DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H1EA
Revision 4
ERICKSON AIR-CRANE INCORPORATED
S-64A

March 28, 2007

TYPE CERTIFICATE DATA SHEET NO. H1EA

This data sheet, which is a part of Type Certificate Number H1EA, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate (TC) Holder: Erickson Air-Crane Incorporated, DBA Erickson Air-Crane
3100 Willow Springs Road
P. O. Box 3247
Central Point, Oregon 97502

Type Certificate Holder Record. Sikorsky Aircraft transferred TC H1EA to Erickson Air-Crane on February 13, 1992.

I - Model S-64A (Restricted Category), approved 30 July 1965. (See NOTE 5 for modified version.)

Engine: 2 Pratt & Whitney JFTD12A-1 (with Hamilton Standard Fuel Control JFC56-1).

Fuel: Aviation Kerosene JP-4 or JP-5 (military specification MIL-J-5624 or subsequent revisions thereto).

Engine limits: Sea Level Static, Standard Day Conditions

	Shaft HP	Power Turbine R.P.M.	Gas Gen. R.P.M.	Power Turbine Inlet (T5)
Takeoff (30 min)	4050	9500 (105.5%N2)	16,700 (104%N1)	650°C
Maximum continuous	3200	9500 (105.5%N2)	16,700 (104%N1)	565°C
Allowable maximum overspeed	- -	10,350 (115%N2)	16,700 (104%N1)	- -
Accelerated limit (2 min.)	- -	- -	- -	665°C
Starting limit (2 min.)	- -	- -	- -	525°C

Takeoff and Maximum continuous horsepower ratings are normally obtained at a power turbine speed of 9000 r.p.m. (100%N2).

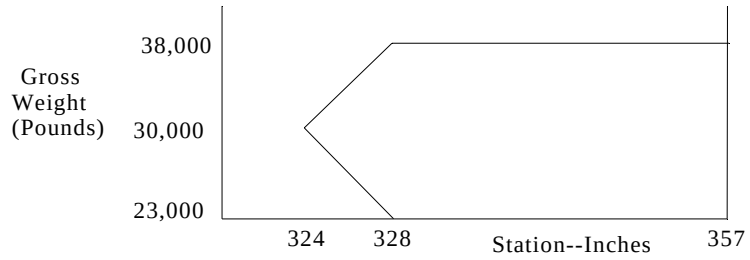
Total power for two-engine operation is limited to 5400 s. hp. for takeoff and 4800 s. hp. maximum continuous.

Rotor limits: Maximum 204 r.p.m. (110%Nr)
Minimum 167 r.p.m. (90%Nr)

Airspeed limits: Never exceed 132 m.p.h. (115 knots) IAS, zero instrument error.

C.G. range

(+328.0) to (+357.0) at 38,000 lb.
(+324.0) to (+357.0) at 30,000 lb.
(+328.0) to (+357.0) at 23,000 lb.



Empty weight C.G. range: None.

Datum: 336 inches forward of main rotor centroid.

Leveling means: Plumb line from top level plate inside cockpit aft door.

Maximum weight: 38,000 lb.

Maximum crew: 2 (pilot, observer).

Number of seats: 5: 2 at (+94.0), 1 at (+108.5), 1 at (+127.0), 1 at (+130.0).

Maximum cargo: See NOTE 3.

Fuel capacity: 1356 gal. (454 gal. at (+280.0), 454 gal. at (+397.3), 448 gal. at (+461.3)).

Oil capacity: 2.6 gal. (+234.0) (2 tanks 1.3 gal. each).
See NOTE 1 for data on system fuel and oil.

Rotor blade and control movements: For rigging information, refer to Maintenance Manual.

Serial numbers eligible: There are no eligible serial numbers at this time.

Certification basis: CAR 8, October 11, 1950.
Type Certificate H1EA issued July 30, 1965, for the purpose of feasibility studies by the U.S. Army related to the heavy-lift helicopter development project. Aircraft produced under this type certificate are not eligible for civil certification.
Date of Application for Type Certificate - June 25, 1963.

Production basis: None.

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see certification basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required:
(a) FAA Approved Rotorcraft Flight Manual.

NOTE 1. Current weight-and-balance report including list of required equipment and equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each helicopter at the time of original certification. The certificated empty weight and corresponding C.G. locations must include undrainable oil of 5 lb. (+234.0) and unusable fuel of 26 lb. (10 lb. at (+290.0), 9 lb. at (+370.0), 7 lb. at (+461.0)).

NOTE 2. The following placard must be displayed in front of and in clear view of the pilot:

"THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE FAA APPROVED ROTORCRAFT FLIGHT MANUAL"

NOTE 3. Provisions for the carriage of external loads are available in the form of structural hard points on the fuselage and main landing gear; single and four-point hoists; and a four-point load-leveler suspension system. Information concerning the operating limitations with this equipment is contained in the Rotorcraft Flight Manual.

NOTE 4. Information essential to the proper maintenance of the helicopter is contained in the manufacturer's Maintenance Manual provided with each helicopter which specifies that service Life-Limited parts be retired according to the following schedule:

Component	Part No.	Service Life (Hours)
Upper plate	S6410-23011-101	1650
Lower plate	S6410-23009-101	1650
Spacer	S6410-23006-011	250
	S6410-23006-012	1650
Hub	S1510-23001-4	500
Sleeve	S1510-23351	7300
Vertical hinge	S1510-23022	500
Horizontal hinge pin	S1510-23099-1	1550
Scissors bracket, rotating	S6410-24069-011	4950
Upper link, rotating	S6410-24056-101	17,000
Lower link, rotating	S6410-24052-101	17,000
Damper assembly (less cylinder housing)	S6410-26200-043	500
Cylinder housing, damper	S6410-26001-103	400
Attachment brackets, damper	S6410-26208-101	500
		102 500
Main rotor blade	S6415-20101-041	5000
Spindle	S65112-07002-041, -044	2600
Main rotor shaft	S6435-20078-014	1000
Splice installation, rotary rudder boom and pylon	S6420-60211	2750

NOTE 5. Model S-64A modified as described in Sikorsky Engineering Report No. SER-64182, approved June 27, 1968, for the purpose of United States Army use of a crane-type helicopter as a vehicle to transport cargo and equipment, with or without combat crews, in a field Army. Included among the modifications are changes to structure, systems and equipment, external cargo carrying provisions, and the incorporating of two Pratt and Whitney JFTD 12A-4A engines with Hamilton Standard Fuel Control JFC56-4.

Engine limits Sea Level Static, Standard Day Conditions

	Shaft HP	Power Turbine R.P.M.	Gas Gen. R.P.M.	Power Turbine Inlet (T5)
Takeoff (5 min.)	4500	9500 (105.5%N2)	16,700(104%N1)	688°C
Maximum continuous	4000	9500 (105.5%N2)	16,700(104%N1)	655°C
Allowable maximum overspeed	- -	9500 (105.5%N2)	16,700(104%N1)	- -
Acceleration limit (2 min.)	- -	- -	- -	688°C
Starting limit (2 sec.)	- -	- -	- -	525°C

Takeoff and maximum continuous horsepower ratings are normally obtained at a power turbine speed of 9000 r.p.m. (100%N2).

Total power for twin-engine operation is limited to 6600 s. hp. for takeoff and 5400 s. hp. maximum continuous.

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