

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

H7NE
Revision No. 5
Tamarack
Helicopters, Inc.
UH-1F, TH-1F
July 23, 2001

**TYPE CERTIFICATE DATA SHEET NO. H7NE**

This data sheet which is a part of type certificate No. H7NE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

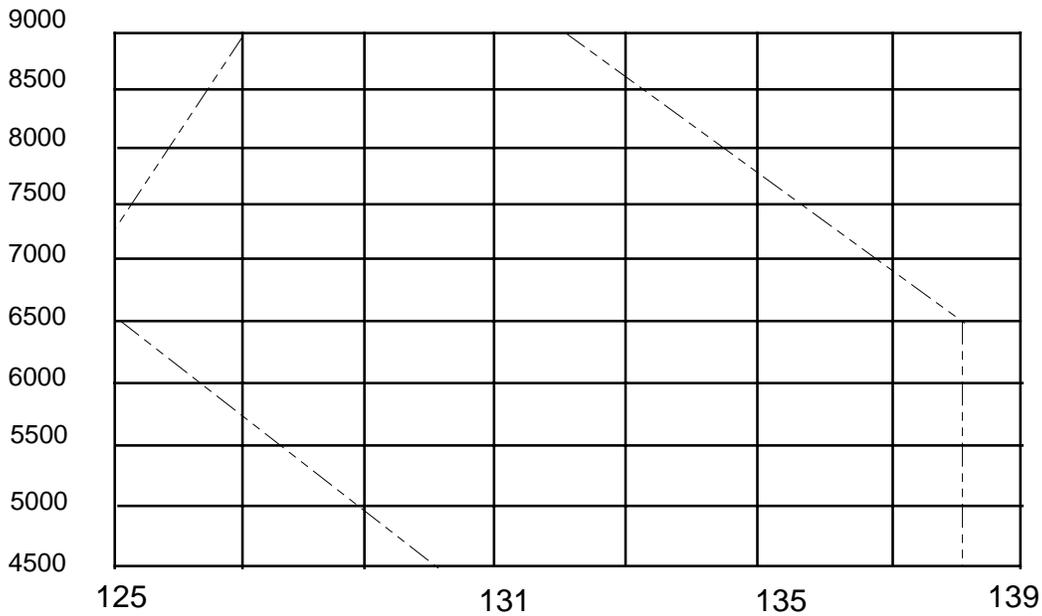
Type Certificate Holder:                   Tamarack Helicopters, Inc.  
  P. O. Box 899  
  Victor, MT 59875-0899

**Model UH-1F, TH-1F Approved (Restricted Category)**

Engine	General Electric T58-GE-3				
Fuel	JP-4, (Mil-T-5624); Jet A-1 (ASTM Type A-1) JP-5, (Mil-T-5624G); Jet B (ASTM Type B)				
Engine Limits	Torque Pressure <u>(P.S.I.)</u>	Output Horsepower <u>(H.P.)</u>	Exhaust Gas Temp <u>(C)</u>	Gas Gen Speed <u>R.P.M.</u>	
	Takeoff (5 min)	67	1,100	690	102.5%
	Continuous	54	888	635	Limited by EGT
Rotor Limits	<u>Power Off</u>		<u>Power On</u>		
	Maximum 339 r.p.m. Minimum 295 r.p.m.		Maximum 317 r.p.m. Minimum 295 r.p.m.		
Airspeed limits	V <sub>NE</sub> (Never Exceed Speed) is 120 knots IAS at a gross weight of 7,000 lbs., or less, at sea level to 2,000 feet density altitude, standard day. For reduction of V <sub>NE</sub> with density altitude and weight, see Figure 5-2 of USAF T.O. IH-1(U) F-1 (UH-1F) or Tamarack Flight Manual No. F-1 (TH-1F). For additional airspeed limits see appropriate Rotorcraft Flight Manual.				
	Above 70 knots, 6,200 to 6,450 Engine RPM required.				
C. G. Range	LONGITUDINAL C.G. LIMITS: (+127.0) to (+132.0) to 9,000 lbs. (+125.0) to (+135.6) to 7,450 lbs. (+125.0) to (+138.0) to 6,500 lbs. (+130.0) to (+138.0) to 4,500 lbs.				

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Gross Wt. (lbs.)



CENTER OF GRAVITY, FUSELAGE STATION

Maximum Weight	9,000 lbs.
Minimum Crew	1
Maximum Passengers	Pilot and 1 crewmember, except as provided in Note 2 of RHS-101 "Special Reconfiguration Build-up", dated March 3, 1993 (UH-1F) or Tamarack Reconfiguration Report No. 101 (TH-1F), dated May 8, 2000.
Maximum Baggage	400 lbs. in Tail Boom Compartment
Fuel Capacity	245 Gallons Total (3.0 unusable)
Oil System Capacity	5.4 Gallons Total (0.8 unusable)
Rotor Blade & Control Movements	Refer to USAF T.O. 1H-1(U)F-2-1
Serial Numbers Eligible	See Tamarack Report No. SN-1, dated May 30, 2001, or later FAA approved revision, for a list of applicable rotorcraft serial numbers.  Additional serial numbers can be added upon successful completion of conformity inspection. (See NOTES 1 and 2)
Datum	7.6 inches aft of aircraft nose
Leveling Means	Drop plumb bob from "key hole" slot in upper left door sill. Reference USAF T.O. 1H-1(U)F-5.

Certification Basis	<p>FAR 21.25(a)(2) effective February 1, 1965, including Amendments 21-1 through 21-42. Type Certificate No. H7NE for the purpose of:</p> <ol style="list-style-type: none"> <li>1. Agricultural Operations under FAR 21.25(b)(1) for the purpose of spraying, dusting, seeding and livestock and predatory animal control.</li> </ol> <p>Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for agricultural operations excepted by FAR 36.1(a)(4), and defined under FAR 137.3</p> <ol style="list-style-type: none"> <li>2. Forest and Wildlife Conservation Operations under FAR 21.25(b)(2) for the purpose of dispensing fire fighting materials and/or carrying external loads</li> </ol> <p>Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for dispensing fire fighting materials excepted by FAR 36.1(a)(4) and defined under FAR 137.3.</p> <ol style="list-style-type: none"> <li>3. External Load Operation under FAR 21.25(b)(7).</li> </ol> <p>Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for external loads operations excepted by FAR 36.1(a)(4) and defined under FAR 133.1(b).</p> <p>General Note: Any alteration to the aircraft for Special Purposes not identified above require further FAA approval and in addition may require noise and/or flight testing.</p>
Production Basis	None. No helicopter may be produced under this approval (See Notes 1 and 2).
Equipment	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (see certification basis) must be in each helicopter for certification. The following documents must be available in each type of helicopter for certification:</p> <ol style="list-style-type: none"> <li>1. A copy of the appropriate Flight Manual. <ul style="list-style-type: none"> <li>UH-1F: USAF Flight Manual No. T.O. 1H-1(U) F-1, dated January 29, 1987, with Operational Supplement No. T.O. IH-1(U) F-1S-131, dated March 2, 1987.</li> <li>TH-1F: Tamarack Flight Manual No. F-1, dated January 14, 2000, or later FAA approved revision.</li> </ul> </li> <li>2. Current Weight and Balance Report (See NOTE 5).</li> </ol>
Notes	<ol style="list-style-type: none"> <li>1. Prior to civil certification, the following must be accomplished for each helicopter: <ol style="list-style-type: none"> <li>A. An FAA representative must perform an inspection for workmanship, materials and conformity with the approved technical data: <ul style="list-style-type: none"> <li>UH-1F: Ranger Report No. RHS-101, "Special Reconfiguration Build up", dated March 3, 1993.</li> <li>TH-1F: Tamarack Reconfiguration Report No. 101, dated May 8, 2000, or later FAA approved revisions (includes a listing of applicable USAF Time Compliance Technical Orders (TCTO) and assure that the applicant has conducted a satisfactory functional flight check in accordance with USAF T.O. IH-1(U)F-6CF-1, dated April 30, 1986.</li> </ul> </li> </ol> </li> </ol>

B. An FAA representative must verify that:

- UH-1F: (1) all inspections and modifications are accomplished per Ranger Helicopter Services, Inc. UH-1F Technical Directives, dated July 6, 1992, or later approved revisions, and
- (2) compliance with all USAF TCTO's and FAA Airworthiness Directives (AD) applicable to Bell Helicopter Textron, Inc., 204/205 series helicopters, and General Electric Model T58-GE-3 engine and any component installed thereon are reviewed for applicability and complied with accordingly.

TH-1F: all applicable FAA AD's for the Bell Helicopter Textron, Inc. Model 204/205 series helicopter and General Electric Model T58-GE-3 engine, and any components installed thereon have been complied with. Refer to Tamarack Report No. AD-1, dated May 30, 2001, or later FAA approved revision, for a listing of applicable airframe and engine AD's. Refer to Tamarack Report No. AD-2, dated April 28, 2000, for a listing of those 204/205 helicopter and General Electric engine AD's that are not applicable to the Tamarack rotorcraft designs. Refer to Tamarack Report No. M-2, dated January 14, 2000, for a listing of applicable USAF TCTO's. Refer to Tamarack Report No. M-3, dated January 14, 2000, for a listing of non-applicable USAF TCTO's.

C. In addition, each helicopter must pass an inspection for any possible hidden damage and the military records reviewed for acceptability of any repairs or alterations.

D. The maintenance, overhaul, and modification records of each helicopter must be reviewed for military changes that may affect the airworthiness of the helicopter.

E. After the required inspections, the aircraft must be found to be in a good state of preservation, repair, and in a condition for safe operation.

2. This approval applies to:

A. basic Surplus Military UH-1F and TH-1F helicopters with no modifications except as required by:

UH-1F: Ranger Report No. RHS-101, "Special Reconfiguration Build-up," dated March 3, 1993.

TH-1F: Tamarack Reconfiguration Report No. 101, dated May 8, 2000, or later FAA approved revision.

B. only those helicopters with USAF serial numbers listed in Tamarack Report No. S/N-1, dated May 30, 2001, or later FAA approved revision.

3. Helicopters must be serviced, maintained, inspected, repaired and overhauled in accordance with:

UH-1F: USAF T.O. 1H-1(U)F-2-1 "Organization Maintenance," Change 14, dated April 28, 1988, and T.O. 1H-1(U)F-6WC-2 and T.O. 2J-T58-2WC-1. Limited Life and Overhaul schedules for helicopter components are included in USAF T.O. 1H-1(U)F-6.

Further, continued airworthiness of the UH-1F helicopters is contingent upon compliance with all FAA AD's applicable to Bell Helicopter Textron, Inc., Model 204/205 series helicopters, the General Electric Model T58-GE-3 engine and any component installed thereon.

TH-1F: the documents specified in Tamarack Instructions for Continued Airworthiness (ICA) Report No. ICA-1, dated February 4, 2000, or later FAA approved revision. Report No. ICA-1 is part of Tamarack's ICA. Limited Life and Overhaul schedules for helicopter components are included in Tamarack ICA No. ICA-1, Section II.

Refer to Tamarack Report No. AD-1, dated May 30, 2001, or later FAA approved revision, for a listing of applicable airframe and engine AD's.

4. Helicopter will be operated in accordance with:
  - UH-1F: USAF T.O. 1H-1(U)F-1, dated January 29, 1987, with Operational Supplement No. T.O. 1H-(U)F-1S-131, dated March 2, 1987.
  - TH-1F: Tamarack Flight Manual No. F-1, dated January 14, 2000, or later FAA approved revision.
5. A current weight and balance report including a list of the 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. Refer to USAF T.O. 1H-1(U)F-5, Change 7, dated December 12, 1985.
6. The following placards must be prominently displayed in the cockpit in full view of the pilots:
  - Placard No. 1:  
  
"THIS ROTORCRAFT MUST BE OPERATED IN ACCORDANCE WITH THE RESTRICTED CATEGORY OPERATING LIMITATIONS OF FAR 91.313."
  - Placard No. 2:  
  
"THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE APPROVED ROTORCRAFT FLIGHT MANUAL."
  - Placard No. 3:  
  
"VFR OPERATIONS ONLY."
7. This aircraft is prohibited from carrying cargo for compensation or hire. Carriage of cargo is limited to such cargo that is incidental to the aircraft's owner/operator's business which is other than air transportation.
8. Restricted Category aircraft may not be operated in a foreign country without the express written approval of that country.
9. This aircraft has not been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation.
10. Engine changes are allowed provided the replacement engine is of the same make and model as identified in the TCDS. The replacement engine must have proper military records and have the applicable FAA Airworthiness inspection accomplished.

...END...