

Manufacture of Enigma Machines by  
Heimsoeth and Rinke, Berlin

TICOM Report M-13, 17 November 1945  
Report on second visit to Heimsoeth & Rinke,  
Uhlandstr. 136, Berlin

Source: Appendix D from A. Hammarborg, "Catalog of Enigma Cipher Machine Wirings." Technical Information Division, Bibliographic Research Branch, June 1954. Top Secret FROTH. Declassified and approved for release by NSA on 26 Sept 2007 in response to FOIA Case No. 44559A. DOCID: 3220592

URL: <https://cryptocellar.org/enigma/e-history/ticom-m-13-h&r-enigma-production.pdf>

Editor: Frode Weierud, Crypto Cellar Research



**NATIONAL SECURITY AGENCY  
CENTRAL SECURITY SERVICE**  
FORT GEORGE G. MEADE, MARYLAND 20755-6000

FOIA Case: 44559A  
26 September 2007

Mr. Frode Weierud  
Le Pre Vert  
1041 Rte de Mategnin  
F-01280 Prevessin-Moens  
FRANCE

Dear Mr. Weierud:

This responds to your Freedom of Information Act (FOIA) request of 28 October 2004, which was received by this office on 2 November 2004, for a copy of the National Security Agency document entitled "Catalog of Enigma Cipher Machine Wirings," Control Number 182-4, June 1954. A copy of your request is enclosed. For purposes of this request, and based upon information you previously provided, you are considered a representative of the media. Additionally, you previously requested, and were granted, a fee waiver. There are no assessable fees associated with this request. Your request has been processed under the FOIA, and the document you requested is enclosed. Certain information, however, has been deleted from the enclosure.

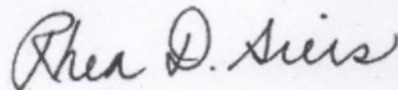
Some of the information deleted from the document was found to be currently and properly classified in accordance with Executive Order 12958, as amended. This information meets the criteria for classification as set forth in Subparagraphs (b), (c), and (g) of Section 1.4 and remains classified TOP SECRET as provided in Section 1.2 of the Executive Order. The information is classified because its disclosure could reasonably be expected to cause exceptionally grave damage to the national security. The information is exempt from automatic declassification in accordance with Section 3.3(b)(1, 3, and 6) of E.O. 12958, as amended. Because the information is currently and properly classified, it is exempt from disclosure pursuant to the first exemption of the FOIA (5 U.S.C. Section 552(b)(1)).

In addition, this Agency is authorized by various statutes to protect certain information concerning its activities. We have determined that such information exists in this document. Accordingly, those portions are exempt from disclosure pursuant to the third exemption of the FOIA which provides for the withholding of information specifically protected from disclosure by statute. The specific statutes applicable in this case are Title 18 U.S. Code 798; Title 50 U.S. Code 403-1(i); and Section 6, Public Law 86-36 (50 U.S. Code 402 note).

Since these deletions may be construed as a partial denial of your request, you are hereby advised of this Agency's appeal procedures. Any person denied access to information may file an appeal to the NSA/CSS Freedom of Information Act Appeal Authority. The appeal must be postmarked no later than 60 calendar days from the date of the initial denial letter. The appeal shall be in writing addressed to the NSA/CSS FOIA Appeal Authority (DJ4), National Security Agency, 9800 Savage Road STE 6248, Fort George G. Meade, MD 20755-6248. The appeal shall reference the initial denial of access and shall contain, in sufficient detail and particularity, the grounds upon which the requester believes release of the information is required. The NSA/CSS Appeal Authority will endeavor to respond to the appeal within 20 working days after receipt, absent any unusual circumstances.

Please be advised that the document appears to be missing some pages. This is because the blank pages in the document were removed. No information was on those pages.

Sincerely,

A handwritten signature in cursive script that reads "Rhea D. Siers".

RHEA D. SIERS  
Deputy Associate Director for Policy

Encls:  
a/s

~~TOP SECRET FROTH~~

NATIONAL SECURITY AGENCY  
Washington 25, D. C.

~~TOP SECRET FROTH~~

CATALOG OF ENIGMA CIPHER MACHINE WIRINGS

Compiled by

Astrid Hammarborg

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18, U.S.C., SECTIONS 793, 794, AND 798, THE TRANSMISSION OR REVELATION OF WHICH IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

June 1954

TECHNICAL INFORMATION DIVISION  
Bibliographic Research Branch

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APPENDIX D

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~~TOP SECRET~~TICOM/M-13MANUFACTURE OF ENIGMA MACHINES BY HEIMSOETH AND RINKE, BERLINTICOM, 17 November 1945Report on second visit to Heimsoeth & Rinke, Uhlandstr., 136, Berlin

1. A second visit was paid to this firm with a view to obtaining information on wiring diagrams of drums and full details of serial numbers of the various types of machines manufactured by this firm.
2. According to the statement of Willi Korn, Chief Design Engineer of the firm and present senior representative, all wheel wiring diagrams were destroyed in April at the time of the entry of the Russians into the city. This destruction is stated to apply to ALL wirings including those of commercial machines sold to private individuals prior to declaration of war.
3. Complete correspondence files of all transactions with German War Dept. (OKW/AgWNV/Fu) and allied departments were however found on the premises. These files have been removed and are being forwarded to GCCS for detailed examination.
4. These files contain considerable information on the preparation of specially wired drums together with special orders for foreign governments including such as were members of the Axis. It goes perhaps without saying that duplicates of all machines supplied to organisations other than OKW were supplied to OKW.
5. Appendix 'A' gives a list of serial numbers of those machines manufactured by the Berlin branch of the firm Konski & Krueger and delivered to OKW. Approximately 3000 serial numbers are missing owing to a subcontract being given to a firm Geyer in Nuernberg and who were allocated a separate block of serial numbers.
6. Appendix 'B' is a short summary of the Serial Number types and their special uses or applications.

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7. If further specific information is required, this may, with the exception of wiring diagrams, still be available at the Heimsoeth & Rinke offices.

29 Oct 45

Major Heller  
G.S.

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APPENDIX D

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Appendix 'A'

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Jahr	Heer			Ges.Lief. Stuck	Marine	
	Stuecke	Lfd Nr.			Lfd Nr.	Ges.Lief.
1927	400	A366-A756	A765	400		
28	12	866-867				
		897-906		412		
29	52	868-896				
		907-929		464		
30	122	930-934				
		936-1052		586		
31	160	1053-1212		746		
32	100	1253-1352		846		
33	722	1353-2074		1568		
34	713	2075-2787		2281	401 M501-M901(M1)	401
35	1000	2788-3787		3281	60 M902-M961(M1a)	461
36	1738	3778-5525		5019		
37	2449	5526-7974		7468	150 M962-M1111(M1a)	611
38	2180	7975-10154		9648	310 M1112-M1421(M2)	921
39	524	10155-10678		10172	580 M1422-2001(M2a)(M3)	1501
40	760	10679-11438		10932	800 M2002-2801(M3)	2301
41	1886			12818	1011 M2802-3812(M4)	3312
42	1774			14592	1450 M3813-5262(M4)	4762
43	2347			16938 <sup>9</sup>	2238 M5263-M7500(M4)	7000
44		H	L			
Jan	190	91 <sup>64034</sup>	46 + 53	17129	100 Jan	7100
Feb	144	120	42 24	17273	105 Feb	7205
Mar	220	80	140	17493	150 Mar	7355
Apr	200	160	40	17693	120 Apr	7475
May	200	150	50	17893	195 May	7670
					K.u.K. = 120	
					Geyer = 75	
Jun	272	187	25	18105	190 Jun	7960
					K.u.K. = 125	
					Geyer = 65	
Jul	291	126	40 125 = 291	18396	100 Jul	7960
					K.u.K. = 90	
					Geyer = 10	
Aug	199	84	40 75 = 199	18595	240 Aug	8200
					K.u.K. = 140	
					Geyer = 100	
Sep	225	85	45 95 = 225	18820	170 Sep	8370
					K.u.K. = 120	
					Geyer = 50	
Oct	267	52	45 170 = 267	19087	100 Oct	8470
Nov	313	153	45 115 = 313	19400	30 Nov	8500
Dec	309	151	45 113 = 309	19709		
				2770 = 1944	1500 = 1944	

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APPENDIX D

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Appendix 'A'

TICOM/M-13

Jahr	Heer			Ges.Lief. Stuck	Marine	
	Stuecke	Lfd Nr.			Lfd Nr.	Ges.Lief.
Jan		H SS L				
		106	75=181	19890		
Feb	RB					
	30 +	9 + 4 + 32 =	75	19965		
Mar	20 +	39 + 45 + 157 =	261	20226		
Apr		50 30	= 80	20306		

Note: Serial numbers all consecutive. All Army Nos. are "A". Navy Serials also consecutive.

Serials are only those produced in the Berlin Factory. Geyer production listed separately from a separate block of serials.

Appendix 'B'

Summary of Serial Types

1. Standard Serial Type A Machines. Serial numbers prefixed by the letter A without additional suffix denotes a standard wiring Army machine as issued to Army, SS, and GAF. A total of some 20,000 such machines were manufactured.

2. Serial A machines with Greek suffix letters. A limited number of standard machines were returned to Heimsoeth & Rinke for special re-wiring. Such machines bore the Greek letters Alpha or Delta as suffix to the main serial number. Wheels likewise received this suffix, (i.e., A246176 a). The purpose or distribution of these machines was not known.

3. Serial B201 - B224. All machines bearing the above serial are specially wired throughout and have wheel and plugboard markings in red. They were believed to be designed for the Fuehrer Hauptquartier.

A limited number of other B serial machines were also prepared for some unspecified special purpose. The wiring diagrams of these machines received special security treatment.

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4. Serial K301 onwards. All machines bearing a K serial number were specially ordered, each order having a new and different wiring diagram. The machines were supplied without plugboard but had fitted a special adjustable "Umkehrwalze" which was designed to take the place of the plugboard. Some 30 separate wirings were made up for these machines. They are believed to have been intended for use by Agents.

5. Serial G machines. Also known as "Zaehlwerkmaschine". Supplied to Dutch and Hungarian Army. Possibly also to Swiss Army. 200 machines were supplied to OKW for special purposes.

6. Serial M machines. Standard Naval machine. Four modifications brought out numbered, M1 to M4. Type M4 was equipped with ten wheels, numbers 1 - 8 being numbered A, B, etc., and two fixed wheels numbered with corresponding Greek letters. One single position of these two supplementary wheels was designed for working with the standard type A machines.

7. Type T machines. Five hundred of these machines numbered from 1 to 500 were supplied to the Japanese Navy. These machines are standard wiring 8-wheel machines similar to type K.

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