

 **TELEDYNE**  
**CONTINENTAL MOTORS**  
**Aircraft Products**

P. O. BOX 90

MOBILE, ALABAMA 36601

(205) 438-3411 CABLE: CONTENT

January 24, 1991

Mr. Lars Hjelmberg  
Hjelmco Oil  
Vretenvagen 13  
S-171 54 Solna, Sweden

Reference: Telefax to Teledyne Continental Motors from Hjelmberg Oil  
dated 11/22/90

Dear Mr. Hjelmberg:

We apologize for not answering your letter at an earlier date.

Answers to your questions are as follows:

1. Can newly overhauled engines originally certified for AVGAS 80/87 operate satisfactorily with this fuel?

AVGAS 80/87 (Leaded or Unleaded) is a satisfactory fuel for any TCM-AP engine originally certified for this fuel. We continue to recommend a break-in period with leaded fuel (80/87 or 100LL) prior to using unleaded fuel.

2. Is the ASTM D-910 standard for AVGAS still the valid specification for all TCM-AP gasoline engines?

Yes. No major revisions have been made to ASTM D-910 for several years. There is a committee currently assigned to study ASTM D-910 and determine if specifications for unleaded fuel should be added. No decisions have been made at this time.

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3. Are there any known problems TCM-AP is aware of with newly overhauled O-200 and O-300 engines with regards to premature exhaust valve guide wear?

Yes. Occassionally excessive exhaust valve guide wear has been seen in O-200 and O-300 engines. This is not limited to one overhaul shop. The cause has not been determined, but has not been associated with the fuel used.

4. Is TCM-AP aware of any other fuel related problems with O-200 and O-300 engines being overhauled by other companies in the USA?

We are not aware of any fuel related problems with O-200 or O-300 engines.

5. Is there a difference in quality between overhauled engines by TCM-AP and other companies?

TCM-AP currently provides two methods of overhauling engines.

The first is a rebuilt engine which requires new engine tolerances. The second is an overhauled engine which permits oversize pistons, rings, undersize crankshaft journals and bearings, oversize valve stems and guides, and other similar component deviations.

There is a great variation in quality among overhaul shops. Some shops are equal to TCM in overhauling engines but others are not. One big difference is in the quantity of parts replaced and whether the replacement parts come from reputable suppliers.

6. Does TCM-AP currently believe that use of unleaded AVGAS 80/87 is detrimental to newly overhauled engines?

No. This subject is discussed under question no. 1.

7. Provide order of preference of fuel usage for a newly overhauled engine certified for use with AVGAS 80/87.

Break-in period:

1. AvGas 80/87 (leaded)
2. AvGas 100LL
3. AvGas 100/130

After break-in period:

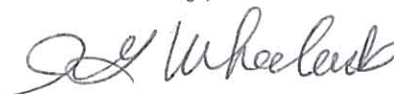
1. AvGas 80/87 (leaded)
2. AvGas 80/87 (unleaded)
3. AvGas 100LL
4. AvGas 100/130

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8. Can TCM-AP provide a contact for answers to customer questions?

Please contact Mr. Ron Rose of TCM-AP Service Department. The address is TELEDYNE CONTINENTAL MOTORS - AIRCRAFT PRODUCTS, P.O. BOX 90, MOBILE, ALABAMA 36601. The telephone number is (205) 438-3411, X-396. the Fax number is (205) 438-3411, X-179.

Sincerely,



J.G. (Jim) Wheelock  
Manager, Piston Engineering

JGW/mhh  
2JGW3600.239

cc: R. Wilkinson  
R. Rose  
B. Brogdon  
D. Mayrose  
L. Felis