Z31

DD **GERMANY** 1944 to 1945

4145-2 1936A (Mob) TYPE Class

Displacement	2,603 ts	*Length*	400 ft	Deschimag, Bremen	
Complement	332	*Beam*	39 ft	*Launched*	04/15/1931
Stricken 01/02/1958		*Draft*	14 ft	*Completed*	04/11/1942

SEEKRIEG 5

SHIP LOG SHEET

Version 1/25/2007

3 x 15cm TBK C/36 — 16

Max ROF		Range		Shell Size/Weight	
7.0	sh/min	22,792 yds	45.6"	5.9"	99.9 lbs.
Fire Control		FC Radar	+ 2	AP	SAP
1	1G3	FuMO 24		COM	HE
AA 2.9	Level S	Ammunition	120 rpg	360	

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	21	14	16	11	14	9	12	8
10 - 18	16	11	12	8	11	7	9	6
19 - 27	14	9	11	7	9	6	8	5
28 - 36	12	8	9	6	8	5	7	5
37 - 45	11	7	9	6	7	5	7	4

SAPBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.8	6.7	5.7	4.9	4.2	3.6	2.9	2.3	1.9	1.7				
Rge	S	S	S	S	M	M	L	L	E	E				
H	0.2	0.3	0.4	0.5	0.5	0.6	0.8	1.3	1.9	2.3				
V	8.3	6.9	5.7	4.7	3.8	3.2	2.2	2.1	1.9	2.0				

1 x 10.5cm SKC/32 — 10

Max ROF		Range		Shell Size/Weight	
14.0	sh/min	16,935 yds	33.9"	4.1"	33.3 lbs.
Fire Control		FC Radar		AP	SAP
1	1J3			COM	HE
AA 2.4	Level V	Ammunition	200 rpg	200	

FIRE CONTROL TABLE

T Kts	Short		Medium		Long		Extreme	
0 - 9	19	13	15	10	12	8	11	7
10 - 18	14	10	11	7	9	6	8	6
19 - 27	12	8	10	6	8	5	7	5
28 - 36	11	7	8	6	7	5	6	4
37 - 45	10	7	8	5	7	4	6	4

SAPBC — PENETRATION TABLE

Yds	2,000	4,000	6,000	8,000	10,000	12,000	15,000	18,000	21,000	24,000	27,000	30,000	33,000	36,000
ROF	7.7	6.3	5.1	4.2	3.4	2.8	2.1	1.5						
Rge	S	S	M	M	L	L	E	E						
H	0.1	0.1	0.2	0.3	0.4	0.6	1.2	1.6						
V	4.6	3.3	2.4	1.9	1.3	1.2	1.0	0.1						

Coal (ts)	0	Oil (ts)	825	Radius (nm/kts)		Search Radar	ASW MORTARS/ATW	DEPTH CHARGES	
Engines	Wagner GT			2950	19	FuMO 63/Hohentwiel-K	4xK Guns	Rack	2
Boilers	6 Wagner					None		Ammo	64

Crew	Sea	BR	Targ Sz	Ops
			1	

AIRCRAFT

Aircraft	0			Catapult	0

Mounts: 1, 2

TORPEDOES

TT	8	Ammo	16
53cm G7a T1			
Damage Class	C		
Settings			
6,500/44			
8,800/40			
15,300/30			

MINES

60	

RAPID FIRE BATTERIES

RF1	14	3.7cm SK L/83 C30			
Max Rg	9,295	18.6"	9	7	
Eff Rg	4,183	8.4"	13	10	
RF 8	Port	7	6	4	2	1
	Stbd	7	6	4	2	1
AA M	Port	30	24	16	10	4
	Stbd	30	24	16	10	4

RF2	10	2cm Flak L/65 C38			
Max Rg	5,358	10.7"	9	7	
Eff Rg	2,411	4.8"	13	10	
RF 4	Port	5	4	3	2	1
	Stbd	5	4	3	2	1
AA L	Port	29	23	16	9	4
	Stbd	29	23	16	9	4

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

Captain	

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

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TIER	DP
1/70	93
2/80	185
3/75	278
4/85	371
5/80	464
6/90	547
7/85	630
8/95	714
9/90	797
10	881
10	936

DP	927
KTS	36

Engine Rm	2	36	21	0	0	0	0
Prop/Shaft	2	36	18	0	0	0	0
Boiler Rm	3	36	30	13	0	0	0
			0	0	0	0	0

Standard Turn	
45	
Emergency Turn	
60	

Target Sz	
1	
Searchlights	
Port	Stbd

Speed	00-12 kt	13-21 kt	22-27 kt	28-30 kt	31+ kt	
Increase	13.0	9.0	6.0	3.0	1.0	

Crew

Bridge Command Rating	Flag Command Rating	Damage Control (DCR)
		2

Fuel Code	F109

ARMOR	1.00	Actual
1H DECK	0.0	0.0
2H TURRET	0.0	0.0
3H SUPERSTR	0.0	0.0
4V CON	0.0	0.0
5V BELT MID	0.0	0.0
6V BELT END	0.0	0.0
7V BARBETTE	0.0	0.0
8V TURRET	0.0	0.0
9V SUPERSTR	0.0	0.0

Z31

T#	DE #	SEVERITY	DESCRIPTION

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

LOSS OF SPEED DURING TURNS

KTS	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
STD	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0
E/EA	NA	NA	NA	NA	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0

TURNING SEGMENTS

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

SHIPBOARD FIRE TRACKING

T#	Fire	Current Severity	T#	Fire	Current Severity

FIGHTING SHIPBOARD FIRES

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

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