

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

H3NE REVISION 9 SIKORSKY AIRCRAFT  S-70C  JANUARY 4, 2011
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TYPE CERTIFICATE DATA SHEET H3NE

This data sheet, which is part of Type Certificate Number H3NE, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

TYPE CERTIFICATE (TC) HOLDER: Sikorsky Aircraft Corporation  
6900 Main Street  
Stratford, CT 06497-9129

MODEL NUMBER: S-70C (Restricted Category) Approved: 10/21/83  
(Derivative aircraft of U.S. Army Models UH-60A and UH-60L)

ENGINES: 2 General Electric CT 7-2C (See Note 11). See Note 6 for optional engines.

FUEL: Aviation Kerosene JP-4, JP-5, JP-8, Jet A, Jet A-1 or Jet B. See Note 6 for optional engines.

ENGINE LIMITS:

	SHAFT HP	POWER TURBINE RPM	GAS GEN RPM	POWER TURBINE INLET (TGT)
MILITARY POWER (30 MIN.)	1,561	20,900	44,700	850° C
NORMAL CONT. CRUISE	1,318	20,900	44,700	775° C

TRANSMISSION LIMITS: TORQUE:  
120% Single Engine  
106% Dual Engine  
(no time limits)

ROTOR LIMITS: Max. 258 RPM  
Min. 232 RPM

AIRSPEED LIMITS:  $V_{ne}$  Power on: 193 knots IAS, (221 MPH). See Rotorcraft Flight Manual (Operators Manual) for variation of  $V_{ne}$  with gross weight, pressure altitude and temperature.

MAXIMUM WEIGHT: 22,000 lbs. See Note 8.

MINIMUM CREW: 2 (pilot, copilot)

FUEL CAPACITY: 361.5 gallons; 2 tanks (LH & RH interchangeable).  
359.7 gallons; 2 tanks (LH & RH interchangeable) (with fuel boost pumps installed)

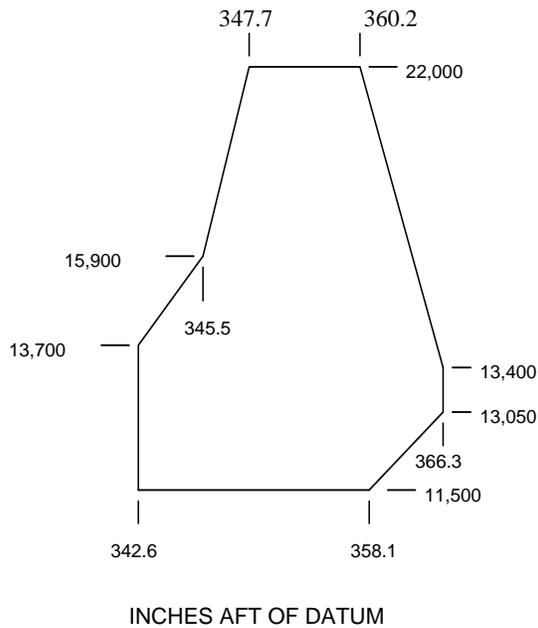
OIL CAPACITY: 7 quarts each engine.

OTHER OPERATING LIMITATIONS:

SA 4047-70C-55-10 Operator's Manual dated September 14, 1984, as revised.  
 For aircraft equipped with optional GE CT7-2D engines: SA 4047-70C-55-10 Operator's Manual dated September 14, 1984, as revised, and Supplements No. 1 and 2, as revised. For aircraft equipped with optional T700-GE-701A engines: SA 4047-70C-55-10 Operator's Manual dated September 14, 1984, as revised, and Supplement No. 1, as revised. For S/N 701029 only, TM 55-1520-237-10B, Operator's Manual, dated June 22, 1992, as revised. For aircraft with optional T700-GE-700 engines, U.S. Army TM 55-1520-237-10, dated 8 January 1988, as revised, or U.S. Army TM 1-1520-237-10, dated 31 August 1994, as revised, is required. (See NOTE 10)

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DATUM:

341.2 inches forward of the main rotor centroid.

SERIAL NUMBERS ELIGIBLE:

Sikorsky Manufacturing Numbers 70583, 70785, 70788, 70792-70794, 70797-70800, 70811-70813, 70830, 70831, 70836, 70837, 70848, 70855, 70856, 70867, 70868, 70879, 70884, 70892, 70910, 70918, 70927-70929, 70949-70951, 70954, 70957-70959, 70965, 70966, and 701029

TYPE CERTIFICATE BASIS:

FAR 21.25(a)(2), effective January 6, 1975, for the purpose of:  
 (1) Agriculture, FAR 21.25(b)(1)  
 (2) External Cargo, FAR 21.25(b)(7)  
 (3) Firefighting, FAR 21.25(b)(7)

FAR 29, Amendments 29-1 through 29-24 for non-U.S. Army approved modifications.

PRODUCTION BASIS:

Production Certificate No. 105 and 8 SO.

- EQUIPMENT: The basic required equipment as prescribed in the applicable airworthiness regulations, (see Certification Basis) must be installed in each type helicopter for certification. In addition, the following is required:
- (1) SA 4047-70C-55-10 Operator's Manual dated September 14, 1984, as revised, for aircraft with GE CT7-2C engines. For aircraft with optional GE CT7-2D engines, SA 4047-70C-55-10 Operator's Manual dated September 14, 1984, as revised, and Supplements No. 1 and No. 2, as revised, are required. For aircraft with optional T700-GE-701A engines, SA 4047-70C-55-10 Operator's Manual dated September 14, 1984, as revised, and Supplement No. 1, as revised, are required. For S/N 701029, TM 55-1520-237-10B, Operator's Manual, dated June 22, 1992, as revised, is required. For aircraft with optional T700-GE-700 engines, U.S. Army TM 55-1520-237-10, dated 8 January 1988, as revised, or U.S. Army TM 1-1520-237-10, dated 31 August 1994, as revised, is required.
  - (2) Marking requirements: FAR 91.31c (FAR 45). FAR 91.31c became FAR 91.9c in the recodification dated August 18, 1989.
  - (3) Removal of equipment in accordance with the latest FAA approved Revision of Sikorsky Aircraft Kit Drawing No. 70080-00100 or 70080-95008, and replace with commercial equipment. Install GE CT7-2C engines or optional engines. See Notes 5 and 6.
- NOTE 1: Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions must be in each type helicopter at time of original airworthiness certification and at all times thereafter.
- NOTE 2: The following placard must be prominently displayed in the cockpit in full view of the pilots:
- "THIS ROTORCRAFT MUST BE OPERATED IN ACCORDANCE WITH THE RESTRICTED CATEGORY OPERATING LIMITATIONS OF FAR 91.39." FAR 91.39 became FAR 91.313 in the recodification dated August 18, 1989.
- NOTE 3: Prior to the Civil Airworthiness Certification, compliance with Sikorsky Aircraft document number ILS-L-88-006, dated October 5, 1988, as revised, must be accomplished.
- NOTE 4: For S-70C helicopters with GE CT7-2C engines: Information essential to the proper maintenance is contained in U.S. Army TM 11-1520-237-23-1 through 3, as revised; TM 11-1520-237-23P, as revised; TM 55-1520-237-23-1 through -10, as revised; TM 55-1520-237-23P, 23P-1, and 23P-2, as revised; and TM 55-1520-237-PMS-1 and -2, as revised, as supplemented by SA 4047-70C-55-23-2-1 and SA 4047-70C-55-23-6-1, as revised. Information essential to the proper maintenance of these engines is contained in TM-55-2840-248-23, as revised, supplemented with General Electric Publication SEI 660, as revised. Component overhaul intervals and replacement times shall be in accordance with Table 1-5, Life Limited Components, of TM 55-1520-237-23-2, as revised, unless superseded by appropriate Airworthiness Directive. See NOTE 10.
- The U.S. Army replaced TM 55-1520-237-23-1 through -10 with a single manual, TM 55-1520-237-23, composed of 18 chapters and 8 appendices divided into 8 volumes. Either set of TM's may be used.
- Information on civil aircraft serial number correlation to the U.S. Army serial numbers is contained in Sikorsky Letter TPL-W91-450, dated July 23, 1991, as revised.
- NOTE 5: The military equipment is to be removed and replaced with commercial equipment in accordance with the latest FAA approved revision of Sikorsky Aircraft Kit Drawing No. 70080-00100 or 70080-95008.

## NOTE 6:

Optional engines eligible for installation in the Model S-70C and the applicable limitations:

Engines: 2 General Electric T700-GE-701A or 2 General Electric CT7-2D, or 2 General Electric T700-GE-700.

Fuel: JP-4, JP-5, JP-8, Jet A, Jet A-1, or Jet B.

	Engine Limits for T700-GE-701A			
	SHAFT HP (S.L. STD.)	POWER TURBINE RPM	GAS GEN. RPM	POWER TURBINE INLET (TGT)
Contingency Rated Power (CRP) (2 1/2 min. OEI)	1,723	20,900	44,700	917 <sup>o</sup> C
Maximum Rating (10 min. dual)	1,715	20,900	44,700	882 <sup>o</sup> C
Intermediate Rated Power (IRP) (30 min. dual)	1,694	20,900	44,700	867 <sup>o</sup> C
Maximum Continuous Power (MCP)	1,510	20,900	44,700	804 <sup>o</sup> C
	Engine Limits for CT7-2D:			
	SHAFT HP (S.L. STD.)	POWER TURBINE RPM	GAS GEN. RPM	POWER TURBINE INLET (TGT)
2 1/2 min. power (OEI)	1,725	20,900	46,070	911 <sup>o</sup> C
30 min. power (OEI)	1,625	20,900	45,430	873 <sup>o</sup> C
Take-off (5 min.)	1,625	20,900	45,430	873 <sup>o</sup> C
Maximum Continuous (MCP)	1,595	20,900	45,240	858 <sup>o</sup> C
	Engine Limits for T700-GE-700:			
	SHAFT HP (S.L. STD.)	POWER TURBINE RPM	GAS GEN. RPM	POWER TURBINE INLET (TGT)
Military Power (30 min)	1,561	20,900	44,700	850 <sup>o</sup> C
Normal Cont. Cruise	1,318	20,900	44,700	775 <sup>o</sup> C

## NOTE 7

For S-70C helicopters with T700-GE-701A engines: Information essential to the proper maintenance is contained in SA 4047-70C-55-23-1 through -10, as revised, and Supplement No. 1, as revised, to each of those publications; SA 4047-70C-55-PMS-1 through -2, as revised, and Supplement No. 1, as revised, to each of those publications; SA 4047-70C-55-23P, as revised, SA 4047-70C-11-23-1 through -3, as revised, and SA 4047-70C-11-23P, as revised, and Supplement No. 1, as revised, to each of those publications. Information essential to the proper maintenance of the engines is contained in General Electric publications SEI-671 and SEI-675, as revised, and U.S. Army TM 1-2840-248-23&P, as revised. Component replacement times shall be in accordance with SA 4047-70C-55-23-2, as revised, and Component replacement times shall be in accordance with Sikorsky Customer Service Notice No. 70-6, as revised. The U.S. Army replaced TM 55-1520-237-23-1 through -10 with a single manual, TM 55-1520-237-23, composed of 18 chapters and 8 appendices, divided into 8 volumes. Either set of TM's may be used. (See NOTE 10)

For S-70C helicopters with GE CT7-2D engines: Information essential to the proper maintenance is contained in SA 4047-70C-55-23-1 through -10, as revised; SA 4047-70C-55-

PMS-1 through -2, as revised; SA 4047-70C-55-23P, as revised; and appropriate Supplements No. 2, as revised, to those publications; SA 4047-70C-11-23-1 through -3, as revised; and SA 4047-70C-11-23P, as revised. Information essential to the proper maintenance of the engines is contained in General Electric Publications SEI-569, SEI-570 and SEI-690. Component replacement times shall be in accordance with SA 4047-70C-55-23-2, as revised, and Supplement No. 2, as revised, unless superseded by appropriate Airworthiness Directive. Component overhaul intervals shall be in accordance with Sikorsky Customer Service Notice No. 70-6. The U.S. Army replaced TM 55-1520-237-23-1 through -10 with a single manual, TM 55-1520-237-23, composed of 18 chapters and 8 appendices, divided into 8 volumes. Either set of TM's may be used. (See NOTE 10)

For S-70C helicopters with T700-GE-700 engines: Information essential to the proper maintenance is contained in the U.S. Army Manuals listed in NOTE 10.

Information on civil aircraft serial number correlation with U.S. Army serial numbers is contained in Sikorsky Letter TPL-W91-450, dated July 23, 1991, as revised.

NOTE 8:

S-70C aircraft not modified with Stabilator Amplifier P/N 70902-02001-045, Pitot Static Probe Support Assembly P/N 70219-02141-041 (left side), -042 (right side), and Pitot Static Probe Fairing Assembly P/N 70219-02141-043 (left side), -044 (right side), and engine shaft stud balance (MWO 55-1520-237-50-58 or MWO 55-1520-237-50-73 are restricted to 20,250 pounds gross weight.

NOTE 9:

S-70C derivatives of UH-60L aircraft may be operated at gross weights up to 23,500 pounds during external load operations, and hook loads up to 9,000 pounds in accordance with U.S. Army aviation Safety Message 051326Z Jul 94, or appropriately revised FAA approved Operator's Manual. U.S. Army Safety Message 051326Z Jul 94, Serial Number 91-26354 is Sikorsky Serial Number 701656 and Serial Number 91-26421 is Sikorsky Serial Number 701771.

NOTE 10.

The following table lists equivalent sets of technical data approved for proper maintenance of the aircraft:

U.S. Army Manuals		S-70 Commercial Manuals
Old	New	
TM 55-1520-237-10	TM 1-1520-237-10	FAA Approved RFM
TM55-1520-237-MTF	TM 1-1520-237-MTF	Not Applicable
TM 55-1520-237-CL	TM 1-1520-237-CL	Not Applicable
TM 55-1520-237-PMS-1	TM 1-1520-237-PMS-1	TM 1-70-PMS-1
TM 55-1520-237-PMS-2	TM 1-1520-237-PMS-2	TM 1-70-PMS-2
TM 55-1520-237-23	TM 1-1520-237-23	TM 1-70-23 and TM 1-70-23AW -2
TM 55-1520-237-T	TM 1-1520-237-T	TM 1-70-T
TM 55-1520-237-23P	TM 1-1520-237-23P	TM 1-70-23P
TM 11-1520-237-23	TM 11-1520-237-23	TM 11-70-23
TM 11-1520-237-23P	TM 11-1520-237-23P	TM 11-70-23P
TM 55-2840-248-23 & P	TM 1-2840-248-238P	Not Applicable

The initial publication date of the U.S. Army TM 1 series was 31 August 1994.  
The initial publication date of the Sikorsky TM-1 series was 31 August 1994.

NOTE 11.

The CT7-2C is no longer an active engine model.

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