

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

Number SH4179NM

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 : 206A, 206B

Description of Type Design Change:

Installation of the 250-C20R/2 or R/4 engine in accordance with FAA sealed Soloy, LLC Master Drawing List No. 680-300, dated March 25, 1988, Advance Master Drawing List Revision dated March 28, 1988, and Advance Master Drawing List Revision, dated December 8, 1988, or later FAA approved revisions. This approval covers Bell 206A and 206B helicopters with serial numbers 4 and above.

Limitations and Conditions: Approval of this change in type design applies to the above models of aircraft only. Compatibility of this design change with previously approved modifications must be determined by the installer. A copy of this Certificate and Continuation Sheet 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: June 23, 1988; May 4, 1993;
August 25, 1995; December 28, 2006,
May 31, 2012

Date of issuance : March 31, 1988

Date amended: February 7, 1989



By direction of the Administrator

Original Signed By:

Timothy Smyth

(Signature)

Timothy Smyth
Manager, Propulsion Branch
Chicago Aircraft Certification Office

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Limitations and Conditions (Continued):

Certain limitations and conditions shown on Type Certificate Data Sheet (TCDS) No. H2SW for the Model 206B apply to model 206A and 206B aircraft modified in accordance with this STC. The following list contains those limitations and conditions which have been modified and certain unmodified ones which are listed for clarity.

Model: Bell 206A and 206B as modified by this STC (normal category rotorcraft)

Engine: Rolls-Royce Model 250-C20R/2 or 250-C20R/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 (317 s.h.p.)
Max. Continuous – Torque = 85 percent (270 s.h.p.)

Helicopter Limits: Max. Takeoff – Torque = 100 percent (317 s.h.p.)
Max. Continuous – Torque = 85 percent (270 s.h.p.)
Max. Continuous – EGT = 752° C

Fuel: Normal Fuels

MIL-T-5624, JP-4, JP-5
ASTM-D-1655, Jet A, A1, or B; and Arctic Diesel Fuel
DF-A (VV-F-800B), Jet A or A1
JP-a conforming to ASTM-D-1655, Jet A or A1
MIL-T-83133, grade JP-8
Diesel No. 1 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 TRICRESYLPHOSPHATE (TCP) shall not be used.

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

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

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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 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 March 31, 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.
- Note 3: This change in type design is applicable to Bell Models 206A and 206B serial numbers 4 and subsequent.

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