

**D-Motor International bvba**Houtekiestraat 11B-8540 Deerlijk, Belgium

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Service Bulletin NO. 2019-018

## SUBJECT : Use of AVGas in D-Motor engines

MODELS AFFECTED : All models

TIME OF COMPLIANCE : new mounting / new service / fuel change

AFFECTED SERIAL NUMBER(S) : All engines

Although the D-Motor Engine Owner Manual describes the use of MoGas (Super unleaded) 950CT and AVGas (UL91), D-Motor advises customers to use unleaded MoGas.

Reason is the Oxygen (Lambda) sensor.

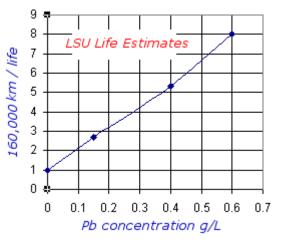
The OEM built in Lambda sensor (P/N 185001) is a top BOSCH Oxygen sensor.

## Using D-Motor (Bosh) Sensors With Leaded Fuel

Depending on the lead content of the fuel used, the expected service life time is:

- for 0.6 g Pb/I: 20,000 km 200 hrs
- for 0.4 g Pb/I: 30,000 km 300 hrs
- for 0.15 g Pb/I: 60,000 km 600 hrs

Extrapolating this Bosch data suggest that at 1.5 g/l the life may be as low as 2,000 km or just 20 hours at 100 km/h. AvGas 100LL has 0.56 g/l Pb, suggesting a sensor life of 200 hours. Compare this to a suggested life of 1,600 hours for unleaded.



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Of course there are other contaminants that shorten the sensor's life and they include

- <u>Ethylene Glycol</u> (anti-feeze note that it is sweet & *toxic* to humans).
- <u>Silicones</u> as used in automotive gasket cements.
- <u>Metal Contaminants</u> as well as <u>lead</u> the metal <u>zinc</u> (from galvanised parts) can cause rapid sensor degradation.

## ADVISORY :

D-Motor advises to replace the Oxygen (O2) lambda sensor every 200 hours of operation if AVGas (leaded fuel) is used. (P/N 185001)

D-Motor advises to use the MoGas (unleaded) OCT95 fuel

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