European Union Aviation Safety Agency

Fuel

May I use Unleaded Aviation Gasoline (Avgas) UL 91 even if the airframe TCDS states that the minimum fuel octane is 100?

Answer

The use of Avgas UL 91, when this fuel grade has been approved for the particular engine types, is possible even if the airframe TCDS specifies a higher minimum number of octane (e.g. Avgas 100LL). In this case, the Avgas UL 91 can be used after implementation of the related Standard Change CS-SC202b, see page 48/49 of CS/STAN

This Standard Change is suitable for aeroplanes that are approved for operation with Avgas or Mogas in case the installed engine is already approved to use unleaded Avgas UL 91, leaded Avgas 80/87, or Mogas RON 95 (MON 85) in accordance with Standard EN228.

The previously published EASA SIB 2011-01 has been withdrawn after publication of CS-STAN “Standard Changes and Standard Repairs”.

IMPORTANT: Use of unleaded Avgas UL 91 in engines that have not been approved for the use of these fuels may cause extensive damage or lead to in flight failure, due to the lower Motor Octane Number (MON) of the fuel, compared to Avgas 100LL.

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