

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET H5NE	TCDS NUMBER H5NE REVISION 8 DATE: MARCH 22, 2001 SIKORSKY AIRCRAFT MODEL: S-70A
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This data sheet, which is part of Type Certificate Number H5NE, 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      Sikorsky Aircraft Corporation  
 6900 Main Street  
 Stratford, CT 06615-9129

MODEL NUMBER:                S-70A (Restricted Category) Approved: 10/20/88  
 (Derivative aircraft of U.S. Army Models UH-60A and UH-60L)

ENGINES:                        2 General Electric T700-GE-701A (See Note 5 for optional engines.)

FUEL:                             JP-4, JP-5, JP-8, Jet A, Jet A1, or Jet B

ENGINE LIMITS:

	SHAFT HP (S.L. STD)	POWER TURBINE RPM/%	GAS GEN RPM/%	TURBINE GAS TEMP.oC
Contingency Rated Power (CRP) (2 1/2 min. OEI)	1,723	20,900/100	44,700/102	917
Maximum Rating (10 min. dual)	1,715	20,900/100	44,700/102	882
Intermediate Rated Power (IRP) (30 min. dual)	1,694	20,900/100	44,700/102	867
Maximum Continuous Power (MCP)	1,510	20,900/100	44,700/102	804

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

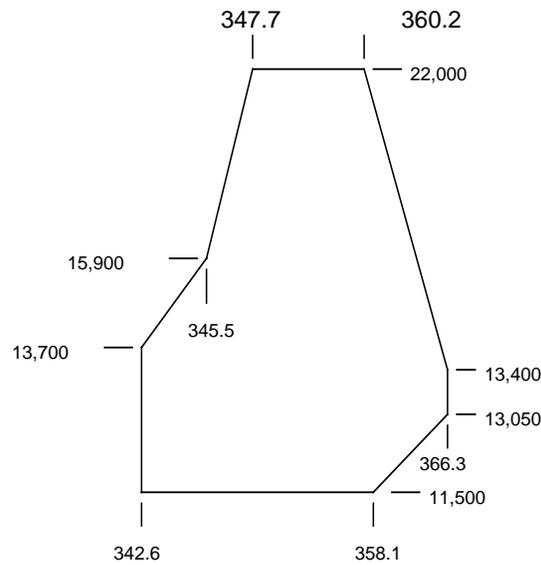
ROTOR LIMITS:                POWER OFF:                Maximum 110%  
    Minimum 90%

   POWER ON:                Maximum 107%  
    Minimum 91%

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

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INCHES AFT OF DATUM

DATUM:	341.2 inches forward of the main rotor centroid.
MAXIMUM WEIGHT:	22,000 lbs.
MINIMUM CREW:	2 (pilot, copilot)
NUMBER OF SEATS:	a. 2 at Sta. 227.1; 2 at Sta. 264.6; 1 at Sta. 280.4; 2 at Sta. 282.5; 2 at Sta. 300.5; 1 at Sta. 301.4; 4 at Sta. 334.3; 4 at Sta. 355.3; 4 at Sta. 387.2. b. OPTIONAL SEATING: 2 at Sta. 227.1; 1 at Sta. 262.0; 3 at Sta. 282.0; 3 at Sta. 320.7; 4 at Sta. 339.8; 4 at Sta.387.2
FUEL CAPACITY:	361.5 gallons; 2 tanks (LH & RH interchangeable). An additional 460 gallons (2x230 gallons) or 920 gallons (4x230 gallons) with external fuel tanks installed.
OIL CAPACITY:	7 quarts each engine.
OTHER OPERATING LIMITATIONS:	TM 55-1520-237-10T S-70A Operator's Manual dated October 20, 1988, as revised. For aircraft Serial Numbers 701825, 701835 and 702127, TM 55-1520-237-10HK Operator's Manual, dated October 29, 1992, as revised, is applicable. For aircraft Serial Numbers 701129 and 702029, TM55-1520-237-10B Operator's Manual, dated June 22, 1992, as revised, is applicable. For aircraft Serial Numbers 700029, 702129 and 702929, TM 1-70-29-10 Operator's Manual, dated December 4, 1998, as revised, is applicable.
SERIAL NUMBERS ELIGIBLE:	700029, 701129, 701322, 701325, 701327, 701329, 701331, 701333, 701592, 701593, 701594, 701595, 701613, 701614, 701825, 701835, 702029, 702127, 702129, 702929.

- TYPE CERTIFICATION 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 8S0.
- EQUIPMENT: The following must be installed in each type helicopter for certification:
- (1) Sikorsky Rotorcraft Flight Manual (Operator's Manual) Publication TM 55-1520-237-10T. (See Note 5.) For aircraft Serial Numbers 701825 and 701835, TM 55-1520-237-10HK, dated October 29, 1992, as revised, is applicable. For aircraft Serial Number 701129, TM55-1520-237-10B, dated June 22, 1992, as revised, is applicable.
- (2) Removal and replacement of equipment in accordance with Sikorsky Aircraft Kit Drawing No. 70010-00003 (Dash number as applicable). (See Notes 5, 6, and 7)
- (3) Aircraft must be modified with Stabilator Amplifier P/N 70902-02001-048; 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), -44 (right side).
- NOTE 1: Current weight and balance report, including list of equipment 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 Civil Airworthiness Certification, compliance with Sikorsky Aircraft document number IILS-L-88-006, dated October 5, 1988, as revised, must be accomplished.
- NOTE 4: Information essential to proper maintenance of the aircraft is contained in the following U.S. Army publications, as revised: TM 11-1520-237-1, -2, and -3, dated June 10, 1989; TM 55-1520-237-23, Volumes 1 thru 8, dated August 29, 1989; TM 55-1520-237T, dated August 29, 1989; TM 55-1520-237-PMS-1, dated June 30, 1990; TM 55-1520-237-PMS-2, dated August 30, 1990; TM 55-1520-237-CL, dated June 10, 1989; TM 55-1520-237-MTF, dated November 13, 1990, and Sikorsky Supplement C-7 to these publications. Information essential to the proper maintenance of the T700-GE-701A engines is contained in General Electric Publications SEI 673 and 675, as revised. Component overhaul and replacement times shall be in accordance with U.S. Army TM 55-1520-237-23, Volume 1, Chapter 1, Table I-II, dated August 29, 1989, as revised, and Sikorsky Supplement C-7, unless superseded by appropriate airworthiness directive. (See NOTE 10)

Alternate information essential to the proper maintenance of the aircraft is contained in the following U.S. Army publications, as revised: TM 11-1520-237-23-1, -2, and -3, dated April 30, 1979; TM 55-1520-237-23-1, dated December 8, 1987; TM 55-1520-237-2, through -10, dated December 29, 1978; TM 55-1520-237-PMS-1, dated July 14, 1988; TM 55-1520-237-PMS-2, dated April 12, 1988; TM 55-1520-237-CL, dated August 15, 1987; TM 55-1520-237-MTF, dated January 8, 1988, and Sikorsky Supplement No. C-1 to these publications. Information essential to the proper maintenance of the T700-GE-701A engines is contained in General Electric Publications SEI 673 and 675, as revised. Component and overhaul and replacement times shall be in accordance with U.S. Army TM 55-1520-237-23-2, dated December 29, 1978; and Sikorsky Supplement C-1 to this publication, 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. (See NOTE 10)

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

NOTE 5: For aircraft equipped with optional engines: (UH-60L derivative)

ENGINES: 2 General Electric T700-GE-701C

FUEL: Aviation Kerosene JP-4, JP-5, JP-8, Jet A, Jet A1, or Jet B

#### ENGINE LIMITS

	SHAFT HP (S.L. STD.)	POWER TURBINE RPM/%	GAS. GEN. RPM/%	TURBINE GAS TEMP. oC
Contingency Rated Power (CRP) 2 1/2 min. OEI)	1,940	20,900/100	44,700 /102	903
Maximum Rating (10 min. dual)	1,890	20,900/100	44,700/102	878
Intermediate Rated Power (IRP) (30 min. dual)	1,800	20,900/100	44,700/102	851
Maximum Continuous Power (MCP)	1,662	20,900/100	44,700/102	810

TRANSMISSION LIMITS: TORQUE  
135% Single Engine (No time limits)  
120% Dual Engine (No time limits)

Other Operating Limitations: U.S. Army TM 55-1520-237-10, UH-60A and EH-60A Operator's Manual, dated January 8, 1988, as revised, or U.S. Army TMI-1520-237-10, UH-60A, UH-60L, EH-60A Operator's Manual, dated August 31, 1994, as revised, and Sikorsky Supplements C-4 and C-5, dated October 26, 1990, as revised. For aircraft Serial Numbers 701825 and 701835, TM 55-1520-237-10HK, dated October 29, 1992, as revised, is applicable.

Equipment: Each type certificated helicopter with T700-GE-701C engines installed must be equipped with U.S. Army TM 55-1520-237-10, UH-60A and EH-60A Operator's Manual, dated January 8, 1988 as revised, or U.S. Army TM-1-1520-237-10, UH-60A, UH-60L, EH-60A Operator's Manual, dated August 31, 1994, as revised, and Sikorsky supplements No. C-4 and C-5, dated October 26, 1990, as revised. For aircraft serial numbers 701825 and 701835, TM 55-1520-237-10HK Operator's Manual dated October 29, 1992, as revised, is applicable.

Removal and replacement of equipment is in accordance with Sikorsky Aircraft Kit Drawing No. 70010-00003 (Dash number as applicable).

Information essential to the proper maintenance of the aircraft is contained in the following U.S. Army publications, as revised: TM 11-1520-237-23-1, -2, and -3, dated June 10, 1989; TM 55-1520-237-23, Volumes 1 through 8, dated August 29, 1989; TM 55-1520-237T, dated August 29, 1989; TM 55-1520-237-PMS-1, dated June 30, 1990; TM 55-1520-237-PMS-2, dated August 30, 1990; TM 55-1520-237-CL, dated June 10, 1989; TM 55-1520-237-MTF, dated November 13, 1990; and Sikorsky supplement C-7 to these publications. Information essential to the proper maintenance of the T700-GE-701C engines is contained in U.S. Army TM 55-2840-248-23, dated December 31, 1981, as revised. Component overhaul and replacement times shall be in accordance with U.S. Army TM 55-1520-237-23, Volume 1, Chapter 1, Table I-II, dated August 29, 1989, as revised, and Sikorsky supplement C-7 to this publication, unless superseded by appropriate airworthiness directive. (See NOTE 10)

Alternate information essential to the proper maintenance of the aircraft is contained in the following U.S. Army publications, as revised: TM 11-1520-237-23-1, -2, and -3, dated April 30, 1979; TM 55-1520-237-23-1, dated December 8, 1987; TM 55-1520-237-23-2 through -10, dated December 29, 1978; TM 55-1520-237-PMS-1, dated July 14, 1988; TM 55-1520-237-PMS-2, dated April 12, 1988; TM 55-1520-237-CL, dated August 15, 1987; TM 55-1520-237-MTF, dated January 8, 1988; and Sikorsky Supplement C-1 to these publications. Information essential to the proper maintenance of the T700-GE-701C engines is contained in U.S. Army TM 55-2840-248-23, dated December 31, 1981, as revised. Component overhaul and replacement times shall be in accordance with U.S. Army TM 55-1520-237-23-2, dated December 29, 1978; and Sikorsky Supplement C-1 to this publication, 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. (See NOTE 10)

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

NOTE 6: For aircraft configured in accordance with Sikorsky Aircraft Kit Drawing No. 70010-00003-013.

SERIAL NUMBERS ELIGIBLE: 701613 and 701614.

Note 5 applies, except the only applicable TM 55-1520-237-10 Operator's Manual Sikorsky Supplement is C-7, dated May 24, 1991, as revised. Removal and replacement of equipment is in accordance with Sikorsky Aircraft Kit Drawing No. 70010-00003-013.

NUMBER OF SEATS: 2 at Sta. 227.1; 2 at Sta. 283.5; 2 at Sta. 329.5; 4 at Sta. 384.3

Compliance with FAR 29.853 has been demonstrated.

NOTE 7: For aircraft configured in accordance with Sikorsky Aircraft Kit Drawing No. 70010-00003-015.  
SERIAL NUMBER ELIGIBLE: 701129

For aircraft configured in accordance with Sikorsky Aircraft Kit Drawing No. 70080-95011-011.  
SERIAL NUMBER ELIGIBLE: 702029

Information essential to the proper maintenance of the aircraft is contained in the following publications:

TM1-1520-237-10B	Operators Manual
TM1-1520-237-CLB	Operators and Crewmembers Checklist
TM1-1520-237-MTFB	Maintenance Test Flight Manual
TM1-70-29-23	Aircraft Maintenance Procedures Manual
TM1-70-29-PMS-1	10 Hour/14Day (30 hour/42 day) Inspection Checklist
TM1-70-29-PMS-2	Periodic Inspection Checklist
TM1-70-29-23P	Airframe Repair Parts and Special Tools List
TM11-70-29-23	Avionics Maintenance Procedures Manual
TM11-70-29-23P	Avionics Configuration Repair Parts and Special Tools List

NUMBER OF SEATS: 2 at Sta. 227.1; 2 at Sta. 283.5; 2 at Sta. 329.5; 3 at Sta. 384.3.

Compliance with FAR 29.853 (a) only has been demonstrated.

NOTE 8: For aircraft configured in accordance with Sikorsky Aircraft Kit Drawing Nos.  
33770-51668, 70080-60031, 33770-81008.  
SERIAL NUMBER ELIGIBLE: 700029

For aircraft configured in accordance with Sikorsky Aircraft Kit Drawing Nos.  
33770-51664, 33880-60013, 33770-81008.  
SERIAL NUMBER ELIGIBLE: 702129

For aircraft configured in accordance with Sikorsky Aircraft Kit Drawing Nos.  
33770-51666, 70080-60031, 33770-81008.  
SERIAL NUMBER ELIGIBLE: 702929

Information essential to the proper maintenance of these aircraft is contained in the following publications:

TM 1-70-29-10	Operator's Manual
TM 1-70-29-CL	Operator's and Crewmember's Checklist
TM 1-70-29-MTF	Maintenance Test Flight Manual
TM 1-70-29-23	Aircraft Maintenance Procedures Manual
TM 1-70-29-PMS-1	10 hour/14 day(30 hour/42 day) Inspection Checklist
TM 1-70-29-PMS-2	Periodic Inspection Checklist
TM 1-70-29-23P	Airframe Repair Parts and Special Tools List
TM 11-70-29-23	Avionics Maintenance Procedures Manual
TM 11-70-29-23P	Avionics Configuration Repair Parts and Special Tools List

Number of seats: 2 at Sta. 227.1; 2 at Sta. 283.5; 2 at Sta. 329.5; 3 at Sta. 384.3

Compliance with FAR 29.853(a) only has been demonstrated.

- NOTE 9. S-70A 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 051325Z 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

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.

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