

ETHYL GASOLINE CORPORATION

25 BROADWAY

INTER-OFFICE
CORRESPONDENCE

NEW YORK January 29, 1929.

Dr. R. A. Kehoe,
College of Medicine,
Eden & Bethesda Avenues,
Cincinnati, Ohio.

Dear Dr. Kehoe:

The Vacuum Oil Company people called upon us the other day to ask whether we would be agreeable to supplying the Australian Air Force with ETHYL fluid for aviation use. Of course, this Department is more or less controlled by the British Air Ministry, although they act as an independent unit.

They have a peculiar situation confronting them. Australia is a large country and many of the inland points are sparsely inhabited and, for that reason, gasoline is only available, except along the seacoast, in case lots. The Air Force is constantly flying over the interior and sometimes has to make forced landings and then has to take whatever gasoline it is able to obtain to continue the flight. The object in their using Ethyl Gasoline is to permit them to raise compression ratios in their engines, and if they could not get Ethyl Gasoline throughout the country, they would not want to use it at all because ordinary gasoline would not operate the motors that they contemplate using.

Therefore, the proposal is to mix Ethyl Gasoline at five of the largest centers in bulk quantities for the use of the Air Force, and then to furnish them with a steel cartridge to carry ^{fluid} in their planes for emergency use. I discussed this with Mr. Webb and he was agreeable to our advising the Vacuum people that we would go ahead, it of course being made a condition that they handle the ETHYL fluid in accord with whatever rules and regulations you might wish to prescribe for this operation.

They might obtain their bulk quantities of Ethyl Aviation Gasoline in the United States, but if they do not, we intend to insist upon their installing and using the eductor system for that part of the work. It was their proposal to have their chemists equip an installation in their laboratory, probably at Melbourne, and when the steel cartridges had been emptied by the aviators they would be immediately capped and returned to this laboratory for refilling. This would be handled only by their technical staff and every pilot would receive strict instructions from the Air Force as to how to handle these cartridges. Attached hereto is a blue print of what they propose using. There is a disc of tinned plate fitted into the top of the cartridge and then a brass cap is screwed in on top of it. Under the disc is a washer of vellumoid. Over the entire top of the cartridge is another cap which fits down on to the body of it, which is intended to pick up any possible small dripping that might occur. This is chained to the cartridge. The cartridges are to be filled with a given amount of ETHYL fluid, their idea being sufficient to treat fifty gallons of gasoline on the basis of 6 c.c. of fluid per Imperial gallon, and there will be a spike arrangement in the gasoline tank which will puncture the tin disc as the cartridge is inserted. After draining the fluid out the cartridge is recapped and, as advised above, returned to the laboratory of the Vacuum Oil Company for refilling.

Dr. R. A. Kehoe,

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We attach hereto the blue print and sketch covering this proposed arrangement. We would thank you to please give us your opinion as to whether we should permit them to use such a container; what rules and regulations you would wish to lay down to cover the operation, and also whether you would be agreeable to their chemist handling the refilling of these bottles in the laboratory and what kind of a set-up you think would be required.

They are rather anxious to go ahead with this matter for the reason that they are holding up the ordering of some high compression engines in England pending our advice as to whether this procedure is feasible and if you could give it your prompt attention, it would assist them.

Yours very truly,

Yours very truly,

W. M. Thackeray

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