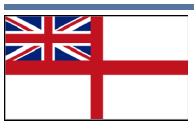


BELLEROPHON Class

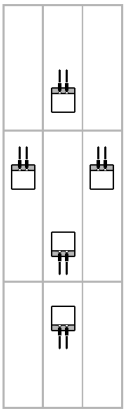
BB GREAT BRITAIN 1915 to 1917

0639-1			
Displacement	18,596 ts	*Length*	522 ft
Complement	680	*Beam*	82 ft
		Draft	31 ft

SHIP LOG SHEET

Version AOTF2023

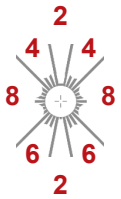
ADMIRAL OF THE FLEET



10 x 12"/50 Mk XI-XII

DIRECTORS		
2		

ARCS OF FIRE



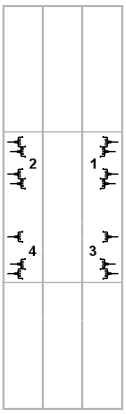
Range	
21,000 yds	42.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	19	12	14	9	11	7
10-18	13	8	10	6	8	5
19-26	11	7	8	5	6	4
27-32	9	6	7	4	5	3

PENETRATION TABLE — 56%

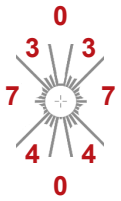
APC	SHORT		MEDIUM	LONG
YDS	4,000	10,000	18,000	21,000
ROF	5	5	4	3
HORZ	1	2	2	3
VERT	21	13	8	6



14 x 4"/50 BL Mk VII

DIRECTORS		
2		

ARCS OF FIRE



Range	
10,500 yds	21.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	11	7	7	5	5	3
10-18	8	5	5	3	4	2
19-26	6	4	4	3	3	2
27-32	5	3	4	2	3	2

PENETRATION TABLE — 14%

SAP	SHORT		MEDIUM	LONG
YDS	2,000	4,000	8,000	10,500
ROF	10	9	6	4
HORZ	0	0	0	1
VERT	4	2	1	1

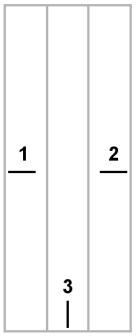
KTS	21

PROPULSION / MANEUVER

Engine Rm	2	21	12	0	0	0	0
Prop/Shaft	4	21	18	11	3	0	0
Boiler Rm	3	21	17	8	0	0	0
			0	0	0	0	0

Std Turn	
90	
Emg Turn	
120	

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			



TORPEDOES			
TT	3	RL	14

18" Mk VIII*	
Damage Class	F
Settings	
2,500/35	
4,000/29	

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	8

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

DAMAGE CONTROL (DCR) 17 9

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

BELLEROPHON, SUPERB, TEMERAIRE

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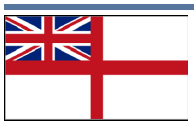


ST. VINCENT Class

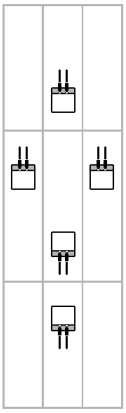
BB GREAT BRITAIN 1915 to 1917

0644-1			
Displacement	19,700 ts	*Length*	531 ft
Complement	758	*Beam*	84 ft
		Draft	28 ft

SHIP LOG SHEET

Version AOTF2023

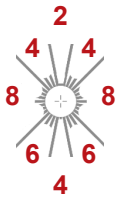
ADMIRAL OF THE FLEET



10 x 12"/50 Mk XI-XII

DIRECTORS		
2		

ARCS OF FIRE



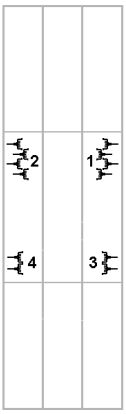
Range	
21,000 yds	42.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	19	12	14	9	11	7
10-18	13	8	10	6	8	5
19-26	11	7	8	5	6	4
27-32	9	6	7	4	5	3

PENETRATION TABLE — 56%

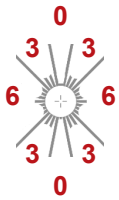
APC	SHORT		MEDIUM	LONG
YDS	4,000	10,000	18,000	21,000
ROF	5	5	4	3
HORZ	1	2	2	3
VERT	21	13	8	6



12 x 4"/50 BL Mk VII

DIRECTORS		
2		

ARCS OF FIRE



Range	
10,500 yds	21.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	11	7	7	5	5	3
10-18	8	5	5	3	4	2
19-26	6	4	4	3	3	2
27-32	5	3	4	2	3	2

PENETRATION TABLE — 14%

SAP	SHORT		MEDIUM	LONG
YDS	2,000	4,000	8,000	10,500
ROF	10	9	6	4
HORZ	0	0	0	1
VERT	4	2	1	1

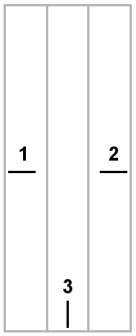
KTS	21

PROPULSION / MANEUVER

Engine Rm	2	21	12	0	0	0	0
Prop/Shaft	4	21	18	11	3	0	0
Boiler Rm	3	21	17	8	0	0	0
			0	0	0	0	0

Std Turn	
90	
Emg Turn	
120	

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			



TORPEDOES			
TT	3	RL	9

18" Mk VI*	
Damage Class	F
Settings	
4,000/35	

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	7

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

DAMAGE CONTROL (DCR) 18 9

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

COLLINGWOOD, ST. VINCENT, VANGUARD

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ORION Class
BB GREAT BRITAIN 1915 to 1917

0656-1

Displacement	22,200 ts	*Length*	576 ft
Complement	754	*Beam*	88 ft
		Draft	27.5 ft

SHIP LOG SHEET *Version* AOTF2023

ADMIRAL OF THE FLEET

10 x 13.5"/45 Mk V

DIRECTORS: 2

ARCS OF FIRE

4
6 6
10 10
6 6
4

Range	
23,000 yds	46.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	19	12	14	9	11	7
10-18	13	8	10	6	8	5
19-26	11	7	8	5	6	4
27-32	9	6	7	4	5	3

PENETRATION TABLE

64%				
APC	SHORT		MEDIUM	LONG
YDS	3,000	8,000	15,000	23,000
ROF	5	5	5	3
HORZ	0	1	2	3
VERT	22	17	12	7

16 x 4"/50 BL Mk VII

DIRECTORS: 2

ARCS OF FIRE

0
4 4
8 8
4 4
0

Range	
10,500 yds	21.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	11	7	7	5	5	3
10-18	8	5	5	3	4	2
19-26	6	4	4	3	3	2
27-32	5	3	4	2	3	2

PENETRATION TABLE

14%				
SAP	SHORT		MEDIUM	LONG
YDS	2,000	4,000	8,000	10,500
ROF	10	9	6	4
HORZ	0	0	0	1
VERT	4	2	1	1

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	8

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

19 10 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

KTS 22

PROPULSION / MANEUVER

Engine Rm	2	22	13	0	0	0	0
Prop/Shaft	4	22	19	11	3	0	0
Boiler Rm	3	22	18	8	0	0	0
			0	0	0	0	0

Std Turn	
60	
Emg Turn	
90	

1 2 3

TORPEDOES

TT	3	RL	20

21" Mk II***	
Damage Class	E
Settings	
4,000/45	
10,700/30	

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

CONQUEROR, MONARCH, ORION, THUNDERER

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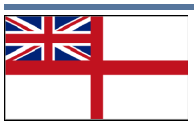


IRON DUKE Class

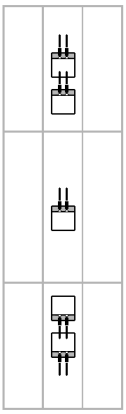
BB GREAT BRITAIN 1914 to 1916

0670-0			
Displacement	26,100 ts	*Length*	614 ft
Complement	1115	*Beam*	90 ft
		Draft	28.8 ft

SHIP LOG SHEET

Version AOTF2023

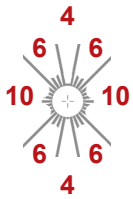
ADMIRAL OF THE FLEET



10 x 13.5"/45 Mk V

DIRECTORS		
1		

ARCS OF FIRE



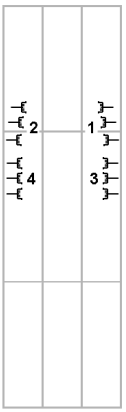
Range	
23,000 yds	46.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	19	12	14	9	11	7
10-18	13	8	10	6	8	5
19-26	11	7	8	5	6	4
27-32	9	6	7	4	5	3

PENETRATION TABLE 67%

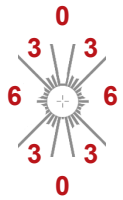
APC	SHORT		MEDIUM	LONG
YDS	3,000	8,000	18,000	23,000
ROF	5	5	5	3
HORZ	1	1	3	4
VERT	22	16	10	7



12 x 6.0"/45 BL Mk VII

DIRECTORS		
2		

ARCS OF FIRE



Range	
13,500 yds	27.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	13	8	9	6	7	5
10-18	9	6	6	4	5	3
19-26	7	5	5	3	4	3
27-32	6	4	4	3	4	2

PENETRATION TABLE 22%

CP	SHORT		MEDIUM	LONG
YDS	2,500	6,000	10,000	13,500
ROF	10	8	5	4
HORZ	0	0	1	1
VERT	5	3	2	2

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	8

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

21 | 11 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

KTS 21

PROPULSION / MANEUVER

Engine Rm	3	21	17	7	0	0	0
Prop/Shaft	4	21	18	11	3	0	0
Boiler Rm	3	21	17	8	0	0	0
			0	0	0	0	0

Std Turn		
45		
Emg Turn		
60		

TORPEDOES

TT	4	RL	20

21" Mk I	
Damage Class	F
Settings	
3,000/45	
7,000/30	

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

BENBOW, EMPEROR OF INDIA, IRON DUKE, MARLBOROUGH

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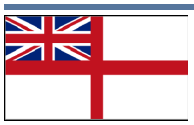


CANADA Class

BB GREAT BRITAIN 1915 to 1917

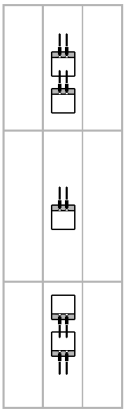
SHIP LOG SHEET

Version AOTF2023

2667-0			
Displacement	28,622 ts	*Length*	655 ft
Complement	1170	*Beam*	92 ft
		Draft	29.5 ft

Laid down as Chilean Almirante Latorre.

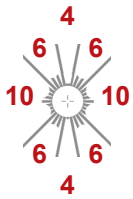
ADMIRAL OF THE FLEET



10 x 14"/45 Mk I

DIRECTORS		
1		

ARCS OF FIRE



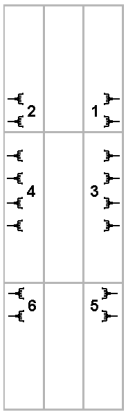
Range	
24,000 yds	48.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	19	12	14	9	11	7
10-18	13	8	10	6	8	5
19-26	11	7	8	5	6	4
27-32	9	6	7	4	5	3

PENETRATION TABLE — 70%

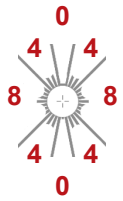
APC	SHORT		MEDIUM	LONG
YDS	3,000	8,000	18,000	24,000
ROF	6	6	5	3
HORZ	1	2	3	4
VERT	23	17	10	8



16 x 6"/50 BL Mk XVII

DIRECTORS		
2		

ARCS OF FIRE



Range	
14,000 yds	28.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	11	7	7	5	5	3
10-18	8	5	5	3	4	2
19-26	6	4	4	3	3	2
27-32	5	3	4	2	3	2

PENETRATION TABLE — 22%

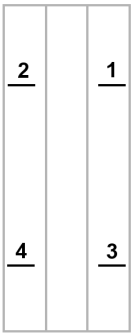
CPC	SHORT		MEDIUM	LONG
YDS	2,500	6,000	10,000	14,000
ROF	10	8	5	4
HORZ	0	0	1	1
VERT	5	3	2	2

KTS	23

PROPULSION / MANEUVER

Engine Rm	3	23	19	7	0	0	0
Prop/Shaft	4	23	20	12	3	0	0
Boiler Rm	3	23	19	8	0	0	0
			0	0	0	0	0

Std Turn	
60	
Emg Turn	
90	



TORPEDOES			
TT	4	RL	20

21" Mk I	
Damage Class	F
Settings	
3,000/45	
7,000/30	

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	2
VERTICAL	7

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

22 11 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

CANADA

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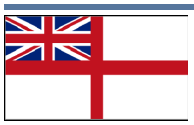


ROYAL SOVEREIGN Class

BB GREAT BRITAIN 1916 to 1917

0679-0			
Displacement	28,000 ts	*Length*	614 ft
Complement	910	*Beam*	88 ft
		Draft	30 ft

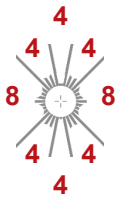
SHIP LOG SHEET *Version* AOTF2023

ADMIRAL OF THE FLEET

8 x 15"/42 Mk I

DIRECTORS		
2		

ARCS OF FIRE



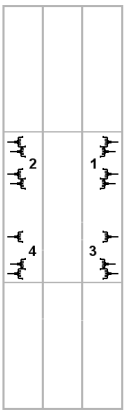
Range	
23,500 yds	47.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	19	12	14	9	11	7
10-18	13	8	10	6	8	5
19-26	11	7	8	5	6	4
27-32	9	6	7	4	5	3

PENETRATION TABLE

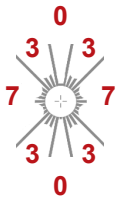
77%				
APC	SHORT		MEDIUM	LONG
YDS	3,000	8,000	18,000	23,500
ROF	5	5	5	3
HORZ	1	2	3	5
VERT	24	19	13	8



14 x 6"/45 BL Mk XII

DIRECTORS		
2		

ARCS OF FIRE



Range	
13,500 yds	27.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	13	8	9	6	7	5
10-18	9	6	6	4	5	3
19-26	7	5	5	3	4	3
27-32	6	4	4	3	4	2

PENETRATION TABLE

22%				
CPC	SHORT		MEDIUM	LONG
YDS	2,000	6,000	10,000	13,500
ROF	10	8	5	4
HORZ	0	0	1	1
VERT	5	4	2	2

KTS	22

PROPULSION / MANEUVER

Engine Rm	3	22	18	7	0	0	0
Prop/Shaft	4	22	19	11	3	0	0
Boiler Rm	3	22	18	8	0	0	0
			0	0	0	0	0

Std Turn	
45	
Emg Turn	
60	

TORPEDOES			
TT	4	RL	21

21" Mk II***	
Damage Class	E
Settings	
4,000/45	
10,700/30	

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	9

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

21 11 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

RAMILLIES, RESOLUTION, REVENGE, ROYAL OAK, ROYAL SOVEREIGN

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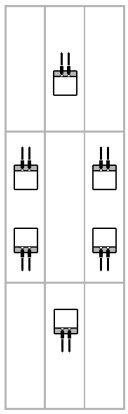
HELGOLAND Class
BB GERMANY 1914 to 1916

SHIP LOG SHEET *Version* AOTF2022A

0435-1			
Displacement	22,500 ts	*Length*	546 ft
Complement	1113	*Beam*	94 ft
		Draft	28.7 ft

Up to 54% speed loss with hard rudder (7-degree heel). Using 30.5cm M1911 APC shell.

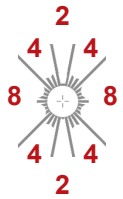
ADMIRAL OF THE FLEET



12 x 30.5cm SKL/50

DIRECTORS		
2		

ARCS OF FIRE



Range	
20,000 yds	40.0"

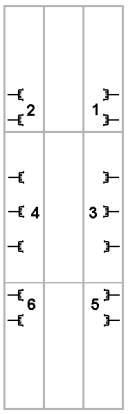
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	14	9	9	6	7	4
10-18	10	6	7	4	5	3
19-26	8	5	5	3	4	3
27-32	7	4	5	3	3	2

PENETRATION TABLE

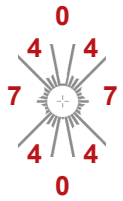
56%				
APC	SHORT		MEDIUM	LONG
YDS	4,000	10,000	18,000	20,000
ROF	7	7	6	4
HORZ	1	1	2	2
VERT	18	14	9	6



14 x 15cm SKL/45

DIRECTORS		
2		

ARCS OF FIRE



Range	
16,000 yds	32.0"

FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	9	6	6	4	5	3
10-18	7	4	4	3	3	2
19-26	5	3	4	2	3	2
27-32	5	3	3	2	2	1

PENETRATION TABLE

22%				
APC	SHORT		MEDIUM	LONG
YDS	2,500	6,000	10,000	16,000
ROF	10	8	5	4
HORZ	0	0	1	1
VERT	8	5	3	2

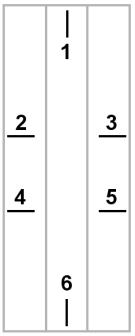
KTS	21

PROPULSION / MANEUVER

Engine Rm	3	21	17	7	0	0	0
Prop/Shaft	3	21	16	5	0	0	0
Boiler Rm	9	21	21	19	17	15	11
			8	4	1	0	0

Std Turn		
45		
Emg Turn		
90		

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			



TORPEDOES			
TT	6	RL	16

50cm G6	
Damage Class	G
Settings	
2,400/35	
5,500/27	

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	8

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

19 10 DAMAGE CONTROL (DCR)

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

HELGOLAND, OLDENBURG, OSTFRIESLAND, THURINGEN

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KAISER Class
BB GERMANY

1914 to 1916

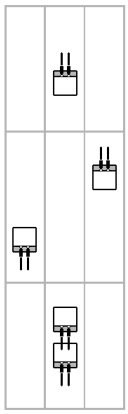
SHIP LOG SHEET

Version AOTF2022A

0443-1		*Length*	558 ft
Displacement	24,500 ts	*Beam*	95 ft
Complement	1084	*Draft*	27.25 ft

Up to 66% speed loss with hard rudder. Using 30.5cm M1911 APC shell.

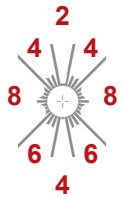
ADMIRAL OF THE FLEET



10 x 30.5cm SKL/50

DIRECTORS		
2		

ARCS OF FIRE



Range	
20,000 yds	40.0"

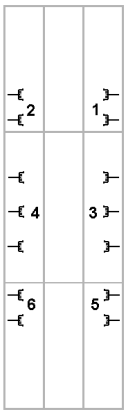
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	16	10	12	7	9	6
10-18	11	7	8	5	7	4
19-26	9	6	7	4	5	3
27-32	8	5	6	4	5	3

PENETRATION TABLE — 56%

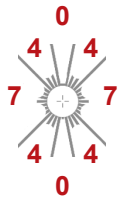
APC	SHORT		MEDIUM	LONG
YDS	4,000	10,000	18,000	20,000
ROF	7	7	6	4
HORZ	1	1	2	2
VERT	18	14	9	6



14 x 15cm SKL/45

DIRECTORS		
2		

ARCS OF FIRE



Range	
16,000 yds	32.0"

FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	13	8	9	6	7	5
10-18	9	6	6	4	5	3
19-26	7	5	5	3	4	3
27-32	6	4	4	3	4	2

PENETRATION TABLE — 22%

APC	SHORT		MEDIUM	LONG
YDS	2,500	6,000	10,000	16,000
ROF	10	8	5	4
HORZ	0	0	1	1
VERT	8	5	3	2

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	8

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

DAMAGE CONTROL (DCR) — 20 / 10

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

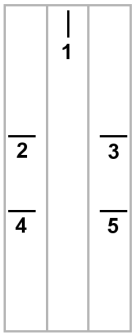
ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
03-04	128		201		302	
05-06	102		203		303	
07-08	103		205		301	
09-10	109		210		305	
11-13	104		200		306	
14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
35-37	171		217		315	
38-40	122		218		316	
41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
80-83	108		208		311	
84-87	113		212		310	
88-91	129		248		307	
92-95	148		244		308	
96-98	167		242		-	
99-00	101		241		-	

KTS	21

PROPULSION / MANEUVER

Engine Rm	6	21	20	17	12	7	2
Prop/Shaft	3	21	16	5	0	0	0
Boiler Rm	10	21	21	20	18	16	13
			10	6	3	1	0

Std Turn		
45		
Emg Turn		
60		



TORPEDOES			
TT	5	RL	20

50cm G6	
Damage Class	G
Settings	
2,400/35	
5,500/27	

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

FRIEDRICH DER GROSSE, KAISER, KAISERIN, KONIG ALBERT, PRINZREGENT LUITPOLD

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KONIG Class
BB GERMANY 1914 to 1916

SHIP LOG SHEET

Version AOTF2023

0449-0			
Displacement	25,500 ts	*Length*	568 ft
Complement	1136	*Beam*	97 ft
		Draft	29.86 ft

Very good sea boats. Up to 66% speed loss with hard rudder (8-degree heel).

ADMIRAL OF THE FLEET

10 x 30.5cm SKL/50

DIRECTORS		
2		

ARCS OF FIRE

4
6 6
10 10
6 6
4

Range	
20,000 yds	40.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	16	10	12	7	9	6
10-18	11	7	8	5	7	4
19-26	9	6	7	4	5	3
27-32	8	5	6	4	5	3

PENETRATION TABLE 56%

APC	SHORT		MEDIUM	LONG
YDS	4,000	10,000	18,000	20,000
ROF	7	7	6	4
HORZ	1	1	2	2
VERT	18	14	9	6

14 x 15cm SKL/45

DIRECTORS		
2		

ARCS OF FIRE

0
3 3
7 7
4 4
0

Range	
15,500 yds	31.0"
FC Radar	+ 0
None	

GUNNERY (FCS)

TARGET	SHORT		MEDIUM		LONG	
SPEED	BRD	NAR	BRD	NAR	BRD	NAR
0-9	13	8	9	6	7	5
10-18	9	6	6	4	5	3
19-26	7	5	5	3	4	3
27-32	6	4	4	3	4	2

PENETRATION TABLE 22%

APC	SHORT		MEDIUM	LONG
YDS	2,500	6,000	10,000	15,500
ROF	10	8	5	4
HORZ	0	0	1	1
VERT	8	5	3	2

KTS	21

PROPULSION / MANEUVER

Engine Rm	6	21	20	17	12	7	2
Prop/Shaft	3	21	16	5	0	0	0
Boiler Rm	9	21	21	19	17	15	11
			8	4	1	0	0

Std Turn		
45		
Emg Turn		
60		

Speed Increase	00-10 kt	11-14 kt	15+ kt			
	3.0	2.0	1.0			

1
2 3
4 5

TORPEDOES			
TT	5	RL	16

50cm G6	
Damage Class	G
Settings	
2,400/35	
5,500/27	

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3	5	6	8	9	10	12	13	15	16	18	19	21	22	24	26	27	28	30
EMG	NA	NA	NA	NA	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Targ Sz	Crew	Sea
2		

Searchlights	Port	Stbd

PROTECTION

ARMOR VALUE	
HORIZONTAL	3
VERTICAL	9

HIT LOCATION

RANGE	HORZ	VERT
SHORT	01-05	06-00
MEDIUM	01-19	20-00
LONG	01-39	40-00

DAMAGE CONTROL (DCR) 20 10

FLAG COMMAND RATING (FCR)

W1-2

DAMAGE DETERMINATION

ROLL	CLASS 1		CLASS 2		CLASS 3	
01-02	100		202		304	
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14-16	106		204		307	
17-19	107		206		308	
20-22	105		207		310	
23-25	110		211		311	
26-28	112		213		312	
29-31	121		214		313	
32-34	144		215		314	
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41-43	135		219		317	
44-46	132		220		318	
47-49	145		221		-	
50-52	123		222		-	
53-55	124		223		316	
56-58	125		224		-	
59-61	127		226		317	
62-64	141		227		-	
65-67	133		229		318	
68-70	126		230		-	
71-73	118		231		-	
74-76	116		237		-	
77-79	115		238		-	
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96-98	167		242		-	
99-00	101		241		-	

GUNNERY RECORD

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	RNDS	TBL	H	

T#	RANGE	TARGET	SETNG	TORPS	ANG	TGT MOVE	ARRIVE

Ships In Class

GROSSER KURFURST, KONIG, KRONPRINZ WILHELM, MARKGRAF

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