

TOM REEL 247
BM 33
ETHYL CORPORATION
RESEARCH LABORATORIES
1600 WEST EIGHT MILE ROAD
FERNDALE 20
DETROIT, MICHIGAN

Ans. L. L. Newman: JH
11-7-47

October 24, 1947

Dr. L. L. Newman, Chief
Foreign Synthetic Liquid Fuels Div.
Bureau of Mines
Department of the Interior
Washington 25, D. C.

Dear Dr. Newman:

With the able assistance of my staff in Detroit, I have at last completed the compilation of the material which I picked up in Germany early this year. As you remember I was over there as an investigator for FIAT and extended my activities to cover whatever additional information I might be able to pick up in the fields of additives for gasoline, diesel fuels, and lubricating oil.

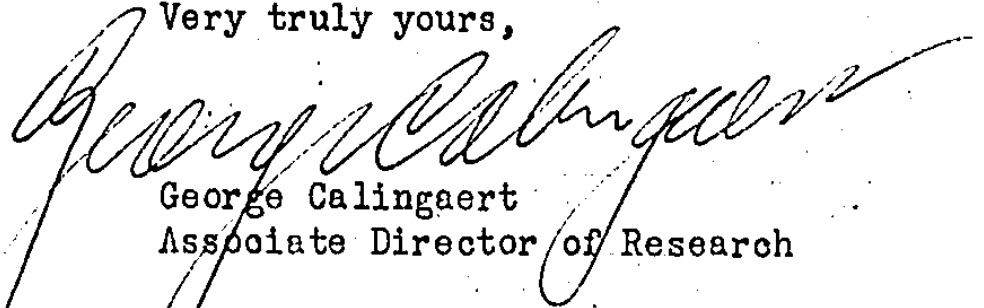
In accordance with your request that I forward all this material to you I am sending you herewith:

1. List of German publications to be delivered to the Bureau of Mines.
2. A memorandum from Dr. Hess to me entitled, "Brief Classification of Contents of German Publications to be Delivered to the Bureau of Mines".
3. Another memorandum entitled, "Summaries of German Publications to be Delivered to the Bureau of Mines"
4. The original documents referred to in the above items, namely:
 - Two reels of positive microfilms
 - 19 reflection negatives, to each of which is attached, for convenience, an additional copy of the corresponding summary referred to in item 3.

I trust that the above takes care of your request, and

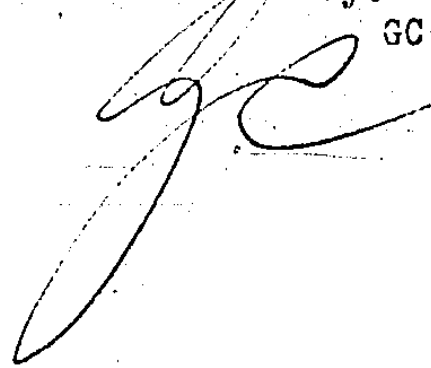
I will appreciate your advising me regarding the safe arrival of the material.

Very truly yours,



George Calingaert
Associate Director of Research

P.S. By way of comment, I wish to add that my own evaluation is that we have drained Germany pretty well of information of any value in these fields. I did however form the definite opinion that we are leaving behind in Germany perhaps a few dozen qualified scientists who have proved their value and whose future productivity will be lost if they are to remain in their present surroundings. I feel that it would be adding to our own wealth if we were to transplant a few chosen ones among these scientists and give them an opportunity to complete their productive career in this country.



C:m

TOM REEL 247

BM 33

September 22, 1947

List of German Publications to be Delivered to the Bureau of Mines

A. Reel 1

1. Characteristics of the combustion behavior of fuels in various engine cylinders. Alexander v. Philippovich, Vienna, May, 1947.
2. The influence upon combustion processes in Diesel engines of addition to the fuel of ignition promoters, particularly organic peroxides. Utilization of products of the domestic brown and bituminous coal carbonization industry for the operation of Diesel engines. Friedrich Mohry. Thesis, Munich Technical High School, May 20, 1936.
3. Concerning the knock ratings of fuel mixtures. Alexander v. Philippovich, Maschinenbau und Wärmewirtschaft (Vienna) 1, 76-8 (1946).

Attempts to improve Diesel fuels by increasing their ignition tendencies. Drexler, Köhler and Lange. Ammonia Laboratory, Oppau, Nov. 20, 1941.
5. The injection of fuels into the Diesel engine. Kurt Blume (Engine Laboratory of the Dresden Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 53 (1941).
6. Ignition delay measurements by means of photocells sensitive to various wavelength regions. Karl Stallechner (Heat Engine and Thermodynamics Laboratory of the Munich Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 53 (1941).
7. Corrosive attack by fuels. Maximilian Marder and Heinz Farnow (Institute for Brown Coal and Petroleum Research of the Berlin Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 27 (1939).
8. Detection of the breakdown of lubricant films by measurement of the electrical resistance between the piston ring and the cylinder. Reemt Poppinga. (Automotive Institute of the Dresden Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 54 (1941).

9. Corrosion by fuels. Georg Beck and Rudolf Künzelmann (Automotive Institute of the Dresden Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 21 (1939).
10. Selective solvents for the preparation of Diesel fuels from peat coal carbonization tars. R. Heinze, M. Marder and H. Welz (Institute for Brown Coal and Petroleum Research of the Berlin Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 7 (1938).
11. Determination of the ignition tendencies of Diesel fuels in the laboratory. R. Heinze and M. Marder. (Institute for Brown Coal and Petroleum Research of the Berlin Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 7 (1938).
12. Knocking processes in multicylinder engines. A. W. Schmidt and K. Regel. (Institute for Chemical Technology and Petroleum Research Laboratory of the Munich Technical High School). Deutsche Kraftfahrtforschung.
13. Dynamic processes in knocking combustion. Anton Köchling. (Engine Laboratory of the Dresden Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 75 (1943).
14. The influence upon combustion processes in Diesel engines of addition to the fuel of ignition promoters, particularly organic peroxides. A. W. Schmidt and F. Mohry (Institute for Chemical Technology of the Munich Technical High School). Oil and Kohle, 36, No. 13, 122-7 (1940).
15. Comprehensive review of research projects at the Institute for Chemical Technology of the Munich Technical High School. F. Kneule. Munich, 11/29/45.
16. Increasing the load carrying capacity of slide bearings by the use of chemical additives to the lubricant. Hagmayer. (Engine Laboratory of the Stuttgart Technical High School. Automotive Research Institute). Stuttgart, Feb. 6, 1946.
17. Improving the lubricating action of oils by the use of chemical additives. R. Glocker. (Institute for the Physics of Metals at the Kaiser Wilhelm Institute for Metal Research). Stuttgart, Jan. 20, 1945.
18. Surface investigations on steel shafts. R. Glocker. (Institute for the Physics of Metals at the Kaiser Wilhelm Institute for Metal Research). Stuttgart, April 1, 1944.

19. Atomic and physical changes associated with the mutual friction of metallic surfaces. Richard Glocker, Proceedings of the German Academy for Aviation Research, 52, 1-14 (May 7, 1942).
20. Development and significance of tetraethyllead as an antiknock agent. O. Widmaier and L. Nenninger (Research Institute for Automotive Transportation and Automobile Engines at the Stuttgart Technical High School (FKFS)). Technische Berichte 9, No. 4, 109-21 (1942).

B. Reel II

1. Contribution to the investigation of the combustion process in the high-speed Diesel engine. F. Kneule. (Heat Engine Laboratory of the Munich Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 5 (1938)
2. Influence of distillation conditions upon the ignition tendencies of Diesel fuels from peat coal carbonization tars. Richard Heinze and Kurt Schneider. (Institute for Peat Coal and Petroleum Research of the Berlin Technical High School). Deutsche Kraftfahrtforschung (VDI Press-Berlin), Volume 17 (1938).
3. Mixture formation and combustion. The state of research in the field of Diesel engine work processes. W. Pauer et al. (Society for the Investigation of Engine Combustion). Deutsche Kraftfahrtforschung. Dresden, Oct. 1, 1940.
4. New methods for the evaluation of the lubricity of oils and fats. Edgar Pietsch. (Lubrication Research Laboratory of the Dresden Technical High School). Deutsche Kraftfahrtforschung. Dresden, April, 1940.
5. The state of knowledge concerning mixture formation in Otto and Diesel engines. Karl Zinner (Engine Laboratory of the Dresden Technical High School). Deutsche Kraftfahrtforschung. VDI, Augsburg, Sept. 29-30, 1938.
6. Motor method for the testing of Diesel fuels. H. Ernst and W. Gross. (Research Institute for Automotive Transportation and Automobile Engines at the Stuttgart Technical High School (FKFS)). Deutsche Kraftfahrtforschung. Stuttgart, Dec. 22, 1938.
7. Attempts to explain the knock process. A. Köchling. (Engine Laboratory of the Dresden Technical High School). Z. Verein. deut. Ing. 82, 1126-34 (1938).
8. A contribution to the explanation of the constitution of mineral lubricating oils. E. H. Kadmer. (Institute for Chemical Technology

and Petroleum Research Laboratory at the Munich Technical High School). Deutsche Kraftfahrtforschung.

- 9. Stability of light fuels. Heinze (Institute for Peat Coal and Petroleum Research of the Berlin Technical High School). Deutsche Kraftfahrtforschung.

C. Reflection negatives

- 1. Studies of hydrocarbons with attached active oxygen. Communication No. VI, 1. (Engine experiments). A. W. Schmidt, H. Beck and F. Kneule, June 6, 1940.
- 2. Same. Communication No. VII, 1. (Chemical part). A. W. Schmidt and H. Beck, Munich, July 3, 1940.
- ~~3~~ Same. Communication No. VII, 1. (Chemical part). A. W. Schmidt and H. Beck, Munich, July 29, 1940.
- 4 Same. Communication No. VII, 2. (Engine part). A. W. Schmidt and H. Beck, Munich, August 3, 1940.
- 5. Same. Communication No. VIII, 1. A. W. Schmidt and H. Beck, Munich, Oct. 12, 1940.
- 6. Same. Communication No. XI, 1. Effect upon the fuels. (Chemical part). A. W. Schmidt and H. Beck. Munich, Feb. 3, 1941.
- 7. Same. Communication No. XIII. Effect upon the fuels. (Chemical part). A. W. Schmidt and H. Beck. Munich, April 1, 1941.
- 8. Same. Communication No. XV, 1. Effect upon the fuels. (Chemical part). A. W. Schmidt and H. Beck. Munich, May 30, 1941.
- 9. Same. Communication No. XIX, 1. Effect upon the fuels. (Chemical part). A. W. Schmidt and H. Beck. Munich, Dec. 6, 1941.
- 10. Same. Communication No. XVII, 1. (Fragment). A. W. Schmidt and H. Beck. Munich, Sept. 18, 1941.
- 11. Same. Communication No. XV, 1. (Fragment). A. W. Schmidt and H. Beck. Munich, July 1, 1941.
- 12. Studies of methods of increasing the reactivities of fuels for internal combustion engines. Communication No. XXI, 1. A. W. Schmidt and H. Beck. Munich, March 6, 1942.

13. Same. Communication No. XXIII. A. W. Schmidt, H. Beck and F. Kneule. Munich, June 20, 1942.
14. Same. Communication No. XXIV. A. W. Schmidt, F. Kneule and H. Beck. Munich, October 6, 1942.
15. Same. Communication No. XXV. A. W. Schmidt and H. Beck. (Chemical part). Munich, Dec. 18, 1942.
16. Review of the previously added synthetic peroxides. (Preliminary listing). A. W. Schmidt and H. Beck. No city or date.
17. The testing of lubeoil additives in one-cylinder engines. M. Rossenbeck and A. Handschuh (FKFS) Stuttgart, May 24, 1944.
18. Description of the FKFS ignition delay measuring apparatus. K. Staiger and L. Huber (FKFS). Stuttgart, No date.
19. Methods for the determination of the technical lubricating powers of lubricants. E. Heidebroek. (Laboratory for Lubrication Research of the Dresden Technical High School). Dresden, October, 1941.

Lewis Hess

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