Indefatigable

CB GREAT BRITAIN 1921 PLAN

5666-0 G3 Class

Displacement	48,400 ts	*Length*	850 ft		
Complement	1716	*Beam*	106 ft	*Launched*	
		Draft	33 ft	*Completed*	

SEEKRIEG 5

SHIP LOG SHEET *Version* 9/10/2005

9 x 16"/45 Mk I — 57

Max ROF		Range		Shell Size/Weight	
1.3	sh/min	39,090 yds	78.2"	16.0"	2048.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
1	1F3	None		COM	HE
AA	0.0	Level	S	Ammunition	100 rpg / 900

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	23	16	18	13	15	11	14	10
10 - 18	18	12	14	10	12	8	10	7
19 - 27	15	11	12	8	10	7	9	6
28 - 36	13	9	10	7	9	6	8	5
37 - 45	12	9	10	7	8	6	7	5

APCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.3	2.0	1.8	1.6	1.4
Rge	S	S	S	S	S	M	M	M	M	L	L	L	L	E
H	0.5	0.8	1.1	1.5	1.8	2.1	2.9	3.3	3.6	4.1	5.0	6.2	8.4	12.0
V	32.6	30.3	28.1	26.1	24.1	22.3	19.8	17.7	16.0	14.5	13.3	12.2	11.2	9.9

16 x 6"/50 BL Mk XXII — 16

Max ROF		Range		Shell Size/Weight	
6.0	sh/min	25,800 yds	51.6"	6.0"	100.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
2	2G3	None		COM	HE
AA	2.7	Level	V	Ammunition	150 rpg / 2400

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

CPCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.9	6.8	5.8	5.0	4.3	3.7	2.9	2.3	1.9	1.5	1.3			
Rge	S	S	S	S	M	M	L	L	E	E	E			
H	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.3	2.0	2.4	2.7			
V	10.7	8.9	7.3	5.9	4.6	3.6	2.3	2.1	2.1	2.2	2.2			

6 x 4.7"/40 QF Mk VIII — 12

Max ROF		Range		Shell Size/Weight	
12.0	sh/min	16,160 yds	32.3"	4.7"	50.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
2	2G3	None		COM	HE
AA	2.7	Level	V	Ammunition	200 rpg / 1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

HE — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.6	6.2	4.9	4.0	3.2	2.7	2.0	1.6						
Rge	S	S	M	M	L	L	E	E						
H	0.1	0.2	0.3	0.4	0.5	0.8	1.5	1.8						
V	5.7	3.9	2.8	2.3	1.6	1.5	1.4	1.3						

Coal (ts)	0	Oil (ts)	5000	Radius (nm/kts)	Search Radar	ASW MORTARS/ATW	DEPTH CHARGES	
Engines	SR GT				None		Rack	
Boilers	20 Yarrow				None		Ammo	

Crew	Sea	BR	Targ Sz	Ops
			3	

AIRCRAFT

Aircraft	2			Catapult	0
2F1 Camel			2	0	20
108 kts	98 kts	17300 ft			

P S

TORPEDOES

TT	2	Ammo	20
24.5" Mk I			
Damage Class	C		
Settings			
15,000/35			
20,000/30			

MINES

RAPID FIRE BATTERIES

RF1	40	2pdr QF Mk I,II			
Max Rg	3,800	7.6"		7	5
Eff Rg	1,710	3.4"		11	8
RF 10	Port	20	16	11	7	3
	Stbd	20	16	11	7	3
AA L	Port	113	90	62	37	17
	Stbd	113	90	62	37	17

RF2		None
Max Rg		
Eff Rg		
RF 0	Port	
	Stbd	
AA	Port	
	Stbd	

RF3		None
Max Rg		
Eff Rg		
RF	Port	
	Stbd	
AA	Port	
	Stbd	

Captain	

Final design from the 1921 battlecruiser design studies

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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TIER	DP
1/70	400
2/80	799
3/75	1199
4/85	1598
5/80	1998
6/90	2358
7/85	2717
8/95	3077
9/90	3437
10	3796
10	4036

DP	3996
KTS	31

Engine Rm	3	31	25	10	0	0	0
Prop/Shaft	4	31	27	16	4	0	0
Boiler Rm	9	31	30	29	26	22	16
			11	6	2	0	0

Standard Turn	
30	
Emergency Turn	
45	

Target Sz	
3	
Searchlights	
Port	Stbd

Speed Increase	00-04 kt	05-17 kt	18-20 kt	21-24 kt	25+ kt	
	5.0	4.0	3.0	2.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		10

Fuel Code	

ARMOR	0.85	Actual
1H DECK	6.8	8.0
2H TURRET	6.8	8.0
3H SUPERSTR	3.7	4.4
4V CON	11.9	14.0
5V BELT MID	11.9	14.0
6V BELT END	0.0	0.0
7V BARBETTE	11.9	14.0
8V TURRET	14.5	17.0
9V SUPERSTR	5.1	6.0

Indefatigable

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS #/#	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

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	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

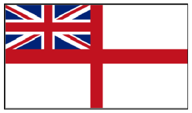
SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity	T#	Fire	Current Severity

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity



Indomitable

CB GREAT BRITAIN 1921 PLAN

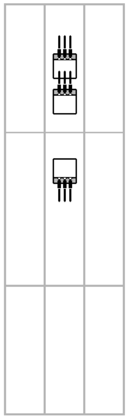
5665-0 G3 Class

Displacement	48,400 ts	Length	850 ft		
Complement	1716	Beam	106 ft	Launched	
		Draft	33 ft	Completed	

SEEKRIEG 5

SHIP LOG SHEET

Version 9/10/2005



9 x 16"/45 Mk I — 57

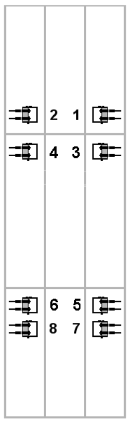
Max ROF		Range		Shell Size/Weight	
1.3	sh/min	39,090 yds	78.2"	16.0"	2048.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
1	1F3	None		COM	HE
AA 0.0	Level S	Ammunition	100 rpg	900	

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	23	16	18	13	15	11	14	10
10 - 18	18	12	14	10	12	8	10	7
19 - 27	15	11	12	8	10	7	9	6
28 - 36	13	9	10	7	9	6	8	5
37 - 45	12	9	10	7	8	6	7	5

APCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.3	2.0	1.8	1.6	1.4
Rge	S	S	S	S	S	M	M	M	M	L	L	L	L	E
H	0.5	0.8	1.1	1.5	1.8	2.1	2.9	3.3	3.6	4.1	5.0	6.2	8.4	12.0
V	32.6	30.3	28.1	26.1	24.1	22.3	19.8	17.7	16.0	14.5	13.3	12.2	11.2	9.9



16 x 6"/50 BL Mk XXII — 16

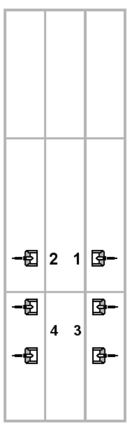
Max ROF		Range		Shell Size/Weight	
6.0	sh/min	25,800 yds	51.6"	6.0"	100.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
2	2G3	None		COM	HE
AA 2.7	Level V	Ammunition	150 rpg	2400	

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

CPCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.9	6.8	5.8	5.0	4.3	3.7	2.9	2.3	1.9	1.5	1.3			
Rge	S	S	S	S	M	M	L	L	E	E	E			
H	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.3	2.0	2.4	2.7			
V	10.7	8.9	7.3	5.9	4.6	3.6	2.3	2.1	2.1	2.2	2.2			



6 x 4.7"/40 QF Mk VIII — 12

Max ROF		Range		Shell Size/Weight	
12.0	sh/min	16,160 yds	32.3"	4.7"	50.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
2	2G3	None		COM	HE
AA 2.7	Level V	Ammunition	200 rpg	1200	

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

HE — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.6	6.2	4.9	4.0	3.2	2.7	2.0	1.6						
Rge	S	S	M	M	L	L	E	E						
H	0.1	0.2	0.3	0.4	0.5	0.8	1.5	1.8						
V	5.7	3.9	2.8	2.3	1.6	1.5	1.4	1.3						

Coal (ts)	0	Oil (ts)	5000	Radius (nm/kts)		Search Radar	ASW MORTARS/ATW	DEPTH CHARGES	
Engines	SR GT					None		Rack	
Boilers	20 Yarrow					None		Ammo	

Crew	Sea	BR	Targ Sz	Ops
			3	

AIRCRAFT

Aircraft	2	Catapult	0
2F1 Camel		2 0 20	
108 kts	98 kts	17300 ft	

P S

TORPEDOES

TT	2	Ammo	20
24.5" Mk I			
Damage Class	C		
Settings			
15,000/35			
20,000/30			

MINES

RAPID FIRE BATTERIES

RF1	40	2pdr QF Mk I,II				
Max Rg	3,800	7.6"	7	5		
Eff Rg	1,710	3.4"	11	8		
RF 10	Port	20	16	11	7	3
	Stbd	20	16	11	7	3
AA L	Port	113	90	62	37	17
	Stbd	113	90	62	37	17

RF2		None
Max Rg		
Eff Rg		
RF 0	Port	
	Stbd	
AA	Port	
	Stbd	

RF3		None
Max Rg		
Eff Rg		
RF	Port	
	Stbd	
AA	Port	
	Stbd	

Captain

Final design from the 1921 battlecruiser design studies

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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TIER	DP
1/70	400
2/80	799
3/75	1199
4/85	1598
5/80	1998
6/90	2358
7/85	2717
8/95	3077
9/90	3437
10	3796
10	4036

DP	3996
KTS	31

Engine Rm	3	31	25	10	0	0	0
Prop/Shaft	4	31	27	16	4	0	0
Boiler Rm	9	31	30	29	26	22	16
			11	6	2	0	0

Standard Turn	
30	
Emergency Turn	
45	

Target Sz	
3	
Searchlights	
Port	Stbd

Speed Increase	00-04 kt	05-17 kt	18-20 kt	21-24 kt	25+ kt	
	5.0	4.0	3.0	2.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		10

Fuel Code	

ARMOR	0.85	Actual
1H DECK	6.8	8.0
2H TURRET	6.8	8.0
3H SUPERSTR	3.7	4.4
4V CON	11.9	14.0
5V BELT MID	11.9	14.0
6V BELT END	0.0	0.0
7V BARBETTE	11.9	14.0
8V TURRET	14.5	17.0
9V SUPERSTR	5.1	6.0

Indomitable

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS #/#	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

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	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Inflexible

CB GREAT BRITAIN 1921 PLAN

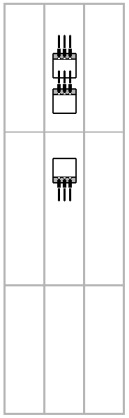
5664-0 G3 Class

Displacement	48,400 ts	*Length*	850 ft	
Complement	1716	*Beam*	106 ft	*Launched*
		Draft	33 ft	*Completed*

SEEKRIEG 5

SHIP LOG SHEET

Version 9/10/2005



9 x 16"/45 Mk I — 57

Max ROF	Range	Shell Size/Weight
1.3 sh/min	39,090 yds 78.2"	16.0" 2048.0 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
1	None		COM	HE
1F3				

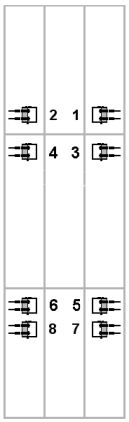
AA	0.0	Level	S	Ammunition	100 rpg	900

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	23	16	18	13	15	11	14	10
10 - 18	18	12	14	10	12	8	10	7
19 - 27	15	11	12	8	10	7	9	6
28 - 36	13	9	10	7	9	6	8	5
37 - 45	12	9	10	7	8	6	7	5

APCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.3	2.0	1.8	1.6	1.4
Rge	S	S	S	S	S	M	M	M	M	L	L	L	L	E
H	0.5	0.8	1.1	1.5	1.8	2.1	2.9	3.3	3.6	4.1	5.0	6.2	8.4	12.0
V	32.6	30.3	28.1	26.1	24.1	22.3	19.8	17.7	16.0	14.5	13.3	12.2	11.2	9.9



16 x 6"/50 BL Mk XXII — 16

Max ROF	Range	Shell Size/Weight
6.0 sh/min	25,800 yds 51.6"	6.0" 100.0 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
2	None		COM	HE
2G3				

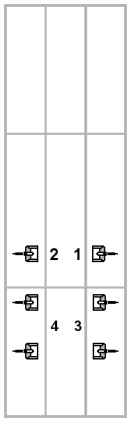
AA	2.7	Level	V	Ammunition	150 rpg	2400

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

CPCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.9	6.8	5.8	5.0	4.3	3.7	2.9	2.3	1.9	1.5	1.3			
Rge	S	S	S	S	M	M	L	L	E	E	E			
H	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.3	2.0	2.4	2.7			
V	10.7	8.9	7.3	5.9	4.6	3.6	2.3	2.1	2.1	2.2	2.2			



6 x 4.7"/40 QF Mk VIII — 12

Max ROF	Range	Shell Size/Weight
12.0 sh/min	16,160 yds 32.3"	4.7" 50.0 lbs.

Fire Control	FC Radar	+ 0	AP	SAP
2	None		COM	HE
2G3				

AA	2.7	Level	V	Ammunition	200 rpg	1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

HE — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.6	6.2	4.9	4.0	3.2	2.7	2.0	1.6						
Rge	S	S	M	M	L	L	E	E						
H	0.1	0.2	0.3	0.4	0.5	0.8	1.5	1.8						
V	5.7	3.9	2.8	2.3	1.6	1.5	1.4	1.3						

Coal (ts)	0	Oil (ts)	5000
Engines	SR GT		
Boilers	20 Yarrow		

Radius (nm/kts)	

Search Radar
None
None

ASW MORTARS/ATW			DEPTH CHARGES		
			Rack		
			Ammo		

Crew	Sea	BR	Targ Sz	Ops
			3	

AIRCRAFT

Aircraft	2			Catapult	0	
2F1 Camel				2	0	20
108 kts	98 kts	17300 ft				

P S

TORPEDOES

TT	2	Ammo	20

24.5" Mk I

Damage Class C

Settings

15,000/35

20,000/30

MINES

RAPID FIRE BATTERIES

RF1	40	2pdr QF Mk I,II			
Max Rg	3,800	7.6"	7	5	
Eff Rg	1,710	3.4"	11	8	

RF						
10	Port	20	16	11	7	3
	Stbd	20	16	11	7	3
AA	Port	113	90	62	37	17
L	Stbd	113	90	62	37	17

RF2		None
Max Rg		
Eff Rg		

RF							
0	Port						
	Stbd						
AA	Port						
	Stbd						

RF3		None
Max Rg		
Eff Rg		

RF							
	Port						
	Stbd						
AA	Port						
	Stbd						

Captain	

Final design from the 1921 battlecruiser design studies

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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TIER	DP
1/70	400
2/80	799
3/75	1199
4/85	1598
5/80	1998
6/90	2358
7/85	2717
8/95	3077
9/90	3437
10	3796
10	4036

DP	3996
KTS	31

Engine Rm	3	31	25	10	0	0	0
Prop/Shaft	4	31	27	16	4	0	0
Boiler Rm	9	31	30	29	26	22	16
			11	6	2	0	0

Standard Turn	
30	
Emergency Turn	
45	

Target Sz	
3	
Searchlights	
Port	Stbd

Speed Increase	00-04 kt	05-17 kt	18-20 kt	21-24 kt	25+ kt	
	5.0	4.0	3.0	2.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		10

Fuel Code	

ARMOR	0.85	Actual
1H DECK	6.8	8.0
2H TURRET	6.8	8.0
3H SUPERSTR	3.7	4.4
4V CON	11.9	14.0
5V BELT MID	11.9	14.0
6V BELT END	0.0	0.0
7V BARBETTE	11.9	14.0
8V TURRET	14.5	17.0
9V SUPERSTR	5.1	6.0

Inflexible

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS #/#	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

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	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity					T#	Fire	Current Severity				

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity

Invincible

CB GREAT BRITAIN 1921 PLAN

5667-0 G3 Class

Displacement	48,400 ts	*Length*	850 ft	
Complement	1716	*Beam*	106 ft	*Launched*
		Draft	33 ft	*Completed*

SEEKRIEG 5

SHIP LOG SHEET

Version 9/10/2005

9 x 16"/45 Mk I — 57

Max ROF		Range		Shell Size/Weight	
1.3	sh/min	39,090 yds	78.2"	16.0"	2048.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
1	1F3	None		COM	HE
AA	0.0	Level	S	Ammunition	100 rpg / 900

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	23	16	18	13	15	11	14	10
10 - 18	18	12	14	10	12	8	10	7
19 - 27	15	11	12	8	10	7	9	6
28 - 36	13	9	10	7	9	6	8	5
37 - 45	12	9	10	7	8	6	7	5

APCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.3	2.0	1.8	1.6	1.4
Rge	S	S	S	S	S	M	M	M	M	L	L	L	L	E
H	0.5	0.8	1.1	1.5	1.8	2.1	2.9	3.3	3.6	4.1	5.0	6.2	8.4	12.0
V	32.6	30.3	28.1	26.1	24.1	22.3	19.8	17.7	16.0	14.5	13.3	12.2	11.2	9.9

16 x 6"/50 BL Mk XXII — 16

Mount numbers: 2 1, 4 3, 6 5, 8 7

Max ROF		Range		Shell Size/Weight	
6.0	sh/min	25,800 yds	51.6"	6.0"	100.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
2	2G3	None		COM	HE
AA	2.7	Level	V	Ammunition	150 rpg / 2400

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

CPCBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.9	6.8	5.8	5.0	4.3	3.7	2.9	2.3	1.9	1.5	1.3			
Rge	S	S	S	S	M	M	L	L	E	E	E			
H	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.3	2.0	2.4	2.7			
V	10.7	8.9	7.3	5.9	4.6	3.6	2.3	2.1	2.1	2.2	2.2			

6 x 4.7"/40 QF Mk VIII — 12

Mount numbers: 2 1, 4 3

Max ROF		Range		Shell Size/Weight	
12.0	sh/min	16,160 yds	32.3"	4.7"	50.0 lbs.
Fire Control		FC Radar	+ 0	AP	SAP
2	2G3	None		COM	HE
AA	2.7	Level	V	Ammunition	200 rpg / 1200

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	16	11	13	9	11	7	10	6
10 - 18	12	8	10	6	8	5	7	5
19 - 27	11	7	8	6	7	5	6	4
28 - 36	9	6	7	5	6	4	5	4
37 - 45	9	6	7	4	6	4	5	3

HE — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.6	6.2	4.9	4.0	3.2	2.7	2.0	1.6						
Rge	S	S	M	M	L	L	E	E						
H	0.1	0.2	0.3	0.4	0.5	0.8	1.5	1.8						
V	5.7	3.9	2.8	2.3	1.6	1.5	1.4	1.3						

Coal (ts)	0	Oil (ts)	5000	Radius (nm/kts)	Search Radar	ASW MORTARS/ATW	DEPTH CHARGES
Engines	SR GT				None		Rack
Boilers	20 Yarrow				None		Ammo

Crew	Sea	BR	Targ Sz	Ops
			3	

AIRCRAFT

Aircraft	2	Catapult	0
2F1 Camel			2 0 20
108 kts	98 kts	17300 ft	

P S

TORPEDOES

TT	2	Ammo	20
24.5" Mk I			
Damage Class	C		
Settings			
15,000/35			
20,000/30			

MINES

RAPID FIRE BATTERIES

RF1	40	2pdr QF Mk I,II			
Max Rg	3,800	7.6"	7	5	
Eff Rg	1,710	3.4"	11	8	
RF 10	Port	20	16	11	7	3
	Stbd	20	16	11	7	3
AA L	Port	113	90	62	37	17
	Stbd	113	90	62	37	17

RF2	None
Max Rg	
Eff Rg	
RF 0	Port
	Stbd
AA	Port
	Stbd

RF3	None
Max Rg	
Eff Rg	
RF	Port
	Stbd
AA	Port
	Stbd

Captain

Final design from the 1921 battlecruiser design studies

T#	BTTY	TARGET SHIP	SHELL	FCS	BR	H	RANGE	R	#RNDS	HITS

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TIER	DP
1/70	400
2/80	799
3/75	1199
4/85	1598
5/80	1998
6/90	2358
7/85	2717
8/95	3077
9/90	3437
10	3796
10	4036

DP	3996
KTS	31

Engine Rm	3	31	25	10	0	0	0
Prop/Shaft	4	31	27	16	4	0	0
Boiler Rm	9	31	30	29	26	22	16
			11	6	2	0	0

Standard Turn	
30	
Emergency Turn	
45	

Target Sz	
3	
Searchlights	
Port	Stbd

Speed Increase	00-04 kt	05-17 kt	18-20 kt	21-24 kt	25+ kt	
	5.0	4.0	3.0	2.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		10

Fuel Code	

Invincible

ARMOR	0.85	Actual
1H DECK	6.8	8.0
2H TURRET	6.8	8.0
3H SUPERSTR	3.7	4.4
4V CON	11.9	14.0
5V BELT MID	11.9	14.0
6V BELT END	0.0	0.0
7V BARBETTE	11.9	14.0
8V TURRET	14.5	17.0
9V SUPERSTR	5.1	6.0

T#	DE #	SEVERITY	DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	CODE	ORDER
																				AF	Obey signals from Flagship
																				AI	Independent Action
																				AX	Battle Stations!
																				AA	Abandon ship!
																				AZ	Strike colors
COURSE AND SPEED																					
																				CA	Midships steady
																				CP #	Alter course to PORT
																				CS #	Alter course to STARBOARD
																				SF	Ahead full
																				SR#	Revolutions for # knots
																				SA	Full astern
																				SS	All stop
ILLUMINATION AND EVASION																					
																				EX	Evasive action
																				KX	Lay smoke
																				IS #/#	Illuminate using starshell
																				IL #	Illuminate using searchlight
TORPEDO AND AIRCRAFT																					
																				TR (X)	Prepare to launch torpedoes to (X)
																				TL (X)	Launch torpedoes to (X)
																				VL	Prepare to launch aircraft
																				VX	Launch aircraft
PRIMARY BATTERY																					
																				B1D	Directed fire as range permits
																				B1V	Coordinated fire
																				B1L	Local control as range permits
																				B1P	Split fire
																				B1C	Change target
																				B1B	Barrage fire as range permits
SECONDARY BATTERY																					
																				B2D	Directed fire as range permits
																				B2L	Local control as range permits
																				B2P	Split fire
																				B2C	Change target
																				B2B	Barrage fire as range permits
TERTIARY AND RF BATTERY																					
																				B3D	Directed fire as range permits
																				B3L	Local Control as range permits
																				B3P	Split fire
																				B3C	Change target
																				R5B	Barrage fire as range permits
																				R6B	Barrage fire as range permits
																				R7B	Barrage fire as range permits

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	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

DEG OF TURN	SEGMENTS
TO 15	2 Segments*
16 TO 45	2 Segments
46 TO 90	3 Segments
91 TO 135	4 Segments
136 TO 180	5 Segments

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity	T#	Fire	Current Severity

FIGHTING SHIPBOARD FIRES

NO DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-03	-20 from severity
04-12	-10 from severity
13-50	No change
51-85	+10 to severity
86-95	+30 to severity
96-00	+40 to severity

DAMAGE CONTROL	
ROLL	EFECT ON FIRE
01-05	Fire extinguished
06-15	-30 from severity
16-45	-20 from severity
46-75	-10 from severity
76-90	No change
91-00	+10 to severity