

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H8SO
Revision 1

AAA Aviation of
Florida, Inc.

HH-52A

August 5, 2003

TYPE CERTIFICATE DATA SHEET NO. H8SO

This data sheet, which is part of Type Certificate No.H8SO, 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: AAA Aviation of Florida, Inc.
5608 NW 43rd Street
Gainesville, FL 32653

Type Certificate Holder Record: Quentin Corporation
3901 N.E. 49th Drive
Gainesville, FL. 32609
TC Transferred to AAA Aviation August 5, 2003

I. - Model HH-52A (Restricted Category) approved September 8, 1992.

Engine: General Electric T-58-GE-8B
(See note 10 regarding helicopter, engines and appliances)

Fuel: Aviation Kerosene JP-4 or JP-5 (General Electric Company Spec. No. F9134A)

Engine Limits:	<u>HP</u>	<u>Power Turbine R.P.M.</u>	<u>Gas Gen. R.P.M.</u>	<u>Power Turbine Inlet (+5)F</u>
Takeoff	730	20960 (100% Nf)	26300 (100% NG)	1165
Max. Cont.	670	20960 (100% Nf)	25600 (97% NG)	1105
Max. Tran.				1250
Starting				1200

Takeoff and maximum continuous horsepower ratings are normally obtained at power turbine speed of 20340 rpm (97% Nf) and 19500 rpm (93% Nf)

Refer to Operators Manual Military approved HH-52A Helicopters for additional limitation data.

Rotor Speed Limits: Maximum 245 rpm (dual tachometer reading 107%)
Minimum 170 rpm (dual tachometer reading 97%)

Airspeed Limits: V_{ne} (Never exceed) 150 KIAS
(See NOTE 2 for required placards.)

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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. For other limitations see Flight Manual No. C.G. T.O. 1H-52A-1.
Center of Gravity:	(+249.0) to (+262.0)
Empty Weight (C.G.) Range:	Refer to Operators Manual Military approved HH-52A Helicopters.
Datum:	252 inches forward of main rotor centroid. Refer to Operators Manual Military approved Model HH-52A Helicopters.
Leveling Means:	Plumb bob from top of main cabin doorframe to scale on lower doorsill. (See Note 1.)
Maximum Weight:	8,300 lbs.
Minimum Crew:	1 (Pilot) (See Note 2)
Number of Seats:	See Note 11
Fuel Capacity:	325.0 gallons
Oil Capacity:	2.5 gallons (+174.0)
Rotor Blade and Control Movements:	For rigging information refer to Military Maintenance Manual No. C.G. T.O. 1H-52A-2 Model HH-52A Helicopters.
Approved Serial No's.:	The following C.G. Model HH-52A Helicopter, Serial Number has been approved under this TCDS as of August 5, 2003: S/N: 62088 only.
Certification Basis:	FAR 21.25(a)(2), effective February 1, 1965, including Amendments 21-1 through 21-71 for the special purpose of: (1) Forest and Wildlife Conservation operations under FAR 21.25(b)(2) 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 (2) External Cargo 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(a).

Certification Basis: (Cont'd)

(3) Agricultural operations under FAR 21.25(b)(1)

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

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 helicopters type certified under this Type Certificate are to have the certification basis for that modification established under 14CFR 21.101 published June 7, 2000 which became effective June 10, 2003. Otherwise non-significant modifications are to meet the requirements of CAR 6, Including Amendment 6-5, effective December 1958, and 14 CFR 27.1529, Instructions for continued airworthiness, Amendment 18, effective September 11, 1980.

Date of Application: May 12, 1992, Amended: March 20, 2000.

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 revisions.

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in or on each helicopter for certification. The basic required equipment as prescribed for the special purpose operation and as necessary for safe operation must be installed on each helicopter. In addition, the following documents must be available in each helicopter for type certification and airworthiness certification:

- (a) Military Approved Rotorcraft Flight Manual Model HH-52A Helicopters No. C.G. T.O. 1H-52A-1

NOTES

Note 1: A current weight and balance report including a list of equipment included in the certified empty weight, and loading instructions, when necessary, must be provided for each helicopter at the time of original certification. Refer to Operators Manual U.S. Military Model HH-52A Helicopters, and Aviation Unit and Intermediate Maintenance Instructions U.S. Military Model HH-52A Helicopters for leveling means and weight and balance determination.

Note 2: The following placards must be prominently displayed in the cabin in clear view of the pilot:

Placard No. 1: THIS ROTORCRAFT MUST BE OPERATED IN ACCORDANCE WITH THE RESTRICTED CATEGORY OPERATING LIMITATIONS OF FAR 91.313.

Placard No. 2: EXTERNAL LOAD OPERATIONS: V_{ne} WILL BE DETERMINED FOR EACH PROPOSED EXTERNAL LOAD APPLICATION.

Placard No. 3: INSTRUMENT FLIGHT PROHIBITED.

Placard No. 4: THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE MILITARY APPROVED ROTORCRAFT FLIGHT MANUAL NO. C.G. T.O. 1H-52A-1.

- Note 3: The helicopter(s) must be serviced, maintained, inspected, repaired and overhauled in accordance with the HH-52A Helicopter Military Maintenance Manual No. C.G. T.O. 1H-52A-2 and other military approved technical manuals for the HH-52A Helicopter.
- Note 4: In addition to the standard helicopter requirements, the following additional data and/or helicopter configuration requirements must be met for each individual Northern Pioneer Helicopters Model HH-52A 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 Northern Pioneer Helicopters type certificate.
 - (c) The application for airworthiness certification and the helicopter's registration certification must match the information on Northern Pioneer Helicopters data plate.
 - (d) The HH-52A Helicopter Flight Manual and documents specified in Note 3 are with the helicopter.
 - (e) The conditions and limitations specified in Northern Pioneer Helicopters Type Certificate Data Sheet H8SO dated September 8, 1992 or later FAA approved revision are met.
- Note 5: This helicopter is prohibited from carrying cargo for compensation or hire. Carriage of cargo is limited to such cargo that is incidental to the helicopter owners/operator's business, which is other than air transportation.
- Note 6: A restricted category helicopter may not be operated in a foreign country without the express written approval of that country.
- Note 7: This helicopter has not been shown to meet the requirements of the applicable comprehensive and detailed Airworthiness Code as provided by Annex 8, to the Convention of the International Civil Aviation Organization.
- 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: FAA Airworthiness Directives for all Sikorsky S-62 series aircraft and General Electric series CT58-110-1 must be reviewed for applicability and complied with accordingly.
- Note 10: Alternate and emergency fuels are listed in Operators Manual U.S. Military Model HH-52A Helicopters. Some limitations apply for the use of certain alternative fuels. These limitations are listed in this section.
- Note 11: No person may be carried in this helicopter during flight unless that person is essential to the purpose of the flight.
- Note 12: Any alteration to the type design of this aircraft may require Instructions for Continued Airworthiness. These instructions must be submitted to and accepted by the FTW-AEG, Airworthiness Evaluation Group Office prior to approval for return to service.

Note 13: Information essential to the proper maintenance of the helicopter including retirement time of critical components is contained in the Military Maintenance Manual No. C.G. T.O. 1H-52A-2.

<u>Main Rotor Component</u>	<u>Part Number</u>	<u>Retire</u>
Base Nut	S10-10-1326	5000 Hrs.
Bolt	NAS 148-29	5000 Hrs.
Bolt	NAS 148-44	5000 Hrs.
Bolt	S10-10-3379	Unlimited
Bolt	S10-10-1445	5000 Hrs.
Flange	S10-10-1442	5000 Hrs.
Hinge, Vertical	S10-10-3392-1	5000 Hrs.
Horizontal Pin	S10-10-3331-3	Unlimited
Hub	S10-10-3381	5000 Hrs.
Lock Nut	S10-10-3318	5000 Hrs.
Plate, Lower	S10-10-3307	5000 Hrs.
Plate, Upper	S10-10-3310	5000 Hrs.
Spacer	S10-10-3345-1	4000 Hrs.
Spacer	S10-10-3378	4000 Hrs.
Spindle	S10-10-3325-1	1000 Hrs.
<u>Blade Assemblies</u>	<u>Part Number</u>	<u>Retire</u>
Main Rotor Blade	S14-10-2201-1	On Condition
Tail Rotor Blade Assembly	S10-10-2120-9	2200 Hrs.
Main Rotor Shaft	S14-35-4308-4	2500 Hrs.
Tail Rotor Hub Assembly	S14-15-3401-1	2000 Hrs.
Sleeve	S10-15-3002	2000 Hrs.
Trunnion	S14-15-3403	2000 Hrs.

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