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COMPILATION OF GERMAN FUELS AND LUBRICANTS SPECIFICATIONS

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COMBINED INTELLIGENCE OBJECTIVES SUB-COMMITTEE

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COLDILATION OF GERMAN FUELS AND LUBRICANTS SPECIFICATIONS

Reported by:

Captain C. C. Chaffee, U. S. Ord. Lieutenant R. J. Ozol, U. S. Ord.

28 August 1945

CIOS ITEM 30 FIELS & LUBRICANTS

COMBINED INTELLIGENCE OBJECTIVES SUB-COMMITTEE G-2 DIVISION, SHAEF (REAR) AFO 413

RESTRICTED

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PERSONNEL OF TEAM

Capt. C. C. Chaffee, U.S. Ord. Lt. R. J. Ozol, U.S. Ord.

I. INTRODUCTION

Information has been obtained on German Armed Forces fuels and lubricants specifications from documents collected during CIOS field trips. The specifications have been translated and are briefly reviewed in this report. Information on the reason behind specification changes may be obtained by a detailed study of individual plant operations reported by technical data on specifications.

II. DISCUSSION

The information on specification has been presented in four categories, that is, motor fuels, aviation fuels, lubricants and greases. The following general comments may be made at this time.

- a. Motor Fuels. German Ground Forces fuel had to meet an Octane number of 72 and this was accomplished by using straight run, cracked and/or Fischer Tropsch gasoline and T.E.L., straight run, cracked and/or Fischer Tropsch gasoline T.E.L. and aromatics; and straight run crack and/or Fischer Tropsch gasoline and aromatics. Due to the need of aromatics in ammunition they were removed and T.E.L. substituted for them. Diesel fuel had to pass a minimum requirement of 45 Cetane number.
- b. Aviation Fuels. Specifications have been obtained on fuels A-3 (80 ON), B-4 (89 CN) and C-3 (95 ON) and the components of these fuels made at Leuna, Scholven, Bohlen Gelsenberg and Brux. In general, the final product, was not altered greatly except that as the war progressed a larger amount of aromatics was allowable in each fuel, the maximum being 45% in C-3 gesoline. The only available specifications on aviation Diesel fuel reveal that a minimum octane value of 60 was allowed which was later reduced to 50.
- c. <u>Lubricants</u>. Specifications have been obtained for both Air Force and Ground Force lubricants. They include lubricant S-3, V-2 and the synthetic lubricant components of these lubes and also summer and winter cil for Ground Force vehicles.
- d. <u>Greases</u>. Specifications have been obtained for Rocker Arm Grease Protective Grease 40 G, Axle Grease, Refrigeration Grease, Aviation Instrument Grease, Aviation Grease-Blue, Protective Grease 40 (Tp); Protective Grease 40, Weapon Grease, Instrument Grease, Water Pump Grease, and Lubricating Grease.

The translated specifications and comments on test technique are appended. In general the quality of fuels and lubricants as set by specifications was fairly well maintained during the war.