

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

R00007AT Revision 1
Reynolds Aviation
USAF CH-3C, HH-3C, CH-3E, HH-3E
August 25, 2015

TYPE CERTIFICATE DATA SHEET R00007AT

This data sheet, which is a part of Type Certificate No. R00007AT, 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: Reynolds Aviation
7822 Old Highway 99 SE
Olympia, Washington 98501

Type Certificate Holder Record: Robinson Air Crane, Inc., PO Box 603, Opa Locka, Florida 33054, transferred TC R00007AT to Reynolds Aviation on October 8, 1997.

I. Models USAF CH-3C, HH-3C, CH-3E, HH-3E (Amphibious Transport Helicopter - Restricted Category),
Approved September 5, 1995

Engine 2 General Electric T58-GE-5 or
2 General Electric T58-GE-100

Fuel MIL-T5624 (JP-4)
MIL-T-5624G (JP-5)
ASTM Type A-1 (Jet A-1)

Engine Limits

For T58-5 Engine:

	Torque (% Q)	Output Horsepower (HP)	Power Turbine Inlet Temp. (°C)(T5)	Gas Gen. Speed Ng (%)
Maximum (5 min.)*	103	1,500	721	102.7
Maximum Continuous	86	1,050	660	102.7

* See Power Limitations in USAF T.O. 1H-3(C)E-1

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For T58-100 Engine:

	Torque (% Q)	Output Horsepower (HP)	Power Turbine Inlet Temp. (°C)(T5)	Gas Gen. Speed Ng (%)
Maximum (5 min.)*	103	1,500	745	103.4
Maximum Continuous	86	1,050	685	103.4

* See Power Limitations in USAF T.O. 1H-3(C)E-1

Rotor Limits

	Power Off (% N _r)	Power On (% N _r)
Maximum	112	103
Minimum	91	100

Airspeed Limits

V_{ne} (Never Exceed Speed) is 142 knots IAS at a gross weight of 22,050 lbs. or less at sea level standard day. For reduction of V_{ne} with density altitude and gross weight, see USAF T.O. 1H-3(C)E-1. Also see USAF T.O. 1H-3(C)E-1 for additional airspeed limits.

Center of Gravity

Longitudinal C.G. Limits:
 (+258.0) to (+276.0) at 22,050 lbs.
 (+258.0) to (+276.0) at 19,500 lbs.
 (+254.0) to (+280.0) at 16,000 lbs. or less
 Straight line variation between points given above.
 These values apply to aircraft with two-tank fuel system only. Refer to USAF T.O. 1H-3(C)E-1 for additional limitations associated with three-tank fuel system.

Maximum Weight

22,050 lbs. Maximum Gross Weight with limitations. See USAF T.O. 1H-3(C)E-1 for limitations. Maximum Landing Weight is 19,500 lbs.

Minimum Crew

2 (pilot, co-pilot)

Maximum Passengers

39 as mission essential crew only, per FAR 91.313 and FAR 133.35

Fuel Capacity

683 gallons (337 gallons at (+215.3), 346 gallons at (+317.3))

Oil Capacity

5.0 gallons at (+182.5) (2 tanks at 2.5 gallons each)

Rotor Blade and Control Movements

For rigging information refer to USAF Maintenance Manual T.O. 1H-3(C)E-2-1.

Serial Numbers

See Robinson Air Crane, Inc. Report 003, no revision, dated September 5, 1995, or later FAA approved revision. (See Certification Basis)

Datum

267.4 inches forward of main rotor centroid

Leveling Means	Leveling plates located on forward center cabin floor.
Certification Basis	<p>FAR 21.25(a)(2) effective February 1, 1965, with Amendment 21-42, dated January 6, 1975.</p> <p>Type Certificate No. R00007AT was issued September 5, 1995, for the purpose of:</p> <ol style="list-style-type: none"> 1. Agricultural aircraft operations (as defined in FAR 137.3), 2. Dispensing firefighting materials, 3. Carriage of external loads (as defined in FAR 133.1(b)). <p>These helicopters have not been shown to comply with the noise requirements of FAR 36 and are, therefore, limited to the three special purpose operations listed above per FAR 36.1(a)(4).</p> <p>Date of application for Type Certificate: May 25, 1995.</p> <p>Prior to original airworthiness certification of each rotorcraft, FAA personnel must perform an airworthiness inspection determining condition for safe operation and determine the applicant has conducted a satisfactory flight test.</p>
Production Basis	None. No helicopters may be produced under this approval.
Equipment	<p>The basic required equipment as prescribed in the following documents must be in each type helicopter for certification:</p> <ol style="list-style-type: none"> a. U.S. Air Force T.O. 1H-3(C)E-1 Flight Manual b. Current Weight and Balance Report (see Note 1). c. A placard must be installed in clear view of the pilot as follows: <p style="text-align: center;">"MAXIMUM LANDING WEIGHT IS 19,500 LBS."</p>
NOTE 1.	Current weight and balance report, T.O. 1H-3(C)E-5, including list of equipment included in certificated empty weight, and loading instructions, must be in each helicopter at time of original airworthiness certification, and at all times thereafter.
NOTE 2.	Helicopter shall be maintained in accordance with USAF T.O. 1H-3(C)E-6, Organizational Maintenance and Inspection Program, or other FAA approved inspection program.
NOTE 3.	Helicopter shall be operated in accordance with USAF T.O. 1H-3(C)E-1 (see Section V for operational limits).
NOTE 4.	<p>Prior to civil certification, the following must be accomplished for each helicopter:</p> <p>USAF Time Compliance Technical Orders (TCTO's) and FAA Airworthiness Directives (AD's) must be reviewed for applicability and complied with accordingly. TCTO's issued prior to the issuance of USAF T.O. 1H-3(C)E-2-1, dated February 21, 1991, or later edition, will already be incorporated into the maintenance manual. Only those TCTO's issued after USAF T.O. 1H-3(C)E-2-1 need to be reviewed for applicability. See Robinson Air Crane, Inc. Report 001 for the list of applicable AD's and TCTO's for each approved serial number.</p>

NOTE 5. Continued airworthiness of the USAF CH-3C, HH-3C, CH-3E, HH-3E helicopters eligible under this TCDS is contingent upon compliance with all applicable FAA Airworthiness Directives for the Sikorsky Model S61R helicopters, the General Electric CT-58 (Military Model T-58) engine, and any components installed thereon.

NOTE 6. This approval applies to:

a. Basic Surplus Military Models CH-3C, HH-3C, CH-3E, HH-3E helicopters with no modifications except as required by Robinson Air Crane, Inc. Report RAC-002, dated May 25, 1995, or later FAA approved revision.

b. Only those helicopters with USAF serial numbers listed in Robinson Air Crane, Inc. Report 003, no revision, dated September 5, 1995, or later FAA approved revision.

NOTE 7. Limited life schedule for helicopter components is included in USAF T.O. 1H-3(C)E-6.

NOTE 8. Only Ribbed-Pocket Tail Rotor Blades, Sikorsky P/N S6117-30101-(), may be installed.

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