

Section 341

REFER TO FILE NO.

QC/NTME (341)

NAVY DEPARTMENT

BUREAU OF SHIPS

WASHINGTON 25, D. C.



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.

A handwritten signature in dark ink, appearing to read "T. A. Solberg".

T. A. Solberg
By-direction of
Chief of Bureau

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I
SYNTHETIC LUBES

1. Specification for working Oil and Motor Oil for the Army.
June 1944.
2. Specification for Aircraft Motor Lubricating Oil S3 and U2.
3. R-Oil Plant - Flow Sheet 11/23/40.
4. Production of Aircraft Motor Oil by Mixed Polymerization-
Leuna - Mar. 27, 1943.
5. Solidification Point of Oil and Oil Mixtures DVL Investigation #786.
6. Reaction: K-Xanthogenate / Phosphortrichloride; Phosphorpentachloride;
Phosphoroxychloride. R. Rüttinger. Leuna works. Aug. 29, 1944. 12 pgs.
7. Ester Oil III - Expansion Plan - Drawing #M447-8. Sept. 19, 1942.
8. Flow sheet of Lubricating Oil Plant. Drawing #AS1263. Lurgi.
9. Scheme for the Distillation Plant - Drawing #D.O. 8770. Lurgi.
10. Viscosity index tables in centistokes.
11. Concerning the efficiency of Jet Impulse. 6/29/1943.
12. Flow Sheet of SS-oil Production.
13. 100 Hour Test on Lubricating Material SS1593 in Motor Juno 205D.
6/19/42. (2 copies).
14. Aircraft Pressure Oil Do2000. 11/9/44. Production of Do2000 and use.
15. Minutes on the survey of motors Z11, F154, J 112. After 100 hours
test with Lubricating Material "SS90225F". 9/2/41.

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16. Testing of Lubricating Material SS902, F25S in Motor Juno 205D.
2/19/42.
17. 100 Hour Test on the cold starting oils SS902/25F in motor 211F.
Sept. 18/1941.
18. Report on - 100 Hour Aircraft Test on the Cold Starting Oils
SS902 15 Fr in motor As10C/3. 8/12/41.
19. Parts of a Book on Lubricating Oil Testing.
20. Conference of the "Lubricating Technical" work group -
7/18/44. Paper delivered.
21. Notice: - Conference on 8 and 9 of July, 1941 concerning setting
up a plan for Lubricating oil production. 3 pgs.
22. Improvement of Storage qualities through Lubrication Additions -
R. Glocker. 10 pages.
23. Development and Experiment on cold withstanding Torpedo - Oils -
July 31, 1940. 33 pgs.
24. Report of Conference - on Lubricating Material for Torpedo Machine -
Mar. 6, 1940. 3 pgs.
25. Short Report # 372 on an investigation of the corrosion Preventative
H² 1/136 Na - W. Lauer - Aug. 20, 1943. I. G. Farben. 8 pgs.
26. Technical Specifications for the Corrosion Preventative - "Schutzöl 39"
Reich Air Ministry TL 147-900. May, 1939. 4 pgs.
27. Investigation on the Boiling and Ageing Behavior of Lubricating Oils -
O. Wedmaier and L. Nenninger. Yearbook 1941 - German Air Institute. II 460-469,

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28. Influence of Motor Lubricating Oil on the cold starting of Aviation Motors - Baier - 24 pgs. June 29, 1942.
29. Molecular-physical Problems of Lubrication. K. L. Wolfe 8/25/42. 4 pgs.
30. Report concerning the organization of the Lubricating Material commission on 12/15/42 in Leuna. 14 pgs.
31. Concerning the Polymerization of chemically pure unsaturated Hydrocarbons to Lubrication Oils - A. W. Schmidt and V. Schoeller - Reprint from Brennstoff-Chemie. Vol # 20 pg. 235-246, Vol 21 pgs. 247-258, 1942.
32. Concerning the Influence on Hardness to Scratch-Measurements on metals because of absorbed Lubricating material - Dr. Bochmann and L. Fieddecko 8/28/1944.
33. Tests of SS 902 oil in Brama 323P & HM 504.
34. Lubrication as Interfacial Phenomenon - Kluge - Report of the Physical-Technical Reich Institute. 12 pgs.
35. Notice: - Concerning the conference on SS900 Oil Plants at Leuna - July 25, 1941. 5 pgs.
36. Lubricating Oil-Synthesis from Olefins with addition of various quantities of Poly-styrol - Christmann. July 26, 1938. 4 pages.
37. Lubricating Oil Synthesis from Olefins with addition of various quantities of Polystyrol. July 19, 1938 .
38. Synthetic Aviation Lubricating Oil from (alpha) olefins C6-Cl8.

- H. Suida and J. Haura. April 10, 1942. 25 pgs.
39. Production of Hot Vapor Cylinder Oil and Parafflow from Chlorparaffin. 10/26/1942.
40. Notice: --Lubricating Oil Investigation on T.T.H. - Lubricating Oil - Becker Leuna Works Nov. 19, 1937.
41. Paraffination of TTH-Strip offs. Quantity and Quality of the resultant Lubricating Oils. It's Refination and its behavior in use - Böhm 15 pages.
42. High Vacuum Distillation of Synthetic Lubricating Oils and Numeral Oil Raffinate - E. H. Kadmer. Aug. 1944. 21 pages.
43. Product -- Ester - Lubricating Oil Nov. 5, 1942. 1 page.
44. File Notice - Production of Synthetic Lubricating Oil Sl Leuna - Jan. 22, 1942 2 pages and flow sheet.
45. Report - Production of aviation Oil through mixed polymerization. Leuna Mar. 29, 1943. 9 pages.
46. Lubricating Oil from Kogasin and Tar Distillation Products - Part VIII - H. Köbel and A. Mensel 3/21/40; Part XI over Catalyst. 10 pages and 14 pages.
47. Lubricating ability - Research Program - 11/4/41. A list of compound to be investigated. 2 pages.
48. High Vacuum distillation of Motor Oil of the Army for purpose of establishing constitution - E. Kadmer. Oct. 1944. 7 pages and graphs.

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49. Lubricating Oil from TTH-Paraffin by means of thermal Splitting and Polymerisation of the liquid Split Products. Leuna - Sept. 6, 1940. 5 pages.
50. Lubricating Compound Mar. 10, 1944. A patent application O. F. 14651 I. G. Farben.
51. Lubricating Compound - Feb. 23, 1944. A patent application O. F. 14614 I. G. Farben. (2 pages).
52. Lubricating Compound - Feb 24, 1944. A patent application O. F. 14620 2 pages. I. G. Farben. (2 copies).
53. Lubricating Oil Plant at Lützkendorf. March 23, 1943, 3 pages concerns aviation oil and the paraffination Situation.
54. The Relation between Lubrication and wear by the Lubrication Slide Method - E. Heidbrock May 1944 - 21 pages and drawings.
55. File notice - Concerning the Principle of Lubricating Oil - Mixed Polymerization. Leuna Jan. 12, 1942 (2 pages).
56. File Notice of a conference held 11/20/42 in Ludwigshafen on the production of Aviation Oil. 4 pages.
57. Report on Polymerization - Flow sheets given - 1st. page missing.
58. Lubrication Plan for the "Steinkohlenbergwerk Rheinpreussen. Jan. 1939. Contains specifications of Greases and oils.
59. The 1st. Session of the Lubrication Commission at Leuna 12/15/42 18 pages.

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60. Specification for Aviation Motor Lubricating Oils
TLL47-650 Dec. 1944. Ministry for air (2 copies).
61. Synthetic Special Oil - Leuna Feb 5, 1942. The physical
properties of two special oils.
62. Sulfur-Ester and Lubricating Oil-Inhibitor - Leuna, Nov. 5, 1942 -
Preparation of the material.
63. A contribution towards the elucidation of the constitution
of Mineral Lubricating Oils - E. H. Kadmer - Report #18
of the German Institute for Fuels. 38 pages.
64. Lubricating oil for TL-Equipment - Socks - Nov. 16, 1944 -
5 pages text, 5 pages tables and curves.
65. Investigation of Pumping Qualities of Motor Oils - Report #572 -
Halder - I. G. Farben July 20, 1944. 8 pages plus drawing and
graphs.
66. The Chemical Technologie of Lubricating Oil - Dr. Zom.
March 1938 I. G. Farben 109 pages.

- 1- ANIC - An illustrated story of the Italian Hydrogenation Plants at Bari and Livorno 2 copies.
- 2- Offer on an Installation with a years production of 180,000 tons of aviation Gasoline and 30,000 tons of Liquid Gas from Brown Coal through Catalytic Pressure Hydrogenation for the Union of Socialist Soviet Republic - Dec. 1939 Number 340. I. G. Farben AK. A complete Estimate - with flow sheets, material Requirements and cost figures. 3 pages.
- 3- Same as above except ^{from hard coal} - Number 338 and Nov. 1939.
- 4- Preliminary Report on the building of the High Pressure Chamber according to the Fuel Oil Investigation Aug-Oct 1941. 29 pages - of text drawing, photographs and flow sheets. Oct. 13, 1941.
- 5- Decline of the many layer body - Report on a conference held in Berlin. Sept. 2, 1938 13 pages.
- 6- Establishing the manufacturing Process of the necessary High Pressure Hollow Chambers. A report of a conference held in Berlin 8/18/38. 5 pages.
- 7- Investigation of many bed chamber and one bed chamber - Measurement and comparison of the Heat transfer ability. Dec. 29, 1938. 6 pages.
- 8- Preliminary Report on the many bed chamber May 25, 1938 23 pages of text drawing, graphs and photographs.

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9. Report on the Repairs to Chamber 5 - Böhlen Report #20/44. Braunkohle-Benzin AK June 15, 1944. 5 pages.
10. Report on the Repairs to Chamber 5 - Böhlen Report # 36/43. 10/18/43.
11. Report on the Repairs to Chamber 5 - Dentloff Report # 31/43. 9/15/43.
12. Report on the Repairs to Chamber 5 - Dentloff Report # 25/43. July 20, 1943.
13. Report on the Repairs to Chamber 5 - Dentloff Report # 12/43. March 17, 1943.
14. Report on the Repairs to Chamber 5 - ^{Böhlen}~~Böhlen~~ Report # 4/44. Jan. 31, 1944.
15. Rebuilding of the Gasoline-Chamber # 5. Dec. 5, 1941.
16. From the Braunkohle-Benzin AK - Magdeburg Works - as a remembrance - A collection of early and pioneer articles on Hydrogenation. Photographs and flow sheets included.