



**HUGHES  
SERVICE INFORMATION  
LETTER**

LETTER NO. HL-20

DATE 26 June 1972

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TO—All owners and operators of Hughes Helicopters

SUBJECT: SHUTDOWN PROCEDURES - ALLISON MODEL 250-C20 SERIES ENGINE

MODELS AFFECTED: All Hughes 500 Model 369H Series Helicopters equipped with Allison Model 250-C20 Series Engine

Reference

Owners Flight Manual, Hughes 500 Model 369H Series Helicopter

Detroit Diesel Allison Commercial Service Letter 250-C20 CSL-1009, dated 20 January 1972

Some cases of early lightoff or afterfire have been experienced during startup or shutdown of the 250-C20 engine. The problem has been traced to improper fuel control adjustment and/or a worn fuel cutoff valve, permitting fuel flow insufficient for idle but capable of combustion at a very low  $N_1$  rpm.

During shutdown, if the pilot does not hold the throttle grip firmly in the CUTOFF position until the  $N_1$  decelerates to zero and the TOT is stabilized, an afterfire may result due to fuel leakage from the fuel control valve. If the TOT limit is exceeded, an inspection of the engine or a turbine change is required.

The shutdown procedure for the above affected 369H Series helicopters has been amended to include the following precaution which will be included in the next revision of the Owners Flight Manual.

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CAUTION

To ensure throttle cutoff, hold twist grip in CUTOFF position until  $N_1$  decelerates to zero and TOT is stabilizing.

In addition, the above referenced Detroit Diesel Allison Commercial Service Letter provides instructions for fuel control inspection, adjustment and repair, to preclude an early lightoff or afterfire.

It is recommended that the new shutdown procedure be put into practice immediately, and that the maintenance action incorporated in the Detroit Diesel Allison Commercial Service Letter be accomplished at the earliest possible date.



Edward Koch, Manager  
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