FEDERAL AVIATION ADMINISTRATION

H5SW
Revision 15
Scott's – Bell 47, Inc.
(Tom-Cat Helicopter, Inc.)
U.S. Army OH-13H
August 7, 2014

TYPE CERTIFICATE DATA SHEET NO. H5SW

This data sheet which is a part of type certificate No. H5SW prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder	Scott's – Bell 47, Inc. 100 Minnesota Avenue Le Sueur, MN 56058
Type Certificate Holder Record	Texas Helicopter Co. Inc. transferred H5SW to Tom-Cat Helicopters, Inc, on Septermber 10, 1979 Tom-Cat Helicopters, Inc. transferred H5SW to Continental Copters, Inc., on October 12, 1981 Continental Copters, Inc. transferred H5SW to Coastal Helicopters, Inc, on January 7, 2011 Coastal Helicopters, Inc. transferred H5SW to Texas Helicopters, Inc, on October 20, 2011 Texas Helicopter Co. Inc. transferred H5SW to Scott's – Bell 47, Inc, on August 7, 2014

I - U.S. Army Model OH-13H, 3 PCLH (Restricted Category), Approved May 25, 1973

See Note 3 for required modification to single place configuration, Tomcat Mark 5A or Tomcat Mark 6B, or Tomcat Mark 6C

Engine Fuel	Lycoming 0-435-23 (VO-435-A1C); See Note 8 for alternates 80 minimum grade aviation gasoline
Engine limits	Maximum (Sea Level) 26.8 in. Hg., 3200 r.p.m. (240 h.p.)

Rotor limits and operational engine speeds	Power Off (Rotor Tach.)		Power On (Engine Tach.)	
	Maximum	370	Maximum	3200
	Minimum	322	Minimum	2900

Airspeed limits	Vne 87 knots S.L. to 3000 ft. Reduce Vne 3 knots/1000 ft. above 3000 ft.
C.G. range	(+82) to (+89) aft of datum
Empty weight C.G. range	See TM 55-1520-224-10, "Operators Manual," Chapter 12, Section III
Datum	87 inches forward of main rotor mast center line.
Leveling means	Three leveling lugs lower left hand longeron and diagonal tube aft of mast and forward of aft cross tube.
Maximum weights	2450 lb. design weight 2750 lb. operating weight.

No. of seats	3 (Pilot and 2 passengers)
Maximum baggage	See loading instructions in TM 55-1520-224-10 Chapter 7, Section II.
Fuel capacity	41 gal. (+89.95)
Oil capacity	2 gal. (+111.5)
Rotor Blade and Control movements	For rigging information refer to TM 55-1520-224-20, Organizational Maintenance Manual Army Model OH-13 helicopters, dated 1 October 1969, updated to Change 4, Chapter 9, Section III.
Other operating limitations	Operators Manual (Model OH-13E, OH-13G, and OH-13H helicopters), "TM 55-1520-224-10, Basic October 1, 1969, updated to Change C-3 July 2, 1971, Chapter 7 and See Note 3 for special purpose modification and Note 7 for Noise Control Limitations.
Serial Nos. eligible	All U.S. Army serial numbers (TM 55-1520-224-20, Chapter 1, Section I) and CCI-73-1 and subsequent.
Certification basis	FAR 21.25(a)(2) (Special purpose modification ref. CAR Part 6 effective October 2, 1959), effective February 1, 1965. Type Certificate No. H5SW issued May 25, 1973, for agricultural use. Date of Application November 5, 1972.
Production Basis	None. No. OH-13H helicopters may be produced. OH-13H helicopters modified to Tomcat Mark 5A, Mark 6B, or Mark 6C helicopters may be produced in accordance with the type certificate. Prior to original airworthiness certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data. A check of flight characteristics must be performed.
Equipment:	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification except compass is optional. In addition, equipment for the special purpose must be installed.

NOTE 1. Current weight and balance report, including list of equipment included in the certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification and at all times thereafter.

NOTE 2. The appropriate placard must be displayed in view of the pilot as shown on TC-M&O-005.

a. For the OH-13H/Tomcat Mark 5A
"This helicopter to be operated in compliance with the operating limitations specified in TM 55-1520-224-10 and the FAA approved supplement thereto or Continental Copters Flight Manual Model OH-13H-Tomcat MK5A."

b. For the OH-13/Tomcat Mark 6B or Mark 6C
"This helicopter to be operated in compliance with the operating limitations specified in the FAA approved Continental Copter, Inc., U.S. Army OH-13H-Tomcat MK 6B or MK 6C Flight Manual."

All placards required in the approved helicopter flight manual supplement or the approved helicopter flight manual must be installed in appropriate locations.

NOTE 3. Prior to original airworthiness certification of the OH-13H helicopters one of the following must be accomplished:

a. Incorporate the single place modification, Tomcat Mark 5A described by FAA approved Drawing List - Tomcat Mark 5A, dated March 15, 1973. This list also includes E.O. No. 51 that requires compliance with certain A.D.s and that requires modifications based on military service experience. See Note 5 for the limitations applicable to the single place modification, Tomcat Mark 5A.

b. Incorporate the single place modification, Tomcat Mark 5A as noted in a. and incorporate the S.T.C. No. SH1878SW modification for the Continental Copters, Inc. Model OH-13H/Tomcat Mark 6B or Mark 6C. See Note 9 for the limitations applicable to the OH-13H/Tomcat Mark 6B or Mark 6C configuration.

NOTE 4. Information essential for proper maintenance of the helicopter is contained in TM 55- 1520-224-20, dated

October 1, 1969, "Organizational Maintenance Manual Army Model OH-13 Helicopters," through Change 4, and TM 55-1520-224-35, dated October 1, 1969 "DS, GS, and Depot Maintenance Manual Army Model OH-13 Helicopters" through Change C-3. In addition, essential information for proper maintenance of the OH-13H/Tomcat Mark 5A single place helicopter is contained in the appropriate TC-M&O Maintenance Manual.
The retirement times of certain parts applicable to the OH-13H/Tomcat Mark 5A are listed below and also appear in Section IV of TM 55-1520-224-20. See Note 10 for OH- 13H/Tomcat Mark 6B or Mark 6C maintenance information.

These values of retirement or service life cannot be increased without FAA Engineering approval.

Waivers should not be granted under FAR 91.39(d) when the optional retirement time has been exceeded for any of the following components.

Component	Part No.	Optional Retirement or Service Life Hours	Retirement or Service Life Hours
	47-612-135-1 & 47-612-171-101	N/A	2400
Engine Mount	47-612-171-115	2500	3000
Tail Rotor Pitch change bearing	47-641-146-1, SIRPTF, or R4AF4	100	200
Tail Rotor Blades	47-642-117-1	N/A	2500
Tail Rotor Yoke	47-641-126-5	N/A	2500
Tail Rotor Blades	47-642-102 (All dash no's)	300	300 AD 80-10-4
Tail Rotor Hub Yoke	47-641-057-1	1200	2500
Tail Rotor Hub Yoke	47-641-057-7, -9 & 47-641-104-5 except 47-641-057-9, S/N SR29-50501 thru SR29-50507, SR-29-50509 thru SR29-50528 SR29-50530 thru SR29-50533, SR29-50535 thru SR29-50537, SR29-50539 thru SR29-50544, SR29-50546 thru SR29-50554, N29-1246 thru N29-1266, N29-1298 thru N29-1452, N29-10453 thru N29-10488, and N29-10501 thru N29-10525	N/A 400	2500 400
Tail Rotor Hub Bolt	47-641-194-1 47-641-052-3 & -5	N/A 300	2500 600
Tail Rotor Pitch Change duplex bearing	47-641-131-1	600	600
Split Ring Main Rotor Gimbal	47-120-014-15 & -17 47-120-014-23	1200 4800	None Established
Main Rotor Blade Grip	47-120-135-3 & -5	2500	None Established
Main Rotor Blade Grip	47-120-252-5	N/A	300
Main Rotor Blade Grip	47-120-252-7	N/A	2500

Component	Part No.	Optional Retirement	Retirement or

		or Service Life	Service Life
Main Rotor Blade (Metal)	47-110-250-13, -15 -17, & 19	N/A	3000
Main Rotor Yoke	47-120-177-1	N/A	3600
Transmission shear screw	47-620-485-1	600	None Established
Fan Belts	47-661-041-1 & -3 (matched sets)	600	600

NOTE 5. The revised OH-13H conditions and limitations applicable to the single place modification, Continental Copters, Inc., Model OH-13H/Tomcat Mark 5A, 1 PCLH (Restricted category), Approved May 25, 1973.

Engine Limits	Maximum Continuous 24.5 in. Hg., 3100 r.p.m. (200 h.p.)
Rotor Limits	Power Off (Rotor Tach): Maximum 360, Minimum 294 Power On (Engine Tach): Maximum 3100, Minimum 3900
Airspeed Limits	Vne (never exceed) 70 m.p.h. sea level to 11,000 feet. Decrease Vne 4 m.p.h. per 1000 feet above 11,000 feet.
C.G.	(-2.0) to (+2.9) aft of datum.
Empty weight C.G. Range	None
Datum	2.0 inches forward of the main rotor centerline.
Leveling means	See TC-M&O-001
Maximum Weight	2450 lb.
No. of Seats	1 (pilot) (-30)
Maximum Baggage	None
Fuel Capacity	29 gals. (+24) (includes 1 gal. unusable.)
Rotor Blade and Control Movements	For rigging information refer to TC-M&O-002, -003, and -004 maintenance information.
Other operating limitations	FAA approved helicopter flight manual supplement for Continental Copters Tomcat Mark 5A/OH-13H dated May 25, 1973, for VFR Day and Night or dated May 24, 1973, for VFR Day. Alternate FAA approved Continental Copters Flight Manual, Model OH-13H-Tomcat MK5A dated February 1, 1974.
Serial Nos. eligible	All U.S. Army serial numbers and CCI-73-1 and subsequent, and Ward Segerstrom, S/N WS-104.

NOTE 6. The helicopter must be operated in accordance with FAR 91.39 and agricultural operations must be conducted under FAR Part 137.

NOTE 7. Deleted August 1, 1976.

NOTE 8. The following Lycoming engines are equivalent to the VO-435-A1C and may be used as alternates:

VO-435-A1A
VO-435-A1B
VO-435-A1D
VO-435-A1E
VO-435-A1F

NOTE 9. The revised OH-13H limitations, conditions, and information applicable to S.T.C. No. SH1878SW single place modification, Continental Copters, Inc. Model OH-13H/Tomcat 6B or Mark 6C, 1 PCLH (Restricted Category), Approved May 8, 1974, (Mark 6B) and April 4, 1978, (Mark 6C).

Engine	Mark 6B, Lycoming VO-435-B1A: Mark 6C, Lycoming VO-435-AIE or AIF modified to "HC" configuration by STC SE27335W, SE144GL, or SE959EA
Fuel	100/130 Minimum grade aviation gasoline
Engine Limits	Maximum Continuous (Sea Level) 24.1 in. hg. 3200 rpm (220 hp) (5,300 ft.) 22.9 in. hg. 3200 rpm (220 hp) Take Off 5 minutes (Sea Level) 27.7 in. hg. 3200 rpm (260 hp) (see flight manual for manifold pressure variation with altitude and temperature)
Carburetor and carburetor setting	Marvel-Schebler MA4-5AA (10-4025-12)
Rotor limits and operational engine limits	Power Off (Rotor Tach): Maximum 370 rpm; Minimum 333 rpm Power On (Engine Tach): Maximum 3200 rpm; Minimum 3000 rpm
Airspeed Limits	Vne (never exceed) 70 mph (62K) S.L. to 11000 ft. Above 11000 ft. decrease Vne 4 mph (3.5K) per 1000 ft.
C.G. Range	(-2.0) to (+3.0) aft of datum
Empty weight C.G. Range	None
Datum	2.0 inches forward of main rotor centerline
Leveling means	See TC-M&O page 1
Minimum Weight	2850 lb.
No. of Seats	1 (pilot) (-30)
Maximum Baggage	None
Fuel Capacity	29 gals. (+24) include 1 gal. unusable
Oil Capacity	4-1/4 gal. (+12)
Rotor Blade and Control Movements	For rigging information refer to the maintenance supplement
Other Operating Limitations	FAA approved helicopter flight manual for Continental Copters, Inc. U.S. Army Model OH-13H/Tomcat Mark 6B dated May 8, 1974. Model OH- 131 Tomcat Mark 6C dated April 3, 1978. STC SH1878SW
Serial numbers eligible	All U.S. Army serial numbers and CCI-73-1 and subsequent.
Maintenance Manual	Maintenance Supplement for OH-13H/Tomcat Mark 6B dated April 23, 1974.

NOTE 10. The OH-13H/Tomcat Mark 6B or Mark 6C helicopter must be maintained and serviced as specified in the maintenance supplement for OH-13H Tomcat Mark 6B dated April 23, 1974. The retirement times of certain parts are listed below. These values of retirement or service life cannot be increased without FAA Engineering approval.

Component	Part No.	Optional Retirement or Service Life	Retirement or Service Life
Main Rotor Blades	47-110-250-21	N/A	5000

Main Rotor Grips	47-120-252-7	N/A	5000
Main Rotor Drag Brace	47-110-372-1	N/A	2500
Main Rotor Pitch Horn	47-120-126-5	N/A	5000
Main Rotor Yoke	47-120-177-1	N/A	5000
Scissors Arm Assy.	47-150-249-5	N/A	5000
Collective Sleeve Assy.	47-150-117-13	N/A	5000
Engine Mount	47-612-171-115	N/A	2500
Tail Rotor Blades	47-642-102 (All dash no's)	N/A	300 AD 80-10-4
Tail Rotor Pitch Change bearings	47-640-069-1 & -3	N/A	600
Tail Rotor Pitch Change bearings	47-641-146-1	100	200
Fan Belt	47-661-041-1 & -3 (matched sets)	N/A	600
Split ring	47-120-014-17, -19, -21	N/A	1200
Main Rotor Gimbal	47-120-014-23	N/A	4800
Tail Rotor Blade	47-642-117-1	N/A	2500
Tail Rotor Yoke	47-641-126-5	N/A	2500

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