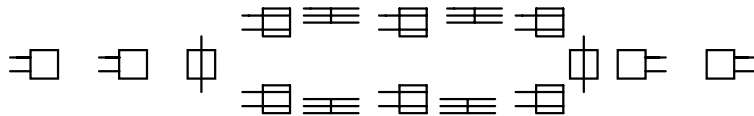


Admiral Hipper/Prinz Eugen

<u>Navy</u>	Deutsches Kriegsmarine				<u>Date</u>	1940				
<u>Class</u>	Heavy cruiser									
<u>Surface Armament</u>					<u>Ranges</u>	<u>Directors</u>				
Main Battery:	8 inch guns in 4 twin turrets				39 inches	Fore and aft				
Secondary Battery:	4.1 inch guns in 6 twin turrets				16 inches	Four Cornered				
Torpedoes:	21 inch torpedoes in 4 triple mounts 2 special hits				8 inches at 5.00" 13 inches at 3.75"	Port and starboard				
<u>Gun:</u>	5"	10"	15"	20"	25"	30"	35"	39"	Power	Relia
8 inch triple	A/10	8/9	6/7	4/5	3/1	2/0	1/0	1/0	6	B
4.1 inch twin	A/13	8/8	2/4	1/-1					3	B
<u>Speed</u>	4.00"	12 boilers	3 engines		<u>Torpedo Hits</u>	17.7"-18": ±1	20.5"-22.5": ±2	24": ±3		
<u>Flotation</u>	Total: 63	DIW: 32	Sinking: 42							

Armament Arrangement



Notes

- Admiral Hipper and Blucher in class; Prinz Eugen similar.
- Forward secondary magazine for mounts 1 and 2, aft for mounts 3-6.
- Forward fire control controls A and B; aft controls X and Y.
- Engine room 1 drives shafts 1 and 2; engine room 2 drives shaft 3.

Hits

Void	11-12	Void
Fuel Oil 1	13-14	Void
Main Magazine A	15-21	Main A
Main Magazine B	22-24	Main B
Forward Fire Control	25	Bridge, AAMGs
Generator Room	26	Bridge, Secondary 1 or 2
Boiler Room 1	31	Bridge, Forward Main Director, Secondary Director 1 or 2, Torpedo 1 or 2
Boiler Room 1	32	Torpedo 1 or 2
Boiler Room 2	33	Funnel
Boiler Room 2	34	Funnel, Searchlight 1 or 2
Forward Secondary Magazine	35	Hanger
Boiler Room 3	36	Catapult, Aircraft
Boiler Room 3	41	Catapult, Aircraft, Secondary 3 or 4
Engine Room 1	42	Torpedo 3 or 4, Secondary Director 3 or 4, Searchlight X
Engine Room 1	43	Torpedo 3 or 4, AAMGs
Engine Room 1	44	Secondary 5 or 6
Aft Secondary Magazine, Aft Fire Control	45	Aft Main Director
Engine Room 2	51-53	AAMGs
Main Magazine X	54-55	Main X
Main Magazine Y	56-62	Main Y
Fuel Oil 3, Propshaft 1 or 2	63-64	Void
Steering, Propshaft 3	65	Steering
Void	66	Void

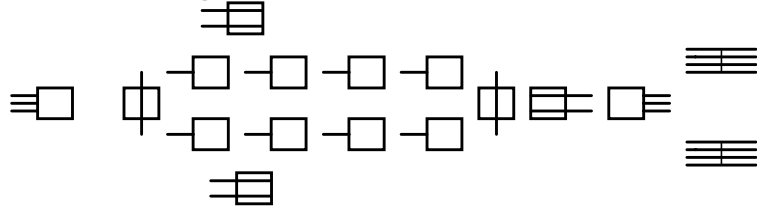
Internal Diagram

V1 1FP	FO1 2FP	PM A 2FP	PM B 2FP	GR FFC 2FP	BR1 B1,2 B3,4 10FP	BR2 B5,6 B7,8 10FP	SM1 1FP	BR3 B9 B10 B12 10FP	AFC SM2 1FP	ER1 E1 E2 10FP	ER2 E3 E5 5FP	PM X 2FP	PM Y 2FP	FO3 2FP	ST 1FP	V2 0FP
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Graf Spee

<u>Navy</u>	Deutsches Kriegsmarine			<u>Date</u>	1939						
<u>Class</u>	Armored ship										
<u>Surface Armament</u>				<u>Ranges</u>					<u>Directors</u>		
Main Battery:	11 inch guns in 2 triple turrets			40 inches					Fore and aft		
Secondary Battery:	5.9 inch guns in 8 single mounts			24 inches					Fore and aft		
Anti-air Battery:	4.1 inch guns in 3 twin mounts			16 inches					Fore and aft		
Torpedo Battery:	21 inch torpedoes in 2 quadruple mounts			8 inches at 5.00"					Aft		
Maximum Value:	6 before 1/43, 9 after			13 inches at 3.75"							
<u>Gun:</u>	5"	10"	15"	20"	25"	30"	35"	40"	Power	Relia	
11 inch triple	A/9	8/9	6/9	5/8	4/7	3/5	2/4	1/2	7	B	
5.9 inch single	A/10	8/8	3/5	2/3	1/0					5	B
4.1 inch twin	A/13	8/8	2/4	1/-1					3	B	
<u>Speed</u>	3.25"		8 engines		<u>Torpedo Hits</u>	17.7"-18" ±1		20.5"-22.5": ±2		24": ±3	
<u>Flotation</u>	Total: 64	DIW: 32	Sinking: 42								

Armament Arrangement



Notes

- Lutzow was similar in game terms, but with low armor one grade less than Graf Spee's.
- Class was powered by Diesel engines rather than boiler and steam turbines.

Hits

Fuel Oil 1	11-12	Void
Fuel Oil 2	13-14	AAMGs
Main Magazine A	15-23	Main A
Fire Control/CIC	24	Bridge, Forward Secondary Director
Fire Control/CIC	25	Bridge, AAMGs
Engine Room 1 or 2	26	Bridge, Forward Main Director
Engine Room 1 or 2	31	Secondary 1 or 2
Engine Room 1 or 2	32	Secondary 3 or 4
Engine Room 1 or 2	33	Anti-air 1 or 2
Engine Room 1 or 2	34	Searchlight 1 or 2 [Searchlight A]
Secondary Magazine	35	Funnel
Secondary Magazine	36	Funnel, Anti-air 1 or 2
Engine Room 3 or 4	41	Secondary 5 or 6, Catapult
Engine Room 3 or 4	42	Catapult, Aircraft, Secondary 7 or 8
Engine Room 3 or 4	43	AAMGs, Aft Main Director
Engine Room 3 or 4	44	Void
Engine Room 3 or 4	45	Anti-air X
Main Magazine Y	46-55	Main Y
Fuel Oil 3	56-61	Void
Propshaft 1 or 2, Fuel Oil 4	62-64	Torpedo 1 or 2
Steering	65	Steering
Void	66	Void

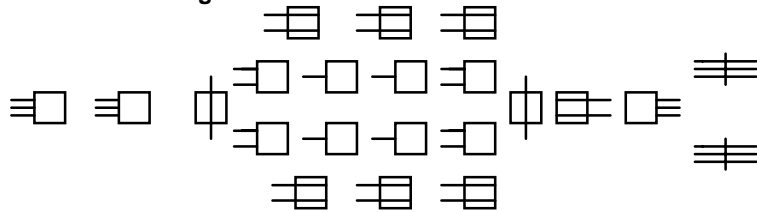
Internal Diagram

FO1 1FP	FO2 2FP	FM A 2FP	FCS Plot 1FP	ER1 12FP	E1 E2	SM 2FP	ER3 12FP	E5 E6	AM Y 2FP	FO3 2FP	FO4 2FP	ST 2FP	V 0FP
				ER2 12FP	E3 E4			ER4 12FP	E7 E8				

Scharnhorst

<u>Navy</u>	Deutsches Kriegsmarine		<u>Date</u>	1941							
<u>Class</u>	Battleship										
<u>Surface Armament</u>						<u>Ranges</u>	<u>Directors</u>				
Main Battery:	11 inch guns in 3 triple turrets					45 inches		Fore and aft			
Secondary Battery:	5.9 inch guns in 4 twin and 4 single mounts					24 inches		Fore and aft			
Anti-air Battery	4.1 inch guns in 7 twin mounts					16 inches		Four-cornered			
<u>Gun:</u>	5"	10"	15"	20"	25"	30"	35"	45"	Power	Relia	
11 inch triple	A/9	8/9	6/9	5/8	4/7	3/5	2/4	1/2	7	B	
5.9 inch single	A/10	8/8	3/5	2/3	1/0				5	B	
5.9 inch twin	A/13	8/11	3/7	2/5	1/2				5	B	
4.1 inch twin	A/13	8/8	2/4	1/-1					3	B	
<u>Speed</u>	3.75"	12 boilers	3 engines	<u>Torpedo Hits</u>	17.7"-18": 50%	20.5"-22.5": ±0	24": ±1				
<u>Flotation</u>	Total: 68	DIW: 34	Sinking: 46	<u>Bulge</u>	-1 for torpedo hits in way of locations 24-53						

Armament Arrangement



Notes

- Gneisenau was other ship in class
- Scharnhorst added 2 triple torpedo mounts in 1943 as shown. Speeds: 8 inches @ 5.00", 13 inches @ 3.75". Maximum value 9. Directors port and starboard.

Hits

Fuel Oil 1	11-12	Void
Fuel Oil 2	13-14	AAMGs
Main Magazine A	15-21	Main A
Main Magazine B	22-24	Main B
Plot/CIC	25	Bridge
Diesel Room	26	Bridge, Forward Secondary Director
Boiler Room 1	31	Bridge, Secondary 1 or 2, Forward Main Director
Boiler Room 1	32	Anti-air Director 1 or 2
Boiler Room 2	33	Anti-air 1 or 2
Boiler Room 2	34	Secondary 3 or 4
Secondary Magazine	35	Anti-air 3 or 4, Funnel, Searchlight 1 or 2
Boiler Room 3	36	Secondary 5 or 6, Funnel
Boiler Room 3	41	Anti-air Director 3 or 4
Engine Room 1 or 2	42	Hanger, Anti-air 5 or 6
Engine Room 1 or 2	42	Hanger
Engine Room 1 or 2	44	Searchlight 3 or 4, Catapult
Engine Room 3	45	Secondary 7 or 8, Catapult
Engine Room 3	46	Aft Main Director
Engine Room 3	51	AAMGs
Engine Room 3	52	Anti-air 7
Main Magazine X	53-55	Main X
Center Propshaft, Fuel Oil 3	56	Void
Port or Starboard Propshaft, Fuel Oil 3	61	Void
Fuel Oil 3	62	Void [Torpedo 1 or 2]
Steering	63	Void [Torpedo 1 or 2]
Steering	64	Steering
Fuel Oil 4	65-66	AAMGs

Internal Diagram

FO1 1FP	FO2 2FP	FM A 2FP	FM B 2FP	FCS Plot 1FP	DR 6FP	BR1 B1-4 6FP	BR2 B5-8 6FP	SM 2FP	BR3 B9- 12 6FP	ER1 12FP	E1 E2 12FP	ER3 E3 12FP	AM Y 2FP	FO3 3FP	ST 1FP	FO4 2FP
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