

Kreigsmarine Pocket Battleship - Scheer Class

First Launch: 1935 **No. Built:** 3
Displacement: 13,397 tons **Crew:** 925
Length & Beam: 616 x 67 ft **Max Speed:** 28 knots

Hit Capacity: 550

Victory points: 135



Offensive and Defensive Equipment

9 x 5.9" inch (3 turrets) 3x AAA Directors
 12 x 21 inch TT (4 triples) 5x Searchlights
 6 x 105mm AA (3 turrets) FuMO 22 radar (FC/SS)
 8 x 37mm AA (4 mounts) FuMO 27 radar (FC/SS) S:41
 4 x 20mm AA (4 mounts) FuMB 4/7 radar detector

Boiler vs. Speed Table

Boilers Left	=	5	4	3	2	1	0
Max Speed	=	1/2	1/3	1/2	1/4	1/6	DIW
Defense Str	=	14	14	12	11	10	10

AAA Op-scale 3-2-3

Loc.	Battery	Type	Dir.	Arcs
Bow	20-1	20mm Flak 30 AA	-	08-04
L Bow	20-2	20mm Flak 30 AA	-	08-12
L Stack	20-3	20mm Flak 30 AA	-	08-02
L Stack	20-4	20mm Flak 30 AA	-	05-11
L Stern	20-5	20mm Flak 30 AA	-	06-10
R Bow	20-6	20mm Flak 30 AA	-	12-04
R Stack	20-7	20mm Flak 30 AA	-	10-04
R Stack	20-8	20mm Flak 30 AA	-	01-07
R Stern	20-9	20mm Flak 30 AA	-	02-06
Stern	20-10	20mm Flak 30 AA	-	02-10
L Bow	37-1	Twin 37mm AA	-	08-12
L Stern	37-2	Twin 37mm AA	-	06-11
R Bow	37-3	Twin 37mm AA	-	01-04
R Stern	37-4	Twin 37mm AA	-	01-06
L Mid	105-1*	Twin 105mm DP turret	A	06-12
R Mid	105-2*	Twin 105mm DP turret	B	12-06
Stern	105-3*	Twin 105mm DP turret	C	02-10

* *Deutschland* and *Scheer* originally outfitted with twin 88mm DP turrets; refitted 1938/39. Opscale AAA = 2-2-3.

Class members were actually different sizes:

Vessel	Hit Capacity	Victory Points
<i>Deutschland</i>	530	130
<i>Admiral Scheer</i>	540	135
<i>Admiral Graf Spee</i>	565	140

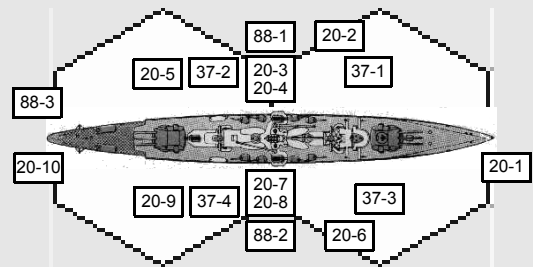
Counter/Size = BC/2

Direct Hit Areas:	Bow	Mid	Stern
D10 roll to hit:	4	4	
Main Deck Armor	1	(Light)	
Main Side Armor	2	(Medium)	
Torpedo Protection	35		
Command Teams:	6		
Damage Control Teams:	15		

Aircraft Handling Data

Aircraft Carried	2 seaplanes (Ar196A-3)
A/C Catapults:	1
A/C Cranes:	1
RDC	2

AAA Location Guide



Notes

Deutschland attacked by Soviet It bombers off Spain in 1937. Renamed *Lützow* at the start of the war (to avoid "*Deutschland*" sinking). Served in invasion of Norway. Kept in repair dock by further torpedo hits and groundings until 1944/45, when active in the Baltic. Sunk 16-Apr-45 at Sweinemunde. *Scheer* raided South Atlantic and Indian Ocean Nov-40 to Mar-41. Used abortively off Norway, then decommissioned for 15 months. Active in Baltic 1944/45. Sunk in Kiel in May-45. *Graf Spee* raided the South Atlantic and Indian Ocean successfully Sep-Dec, 1939; attacked by 3 RN cruisers in Rio Plata between Argentina and Uruguay and damaged; scuttled by her Captain the next day.

AAA Firepower vs. Range Table

AAA Type	Max. Rng.	Crits	0-2	3-5	6-8	9-12	13-16	17-21	22-27	28-35	36-45	46+
Single 20mm Flak 30	27	2	9	7	5	3	2	2	1	--	--	--
Quad 20mm Flak 38	27	2	60	45	30	20	14	10	8	4	--	--
Twin 37mm Flak 37	45	1	21	16	11	7	5	4	3	2	2	--
<u>Twin 88mm Turret DP (1/2)</u>	46+	4	--	--	6	6	6	6	6	6	6	6
<u>Twin 105mm Turret DP (1/2)</u>	46+	3	--	--	9	9	9	9	9	9	9	9

Kriegsmarine Late War Destroyer - Z.23 Class

First Launch: 1938 **No.Built:** 12
Displacement: 2,600 tons **Crew:** 330
Length & Beam: 384 x 38 ft **Max Speed:** 38 knots

Offensive and Defensive Equipment

5 x 5" inch (4 turrets) 2x AAA Directors
 8 x 21 inch TT (2 quads) 2x Searchlights
 4 x 37mm AA (2 mounts) FuMO 21 SS radar (1944+)
 6/16 x 20mm AA (4/6 mounts) FuMO 63 SS/AS radar (1944+)

Hit Capacity: 160

Victory points: 40



Boiler vs. Speed Table

Boilers Left	=	3	2	1	0
Max Speed	=	2/3*	1/3	1/6	DIW
Defense Str	=	17*	13	12	12

Z.23: Op-scale 0-1-2 / Z.35: Opscale 0-1-4

Loc.	Battery	Type	Dir.	Arcs
Bow	20-1	Twin 20mm Flak 30 AA	-	08-04
L Mid	20-2	20mm Flak 30 AA	-	07-11
R Mid	20-3	20mm Flak 30 AA	-	01-05
Stern	20-4	Twin 20mm Flak 30 AA	-	05-11

Z.35 class (and after Feb 1944):

Bow	20-1	Quad20mm Flakvierling	-	08-04
L Stern	20-5	Quad20mm Flakvierling	-	06-12
M Stern	20-6	Quad20mm Flakvierling	-	12-06

All:

L Mid	37-1	Twin 37mm Flak 37 AA	A	06-12
R Mid	37-2	Twin 37mm Flak 37 AA	A	12-06

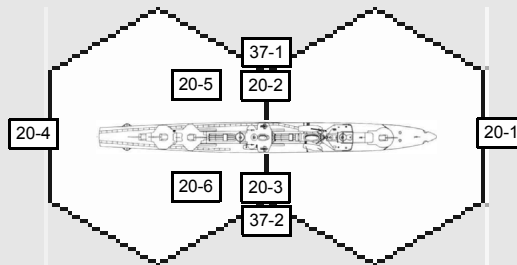
By 1944, the surviving vessels had more than doubled their AAA, adding 1-3 Flakvierling Flak 38 (quad 20mm) as well as single and double 20mm and 37mm mounts. Z.35 class entered service late 1943.

Counter/Size = DD/2

Direct Hit Areas:	<u>Bow</u>	<u>Stern</u>
D10 roll to hit:	2	2
No Armor Protection	0	
Command Teams:	3	
Damage Control Teams:	5	

* Optional Max speed 3/4; w/ Def Strength of 18.

AAA Location Guide



Kriegsmarine Early War Destroyer - Z.17 Class

First Launch: 1934 **No.Built:** 17
Displacement: 2,230 tons **Crew:** 320
Length & Beam: 374 x 37 ft **Max Speed:** 38 knots

Offensive and Defensive Equipmen

5 x 5" inch (4 or 5 turrets) 2x AAA Directors
 8 x 21 inch TT (2 quads) 2x Searchlights
 4 x 37mm AA (2 mounts) FuMO 21 SS radar (1944+)
 6/16 x 20mm AA (4/6 mounts) FuMO 63 SS/AS radar (1944+)

Z.17: Op-scale 0-1-1

Actually 4 classes, encompassing Z.1- Z.22. Same weapons location table as original Z.23 class, but all 20mm are single mounts. By 1944, surviving vessels had tripled 20mm AAA, adding a Flakvierling, and doubled or tripled their 37mm.

Hit Capacity: 140

Victory points: 35

Counter/Size = DD/2

Direct Hit Areas:	<u>Bow</u>	<u>Stern</u>
D10 roll to hit:	1	1
No Armor Protection	0	
Command Teams:	3	
Damage Control Teams:	5	

*Optional Max speed 3/4; w/ Def Strength of 18.

Boiler vs. Speed Table

Boilers Left	=	3	2	1	0
Max Speed	=	2/3*	1/3	1/6	DIW
Defense Str	=	17*	13	12	12

AAA Firepower vs. Range Table

AAA Type	Max. Rng.	Crits	0-2	3-5	6-8	9-12	13-16	17-21	22-27	28-35	36-45	46+
Single 20mm Flak 30	27	2	9	7	5	3	2	2	1	--	--	--
Twin 20mm Flak 30	27	2	19	14	9	6	4	3	2	--	--	--
Quad 20mm Flakvierling 38	27	2	60	45	30	20	14	10	8	4	--	--
Single 37mm Flak 37	45	1	11	8	5	4	3	2	1	1	1	--
Twin 37mm Flak 37	45	1	21	16	11	7	5	4	3	2	2	--

5" main gun could not elevate high enough for AAA

Speed 3/4 described in Uncle Ted's Optional Sea Handling Rules

Kriegsmarine Torpedo Boat - T.22 Class

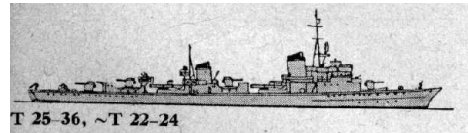
First Launch: 1941 **No.Built:** 15
Displacement: 1,294 tons **Crew:** 205
Length & Beam: 315 x 31 ft **Max Speed:** 32 knots

Offensive and Defensive Equipment

4 x 105mm SK (4 turrets) 1x AAA Directors
 6 x 21 inch TT (2 triples) 1x Searchlights
 4 x 37mm AA (3 mounts) FuMO26 radar(1944+)
 6 x 20mm AA (4 mounts)

Hit Capacity: 95

Victory points: 24



Boiler vs. Speed Table

Boilers Left	=	3	2	1	0
Max Speed	=	2/3	1/3	1/6	DIW
Defense Str	=	16	13	12	12

T.22: Op-scale 1-1-3

Loc.	Battery	Type	Dir.	Arcs
Bow	20-1	Twin 20mm Flak 30 AA	-	08-04
L Mid	20-2	20mm Flak 30 AA	-	07-11
R Mid	20-3	20mm Flak 30 AA	-	01-05
Stern	20-4	Twin 20mm Flak 30 AA	-	05-11
Bow	37-1	Single 37mm Flak 37 AA	-	08-04
L Mid	37-2	Single 37mm Flak 37 AA	A	06-12
R Mid	37-3	Twin 37mm Flak 37 AA	A	12-06

Beefed up torpedo boat with balanced weapon sets, the equivalent of a destroyer escort in other navies. Some used in the Channel and North Sea 1944/45.

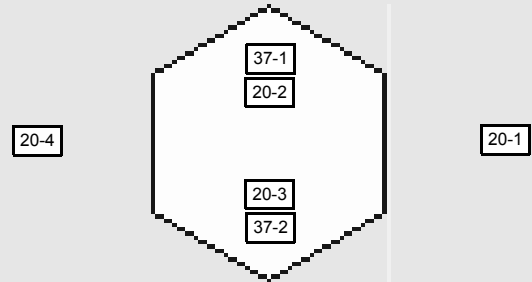
The older Wolf and Möwe classes were the first warships built by Germany after WW1. They served throughout the war.

Both classes had AAA beefed up by the end of the war.

Counter/Size = DE/1

Direct Hit Areas: Ship
D10 roll to hit: 2
No Armor Protection 0
Command Teams: 3
Damage Control Teams: 3

AAA Location Guide



Kriegsmarine Torpedo Boat: Möwe/Wolf Class

First Launch: 1923 **No.Built:** 12
Displacement: 930 tons **Crew:** 130
Length & Beam: 300 x 27 ft **Max Speed:** 33 knots

Offensive and Defensive Equipment

5 x 5" inch (4 turrets) 1x AAA Director
 6 x 21 inch TT (2 quads) 1x Searchlight
 4 x 20mm AA (4 mounts) FuMO26 radar(1944+)

Möwe/Wolf: Op-scale 0-0-1

Loc.	Battery	Type	Dir.	Arcs
Bow	20-1	Single 20mm Flak 30 AA	-	08-04
L Mid	20-2	Single 20mm Flak 30 AA	-	07-11
R Mid	20-3	Single 20mm Flak 30 AA	-	01-05
Stern	20-4	Single 20mm Flak 30 AA	-	05-11

Hit Capacity: 76

Victory points: 19

Counter/Size = DE/1

Direct Hit Areas: Ship
D10 roll to hit: 2
No Armor Protection 0
Command Teams: 3
Damage Control Teams: 2

Boiler vs. Speed Table

Boilers Left	=	3	2	1	0
Max Speed	=	2/3	1/3	1/6	DIW
Defense Str	=	16	13	12	12

AAA Firepower vs. Range Table

AAA Type	Max. Rng.	Crits	0-2	3-5	6-8	9-12	13-16	17-21	22-27	28-35	36-45	46+
Single 20mm Flak 30	27	2	9	7	5	3	2	2	1	--	--	--
Twin 20mm Flak 30	27	2	19	14	9	6	4	3	2	--	--	--
Single 37mm Flak 37	45	1	11	8	5	4	3	2	1	1	1	--
Twin 37mm Flak 37	45	1	21	16	11	7	5	4	3	2	2	--

Kriegsmarine U-Boote - Type VIII-C or IX

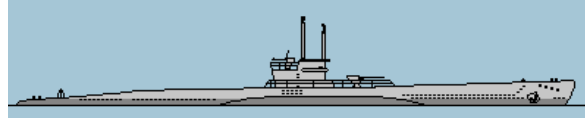
First Launch: 1939	No. Built: 568
Displacement: 860 tons	Crew: 45
Length & Beam: 220/250 x 20.3 ft	Max Speed: 17/8 knots

Offensive and Defensive Equipment

5/6 x 21 inch TT (4 Fore, 1/2 Aft) 1x Searchlight
 1 x 105mm/45 SK c/32 DP (IX) Metox (detects ASV 1943+)
 1 x 37mm AA Flak 37 FuMO 61 SS/AS radar (1944+)
 1 x 20mm AA Flak 30

Hit Capacity: 55/70

Victory points: 14/17



Boiler vs. Speed Table

Boilers Left	=	3	2	1	0
Max Speed	=	1/3	1/4	1/6	DIW
Defense Str	=	13	12	12	12

Op-scale 0-1-1

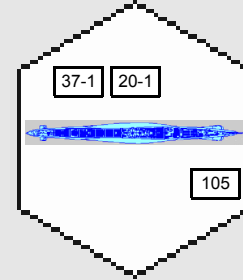
Loc.	Battery	Type	Dir.	Arcs
Tower	20-1	20mm Flak 30 AA	-	All
Tower	37-1	37mm Flak 37 AA	-	02-10
Bow	105	105mm DP (Type IC only)	-	08-04

These were the most common two German U-boat models. The Type IX was slightly larger, built for longer range patrols. The Type VII boats mounted an 88mm on a mount that could not be used for AA. Later in the war, many AA became twin mounts (4+ on a D10 for each mount). The Metox system allowed the U-boats to detect the presence of ASV radars, and alert them to dive.

Counter/Size = SS/1

Direct Hit Areas:	<u>Ship</u>
D10 roll to hit:	1
No Armor Protection	0
Command Teams:	3
Damage Control Teams:	2

AAA Location Guide



Kriegsmarine U-Boote - Type XXI

First Launch: 1944	No. Built: 7
Displacement: 1800 tons	Crew: 45
Length & Beam: 250 x 22 ft	Max Speed: 15/16 knots

Offensive and Defensive Equipment

8x 21 inch TT (4 Fore, 1 Aft) Metox (detects ASV)
 4x 20mm AA Flak 30 (2 turrets) FuMO 61 SS/AS radar

Only a few of these ultra-modern subs became operational. Faster beneath the surface than above due to hull shape, with weak AAA.

Op-scale 0-0-1

Loc.	Battery	Type	Dir.	Arcs
Tower	20-1	Twin 20mm Flak 30 AA	-	10-02
Tower	20-2	Twin 20mm Flak 30 AA	-	04-08

Hit Capacity: 91

Victory points: 23

Counter/Size = SS/1

Direct Hit Areas:	<u>Ship</u>
D10 roll to hit:	1
No Armor Protection	0
Command Teams:	3
Damage Control Teams:	2

Boiler vs. Speed Table

Boilers Left	=	3	2	1	0
Max Speed	=	1/3	1/4	1/6	DIW
Defense Str	=	13	12	12	12

AAA Firepower vs. Range Table

AAA Type	Max. Rng.	Crits	<u>0-2</u>	<u>3-5</u>	<u>6-8</u>	<u>9-12</u>	<u>13-16</u>	<u>17-21</u>	<u>22-27</u>	<u>28-35</u>	<u>36-45</u>	<u>46+</u>
Single 20mm Flak 30	27	2	9	7	5	3	2	2	1	--	--	--
Twin 20mm Flak 30	27	2	19	14	9	6	4	3	2	--	--	--
Single 37mm Flak 37	45	1	11	8	5	4	3	2	1	1	1	--
Twin 37mm Flak 37	45	1	21	16	11	7	5	4	3	2	2	--

10.5 cm/45 SK C/32

Kriegsmarine Schnelleboote - S.62 class

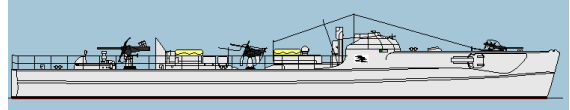
First Launch: 1941 **No.Built:** ~200
Displacement: 98 tons **Crew:** 16
Length & Beam: 100 x 20 ft **Max Speed:** 38 knots

Offensive and Defensive Equipment

2 x 21 inch TT 1x Searchlight
 1 x 37mm AA Flak 37 Metox (detects ASV 1943+)
 1 x 20mm AA Flak 30 FuMO 61 SS/AS radar (1944+)

Hit Capacity: 14

Victory points: 3



Boiler vs. Speed Table

Boilers Left = 2 1 0
Max Speed = 2/3* 1/3 DIW
Defense Str = 24* 21 20

Op-scale 0-1-1

Loc.	Battery	Type	Dir.	Arcs
Bow	20-1	20mm Flak 30 AA	-	08-04
Stern	20-2	20mm Flak 30 AA	-	01-11
Stern	37-1	37mm Flak 37 AA	-	02-10

German equivalent of the PT or MTB boat, these were ubiquitous in the Channel, North Sea, and Italian coast.

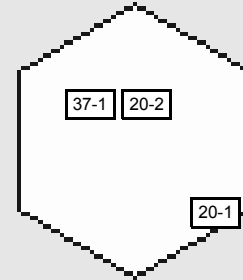
The Minensuchboote or M-boote was a simple but sturdy Minesweeper design based on a 1916 model. They sometimes were armed for ASW by adding depth charges. They were often used in the North Sea and Baltic for escort duty.

Counter/Size = PT/1

Direct Hit Areas: Ship
D10 roll to hit: 1
No Armor Protection 0
Command Teams: 1
Damage Control Teams: 1

*Optional Max speed 3/4; w/ Def Strength of 25.

AAA Location Guide



Kriegsmarine M-Boote (Minesweeper/Escort)

First Launch: 1940 **No.Built:** 130
Displacement: 540 tons **Crew:** 75
Length & Beam: 250 x 22 ft **Max Speed:** 17 knots

Offensive and Defensive Equipment

1x 105mm/45 SKC Metox (detects ASV) (1944+)
 2x 37mm Flak 38 (2 mounts) Minesweeping equipment
 4x 20mm Flak 30 (1 mounts)

Op-scale 0-1-1

Loc.	Battery	Type	Dir.	Arcs
Aft	20-1	Quad 20mm Flakvierling	-	10-02
Bow	37-1	Single 37mm Flak 37 AA	-	09-03
Mid	37-2	Single 37mm Flak 37 AA	-	01-11

Hit Capacity: 57

Victory points: 14

Counter/Size = MS/1

Direct Hit Areas: Ship
D10 roll to hit: 1
No Armor Protection 0
Command Teams: 3
Damage Control Teams: 1

Boiler vs. Speed Table

Boilers Left = 3 2 1 0
Max Speed = 1/3 1/4 1/6 DIW
Defense Str = 13 12 12 12

AAA Firepower vs. Range Table

AAA Type	Max. Rng.	Crits	0-2	3-5	6-8	9-12	13-16	17-21	22-27	28-35	36-45	46+
Single 20mm Flak 30	27	2	9	7	5	3	2	2	1	--	--	--
Twin 20mm Flak 30	27	2	19	14	9	6	4	3	2	--	--	--
Quad 20mm Flakvierling 38	27	2	60	45	30	20	14	10	8	4	--	--
Single 37mm Flak 37	45	1	11	8	5	4	3	2	1	1	1	--
Twin 37mm Flak 37	45	1	21	16	11	7	5	4	3	2	2	--

10.5 cm/45 SK C/32

Speed 3/4 described in Uncle Ted's Optional Sea Handling Rules