

**KELVIN HUGHES**

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List of  
Spare Parts for

***E 2 SERIES  
COMPASSES***

TYPES  
KCA.0101, KCA.0102, & KCA.0104

**KELVIN & HUGHES (AVIATION) LIMITED** • BARKINGSIDE & BASINGSTOKE

*Sole Sales Concessionaires*

**SMITHS AIRCRAFT INSTRUMENTS LIMITED**

*The Aviation Division of S. Smith & Sons (England) Ltd* • CRICKLEWOOD • LONDON • NW2 • ENGLAND

AMENDMENT RECORD SHEET

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Fig. 2 Exploded view of Compass Type KCA-0104 (E2B). - - -	Fold-out

The information contained in this publication relates to E2 Series Compasses with Type Numbers as follows:-

<u>Type No.</u>	<u>Presentation</u>	<u>Old Code</u>
KCA-0101C	Luminous	V1042 )
KCA-0101W	White	- ) E2A
KCA-0102C	Luminous	V1043 )
KCA-0102W	White	- ) E2.
KCA-0104W	White	- E2B.



## FOREWORD

This publication lists all the recommended spare parts for E2 Series Compasses, and is divided into two parts:-

Part 1 covering types KCA-0101 (E2A) and KCA-0102 (E2)..

Part 2 covering type KCA-0104 (E2B).

To assist users who wish to hold a stock of spare parts to assess their requirements in relation to their holding of instruments, recommended spares for both 10 instrument overhauls and 50 instrument overhauls are given in the appropriate columns.

The figures given are estimated requirements for normal servicing at one repair shop, based on experience gained in the field by the Company's Service Department.

To illustrate the relationship between the various parts, the titles of certain items are displaced from the margin by one or more spaces (each space indicated by a dot).

The major assembly is set against the "Description" column margin. The parts or sub-assemblies into which this assembly is divided are displaced one space (●) to the right of the margin. If this sub-assembly is broken down into parts these are displaced a further space (●●) to the right, and so on, for corresponding further breaking down of items.

Thus, inclusion of any part or parts within a preceding item is indicated by its title being displaced a space to the right. Screws appear on the same spacing as the part which they secure.

Where parts require machining or specialised technique in the course of their assembly, they are not listed individually, and are available only in the form of an assembly, or sub-assembly.

The instruments are illustrated in Figures 1 and 2, the numbers on the drawing corresponding with the item numbers appearing in brackets in the "Remarks" column of the appropriate list.

### Amendments

Amendments to this publication will be issued in the form of reprinted sheet(s) incorporating the subject matter of the change. The page(s) affected should be destroyed and replaced by the new sheet(s). The amendment should then be recorded in the space provided on page 2.

E2 SERIES COMPASSES  
 PART 1  
 TYPES KCA-0102 (E2A) AND KCA-0102 (E2)

QTY. PER INST.	PART NUMBER	DESCRIPTION	REMARKS	QTY. PER	
				10 INST. O'HAUL	50 INST. O'HAUL
1	CE2-A2	Bellows Assembly	(1)	1	5
1	CE2-A7	Bellows Retaining Clip	(2)	-	1
1	910012	Screw, ch.hd., N.M. Br., cad.pl., 6BA x 7/8"	(3)	2	5
1	920006	Nut, N.M. Br., Cad.Pl., 6BA Hex	(4)	2	5
1	CE2-44	Retaining Clip Packing Piece	(5)	1	3
1	CE2-55	Bellows Gasket	(6)	10	50
1	CE2-A8	Stem Assembly	(7)	-	1
1	CP6-3	● Sapphire	-	2	10
1	CP6-4	● Washer for Sapphire	-	2	10
1	CE2-2	● Cupholder	(8)	-	1
2	910210	Screw, csk. hd., Nickel Silver, 8BA x 7/32"	(9) Secure CE2-A8	4	10
1	CE2-A31	Compass Card Assembly	(10) KCA-0101W & KCA-0102W only *	1	5
1	CE2-A9	Compass Card Assembly	(10) KCA-0101C & KCA-0102C only	-	-
1	CE2-4	● Pivot	-	2	10
1	CE2-6	● Pivot Nut	(11)	3	15
1	CE2-A36	Horizontal Corrector Assembly, complete with gears	(12) KCA-0101C only	1	3
1	CE2-A41	Horizontal Corrector Assembly, complete with gears	(12) KCA-0101W only	1	3
1	CE2-A37	Horizontal Corrector Assembly, complete with gears	(12) KCA-0102C only	1	3
1	CE2-A43	Horizontal Corrector Assembly, complete with gears	(12) KCA-0102W only	1	3
4	910207	Screw, csk. hd., Dural, Black Anodised, 6BA x 11/32"	(13) Secure CE2-A36, A37, A41 or A43	8	20
1	CE2-A3	Vertical Corrector Assembly, complete with gears	(14) KCA-0102C & W only	1	3
3	910403	Screw, rd. hd., Dural, Black Anodised, 8BA x 3/16"	(15) KCA-0102C & W only	6	15
1	CE2-70	Bowl	(16) KCA-0101W only	1	3
1	CE2-71	Bowl	(16) KCA-0102W only	1	3
1	CE2-49	Bowl	(16) KCA-0102C only	1	3
1	CE2-50	Bowl	(16) KCA-0101C only	1	3
1	CE2-21	Filling Plug	(17)	2	10
1	CE2-22	Filling Plug Washer	(18)	10	50
1	CE2-23	Filling Plug Disc	(19)	10	50
A/R	CE2-40	Corrector Key	-	A/R	A/R
1 1/2 oz	GS-766	Silicone Fluid, M.S. 200/3	Minimum quantity supplied: 2 pints. Also used on KCA-0104	-	-

\* CE2-A31 is also used on KCA-0104,  
spares for which are listed on Part 2.

E2 SERIES COMPASSES  
PART 2  
TYPE KCA-0104 (E2B)

QTY. PER INST.	PART NUMBER	DESCRIPTION	REMARKS	QTY. PER	
				10 INST. O'HAUL	50 INST. O'HAUL
1	CE2-A2	Bellows	(1)	1	5
1	CE2-A7	Bellows Retaining Clip	(2)	-	1
1	910012	Screw, ch. hd., N.M. Br., Cad. Pl., 6BA x 7/8"	(3)	2	5
1	920006	Nut, N.M. Br., Cad. Pl., 6BA Hex.	(4)	2	5
1	CE2-44	Retaining Clip Packing Piece	(5)	1	3
1	CE2-55	Bellows Gasket	(6)	10	50
1	CE2-A8	Stem Assembly	(7)	-	1
1	CP6-3	● Sapphire		2	10
1	CP6-4	● Washer for Sapphire		2	10
1	CE2-2	● Cupholder	(8)	-	1
2	910210	Screw, csk. hd., Nickel Silver 8BA x 7/32"	(9) Secure CE2-A8	4	10
1	CE2-A31	Compass Card Assembly	(10)	1	5
1	CE2-4	● Pivot		2	10
1	CE2-6	● Pivot Nut	(11)	3	15
1	CE2-A22	Horizontal Corrector Assembly complete with gears	(12)	1	3
4	910207	Screws, csk. hd., Dural, Black Anodised, 6BA x 11/32"	(13) Secure CE2-A22	8	20
1	CE2-56	Bowl	(16)	1	3
1	CE2-21	Filling Plug	(17)	2	10
1	CE2-22	Filling Plug Washer	(18)	10	50
1	CE2-23	Filling Plug Disc	(19)	10	50
A/R	CE2-40	Corrector Key		A/R	A/R
1	CE2-A23	Lamp Housing Assembly		-	2
1	CE2-A24	● Lamp Housing	(20)	1	5
1	CE2-A33	● Red Filter	(21)	1	5
1	CE2-64	● Spring	(22)	1	5
2	CE2-59	● Pin	(23)	2	10
1	ZR1394	● Resistor	(24)	1	5
2	910311	Screw, csk. hd., Dural, Black Anodised, 8BA x 5/32"	(25)	4	10
2	910312	Screw, csk. hd., Dural, Black Anodised, 8BA x 13/32"	(26)	4	10
1	ZV3335	Bulb	(27)	2	10
1	CE2-A25	Cap	(28)	1	5
1	CE2-A26	Lead Assembly	(29)	1	3

E2 SERIES COMPASSES  
PART 2  
TYPE KCA-0104 (E2B)

QTY. PER INST.	PART NUMBER	DESCRIPTION	REMARKS	QTY. PER	
				10 INST. O'HAUL	50 INST. O'HAUL
1	CE2-A2	Bellows	(1)	1	5
1	CE2-A7	Bellows Retaining Clip	(2)	-	1
1	910012	Screw, ch. hd., N.M. Br., Cad. Pl., 6BA x 7/8"	(3)	2	5
1	920006	Nut, N.M. Br., Cad. Pl., 6BA Hex.	(4)	2	5
1	CE2-44	Retaining Clip Packing Piece	(5)	1	3
1	CE2-55	Bellows Gasket	(6)	10	50
1	CE2-A8	Stem Assembly	(7)	-	1
1	CP6-3	● Sapphire		2	10
1	CP6-4	● Washer for Sapphire		2	10
1	CE2-2	● Cupholder	(8)	-	1
2	910210	Screw, csk. hd., Nickel Silver 8BA x 7/32"	(9) Secure CE2-A8	4	10
1	CE2-A31	Compass Card Assembly	(10)	1	5
1	CE2-4	● Pivot		2	10
1	CE2-6	● Pivot Nut	(11)	3	15
1	CE2-A22	Horizontal Corrector Assembly complete with gears	(12)	1	3
4	910207	Screws, csk. hd., Dural, Black Anodised, 6BA x 11/32"	(13) Secure CE2-A22	8	20
1	CE2-56	Bowl	(16)	1	3
1	CE2-21	Filling Plug	(17)	2	10
1	CE2-22	Filling Plug Washer	(18)	10	50
1	CE2-23	Filling Plug Disc	(19)	10	50
A/R	CE2-40	Corrector Key		A/R	A/R
1	CE2-A23	Lamp Housing Assembly		-	2
1	CE2-A24	● Lamp Housing	(20)	1	5
1	CE2-A33	● Red Filter	(21)	1	5
1	CE2-64	● Spring	(22)	1	5
2	CE2-59	● Pin	(23)	2	10
1	ZR1394	● Resistor	(24)	1	5
2	910311	Screw, csk. hd., Dural, Black Anodised, 8BA x 5/32"	(25)	4	10
2	910312	Screw, csk. hd., Dural, Black Anodised, 8BA x 13/32"	(26)	4	10
1	ZV3335	Bulb 28v .04A, Non-magnetic	(27) Inter-Service Ref. X. 959121	2	10
1	CE2-A25	Cap	(28)	1	5
1	CE2-A26	Lead and Socket Assembly (5ft.)	(29) Standard lead	As Required	
1	CE2-A39	Lead and Socket Assembly (10ft.)	Special Requirement Only		
1	ZV-3318	Dimmer Switch, Type R	A. M. Ref. 5CW/5767	As Required	



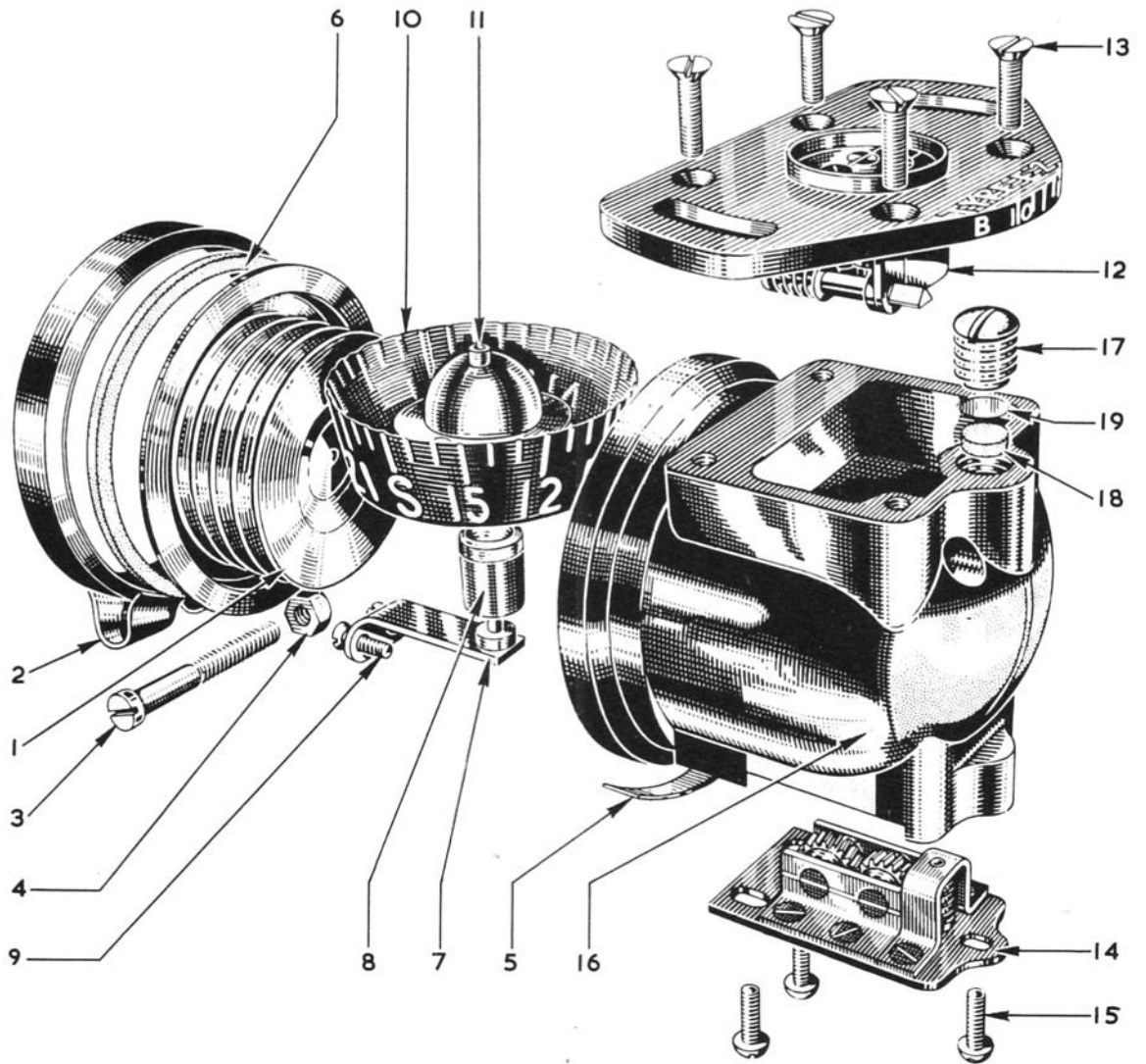


FIG. 1 EXPLODED VIEW OF COMPASS  
 TYPES KCA 0101 (E2A) AND KCA 0102 (E2)

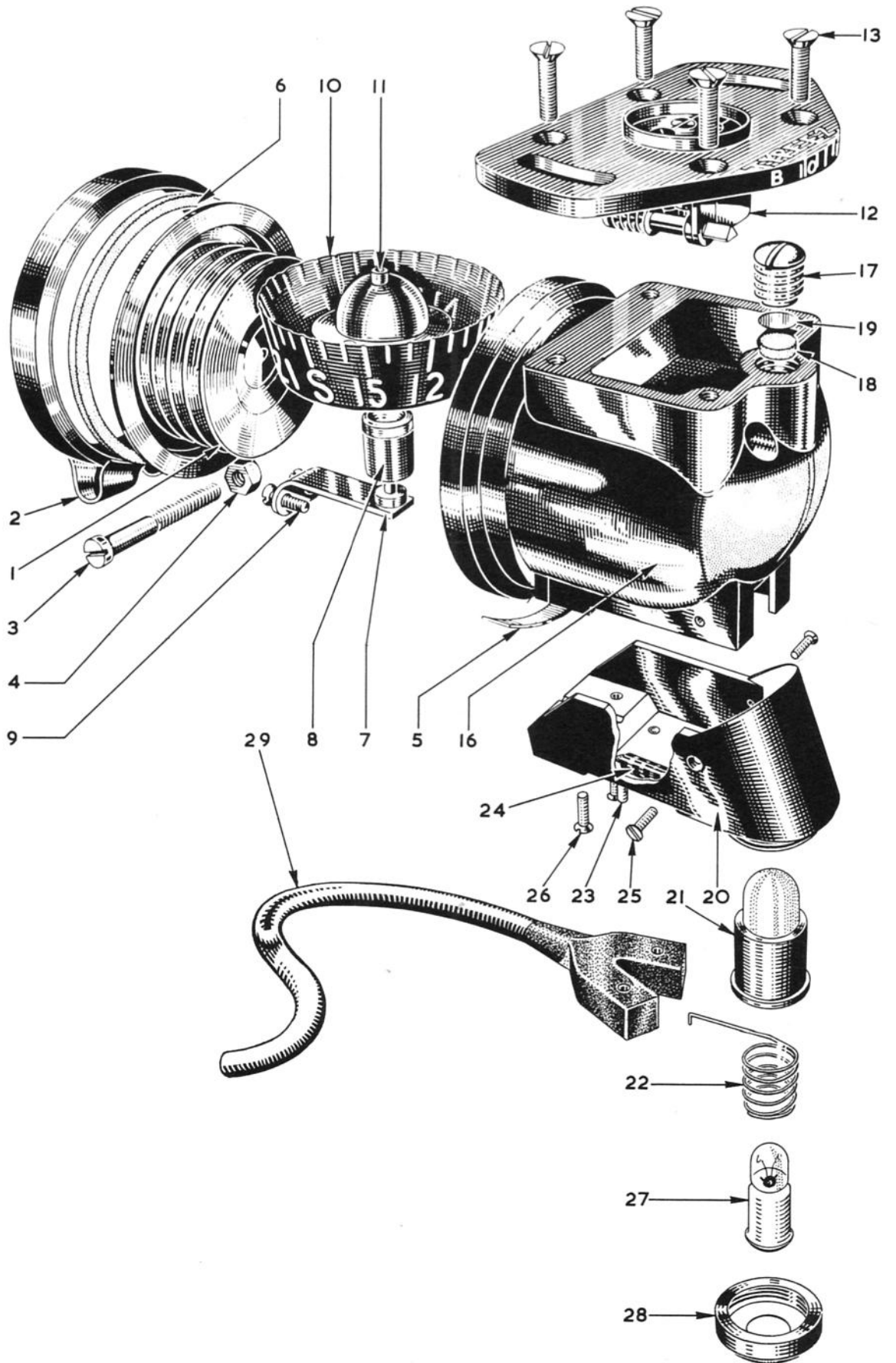


FIG. 2  
EXPLODED VIEW OF COMPASS TYPE KAC 0104 (E2 B)