DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

R00024BO
Revision 2

Sikorsky
Model S-92A

September 23, 2004

TYPE CERTIFICATE DATA SHEET NO. R00024BO

This data sheet, which is part of Type Certificate (TC) Number R00024BO, 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 (TC) HOLDER: Sikorsky Aircraft Corporation
6900 Main Street
Stratford, CT 06497-9129

MODEL NUMBER	**S-92A (Transport Helicopter, Category A, Approved 17 December 2002; Transport Helicopter, Category B, Approved May 7, 2004)**

ENGINES: 2 General Electric Company Model GE CT7-8 (TC E8NE)

FUELS: JET A, JET A-1, JP-5, JP-8
For all operations below –20°C (-4°F) ambient temperature, all fuel used must contain MIL-D-27686 or equivalent anti-icing additive.

ENGINE AND TRANSMISSION LIMITS

DUAL ENGINE LIMITS							
Rating	**Time**	**Q (%)**	**T4.5 (°C)**	**Ng (%)**	**Np (%)**	**Rated SHP @ SLS**	**Rated Np (%)**
Max continuous		**100**	920	99.9	106	2043	105
		86 (1)	when airspeed is greater than 100 KIAS				
30 Min (2)	30 min	**100**	957	101.5	106	2336	105
Takeoff	5 min	**100**	**986**	**102.9**	106	2520	105
Transient	12 sec		987	103.2	116		
	10 sec	120 (3)					

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SINGLE ENGINE LIMITS							
Rating	**Time**	**Q (%)**	**T4.5 (°C)**	**Ng (%)**	**Np (%)**	**Rated SHP @ SLS**	**Rated Np (%)**
Max continuous		**120**	920	99.9	106	2043	105
OEI	30 min	**120**	**979**	102.4	106	2498	100
OEI	2 min	**120**	**990**	102.9	106	2520	100
OEI	30 sec	**135**	**1010**	**103.7**	106	2600	100
Transient	5 sec	156(3)					
Max starting	peak		**1000**				

- Shaded box with bold number denotes a FADEC controlled limiter value.
- Q (%) values are gearbox limits.
- (1) 86% Q is not a gearbox limit. Its purpose is to limit flight control loads at high speed thereby preserving dynamic component replacement times.
- (2) Rating applies to hovering flight only.
- (3) Associated with abnormal rotor droop at FADEC controlled dual engine or OEI limit.
- 100% Q corresponds to a combined power input from both engines to the MGB of 4,170 shp at a rotor speed of 105% (258 rpm). Power turbine speed (Np) of 105% corresponds to 21,945 rpm.
- Maximum continuous dual engine torque may exceed 100% on one engine to a maximum of 110% provided that the torque on the other engine is proportionally less than 100% and the sum of the individual torque values does not exceed 200%.
- Np overspeed trip is at 121%.
- When flying at altitudes greater than 8,000 feet at outside air temperatures lower that –20 degrees C, it is possible to reach the corrected Ng speed limit of the engine. When this occurs, the engine will not produce more power. The only indication that the pilot will see when reaching this limit is that further increase in collective will commensurately droop Nr.

ROTOR SPEED LIMITS

POWER OFF
Maximum 110% N_r
Minimum 95% N_r
POWER ON
Maximum 110% N_r
Minimum 95% N_r

DRIVE SYSTEM LIMITS

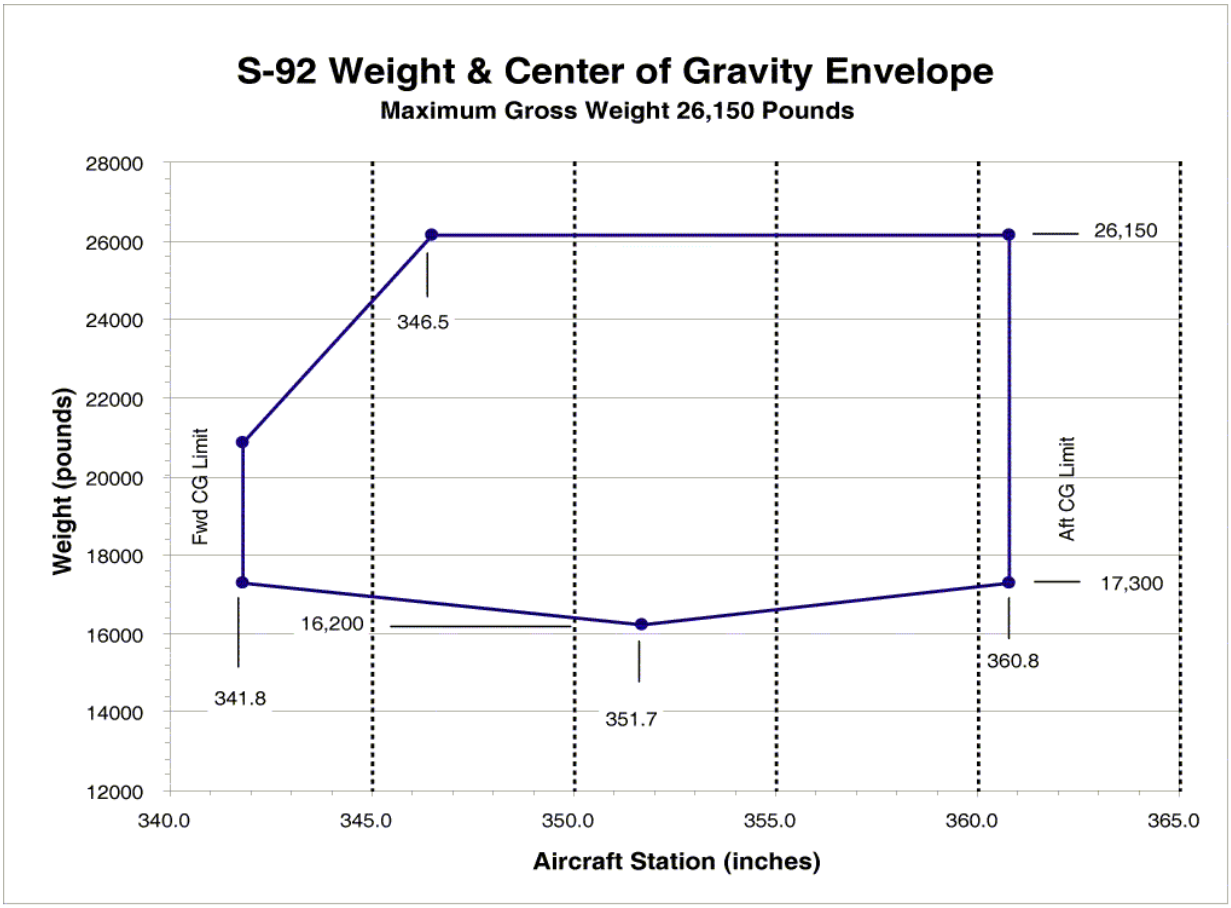
Dual Engine			
Torque (%)	**No Inspect Req'd**	**Serviceability Check**	**Remove/Replace MGB**
0% to 100%	Continuous		
101% to 120%	< 10 sec	≥ 10 sec	
121% to 140%		< 10 sec	≥ 10 sec
greater than 140%			Any occurrence

Single Engine			
Torque (%)	**No Inspect Req'd**	**Serviceability Check**	**Remove/Replace MGB**
0% to 120%	Continuous		
121% to 135%	< 30 sec	≥ 30 sec	
136% to 156%		< 5 sec	≥ 5 sec
greater than 156%			Any occurrence

AIRSPEED LIMITS

Vne (never exceed) Power On	165 KIAS. See Rotorcraft Flight Manual for variations of Vne with gross weight and density altitude.
Vle/Vlo (gear extended/gear operating)	165 KIAS/165 KIAS.
Vne with floats “armed”	80 KIAS.
Vne Power Off	120 KIAS.

CENTER OF GRAVITY (CG) LIMITS



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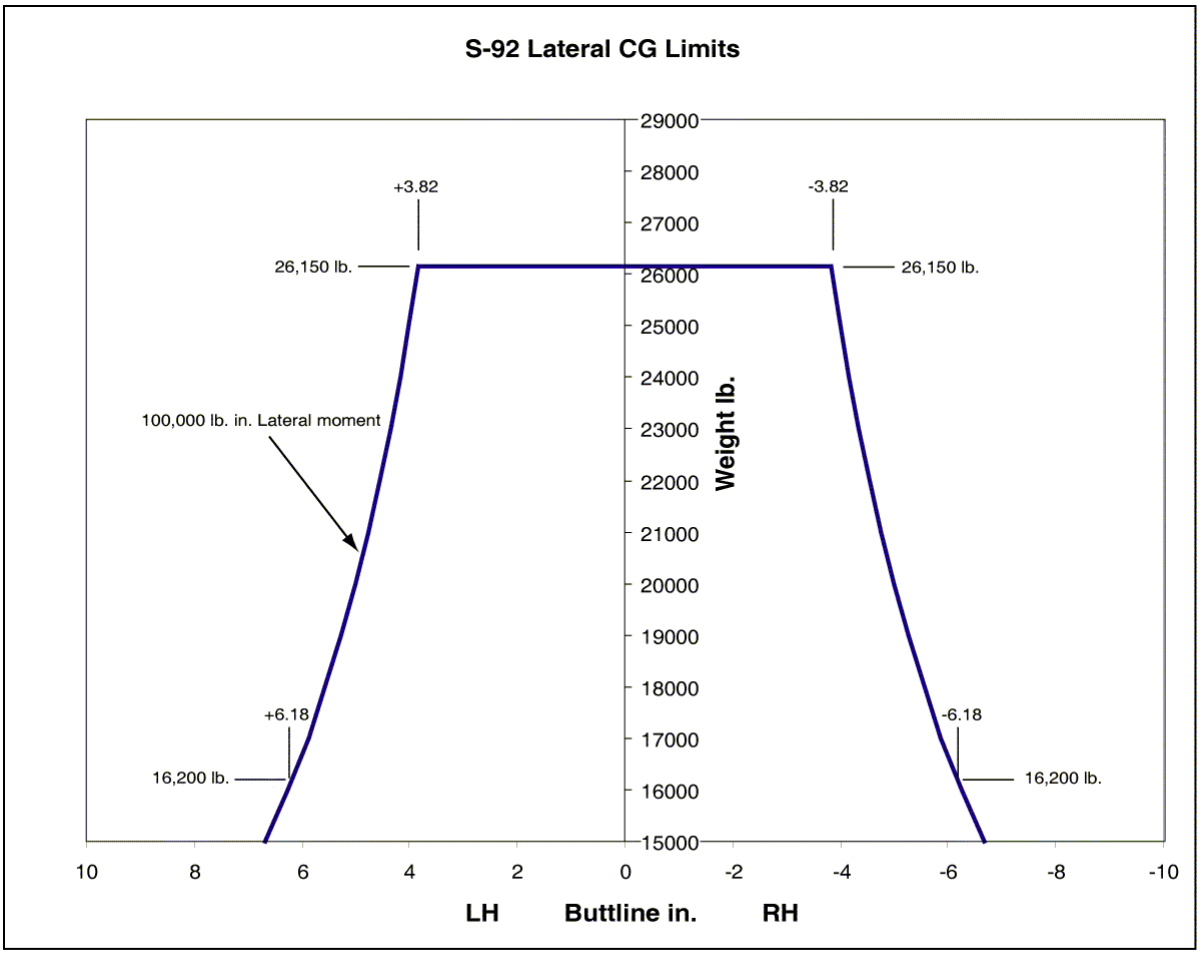
LATERAL C.G. LIMITS:



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EMPTY WEIGHT C.G. RANGE	None
DATUM	341.2 inches forward of the main rotor centroid
LEVELING MEANS	Leveling plate at STA 238.3, BL 40 RH, and plumbline from top of RH forward doorframe.
MAXIMUM WEIGHT	26,150 pounds

ALTITUDE LIMITS	Takeoff and landing 3500 feet density altitude Enroute 15,000 feet density altitude
AMBIENT TEMPERATURE LIMITS	-40°C to ISA+29°C (see Note 8)
MINIMUM FLIGHT CREW	Two pilots
NUMBER OF SEATS	2 Crew 1 Observer 19 Passenger maximum (See Note 6)
MAXIMUM BAGGAGE	1000 pounds
FUEL CAPACITY	765 gals. (760 usable) at (362.5) (see Note 1)
OIL CAPACITY	See General Electric Installation Manual SEI-866
ROTOR BLADE CONTROL MOVEMENTS	For rigging information refer to Maintenance Manual
MANUFACTURER'S SERIAL NUMBERS	920006 and subsequent

CERTIFICATION BASIS

Type Certificate No. R00024BO
14 CFR Part 29 Amendments 29-1 to 29-47, inclusive
14 CFR Part 36 Amendment 20

Equivalent Safety Findings:

Number TC0309BO-R/F-1
14 CFR Part 29.173 Static longitudinal stability
14 CFR Part 29.175 Demonstration of static longitudinal stability.

Number TC0309BO-R/F-4
14 CFR Part 29.177 Static directional stability.

Number TC0309BO-R/A-1
14 CFR Part 29.631, Bird strike.

Number TC0309BO-R/P-1
14 CFR Part 29.1305(a)(24) Power Plant Instruments.

Number TC0309BO-R/P-5
14 CFR Part 29.1181(a)(4) Designated Fire Zones; Regions Included.

Special Conditions:
No. 29-011-SC for Dual-Engine 30 Minute Power
No. 29-008-SC for High Intensity Radiated Frequency

Noise Control Act of 1972

Compliance with the following optional requirements has been established: Ditching provisions FAR 29.563 including 29.801 and 29.807(d) and excluding 29.1411, 29.1415, and 29.1561 when emergency flotation system is installed. For extended over-water operations, compliance with the operating rules and FAR 29.1411, 29.1415, and 29.1561 must be shown.

PRODUCTION BASIS PC Number 105

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 item(s) of equipment is (are) required: Rotorcraft Flight Manual SA S92A-RFM-001, Revision 2, or later FAA-approved Revision.

- NOTES -

NOTE 1 Current weight and balance report, including list of equipment included in certified empty weight, and loading instructions, when necessary, must be provided for each rotorcraft at the time of original certification. The certficated empty weight and corresponding C.G. locations must include un-drainable oil and unusable fuel.

See Rotorcraft Flight Manual loading section for variations of fuel weight and moment-arm with variations of fuel and fuel quantity.

NOTE 2 The rotorcraft must be operated in accordance with the FAA-approved Rotorcraft Flight Manual, SA S92A-RFM-001, Revision 2, or later FAA-approved revision. All placards required in the FAA-approved Rotorcraft Flight Manual must be installed in the rotorcraft. The following placard must be displayed in front of and in clear view of the pilots:

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

All placards listed in the approved flight manual must be installed in the specified locations.

NOTE 3 Information essential to the proper maintenance of the rotorcraft is contained in the Sikorsky S-92A Maintenance Manual, Publication SA S92A-AMM-000, and the Airworthiness Limitations and Inspection Requirements Manual SA S92A-AMM-AWL-000 provided with each helicopter. The values of retirement (service) life contained in Chapter 4 of the Airworthiness Limitations and Inspection Requirements Manual or inspection intervals cannot be increased without FAA Engineering approval.

NOTE 4 The term "Unlimited Life" is defined as 30,000 flight hours for the Model S-92A rotorcraft. Operation of individual aircraft beyond 30,000 flight hours is contingent upon a Life Extension Program approved by FAA Engineering.

NOTE 5 The model S-92A rotorcraft employs electronic engine controls that are recognized to be more susceptible to Electromagnetic Interference (EMI) than manual (non-electronic) controls used on other rotorcraft. EMI may be the result of radiated or conducted interference. For this reason, modifications that add or change systems that have the potential for EMI, must either be qualified to an FAA acceptable standard or tested at the time of installation for interference to the engine controls. This type of testing must employ the particular engine control's diagnostic techniques and external diagnostic techniques. This testing must be accomplished in accordance with an FAA Engineering approved alternate test plan.

NOTE 6 Seating arrangements for 19 passengers maximum defined by Sikorsky Drawing 92510-02130, have been approved by the FAA. These arrangements are shown in the loading Information section of the FAA-approved Rotorcraft Flight Manual, SA S92A-RFM-001, Revision 2. Additional optional seating arrangements or related passenger provisions may be approved in accordance with the Type Certificate Basis.

NOTE 7 Reuse of parts and assemblies that have been involved in an accident is not permitted unless approved by FAA Engineering.

NOTE 8 Any alteration to the type design of the model S-92A may require instructions for continued airworthiness. These instructions must be submitted to and accepted by the Fort Worth Aircraft Evaluation Group prior to approval for return to service.

NOTE 9 Cold Weather Pre-heat kit, Part Number 92700-00110-011, must be used for cold soak starts when the OAT is –25°C or below. See Rotorcraft Flight Manual for Cold Weather Procedures.

NOTE 10 Passenger seats located along the aisle way shall not have armrests installed on the aisle way side of the seats. Armrests shall be removed from the aisle way side of any seat to be installed along the aisle way.

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