

United States of America  
Department of Transportation -- Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SH4169NM

*This certificate issued to* Soloy, LLC  
450 Pat Kennedy Way, SW  
Olympia, WA 98501

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 6 of the Civil Air Regulations.*

*Original Product-Type Certificate Number :* H2SW  
*Make :* Bell Helicopter Textron, Inc.  
*Model :* 206L

*Description of Type Design Change:*

Installation of the Allison model 250-C20R/2 or R/4 engine in accordance with FAA sealed Soloy, LLC Master Drawing List No. 680-300, dated November 25, 1987, and Advance Drawing List Revision, dated December 18, 1987, or later FAA approved revisions.

*Limitations and Conditions:* Approval of this change in type design applies to the above model aircraft only. Compatibility of this design change with previously approved modifications must be determined by the installer. A copy of this Certificate and Continuation Sheets must be maintained as part of the permanent records for the modified aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission. (See Continuation Sheet)

*This certificate and the supporting data, which is the basis for approval, shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* April 16, 1987

*Date reissued :* August 25, 1995; December 28, 2006  
May 31, 2012

*Date of issuance :* January 29, 1988

*Date amended :* February 21, 1992



*By direction of the Administrator*  
**Original Signed By:**  
Timothy Smyth

(Signature)

Timothy Smyth  
Manager, Propulsion Branch  
Chicago Aircraft Certification Office

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(Continuation Sheet)

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*Limitations and Conditions* (Continued):

Certain limitations and conditions shown on Type Certificate Data Sheet (TCDS) No. H2SW for the Model 206L remain applicable. The following list contains those additional limitations and conditions which have been modified and certain unmodified ones which are listed for clarity:

Model: Bell 206L as modified by this STC (normal category rotorcraft)

Engine: Rolls-Royce Model 250-C20R/2 or R/4

Engine Limits: Power Ratings (Sea Level, ISA)  
Takeoff – 450 s.h.p.  
Max. Continuous – 450 s.h.p.

Gas Generator Speeds  
Takeoff – 50537 RPM  
Max. Continuous – 50537 RPM

Exhaust Gas Temperatures  
Takeoff - 810° C  
Max. Continuous - 810° C to 843° C (not to exceed 6 seconds)  
Max. Transient - 810° C to 899° C (not to exceed 12 seconds)  
(Maximum 3 occurrences per turbine wheel life)  
Max. Starting - 810° C to 927° C

Transmission Limits: Max. Takeoff Power – Torque = 100 percent (420 s.h.p.)  
Max. Continuous – Torque = 88 percent (370 s.h.p.)

Helicopter Limits: Max. Takeoff – Torque = 100 percent (420 s.h.p.)  
Max. Continuous – Torque = 88 percent (370 s.h.p.)  
Max. Continuous – EGT = 752° C

Fuel: Normal Fuels

MIL-T-5624, Grade JP-4 or JP-5  
ASTM-D-1655, Jet A, A1, or B; and Arctic Diesel Fuel  
DF-A (VV-F-800B), Jet A or A1  
JP-1 conforming to ASTM D-1655, Jet A or A1  
MIL-T-83133, Grade JP-8  
Diesel #1 fuel conforming to ASTM D-1655, Jet A

Emergency Fuels

MIL-G-5572, any grade, is permitted for a maximum of 6 hours per turbine overhaul period.  
MIL-G-5572 fuel containing TRICRESYL-PHOSPHATE (TCP) shall not be used.

Lubricating Oil: MIL-L-7808G or MIL-L-23699 and subsequent revisions.

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*Limitations and Conditions* (Continued):

Certification Basis: FAR 21.29 and CAR 6, effective December 20, 1956, Amendments 6-1 through 6-4, CAR 6.307(b) and 6.637 of Amendment 6-5, Special Conditions, dated October 2, 1962, revised February 8, 1966, plus the water/alcohol power augmentation special conditions dated November 14, 1967, revised September 15, 1975. Special Conditions for "IFR Instrument Flight Requirements for Bell Model 206B/L" submitted by Bell to FAA by letter dated July 16, 1975.

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the helicopter for certification.

In addition, a Soloy, LLC Rotorcraft Flight Manual Supplement (RFMS), dated January 29, 1988, or later FAA approved revision is required.

Note 1: Information essential to the proper maintenance of the helicopter is contained in the manufacturer's maintenance manual provided with each helicopter.

Note 2: Takeoff Torque Limit and Maximum Continuous Torque Limit Placards, as specified in the RFMS for this STC, must be placed in the cockpit in plain view of the pilot.

- END-