DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H3NM
Revision 7
Rotorcraft Dev. Corp.
UH-1B
August 1, 2012

TYPE CERTIFICATE DATA SHEET NO. H3NM

This data sheet which is part of Type Certificate No. H3NM 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	Rotorcraft Development Corporation 132 Skalkaho Hwy. Hamilton, Montana 59840
Type Certificate Holder Record	Garlick Helicopter, Inc. transferred TC H3NM to Garlick Helicopter Corporation on June 29, 2007. Pilot Personnel International transferred ownership of Type Certificate H3NM to Garlick Helicopters Inc. February 28, 1992. Reissue: August 29, 1988 (Original Lost)

I - Model UH-1B, 9PCLH (Helicopter Restricted Category), approved January 19, 1984

Engine: Lycoming T53-L-11D (See note 12 for approved alternate engines)

Fuel: MIL-T-5624, Grade JP-4, alternate fuel
MIL-T-5624, Grade JP-5, See TM55-1520-219-10 for substitute and emergency fuels

Engine Limits	Torque Pressure (PSI)	Output (RPM)	Exhaust Gas Temperature (Deg. C)
Take-off (5 min.)	47.5 (1100 HP)	6600	610
Max. Continuous (See Notes 9, 10 & 11)	39 (900 HP)	6400	590

Rotor Limits

Power Off	Power On
Maximum 339 RPM	Maximum 324 RPM
Maximum 295 RPM	Minimum 294 RPM
Continuous operation 294 to 324 RPM	

Airspeed Limits: See note 2 for specific operating airspeed limitations.

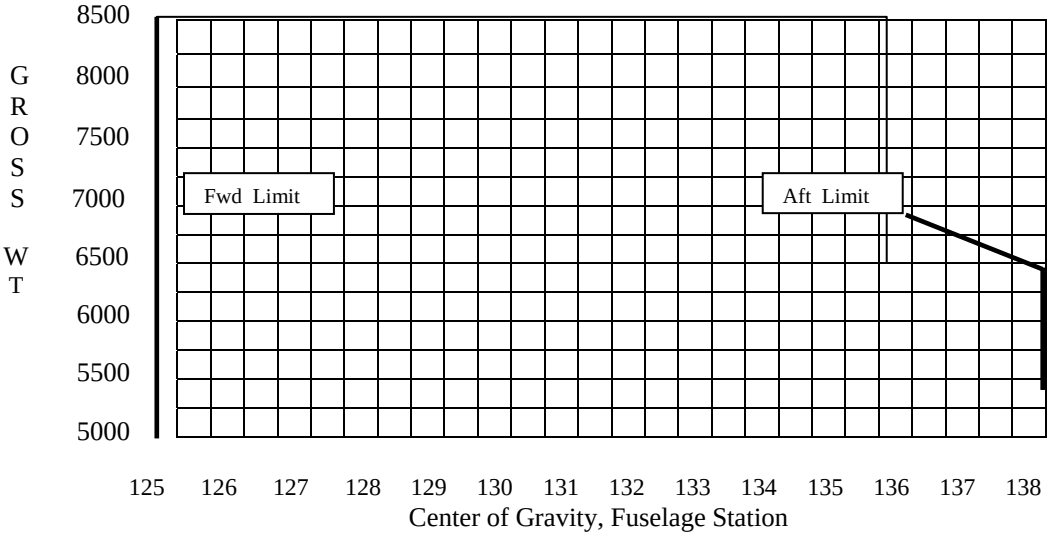
Other Limits: Flight Hours are counted from takeoff to landing.

The helicopters approved under this type certificate are done so under the concept of limited exposure associated with escape from inadvertent ice encounters, and are prohibited against flight into known icing. The helicopters must be re-evaluated if certification to the General Ice protection Airworthiness Regulations is requested.

I - Model UH-1B, 9PCLH (cont'd)

CG Range

Longitudinal CG limits
(+125.0) to (+136.0) at 6600 lbs and above
(+125.0) to (+136.4) at 6500 lbs
(+125.0) to (+137.3) at 6250 lbs
(+125.0) to (+138.0) at 6000 lbs or less
Straight-line variation between points given



Empty Weight C.G. Range: (+125.0) to (+138.0)

Datum: Station 0, datum is 7.6 inches, aft of the most forward point of the fuselage nose section. Refer to TM 55-1520-219-10, Operators Manual Army Model UH-1B

Leveling Means: Plumb line from top of left main doorframe to index plate on cabin floor.

Maximum Weight: 8500 lbs

Minimum Crew: 1 (pilot) at 46.7

Number of Seats: (See Note 17)

Maximum Baggage: 200 lbs (150 lbs/sq. ft. maximum deck load) Refer to TM 55-1520-219-10, Operators Manual Army Model UH-1B Helicopters, Chapter 6

Fuel Capacity Useable: 168 US gallons (Crashworthy fuel system not installed) +136
163 US gallons (Crashworthy fuel system installed) +136

Oil Capacity: 3.25 US gallons (+157)

Rotor Blade and Control Movement: For rigging information refer to technical manual TM55-1520-219-20

Approved Serial Nos.: UH-1B S/N's 655, 568, & 77655, 568, 776

I - Model UH-1B, 9PCLH (cont'd)

Certification Basis

FAR 21.25(a)(2), as amended by 21-42 dated January 6, 1975. Type Certificate H3NM issued January 19, 1984, for the special purpose of:

(1) External Load Operations under FAR 21.25(b)(7).

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 load operations excepted by FAR 36.1(a)(4) and defined under FAR 133.1(b).

Any alteration to the helicopter for Special Purposes not identified above require further FAA approval and in addition, may require noise and/or flight testing.

General Note: Any subsequent modifications to the helicopter type certified under this Type Certificate are to have the certification basis for that modification established under 14 CFR 21.101 published June 7, 2000 which became effective June 10, 2003. Otherwise non-significant modifications are to meet the requirements of CAR 7 airworthiness standards, including Amendment 7-5, effective May 1962 plus special conditions for turbine engine installations and 14 CFR 29.1529, Instructions for continued airworthiness, Amendment 20, effective September 11, 1980. Also should consider that military installed crashworthy fuel systems in some of these aircraft and should require that to be maintained.

Production Basis

None. No helicopters may be produced under this approval. (See Note 4) Prior to adding serial numbers to this Type Certificate, each candidate helicopter must undergo a conformity inspection. The conformity inspection will be conducted in accordance with a Type Inspection Authorization, Part 1, or request for conformity that will include as a minimum, the inspections contained in the FAA Rotorcraft Directorate Restricted Category Conformity document dated September 25, 2001 or later FAA approved revision.

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) US Army TM55-1520-219-10, Operators manual, UH-1B.
2) All external equipment and its attachments installed on this aircraft must be FAA approved.

NOTES

NOTE 1. A current weight and balance report including list of equipment included in certificated empty weight and loading instructions must be in each helicopter at time of original airworthiness certification. Refer to pages 12-4a and 12-4b of Operators Manual TM55-1520-219-10 or Apex. D of Maintenance Manual TM55-1520-219-20 for CG determinations and use of ballast if required.

NOTE 2. The following placards must be prominently displayed on the cockpit instrument panel and in full view of the pilot

NOTE 2 (cont'd)

(a) Operating Limits

DENSITY ALTITUDE	GW	CALIBRATED AIR SPEED – KNOTS							
		6600 lbs or less		7200 lb		8000 lb		8500 lb	
RPM		6400	6600	6400	6600	6400	6600	6400	6600
SEA LEVEL TO									
2000 FT		120	120	109	112	95	101	86	95
3000 FT		116	116	105	108	92	97	82	92
6000 FT		102	106	92	97	77	86	68	80
9000 FT		90	94	79	86	65	76	---	---
12000 FT		77	84	66	75	---	---	---	---
15000 FT		64	72	---	---	---	---	---	---
18000 FT		51	61	---	---	---	---	---	---

From 0 to 70 knots use 6000 to 6600 RPM range.
From 70 to 120 knots use 6400 to 6600 RPM range.

(b) This helicopter must be operated in accordance with the restricted category operating limitations of FAR 91.39 and with the limitations noted in US Army TM55-1520-219-10.

NOTE 3. Continued Airworthiness of UH-1B helicopter certificated under this Type Certificate H3NM is contingent upon compliance with Garlick Helicopters Inc. Report GH-H3NM-CA1, all applicable Airworthiness Directives and all applicable Garlick Helicopters Inc. Alert Serviceable Bulletins.

NOTE 4. In addition to the standard helicopter requirements, the following additional data and/or helicopter configuration requirements must be met for each individual model UH-1B helicopter upon application for an original Special Airworthiness Certificate:

(a) A completed application for airworthiness certificate, FAA Form 8130-6 that has correctly identified the type certificate holder's helicopter and its intended special purpose(s).

(b) Written confirmation from the certifying office that the affected serial number has been added to Garlick Helicopters Inc., type certificate.

(c) The application for airworthiness certification and the helicopter's registration certification match the information on Garlick Helicopter, Inc. data plate.

(d) The US Army Modification Work Orders (MWOs) and technical bulletins listed in Pilot Personnel International Report dated October 10, 1983, must be complied with.

(e) FAA Airworthiness Directives for all Bell 204 series aircraft and Lycoming T53-L11 series engines must be reviewed for applicability and complied with accordingly.

(f) FAA Airworthiness Directives as called out in Garlick Helicopters Inc. UH-1 Airworthiness Directive Review List dated 5-14-2001 or later approved revision must be reviewed for applicability and complied with accordingly.

(g) This aircraft must be serviced, maintained inspected repaired and overhauled in accordance with the documents specified in GHI Instruction for Continued Airworthiness Report GH-H3NM-CA1 dated 7-21-03 or later approved revision. Component overhaul intervals and retirement times shall be in accordance with GHI Report GH-H3NM- CA1, unless superceded by an applicable Airworthiness Directive.

NOTES (cont'd)

NOTE 5. 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 owner/operator's business which is other than air transportation. (This note applies to aircraft that have the "Special Purpose" Carriage of Cargo.)

NOTE 6. A Restricted Category aircraft may not be operated in a foreign country without the expressed written approval of that country.

NOTE 7. The following note must be placed under "exceptions" on all Export Certificates of Airworthiness for this aircraft. "This aircraft is Type Certificated in the Restricted Category and has not been determined to meet the international standards concerning the airworthiness of aircraft as provided for in Annex 8 to the Convention of International Civil Aviation, (Chicago Convention) of December 7, 1944.

NOTE 8. Military to Civil or Military to Military engine changes are allowed provided the replacement engine is of the same make and model as identified in this TCDS. The military or civil replacement engine must have proper military or civil records and have the applicable FAA Airworthiness Inspection accomplished and is in an airworthy condition.

NOTE 9. Helicopters that do not have documentation showing they were surplus from an Armed Force of the United States are not eligible for certification under this type certificate. Engines and appliances that do not have documentation showing they were surplus from an Armed Force of the United States are not eligible for installation on a helicopter under this type certificate. Helicopter(s), engine(s), and appliances that have records indicating time-in-service by a foreign military or a foreign government will be presumed to be ineligible for certification or installation under this type certificate. This presumption maybe overcome by the applicant substantiating, to the satisfaction of the FAA, through documentation, tests, computations, evaluations, analyses, or other means or methods that the helicopter, engine, or appliance, during its time-in-service by the foreign military or foreign government, was maintained to an extent and in a manner equal to that of an Armed Force of the United States.

NOTE 10. Torque pressure output by the engine torque sensing system varies with individual engines. A calibration of this value is required on each engine and the value corresponding to take-off power is stamped on the engine data plate.

NOTE 11. Gas producer speeds as shown under "Engine Limits" are maximum permissible speeds. The gas producer speed for rated power output varies with individual engines and must be determined during engine calibration and stamped on the engine data plate. The rated gas producer speed shown on the temperature limit placard installed on the instrument panel must correspond to the engine data plate gas producer speed. Gas producer speed limits also vary with OAT in accordance with the schedule as shown on the temperature limit (GO-NO-GO TAKE OFF) placard on the instrument panel.

NOTE 12. Maximum permissible exhaust gas temperature varies with ambient temperature as described in the operators manual Check engine EGT by the use of a Health Indicator Test (HIT), prior to take off. (See TM55-1520-219-10 and HIT EGT log for the aircraft).

NOTE 13. Type Certificate (TC) and Type Certificate Data Sheet (TCDS) re-issued to clearly state that Bell Helicopter Textron, Inc., has no involvement with this TC and that Garlick Helicopters is the original holder of TC number H3NM. Authority, AWS-100 Memo dated February 22, 1985.

NOTE 14. Lycoming engine models T53-L-11 (SN. Suffix "A"), T53-L-11B and T53-L-11C are approved for use as alternate engines, under this Type Certificate. Engines identified in this note will be maintained on a 1200 hour, (T53-L-11C, 1800 hr.) overhaul schedule and in accordance with the applicable US Army Maintenance, Overhaul and Parts Manuals applicable to that engine.

NOTES (cont'd)

NOTE 15. Alternate and emergency fuels are listed in U.S. Army TM 55-1520-219-10 Operators Manual UH-1B Helicopters. Some limitations apply for the use of certain alternative fuels. These limitations are listed in the Overhaul Manual.

NOTE 16. Any Alteration to the type design of this aircraft may require Instructions for Continued Airworthiness (ICA's). Changes to the Type Design by means of a Supplemental Type Certificate (STC) requiring ICA's or changes to existing ICA's must be submitted and reviewed by the Fort Worth Aircraft Evaluation Group (FTW-AEG). Type Design Changes by means of a Field Approval that require ICA's must have those ICA's reviewed by the Flight Standards District Office (FSDO) managing the Field Approval or the FTW-AEG.

NOTE 17. No person may be carried in this helicopter during flight unless that person is essential to the purpose of the flight

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