European Aviation Safety Agency

EASA
TYPE-CERTIFICATE
DATA SHEET

S-92A
Manufacturer: Sikorsky
Sikorsky Aircraft Corporation
6900 Main Street
Stratford, CT 06497-9129
USA

Issue 5: 27 April 2011

List of effective Pages:

<table>
<thead>
<tr>
<th>Page</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I General</td>
<td>3</td>
</tr>
<tr>
<td>II Certification Basis</td>
<td>3</td>
</tr>
<tr>
<td>III Technical Characteristics and Operational Limitations</td>
<td>4</td>
</tr>
<tr>
<td>IV Operating and Service Instructions</td>
<td>6</td>
</tr>
<tr>
<td>V Notes</td>
<td>6</td>
</tr>
</tbody>
</table>
I: GENERAL

1. Data Sheet No: EASA.IM.R.001

2. Type / Variant or Model: S-92A

3. Airworthiness Category: Large Rotorcraft

4. Type Certificate Holder: Sikorsky Aircraft Corporation
   6900 Main Street
   Stratford, CT 06497-9129
   USA

5. Manufacturer: As above and
   Keystone Helicopter Corporation
   110E Stewart Huston Dr.
   Coatesville, PA
   19320 USA

6. National Certification Date: 17 December 2002

7. JAA (Validation) Application Date: 12 June 1995

8. JAA (Validation) Recommendation Date: 14 May 2004

9. EASA Type Certification Date: 08 June 2004

II. Certification Basis

1. Reference Application Date (revised) for FAA Certification: 11 April 2000

2. FAA Certification Date: 17 December 2002
   FAA Type Certification Data Sheet R00024BO No.

3. JAA Certification Basis: As defined in CRI A-1, Issue 3

4. JAA Airworthiness Requirements: JAR 29, Change 1

5. JAA Special Conditions: JAA/S92/01 HIRF (Reference CRI F-1)
   JAA/S92/02 Use of a Dual-Engine 30-Minute Power Rating (Reference CRI E-7)
   EASA Special Condition for Search and Rescue modes of the AFCS – See CRI B-5

6. JAA Exemptions Granted: None

7. Equivalent Safety Findings: JAR 29.1305(a)(24) APU limit indicators
· JAR 29.173 & 175 Static longitudinal stability
· JAR 29.177 Static directional stability
· JAR 29.1181(a)(4) & 29.1191(b) APU designated fire zone
· JAR 29.631 Birdstrike

8. **JAA Environmental Standards including noise:**

   Noise.

   Engine Emission.

### III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:**
   Sikorsky Drawings 92000-00001-041 & 92076-00001-011

2. **Description:**
   Twin free power turbine engine utility helicopter with four main and four tail rotor blades, aluminium fuselage construction with composite components and a flight essential APU.

3. **Equipment:**
   Refer to Equipment list in approved Flight Manual

4. **Dimensions:**
   - Fuselage Length 17.10m (56ft 2in)
   - Width 3.89m (12ft 9in)
   - Height 4.32m (14ft 2in)
   - Main Rotor Diameter 17.17m (56ft 4in)
   - Tail Rotor Diameter 3.35m (11ft 0in)

5. **Engines:**
   - General Electric GE CT7-8 or GE CT7-8A (See note 1)
   - FAA TCDS No: E8NE
   - EASA DS No: IM.E.010
   5.1 Installed Engine Limits: Refer to Engine Data Sheet EASA No. IM.E.010
   5.1 Transmission Torque Limits: Refer to approved Rotorcraft Flight Manual

6. **Fluids (Fuel/Oil/Additives):**
   For all operations below -20°C (-4°F) ambient temperature, all fuel used must contain MIL-DTL85470(B) or equivalent anti-icing additive in concentrations of not less than 0.1% or more than 1.5% by volume.

7. **Fluid Capacities:**
   7.1 Fuel 2896 litres (765 US gals),
2877 lt (760 US gals) usable

7.2 Oil refer to General Electric Installation Manual SEI-866

8. **Airspeed Limits:**
   - $V_{ne}$ Power on 165 KIAS
   - $V_{le/lo}$ (gear extending/operating) 165 KIAS/165 KIAS
   - $V_{ne}$ with floats ‘armed’ 80 KIAS
   - $V_{ne}$ Power off 120 KIAS
   - $V_{ne}$ Upper Sliding Door Open 120 KIAS

9. **Rotor Speed Limits:**
   - Power on:
     - Maximum 110%
     - Minimum 95%
   - Power off:
     - Maximum 110%
     - Minimum 95%

10. **Maximum Operating Altitude:**
    - Take-off and landing 1,070m (3,500ft) density altitude
    - En route 4,570m (15,000ft) density altitude
    - Flight in Icing Conditions 3,050m (10,000ft) density altitude

11. **Operating Limitations:**
    - General Category A and B
    - VFR day and night
    - IFR day and night
    - Flight in known Icing Conditions

12. **Maximum Certified Weights:**
    - Take-off and landing 12,020kg (26,500lb)

13. **Centre of Gravity:**
    - Refer to approved Rotorcraft Flight Manual

14. **Datum:**
    - 8.67m (341.2in) forward of main rotor centroid

15. **Levelling Means:**
    - Levelling plate at STA 238.3, BL 40 RH and plumb line from top of RH forward doorframe

16. **Minimum Flight Crew:**
    - Two (2): Pilot and Co-pilot

17. **Maximum Passenger Seating Capacity:**
    - 19 plus 1 Observer in cockpit

18. **Passenger Emergency Exits:**
    - 4 (fuselage side) Type III

19. **Maximum Baggage/Cargo Loads:**
    - 454kg (1000lb)

20. **Rotor Blade and Control Movement:**
    - For rigging information, refer to Maintenance manual

21. **Auxiliary Power Unit:**
    - Honeywell 36-150[S92]

22. **Wheels and Tyres:**
    - Tyres: 19.5 x 6.75-8 (TSO: C-62D)
Wheels: 92250-00801 (TSO: C-26C)

IV  Operating and Service Instructions

1. Rotorcraft Flight Manual, Document No:
   Rotorcraft Flight Manual as shown in FAA approved Sikorsky document SA S92A-FMCD-0000. This document specifies the applicable Flight Manual number for each aircraft. The applicable Flight Manual number is determined by the aircraft configuration and/or modifications. SA S92A-FMCD-000 will be revised as required to add new aircraft or update the RFM required for Sikorsky modified aircraft.

   Operations using the Search and Rescue (SAR) modes of the AFCS must be in accordance with EASA approved Sikorsky FMS E-01.

   Changes to FMS E-01 must be EASA approved.

2. Maintenance Manual, Document No:
   SA S92A-AMM-AWL-000

3. Service Letters and Service Bulletins:
   As published by Sikorsky and approved by FAA

4. Required Equipment:
   In order to meet ICAO Annex 16 Volume II, Part II, Chapter 2 requirement to prevent intentional discharge to the atmosphere of fuel from the fuel nozzle manifolds following shutdown, the rotorcraft is to be modified in accordance with Sikorsky drawing 92080-30001-011 (port side) and 92080-30001-012 (starboard side).

   For flight in known icing conditions the aircraft must be fitted with the Rotor Ice Protection System (RIPS) as defined in Sikorsky Drawing Number 92076-55001, and must be operated in accordance with the EASA approved Rotorcraft Flight Manual.

   Refer to approved Flight Manual for other required equipment.

V  Notes

1. Eligible aircraft serial numbers under this TC are 920006 and subsequent. Serial numbers 920006 to 920114, 920116 to 920126, 920128, 920130, 920133, 920137, 920143 and subsequent are manufactured by Sikorsky Aircraft Corporation under FAA Production Certificate 105;

   Serial number 920115 is manufactured by Keystone Helicopter Corporation under the Sikorsky Type Certificate;

   Serial numbers 920127*, 920129*, 920131, 920132, 920134 to 920136, 920138 to 920142 are manufactured by Keystone Helicopter Corporation under FAA Production Certificate 121NE.
∗920127 and 920129 originally designated as eligible for production by Keystone Helicopter Corporation under Type Certificate only and redesignated upon addition of S92A to Production Certificate Number 121NE

2. Serial numbers 920010 and subsequent are eligible for fitting with the GE-CT7-8A engine.

3. Seating arrangements for 19 passengers maximum defined by Sikorsky Drawing 92510-02130, have been approved by EASA. These arrangements are shown in the loading information section of the EASA approved Rotorcraft Flight Manuals. Additional optional seating arrangements or related passenger provisions may be approved in accordance with the Type Certificate Basis.

4. Passenger seats located along the aisle way shall not have the 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.

5. The model S92A rotorcraft employs electronic engine controls that are recognised 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 be either qualified to an EASA 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 EASA approved alternate test plan.

6. Cold Weather Pre-heat kit, Part Number 92700-0010-001, must be used for cold soak starts when the OAT is -25°C or below. See Rotorcraft Flight Manual for Cold Weather Procedures.


8. The term “Unlimited Life” is defined as 30,000 flight hours for the model S92A rotorcraft. Operation of individual aircraft beyond the 30,000 flight hours is contingent upon a Life Extension Program approved by FAA Engineering.

9. The approved JAA JAR 36 (through NPA-3) and ICAO Annex 16, Volume 1, Chapter 8 (Amendment 7) certificated noise levels for the Sikorsky S-92A, with General Electric GE-CT7-8 engines, a four blade main rotor with diameter 17.17 m and four blade tail rotor with diameter 3.35 m, and maximum take-off mass of 11,860 kg (26,150 lb) and maximum landing mass of 11,860 kg (26,150 lb), are as follows (approval via Sikorsky Report SER-920259 at Revision 0 or later approved revisions):

<table>
<thead>
<tr>
<th>Flight Condition</th>
<th>JAR Part 36 Noise Limits</th>
<th>S-92A Certification Levels</th>
<th>Margins to the JAR Limits</th>
<th>90% Confidence Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takeoff</td>
<td>100.74</td>
<td>94.55</td>
<td>6.19</td>
<td>0.17</td>
</tr>
<tr>
<td>Approach</td>
<td>101.74</td>
<td>97.49</td>
<td>4.25</td>
<td>0.29</td>
</tr>
<tr>
<td>Overflight</td>
<td>99.74</td>
<td>97.19</td>
<td>2.55</td>
<td>0.13</td>
</tr>
</tbody>
</table>
The associated reference operating conditions for each of the conditions are summarized as follows:

<table>
<thead>
<tr>
<th>Condition</th>
<th>$V_y/V_H$</th>
<th>Main Rotor RPM</th>
<th>Tail Rotor RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take-off</td>
<td>80 kt IAS</td>
<td>257.9</td>
<td>1254.8</td>
</tr>
<tr>
<td>Approach</td>
<td>80 kt IAS</td>
<td>257.9</td>
<td>1254.8</td>
</tr>
<tr>
<td>Overflight</td>
<td>150.5 kt TAS</td>
<td>257.9</td>
<td>1254.8</td>
</tr>
</tbody>
</table>

Notes: IAS = indicated airspeed, TAS = true airspeed, $V_{ref} = 167.8$ kt TAS

....End....