

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

Number SR09229RC

This certificate issued to Whisper Jet, Inc.
a Washington Corporation
12515 Willows Road N.E., Suite 200
Kirkland, WA 98034

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: 1H4
Make: Sikorsky Aircraft
Model: S-55

Description of Type Design Change: Installation approval of a 5 blade main rotor system and the Air Research TSE331-10UA-511SW engine in accordance with Orlando Aviation, Inc., Master Drawing List No. OA-55-00-10000, Rev J, dated November 30, 1999, or later FAA approved revision. Sikorsky S-55 to include replacing 3 blade rotor system with a 5 blade main rotor on helicopters which have STC SH127WE and STC SE00691CH, also including new engine inlet, and exhaust silencing.

Limitations and Conditions: This applies only to those helicopters that have incorporated STC SH127WE which installs Air Research TSE331-3U-303N and STC SE00691CH which converts the TSE331-3U to a TSE331-10UA. The limitations and conditions of Helicopter Specification No. 1H4 apply except as outlined in pages 1, 3, and 4, of this STC. A copy of this STC must be included in the permanent records of each airplane modified in accordance with this STC.

(See continuation sheet 3 of 4)

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: August 01, 1994

Date reissued: June 07, 2010

Date of issuance: December 17, 1999

Date amended: April 12, 2000



By direction of the Administrator

(Signature)
Lance T. Gant, Manager
Rotorcraft Certification Office
Southwest Region

(Title)

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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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(Continuation Sheet)

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Date of Issuance: December 17, 1999

Date Amended: April 12, 2000

Date Reissued: June 7, 2010

Limitations and Conditions (Continued):

Sikorsky S-55 as modified by this STC

Weight Limit: Whichever is less: Maximum take-off and landing weight and in ground effect maneuvers is 7700 pounds or as shown in hover in ground effect charts in the Rotorcraft Flight Manual Supplement dated December 17, 1999, or later FAA approved RFM.

Center of Gravity: Most forward: 129 inches aft of datum
Most rearward: 136 inches aft of datum

AFT CENTER OF GRAVITY MINIMUM WEIGHT IS 6300 LBS.

Engine Garrett TSE331-10UA-511SW

Fuels Jet A, A-1, B, JP-1, -4, -5, -8, Jet B. Use of Aviation Gasoline is prohibited. Mil-I-27686D fuel system icing inhibitor, or equivalent, in amounts not to exceed 0.15% by volume is allowed.

Maximum EGT Limits

EGT °C	IOAT	EGT °C
@ 92%-96%Nr	°C	@ 96%-101%Nr
600	50	600
595	40	590
585	30	580
575	20	570
565	10	560
555	0	555
545	-10	550

Maximum EGT during starting (1 second limit) is 770° C.

Torque:

Torque limits for take-off and maximum continuous (100%): 59 psi (1380-ft lb). The turbine engine power output is limited to the MAXIMUM TORQUE VALUE when the temperature and altitude are such that this limit is reached prior to the limiting maximum EGT.

Engine RPM

Maximum for all steady state operations: 2506rpm (101.0%)
Transient over speed limit (5 seconds): 2606rpm (105%)
Idle: 1687rpm (68%)
Avoid: 447 to 695 rpm (18% - 28%)

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Date of Issuance: December 17, 1999

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Limitations and Conditions (Continued):

Oil

Mil-L-23699 A type oils conforming to Air Research Report PE-5065-R, and
Mil-L-7808G type oils.

Ambient Temperatures

Maximum: 115.5° F (46.4° C) at sea level
Minimum for starting: 14° F (-10° C)
Minimum for operation: 14° F (-10° C)

Main Gear Box Limits

Oil temperature

Maximum: 140° C
Minimum: -15° C

Oil pressure

Maximum: 120 psi
Minimum: 25 psi

Main Rotor Limitations

Power off:

Maximum: 225 rpm
Minimum: 170 rpm

Power on:

Maximum: 221 rpm (101%)
Minimum: 201 rpm (92%) cruise only

Airspeed Limitations

Never exceed speed of 99KIAS from S.L. to 14,000 feet HD at 99-101% RPM
Never exceed speed of 85KIAS from S.L. to 14,000 feet HD at 92-98% RPM
Never exceed speed 70KIAS power off to 14,000 feet density altitude.

This STC must be used in conjunction with Rotorcraft Flight Manual No. OA55-5-10-FM, revision original, dated December 17, 1999, or later FAA approved revision. The installer must determine whether this design change is compatible with previously approved modifications. If the holder agrees to permit another person to use this certificate to alter the product, the holder must give the other person written evidence of that permission. END