



INFORMATION LETTER

505-25-41
8 January 2025

TO: All owners and operators of Model 505 helicopters

SUBJECT: LITHIUM-ION BATTERY TECHNOLOGY EXPLAINED

Bell has investigated two recent reported cases of total electrical power loss during an engine start. Following the troubleshooting of these occurrences, it was determined that battery voltage was below the required minimum voltage threshold that permits starting solely on helicopter battery power. Loss of electrical power on a start may harm the engine hot section and require removal for tear down inspection.

This information letter is to remind owners/operators/pilots that the Bell Model 505 helicopter is equipped with an aircraft battery that uses Lithium-Ion technology which behaves differently than conventional Lead Acid or NiCad batteries.

It is important to highlight the fact that this type of battery technology has built-in protection that automatically shuts down battery power upon reaching pre-established critical low voltage settings.

The 505 Rotorcraft Flight Manual Limitations (Section 1) is very specific and prohibits battery-only starts (without external power) when the aircraft battery voltage reading is below 25.7 Volts. As required, connect external power to assist in engine starts. Follow the 505 Rotorcraft Flight Manual procedures.

The Manufacturer's Data manual Section 1 ([BHT-505-MD-1 paragraph 1-34-A-1/-2](#) and [BHT-505-MD-2 paragraph 1-35-A-1/-2](#)), contains information on the functions of this battery design.

For any questions regarding this letter, please contact:

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