Brass	Ni P Matt (Cu/Ni 20p dull to BS 1224).	
16A	12	11/32	¼	15/8	1½	1/8 to 5/32	21/32	156	Chilled cast iron	Aluminium Painted (to Spec M 283).	
17	2½	0.868 ± 0.010				1/16	3/16	3	Steel	Zinc plate and passivate (to Spec M 37 severe) followed by Enamel Self-etching Matt black (to Spec M 296).	
18	SEE DRAWING CD 257			-	-	-	SEE DRAWING CD 257		2¾	Brass	Ni P Matt (Cu/Ni 20p dull to BS 1224).
21	← SEE DRAWING CD 1104 →							18	Bell metal	Ni P Polished (Cu/Ni 5p polished to BS 1224).	

*The type of finish required will be shown on the relevant drawing or contract.

TABLE 2

Bell-Gong	Drawing
No. 2	CD 254
No. 2A	"
No. 7	"
No. 7A	"
No. 8	"
No. 9	"
No. 12	CD 255
No. 12 complete	CD 256
No. 15	CD 254
No. 15A	62795
No. 16A	CD 254
No. 17	"
No. 18	CD 257
No. 19	62793
No. 21	CD 1104
No. 24A	91846
No. 24B	"
No. 26A	93807
No. 27A	93808

4. REVERBERATION

4.1 All gongs of circular form shall be capable of passing the test in 4.2.

4.2 The sound output of the gong shall be measured 100 msec after the gong has been struck. This shall be the reference time and level.

The sound output from the gong shall take not less than 250 msec and 750 msec respectively from the reference time to fall 10 dB and 20 dB from the reference level.

Three tests shall be made and the gongs performance taken as the mean of the test results. The gong shall be struck in three different places around the periphery of the gong approximately 120° apart.

5. MARKINGS

Typical marking:- 2A. On the inside of the gong, except where shown otherwise on the drawing.

SCHEDULE OF DRAWINGS AND SPECIFICATIONS REFERRED TO IN THIS SPECIFICATION

Drawings		Specifications
CD 254	62793	D 1000
CD 255	62795	M 37
CD 256	91846	M 296 M 283
CD 257	93807	BSS 309
CD 1104	93808	BSS 1038
		BSS 1224
		BSS 1449
		BSS 2870
		BSS 1706

END OF SPECIFICATION

HISTORY

April 1973 M Weight of Bell-Gong No. 12 Amended.
November 1973 N Updated.
January 1974 P Errors Corrected. Minor Amendments.
July 1977 Q Bell-Gongs 7A, 26A and 27A added. Bell-Gong No. 25A deleted.
Reverberation clause added.

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