

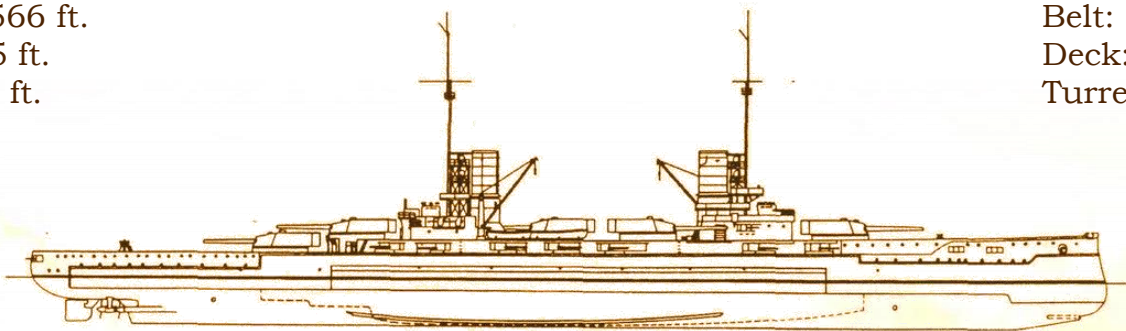
1. SMS FRIEDRICH DER GROSSE

(October 1912)

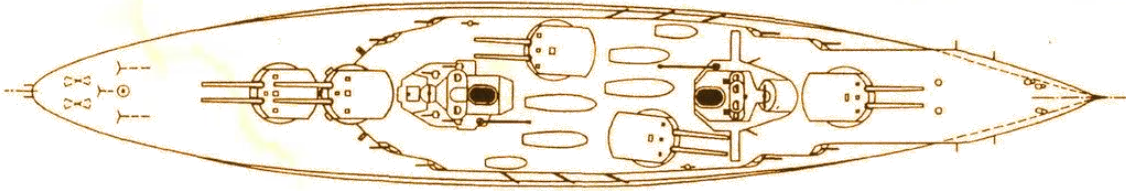
Germany

Displacement: 27,000 tons
Length: 566 ft.
Beam: 95 ft.
Draft: 30 ft.

Armor
Belt: 14 in.
Deck: 2 ½ in.
Turrets: 12 in.



Astern:
6—12 in.



Ahead:
4—12 in.

Broadside: 8—12 in.

SMS *Friedrich der Grosse* is the second ship of the *Kaiser*-class of battleships. The *Kaiser*-class is the third class of German dreadnoughts, and the first to feature turbine engines and superfiring turrets. The *Kaiser*-class mounts main guns that are smaller than those of their British rivals: 12.0 in, compared to the 13.5 in guns of the British *Orion*-class.

Guns: 5 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines	
3 shaft, 3 steam turbines; 27,617 shaft horsepower	
Max speed: 21 kts.	
Turning diameter: 1,000 yds.	

Torpedoes		
		2 x 20 in. port (submerged)
		2 x 20 in. starboard (submerged)
X		1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

2. SMS KÖNIG

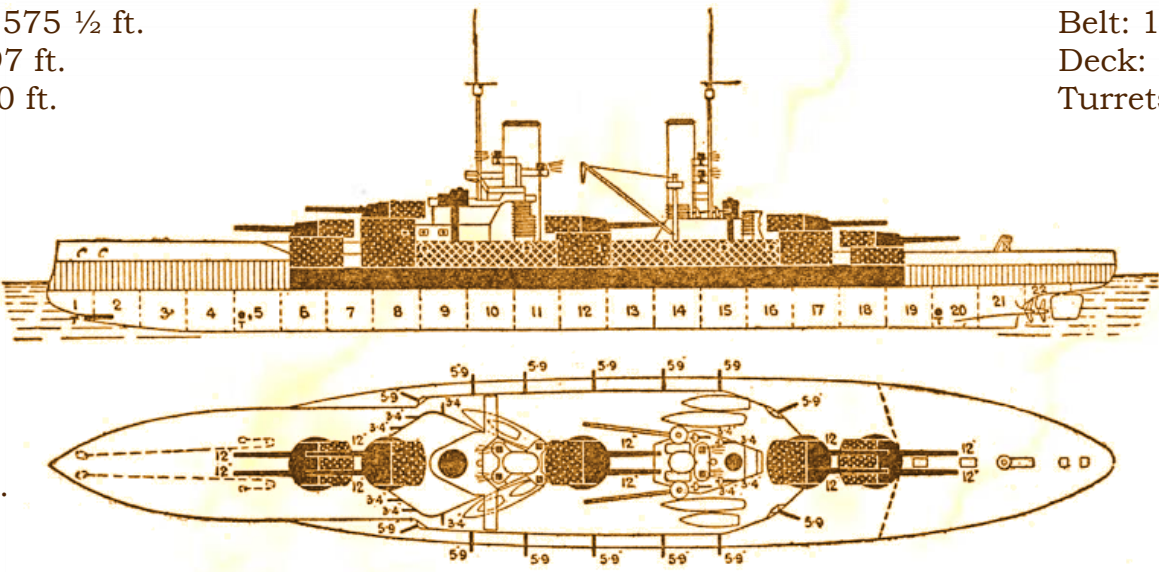
(August 1914) Germany

Displacement: 28,600 tons
Length: 575 ½ ft.
Beam: 97 ft.
Draft: 30 ft.

Armor

Belt: 14 in.
Deck: 1 ½ in.
Turrets: 12 in.

Ahead:
4—12 in.



Astern:
4—12 in.

Broadside: 10—12 in.

The *König*-class is an improvement over the preceding *Kaiser*-class; one of the primary changes being in the disposition of the main gun battery. The *König* class abandons the use of main-gun wing turrets; instead, a second turret was moved forward and placed in a superfiring arrangement, and a single rear-facing turret was mounted centerline amidships.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	3 shaft, 3 steam turbines; 44,483 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17	Torpedoes	
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		2 x 20 in. port (submerged)
6,000	0.76	16,000	0.09		2 x 20 in. starboard (submerged)
7,000	0.63	17,000	0.07		1 x 20 in. stern (submerged)
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03		

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

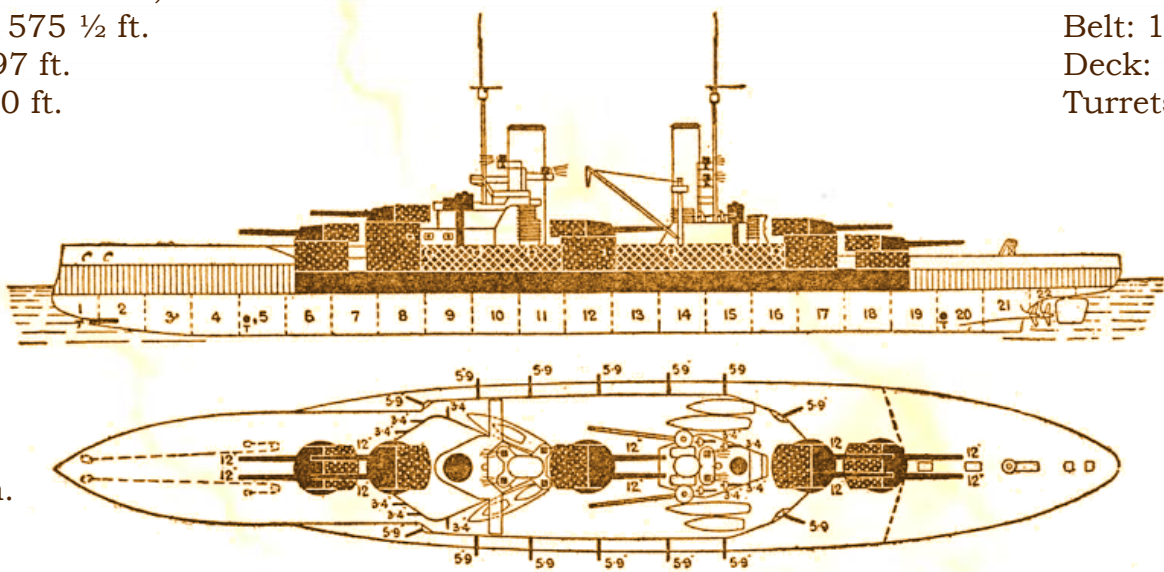
3. SMS GROSSER KURFÜRST

(July 1914)

Germany

Displacement: 28,600 tons
Length: 575 ½ ft.
Beam: 97 ft.
Draft: 30 ft.

Armor
Belt: 14 in.
Deck: 1 ½ in.
Turrets: 12 in.



Ahead:
4—12 in.

Astern:
4—12 in.

Broadside: 10—12 in.

SMS *Grosser Kurfürst* is the second battleship of the four-ship *König* class. *Grosser Kurfürst* was laid down in October 1911 and launched on 5 May 1913. *Grosser Kurfürst* is armed with ten 12.0 in guns in five twin turrets and steams at a top speed of 21 knots.

Guns: 5 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines	
3 shaft, 3 steam turbines; 44,483 shaft horsepower	
Max speed: 21 kts.	
Turning diameter: 1,000 yds.	

Torpedoes		
		2 x 20 in. port (submerged)
		2 x 20 in. starboard (submerged)
X		1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

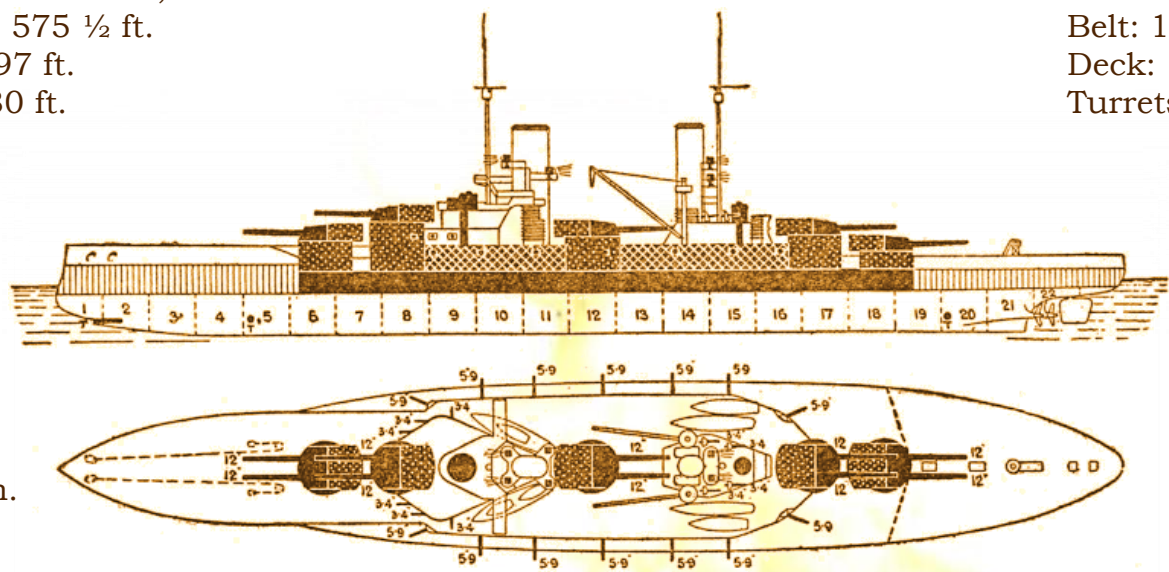
4. SMS KRONPRINZ

(November 1914)

Germany

Displacement: 28,600 tons
Length: 575 ½ ft.
Beam: 97 ft.
Draft: 30 ft.

Armor
Belt: 14 in.
Deck: 1 ½ in.
Turrets: 12 in.



Ahead:
4—12 in.

Astern:
4—12 in.

Broadside: 10—12 in.

SMS *Kronprinz* is the last battleship of the four-ship *König* class. The *König*-class is an improvement over the *Kaiser*-class; the *König* class abandons the use of main-gun wing turrets; instead, a second turret was moved forward and placed in a superfiring arrangement, and a single rear-facing turret was mounted centerline amidships.

Guns: 5 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines	
3 shaft, 3 steam turbines; 44,483 shaft horsepower	
Max speed: 21 kts.	
Turning diameter: 1,000 yds.	

Torpedoes	
	2 x 20 in. port (submerged)
	2 x 20 in. starboard (submerged)
X	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 28,600 tons
Length: 575 ½ ft.
Beam: 97 ft.
Draft: 30 ft.

Armor

Belt: 14 in.
Deck: 1 ½ in.
Turrets: 12 in.

Ahead:
4—12 in.

Broadside: 10—12 in.

Astern:
4—12 in.

SMS *Markgraf* is the third battleship of the four-ship *König* class. The *König*-class is an improvement over the *Kaiser*-class; the *König* class abandons the use of main-gun wing turrets; instead, a second turret was moved forward and placed in a superfiring arrangement, and a single rear-facing turret was mounted centerline amidships.

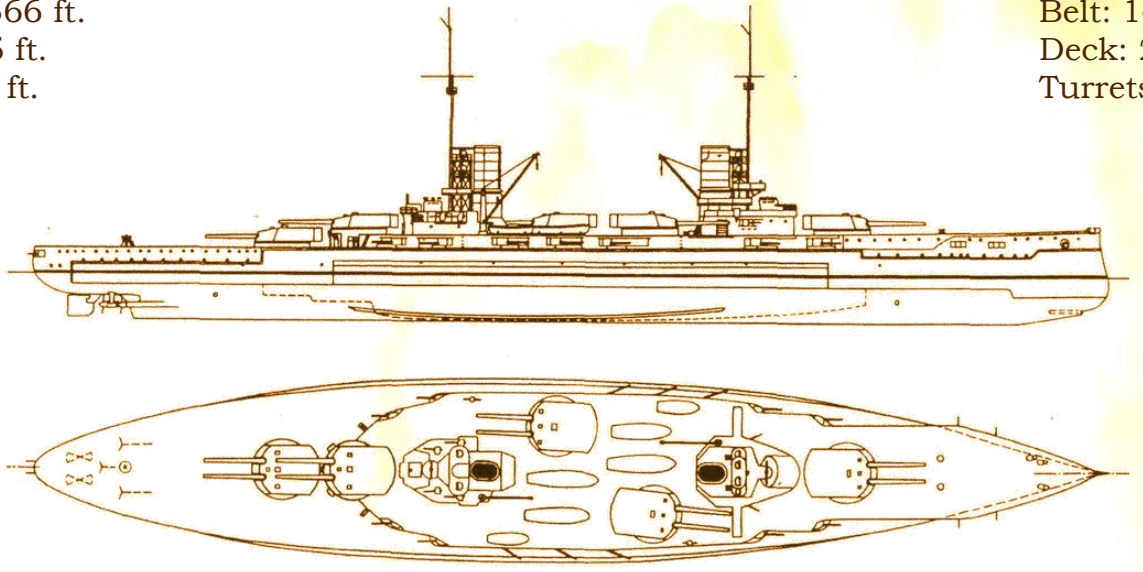
Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	3 shaft, 3 steam turbines; 44,483 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17	Torpedoes	
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		2 x 20 in. port (submerged)
6,000	0.76	16,000	0.09		2 x 20 in. starboard (submerged)
7,000	0.63	17,000	0.07		1 x 20 in. stern (submerged)
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03		

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 27,000 tons
Length: 566 ft.
Beam: 95 ft.
Draft: 30 ft.

Armor
Belt: 14 in.
Deck: 2 ½ in.
Turrets: 12 in.



A detailed line drawing of the SMS Kaiser battleship. The top view shows the ship's hull, gun turrets, and masts. The side view shows the ship's profile, including the main gun turrets, secondary armament, and masts. The ship is shown from a perspective that highlights its length and the placement of its main armament.

Astern:
6—12 in.

Ahead:
4—12 in.

Broadside: 8—12 in.

SMS *Kaiser* is the lead ship of the *Kaiser*-class of battleships of the German Imperial Navy. The *Kaiser*-class is the third class of German dreadnoughts, and the first to feature turbine engines and superfiring turrets. The *Kaiser*-class mounts main guns that are smaller than those of their British rivals: 12.0 in, compared to the 13.5 in guns of the British *Orion*-class.

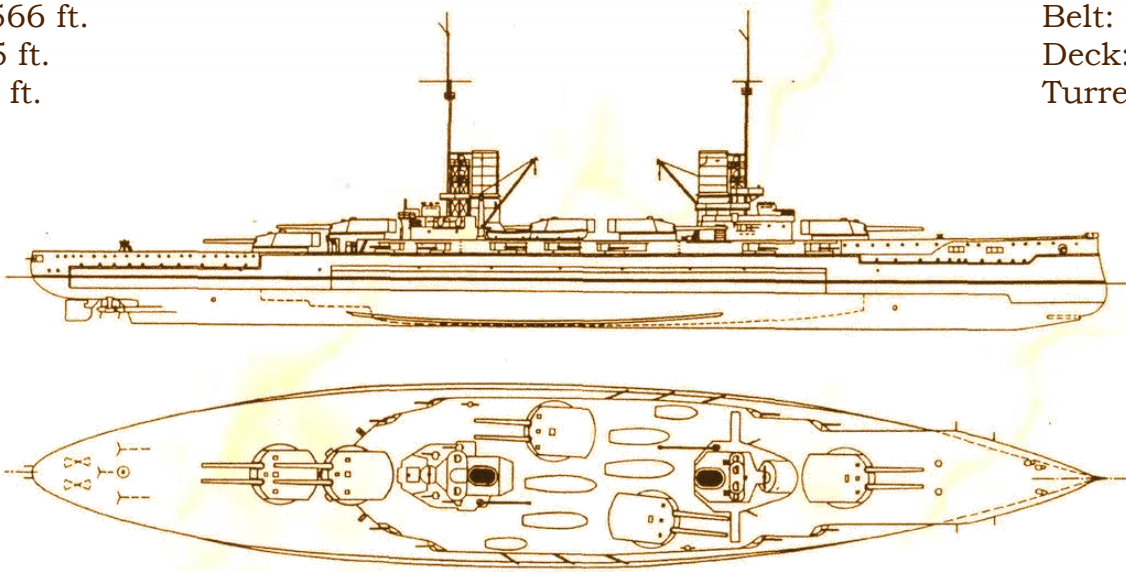
Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	3 shaft, 3 steam turbines; 27,617 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
					2 x 20 in. port (submerged)
					2 x 20 in. starboard (submerged)
				X	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 27,000 tons
Length: 566 ft.
Beam: 95 ft.
Draft: 30 ft.

Armor
Belt: 14 in.
Deck: 2 ½ in.
Turrets: 12 in.



Astern:
6—12 in.

Ahead:
4—12 in.

Broadside: 8—12 in.

SMS *Kaiserin* is the third ship of the *Kaiser*-class of battleships of the German Imperial Navy. The *Kaiser*-class is the third class of German dreadnoughts, and the first to feature turbine engines and superfiring turrets. The *Kaiser*-class mounts main guns that are smaller than those of their British rivals: 12.0 in, compared to the 13.5 in guns of the British *Orion*-class.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	3 shaft, 3 steam turbines; 27,617 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
					2 x 20 in. port (submerged)
					2 x 20 in. starboard (submerged)
				X	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

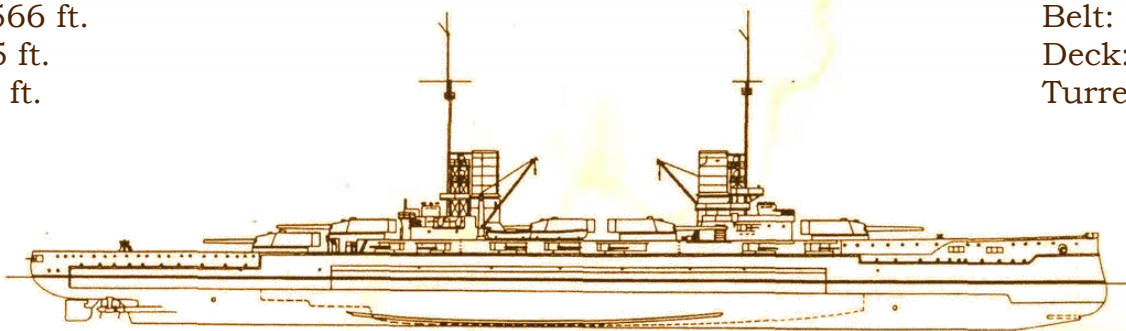
8. SMS PRINZREGENT LIUTPOLD

(August 1913)

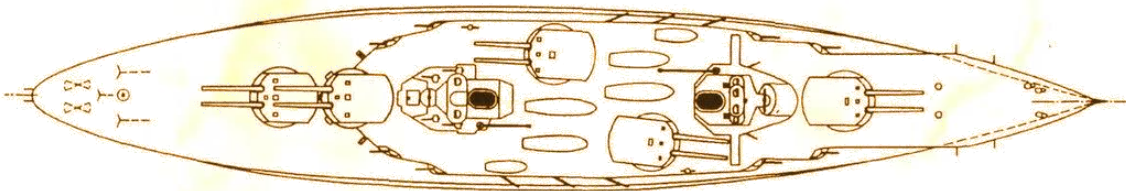
Germany

Displacement: 27,000 tons
Length: 566 ft.
Beam: 95 ft.
Draft: 30 ft.

Armor
Belt: 14 in.
Deck: 2 ½ in.
Turrets: 12 in.



Astern:
6—12 in.



Ahead:
4—12 in.

Broadside: 8—12 in.

SMS *Prinzregent Liutpold* is the fifth ship and final ship of the *Kaiser*-class of battleships. The *Kaiser*-class is the third class of German dreadnoughts, and the first to feature turbine engines and superfiring turrets. The *Kaiser*-class mounts main guns that are smaller than those of their British rivals: 12.0 in, compared to the 13.5 in guns of the British *Orion*-class.

Guns: 5 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines	
3 shaft, 3 steam turbines; 27,617 shaft horsepower	
Max speed: 21 kts.	
Turning diameter: 1,000 yds.	

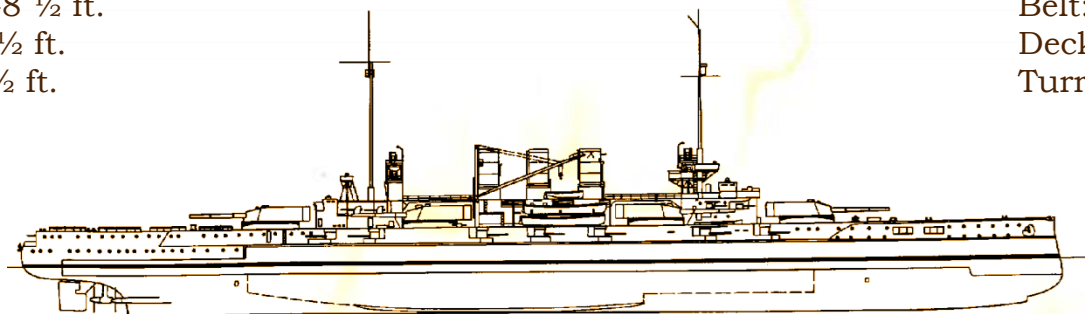
Torpedoes		
		2 x 20 in. port (submerged)
		2 x 20 in. starboard (submerged)
X		1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

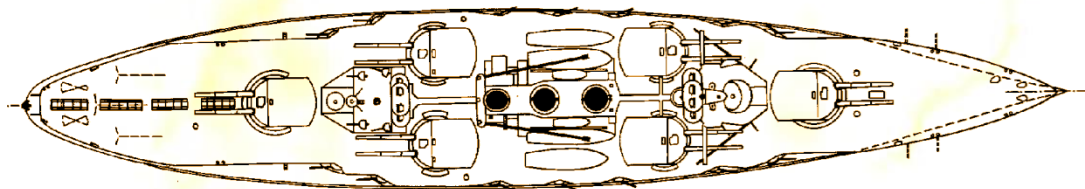
Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 24,700 tons
Length: 548 ½ ft.
Beam: 93 ½ ft.
Draft: 29 ½ ft.

Armor
Belt: 12 in.
Deck: 2 ½ in.
Turrets: 12 in.



Astern:
6—12 in.



Ahead:
6—12 in.

Broadside: 8—12 in.

SMS *Thüringen* is the third vessel of the *Helgoland*-class of dreadnought battleships. The *Helgoland*-class is a significant improvement over the previous *Nassau*-class ships; they have a larger main battery and an improved propulsion system. The *Helgolands* are easily distinguished by the three closely arranged funnels.

Guns: 6 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines	
3 shaft, 4 cylinder vertical triple expansion; 27,617 shaft horsepower	
Max speed: 21 kts.	
Turning diameter: 1,000 yds.	

Torpedoes	
✕	1 x 20 in. bow (submerged)
	2 x 20 in. port (submerged)
	2 x 20 in. starboard (submerged)
✕	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

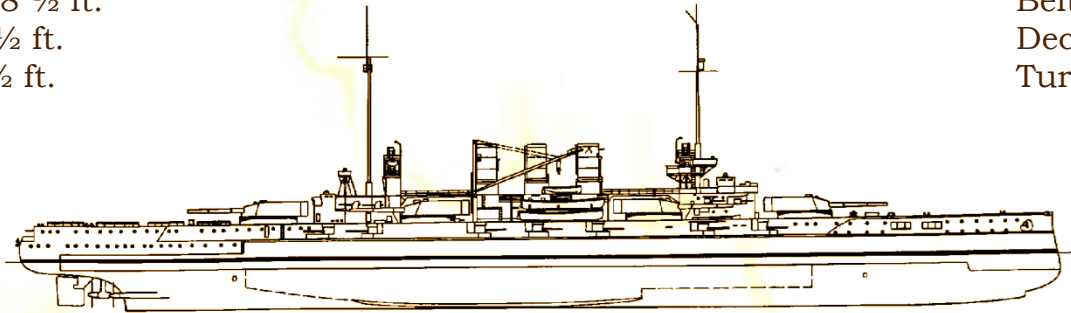
10. SMS HELGOLAND

(August 1911)

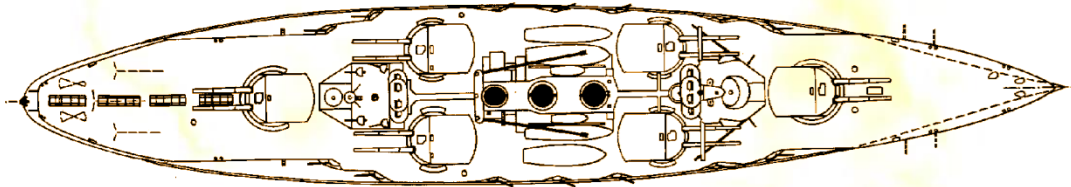
Germany

Displacement: 24,700 tons
Length: 548 ½ ft.
Beam: 93 ½ ft.
Draft: 29 ½ ft.

Armor
Belt: 12 in.
Deck: 2 ½ in.
Turrets: 12 in.



Astern:
6—12 in.



Ahead:
6—12 in.

Broadside: 8—12 in.

SMS *Helgoland* is the lead ship of the *Helgoland*-class of dreadnought battleships. The *Helgoland*-class is a significant improvement over the previous *Nassau*-class ships; they have a larger main battery and an improved propulsion system. The *Helgolands* are easily distinguished by the three closely arranged funnels.

Guns: 6 x 2 – 12 in.

Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines

3 shaft, 4 cylinder vertical triple expansion;
27,617 shaft horsepower

Max speed: 21 kts.
Turning diameter: 1,000 yds.

Torpedoes

×	1 x 20 in. bow (submerged)
	2 x 20 in. port (submerged)
	2 x 20 in. starboard (submerged)
×	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 24,700 tons

Length: 548 ½ ft.

Beam: 93 ½ ft.

Draft: 29 ½ ft.

Astern:
6—12 in.

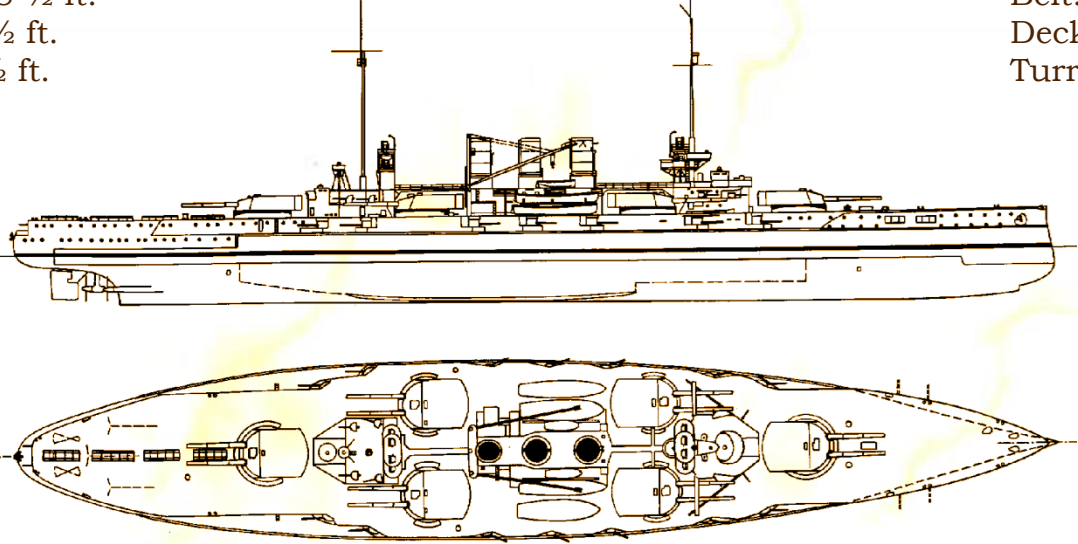
Ahead:
6—12 in.

Armor

Belt: 12 in.

Deck: 2 ½ in.

Turrets: 12 in.



Broadside: 8—12 in.

SMS *Oldenburg* is the fourth ship of the *Helgoland*-class of dreadnought battleships. The *Helgoland*-class is a significant improvement over the previous *Nassau*-class ships; they have a larger main battery and an improved propulsion system. The *Helgolands* are easily distinguished by the three closely arranged funnels.

Guns: 6 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines		
3 shaft, 4 cylinder vertical triple expansion; 27,617 shaft horsepower		
Max speed: 21 kts. Turning diameter: 1,000 yds.		

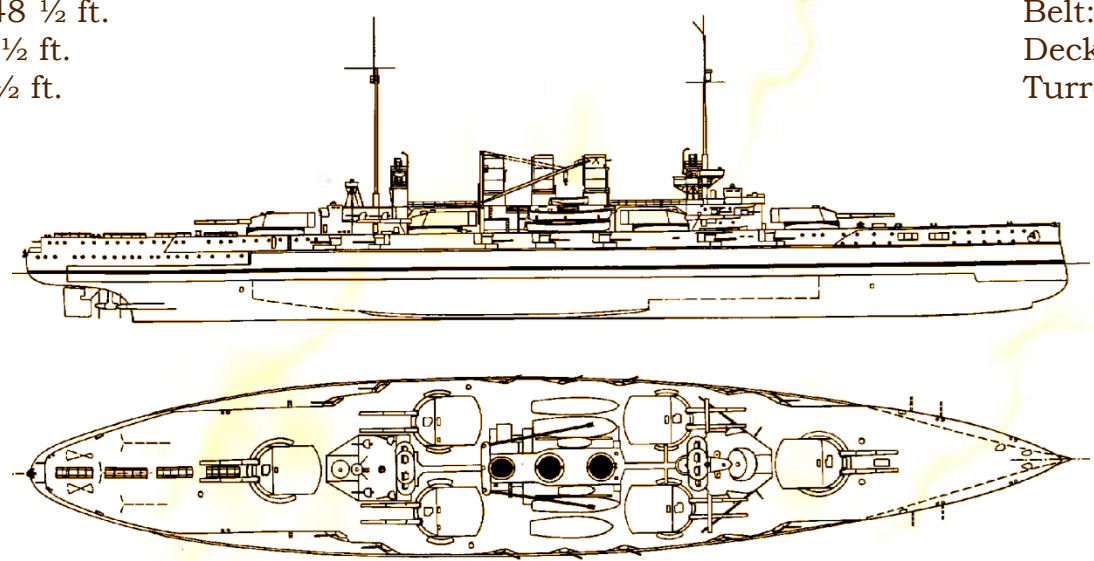
Torpedoes		
✕		1 x 20 in. bow (submerged)
		2 x 20 in. port (submerged)
		2 x 20 in. starboard (submerged)
✕		1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 24,700 tons
Length: 548 ½ ft.
Beam: 93 ½ ft.
Draft: 29 ½ ft.

Armor
Belt: 12 in.
Deck: 2 ½ in.
Turrets: 12 in.



Astern:
6—12 in.

Broadside: 8—12 in.

Ahead:
6—12 in.

SMS *Ostfriesland* is the second ship of the *Helgoland*-class of dreadnought battleships. The *Helgoland*-class is a significant improvement over the previous *Nassau*-class ships; they have a larger main battery and an improved propulsion system. The *Helgolands* are easily distinguished by the three closely arranged funnels.

Guns: 6 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines		
3 shaft, 4 cylinder vertical triple expansion; 27,617 shaft horsepower		
Max speed: 21 kts. Turning diameter: 1,000 yds.		

Torpedoes		
✕		1 x 20 in. bow (submerged)
		2 x 20 in. port (submerged)
		2 x 20 in. starboard (submerged)
✕		1 x 20 in. stern (submerged)

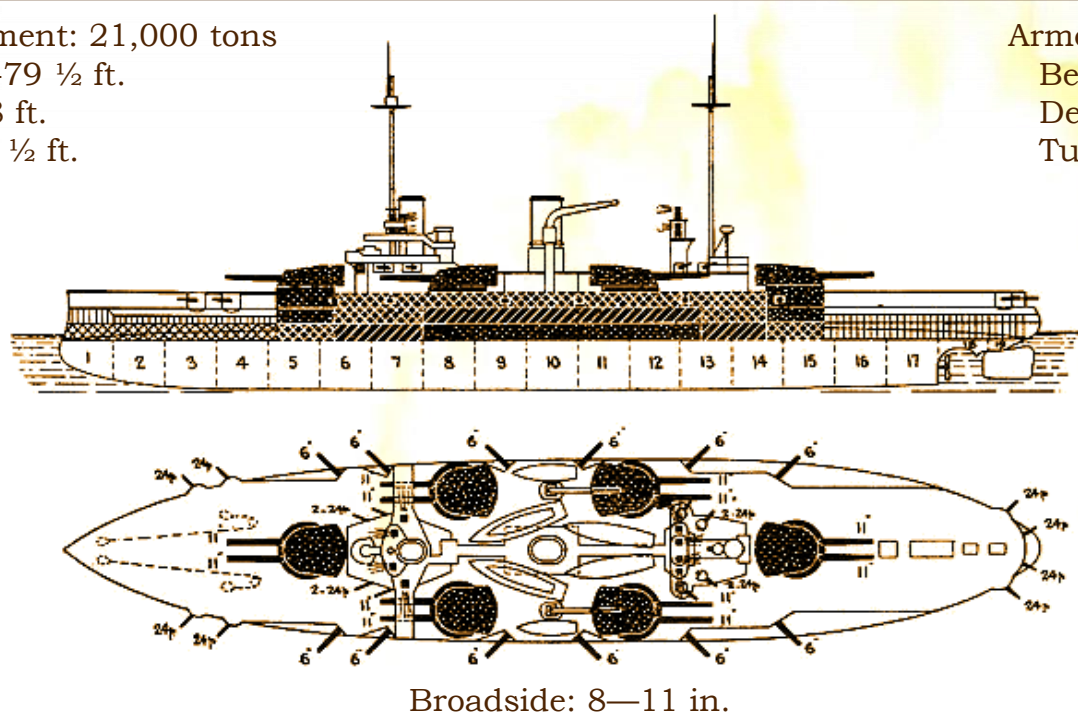
✕

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 21,000 tons
Length: 479 ½ ft.
Beam: 88 ft.
Draft: 28 ½ ft.

Armor
Belt: 12 in.
Deck: 2 ½ in.
Turrets: 11 in.



Ahead:
6—11 in.

Broadside: 8—11 in.

Astern:
6—11 in.

SMS *Nassau* is the lead ship of the *Nassau*-class; the first class of German dreadnoughts. Compared to their British contemporaries, the *Nassau*-class ships are lighter and have a wider beam. They are two knots slower, as they retain vertical triple-expansion engines as opposed to high-power turbine engines. The ships carry 11-inch guns in a hexagonal configuration.

Guns: 6 x 2 – 11 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	3 shaft, 4 cylinder vertical triple expansion; 21,699 shaft horsepower	
1,000	1.31	11,000	0.20	Max speed: 20 kts.	
2,000	1.18	12,000	0.17	Turning diameter: 1,000 yds.	
3,000	1.05	13,000	0.14		
4,000	0.91	14,000	0.12		
5,000	0.78	15,000	0.09		
6,000	0.64	16,000	0.07		
7,000	0.53	17,000	0.05		
8,000	0.44	18,000	0.04		
9,000	0.37	19,000	0.03		
10,000	0.24	20,000	0.03		

Torpedoes		
✕		1 x 20 in. bow (submerged)
		2 x 20 in. port (submerged)
		2 x 20 in. starboard (submerged)
✕		1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	20	20	18	18	16	16	14	14	12	12	10	10	8	8	6	6	4	4	2	2

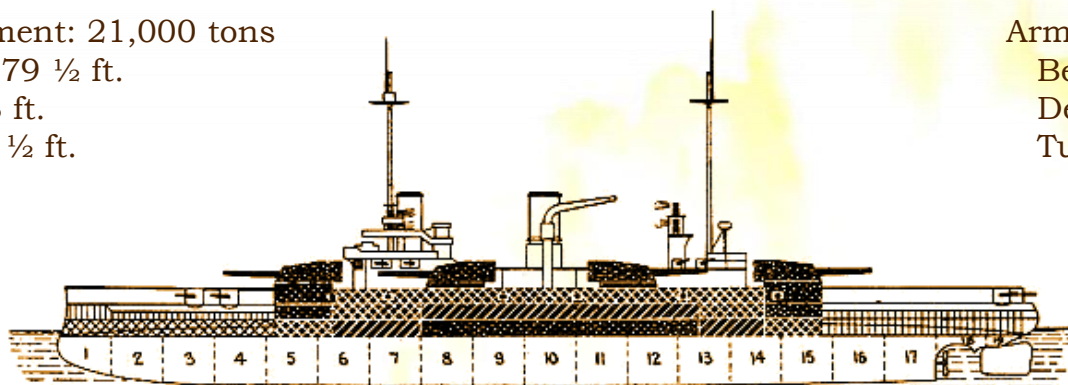
14. SMS POSEN

(May 1910)

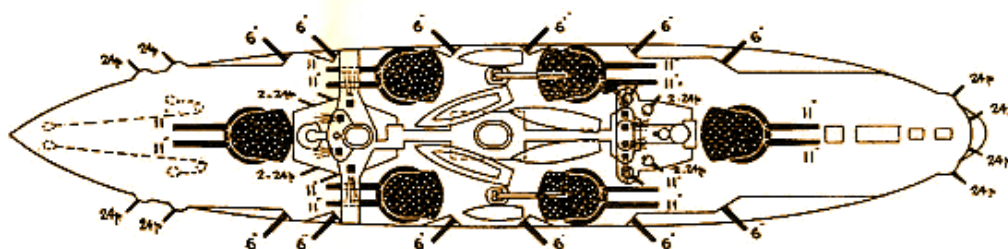
Germany

Displacement: 21,000 tons
Length: 479 ½ ft.
Beam: 88 ft.
Draft: 28 ½ ft.

Armor
Belt: 12 in.
Deck: 2 ½ in.
Turrets: 11 in.



Ahead:
6—11 in.



Astern:
6—11 in.

Broadside: 8—11 in.

SMS *Posen* is the fourth ship of the *Nassau*-class; the first class of German dreadnoughts. Compared to their British contemporaries, the *Nassau*-class ships are lighter and have a wider beam. They are two knots slower, as they retain vertical triple-expansion engines as opposed to high-power turbine engines. The ships carry 11-inch guns in a hexagonal configuration.

Guns: 6 x 2 – 11 in.

Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.31	11,000	0.20
2,000	1.18	12,000	0.17
3,000	1.05	13,000	0.14
4,000	0.91	14,000	0.12
5,000	0.78	15,000	0.09
6,000	0.64	16,000	0.07
7,000	0.53	17,000	0.05
8,000	0.44	18,000	0.04
9,000	0.37	19,000	0.03
10,000	0.24	20,000	0.03

Engines

3 shaft, 4 cylinder vertical triple expansion;
21,699 shaft horsepower

Max speed: 20 kts.
Turning diameter: 1,000 yds.

Torpedoes

×	1 x 20 in. bow (submerged)
	2 x 20 in. port (submerged)
	2 x 20 in. starboard (submerged)
×	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	20	20	18	18	16	16	14	14	12	12	10	10	8	8	6	6	4	4	2	2

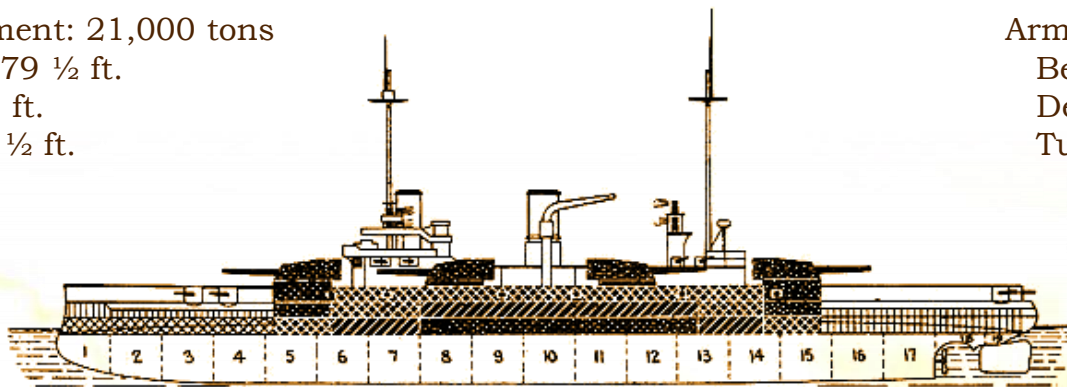
15. SMS RHEILAND

(April 1910)

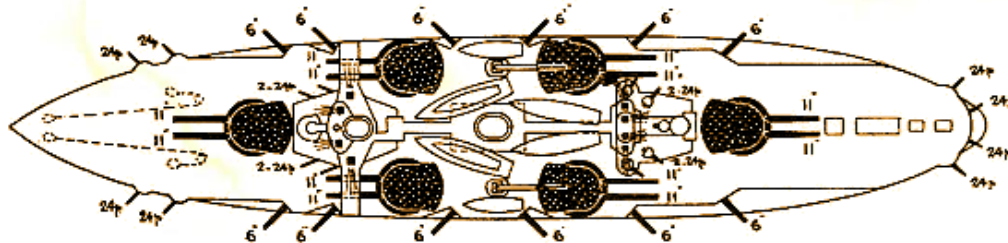
Germany

Displacement: 21,000 tons
Length: 479 ½ ft.
Beam: 88 ft.
Draft: 28 ½ ft.

Armor
Belt: 12 in.
Deck: 2 ½ in.
Turrets: 11 in.



Ahead:
6—11 in.



Astern:
6—11 in.

Broadside: 8—11 in.

SMS *Rheiland* is the third ship of the *Nassau*-class; the first class of German dreadnoughts. Compared to their British contemporaries, the *Nassau*-class ships are lighter and have a wider beam. They are two knots slower, as they retain vertical triple-expansion engines as opposed to high-power turbine engines. The ships carry 11-inch guns in a hexagonal configuration.

Guns: 6 x 2 – 11 in.

Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.31	11,000	0.20
2,000	1.18	12,000	0.17
3,000	1.05	13,000	0.14
4,000	0.91	14,000	0.12
5,000	0.78	15,000	0.09
6,000	0.64	16,000	0.07
7,000	0.53	17,000	0.05
8,000	0.44	18,000	0.04
9,000	0.37	19,000	0.03
10,000	0.24	20,000	0.03

Engines

3 shaft, 4 cylinder vertical triple expansion;
21,699 shaft horsepower

Max speed: 20 kts.

Turning diameter: 1,000 yds.

Torpedoes

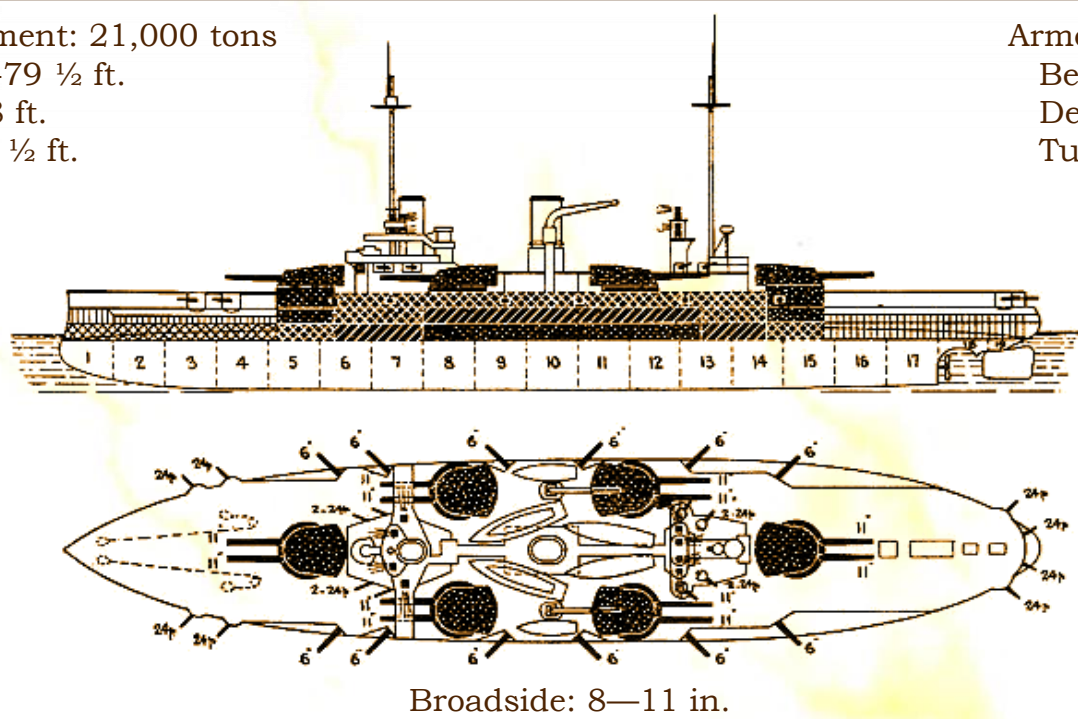
×	1 x 20 in. bow (submerged)
	2 x 20 in. port (submerged)
	2 x 20 in. starboard (submerged)
×	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	20	20	18	18	16	16	14	14	12	12	10	10	8	8	6	6	4	4	2	2

Displacement: 21,000 tons
Length: 479 ½ ft.
Beam: 88 ft.
Draft: 28 ½ ft.

Armor
Belt: 12 in.
Deck: 2 ½ in.
Turrets: 11 in.



Ahead:
6—11 in.

Astern:
6—11 in.

Broadside: 8—11 in.

SMS *Westfalen* is the second ship of the *Nassau*-class; the first class of German dreadnoughts. Compared to their British contemporaries, the *Nassau*-class ships are lighter and have a wider beam. They are two knots slower, as they retain vertical triple-expansion engines as opposed to high-power turbine engines. The ships carry 11-inch guns in a hexagonal configuration.

Guns: 6 x 2 – 11 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.31	11,000	0.20
2,000	1.18	12,000	0.17
3,000	1.05	13,000	0.14
4,000	0.91	14,000	0.12
5,000	0.78	15,000	0.09
6,000	0.64	16,000	0.07
7,000	0.53	17,000	0.05
8,000	0.44	18,000	0.04
9,000	0.37	19,000	0.03
10,000	0.24	20,000	0.03

Engines	
3 shaft, 4 cylinder vertical triple expansion; 21,699 shaft horsepower	
Max speed: 20 kts.	
Turning diameter: 1,000 yds.	

Torpedoes	
✕	1 x 20 in. bow (submerged)
	2 x 20 in. port (submerged)
	2 x 20 in. starboard (submerged)
✕	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	20	20	18	18	16	16	14	14	12	12	10	10	8	8	6	6	4	4	2	2

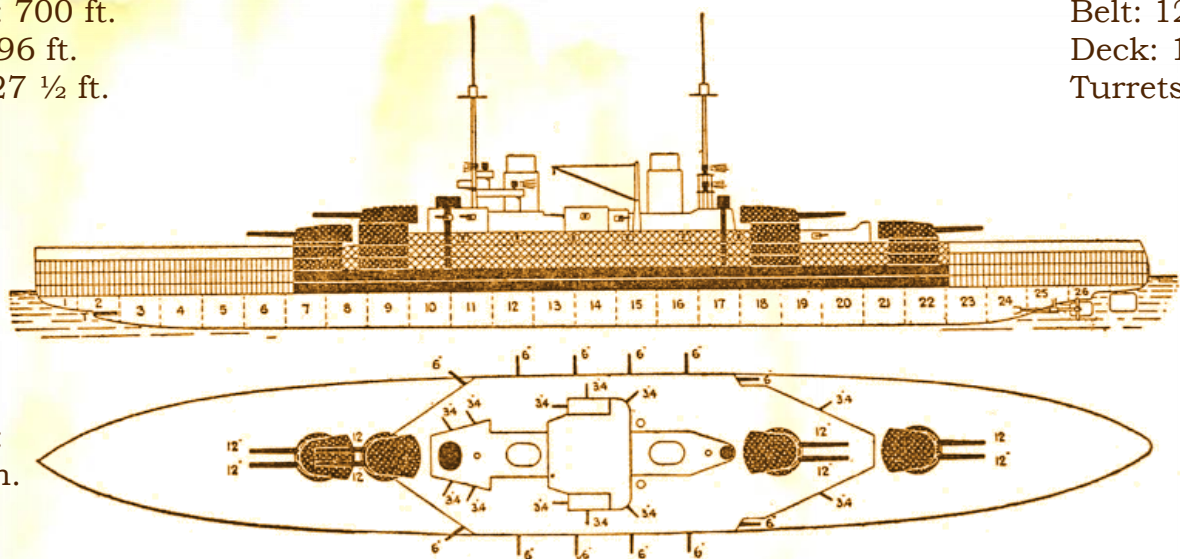
17. SMS LUTZOW

(November 1913)

Germany

Displacement: 28,000 tons
Length: 700 ft.
Beam: 96 ft.
Draft: 27 ½ ft.

Armor
Belt: 12 in.
Deck: 1.2 in.
Turrets: 11 in.



Ahead:
4—12 in.

Astern:
4—12 in.

Broadside: 8—12 in.

SMS *Lützow* is the second *Derfflinger*-class battlecruiser built by the German Kaiserliche Marine. Ordered as a replacement for the old protected cruiser *Kaiserin Augusta*, *Lützow* is a sister ship to *Derfflinger* from which she differs slightly in that she is armed with an additional pair of 5.9 inch secondary guns and has an additional watertight compartment in her hull.

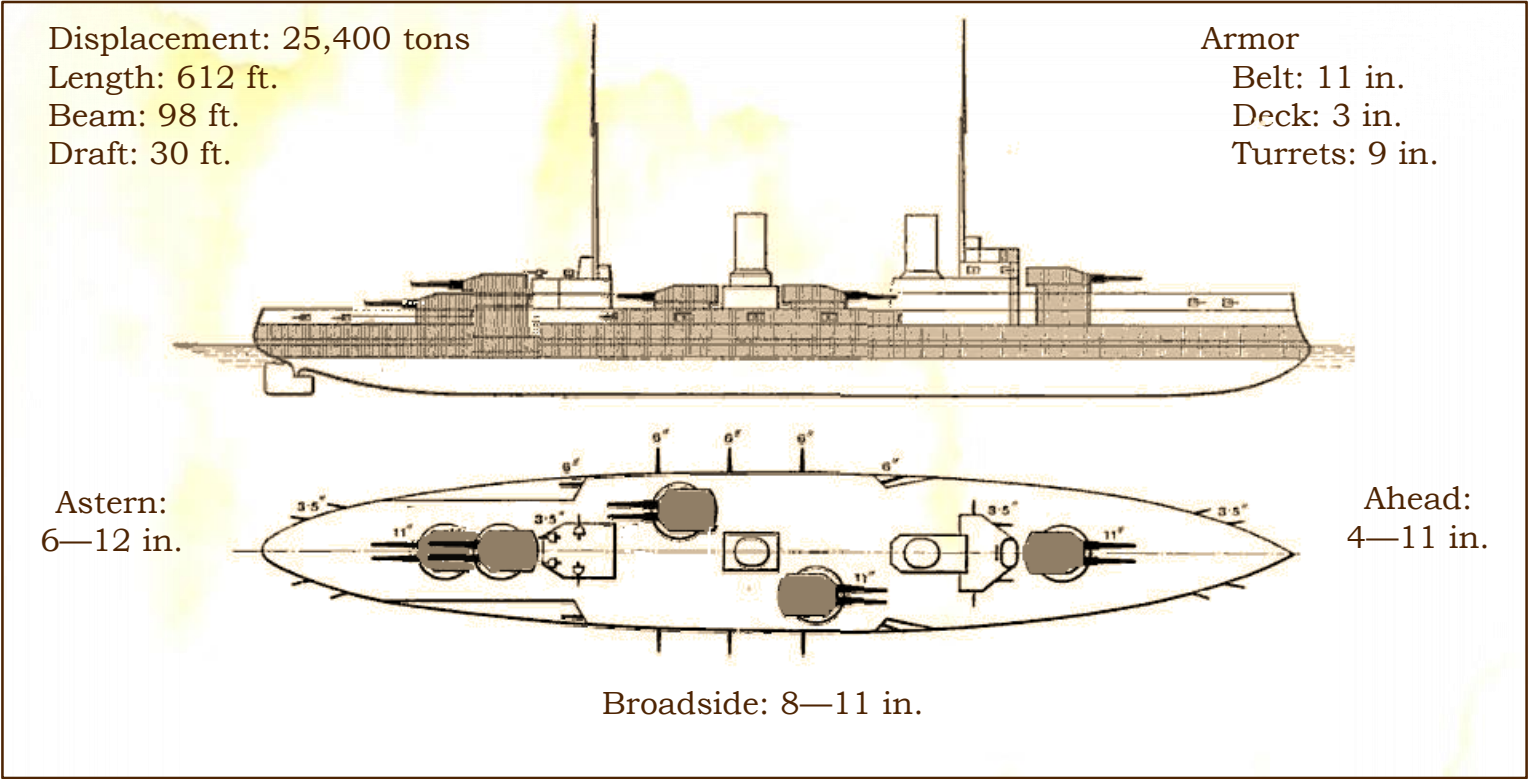
Guns: 4 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines	
4 shaft Parsons turbines; 18 boiler; 75,585 shaft horsepower	
Max speed: 26 kts.	
Turning diameter: 1,000 yds.	

Torpedoes		
		2 x 20 in. port (submerged)
		2 x 20 in. starboard (submerged)
X		1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	
Kts	26	26	23	23	20	20	17	14	14	11	11	8	5	5	2	2	0	



SMS *Moltke* is the lead ship of the *Moltke*-class battlecruisers of the German Imperial Navy. *Moltke*, along with her sister ship *Goeben*, is an enlarged version of the previous German battlecruiser design, *Von der Tann*, with increased armor protection and two more main guns in an additional turret.

Guns: 5 x 2 – 11 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.31	11,000	0.20
2,000	1.18	12,000	0.17
3,000	1.05	13,000	0.14
4,000	0.91	14,000	0.12
5,000	0.78	15,000	0.09
6,000	0.64	16,000	0.07
7,000	0.53	17,000	0.05
8,000	0.44	18,000	0.04
9,000	0.37	19,000	0.03
10,000	0.24	20,000	0.03

Engines	
4 shaft Parsons turbines; 18 boiler; 84,609 shaft horsepower	
Max speed: 28 kts.	
Turning diameter: 1,000 yds.	

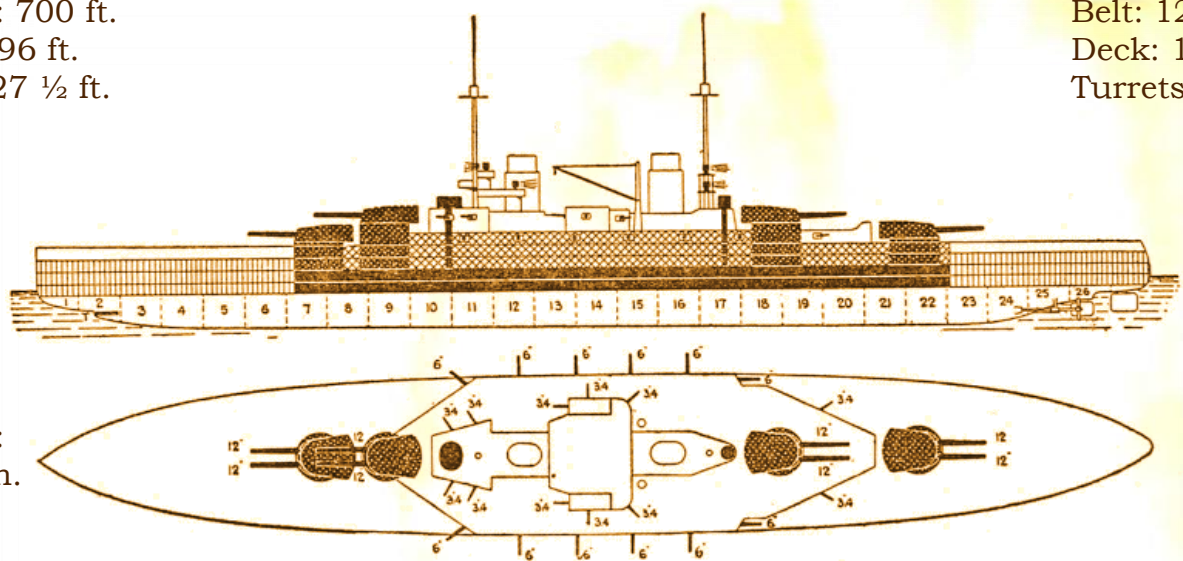
Torpedoes	
✕	1 x 20 in. bow (submerged)
	2 x 20 in. port (submerged)
	2 x 20 in. starboard (submerged)
✕	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	
Kts	28	28	25	25	22	22	18	15	15	12	12	9	6	6	3	3	1	

Displacement: 28,000 tons
Length: 700 ft.
Beam: 96 ft.
Draft: 27 ½ ft.

Armor
Belt: 12 in.
Deck: 1.2 in.
Turrets: 11 in.

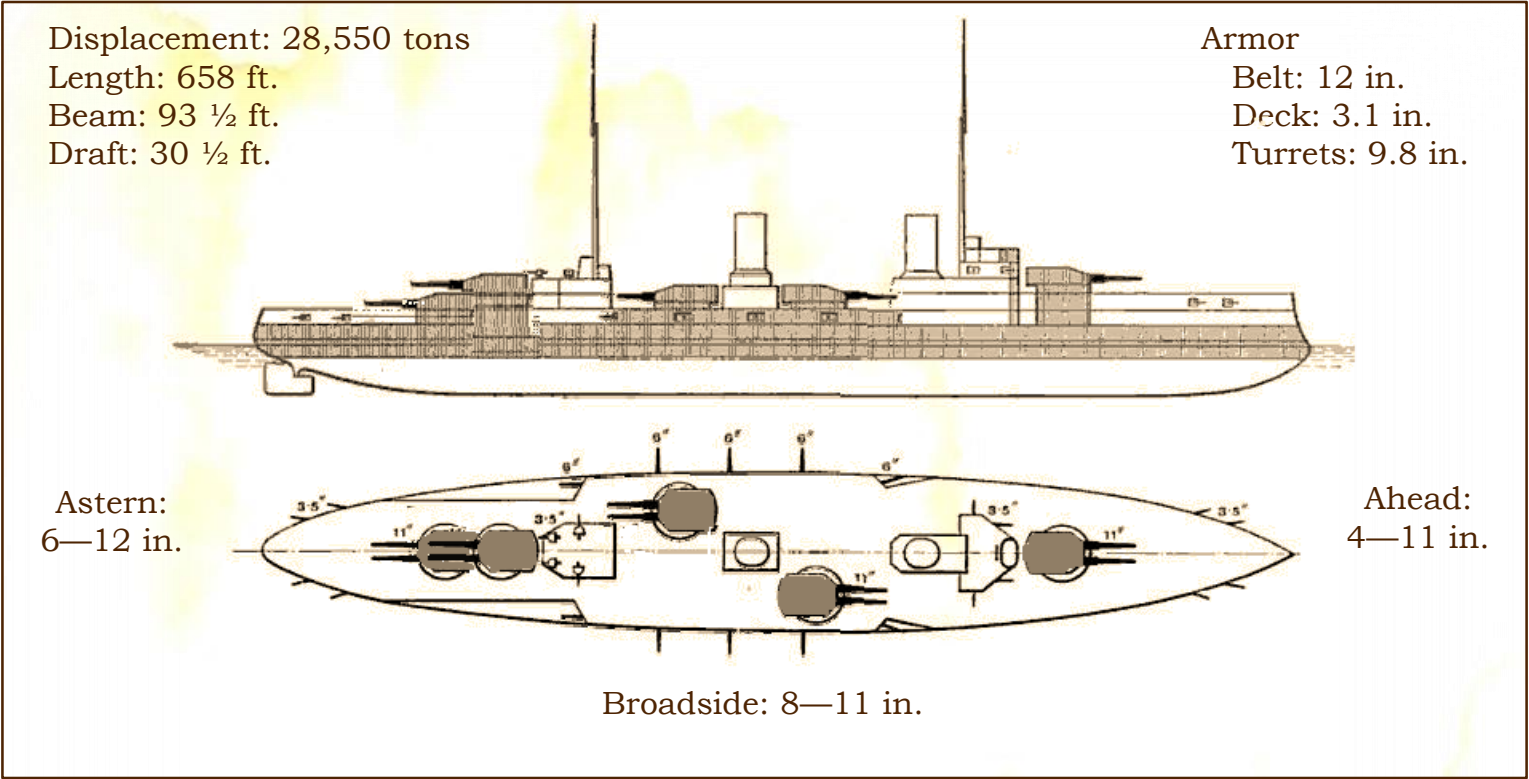


SMS *Derfflinger* is a battlecruiser of the German Kaiserliche Marine. She is the lead vessel of her class of three ships; her sister ships are SMS *Lützow* and SMS *Hindenburg*. The *Derfflinger*-class battlecruisers are larger and feature significant improvements over the previous German battlecruisers, in terms of armament, armor protection, and cruising range.

Guns: 4 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft Parsons turbines; 18 boiler; 75,585 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 26 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
					2 x 20 in. port (submerged)
					2 x 20 in. starboard (submerged)
				X	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	
Kts	26	26	23	23	20	20	17	14	14	11	11	8	5	5	2	2	0	



SMS *Seydlitz* is the fourth battlecruiser built for the High Seas Fleet, following the first generation of German battlecruisers – SMS *Von der Tann* and the pair of *Moltke*-class battle cruisers. *Seydlitz* features several incremental improvements over the preceding designs, including a redesigned propulsion system and an improved armor layout.

Guns: 5 x 2 – 11 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft Parsons turbines; 18 boiler; 88,510 shaft horsepower			
1,000	1.31	11,000	0.20	Max speed: 26 kts.			
2,000	1.18	12,000	0.17	Turning diameter: 1,000 yds.			
3,000	1.05	13,000	0.14	<div>Torpedoes</div> <div><div><div>✕</div><div>1 x 20 in. bow (submerged)</div></div><div><div></div><div>2 x 20 in. port (submerged)</div></div><div><div></div><div>2 x 20 in. starboard (submerged)</div></div><div><div>✕</div><div>1 x 20 in. stern (submerged)</div></div></div>			
4,000	0.91	14,000	0.12				
5,000	0.78	15,000	0.09				
6,000	0.64	16,000	0.07				
7,000	0.53	17,000	0.05				
8,000	0.44	18,000	0.04				
9,000	0.37	19,000	0.03				
10,000	0.24	20,000	0.03				

* Hits per gun, per 2½ minute move

Resisting Power	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	
Kts	26	26	23	23	20	20	17	14	14	11	11	8	5	5	2	2	1	1	

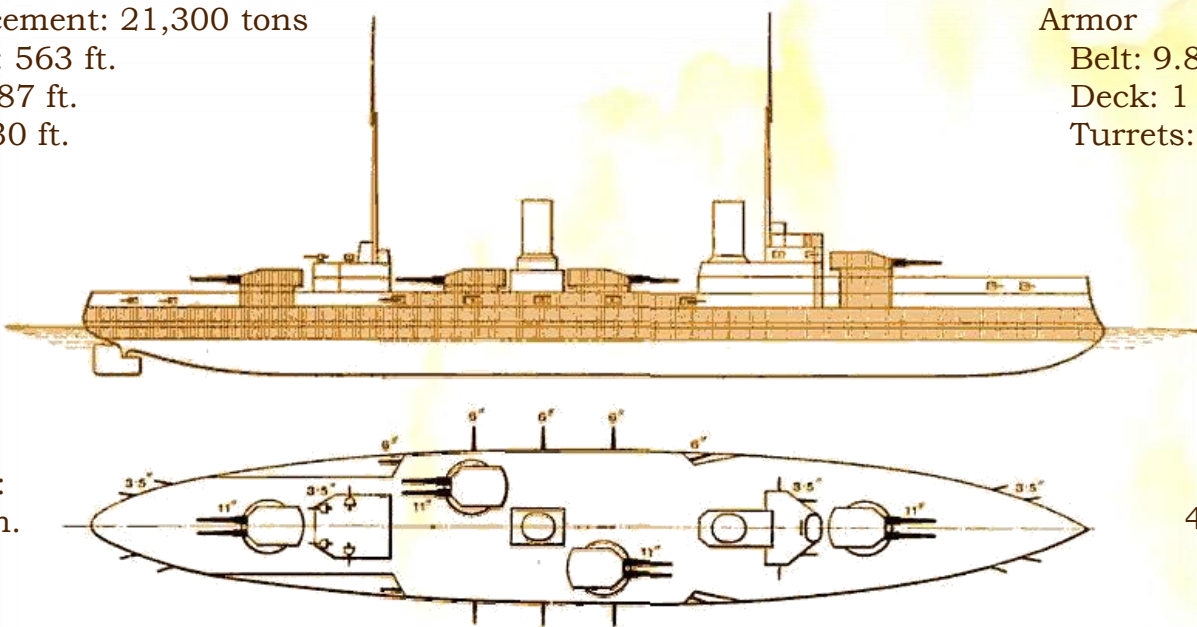
21. SMS VON DER TANN

(September 1910)

Germany

Displacement: 21,300 tons
Length: 563 ft.
Beam: 87 ft.
Draft: 30 ft.

Armor
Belt: 9.8 in.
Deck: 1 ½ in.
Turrets: 9.1 in.



Astern:
4—11 in.

Ahead:
4—11 in.

Broadside: 6—11 in.

SMS *Von der Tann* is the first battlecruiser built for the German Kaiserliche Marine, as well as Germany's first major turbine-powered warship. At the time of her construction, *Von der Tann* was the fastest dreadnought-type warship afloat. *Von der Tann* has a slightly lighter main battery compared to British counter parts— *Von der Tann* is faster and better-armored.

Guns: 4 x 2 – 11 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft Parsons turbines; 18 boiler; 41, 426 shaft horsepower	
1,000	1.31	11,000	0.20	Max speed: 28 kts.	
2,000	1.18	12,000	0.17	Turning diameter: 1,000 yds.	
3,000	1.05	13,000	0.14		
4,000	0.91	14,000	0.12		
5,000	0.78	15,000	0.09		
6,000	0.64	16,000	0.07		
7,000	0.53	17,000	0.05		
8,000	0.44	18,000	0.04		
9,000	0.37	19,000	0.03		
10,000	0.24	20,000	0.03		
				Torpedoes	
				✕	1 x 20 in. bow (submerged)
					2 x 20 in. port (submerged)
					2 x 20 in. starboard (submerged)
				✕	1 x 20 in. stern (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	
Kts	28	28	25	25	21	21	18	18	15	15	12	9	6	6	3	3	1	

Displacement: 30,030 tons

Length: 623 ft.

Beam: 90 ft.

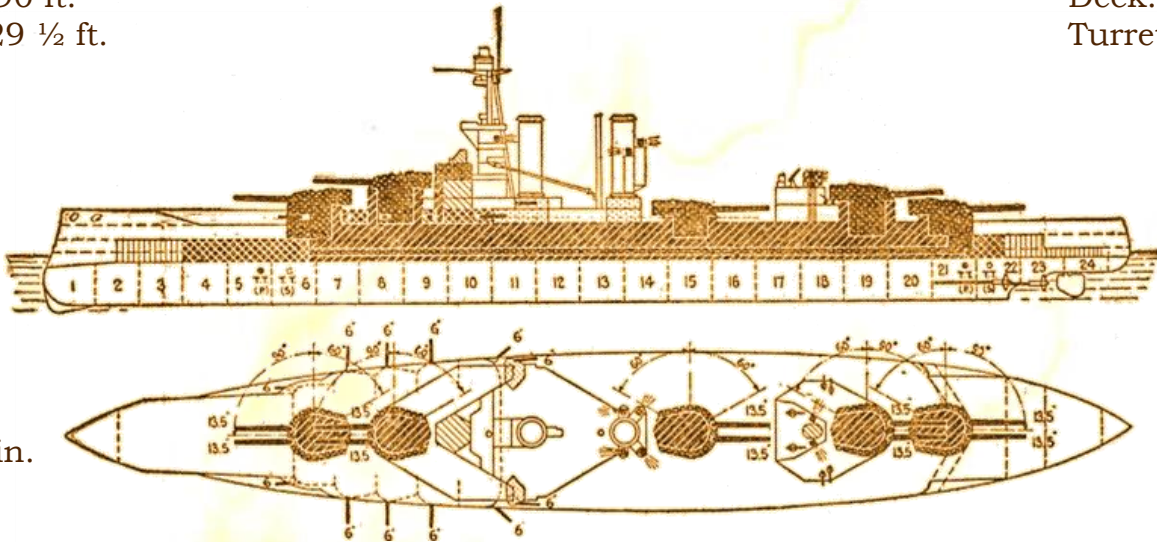
Draft: 29 ½ ft.

Armor

Belt: 12 in.

Deck: 4 in.

Turrets: 11 in.



Ahead:
4—13.5 in.

Broadside: 10—13.5 in.

Astern:
4—13.5 in.

HMS *Iron Duke* is the lead ship of the her class. The *Iron Duke*-class is the third class of Royal Navy super-dreadnoughts. The ships are essentially the same as the *King George V*-class battleships; however, the *Iron Dukes* have improved armour and a more powerful secondary armament than earlier ships.

Guns: 5 x 2 – 13.5 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 29,000 shaft horsepower			
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.			
2,000	1.75	12,000	0.26				
3,000	1.55	13,000	0.22				
4,000	1.36	14,000	0.18				
5,000	1.16	15,000	0.14				
6,000	0.96	16,000	0.12				
7,000	0.80	17,000	0.09				
8,000	0.67	18,000	0.07				
9,000	0.55	19,000	0.05				
10,000	0.37	20,000	0.05	Torpedoes			
						2 x 21 in. port (submerged)	
						2 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

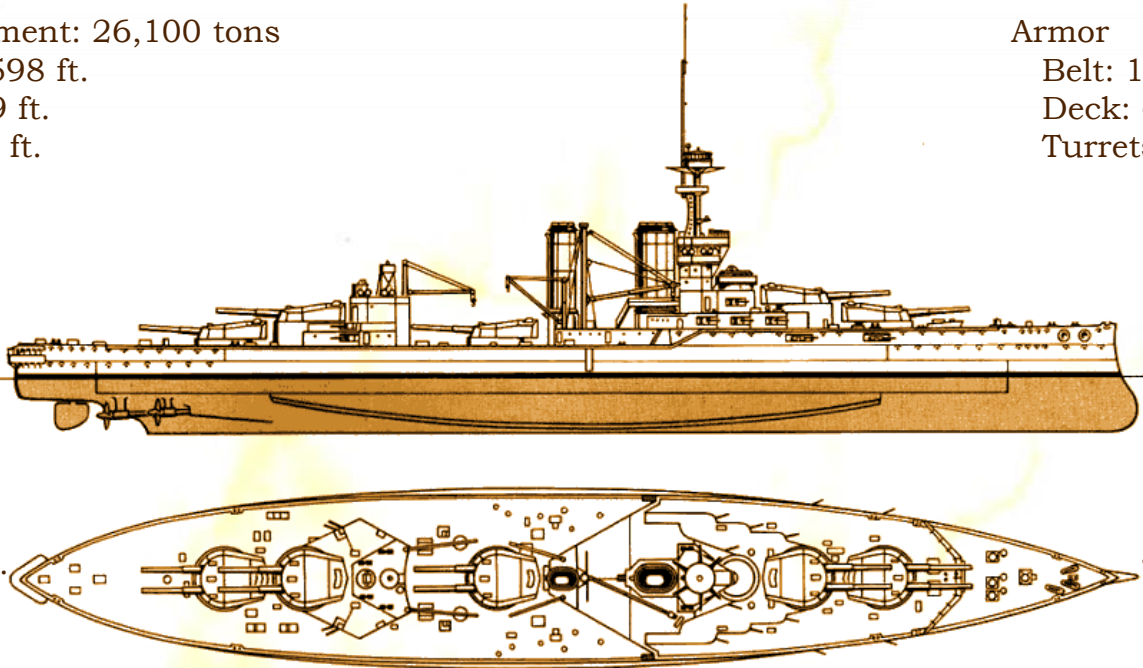
Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

2. HMS KING GEORGE V

(November 1912) Great Britain

Displacement: 26,100 tons
Length: 598 ft.
Beam: 89 ft.
Draft: 28 ft.

Armor
Belt: 12 in.
Deck: 4 in.
Turrets: 11 in.



A detailed line drawing of the HMS King George V. The top half shows a side profile of the battleship, highlighting its long hull, multiple gun turrets, and complex superstructure. The bottom half shows a top-down view of the ship, illustrating the layout of the main gun turrets and secondary armaments along the deck.

Astern: 4—13.5 in.

Ahead: 4—13.5 in.

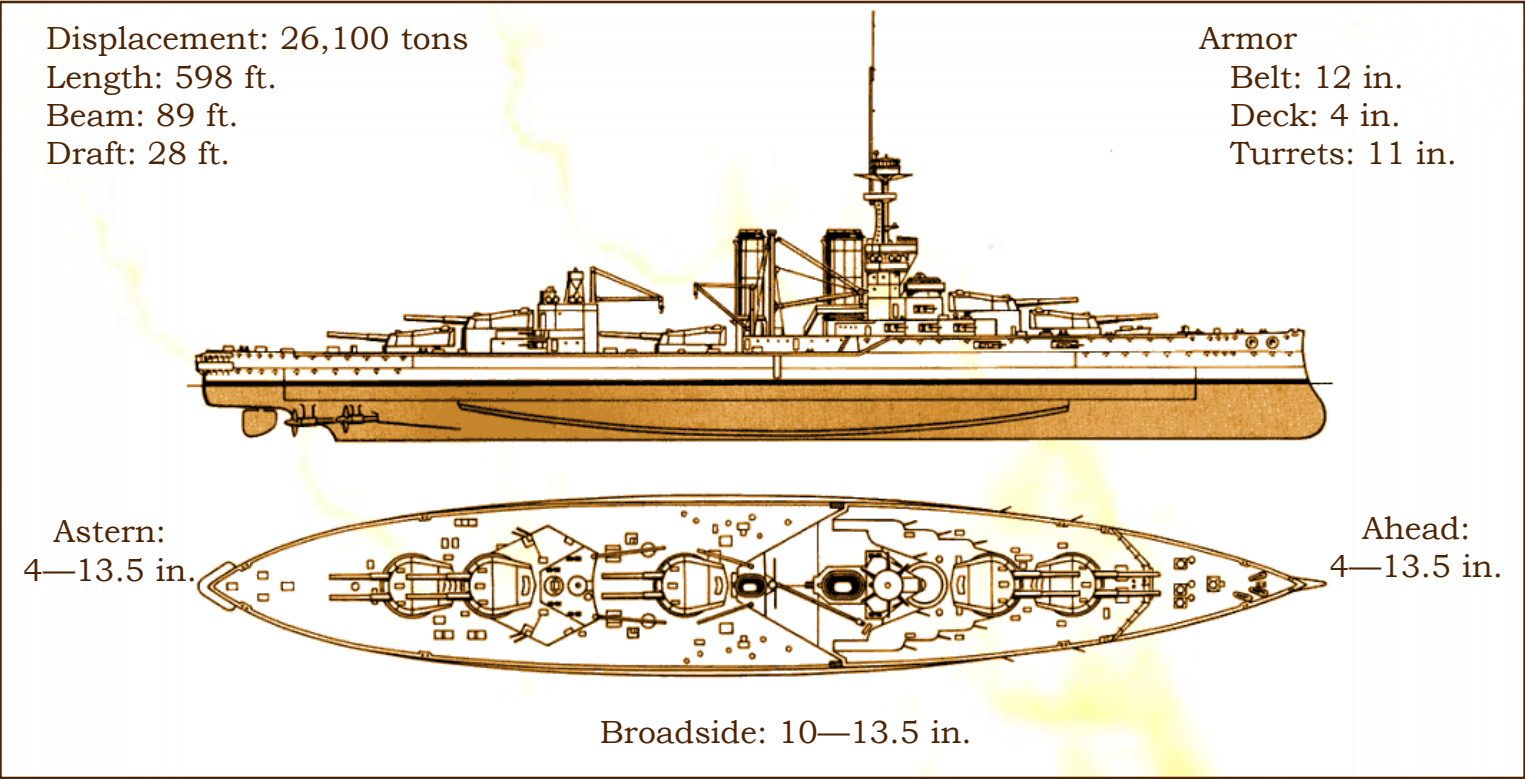
Broadside: 10—13.5 in.

HMS *King George V* is the lead ship of the *King George V*-class battleships. They have a slightly larger displacement than the *Orion*-class. They use the same 13.5-inch Mark V gun; armour is slightly redistributed and improved. Underwater protection is also improved. There are slight revisions to the superstructure and masts.

Guns: 5 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 27,000 shaft horsepower	
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.75	12,000	0.26		
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18		
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		
7,000	0.80	17,000	0.09		
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

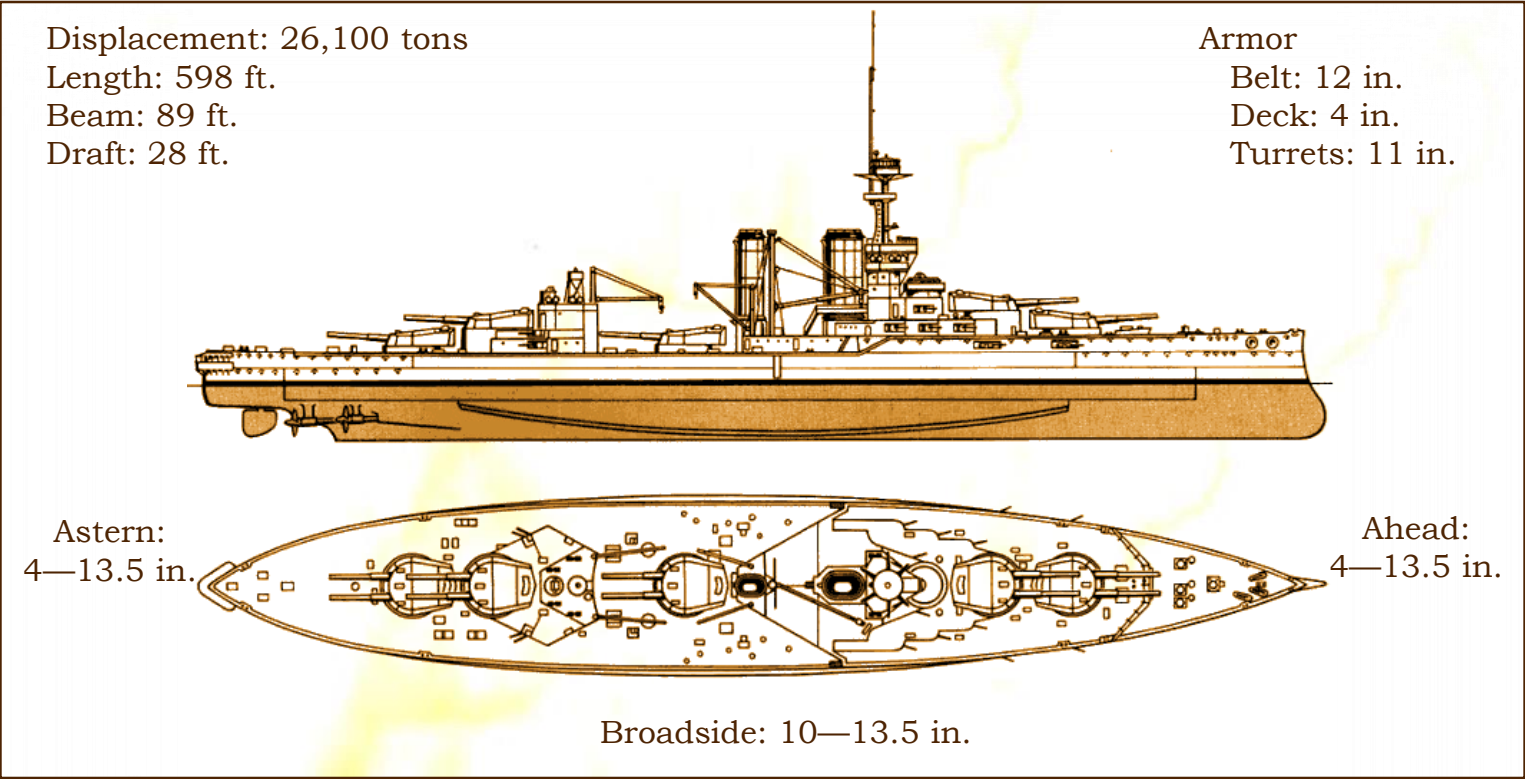


HMS *Ajax* is one of four *King George V*-class battleships. They have slightly larger displacement than the previous *Orion*-class. They use the same 13.5-inch Mark V gun; armour is slightly redistributed and improved. Underwater protection is also improved. There are slight revisions to the superstructure and masts.

Guns: 5 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 27,000 shaft horsepower	
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.75	12,000	0.26		
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18		
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		
7,000	0.80	17,000	0.09		
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3



HMS *Centurion* is the second of four *King George V*-class battleships. They have slightly larger displacement than the previous *Orion*-class. They use the same 13.5-inch Mark V gun; armour is slightly redistributed and improved. Underwater protection is also improved. There are slight revisions to the superstructure and masts.

Guns: 5 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 27,000 shaft horsepower	
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.75	12,000	0.26		
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18		
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		
7,000	0.80	17,000	0.09		
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 26,290 tons

Length: 581 ft.

Beam: 88 ½ ft.

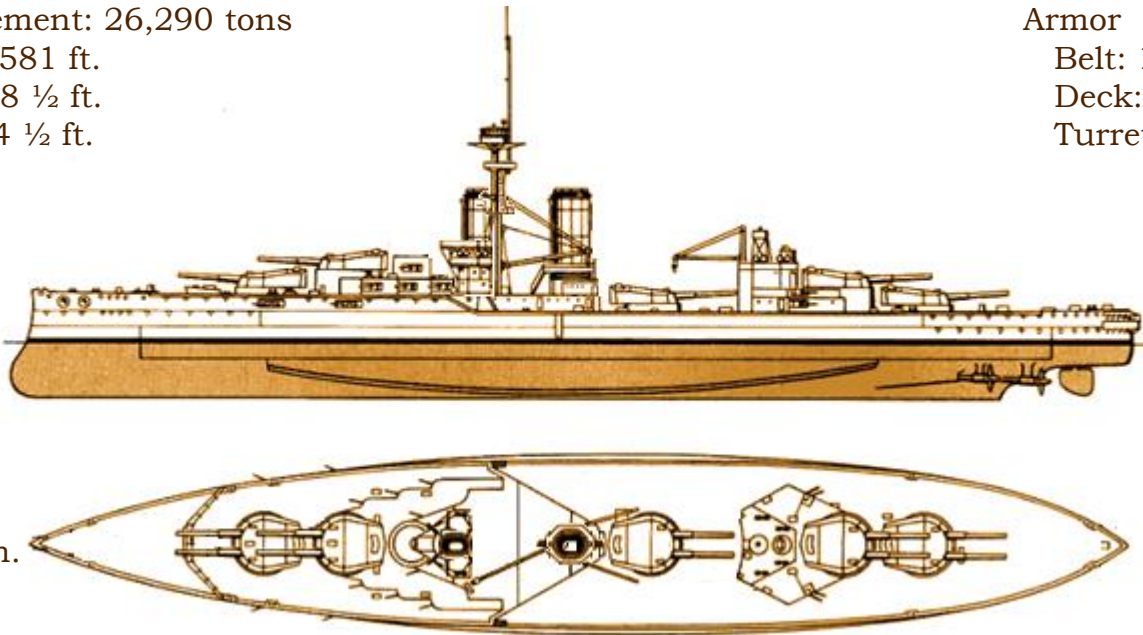
Draft: 24 ½ ft.

Armor

Belt: 12 in.

Deck: 4 in.

Turrets: 11 in.



A detailed technical illustration of the HMS Orion battleship. The top half shows a side profile of the ship, highlighting its long hull, multiple gun turrets, and complex superstructure. The bottom half shows a top-down view of the ship's deck, illustrating the layout of the main gun turrets and secondary armaments. The ship is depicted in a light brown color with a darker brown hull.

Ahead:
4—13.5 in.

Broadside: 10—13.5 in.

Astern:
4—13.5 in.

HMS *Orion* is the lead ship of the *Orion*-class battleships; she is also the first so-called "super-dreadnought", being the first British dreadnought to mount guns of calibre greater than twelve inches, and the first British dreadnought to have all of its main armament mounted on the centreline.

Guns: 5 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 27,000 shaft horsepower	
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.75	12,000	0.26		
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18		
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		
7,000	0.80	17,000	0.09		
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 26,290 tons

Length: 581 ft.

Beam: 88 ½ ft.

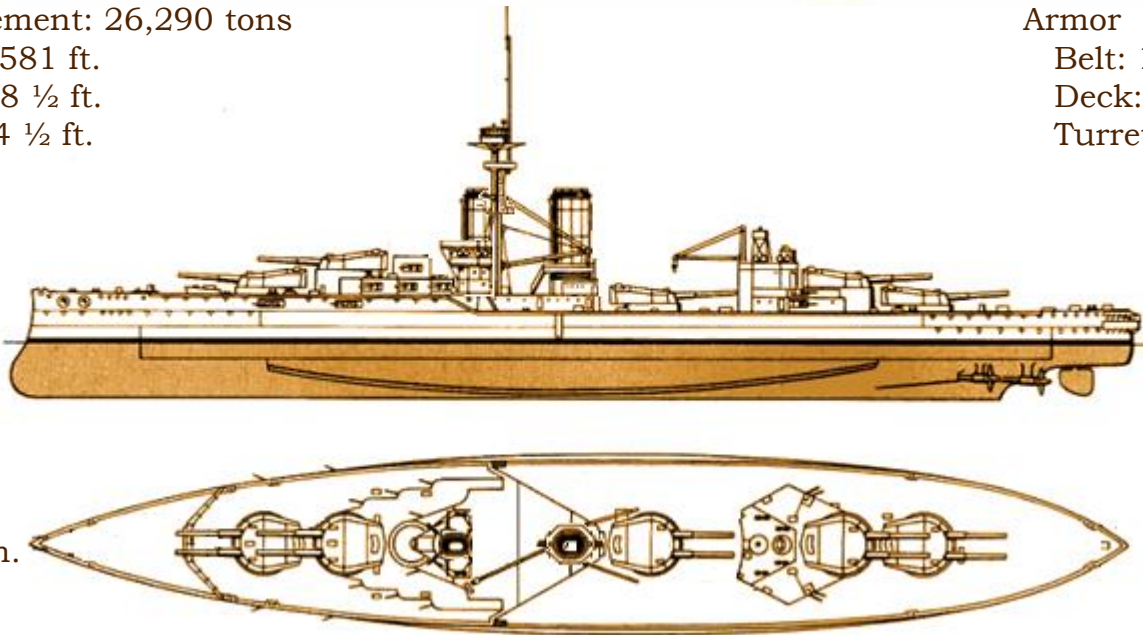
Draft: 24 ½ ft.

Armor

Belt: 12 in.

Deck: 4 in.

Turrets: 11 in.



A detailed line drawing of the battleship HMS Monarch. The top view shows the ship's oval hull and the arrangement of its main gun turrets along the centerline. The side view shows the ship's profile, including its masts, funnels, and gun turrets. The ship is depicted in a light brown color with a darker brown hull.

Ahead:
4—13.5 in.

Broadside: 10—13.5 in.

Astern:
4—13.5 in.

HMS *Monarch* is one of four battleships of the *Orion*-class; known as the first so-called "super-dreadnought", being the first British dreadnought to mount guns of calibre greater than twelve inches, and the first British dreadnought to have all of its main armament mounted on the centreline.

Guns: 5 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 27,000 shaft horsepower	
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.75	12,000	0.26		
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18		
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		
7,000	0.80	17,000	0.09		
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 26,290 tons

Length: 581 ft.

Beam: 88 ½ ft.

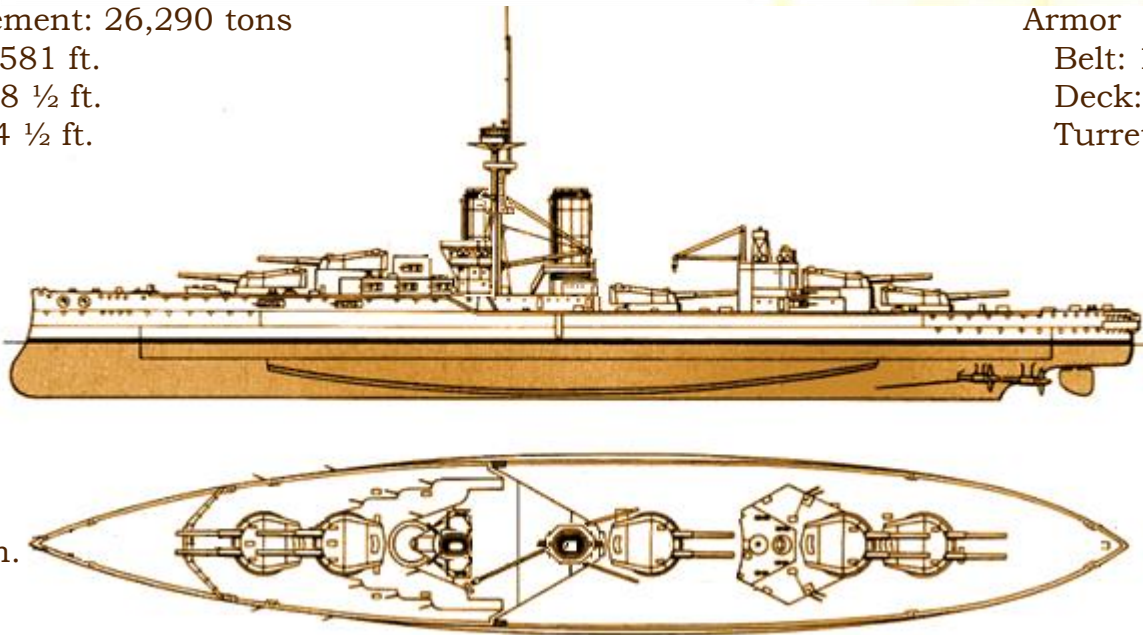
Draft: 24 ½ ft.

Armor

Belt: 12 in.

Deck: 4 in.

Turrets: 11 in.



A detailed line drawing of the HMS Conqueror, showing its side profile and a top-down view of its gun turrets. The side view shows the ship's long hull, multiple masts, and gun turrets along the centerline. The top-down view shows the arrangement of five main gun turrets: two at the bow, one in the middle, and two at the stern.

Ahead:
4—13.5 in.

Broadside: 10—13.5 in.

Astern:
4—13.5 in.

HMS *Conqueror* is one of four battleships of the *Orion*-class; known as the first so-called "super-dreadnought", being the first British dreadnought to mount guns of calibre greater than twelve inches, and the first British dreadnought to have all of its main armament mounted on the centreline.

Guns: 5 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 27,000 shaft horsepower	
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.75	12,000	0.26		
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18		
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		
7,000	0.80	17,000	0.09		
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 26,290 tons

Length: 581 ft.

Beam: 88 ½ ft.

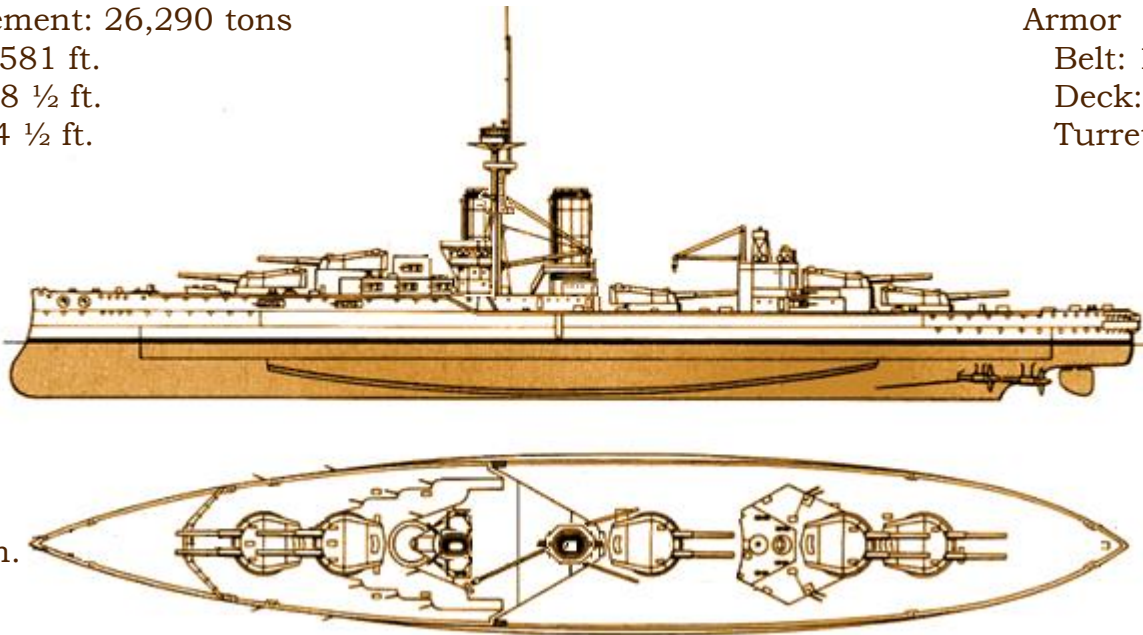
Draft: 24 ½ ft.

Armor

Belt: 12 in.

Deck: 4 in.

Turrets: 11 in.



A detailed line drawing of the battleship HMS Thunderer. The top view shows the ship's oval hull and the arrangement of its main gun turrets along the centerline. The side view shows the ship's profile, including its masts, funnels, and gun turrets mounted on the deck.

Ahead:
4—13.5 in.

Broadside: 10—13.5 in.

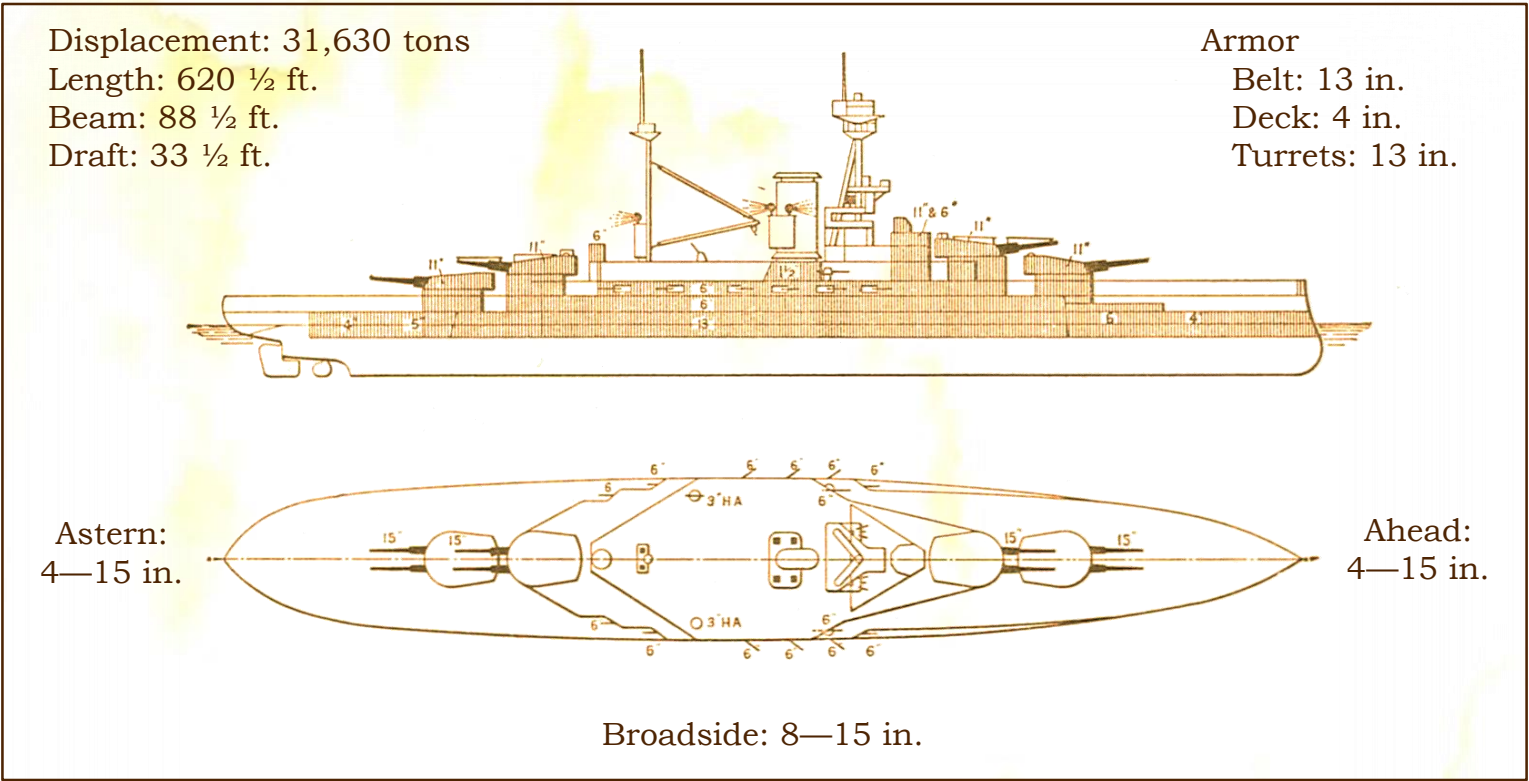
Astern:
4—13.5 in.

HMS *Thunderer* is one of four battleships of the *Orion*-class; known as the first so-called "super-dreadnought", being the first British dreadnought to mount guns of calibre greater than twelve inches, and the first British dreadnought to have all of its main armament mounted on the centreline.

Guns: 5 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 27,000 shaft horsepower	
1,000	1.95	11,000	0.31	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.75	12,000	0.26		
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18		
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		
7,000	0.80	17,000	0.09		
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3



HMS *Royal Oak* is a *Revenge*-class battleship, also known as *Royal Sovereign*-class and sometimes referred to as the "R" class. There are five ships of the class; there were originally to have been eight of the class, but two were later redesigned, becoming the *Renown*-class battlecruisers, while the other, to be named HMS *Resistance*, has been cancelled.

Guns: 4 x 2 – 15 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 steam turbines, 18 Babcock and Wilcox boilers; 40,000 shaft horsepower			
1,000	2.69	11,000	0.44	Max speed: 23 kts. Turning diameter: 1,000 yds.			
2,000	2.42	12,000	0.37				
3,000	2.15	13,000	0.31				
4,000	1.87	14,000	0.25				
5,000	1.60	15,000	0.19				
6,000	1.33	16,000	0.16				
7,000	1.11	17,000	0.12				
8,000	0.92	18,000	0.09				
9,000	0.77	19,000	0.07				
10,000	0.52	20,000	0.06	Torpedoes			
						2 x 21 in. port (submerged)	
						2 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	23	23	21	21	19	19	17	17	14	14	11	11	9	9	6	6	3	3	1	1

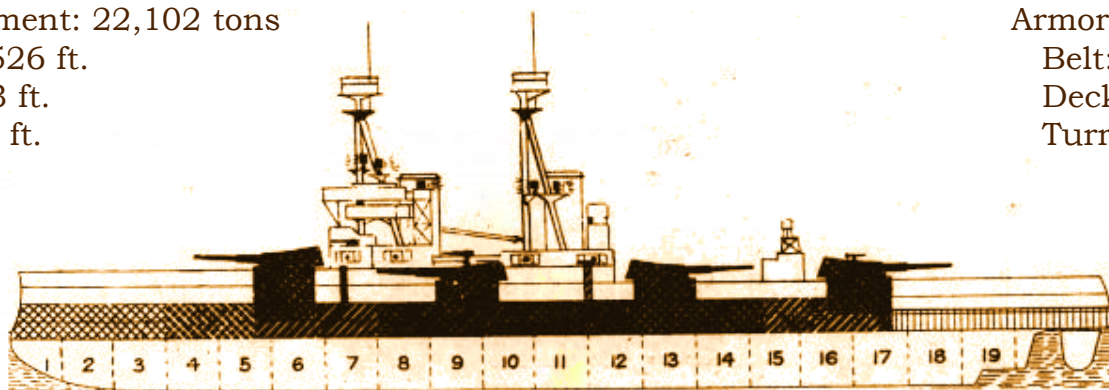
10. HMS SUPERB

(June 1909)

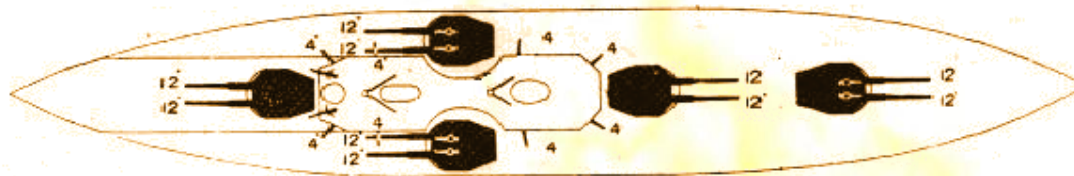
Great Britain

Displacement: 22,102 tons
Length: 526 ft.
Beam: 83 ft.
Draft: 27 ft.

Armor
Belt: 10 in.
Deck: 4 in.
Turrets: 11 in.



Ahead:
6—12 in.



Astern:
4—12 in.

Broadside: 8—12 in.

HMS *Superb* is the third ship of the *Bellerophon*-class. The *Bellerophon*-class battleships are virtually identical to that of the preceding *Dreadnought*, with some minor improvements. The tripod foremast, which on *Dreadnought* is behind the forward funnel, is positioned in front of the forward funnel. A second tripod mast is placed in front of the second funnel.

Guns: 5 x 2 – 12 in.

Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines

4 shaft, 4 Parson direct drive turbines, 18 boilers; 23,000 shaft horsepower

Max speed: 21 kts.
Turning diameter: 1,000 yds.

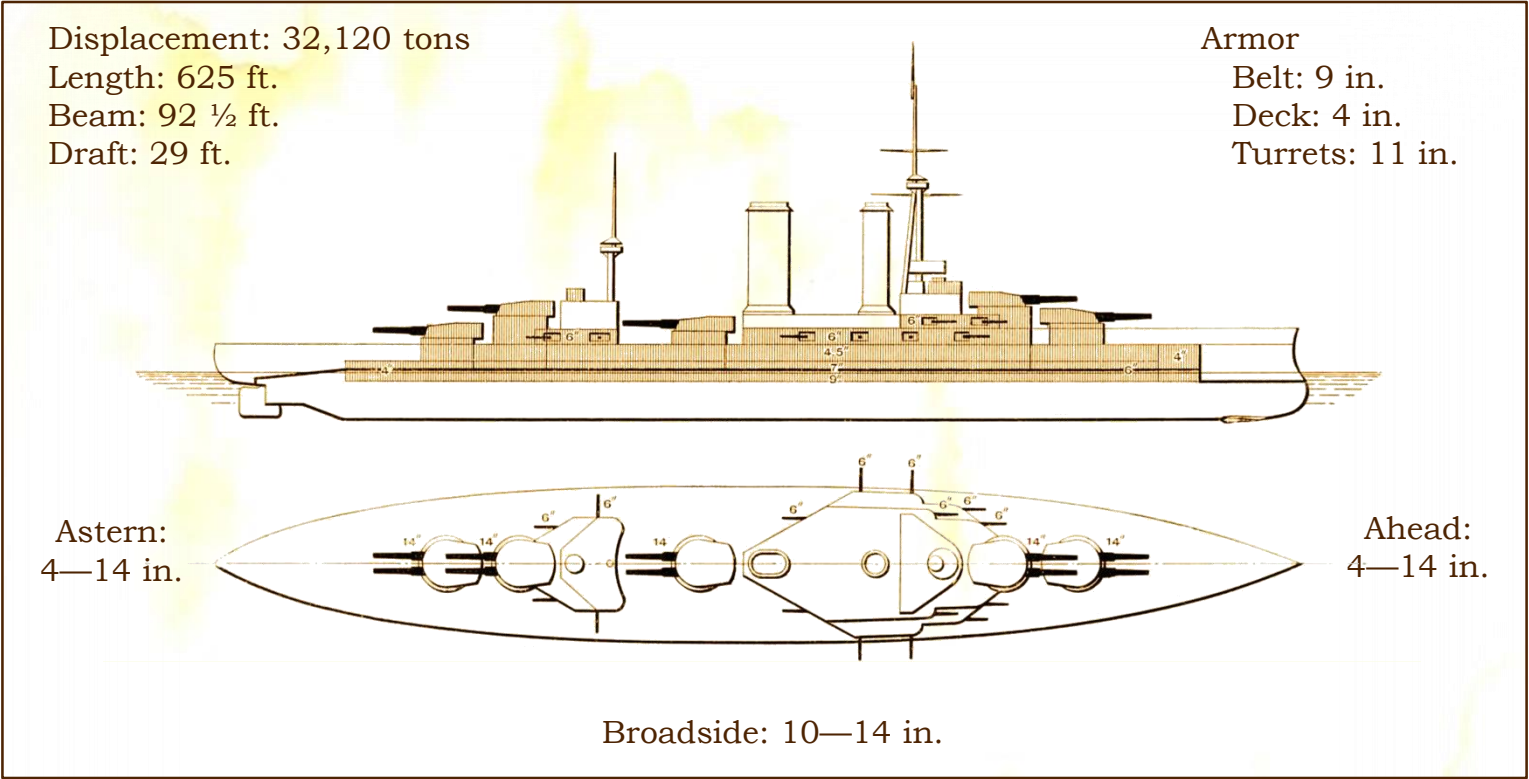
Torpedoes

1 x 18 in. port (submerged)

1 x 18 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3



HMS *Canada* is a super-dreadnought battleship originally built for the Chilean Navy (*Almirante Latorre*). She was the first of a planned two-ship class. She was approaching completion when she was bought by the Royal Navy, refitted and commissioned in September 1915.

Guns: 5 x 2 – 14 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	21 Yarrow boilers, low pressure Parsons and high pressure Brown-Curtis steam turbines; 37,000 shaft horsepower			
1,000	2.03	11,000	0.33	Max speed: 23 kts.			
2,000	1.82	12,000	0.28	Turning diameter: 1,000 yds.			
3,000	1.62	13,000	0.23				
4,000	1.41	14,000	0.19				
5,000	1.21	15,000	0.15				
6,000	1.00	16,000	0.12				
7,000	0.83	17,000	0.09				
8,000	0.69	18,000	0.07				
9,000	0.58	19,000	0.05				
10,000	0.39	20,000	0.05				

Torpedoes			
		2 x 21 in. port (submerged)	
		2 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	23	23	21	21	19	19	17	17	14	14	11	11	9	9	6	6	3	3	1	1

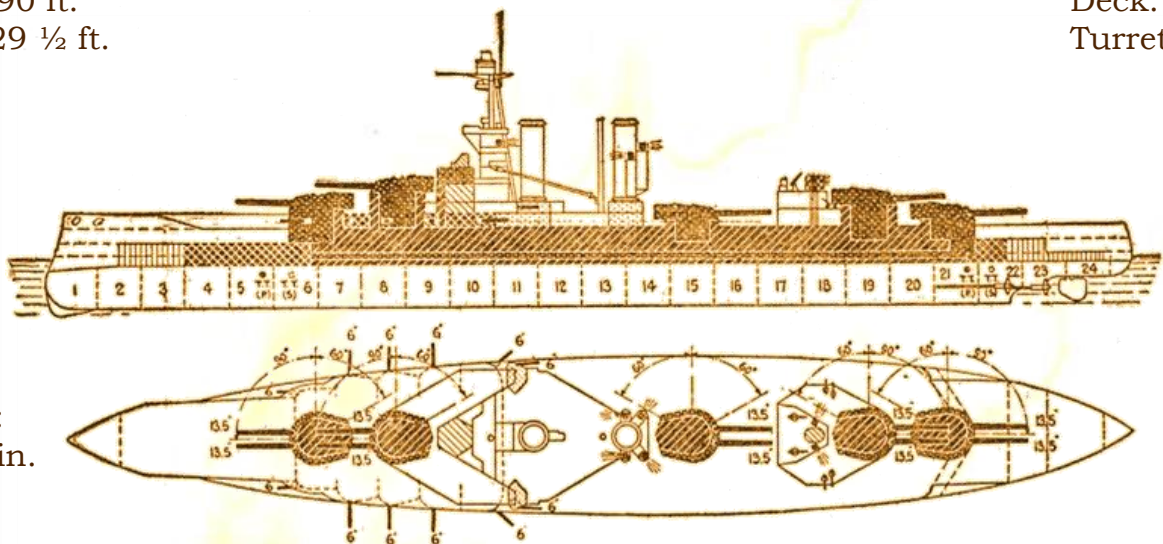
12. HMS BENBOW

(October 1914)

Great Britain

Displacement: 30,030 tons
Length: 623 ft.
Beam: 90 ft.
Draft: 29 ½ ft.

Armor
Belt: 12 in.
Deck: 4 in.
Turrets: 11 in.



Ahead:
4—13.5 in.

Astern:
4—13.5 in.

Broadside: 10—13.5 in.

HMS *Benbow* is one of four *Iron Duke*-class battleships. The *Iron Duke*-class is the third class of Royal Navy super-dreadnoughts. The ships are essentially the same as the *King George V*-class battleships; however, the *Iron Dukes* have improved armour and a more powerful secondary armament than earlier ships.

Guns: 5 x 2 – 13.5 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.95	11,000	0.31
2,000	1.75	12,000	0.26
3,000	1.55	13,000	0.22
4,000	1.36	14,000	0.18
5,000	1.16	15,000	0.14
6,000	0.96	16,000	0.12
7,000	0.80	17,000	0.09
8,000	0.67	18,000	0.07
9,000	0.55	19,000	0.05
10,000	0.37	20,000	0.05

Engines	
4 shaft, 4 Parson direct drive turbines, 18 boilers; 29,000 shaft horsepower	
Max speed: 21 kts. Turning diameter: 1,000 yds.	

Torpedoes	
	2 x 21 in. port (submerged)
	2 x 21 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

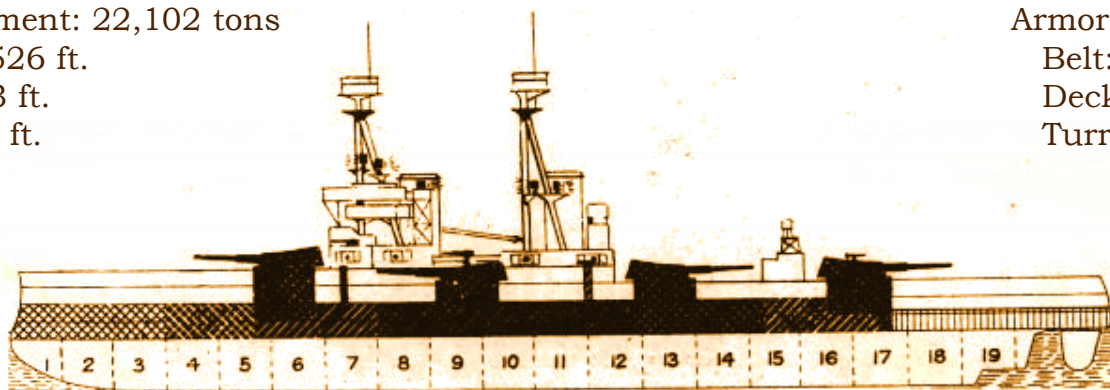
13. HMS BELLEROPHON

(February 1909)

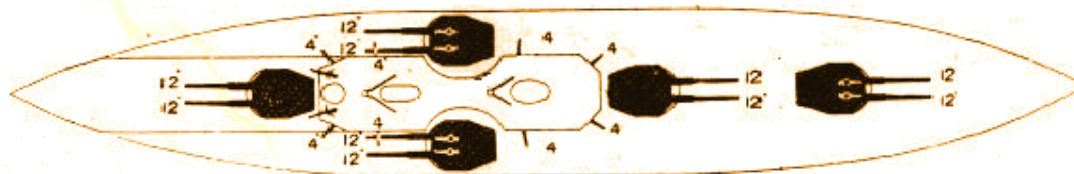
Great Britain

Displacement: 22,102 tons
Length: 526 ft.
Beam: 83 ft.
Draft: 27 ft.

Armor
Belt: 10 in.
Deck: 4 in.
Turrets: 11 in.



Ahead:
6—12 in.



Astern:
4—12 in.

Broadside: 8—12 in.

HMS *Bellerophon* is the lead ship of her class. The *Bellerophon*-class battleships are virtually identical to that of the preceding *Dreadnought*, with some minor improvements. The tripod foremast, which on *Dreadnought* is behind the forward funnel, is positioned in front of the forward funnel. A second tripod mast is placed in front of the second funnel.

Guns: 5 x 2 – 12 in.

Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines

4 shaft, 4 Parson direct drive turbines, 18 boilers; 23,000 shaft horsepower

Max speed: 21 kts.
Turning diameter: 1,000 yds.

Torpedoes

1 x 18 in. port (submerged)

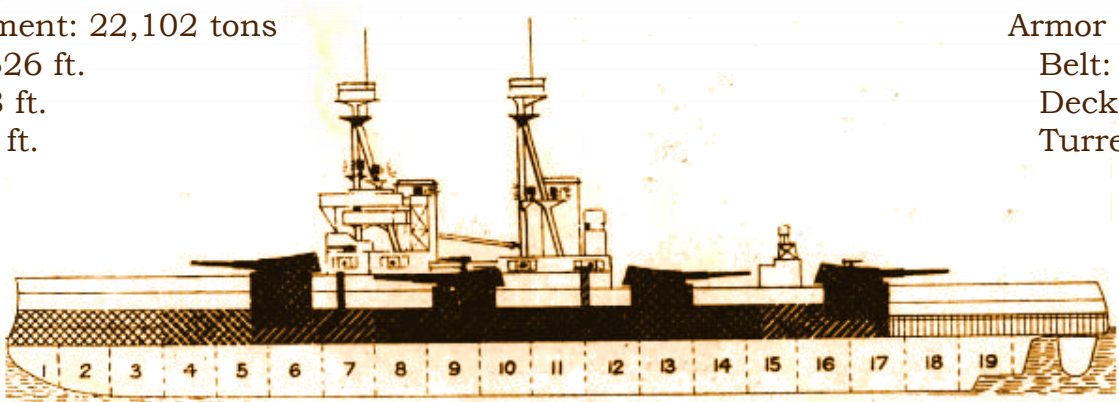
1 x 18 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 22,102 tons
Length: 526 ft.
Beam: 83 ft.
Draft: 27 ft.

Armor
Belt: 10 in.
Deck: 4 in.
Turrets: 11 in.



Ahead:
6—12 in.

Astern:
4—12 in.

Broadside: 8—12 in.

HMS *Temeraire* is the second ship of the *Bellerophon*-class. The *Bellerophon*-class battleships are virtually identical to that of the preceding *Dreadnought*, with some minor improvements. The tripod foremast, which on *Dreadnought* is behind the forward funnel, is positioned in front of the forward funnel. A second tripod mast is placed in front of the second funnel.

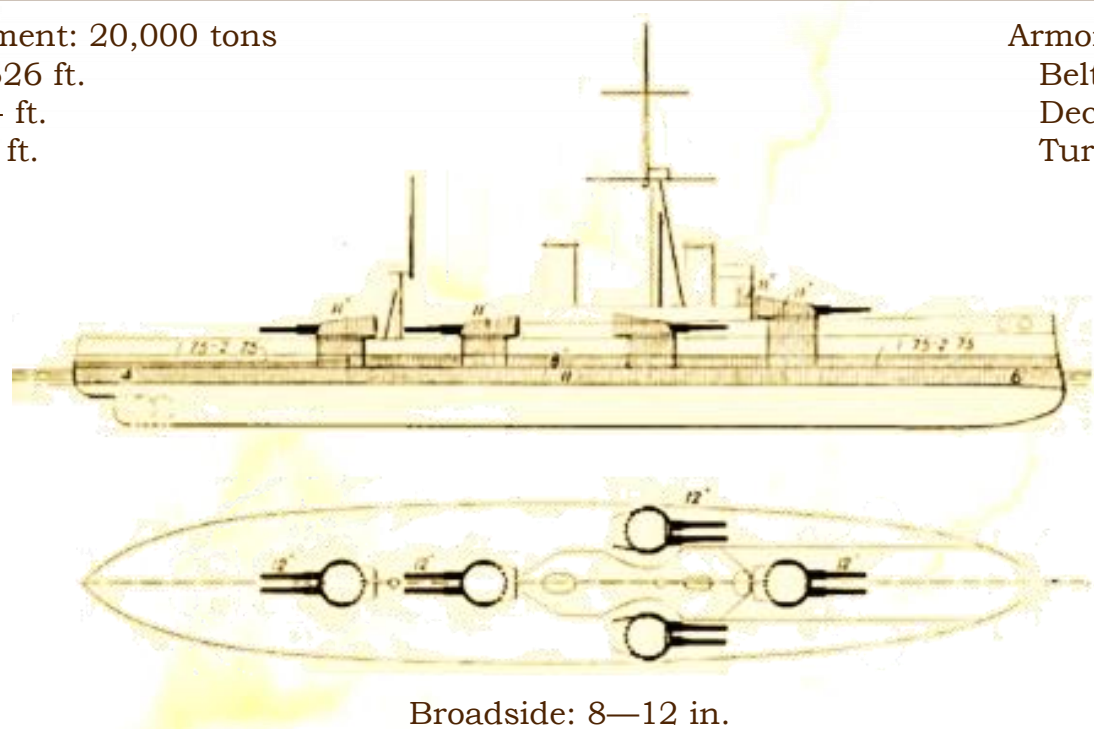
Guns: 5 x 2 – 12 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 23,000 shaft horsepower			
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.			
2,000	1.38	12,000	0.21				
3,000	1.23	13,000	0.17	Torpedoes			
4,000	1.07	14,000	0.14				
5,000	0.92	15,000	0.11	1 x 18 in. port (submerged)			
6,000	0.76	16,000	0.09	1 x 18 in. starboard (submerged)			
7,000	0.63	17,000	0.07				
8,000	0.53	18,000	0.05				
9,000	0.44	19,000	0.04				
10,000	0.29	20,000	0.03				

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 20,000 tons
Length: 526 ft.
Beam: 84 ft.
Draft: 28 ft.

Armor
Belt: 10 in.
Deck: 3 in.
Turrets: 11 in.



Astern:
4—12 in.

Ahead:
4—12 in.

Broadside: 8—12 in.

HMS *Vanguard* is one of three ships of the *St. Vincent*-class battleships. The design is a slightly enlarged version of the previous *Bellerophon*-class battleships. The displacement, length and beam of the *St Vincents* has been increased slightly over the *Bellerophons*, with a more powerful main battery, improved hull armor, and increased total fuel capacity.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 24,500 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03		
				Torpedoes	
				1 x 18 in. port (submerged)	
				1 x 18 in. starboard (submerged)	
				1 x 18 in. stern (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 20,000 tons

Length: 526 ft.

Beam: 84 ft.

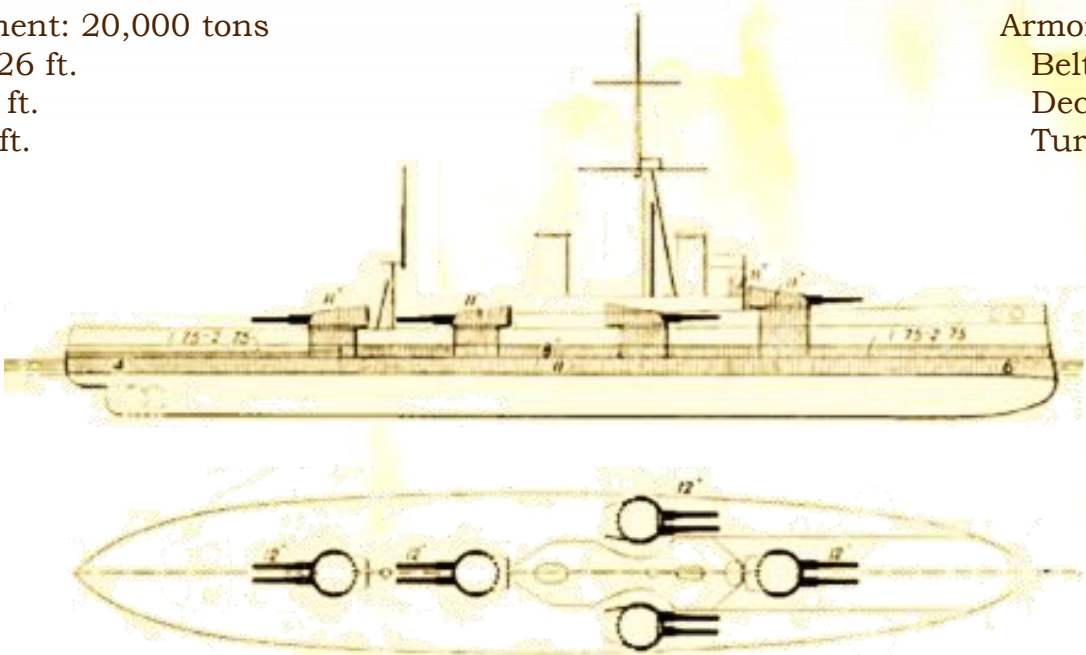
Draft: 28 ft.

Armor

Belt: 10 in.

Deck: 3 in.

Turrets: 11 in.



The image shows two technical drawings of the HMS St. Vincent. The top drawing is a side profile of the battleship, showing its long hull, multiple masts, and gun turrets. The bottom drawing is a plan view (top-down) of the ship, showing the arrangement of gun turrets along the centerline. The plan view includes labels for 'Astern' (rear), 'Ahead' (front), and 'Broadside' (side) views, with corresponding gun ranges and turret counts.

Astern:
4,6—12 in.

Ahead:
6—12 in.

Broadside: 8—12 in.

HMS *St. Vincent* is the lead ship of her class. The design is a slightly enlarged version of the previous *Bellerophon*-class battleships. The displacement, length and beam of the *St Vincents* has been increased slightly over the *Bellerophons*, with a more powerful main battery, improved hull armor, and increased total fuel capacity.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 24,500 shaft horsepower	
1,000	1.54	11,000	0.25		
2,000	1.38	12,000	0.21	Max speed: 21 kts. Turning diameter: 1,000 yds.	
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14	Torpedoes	
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09	1 x 18 in. port (submerged)	
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05	1 x 18 in. starboard (submerged)	
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03		

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

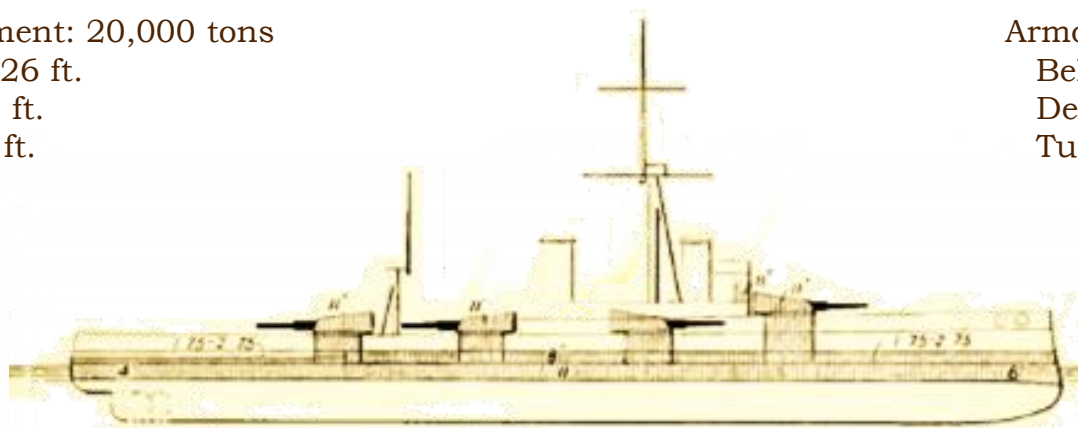
17. HMS COLLINGWOOD

(April 1910)

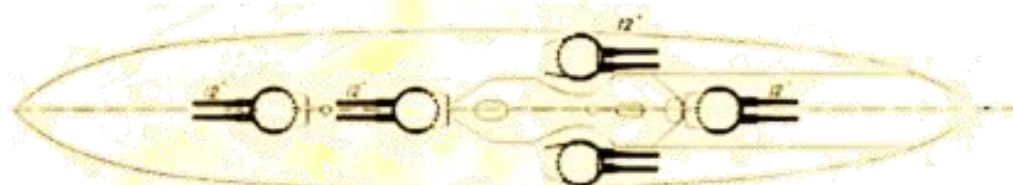
Great Britain

Displacement: 20,000 tons
Length: 526 ft.
Beam: 84 ft.
Draft: 28 ft.

Armor
Belt: 10 in.
Deck: 3 in.
Turrets: 11 in.



Astern:
4—12 in.



Ahead:
6—12 in.

Broadside: 8—12 in.

HMS *Collingwood* is one of three ships of the *St. Vincent*-class battleships. The design is a slightly enlarged version of the previous *Bellerophon*-class battleships. The displacement, length and beam of the *St Vincents* has been increased slightly over the *Bellerophons*, with a more powerful main battery, improved hull armor, and increased total fuel capacity.

Guns: 5 x 2 – 12 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.54	11,000	0.25
2,000	1.38	12,000	0.21
3,000	1.23	13,000	0.17
4,000	1.07	14,000	0.14
5,000	0.92	15,000	0.11
6,000	0.76	16,000	0.09
7,000	0.63	17,000	0.07
8,000	0.53	18,000	0.05
9,000	0.44	19,000	0.04
10,000	0.29	20,000	0.03

Engines
4 shaft, 4 Parson direct drive turbines, 18 boilers; 24,500 shaft horsepower
Max speed: 21 kts. Turning diameter: 1,000 yds.

Torpedoes
1 x 18 in. port (submerged)
1 x 18 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 22,700 tons

Length: 546 ft.

Beam: 85 ft.

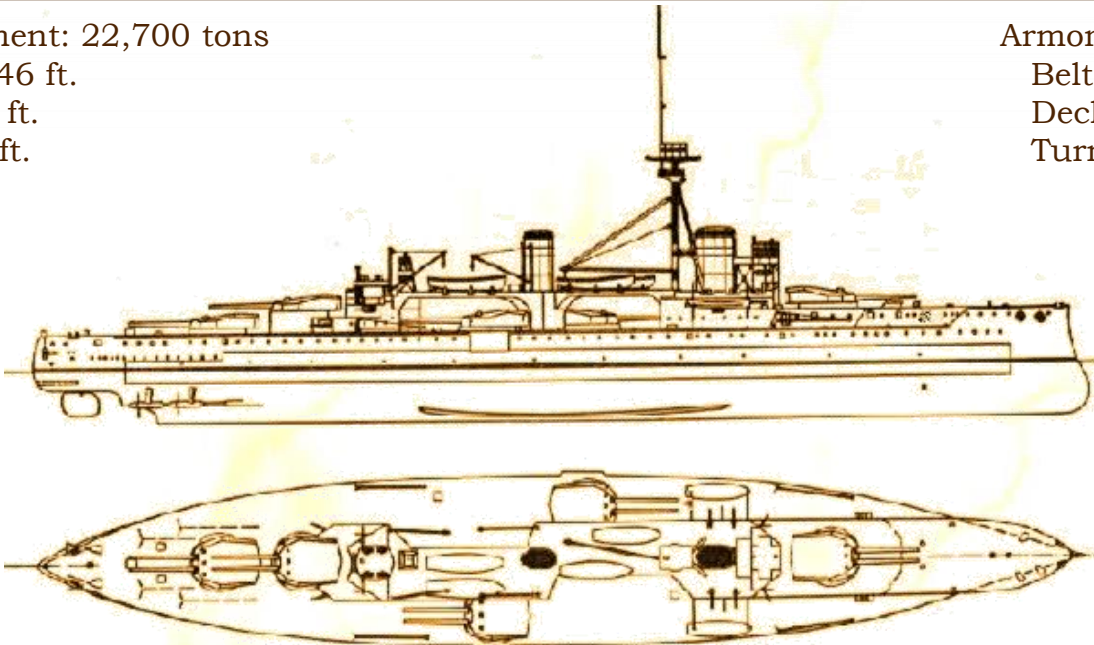
Draft: 28 ft.

Armor

Belt: 11 in.

Deck: 3 in.

Turrets: 11 in.



The image shows two technical drawings of the HMS Colossus. The top drawing is a side profile of the battleship, showing its long hull, multiple gun turrets, and a complex superstructure with various masts and funnels. The bottom drawing is a top-down view of the ship, illustrating the layout of the gun turrets and the internal structure of the hull.

Astern:
4—12 in.

Ahead:
4—12 in.

Broadside: 8—12 in.

HMS *Colossus* is the lead battleship of her class. The *Colossus*-class of battleships are among the first battleships following the original HMS *Dreadnought* of 1906. They are the last 12-inch gunned dreadnought battleships built for the Royal Navy, and are followed by the first "super-dreadnoughts", the *Orion*-class battleships with 13.5-inch guns.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 25,000 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

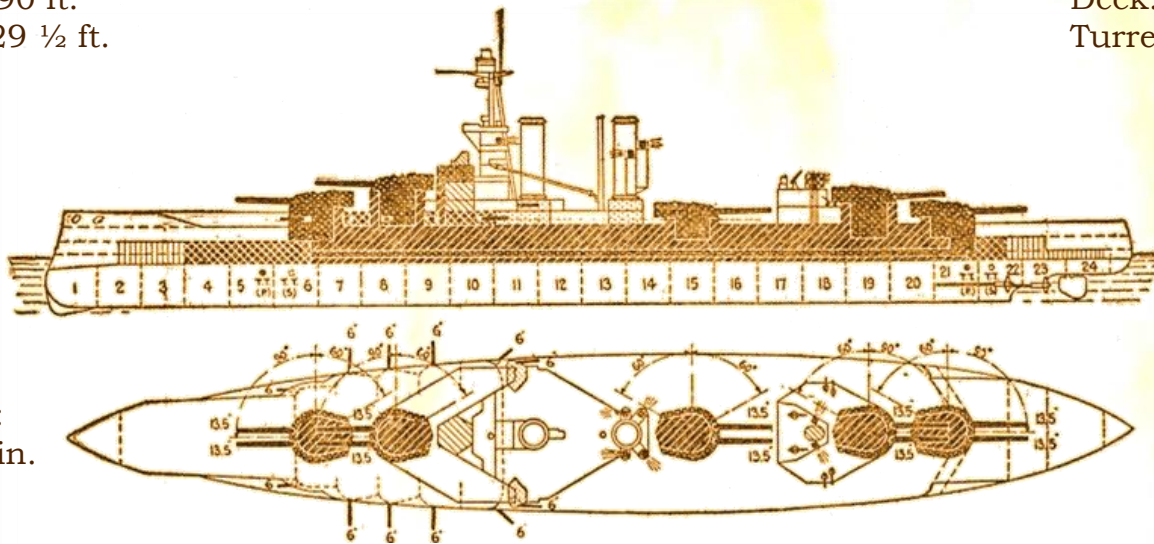
19. HMS MARLBOROUGH

(June 1914)

Great Britain

Displacement: 30,030 tons
Length: 623 ft.
Beam: 90 ft.
Draft: 29 ½ ft.

Armor
Belt: 12 in.
Deck: 4 in.
Turrets: 11 in.



Ahead:
4—13.5 in.

Astern:
4—13.5 in.

Broadside: 10—13.5 in.

HMS *Marlborough* is one of four *Iron Duke*-class battleships. The *Iron Duke*-class is the third class of Royal Navy super-dreadnoughts. The ships are essentially the same as the *King George V*-class battleships; however, the *Iron Dukes* have improved armour and a more powerful secondary armament than earlier ships.

Guns: 5 x 2 – 13.5 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.95	11,000	0.31
2,000	1.75	12,000	0.26
3,000	1.55	13,000	0.22
4,000	1.36	14,000	0.18
5,000	1.16	15,000	0.14
6,000	0.96	16,000	0.12
7,000	0.80	17,000	0.09
8,000	0.67	18,000	0.07
9,000	0.55	19,000	0.05
10,000	0.37	20,000	0.05

Engines	
4 shaft, 4 Parson direct drive turbines, 18 boilers; 29,000 shaft horsepower	
Max speed: 21 kts.	
Turning diameter: 1,000 yds.	

Torpedoes	
	2 x 21 in. port (submerged)
	2 x 21 in. starboard (submerged)

* Hits per gun, per 2½ minute move

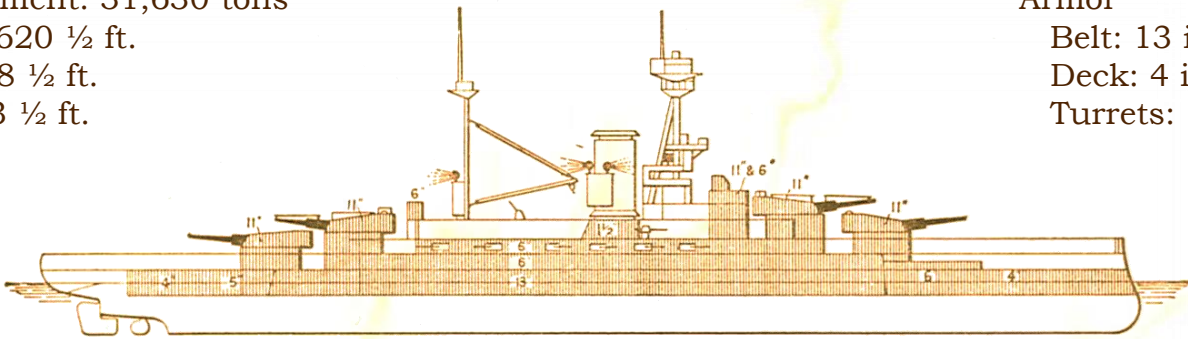
Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

20. HMS REVENGE

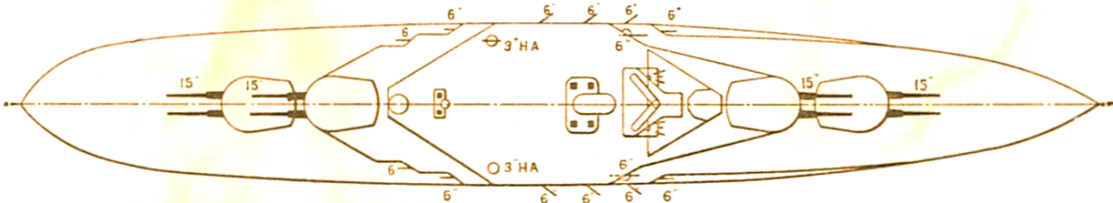
(September 1915) Great Britain

Displacement: 31,630 tons
Length: 620 ½ ft.
Beam: 88 ½ ft.
Draft: 33 ½ ft.

Armor
Belt: 13 in.
Deck: 4 in.
Turrets: 13 in.



Astern:
4—15 in.



Ahead:
4—15 in.

Broadside: 8—15 in.

The *Revenge*-class battleships, also known as *Royal Sovereign*-class and sometimes referred to as the "R" class, are five battleships of the Royal Navy. There were originally to have been eight of the class, but two were later redesigned, becoming the *Renown*-class battlecruisers, while the other, which was to have been named *HMS Resistance*, has been cancelled.

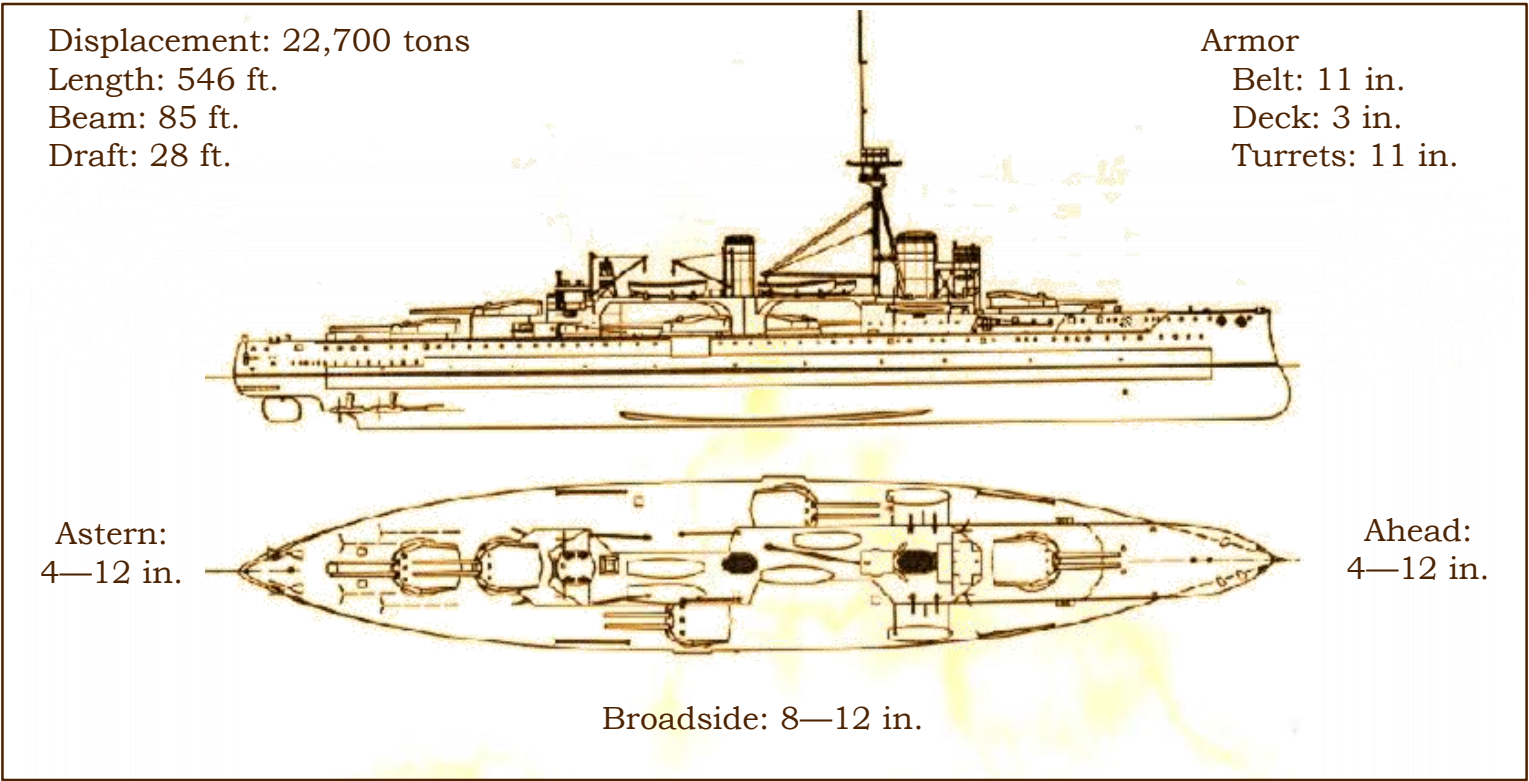
Guns: 4 x 2 – 15 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	2.69	11,000	0.44
2,000	2.42	12,000	0.37
3,000	2.15	13,000	0.31
4,000	1.87	14,000	0.25
5,000	1.60	15,000	0.19
6,000	1.33	16,000	0.16
7,000	1.11	17,000	0.12
8,000	0.92	18,000	0.09
9,000	0.77	19,000	0.07
10,000	0.52	20,000	0.06

Engines	
4 shaft, 4 steam turbines, 18 Babcock and Wilcox boilers; 40,000 shaft horsepower	
Max speed: 23 kts. Turning diameter: 1,000 yds.	

Torpedoes	
	2 x 21 in. port (submerged)
	2 x 21 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	23	23	21	21	19	19	17	17	14	14	11	11	9	9	6	6	3	3	1	1

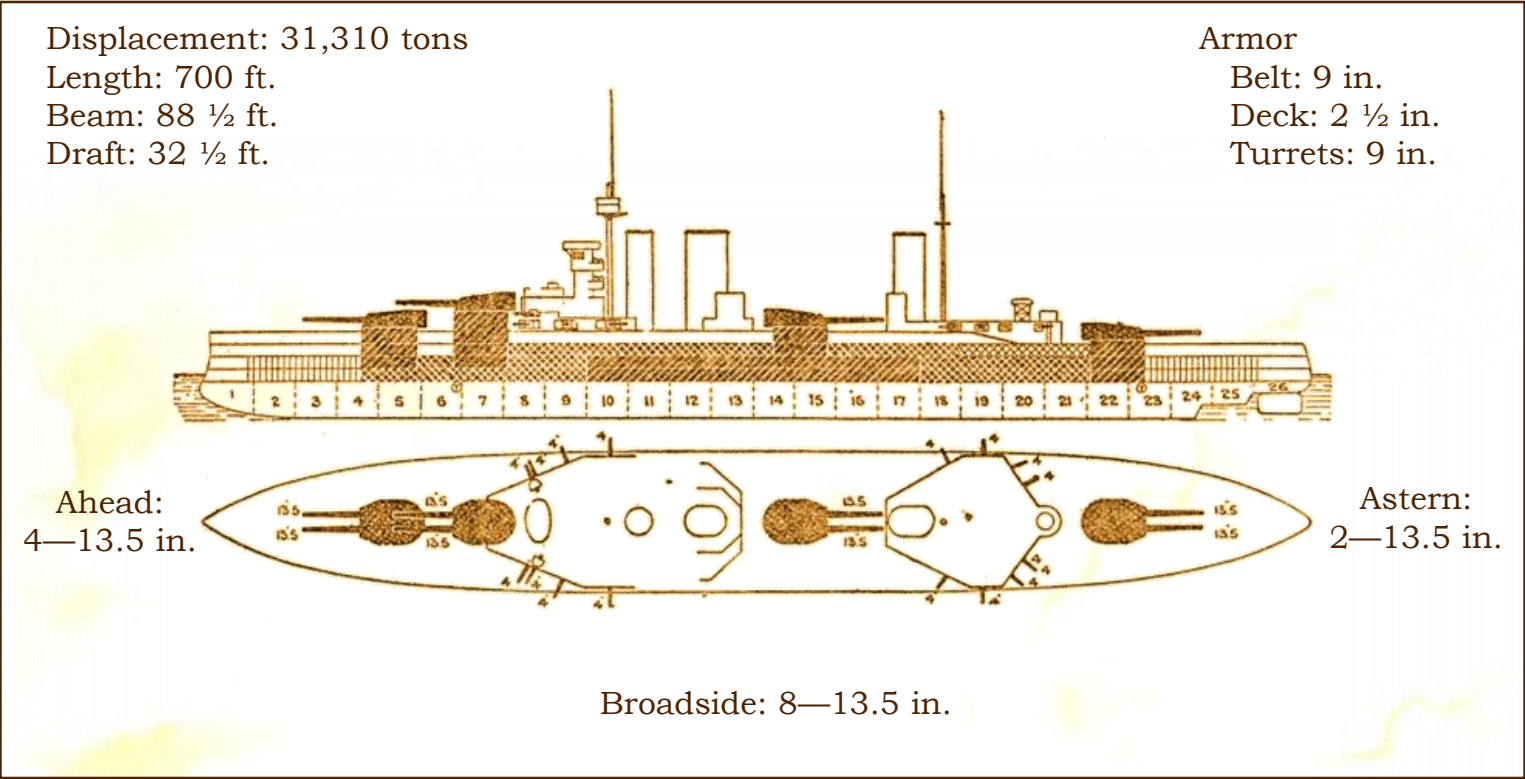


HMS *Hercules* is the second ship of the *Colossus*-class. The *Colossus*-class of battleships are among the first battleships following the original HMS *Dreadnought* of 1906. They are the last 12-inch gunned dreadnought battleships built for the Royal Navy, and are followed by the first "super-dreadnoughts", the *Orion*-class battleships with 13.5-inch guns.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft, 4 Parson direct drive turbines, 18 boilers; 25,000 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

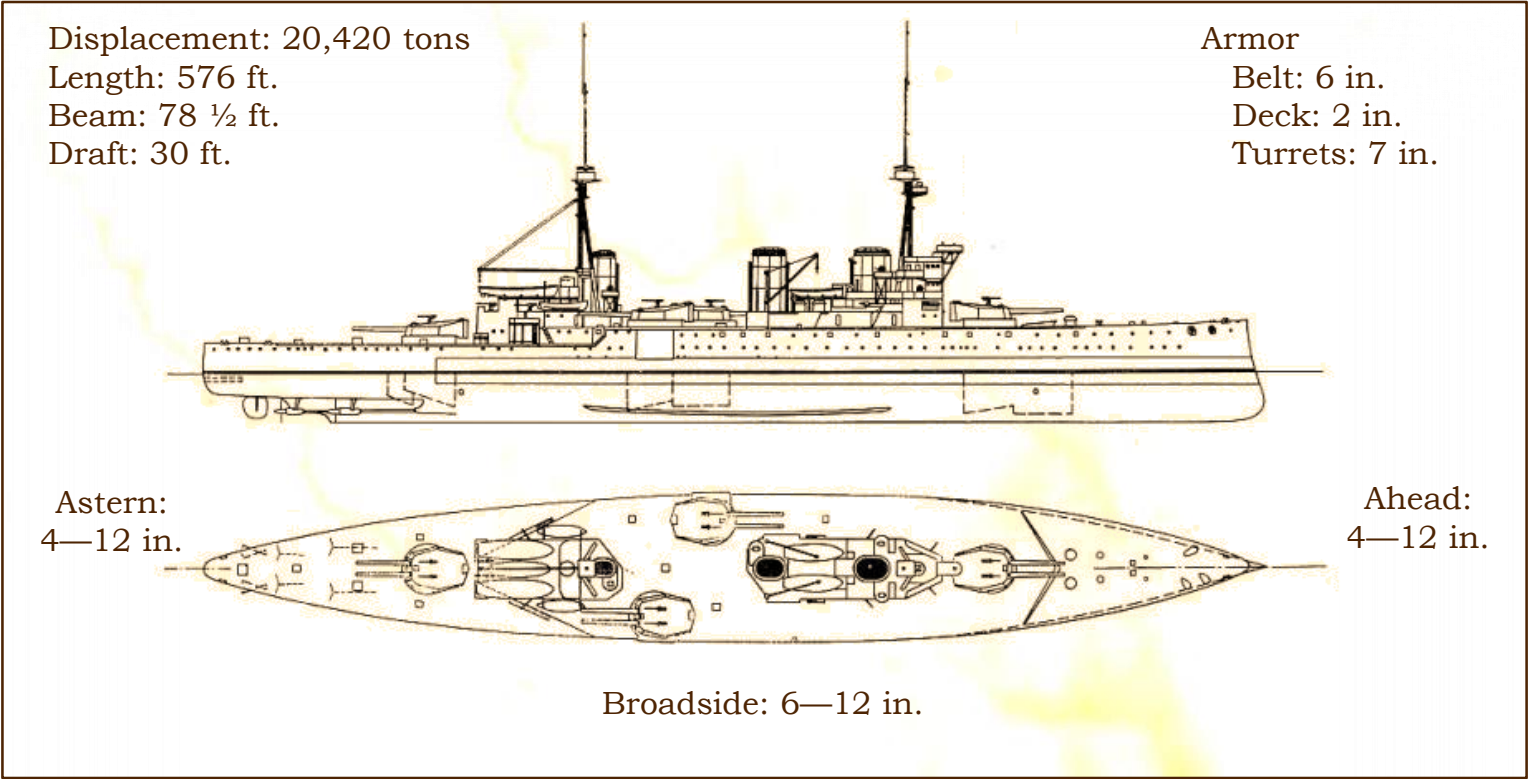


HMS *Lion* is the lead ship of the *Lion*-class battlecruisers. They are significant improvements over their predecessors of the *Indefatigable*-class in terms of speed, armament and armour. The *Lion*-class ships are 2 knots faster, exchange the 12-inch guns of the older ships for the same number of 13.5-inch guns, and have a waterline armour belt of 9 inches.

Guns: 4 x 2 – 13.5 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shaft Parsons turbines; 42 Yarrow tube boilers; 70,000 shaft horsepower	
1,000	1.95	11,000	0.31		
2,000	1.75	12,000	0.26	Max speed: 28 kts. Turning diameter: 1,000 yds.	
3,000	1.55	13,000	0.22		
4,000	1.36	14,000	0.18	Torpedoes	
5,000	1.16	15,000	0.14		
6,000	0.96	16,000	0.12		1 x 21 in. port (submerged)
7,000	0.80	17,000	0.09		1 x 21 in. starboard (submerged)
8,000	0.67	18,000	0.07		
9,000	0.55	19,000	0.05		
10,000	0.37	20,000	0.05		

* Hits per gun, per 2½ minute move

Resisting Power	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	
Kts	28	28	25	25	22	19	19	16	13	13	10	7	7	4	4	1	



HMS *Indomitable* is the second ship of the *Invincible*-class. The *Invincible*-class ships were formally known as armoured cruisers until 1911 when they were redesignated as battlecruisers. The *Invincible*-class is significantly larger than their armoured cruiser predecessors of the *Minotaur*-class.

Guns: 4 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shafts, Parsons direct-drive steam turbines; 41,000 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 25 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
					2 x 21 in. port (submerged)
					2 x 21 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	10	9	8	7	6	5	4	3	2	1	Out of Action
	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	
Kts	25	22	19	16	13	10	7	4	1	0	

Displacement: 20,420 tons

Length: 576 ft.

Beam: 78 ½ ft.

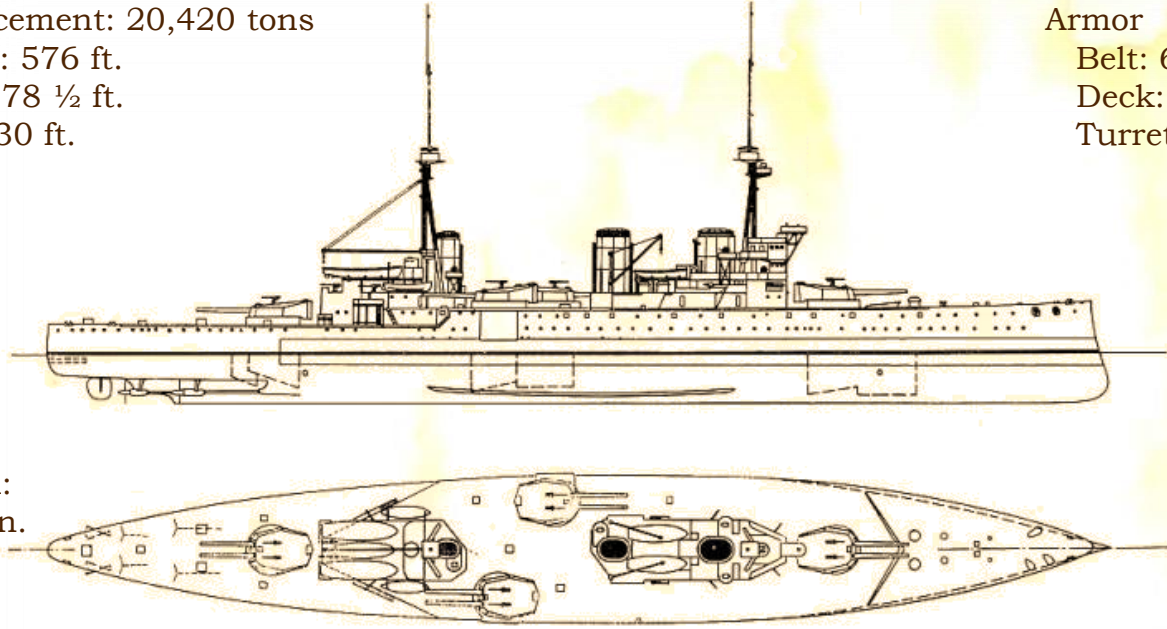
Draft: 30 ft.

Armor

Belt: 6 in.

Deck: 2 in.

Turrets: 7 in.



The image shows two technical drawings of the HMS Inflexible. The top drawing is a side profile of the ship, showing its long hull, two main masts, and various deck structures. The bottom drawing is a top-down view of the ship, showing the layout of the gun turrets and the ship's beam. The ship is oriented horizontally, with the bow to the right.

Astern:
4—12 in.

Ahead:
4—12 in.

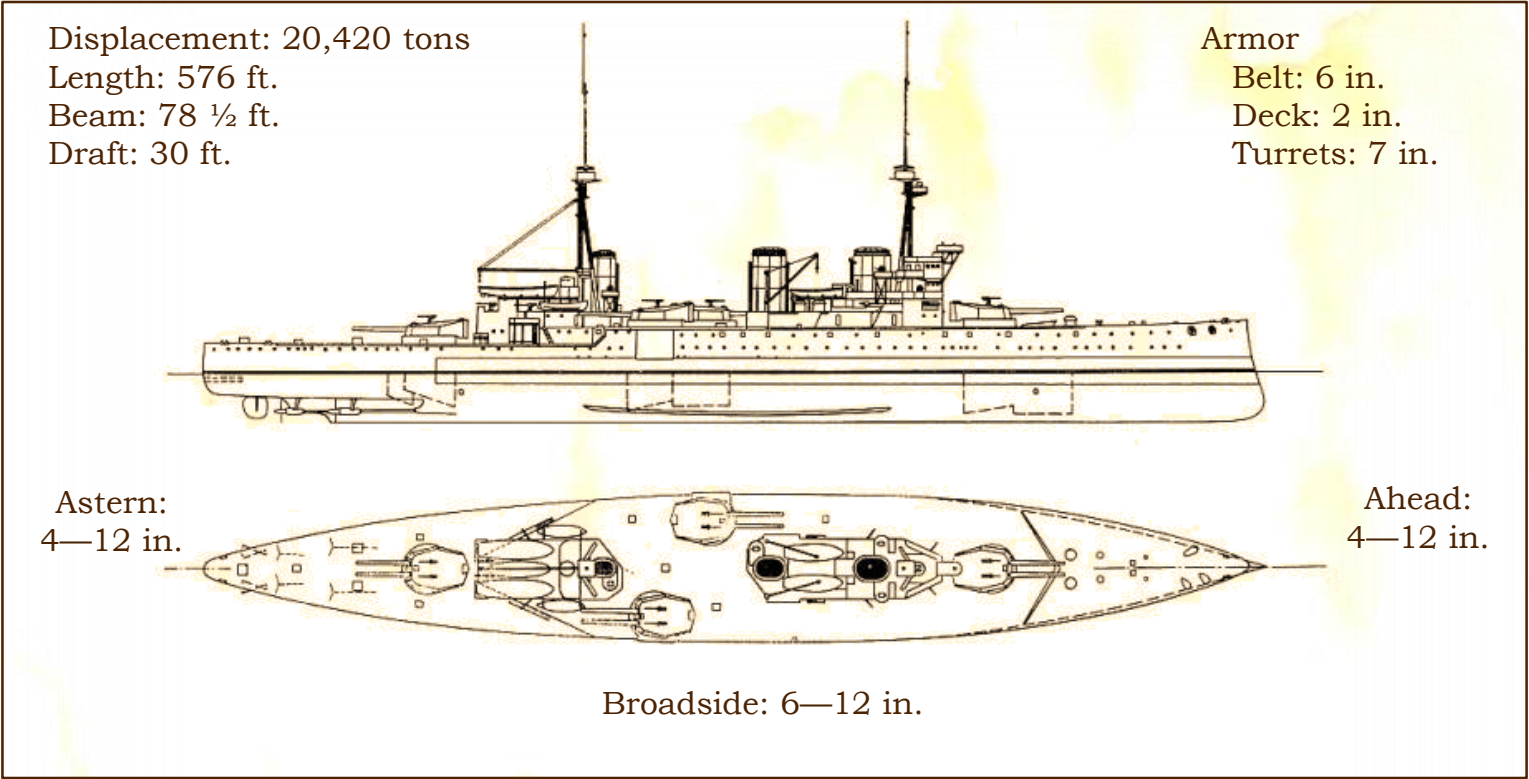
Broadside: 6—12 in.

HMS *Inflexible* is the third and last ship of the *Invincible*-class. The *Invincible*-class ships were formally known as armoured cruisers until 1911 when they were redesignated as battlecruisers. The *Invincible*-class is significantly larger than their armoured cruiser predecessors of the *Minotaur*-class.

Guns: 4 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shafts, Parsons direct-drive steam turbines; 41,000 shaft horsepower	
1,000	1.54	11,000	0.25		
2,000	1.38	12,000	0.21	Max speed: 25 kts. Turning diameter: 1,000 yds.	
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14	Torpedoes	
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03		

* Hits per gun, per 2½ minute move

Resisting Power	10	9	8	7	6	5	4	3	2	1	Out of Action
	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	
Kts	25	22	19	16	13	10	7	4	1	0	



HMS *Invincible* is the lead ship of the *Invincible*-class. The *Invincible*-class ships were formally known as armoured cruisers until 1911 when they were redesignated as battlecruisers. The *Invincible*-class is significantly larger than their armoured cruiser predecessors of the *Minotaur*-class.

Guns: 4 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shafts, Parsons direct-drive steam turbines; 41,000 shaft horsepower	
1,000	1.54	11,000	0.25		
2,000	1.38	12,000	0.21	Max speed: 25 kts. Turning diameter: 1,000 yds.	
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14	Torpedoes	
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		2 x 21 in. port (submerged)
7,000	0.63	17,000	0.07		2 x 21 in. starboard (submerged)
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03		

* Hits per gun, per 2½ minute move

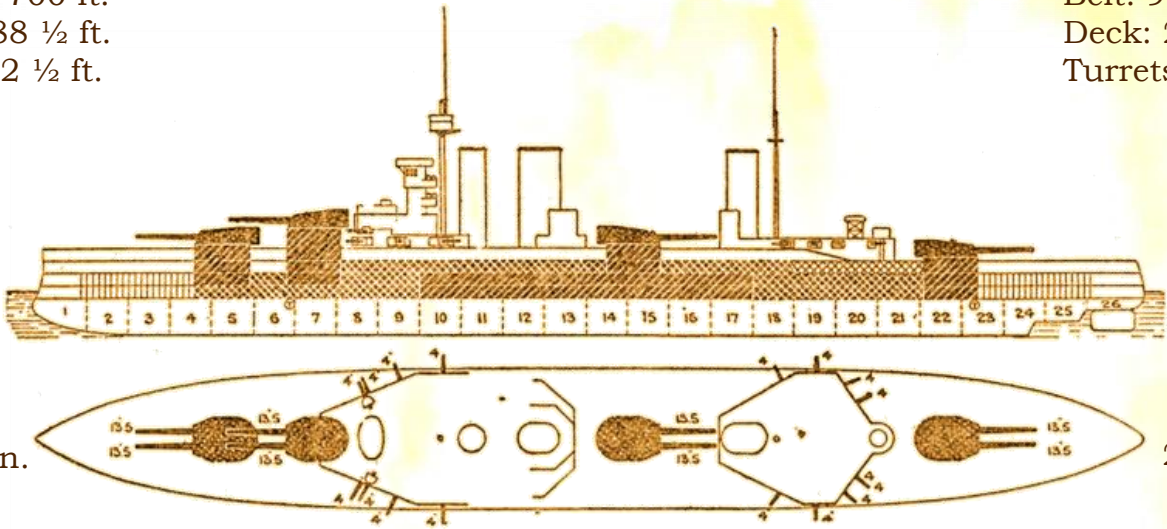
Resisting Power	10	9	8	7	6	5	4	3	2	1	Out of Action
	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	
Kts	25	22	19	16	13	10	7	4	1	0	

26. HMS PRINCESS ROYAL

(November 1912) Great Britain

Displacement: 31,310 tons
Length: 700 ft.
Beam: 88 ½ ft.
Draft: 32 ½ ft.

Armor
Belt: 9 in.
Deck: 2 ½ in.
Turrets: 9 in.



Ahead:
4—13.5 in.

Astern:
2—13.5 in.

Broadside: 8—13.5 in.

HMS *Princess Royal* is the second ship of the *Lion*-class battlecruisers. They are significant improvements over their predecessors of the *Indefatigable*-class in terms of speed, armament and armour. The *Lion*-class ships are 2 knots faster, exchange the 12-inch guns of the older ships for the same number of 13.5-inch guns, and have a waterline armour belt of 9 inches.

Guns: 4 x 2 – 13.5 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.95	11,000	0.31
2,000	1.75	12,000	0.26
3,000	1.55	13,000	0.22
4,000	1.36	14,000	0.18
5,000	1.16	15,000	0.14
6,000	0.96	16,000	0.12
7,000	0.80	17,000	0.09
8,000	0.67	18,000	0.07
9,000	0.55	19,000	0.05
10,000	0.37	20,000	0.05

Engines	
4 shaft Parsons turbines; 42 Yarrow tube boilers; 70,000 shaft horsepower	
Max speed: 28 kts.	
Turning diameter: 1,000 yds.	

Torpedoes	
	1 x 21 in. port (submerged)
	1 x 21 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	
Kts	28	28	25	25	22	19	19	16	13	13	10	7	7	4	4	1	

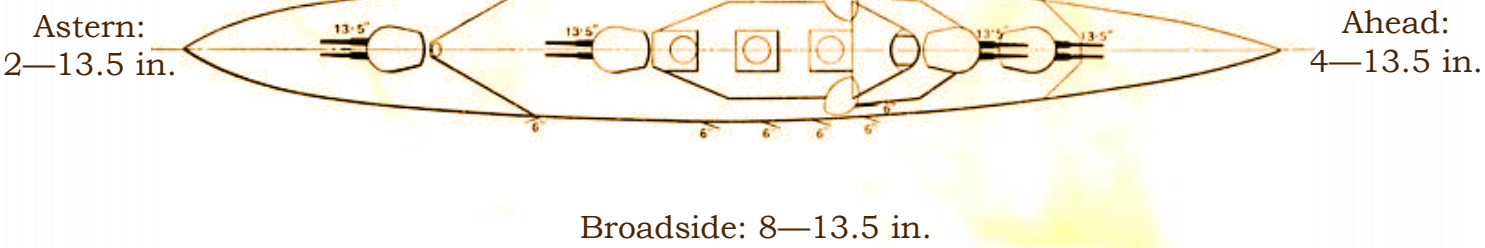
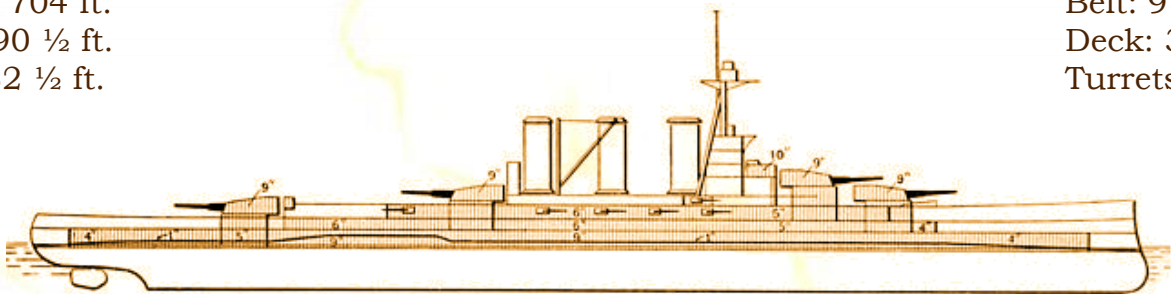
27. HMS TIGER

(October 1914)

Great Britain

Displacement: 33,790 tons
Length: 704 ft.
Beam: 90 ½ ft.
Draft: 32 ½ ft.

Armor
Belt: 9 in.
Deck: 3 in.
Turrets: 9 in.



HMS *Tiger* is the lead and only ship of the *Tiger*-class battlecruisers. Similar in performance to the *Lion*-class battlecruisers, HMS *Tiger* mounts four 2 x 13.5 gun turrets with improved aft firing arcs over the *Lion* class, and additional beam mounted torpedo tubes.

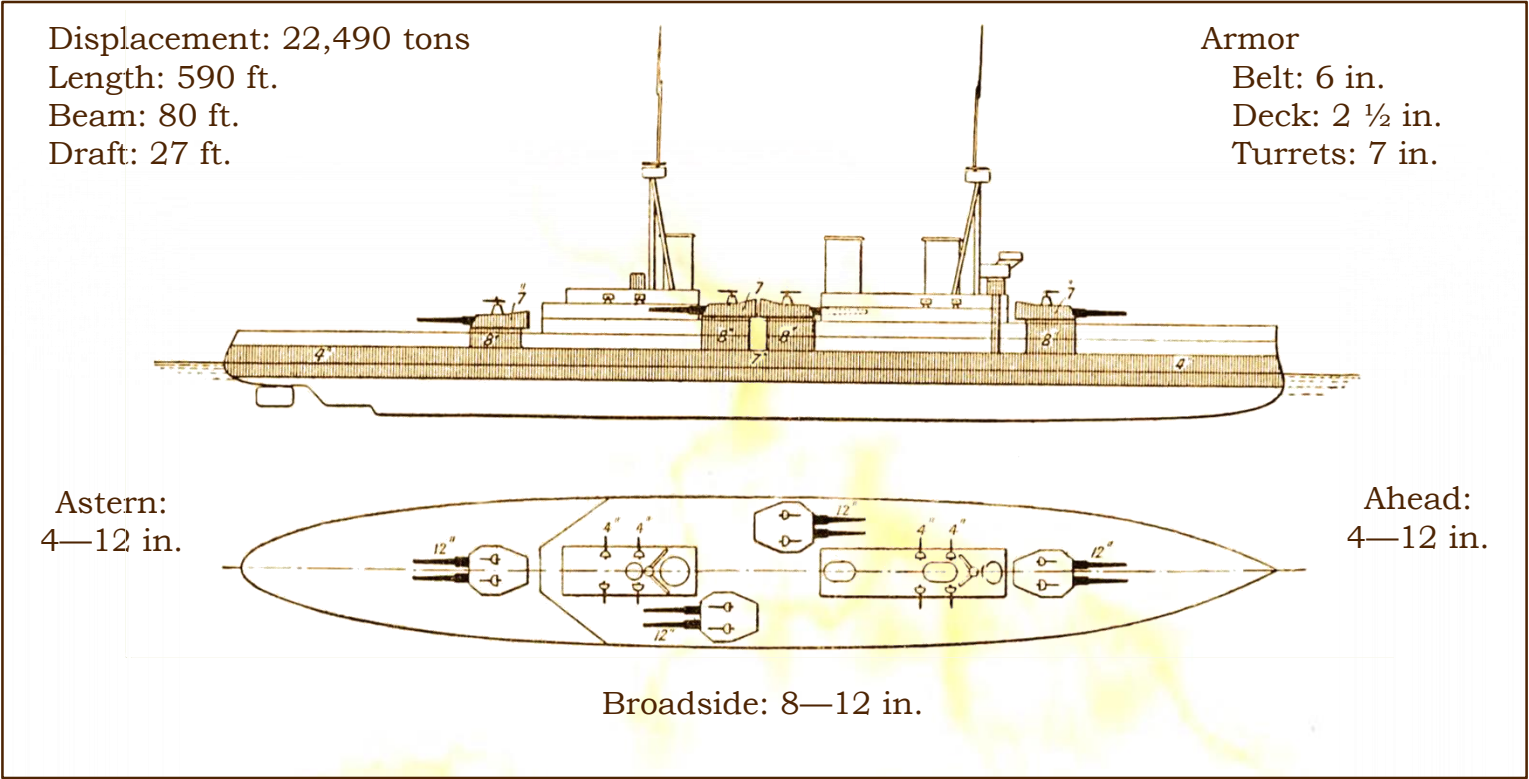
Guns: 4 x 2 – 13.5 in.			
Range (Yds.)	Hits*	Range (Yds.)	Hits*
1,000	1.95	11,000	0.31
2,000	1.75	12,000	0.26
3,000	1.55	13,000	0.22
4,000	1.36	14,000	0.18
5,000	1.16	15,000	0.14
6,000	0.96	16,000	0.12
7,000	0.80	17,000	0.09
8,000	0.67	18,000	0.07
9,000	0.55	19,000	0.05
10,000	0.37	20,000	0.05

Engines	
4 shaft, twin Brown-Curtis turbines; 85,000 shaft horsepower	
Max speed: 28 kts.	
Turning diameter: 1,000 yds.	

Torpedoes	
	2 x 21 in. port (submerged)
	2 x 21 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Out of Action
	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	1	1	0.9	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	
Kts	28	28	25	25	22	19	19	16	13	13	10	7	7	4	4	1	



HMS *New Zealand* is one of three *Indefatigable*-class battlecruisers. The *Indefatigable* class is not a significant improvement on the preceding *Invincible*-class; the main difference is the enlargement of the dimensions to give the ships' two wing turrets a wider arc of fire.

Guns: 4 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	4 shafts, Parsons direct-drive steam turbines; 44,000 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 25 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
					2 x 21 in. port (submerged)
					2 x 21 in. starboard (submerged)

* Hits per gun, per 2½ minute move

Resisting Power	10	9	8	7	6	5	4	3	2	1	Out of Action
	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75	
	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50	
	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25	
Fp	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	
Kts	25	22	19	16	13	10	7	4	1	0	

Displacement: 22,400 tons

Length: 518 ft.

Beam: 85 ft.

Draft: 29 ft.

Astern:
4—12 in.

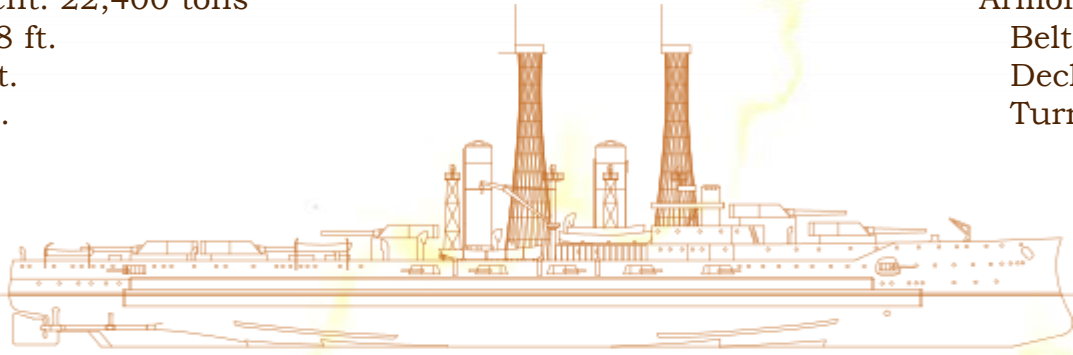
Ahead:
4—12 in.

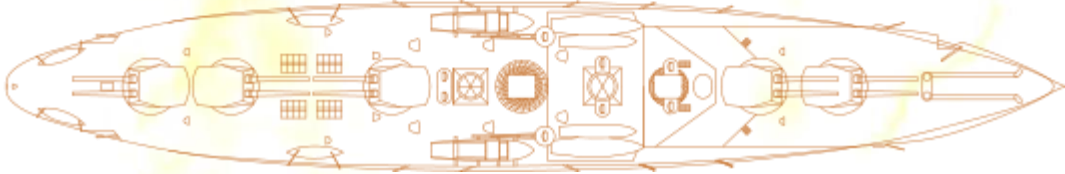
Armor

Belt: 11 in.

Deck: 2 in.

Turrets: 12 in.





Broadside: 10—12 in.

USS *Delaware* is a dreadnought battleship, the lead ship of her class. USS *Delaware* is armed with a main battery of ten 12-inch guns, making her the most powerful battleship in the world at the time of her construction. She is also the first battleship of the US Navy to be capable of steaming at full speed for 24 continuous hours without suffering a breakdown.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	14 Babcock & Wilcox coal-fired boilers, 2 vertical triple-expansion steam engines; 25,000 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 23,033 tons

Length: 521 ft.

Beam: 88 ft.

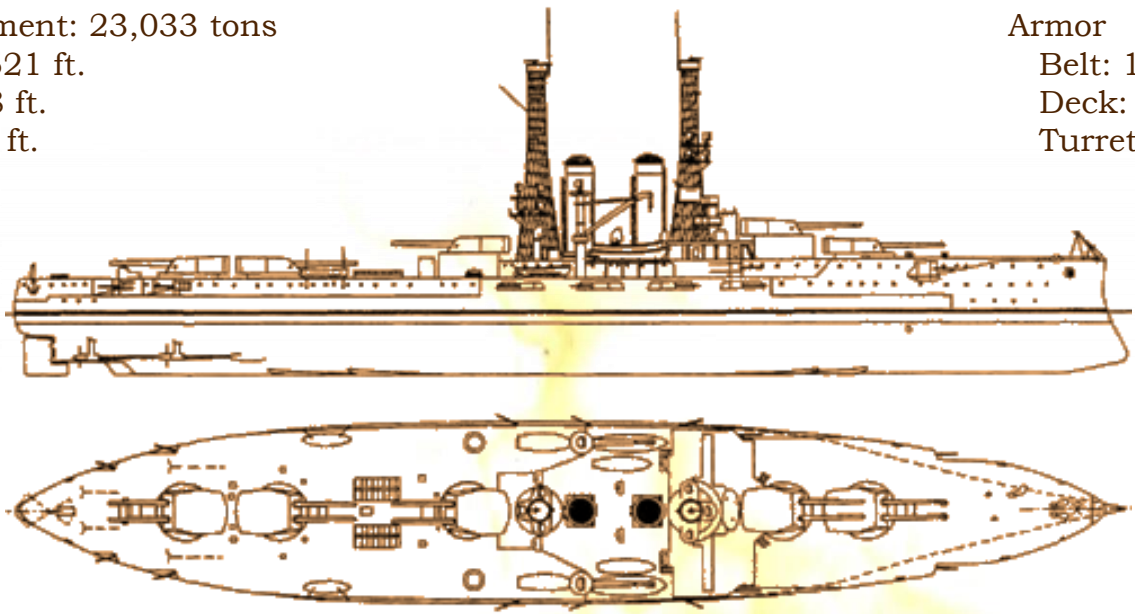
Draft: 30 ft.

Armor

Belt: 11 in.

Deck: 2 ½ in.

Turrets: 12 in.



A detailed line drawing of the USS Florida. The top view shows the ship's hull, gun turrets, and internal layout. The side view shows the ship's profile, including the mainmast, funnels, and gun turrets.

Astern:
4—12 in.

Ahead:
4—12 in.

Broadside: 10—12 in.

USS *Florida* is the lead ship of the *Florida* class of dreadnought battleships. She has one sister ship, USS *Utah*. USS *Florida* was launched in May 1910, and commissioned into the US Navy in September 1911. She is armed with a main battery of ten 12-inch guns and is very similar in design to the preceding *Delaware*-class battleships.

Guns: 5 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	12 Babcock & Wilcox coal-fired boilers, 2 vertical triple-expansion steam engines; 28,000 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 27,243 tons

Length: 562 ft.

Beam: 93 ft.

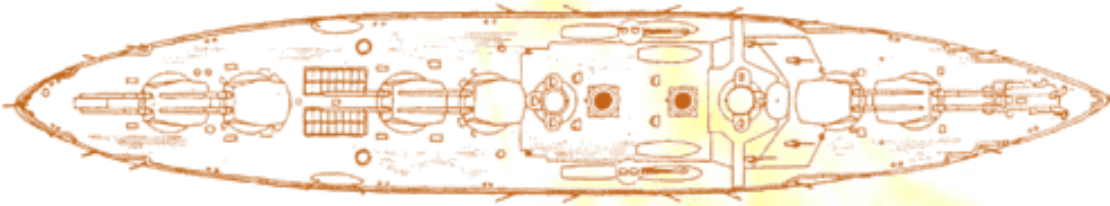
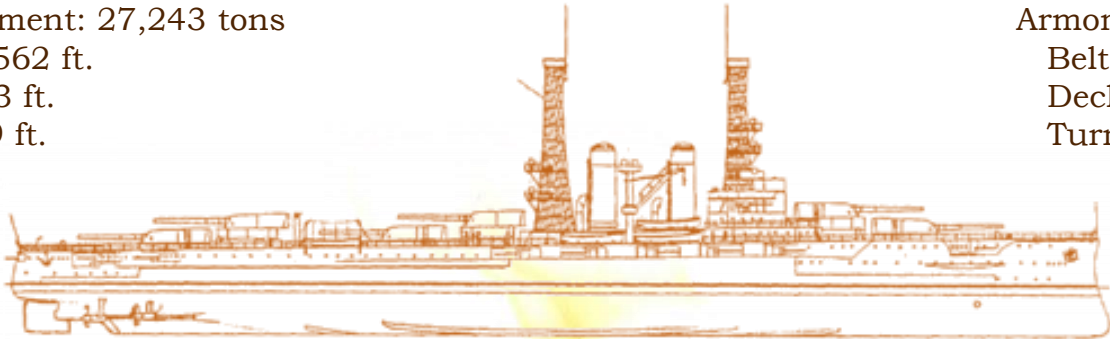
Draft: 29 ft.

Armor

Belt: 11 in.

Deck: 2 ½ in.

Turrets: 12 in.



Astern:
8—12 in.

Ahead:
4—12 in.

Broadside: 12—12 in.

USS *Wyoming* a dreadnought battleship, the lead ship of her class. USS *Wyoming* is armed with a main battery of twelve 12-inch guns in six twin gun turrets on the centerline, two of which were placed in a superfiring pair forward. The secondary battery consisted of twenty-one 5-inch (guns mounted in casemates along the side of the hull).

Guns: 6 x 2 – 12 in.				Engines	
Range (Yds.)	Hits*	Range (Yds.)	Hits*	12 Babcock & Wilcox coal-fired boilers, 2 vertical triple-expansion steam engines; 28,000 shaft horsepower	
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.	
2,000	1.38	12,000	0.21		
3,000	1.23	13,000	0.17		
4,000	1.07	14,000	0.14		
5,000	0.92	15,000	0.11		
6,000	0.76	16,000	0.09		
7,000	0.63	17,000	0.07		
8,000	0.53	18,000	0.05		
9,000	0.44	19,000	0.04		
10,000	0.29	20,000	0.03	Torpedoes	
				1 x 21 in. port (submerged)	
				1 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3

Displacement: 28,367 tons

Length: 573 ft.

Beam: 95 ft.

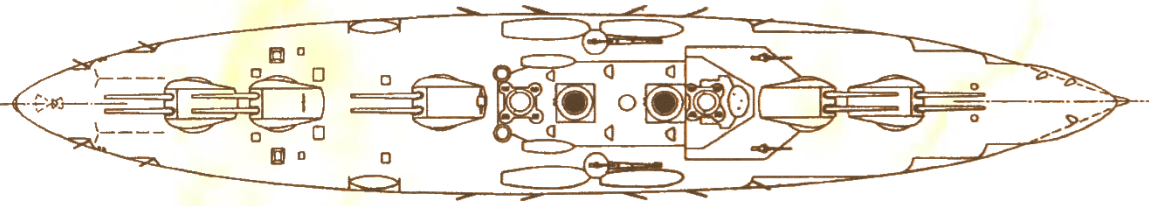
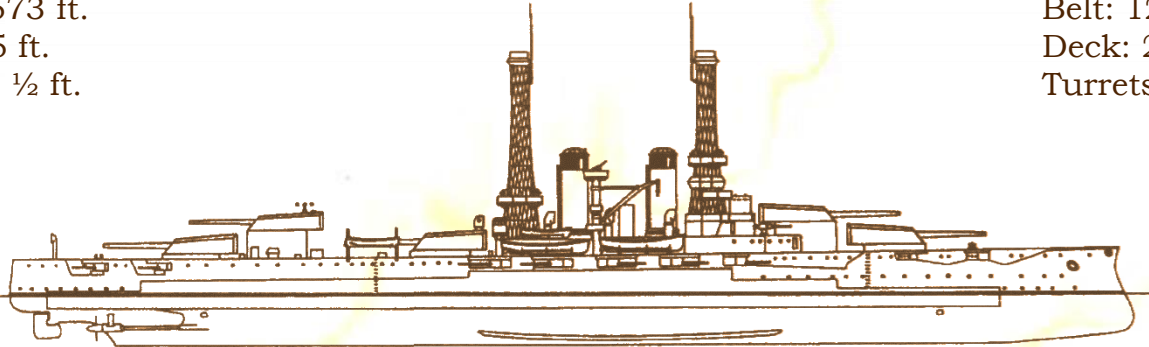
Draft: 29 ½ ft.

Armor

Belt: 12 in.

Deck: 2 in.

Turrets: 14 in.



Astern:
4—14 in.

Broadside: 10—14 in.

Ahead:
4—14 in.

USS *New York* is the first of two planned New York-class battleships, though construction on her began after her sister, USS *Texas*. USS *New York* was ordered in fiscal year 1911 as the first class of battleship in the United States Navy to carry the 14-inch/45-caliber gun. The class is the last to feature a turret mounted amidships.

Guns: 5 x 2 – 14 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	14 Babcock & Wilcox coal-fired boilers, 2 vertical triple-expansion steam engines; 28,100 shaft horsepower			
1,000	2.03	11,000	0.33	Max speed: 21 kts. Turning diameter: 1,000 yds.			
2,000	1.82	12,000	0.28				
3,000	1.62	13,000	0.23				
4,000	1.41	14,000	0.19				
5,000	1.21	15,000	0.15				
6,000	1.00	16,000	0.12				
7,000	0.83	17,000	0.09				
8,000	0.69	18,000	0.07				
9,000	0.58	19,000	0.05				
10,000	0.39	20,000	0.05	Torpedoes			
						2 x 21 in. port (submerged)	
						2 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	8	8	6	6	4	4	2	2

Displacement: 28,367 tons

Length: 573 ft.

Beam: 95 ft.

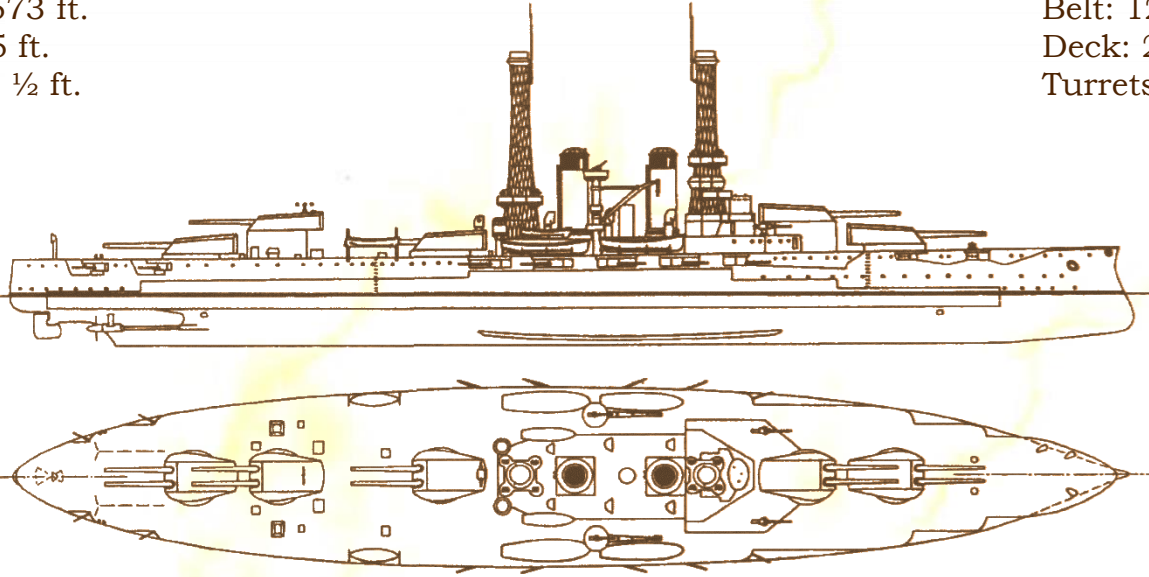
Draft: 29 ½ ft.

Armor

Belt: 12 in.

Deck: 2 in.

Turrets: 14 in.



A detailed line drawing of the USS Texas. The top view shows the ship's hull with various gun emplacements and structural details. The side view shows the ship's profile, including the mainmast, funnels, and gun turrets. The ship is shown from a perspective that highlights its length and the arrangement of its armaments.

Astern:
4—14 in.

Broadside: 10—14 in.

Ahead:
4—14 in.

USS *Texas* is the second New York-class battleships, though construction on her began before her sister and lead ship in the class, USS *New York*. The New York-class is the first class of battleship in the United States Navy to carry the 14-inch/45-caliber gun, and the last to feature a turret mounted amidships.

Guns: 5 x 2 – 14 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	14 Babcock & Wilcox coal-fired boilers, 2 vertical triple-expansion steam engines; 28,100 shaft horsepower			
1,000	2.03	11,000	0.33	Max speed: 21 kts. Turning diameter: 1,000 yds.			
2,000	1.82	12,000	0.28				
3,000	1.62	13,000	0.23				
4,000	1.41	14,000	0.19				
5,000	1.21	15,000	0.15				
6,000	1.00	16,000	0.12				
7,000	0.83	17,000	0.09				
8,000	0.69	18,000	0.07				
9,000	0.58	19,000	0.05				
10,000	0.39	20,000	0.05	Torpedoes			
						2 x 21 in. port (submerged)	
						2 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	8	8	6	6	4	4	2	2

Displacement: 27,243 tons

Length: 562 ft.

Beam: 93 ft.

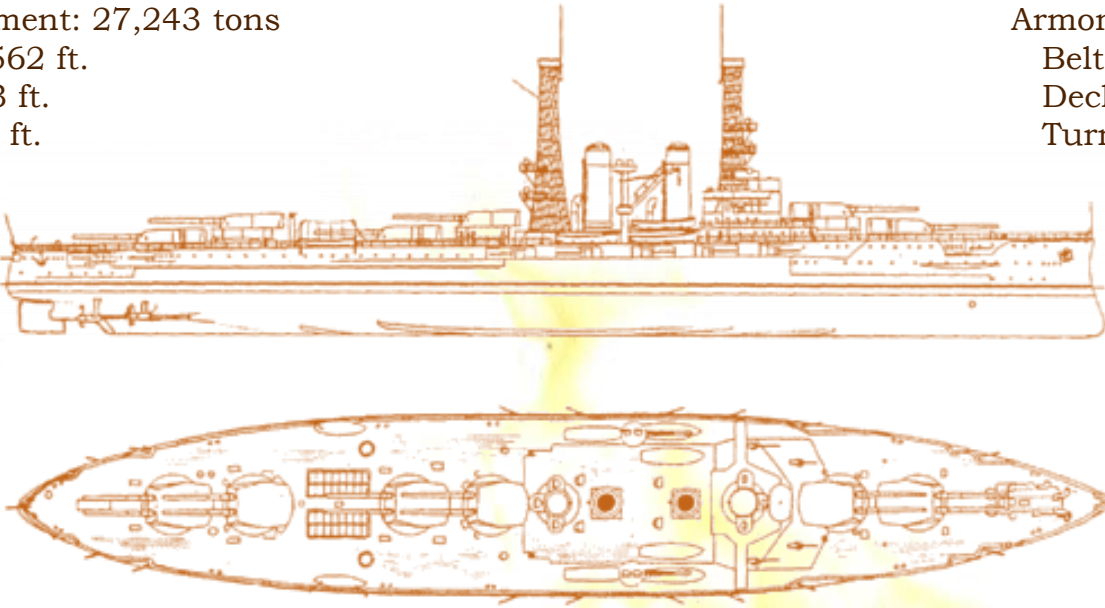
Draft: 29 ft.

Armor

Belt: 11 in.

Deck: 2 ½ in.

Turrets: 12 in.



Astern:
8—12 in.

Ahead:
4—12 in.

Broadside: 12—12 in.

USS *Arkansas* a dreadnought battleship, is the second ship of the Wyoming-class. USS *Arkansas* is armed with a main battery of twelve 12-inch guns in six twin gun turrets on the centerline, two of which were placed in a superfiring pair forward. The secondary battery consisted of twenty-one 5-inch (guns mounted in casemates along the side of the hull.

Guns: 6 x 2 – 12 in.				Engines			
Range (Yds.)	Hits*	Range (Yds.)	Hits*	12 Babcock & Wilcox coal-fired boilers, 2 vertical triple-expansion steam engines; 28,000 shaft horsepower			
1,000	1.54	11,000	0.25	Max speed: 21 kts. Turning diameter: 1,000 yds.			
2,000	1.38	12,000	0.21				
3,000	1.23	13,000	0.17				
4,000	1.07	14,000	0.14				
5,000	0.92	15,000	0.11				
6,000	0.76	16,000	0.09				
7,000	0.63	17,000	0.07				
8,000	0.53	18,000	0.05				
9,000	0.44	19,000	0.04				
10,000	0.29	20,000	0.03	Torpedoes			
						2 x 21 in. port (submerged)	
						2 x 21 in. starboard (submerged)	

* Hits per gun, per 2½ minute move

Resisting Power	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	19.75	18.75	17.75	16.75	15.75	14.75	13.75	12.75	11.75	10.75	9.75	8.75	7.75	6.75	5.75	4.75	3.75	2.75	1.75	0.75
	19.50	18.50	17.50	16.50	15.50	14.50	13.50	12.50	11.50	10.50	9.50	8.50	7.50	6.50	5.50	4.50	3.50	2.50	1.50	0.50
	19.25	18.25	17.25	16.25	15.25	14.25	13.25	12.25	11.25	10.25	9.25	8.25	7.25	6.25	5.25	4.25	3.25	2.25	1.25	0.25
Fp	1	1	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1
Kts	21	21	19	19	17	17	15	15	13	13	11	11	9	9	7	7	5	5	3	3