ADDRESS NAVY DEPARTMENT,
BUREAU OF SHIPS
Section 341
REFER TO FILE NO.
QC/NTME(341)

NAVY DEPARTMENT

BUREAU OF SHIPS
WASHINGTON 25, D. C.

FOR VICTORY BUY UNITED STATES WAR BONDS AND STAMPS

14 December 1945

Subj: Microfilm of German Technical Documents - Introductory Statement for.

1. During the course of its field trips to examine German synthetic oil plants and to interrogate German technical personnel, the members of the Oil Team of the U.S. Naval Technical Mission in Europe obtained a number of technical documents for examination. Some of these documents were directly related to certain subjects in which immediate reports were desired and were incorporated in Technical Reports as microfilm appendices. Other documents, while probably of equal technical value were, due to limitations of time and translation facilities, saved for more detail study and examination. These latter documents have been indexed and microfilmed by the Bureau of Ships to preserve the technical information therein for future use and to make possible the dissemination necessary to give each activity an opportunity to study the particular topics of interest to it.

2. The documents in this series cover a variety of subjects. They are not arranged in any particular sequence, but have been separated arbitrarily into sections of a convenient size. An index to each section has been prepared and appears at the beginning of the appropriate section. In addition, the indexes of all sections have been photographed at the beginning of the first reel.

3. The contents of this film are not to be taken as a complete record of the information on any subject obtained by the U.S. Naval Technical Mission in Europe. Rather, reference should be made to the complete set of films which have been prepared by the Bureau of Ships if it is desired to review all the data available.

4. The Bureau of Ships, Research and Standards Branch, would appreciate receiving, for its technical files, a copy of any translations made of these data.

T A Solberg

T. A. Solberg
By direction of
Chief of Bureau

FROM BUREAU OF SHIPS, NAVY DEPARTMENT, WASHINGTON 25, D. C.

00002 - 00202

In A Paper Bag Identified As
FT Flow Sheets and Equip. Details

1 Extract from "Treatises on coal /carbon/ Vol. 11" 41.) Investigations on the conversion of carbon monoxide and carbonic acid into methane with increased pressure. 4 pgs. 1931 Hydrogenation of carbon monoxide contained in coke gas into methane. Conversion of the carbon monoxide of a mixed gas (rich in carbon monoxide) into methane. Influence of various materials on the formation of methane.

2. Report on work on hydrocarbon synthesis Leuna Werke Synthesis experiments with iron catalysts. 25 pgs including some graphs and tables March 1940, Dr. Wintzer.

3. Basis of the Oppau pressure conversion 6 pgs and 1 flow diagram. Oppau Co. 6 Jan. 1941.

4. Report on the hydrocarbon synthesis experiments in Leuna. Marked "Incomplete" in English on the cover. Feb. 1939. Covers laboratory work, some technical experiment theory proposed projects and experimental oven construction types. 26 pages including some graphs calculations and illustrations.

5. Drawing # M3797 22 Nov. 1940. Flow diagram - arrangement for KW SY experimental installation Me458. Ammoniakwerk.

6. Drawing # M3369-1 30 May, 1940. Flow diagram: K.W. Sy experimental installation about 750 tats.

7. Drawing # D Sam 103 undated 2 copies. Flow diagram: Medium pressure synthesis of hydrocarbons LURGI cycle process.

8. Drawing # D Sam 101 undated 2 copies Flow diagram: Medium pressure synthesis of hydrocarbons LURGI Cycle process, (gases rich in CO and using conversion gas).

9. Scale drawing # 45105 Test contact oven (Rheinpreussen) 28 Nov. 1944 Proposition I.

10. Scale Drawing # 45099 10 Nov. 1944 Lest contact oven - Rheinpreussen.

11 Drawing # 200/57 26 June 1942, Contact oven installation.

12. Scale Drawing # 45179 29 June 1943 Arrangement of tubes in test contact oven.

13. Drawing # ODS/469 LURGI undated. Arrangement of iron catalyst experimental unit. Flow diagram.

14. Scale Drawing # M7445-2, 29 June, 1940. Ammoniakwerk Experimental installation for 750 Talo Ma458. Flow diagram.

15. Drawing # ODS666 15 May, 1944. LURGI Arrangement of complete cycle - Flow diagram.

16. Scale drawing # OFT/147. 7 May 1941 LURGI contact oven 300 mn NW.

17. Scale drawing #4588 15 Sept. 1941 External view of all the tubes and base with 61 holes.

18. Drawing # N2725-1 Scale drawing of a catalyst chamber. 16 May, 1939.

19. Scale drawing # 26136 Boiler support 11 June, 1942.

20. Drawing D Sam 104 Undated. Flow diagram. Medium pressure synthesis of hydrocarbons. LURGI cycle diagram.

21. Drawing # 71-120 (Krupp # 07z530/1c) Fuel plant chamber with tubes 24 May, 1945.

22. Scale drawing # C670d. IG. Farben. Pressure converter. 28 Dec. 1943.

23. Scale drawing # C679 28 Nov. 1941. Pressure converter I.G. Farben. Evaporator.

24. Scale drawing # C671 24 Oct. 1941. Arrangement of auxiliary rings in evaporator. I.G. Farben.

25. Scale drawing # 684a I.G. Farben. 8 Dec. 1941 Experimental evaporator NW 250. Oxygen contact.

1. "Production of acetophenone, synthetic resin AP, crotonic acid, crotonic acid butyl ester, and softening agent III, Hüls Chemical works, three pages with translation, and three drawings, 22 May, 1945.

2. "Flow diagram for manufacture of acetophenone synthetic resin," Hüls Chemical works, three charts, 22 April, 1945.

3. "Hydrogen apparatus," Hüls Chemical works, products of of the decomposition of raw gas" by an electric arc, 25 May, 1945.

4. "Ethylene apparatus," Hüls chemical works, an apparatus for producing pure ethylene from raw ethylene and hydrated ethylene, 25 May, 1945.

5. "Coke gas apparatus," Hüls Chemical Works, percentage decomposition of coke gas by an electric arc method, 25 May, 1945.

6. "Acetylene production, soot manufacture, and low pressure gas purification," Hüls Chemical Works, 4 pages, 25 May, 1945.

7. "Hüls Chemical Works," production chart showing raw materials, intermediate products and final products (buna and by-products).

8. "The production of coke-electrodes for the aluminum industry," Leuna Werke, 2 pages, 21, 12, 1943A

9. "Soot production," Leuna werke, 5 pages with chart, 19 May, 1939. (2 copies).

10. "Cost estimate of a soot-production plant," Leuna Werke, 1 June, 1939.

11. "Over-all chart of hydrogen boxes 1-5, Hüls Chemical Works, Chart # 460-4a.

12. "Chart of the Hüls ethylene plant," Hüls Chemical works, Chart #4b, 4 Aug. 1943.

13. "Working plan of a nitrogen apparatus," I.G. Farben industries, ~~Chart # 73. 47.5 -4c, Linde air factioni-~~ zation.

14. "Flow sheet of gas decomposition," Hüls Chemical works, Chart # 4, 21 April, 1945.

15. "Ethyl benzol production," Hüls Chemical works, two pages with chart # 12, 22 May, 1945.

16. "Styrol production," Hüls Chemical works, chart # 13, 21 April, 1945.

17. "Discription of acetylene hydrogenation Hü 662," Hüls Chemical works, 2 pages with chart # 6, 22 May, 1945.

00205

18. "Tatarinow acetylene production," Leuna-werke, 2 pages, 15, Feb. 1944.

19 Two graphs and miscellaneous reactions dealing with acetylene production, Leuna-werke.

00704 - ∅ 0814 Part 3 00704

(1) "Central heating and Ruhr foundry coke," Rheinisch-Westfälishhes Kohlen-Syndikat, pamphlet of 48 pages.

(2) "The Ruhr Coal in the Bakery," Rheinisch-Westfälisches Kohlen-Syndikat, pamphlet of 24 pages.

(3) "Ruhr Coal in gas production," Rheinisch-Westfälisches Kohlen-Syndikat, pamphlet of 46 pages with charts.

1. "Entrance duct on the lower cover of a tar oven," Braunkohle-Benzin A. G., no. FA 322-2, Aug. 18, 1944. scale drawing.

2. "Regenerator," Mannesmannröhren works, no. RW1769.1b Nov. 23, 1935, scale drawing for Braunkohle-Benzin, A.G.

3. "Tube bundle for 600 Ø Regenerator," I.G. Farben Industries, No. N564-2, June 7, 1937, scale drawing.

4. "Gas phase converter, 1000 Ø 15 m. assembly," Mineralöl-Baugesellschaft, No. 2338-1, Dec. 8, 1937, scale drawing.

5. "Gas pre-heater Ka.5," Technisches Büro, No. 1781, Dec. 18, 1940, thermo-diagram.

6. "1000 Ø gas pnase converter," Gewerkschaft Mathias Stinnes, No. 2228-1, Sept. 7, 1937, scale drawing.

7. "1200 Ø 12 m. forging," I.G. Farben Industries, No. N538-1, scale drawing.

8. "Angle Valve," Braunkohle-Benzin A.G., No. A1929-2 Feb. 24, 1944, scale drawing.

9. "16 Ø stem for angle valve," Braunkohle-Benzin A.G., No. FA-1547-4, Jan. 30, 1945, scale drawing.

10 "Angle valve 58 Ø, water cooled," Braunkohle-Benzin, A.G., No. FA1522-4, Jan. 24, 1945, scale drawing.

11. "10 Ø angle valve, water cooled," Braunkohle Benzin A.G., No. FA 1523-4. Feb. 7, 1945, scale drawing.

12. "10 Ø Check valve," Braunkohle Benzin A.G., No. FA-1530-4, Jan. 24, 1945, scale drawing.

13. "Complete set of drawings on H.P. valve," I.G. Farben industries, No. NB 2827-2, Jan 21, 1945.

14. "Slime-free valve," Braunkohle-Benzin A.G., No. A1496-2, Mar. 31, 1943, scale drawing.

15. "Experiment valve for H-K- Slime freeness," Braunkohle-Benzin A.G., No. A1494-2, Mar. 27, 1943, scale drawing.

16. "Expansion valve," Braunkohle-Benzin A.G., No. 181-2, May 7, 1935, scale drawing.

17. Diagram of the distribution of the reduction machine 500-2250," Braunkohle-Benzin A.G., No. A383-8, April 16, 1935., for Böhlen works.

18. Diagram of the reduction machine, Braunkohle-Benzin, A.G., No. A343-8, Nov. 5, 1936, for Böhlen works.

19. "Pressure Regulator, pistons 205 Ø," Leunawerke, No. 953(7), Aug. 29, 1938.

20. Central reducer, tar and gasoline, for 300 atu working pressure," Braunkohle-Benzine A.G., No. IZM126-2, Sept. 26, 1940, scale drawing.

21. Gas cooler of two-chamber gas phase converter," Mineralol - Baugesellschaft, No. 2273-1, Sept 25, 1937, scale drawing.

22. "Lower thrust expander," Braunkohle-Benzin A.G., No. A822-1, Sept. 20, 1943, scale drawing.

23. "Upper part hot separator," Braunkohle-Benzin, No. A832-1, Nov. 17, 1943, scale drawing.

24. "Shell for 600 Ø regenerator," I.G. Farben Industries, No. N4022^{I}-2, Nov. 20, 1937, scale drawing.

25. "Bottom closure 600 Ø regenerator," I.G. Farben Industries, No. N4563-2, June 22, 1937, scale drawing.

26. "Grids for catalyst," Braunkohle-Benzin A.G., No. A950^{a}-4, Nov. 16, 1944, scale drawing.

27. "Slurry phase inlet," Braunkohle-Benzin A.G., No. A975-4, Dec. 13, 1940, scale drawing.

28. "Lower oven cover," Braunkohle-Benzin A-G., No. A955-4 Sept. 25, 1940, scale drawing.

29. Drawing # N4265^{B}-2 I.G. Farben. scale drawing - Bottom Head 600 Ø Regenerator. 21 April, 1938.

00818

30. Drawing # RW 1769.3a Braunkohle-Benzin scale drawing "upper oven cover" 14 Nov. 1938

31. Drawing # R.W. 1769.4b Braunkohle-Benzin. Scale drawing - Lower cover 21 Nov. 1938.

32. Drawing # 76-4 Braunkohle-Benzin scale drawing - 600 ø. Funnel Neck. 29 Mar. 1935.

33. Drawing # 150-2 Braunkohle-Benzine scale drawing - Lower Funnel Neck 600 ø 29 Mar. 1935.

34. Drawing # 206-2 Braunkohle-Benzin scale drawing - Lube bundle 600 ø.

35. Drawing # 72-4 Braunkohle-Benzin scale drawing - Lower tube sheet. 1 Mar. 1935.

36. Drawing # 75-4 Braunkohle-Benzin scale drawing - Lower head and inlet and outlet tubes.

37. Drawing # 1138-4 Braunkohle-Benzin scale drawing - Tube support. July 27, 1937.

38. Drawing # A36-16 Tube for tube bundles. Braunkohle-Benzin, scale drawing, 6 May, 1935.

39. Drawing # A27-1, Braunkohle-Benzin, Regenerator Assembly 600 ø, scale drawing, 24 May, 1935.

40-41-42 Unlabeled drawings.

00861-0/225

00861

NOTE BOOK

Notebook containing "Experience Exchange" Conference Reports of the Ruhrchemie AK from the file of Dr. Braune on Fischer-Trospch Synthesis.

1. Session 14 - 2/7/38 Mostly on gas purification 11 pgs.
2. Session 13 - 1/7/38 Activity of catalyst 10 pgs.
3. Report by Dr. Weingawrtner on Gas Purification and life of catalyst Jan. 4, 1938 9 pgs (2 copies). (1 copy)
4. Report by Dr. Steinbrecher on "The Influence of Synthesis gas and its purity on the life of the catalyst (according to a laboratory investigation) 1/5/38; 6 pgs. (2 copies). (1 copy)
5. Report by Dr. Weingaertner "Gas Production in the Synthesis Process". 1/27/38; 9 pgs.
6. Session 12 12/6/37 9 pages Topics - 1- Gas Purification, 2- Catalyst Quality, 3- Chamber Discharge 4- Catalyst Distribution.
7. Session 11- 11/5/37 9 pgs.- Topics as in Session 12.
8. Session 10 - 10/1/37 6 pgs - Topics as above.
9. Session 9 - 8/27/37 7 pages Usual topics.
10. Session 8 - 7/30/37 10 pgs - Usual Topics plus an exact analysis of 4 F-T gasolines.
11. Session 7 7/2/37 9 pages Usual Topics.
12. Session 6 - 5/21/37 12 pgs - Usual Topics plus comparative monthly data sheets.
13. Session 5 - 4/23/37 13 pgs. Usual Topics A graph of - "Influence of Oxygen Content on Gas Purification".
14. Session 4 - 3/22/37 8 pgs. Usual Topics Includes graphs.

15. Session 3 - 2/5/37 9 pgs. Usual Topics.

16. Session 2 - 1/5/37 13 pgs. Usual Topics.

17. Session 1 - 11/27/36 7 pgs. and a second report of 19 pgs. (3 duplicates) on the usual topics.