

BRITISH STANDARD 1227 : Part 1A : 1967

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SPECIFICATION FOR
HINGES

Part 1A. Hinges for
general building purposes

BRITISH STANDARDS INSTITUTION

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HINGES

**Part 1A. Hinges for
general building purposes**

BS 1227 : Part 1A : 1967

BRITISH STANDARDS INSTITUTION

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THIS BRITISH STANDARD, having been approved by the Hardware and Ironmongery Industry Standards Committee and endorsed by the Chairman of the Building Divisional Council, was published under the authority of the General Council on 31st March, 1967.

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The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revisions of the standards to which they refer.

A complete list of British Standards, numbering over 9,000, fully indexed and with a note of the contents of each, will be found in the BSI Catalogue which may be purchased from BSI Sales Department. The Catalogue may be consulted in many public libraries and similar institutions.

This standard makes reference to the following British Standards:

- CP 151. Doors and windows, including frames and linings.
Part 1. Wooden doors.
- BS 249. Leaded brass (58 per cent copper, 3 per cent lead) rods and sections (other than forging stock).
- BS 309. Whiteheart malleable iron castings.
- BS 407. Phosphor bronze (copper-tin-phosphorous) sheet, strip and foil.
- BS 459. Doors.
Part 1. Panelled and glazed wood doors.
Part 2. Flush doors.
Part 3. Plywood faced fire-check flush doors and wood and metal frames (half-hour and one-hour types).
Part 4. Matchboarded doors.
- BS 729. Zinc coatings on iron and steel articles.
Part 1. Hot-dip galvanized coatings.
Part 2. Sheradized coatings.



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**BS 970. Wrought steels (blooms, billets, bars and forgings).
Part 4. Stainless, heat resisting and valve steels.**

- BS 1052. Mild steel wire for general engineering purposes.
- BS 1245. Metal door frames (steel).
- BS 1449. Steel plate, sheet and strip.
- BS 1452. Grey iron castings.
- BS 1475. Wrought aluminium and aluminium alloys for general engineering purposes. Wire.
- BS 1476. Wrought aluminium and aluminium alloys for general engineering purposes. Bars and sections.
- BS 1615. Anodic oxidation coatings on aluminium.
- BS 3827. Glossary of terms relating to builders' hardware. Part 6*. Hinges, pivots and door closers.

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

* In course of preparation.

The following BSI references relate to the work on this standard:
Committee references HIB/9, HIB/9/6
Draft for comment D65/3609

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CO-OPERATING ORGANIZATIONS

The Hardware and Ironmongery Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- *Aluminium Federation
- British Ironfounders' Association
- *British Lock and Latch Manufacturers' Association
- *British Plastics Federation
- British Waterworks Association
- Copper Development Association
- *Greater London Council
- Guild of Architectural Ironmongers
- *Institution of Municipal Engineers
- Metal Window Association Ltd.
- Metropolitan Police
- *Ministry of Public Building and Works
- Ministry of Technology, Building Research Station
- *National Brassfoundry Association
- *National Federation of Builders' and Plumbers' Merchants
- National Federation of Building Trades Employers
- *National Federation of Ironmongers
- *Royal Institute of British Architects
- *Royal Institution of Chartered Surveyors
- Zinc Development Association

The Government department and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

Association of Burglary Insurance Surveyors
British Door Association
British Woodwork Manufacturers' Association
City of London Police
Door Bolt Manufacturers' Association
Furniture Industry Research Association
Hook and Band Manufacturers' Association
Incorporated Association of Architects and Surveyors
Incorporated British Institute of Certified Carpenters
Ministry of Defence, Army Department
Steel Hinge Makers' Association

BRITISH STANDARD SPECIFICATION FOR

HINGES**Part 1A. Hinges for general building purposes****FOREWORD**

When the previous edition of this British Standard became due for revision, the technical committee responsible for the revision decided that, in order to deal adequately with the subject, it should be amplified and extended to cover, first, hinges for building and, secondly, hinges for furniture. It was decided to publish Part 1A, 'Hinges for general building purposes' separately first, and it was envisaged that the further parts of the standard might consist of:

Part 1B: Spring hinges.

Part 1C: Hinges for wood casement windows*.

Part 2: Hinges for furniture and built-in joinery fittings.

The present publication covers the first of these four steps.

In this document, each class of hinge made from a particular metal is treated in an individual section. Other changes from the previous edition are as follows:

a. The inclusion of unique 'BS type reference numbers' so that each type and size of hinge can be specified by a simple three numeral or four numeral reference together with a prefix indicating specification part reference.

b. Where practicable, metals have been specified more closely.

c. The size ranges have been brought up to date.

d. The hinge for use with metal door frames has been omitted because BS 1245† contains an adequate specification for such a hinge.

The figures in this standard are diagrammatic in third angle projection and are not to scale.

Some general information on the hanging of doors can be found in British Standard Code of Practice CP 151‡, while recommendations concerning the hanging of certain standard doors are given in BS 459§, Parts 1, 2, 3 and 4.

NOTE. The values stated in British units are to be regarded as the standard. Any metric equivalents are approximate. More accurate conversions should be based on the tables in BS 350, 'Conversion factors and tables'.

* A specification for such hinges is contained at present in BS 644, Part 1, 'Wood casement windows', while hinges for steel casement windows are dealt with in BS 990, 'Steel casement windows and casement doors'.

† BS 1245, 'Metal door frames (steel)'.

‡ CP 151, 'Doors and windows, including frames and linings'. Part 1, 'Wooden doors'.

§ BS 459, 'Doors'. Part 1, 'Panelled and glazed wood doors', Part 2, 'Flush doors', Part 3, 'Plywood faced fire-check flush doors and wood and metal frames (half-hour and one-hour types)', Part 4, 'Matchboarded doors'.

SPECIFICATION

SECTION ONE : GENERAL

SCOPE



1. This British Standard specifies requirements for the materials, workmanship, construction, dimensions and weights of knuckle type hinges made of steel, cast iron, solid drawn (extruded) brass and aluminium, and band type hinges made of steel.

DEFINITIONS

2. For the purposes of this British Standard, the definitions of the following terms, given in BS 3827*, apply:

Knuckle type hinge

Band type hinge

MARKING

3. Each package containing hinges shall be marked with the following information:

- a. The manufacturer's name or trade mark,
- b. The number of this British Standard, i.e. BS 1227, Part 1A,
- c. The appropriate BS type reference number.

* BS 3827, 'Glossary of builders' hardware terms', Part 6, 'Hinges, pivots and door closers'. (In course of preparation.)

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SECTION TWO : STEEL KNUCKLE TYPE HINGES**TYPES**

4. Steel knuckle type hinges shall be of the following types. *N.B.* The names traditionally used in the trade have been retained:

a. Butt hinges

- (i) Steel broad butt hinges.
- (ii) Strong steel butt hinges.
- (iii) Narrow steel butt hinges.
- (iv) Steel Scotch butt hinges.
- (v) Extra strong double flap steel butt hinges.
- (vi) Steel rising butt hinges.
- (vii) Steel falling butt hinges.

b. Lift-off hinges

- (i) Steel lift-off hinges.

c. Backflap hinges

- (i) Steel backflap hinges.
- (ii) Steel square backflap hinges.

d. Tee hinges

- (i) Weighty steel tee hinges.
- (ii) Strong steel tee hinges.
- (iii) Medium steel tee hinges.
- (iv) Light steel tee hinges.

e. Strap hinges

- (i) Weighty steel strap hinges.
- (ii) Medium steel strap hinges.
- (iii) Light steel strap hinges.

MATERIALS

5. Steel used for flaps of steel hinges shall comply with type En 2 of BS 1449*. Steel used for the wire of pins of steel hinges shall comply with the requirements of BS 1052†.

WORKMANSHIP

6. *a. General.* The hinges shall be well made and shall be free from flaws and defects.

b. Movement. The movement of the hinge shall be firm and easy to operate when fitted.

* BS 1449, 'Steel plate, sheet and strip'.

† BS 1052, 'Mild steel wire for general engineering purposes'.

- c. *Riveting.* All riveted parts shall be firm and well headed.
- d. *Screw holes.* Screw holes shall be clean and countersunk.
- e. *Finish.* The finish of the hinges shall be as specified in Tables 1 to 17. Where alternative finishes are available, the finish required shall be stated by the purchaser at the time of ordering.

CONSTRUCTION

7. a. *General.* Steel knuckle type hinges shall comply with Figs. 1 to 17, and Tables 1 to 17.

b. *Pins.* Pins shall be riveted, except that steel butt hinges may also be supplied with loose-headed pins. Where alternative constructions are available, the type required shall be stated by the purchaser at the time of ordering.

NOTE. *Handing.* The purchaser, when ordering, should state the hand of the following types of hinge: steel rising butt hinges, steel falling butt hinges and steel lift-off hinges. (See Figs. 6, 7, and 8.)

DIMENSIONS AND TOLERANCES

8. The dimensions and tolerances of the hinges shall be those set out in Tables 1 to 17.

WEIGHTS

9. The approximate weights of the hinges are those set out in Tables 1 to 17.

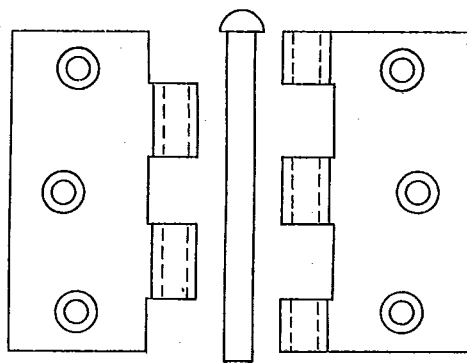
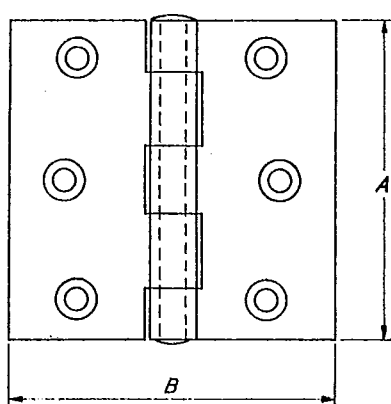
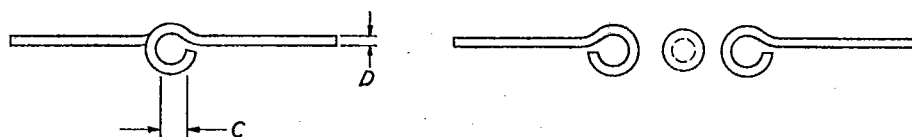


Fig. 1a. Steel broad butt hinge with riveted pin

Fig. 1b. Steel broad butt hinge with loose headed pin

Third angle projection

Fig. 1. Steel broad butt hinges

TABLE 1. DIMENSIONS AND WEIGHTS OF STEEL BROAD BUTT HINGES

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia-meter of pin	Material thickness	Holes counter-sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>			
	in	in min. max.	in min.	in min.	min.		lb approx.
1A/101	2 ± 0.008	1½ ₁₆ 2	0.203	0.072	7	4	36
1A/102	2½ ± 0.008	2½ ₁₆ 2½	0.212	0.080	7	6	54
1A/103	3 ± 0.008	2½ ₁₆ 3	0.232	0.080	8	6	83
1A/104	3½ ± 0.008	3½ ₁₆ 3½	0.232	0.100	8	6	130
1A/105	4 ± 0.008	3½ ₁₆ 4	0.238	0.104	10	8	182

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. It is recommended that loose headed pins should be designated by adding 'L' to the BS type reference number in Column 1, e.g. '1A/101L'.

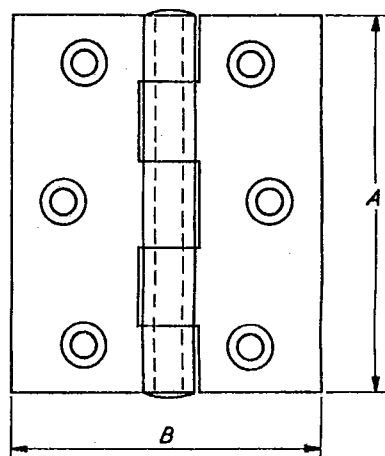
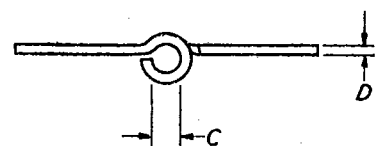
TABLE 1M. METRIC EQUIVALENTS OF TABLE 1

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia-meter of pin	Material thickness	Holes counter-sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>			
	mm	mm min. max.	mm min.	mm min.	min.		kg approx.
1A/101	50.8 ± 0.19	49.2 50.8	5.16	1.83	7	4	16.33
1A/102	63.5 ± 0.19	61.9 63.5	2.39	2.03	7	6	24.49
1A/103	76.2 ± 0.19	74.6 76.2	5.89	2.03	8	6	37.65
1A/104	88.9 ± 0.19	87.3 88.9	5.89	2.54	8	6	58.97
1A/105	101.6 ± 0.19	100.0 101.6	6.05	2.64	10	8	82.55

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. It is recommended that loose headed pins should be designated by adding 'L' to the BS type reference number in Column 1, e.g. '1A/101L'.

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Third angle projection

Fig. 2. Strong steel butt hinge

TABLE 2. DIMENSIONS AND WEIGHTS OF STRONG STEEL BUTT HINGES

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia- meter of pin	Material thickness	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>			
	in	min. in max.	in min.	in min.	min.		lb. approx.
1A/201	1½ ± 0.008	1½ ₃₂ 1½ ₃₂	0.144	0.072	7	4	18
1A/202	2 ± 0.008	1¾ ₃₂ 1¾ ₃₂	0.176	0.072	8	4	30
1A/203	2½ ± 0.008	1¾ ₃₂ 2½ ₃₂	0.176	0.080	8	6	46
1A/204	3 ± 0.008	2¾ 2¾ ₁₆	0.212	0.092	10	6	74
1A/205	3½ ± 0.008	2¾ ₁₆ 2¾	0.212	0.104	10	6	106
1A/206	4 ± 0.008	2¾ 2¾ ₁₆	0.232	0.104	10	8	138
1A/207	5 ± 0.008	3¾ ₁₆ 3¾	0.252	0.128	12	8	234
1A/208	6 ± 0.008	3¾ ₁₆ 3¾	0.276	0.128	12	8	290

Standard finish: Bright, self colour. Other finishes available if specially ordered

TABLE 2M. METRIC EQUIVALENTS OF TABLE 2

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia- meter of pin	Material thickness	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>			
	mm	mm min. max.	mm min.	mm min.	min.		kg approx.
1A/201	38.1 ± 0.19	35.7 37.3	3.66	1.83	7	4	8.16
1A/202	50.8 ± 0.19	46.8 48.4	4.47	1.83	8	4	13.61
1A/203	63.5 ± 0.19	50.0 51.6	4.47	2.03	8	6	20.87
1A/204	76.2 ± 0.19	60.3 61.9	5.38	2.34	10	6	33.57
1A/205	88.9 ± 0.19	68.3 69.9	5.38	2.64	10	6	48.08
1A/206	101.6 ± 0.19	73.0 74.6	5.89	2.64	10	8	62.60
1A/207	127.0 ± 0.19	87.3 88.9	6.40	3.25	12	8	106.14
1A/208	152.4 ± 0.19	90.5 92.1	7.01	3.25	12	8	131.54

Standard finish: Bright, self colour. Other finishes available if specially ordered

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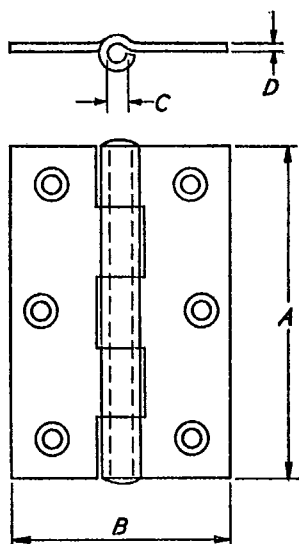


Fig. 3a. Narrow steel butt hinge with riveted pin

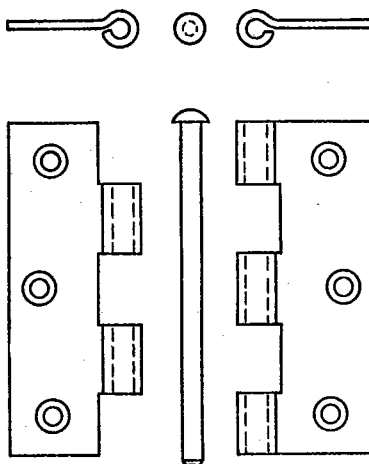


Fig. 3b. Narrow steel butt hinge with loose headed pin

Third angle projection

Fig. 3. Narrow steel butt hinges

TABLE 3. DIMENSIONS AND WEIGHTS OF NARROW STEEL BUTT HINGES

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Diameter of pin	Material thickness	Holes counter-sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	A	B	C	D			
	in	in	in	in	min.		lb. approx.
1A/301	1 + .005 - .009	min. $2\frac{9}{32}$ max. $3\frac{1}{32}$	0.104	0.047	4	4	5
1A/302	1½ + .005 - .012	1½ $2\frac{9}{32}$ 1½ $3\frac{1}{32}$	0.104	0.047	4	4	7
1A/303	1½ + .005 - .014	1½ $2\frac{9}{32}$ 1½ $3\frac{1}{32}$	0.104	0.055	5	4	11½
1A/304	2 + .005 - .014	1½ $2\frac{9}{32}$ 1½ $3\frac{1}{32}$	0.116	0.056	6	4	18½
1A/305	2½ + .008 - .014	1½ $2\frac{9}{32}$ 1½ $3\frac{1}{32}$	0.133	0.062	6	6	28½
1A/306	3 + .008 - .020	1½ $2\frac{9}{32}$ 2	0.165	0.064	7	6	42
1A/307	3½ + .008 - .022	2½ $3\frac{1}{32}$ 2½ $3\frac{1}{32}$	0.192	0.070	8	6	65
1A/308	4 + .008 - .026	2½ $3\frac{1}{32}$ 2½ $3\frac{1}{32}$	0.232	0.075	8	8	96
1A/309	5 + .008 - .026	3½ $3\frac{1}{32}$ 3½ $3\frac{1}{32}$	0.307	0.083	10	8	164
1A/310	6 + .008 - .026	3½ $3\frac{1}{32}$ 4	0.335	0.090	10	8	240



Standard finish: Bright, self colour. Other finishes available if specially ordered

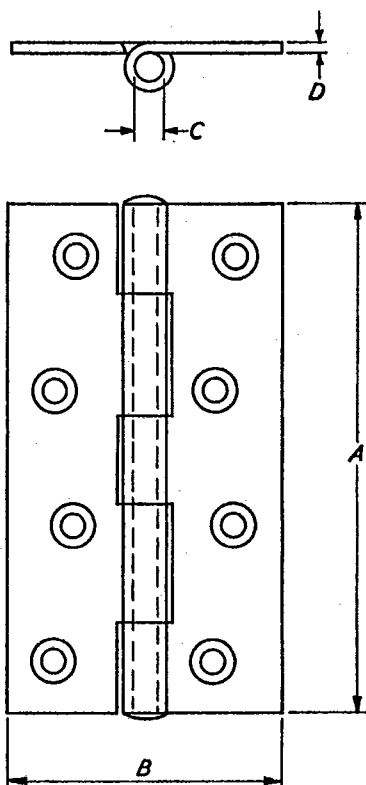
NOTE. It is recommended that loose headed pins should be designated by adding 'L' to the BS type reference, e.g. 1A/302 L.

TABLE 3M. METRIC EQUIVALENTS OF TABLE 3

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia- meter of pin	Material thick- ness	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	A	B	C	D			
	mm	mm	mm	mm	min.		kg
		min. max.	min.	min.			approx.
1A/301	25.4 + 0.13 - 0.23	23.0 24.6	2.64	1.19	4	4	2.27
1A/302	31.8 + 0.13 - 0.31	27.8 29.4	2.64	1.19	4	4	3.18
1A/303	38.1 + 0.13 - 0.36	34.1 35.7	2.64	1.40	5	4	5.33
1A/304	50.8 + 0.13 - 0.36	38.1 39.7	2.95	1.42	6	4	8.39
1A/305	63.5 + 0.19 - 0.36	42.1 43.7	3.38	1.57	6	6	12.93
1A/306	76.2 + 0.19 - 0.51	48.4 50.8	4.19	1.63	7	6	19.05
1A/307	88.9 + 0.19 - 0.56	57.9 60.3	4.88	1.78	8	6	29.48
1A/308	101.6 + 0.19 - 0.66	70.0 73.0	5.89	1.91	8	8	43.55
1A/309	127.0 + 0.19 - 0.66	81.0 84.1	7.80	2.11	10	8	74.39
1A/310	152.4 + 0.19 - 0.66	98.4 101.6	8.51	2.29	10	8	108.86

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. It is recommended that loose headed pins should be designated by adding 'L' to the BS type reference, e.g. '1A/301 L'.



Third angle projection

Fig. 4. Steel Scotch butt hinge

TABLE 4. DIMENSIONS AND WEIGHTS OF STEEL SCOTCH BUTT HINGES

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia- meter of pin	Material thickness	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	A	B	C	D			
	in	in	in	in	min.		lb
1A/401	4 ± 0.008	min. 2 $\frac{1}{4}$ ₁₆ max. 2 $\frac{1}{2}$	0.192	0.068	8	8	approx. 68
1A/402	5 ± 0.008	2 $\frac{1}{2}$ ₁₆ 2 $\frac{3}{4}$ ₁₆	0.192	0.076	8	8	106
1A/403	6 ± 0.008	2 $\frac{3}{4}$ ₁₆ 2 $\frac{1}{2}$ ₁₆	0.203	0.080	8	8	152

Also available in sizes 1 in to 3 $\frac{1}{2}$ in inclusive, details as reference numbers 1A/301 to 1A/307 inclusive

Standard finish: Bright, self colour. Other finishes available if specially ordered

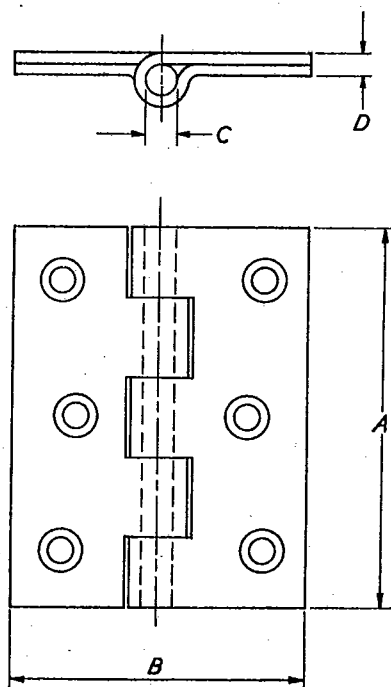
TABLE 4M. METRIC EQUIVALENTS OF TABLE 4

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia- meter of pin	Material thickness	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	A	B	C	D			
	mm	mm	mm	mm	min.		kg
1A/401	101.6 ± 0.19	min. 52.4 max. 54.0	4.88	1.73	8	8	approx. 30.84
1A/402	127.0 ± 0.19	63.5 65.1	4.88	1.93	8	8	48.08
1A/403	152.4 ± 0.19	73.0 74.6	5.13	2.03	8	8	68.95

Also available in sizes 25.4 mm to 88.9 mm inclusive, details as reference numbers 1A/301 to 1A/307 inclusive

Standard finish: Bright, self colour. Other finishes available if specially ordered

BS 1227 : Part 1A : 1967



Third angle projection

Fig. 5. Extra strong double flap steel butt hinge

TABLE 5. DIMENSIONS AND WEIGHTS OF EXTRA STRONG DOUBLE FLAP STEEL BUTT HINGES

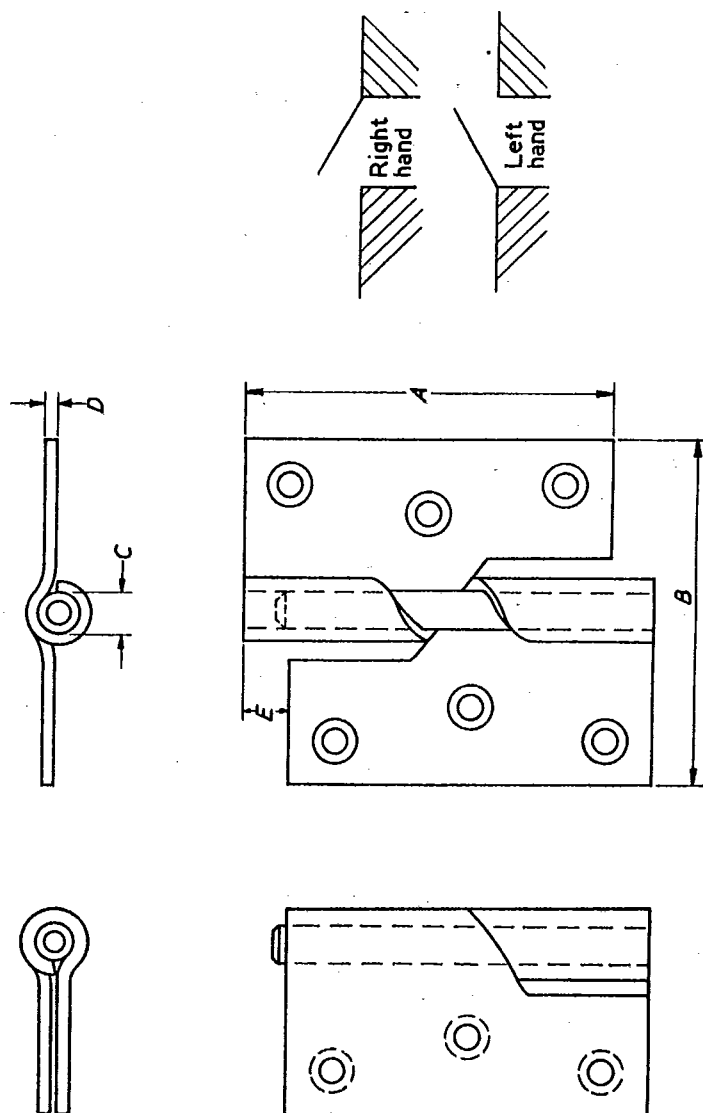
1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia-meter of pin	Material thickness	Holes counter-sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	A	B	C	D			
	in	in	in	in	min.		lb approx.
1A/501	2 ± 1/32	min. 12 3/32 max. 12 5/32	0.176	0.128	8	4	39
1A/502	2 1/2 ± 1/32	2 3/32 2 7/32	0.212	0.128	8	6	63
1A/503	3 ± 1/32	2 9/32 2 11/32	0.232	0.144	10	6	90
1A/504	3 1/2 ± 1/32	2 9/16 2 5/8	0.252	0.160	10	6	132
1A/505	4 ± 1/32	2 23/32 2 25/32	0.276	0.160	12	8	156
1A/506	5 ± 1/32	3 13/32 3 15/32	0.300	0.208	14	8	312
1A/507	6 ± 1/32	3 29/32 3 31/32	0.348	0.232	14	8	480

Standard finish: Bright, self colour. Other finishes available if specially ordered

TABLE 5M. METRIC EQUIVALENTS OF TABLE 5

1	2	3	4	5	6	7	8
BS type reference No.	Length of joint	Open width over flaps	Dia-meter of pin	Material thickness	Holes counter-sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	A	B	C	D			
	mm	mm	mm	mm	min.		kg approx.
1A/501	50.8 ± 0.79	min. 43.7 max. 45.2	4.47	3.25	8	4	17.69
1A/502	63.5 ± 0.79	54.8 56.4	5.38	3.25	8	6	28.58
1A/503	76.2 ± 0.79	57.9 59.5	5.89	3.66	10	6	40.82
1A/504	88.9 ± 0.79	65.1 66.7	6.40	4.06	10	6	59.87
1A/505	101.6 ± 0.79	69.1 70.6	7.01	4.06	12	8	70.76
1A/506	127.0 ± 0.79	86.5 88.1	7.62	5.28	14	8	141.52
1A/507	152.4 ± 0.79	99.2 100.8	8.84	5.89	14	8	217.72

Standard finish: Bright, self colour. Other finishes available if specially ordered



Third angle projection
Fig. 6. Steel rising butt hinge
NOTE. A left hand hinge is illustrated



1	2	3	4	5	6	7	8	9	10
BS type reference No.	Length of joint	Open width over flaps	Diameter of pin	Material thickness	Rise of flap when open 90°	Rise of flap when open 180°	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
				<i>D</i>		<i>E</i>			
1A/601	in	min.	in	in	in	in	min.	6	104
	3 + 0.008	2 $\frac{3}{32}$	max.	min.	min.	min.	8		
	— 0.020	2 $\frac{5}{32}$		0.312	$\frac{3}{16}$	$\frac{3}{8}$			
1A/602	3 $\frac{1}{2}$ + 0.008	2 $\frac{7}{32}$	2 $\frac{29}{32}$	0.312	$\frac{7}{32}$	$\frac{7}{16}$	10	8	136
	— 0.022								
1A/603	4 + 0.008	2 $\frac{1}{32}$	3 $\frac{1}{32}$	0.375	$\frac{7}{32}$	$\frac{7}{16}$	10	8	172
	— 0.026								

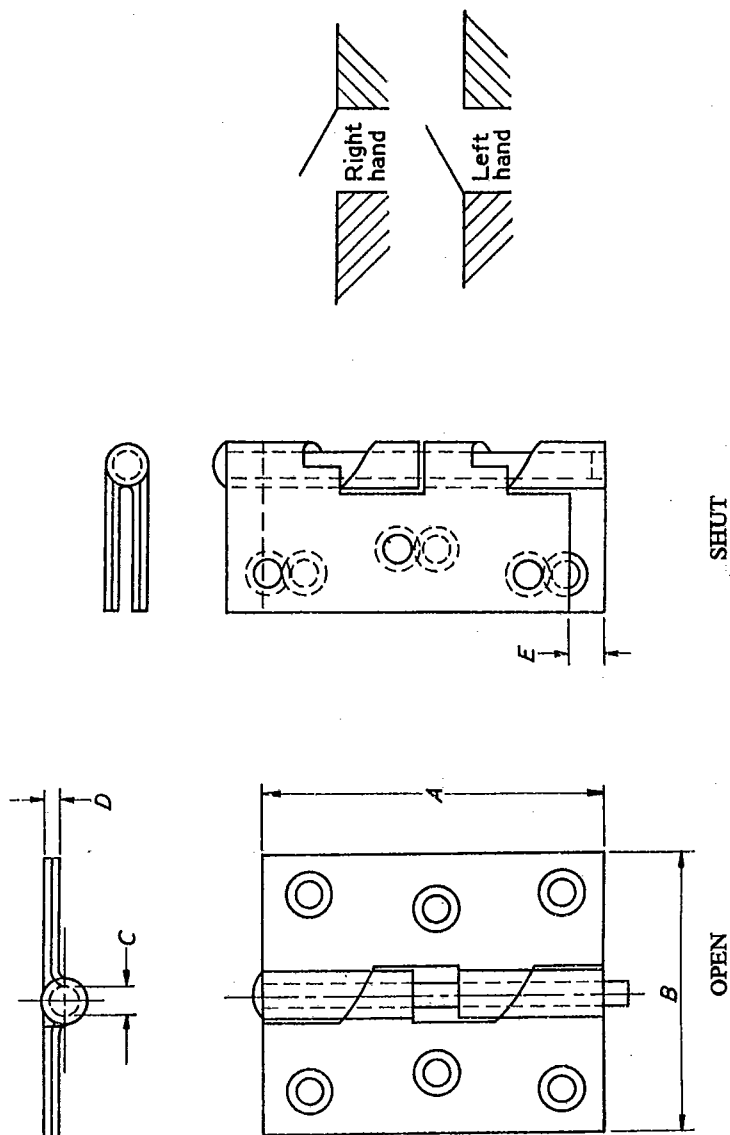
Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. These hinges are handed and it is essential that purchasers indicate, when ordering, whether left-hand or right-hand hinges are required.

1	2	3	4	5	6	7	8	9	10	
BS type reference No.	Length of joint	Open width over flaps	Diameter of pin	Material thickness		Rise of flap when open 90°	Rise of flap when open 180°	Holes counter-sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
				A	B					
	mm	mm min. max.	mm min.	mm min.	mm min.	mm min.	mm min.		kg [approx.]	
1A/601	76.2 + 0.19 — 0.51	69.1 70.6	7.92	2.64	4.8	9.5	8	6	47.17	
1A/602	88.9 + 0.19 — 0.56	72.2 73.8	7.92	2.64	5.6	11.1	10	8	61.69	
1A/603	101.6 + 0.19 — 0.66	75.4 77.0	9.53	2.92	5.6	11.1	10	8	78.02	

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. These hinges are handed and it is essential that purchasers indicate, when ordering, whether left-hand or right-hand hinges are required.



SHUT
Third angle projection
Fig. 7. Steel falling butt hinge
NOTE. A left-hand hinge is illustrated

TABLE 7. DIMENSIONS AND WEIGHTS OF STEEL FALLING BUTT HINGES

1	2	3	4	5	6	7	8	9	10
BS type reference No.	Length of joint	Open width over flaps	Diameter of pin	Material thickness	Fall of flap when open 90°	Fall of flap when open 180°	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
	A		C	D		E			
1A/701 1A/702	in	min. 2 3/8 2 1 1/4s	in min. 0.276	in min. 0.160	in	in	min. 10 10	6 8	lb /approx. 111 162
	3 ± 0.008 4 ± 0.008	max. 2 7/16 2 3/4	0.276 0.276	0.160 0.160	1/4 1/4	1 1/2 1 1/2			

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. These hinges are handed and it is essential that purchasers indicate, when ordering, whether left-hand or right-hand hinges are required.

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TABLE 7M. METRIC EQUIVALENTS OF TABLE 7

1	2	3	4	5	6	7	8	9	10
BS type reference No.	Length of joint	Open width over flaps	Diameter of pin	Material thickness	Fall of flap when open 90°	Fall of flap when open 180°	Holes counter- sunk for screw gauge No.	Number of screw holes in each hinge	Weight per gross pairs
				D					
1A/701 1A/702	mm 76.2 ± 0.19 101.6 ± 0.19	mm min. 60.3 68.3 max. 61.9 69.9	mm min. 7.01 7.01	mm min. 4.06 4.06	mm 6.35 6.35	mm 12.7 12.7	min. 10 10	6 8	kg approx. 50.35 73.48

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. These hinges are handed and it is essential that purchasers indicate, when ordering, whether left-hand or right-hand hinges are required.

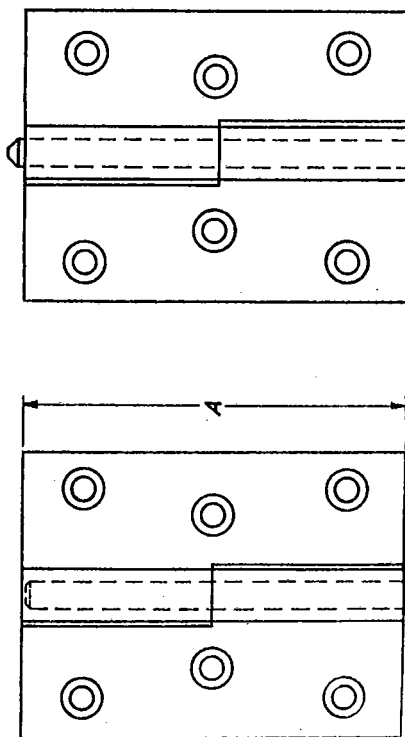
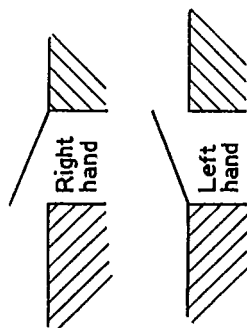


Fig. 8a. Short pin steel lift-off hinge

Fig. 8b. Long pin steel lift-off hinge

Third angle projection

Fig. 8. Steel lift-off hinge



NOTE. Left-hand hinges are illustrated.

NOTE. A pair of steel lift-off hinges consists of one short pin steel lift-off hinge and one long pin steel lift-off hinge.

TABLE 8. DIMENSIONS AND WEIGHTS OF STEEL LIFT-OFF HINGES

1	2	3	4	5	6	7	8
	Length of joint	Open width over flaps	Diameter of pin	Material thickness	Holes countersunk for screw gauge No.	Number of screw holes in each hinge	Weight per dozen pairs
BS type reference No.	A	B	C	D			
	in	min. max.	in min. max.	in min. max.	min.		lb approx.
1A/801	$2\frac{1}{2} \pm 0.008$	$2\frac{1}{2}$	0.192	0.080	8	6	$3\frac{3}{4}$
1A/802	3 ± 0.008	$2\frac{1}{2}$	0.212	0.092	10	6	$5\frac{1}{4}$
1A/803	$3\frac{1}{2} \pm 0.008$	$2\frac{1}{2}$	0.232	0.104	10	6	$8\frac{1}{2}$
1A/804	4 ± 0.008	$2\frac{3}{4}$	0.238	0.104	10	8	$10\frac{3}{4}$

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. These hinges are handed and it is essential that purchasers indicate, when ordering, whether left-hand or right-hand hinges are required.

TABLE 8M. METRIC EQUIVALENTS OF TABLE 8

1	2	3	4	5	6	7	8
	Length of joint	Open width over flaps	Diameter of pin	Material thickness	Holes countersunk for screw gauge No.	Number of screw holes in each hinge	Weight per dozen pairs
BS type reference No.	A	B	C	D			kg approx.
	mm	min. max.	mm min. max.	mm min. max.	min.		
1A/801	63.5 ± 0.19	51.6	4.88	2.03	8	6	8.27
1A/802	76.2 ± 0.19	57.1	5.38	2.34	10	6	12.68
1A/803	88.9 ± 0.19	63.5	5.89	2.64	10	6	18.74
1A/804	101.6 ± 0.19	69.9	6.05	2.64	10	8	22.60

Standard finish: Bright, self colour. Other finishes available if specially ordered

NOTE. These hinges are handed and it is essential that purchasers indicate, when ordering, whether left-hand or right-hand hinges are required.