TYPE-CERTIFICATE
DATA SHEET

EASA.IM.E.010

for
General Electric Company
CT7-series engines

Type Certificate Holder

General Electric Company
1000 Western Ave
Lynn, Massachusetts 01910
USA

For Models:
CT7-8
CT7-8A
CT7-8B
CT7-8E
CT7-8F
CT7-8A5
CT7-8B5
CT7-8E5
CT7-8F5
CT7-2A
CT7-2E1
CT7-2F1
CT7-5A2
CT7-6
CT7-6A
CT7-7A
CT7-9B
CT7-9C
CT7-9C3
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I. General

1. Type/Models:

GE CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5
GE CT7-2A, -2E1, -2F1, -5A2, -6, -6A, -7A, -9B, -9C, -9C3

2. Type Certificate Holder:

General Electric Company
1000 Western Ave
Lynn, Massachusetts 01910
USA

3. Manufacturer:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>GE Aviation 1000 Western Ave Lynn, Massachusetts 01910 USA</th>
<th>Vector Aerospace Helicopter Services Inc. * 4551 Agar Drive Richmond, British Columbia Canada</th>
<th>Industria de Turbo Propulsores / Industria de Turbinas Helicoptero ** Edificio 300 Parque Tecnologico 48170 Zamudio Vizcaya Spain</th>
<th>AVIO S.p.A. *** Strada del Drosso 145 Torino Italy</th>
</tr>
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* See Note 16
** See Note 17
*** See Note 26

4. EASA Certification Application Date

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Application Date</th>
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<tbody>
<tr>
<td>GE CT7-8</td>
<td>12 Nov 1996</td>
</tr>
<tr>
<td>GE CT7-8A</td>
<td>10 Oct 2003</td>
</tr>
<tr>
<td>GE CT7-8B</td>
<td>10 Oct 2003</td>
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<td>GE CT7-8E</td>
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<tr>
<td>GE CT7-8F</td>
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<td>GE CT7-8A5</td>
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<td>GE CT7-8B5</td>
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<td>GE CT7-8E5</td>
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<tr>
<td>GE CT7-8F5</td>
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<td>GE CT7-2A</td>
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<td>GE CT7-5A2</td>
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<td>GE CT7-6</td>
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<td>GE CT7-7A</td>
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<td>GE CT7-9B</td>
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<td>GE CT7-9C</td>
<td>23 Jan 1990</td>
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<tr>
<td>GE CT7-9C3</td>
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<tr>
<td>GE CT7-2E1</td>
<td>16 Dec 2011</td>
</tr>
<tr>
<td>GE CT7-2F1</td>
<td>14 Sept 2017</td>
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Application for some of the engine models had been made to individual EU member states prior to EASA existence.
5. EASA Certification Date

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<th>Engine Model</th>
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<td>08 Nov 2004</td>
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<td>08 Nov 2004</td>
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<tr>
<td>GE CT7-8F</td>
<td>08 Nov 2004</td>
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<td>GE CT7-8A5</td>
<td>08 Nov 2004</td>
</tr>
<tr>
<td>GE CT7-8B5</td>
<td>08 Nov 2004</td>
</tr>
<tr>
<td>GE CT7-8E5</td>
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<td>GE CT7-5A2</td>
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<td>GE CT7-6</td>
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<td>GE CT7-6A</td>
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<td>GE CT7-7A</td>
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<td>GE CT7-9B</td>
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<td>GE CT7-9C</td>
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<td>GE CT7-9C3</td>
<td>9 Dec 1998, (Refer to Section II.Certification Basis, 2.1)</td>
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<tr>
<td>GE CT7-2E1</td>
<td>30 August 2013</td>
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<tr>
<td>GE CT7-2F1</td>
<td>09 July 2019</td>
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</tbody>
</table>

For engine models having a certification date prior to the establishment of EASA (28 Sep.2003) these dates have been taken over from individual EU member states approval dates.

II. Certification Basis

1. FAA Certification Basis

See FAA TCDS E8NE.

2. EASA Certification Basis

2.1. Airworthiness Basis

For CT7-8:
- JAR-E Change 9 plus Orange Papers E/96/1 (21 October 1996) and E/97/1 (30 December 1997)
- JAR-E 790 at Change 10
- ICAO annex 16, Volume II, second edition, effective 11 November 1993

For CT7-8A (Prior to ESN 947931), -8B, -8F, -8A5, -8B5, -8E5 in addition to above:
- JAR-E 20(f) and JAR-E 25 at Change 12

For the CT7-8A (ESN 947931 and above), 8E:
- CS-E Initial Issue
- CS-34.1 Fuel Venting at Amendment 1
- (See note 29)

For CT7-8F5:
- CS-E at Initial Issue
- CS-34.1 Fuel Venting at Amendment 1
- (see note 28)

For CT7-2A:
2.2. Special Conditions

EASA Special Conditions:

For CT7-2E1: Approval of a transitory exhaust gas temperature (EGT) exceedance at take-off of 5.5°C (10°F), during 12 seconds maximum (ref. CS-E 740 Endurance Test).
For CT7-2F1: Approval of a transitory exhaust gas temperature (EGT) exceedance at take-off of 11°C (20°F), during 12 seconds maximum (ref. CS-E 740 Endurance Test).

For CT7-8F5: Approval of a transitory exhaust gas temperature (EGT) exceedance at take-off of 1.7°C (3°F), during 12 seconds maximum (ref. CS-E 740 Endurance Test).

Approval of a 30-Minute Power rating.

JAA Special Conditions:

For CT7-8, CT7-8B, -8F, -8A5, -8B5, -8E5:

SC1: Ratings
SC2: Controls
SC3: Provisions for Instruments
SC4: Conditions applicable to Endurance tests
SC5: Endurance Tests – Inspection Checks and Calibration Tests
SC6: Functioning
SC8: Endurance Tests
SC9: Instructions for Continued Airworthiness Following Use of 30-Sec/2-Min OEI Ratings (CT7-8 only)
SC10: Safe Life Determination
SC11: Overtorque and Overspeed
SC12: Overtorque and Overspeed
SC13: 30 Minute AEO Rating Definition
SC14: Endurance Test (30-minute AEO rating)
SC15: Instructions for Continued Airworthiness (resulting from use of 30-minute AEO rating)

EASA Special Conditions:

For the CT7-8A, -8E:

SC1: Transitory exhaust gas temperature exceedance
SC2: 30 Minute AEO Rating

FAA Special Conditions:

The following the engine models were issued a European national Type Certificate using the FAA certification basis for the engine, including the FAA Special Condition (see section II.2.1).

For CT7-2A, -6, -6A: USA FAA Special Condition 33-76-NE-2
For CT7-5A2, -7A, -9B, -9C, -9C3: USA FAA Special Condition 33-NE-1

2.3. Equivalent Safety Findings

JAR-E 840 – Rotor Integrity (CT7-8)
CS-E 820 – Over-Torque (CT7-8F5)

2.4. Deviations

None
III. Technical Characteristics

1. Type Design Definition

As defined by the applicable GE Model Lists and approved design changes

<table>
<thead>
<tr>
<th>CT7-8G01</th>
<th>CT7-8AG01</th>
<th>CT7-8A5G01</th>
<th>CT7-8BG01</th>
<th>CT7-8B5G01</th>
<th>CT7-8EG01</th>
<th>CT7-8E5G01</th>
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<tbody>
<tr>
<td>CT7-8FG01</td>
<td>CT7-8F5G01</td>
<td>CT7-2AG01</td>
<td>CT7-2E1G01</td>
<td>CT7-2F1G01</td>
<td>CT7-5A2G01</td>
<td>CT7-6G01</td>
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<tr>
<td>CT7-6AG01</td>
<td>CT7-7AG01</td>
<td>CT7-9BG01</td>
<td>CT7-9CG01</td>
<td>CT7-9C3G01</td>
<td>CT7-8E5G01</td>
<td></td>
</tr>
</tbody>
</table>

2. Description

The CT7-2A, -2E1, -2F1, -6, -6A, -8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5 engine models are front drive, turboshaft engines featuring a single-spool gas generator section consisting of a five-stage axial, single-stage centrifugal flow compressor, a through flow annular combustion chamber, a two-stage axial flow gas generator turbine, and a free or independent two-stage axial flow power turbine. The power turbine shaft is co-axial and extends to the front end of the engine. The engines also incorporate modular construction throughout, a top-mounted accessory package, an engine-driven fuel boost pump, a self-contained lubrication system, condition monitoring-diagnostics provisions. For the CT7-2E1, -2F1, -8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5 engine models, a dual channel full authority digital electronic control (FADEC) system providing gas generator and power turbine speed control, engine load sharing, and redundant gas generator and power turbine overspeed protection. The engine type definition does not include the starter or the mounts.

The CT7-5A2, -7A, -9B, -9C, -9C3 engine models are front drive turboprop engines featuring a single-spool gas generator section consisting of a five-stage axial, single-stage centrifugal flow compressor, a through flow annular combustion chamber, a two-stage axial flow gas generator turbine, a free or independent two-stage axial flow power turbine and an integral propeller gearbox.

3. Equipment

As defined by the applicable GE Model Lists.

4. Dimensions

See Note 1.

For CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>123,9 cm</td>
<td>(48,8 inches)</td>
</tr>
<tr>
<td>Overall Width</td>
<td>66,0 cm</td>
<td>(26,0 inches)</td>
</tr>
<tr>
<td>Overall Height</td>
<td>63,5 cm</td>
<td>(25,0 inches)</td>
</tr>
</tbody>
</table>

For CT7-8F5:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>107,4 cm</td>
<td>(42,3 inches)</td>
</tr>
<tr>
<td>Overall Width</td>
<td>66,0 cm</td>
<td>(26,0 inches)</td>
</tr>
<tr>
<td>Overall Height</td>
<td>63,5 cm</td>
<td>(25,0 inches)</td>
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</table>
For CT7-2A, -6:

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<thead>
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<th></th>
<th>Overall Length</th>
<th>Overall Width</th>
<th>Overall Height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>119,4 cm</td>
<td>66,0 cm</td>
<td>63,5 cm</td>
</tr>
<tr>
<td></td>
<td>(47,0 inches)</td>
<td>(26,0 inches)</td>
<td>(25,0 inches)</td>
</tr>
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</table>

For CT7-6A:

<table>
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<tr>
<th></th>
<th>Overall Length</th>
<th>Overall Width</th>
<th>Overall Height</th>
</tr>
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<tr>
<td></td>
<td>122,4 cm</td>
<td>66,0 cm</td>
<td>63,5 cm</td>
</tr>
<tr>
<td></td>
<td>(48,2 inches)</td>
<td>(26,0 inches)</td>
<td>(25,0 inches)</td>
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</table>

For CT7-5A2, -7A, -9B, -9C, -9C3 (with PGB):

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<th>Overall Length</th>
<th>Overall Width</th>
<th>Overall Height</th>
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<tr>
<td></td>
<td>243,8 cm</td>
<td>66,0 cm</td>
<td>73,7 cm</td>
</tr>
<tr>
<td></td>
<td>(96 inches)</td>
<td>(26,0 inches)</td>
<td>(29,0 inches)</td>
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For CT7-2E1, -2F1:

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<th>Overall Length</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>119,4 cm</td>
<td>66,0 cm</td>
<td>66,0 cm</td>
</tr>
<tr>
<td></td>
<td>(47 inches)</td>
<td>(26,0 inches)</td>
<td>(26,0 inches)</td>
</tr>
</tbody>
</table>

5. Dry Weight

For CT7-8: 243,6 kg (537,0 lbs.) See Note 2
For CT7-8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5: 245,9 kg (542,0 lbs.) See Note 2
For CT7-2A: 194,6 kg (429,0 lbs.) See Note 2
For CT7-6, -6A: 223,6 kg (493,0 lbs.) See Note 2
For CT7-5A2, -7A: 355,2 kg (783,0 lbs.) See Note 2
For CT7-9B, -9C: 365,1 kg (805,0 lbs.) See Note 2
For CT7-9C3: 366,0 kg (807,0 lbs.) See Note 2
For CT7-2E1: 222,7 kg (491,0 lbs.) See Note 2
For CT7-2F1: 218,6 kg (482,0 lbs.) See Note 2

6. Ratings

See notes 3 and 4.

Ratings are AEO unless labeled OEI.
<table>
<thead>
<tr>
<th>Ratings</th>
<th>CT7-8</th>
<th>CT7-8A**</th>
<th>CT7-8AS</th>
<th>CT7-8B</th>
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<th>CT7-8E**</th>
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<tbody>
<tr>
<td>Max Continuous (SL)</td>
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<td></td>
<td></td>
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<tr>
<td>Power, kW (Shaft hp)</td>
<td>1523</td>
<td>1523</td>
<td>1608</td>
<td>1522</td>
<td>1606</td>
<td>1522</td>
<td>1606</td>
<td>1462</td>
<td>1604</td>
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<tr>
<td>Output, rpm</td>
<td>(2043)</td>
<td>(2043)</td>
<td>(2157)</td>
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<td>(2154)</td>
<td>(1960)</td>
<td>(2151)</td>
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<tr>
<td></td>
<td>21945</td>
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<td>20900</td>
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<td>20872</td>
<td>20872</td>
<td>20841</td>
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<tr>
<td>Takeoff (5 min) (SL)</td>
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<tr>
<td>Power, kW (Shaft hp)</td>
<td>1879</td>
<td>1879</td>
<td>1964</td>
<td>1886</td>
<td>1946</td>
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<td>1945</td>
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<td>1941</td>
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<tr>
<td>Output, rpm</td>
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<td>(2520)</td>
<td>(2634)</td>
<td>(2529)</td>
<td>(2529)</td>
<td>(2527)</td>
<td>(2608)</td>
<td>(2474)</td>
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<td>Power, kW (Shaft hp)</td>
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<td>1886</td>
<td>1855</td>
<td>1885</td>
<td>1777</td>
<td>1882</td>
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<td>(2336)</td>
<td>(2544)</td>
<td>(2489)</td>
<td>(2529)</td>
<td>(2488)</td>
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<td>(2383)</td>
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<td>20900</td>
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<td>Continuous OEI (SL)</td>
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<td>Power, kW (Shaft hp)</td>
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<td>1886</td>
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<td>1882</td>
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<tr>
<td>Output, rpm</td>
<td></td>
<td>(2498)</td>
<td>(2544)</td>
<td>(2489)</td>
<td>(2529)</td>
<td>(2488)</td>
<td>(2528)</td>
<td>(2383)</td>
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<tr>
<td>30-Minute OEI (SL)</td>
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<td>Power, kW (Shaft hp)</td>
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<td>N/A</td>
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<td>Output, rpm</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>2-Minute OEI (SL)</td>
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<td></td>
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<tr>
<td>Power, kW (Shaft hp)</td>
<td>1879</td>
<td>1879</td>
<td>1943</td>
<td>1881</td>
<td>1943</td>
<td>1881</td>
<td>1942</td>
<td>1812</td>
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<td>Output, rpm</td>
<td>(2520)</td>
<td>(2520)</td>
<td>(2606)</td>
<td>(2523)</td>
<td>(2606)</td>
<td>(2522)</td>
<td>(2604)</td>
<td>(2430)</td>
<td>(2599)</td>
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<td>20900</td>
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<td>30-Second OEI (SL)</td>
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<td>Power, kW (Shaft hp)</td>
<td>1939</td>
<td>2043</td>
<td>2065</td>
<td>2043</td>
<td>2065</td>
<td>2042</td>
<td>1989</td>
<td>1957</td>
<td>2031</td>
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<td>Output, rpm</td>
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<td>(2740)</td>
<td>(2769)</td>
<td>(2740)</td>
<td>(2769)</td>
<td>(2739)</td>
<td>(2767)</td>
<td>(2624)</td>
<td>(2762)</td>
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SL – Sea Level
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<tr>
<th>Ratings</th>
<th>CT7-2A</th>
<th>CT7-2E1**</th>
<th>CT7-2F1**</th>
<th>CT7-5A2</th>
<th>CT7-6</th>
<th>CT7-6A</th>
<th>CT7-7A*</th>
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<tbody>
<tr>
<td>Max Continuous (SL) Power, kW (Shaft hp) Output, rpm</td>
<td>1189 (1595)</td>
<td>1394 (1870)</td>
<td>1277 (1712)</td>
<td>1193 (1600)</td>
<td>1281 (1718)</td>
<td>1281 (1718)</td>
<td>1268 (1700)</td>
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<tr>
<td></td>
<td>21000</td>
<td>21000</td>
<td>21000</td>
<td>1384*</td>
<td>20463</td>
<td>20463</td>
<td>1384</td>
</tr>
<tr>
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<td>21000</td>
<td>21630</td>
<td>1384*</td>
<td>20463</td>
<td>20463</td>
<td>1384</td>
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<tr>
<td>Max Takeoff (5 min) (SL) Power, kW (Shaft hp) Output, rpm</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>30-Minute (SL) Power, kW (Shaft hp) Output, rpm</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td></td>
<td>21000</td>
<td>21000</td>
<td>21630</td>
<td>N/A</td>
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<td>20463</td>
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<tr>
<td>30-Minute OEI (SL) Power, kW (Shaft hp) Output, rpm</td>
<td>1212 (1625)</td>
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<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
<td>N/A</td>
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<td>2½-Minute OEI (SL) Power, kW (Shaft hp) Output, rpm</td>
<td>1286 (1725)</td>
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<td>N/A</td>
<td>N/A</td>
<td>1491 (2000)</td>
<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
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<td>N/A</td>
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<tr>
<td>Flat 30-Sec/2-Min OEI (SL) Power, Kw (Shaft hp) Output, rpm</td>
<td>N/A</td>
<td>1614 (2164)</td>
<td>N/A</td>
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<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>2-Minute OEI (SL) Power, kW (Shaft hp) Output, rpm</td>
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<td>N/A</td>
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<td>N/A</td>
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<tr>
<td>30-Second OEI (SL) Power, kW (Shaft hp) Output, rpm</td>
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<td>N/A</td>
<td>1588 (2129)</td>
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### Ratings

<table>
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<th>CT7-9B*</th>
<th>CT7-9C*</th>
<th>CT7-9C3*</th>
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<tr>
<td>Max Continuous (SL)</td>
<td>1305 (1750)</td>
<td>1305 (1750)</td>
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<td>Output, rpm</td>
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<tr>
<td>Takeoff (5 min) (SL)</td>
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<td>1305 (1750)</td>
<td>1305 (1750)</td>
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<tr>
<td>Power, kW (Shaft hp)</td>
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<td>Output, rpm</td>
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<tr>
<td>Max Takeoff (5 min) (SL)</td>
<td>1394 (1870)</td>
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<td>1384*</td>
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<tr>
<td>Output, rpm</td>
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</tr>
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<td>30-Minute (SL)</td>
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<td>N/A</td>
</tr>
<tr>
<td>Power, kW (Shaft hp)</td>
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</tr>
<tr>
<td>Output, rpm</td>
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</tr>
<tr>
<td>Continuous OEI (SL)</td>
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<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Power, kW (Shaft hp)</td>
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</tr>
<tr>
<td>Output, rpm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-Minute OEI (SL)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Power, kW (Shaft hp)</td>
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</tr>
<tr>
<td>Output, rpm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2½-Minute OEI (SL)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
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<td>Power, kW (Shaft hp)</td>
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</tr>
<tr>
<td>Output, rpm</td>
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<td></td>
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</tr>
<tr>
<td>Flat 30-Sec/2-Min OEI (SL)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Power, kW (Shaft hp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output, rpm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Output for these turboprop models is specified as propeller speed (gear reduced Np). 1384 rpm is not a rating or limitation and is presented for reference only. The limit for continuous operation is 1396 rpm. See section 2.2.

** Values shown are engine capabilities when the FADEC is not set to observe the more restrictive rotorcraft limitations. See Note 3.

### 7. Control System

The following engine models are equipped with a Full Authority Digital Engine Control (FADEC) system:

**Fuel Control**

- For CT7-2E1, -2F1: Woodward Governor FMU P/N 5165T63
- For CT7-8, -8A, -8B, -8E, -8F, -8A5, -8B5, -8E5, -8F5: Hamilton Sunstrand Fuel Metering Unit (FMU) P/N 819700-8

**EECU**

---

For CT7-2E1, -2F1: BAE Systems EECU P/N 5158T32
For CT7-8, -8A, -8B, -8E, -8F, -8AS, -8BS, -8E5, -8F5: Hamilton Sunstrand Electronic Engine Control Unit (EECU) P/N 4110T55

Note: EECU software is verified to level A according to RTCA Document DO-178B.

The following models are not equipped with a FADEC system; fuel control is provided by a Hydromechanical Metering Unit (HMU):

Fuel Control
For CT7-2A, -6, -6A: Hamilton Standard P/N JFC-78-4
For CT7-5A2, -7A: Hamilton Standard P/N JFC-78-5
For CT7-9B, -9C, -9C3: Woodward Governor Model 3470

8. Fluids

8.1. Fuel

See Note 5.

The approved fuels and additives are identified in the current revision of the engine Operating Instructions:

For CT7-8, CT7-8A, -8B, -8F, -8AS, -8BS: GEK 105157
For CT7-8E, -8E5: GEK 112153
For CT7-8F5: GEK 114117
For CT7-2A: SEI-569
For CT7-2E1: GEK112766
For CT7-2F1: GEK112102
For CT7-6, -6A: SEI-694
For CT7-5A2, -7A, -9B, -9C, -9C3: SEI-575

8.2. Oil

The approved engine oils, including approved brands, are identified in the current revision of the engine Operating Instructions:

For CT7-8, CT7-8A, -8B, -8F, -8AS, -8BS: GEK 105157
For CT7-8E, -8E5: GEK 112153
For CT7-8F5: GEK 114117
For CT7-2A: SEI-569
For CT7-6, -6A: SEI-694
For CT7-5A2, -7A, -9B, -9C, -9C3: SEI-575
For CT7-2E1: GEK112766
For CT7-2F1: GEK112102

<table>
<thead>
<tr>
<th>Models</th>
<th>Drive Pad</th>
<th>Type</th>
<th>Rotation Speed *</th>
<th>Speed</th>
<th>Maximum Torque Nm (in-lb)</th>
<th>Maximum Torque Nm (in-lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT7-8, -8A, -8B, -8E,</td>
<td>Starter</td>
<td>MS3326-2 (1)</td>
<td>CW</td>
<td>0,64979 (2)</td>
<td>38,0 (336)</td>
<td>101,7 (900) (3) / 113,0 (1000) (4)</td>
</tr>
<tr>
<td>-8F, -8A5, -8B5, -8E5</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>CT7-8F5</td>
<td>Starter</td>
<td>V-Band Pad (13)</td>
<td>CW</td>
<td>0,64979 (2)</td>
<td>38,0 (336)</td>
<td>101,7 (900) (3) / 113,0 (1000) (4)</td>
</tr>
<tr>
<td>CT7-5A2, -7A, -9B, -9C,</td>
<td>Starter Generator</td>
<td>AS963A-12V (8)</td>
<td>CCW</td>
<td>0,26630 (2)</td>
<td>92,74 (820) (5) / 21.69 (192) (6)</td>
<td>172,9 (1530) (3) / 214,7 (1900) (10) / 185,9 (1645) (7)</td>
</tr>
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<td>-9C3</td>
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<tr>
<td>CT7-2E1</td>
<td>Starter Generator</td>
<td>AS963-1</td>
<td>CCW</td>
<td>0,29736 (2)</td>
<td>82,56 (730) (5)</td>
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</tr>
<tr>
<td>CT7-2F1</td>
<td>Starter</td>
<td>MS3326-2 (1)</td>
<td>CW</td>
<td>0,64979 (2)</td>
<td>38,0 (336)</td>
<td>101,7 (900) (3) / 62,1 (550) (4)</td>
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<tr>
<td>Propeller Gearbox</td>
<td>Propeller Shaft</td>
<td>AS1414 (8)</td>
<td>CCW</td>
<td>0,06291 (9)</td>
<td>(8)</td>
<td>(8)</td>
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<tr>
<td>Hydrualic Pump</td>
<td>MS3326(AS)-2</td>
<td>CW</td>
<td>0,27932 (9)</td>
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<td>13.9 (123)</td>
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</tr>
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<td>(8)</td>
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<td>AC generator</td>
<td>AS963A-12V (8)</td>
<td>CW</td>
<td>0,54650 (9)</td>
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<td>41.8 (370) (12)</td>
<td>(12)</td>
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<td>MS3325(AS)-2</td>
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<td>1.13 (10)</td>
<td>(11)</td>
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<td>Governor</td>
<td>(8)</td>
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<td></td>
<td></td>
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<tr>
<td>Propeller control unit</td>
<td></td>
<td>CW</td>
<td>0,06291 (9)</td>
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<td>1.81 (16)</td>
<td>(11)</td>
</tr>
</tbody>
</table>

* Facing engine gearbox pad  (CW = clockwise, CCW = counterclockwise)

(1) Modified for speed and strength requirements
(2) Ratio to gas generator speed (Rotation speed is divided by gas generator (GG) speed)
(3) 3-second maximum duration per start  The starter and/or start sequence must be controlled to avoid exceeding specified impact torque.
(4) Maximum axial impact force shall not exceed 1000 pounds
(5) Starter
(6) Generator mode for 3 minutes restricted at ground idle without customer bleed. Unrestricted is 12,7 Nm (112 in-lb)
(7) 0,05 seconds maximum duration
(9) Ratio to power turbine speed
(10) Shear torque for starter/generator shaft shear section
(11) Overtorque allowance minimum of 1.5 x maximum normal rated torque for 10⁸ cycles and maximum 5 x maximum normal rated torque as a limit load
(12) Maximum overload up to 46,89 Nm (415 in-lb)
(13) See installation manual
10. Maximum Permissible Air Bleed Extraction

<table>
<thead>
<tr>
<th>Model</th>
<th>Max Allowable Bleed Limit (Percentage of Core airflow)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT7-2A, -2E1, -2F1, -6, -6A, -8, -8A, -8A1, -8A5, -8B, -8B5, -8E, -8E5, -8F</td>
<td>6.5%</td>
</tr>
<tr>
<td>CT7-8F5</td>
<td></td>
</tr>
<tr>
<td>CT7-5A, -7A</td>
<td>At mid-compressor bleed port, (no engine anti-icing airflow) 6.5%</td>
</tr>
<tr>
<td>Customer bleed air is provided through two bleed ports (mid-compressor and compressor discharge). See CT7-5A2/-7A Installation Manual SEI-585.</td>
<td></td>
</tr>
<tr>
<td>CT7-9B, -9C, -9C3</td>
<td>At mid-compressor bleed port (no engine anti-ice airflow) 6.5%</td>
</tr>
<tr>
<td>Customer bleed air is provided through two bleed ports (mid-compressor and compressor discharge). See CT7-9B/-9C/-9C3 Installation Manual SEI-726.</td>
<td></td>
</tr>
</tbody>
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IV. Operational Limits

Limitations are AEO unless labeled OEI.

1. Temperature Limits

Maximum Gas Generator Inter-Turbine Temperature (T4.5/ITT), °C (°F)

T4.5 is measured at the inlet of the LP Turbine.

<table>
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<tr>
<th>Rating</th>
<th>CT7-8</th>
<th>CT7-8A, -8B</th>
<th>CT7-8A5, -8B5, -8E, -8E5, -8F, -8FS</th>
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<tr>
<td>30-Second OEI</td>
<td>1010 (1851)</td>
<td>1049 (1821)</td>
<td>1049 (1821)</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>990 (1814)</td>
<td>1006 (1843)</td>
<td>1006 (1843)</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>N/A</td>
<td>988 (1811)</td>
<td>988 (1811)</td>
</tr>
<tr>
<td>30-Minute OEI</td>
<td>979 (1794)</td>
<td>988 (1811)</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum Transient (12 sec)</td>
<td>987 (1809)</td>
<td>1003 (1838)</td>
<td>1003 (1838)</td>
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<tr>
<td>Takeoff (5 min)</td>
<td>986 (1807)</td>
<td>995 (1823)</td>
<td>1002 (1835)</td>
</tr>
<tr>
<td>30-Minute</td>
<td>957 (1755)</td>
<td>988 (1811)</td>
<td>988 (1811)</td>
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<tr>
<td>Maximum Continuous</td>
<td>920 (1688)</td>
<td>935 (1715)</td>
<td>935 (1715)</td>
</tr>
<tr>
<td>Starting</td>
<td>1000 (1832)</td>
<td>1000 (1832)</td>
<td>1000 (1832)</td>
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### Rating

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<th>CT7-2E1</th>
<th>CT7-2F1</th>
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<td>30-Second OEI</td>
<td>N/A</td>
<td>N/A</td>
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<td>2-Minute OEI</td>
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<td>915 (1680)</td>
<td>N/A</td>
<td>N/A</td>
<td>968 (1774)</td>
</tr>
<tr>
<td>Flat 30-Sec/2-Min OEI</td>
<td>N/A</td>
<td>1078 (1972)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>N/A</td>
<td>968 (1775)</td>
<td>963 (1765)</td>
<td>948 (1738)</td>
</tr>
<tr>
<td>30-Minute OEI</td>
<td>878 (1613)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum Transient (12 sec)</td>
<td>950 (1742)</td>
<td>974 (1785)</td>
<td>974 (1785)</td>
<td>1011 (1852)</td>
</tr>
<tr>
<td>Takeoff (5 min)</td>
<td>878 (1613)</td>
<td>968 (1775)</td>
<td>963 (1765)</td>
<td>948(1738)</td>
</tr>
<tr>
<td>30-Minute</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>863 (1585)</td>
<td>942 (1727)</td>
<td>897 (1647)</td>
<td>899 (1650)</td>
</tr>
<tr>
<td>Starting</td>
<td>950 (1742)</td>
<td>963 (1766)</td>
<td>963 (1765)</td>
<td>948 (1738)</td>
</tr>
</tbody>
</table>

### 1.2. Oil Temperature, °C (°F)

For all CT7-8 models:

<table>
<thead>
<tr>
<th>Oil Type</th>
<th>Condition</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I (MIL-L-7808)</td>
<td>Cold Start-up</td>
<td>-54 (-65)</td>
<td></td>
</tr>
<tr>
<td>Type II (MIL-L-23699)</td>
<td>Cold Start-up</td>
<td>-40 (-40)</td>
<td></td>
</tr>
<tr>
<td>Type I or II</td>
<td>Normal Operation</td>
<td>132 (270)</td>
<td></td>
</tr>
<tr>
<td>Type I or II</td>
<td>Transient (15 minutes maximum)</td>
<td>149 (300)</td>
<td></td>
</tr>
</tbody>
</table>

For CT7-2A, -6, -6A:

<table>
<thead>
<tr>
<th>Oil Type</th>
<th>Condition</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I (MIL-L-7808)</td>
<td>Cold Start-up</td>
<td>-40 (-40)</td>
<td></td>
</tr>
<tr>
<td>Type II (MIL-L-23699)</td>
<td>Cold Start-up</td>
<td>-40 (-40)</td>
<td></td>
</tr>
<tr>
<td>Type I or II</td>
<td>Normal Operation</td>
<td>150 (302)</td>
<td></td>
</tr>
</tbody>
</table>
For CT7-5A2, -7A, -9B, -9C, -9C3:

<table>
<thead>
<tr>
<th>Oil Type</th>
<th>Condition</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I (MIL-L-7808)</td>
<td>Cold Start-up</td>
<td>-54 (-65)</td>
<td></td>
</tr>
<tr>
<td>Type II (MIL-L-23699)</td>
<td>Cold Start-up</td>
<td>-40 (-40)</td>
<td></td>
</tr>
<tr>
<td>Type I or II</td>
<td>Normal Operation</td>
<td></td>
<td>132 (270)</td>
</tr>
<tr>
<td>Type I or II</td>
<td>Transient (15 minutes maximum)</td>
<td>149 (300)</td>
<td></td>
</tr>
</tbody>
</table>

For CT7-2E1, -2F1:

<table>
<thead>
<tr>
<th>Oil Type</th>
<th>Condition</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I (MIL-L-7808)</td>
<td>Cold Start-up</td>
<td>-50 (-58)</td>
<td></td>
</tr>
<tr>
<td>Type II (MIL-L-23699)</td>
<td>Cold Start-up</td>
<td>-40 (-40)</td>
<td></td>
</tr>
<tr>
<td>Type I or II</td>
<td>Normal Operation</td>
<td></td>
<td>132 (270)</td>
</tr>
<tr>
<td>Type I or II</td>
<td>Transient (15 minutes maximum)</td>
<td>149 (300)</td>
<td></td>
</tr>
</tbody>
</table>

1.3. Fuel Temperature, °C (°F)

Temperature at the boost pump inlet.

For all CT7 models except CT7-2E1 and CT7-2F1:

<table>
<thead>
<tr>
<th>ASTM D 1655 Fuels</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET A (JP-5)</td>
<td>-40 (-40)</td>
<td>57 (135)</td>
</tr>
<tr>
<td>JET B (JP-4)</td>
<td>-54 (-65)</td>
<td>16 (60)</td>
</tr>
</tbody>
</table>

For CT7-2E1, -2F1:

<table>
<thead>
<tr>
<th>ASTM D 1655 Fuels</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET A/A1 (JP-5)/ JP8/8+100</td>
<td>-40 (-40)</td>
<td>60 (140)</td>
</tr>
<tr>
<td>JET B (JP-4)</td>
<td>-54 (-65)</td>
<td>29 (85)</td>
</tr>
</tbody>
</table>

For all CT7 models except CT7-2E1 and CT7-2F1: The maximum allowed fuel viscosity is 12 centistokes. Fuel heating and anti icing additive is not required at fuel temperatures above -26°C.

For CT7-2E1, -2F1: The maximum allowed fuel viscosity is 12 centistokes. Fuel heating and anti icing additive is not required at fuel temperatures above -15°C.
2. Maximum Permissible Rotor Speed

2.1. Gas Generator Speed (Ng), rpm

<table>
<thead>
<tr>
<th>Rating or Operating Speed</th>
<th>CT7-8A, -8A5, -8B, -8B5, -8E, -8E5, -8F</th>
<th>CT7-2A</th>
<th>CT7-8FS</th>
<th>CT7-2E1</th>
<th>CT7-6, -6A</th>
<th>CT7-5A2</th>
<th>CT7-7A</th>
<th>CT7-9B, -9C, -9C3</th>
<th>CT7-9C</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Second OEI</td>
<td>46340</td>
<td>46340</td>
<td>N/A</td>
<td>46340</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>46010</td>
<td>46010</td>
<td>N/A</td>
<td>46010</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2½-Minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>46070</td>
<td>N/A</td>
<td>N/A</td>
<td>46060</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Flat 30-sec/2-Min OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>N/A</td>
<td>45,760</td>
<td>N/A</td>
<td>46010</td>
<td>45907</td>
<td>45907</td>
<td>45900</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>30-Minute OEI</td>
<td>45760</td>
<td>N/A</td>
<td>45430</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Takeoff (5 min)</td>
<td>46010</td>
<td>46010</td>
<td>45430</td>
<td>46100</td>
<td>45907</td>
<td>45907</td>
<td>45900</td>
<td>45000</td>
<td>45000</td>
</tr>
<tr>
<td>Max Takeoff</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>30-Minute</td>
<td>45350</td>
<td>45,760</td>
<td>N/A</td>
<td>46010</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Max Continuous</td>
<td>44660</td>
<td>44660</td>
<td>45240</td>
<td>44660</td>
<td>45907</td>
<td>45907</td>
<td>45420</td>
<td>44720</td>
<td>44720</td>
</tr>
<tr>
<td>Max Transient (12 sec)</td>
<td>46120</td>
<td>46120</td>
<td>47000</td>
<td>46120</td>
<td>46137</td>
<td>46137</td>
<td>47440</td>
<td>47000</td>
<td>47000</td>
</tr>
</tbody>
</table>

100 percent Ng is defined for all CT7 models as 44700 rpm.

2.2. Power Turbine Speed (Np), rpm

<table>
<thead>
<tr>
<th>Rating or Operating Speed</th>
<th>CT7-8B, -8B5</th>
<th>CT7-8E, -8E5</th>
<th>CT7-8F, -8F5</th>
<th>CT7-2A</th>
<th>CT7-2E1</th>
<th>CT7-2F1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Rating**</td>
<td>21945</td>
<td>20900</td>
<td>20872</td>
<td>20841</td>
<td>21000</td>
<td>21420</td>
</tr>
<tr>
<td>Minimum Governing</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>19000</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum Governing</td>
<td>21945</td>
<td>20900</td>
<td>20872</td>
<td>20841</td>
<td>21000</td>
<td>22000</td>
</tr>
<tr>
<td>Maximum Permissible</td>
<td>22200</td>
<td>22200</td>
<td>22200</td>
<td>22200</td>
<td>21000</td>
<td>22000</td>
</tr>
<tr>
<td>Maximum Transient (12 sec)</td>
<td>24350</td>
<td>24350</td>
<td>24350</td>
<td>24350</td>
<td>22500</td>
<td>23100</td>
</tr>
</tbody>
</table>

* Output for these turboprop models is specified as propeller speed (gear reduced Np).
** The Nominal Rating defines 100 percent Np for each model.
### 3. Torque, Nm (ft-lb)

Maximum torque on the power turbine shaft during operation.

<table>
<thead>
<tr>
<th>Rating</th>
<th>CT7-8</th>
<th>CT7-8A*, -8A5, -8B, -8B5, -8E*, -8E5, -8F, -8F5</th>
<th>CT7-8F</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Second OEI</td>
<td>916 (676)</td>
<td>952 (702)</td>
<td>995 (734)</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>862 (636)</td>
<td>895 (660)</td>
<td>895 (660)</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>N/A</td>
<td>868 (640)</td>
<td>868 (640)</td>
</tr>
<tr>
<td>30-Minute OEI</td>
<td>819 (604)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Takeoff (5 min)</td>
<td>818 (603)</td>
<td>895 (660)</td>
<td>895 (660)</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>712 (525)</td>
<td>827 (610)</td>
<td>827 (610)</td>
</tr>
<tr>
<td>Maximum Transient (12 sec)</td>
<td>865 (638)</td>
<td>1053 (777)</td>
<td>1053 (777)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rating</th>
<th>CT7-2A</th>
<th>CT7-2E1*</th>
<th>CT7-2F1*</th>
<th>CT7-6/6A</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Second OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>779 (575)</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>770 (575)</td>
<td>N/A</td>
</tr>
<tr>
<td>2½-minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>759 (560)</td>
</tr>
<tr>
<td>Flat 30-Sec/2-Min OEI</td>
<td>N/A</td>
<td>779 (575)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>30-Minute OEI</td>
<td>678 (500)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>N/A</td>
<td>698 (515)</td>
<td>698 (515)</td>
<td>742 (547)</td>
</tr>
<tr>
<td>Takeoff (5 min)</td>
<td>678 (500)</td>
<td>698 (515)</td>
<td>698 (515)</td>
<td>742 (547)</td>
</tr>
<tr>
<td>Maximum Takeoff (5 min)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>30-Minute</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>610 (450)</td>
<td>664(490)</td>
<td>664(490)</td>
<td>662 (488)</td>
</tr>
<tr>
<td>Maximum Transient (12 sec)</td>
<td>949 (700)</td>
<td>739(545)</td>
<td>739(545)</td>
<td>949 (700)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rating</th>
<th>CT7-5A2</th>
<th>CT7-7A</th>
<th>CT7-9B, -9C, -9C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Second OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2½-minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Flat 30-Sec/2-Min OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>30-Minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Takeoff (5 min)</td>
<td>569 (420)</td>
<td>560 (413)</td>
<td>692 (510)</td>
</tr>
<tr>
<td>Maximum Takeoff (5 min)</td>
<td>569 (420)</td>
<td>587 (433)</td>
<td>692 (510)</td>
</tr>
<tr>
<td>30-Minute</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>527 (389)</td>
<td>527 (389)</td>
<td>624 (460)</td>
</tr>
<tr>
<td>Maximum Transient (12 sec)</td>
<td>678 (500)</td>
<td>678 (500)</td>
<td>814 (600)</td>
</tr>
</tbody>
</table>

* Values shown are engine capabilities when the FADEC is not set to observe the more restrictive rotorcraft limitations. See Note 3.
4. Pressure

4.1. Fuel Pressure, kPa (psi)

Fuel pressure at the engine boost pump inlet.

THIS APPLIES TO ALL CT7 MODELS:

For all operation, including starts, the minimum pressure shall be 6,9 kPa (1,0 psi) above true vapour pressure of the fuel, with a vapour/liquid ratio less than or equal to 1,0. Maximum fuel pressure shall be 344,7 kPa (50 psi) above absolute ambient atmospheric pressure. In addition, minimum fuel pressure during starting shall be no lower than atmospheric pressure (or tank pressure, whichever is higher) minus 19,3 kPa (2,8 psi).

4.2. Oil Pressure, kPa (psid)

THIS APPLIES TO ALL CT7 MODELS:

<table>
<thead>
<tr>
<th>Oil Pressure Limit</th>
<th>CT7-2A</th>
<th>CT7-5A2, -7A, -9B, -9C, -9C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground idle, minimum</td>
<td>N/A</td>
<td>138 (20)</td>
</tr>
<tr>
<td>Operating range</td>
<td>276 - 690 (40 -100)</td>
<td>207 - 690 (30 -100)</td>
</tr>
<tr>
<td>Power unit</td>
<td>207 - 690 (30 -100)</td>
<td>N/A</td>
</tr>
<tr>
<td>Ground idle, minimum</td>
<td>N/A</td>
<td>138 (20)</td>
</tr>
<tr>
<td>Operating range</td>
<td>N/A</td>
<td>207 - 690 (30 -100)</td>
</tr>
<tr>
<td>Propeller gearbox</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ground idle, minimum</td>
<td>N/A</td>
<td>34,5 - 172 (5-25)</td>
</tr>
<tr>
<td>Operating range</td>
<td>N/A</td>
<td>172 - 965 (25-140)</td>
</tr>
</tbody>
</table>

Maximum for continuous operation: 689,5 kPa (100 psid)

5. Installation Assumptions

The installation assumptions are stated in the appropriate engine Installation Manual.

6. Time Limited Dispatch

The engine is Approved for Time Limited Dispatch:

CT7-8, -8A

The engine is approved for Time Limited Dispatch in accordance with JAR-E 510 (e) / CS-E 1030 as applicable to the type design. The maximum rectification period for each dispatchable state is specified in the Airworthiness Limitations Section of the applicable GE manual (GEK 105159). Details of the fault codes, various configurations and maximum operating intervals are in GE Report No. GEK 112652, Control System Time Limited Dispatch Summary for the Sikorsky S92/CH148 Helicopter.

CT7-2F1

The engine is approved for Time Limited Dispatch in accordance with CS-E 1030 as applicable to the type design. Maintenance requirements for engine control systems are contained in the Engine Maintenance Manual GEK 112043-03. Details of the fault codes, various configurations and maximum operating intervals are in GEK 112046, Control System Time Limited Dispatch Summary for the Bell 525 Helicopter.
The engine is not approved for Time Limited Dispatch:

CT7-2A, -2E1
CT7-8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5

The engine is not approved for Time Limited Dispatch in accordance with JAR-E 510 (e) / CS-E 1030 as applicable to the type design

Not applicable:

CT7-2A (SEI-570)
CT7-6, -6A (SEI-695)
CT7-5A2, -7A, -9B, -9C, -9C3 (SEI-576)

V. Operating and Service Instructions

See Note 15

<table>
<thead>
<tr>
<th>Manuals</th>
<th>CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F</th>
<th>CT7-8F5</th>
<th>CT7-2A</th>
<th>CT7-5A2, -7A</th>
<th>CT7-6, -6A</th>
<th>CT7-9B, -9C, -9C3</th>
<th>CT7-2E1</th>
<th>CT7-2F1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Operating Instructions</td>
<td>Geka 105157 (8E, 8E5: Geka 112153)</td>
<td>Geka 114177</td>
<td>SEI-569</td>
<td>SEI-575</td>
<td>SEI-694</td>
<td>SEI-575</td>
<td>Geka 112766</td>
<td>Geka 112102</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instructions for Continued Airworthiness (ICA)</th>
<th>CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F</th>
<th>CT7-8F5</th>
<th>CT7-2A</th>
<th>CT7-5A2, -7A</th>
<th>CT7-6, -6A</th>
<th>CT7-9B, -9C, -9C3</th>
<th>CT7-2E1</th>
<th>CT7-2F1</th>
</tr>
</thead>
</table>

VI. Notes

1. The Principle Dimensions are nominal values for reference only. More exact dimensions are defined in the Installation Manual Drawing found in the relevant engine Installation Manual.

2. Dry weight includes basic engine accessories and optional equipment as listed in the manufacturer's engine specification. Weight does not include FADEC cable from engine harness connectors to an aircraft-mounted FADEC.
3. For CT7-2A, -6, -6A, -8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5:

The engine ratings are based on dry sea-level static ICAO standard condition of 15°C (59°F) and 101,3 kPa (29.92 inches Hg). The engine ratings specified are the minimum guaranteed and are based on calibrated test stand performance with no external air bleed for aircraft accessories, no anti-icing airflow, with GE Aviation air inlet, GE Aviation P/N 1076662-542 (CT7-2A) or P/N17A132-505 (CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5), and shaft shield, P/N 17A132-506 or GE Aviation P/N 1076662-486 (CT7-6, -6A), and shaft shield, GE Aviation P/N 1076662-592. CT7-8F5 outer bellmouth adapter, P/N 17A210-005, and inner bellmouth adapter, P/N 17A210-004. Exhaust configuration as defined by GE Aviation P/N 1076662-524 or P/N 107662-554 (CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5).

The following engine performance decks are the prime source of engine performance data throughout the flight envelope:

<table>
<thead>
<tr>
<th>Engine Deck</th>
<th>CT7-2A</th>
<th>CT7-8A</th>
<th>CT7-8E</th>
<th>CT7-8F5</th>
</tr>
</thead>
<tbody>
<tr>
<td>83102 (CT7-2A)</td>
<td>85163 (CT7-2D/2D1)</td>
<td>93093 (CT7-6/6A)</td>
<td>L0078C (CT7-8)</td>
<td></td>
</tr>
<tr>
<td>L0078S (CT7-8A)</td>
<td>L0091F (CT7-8A1)</td>
<td>L0081I (CT7-8B5)</td>
<td>L0081G (CT7-8E)</td>
<td></td>
</tr>
<tr>
<td>L0096G (CT7-8A7)</td>
<td>L0081F (CT7-8B)</td>
<td>L0081J (CT7-8B5)</td>
<td>L0081K (CT7-8E5)</td>
<td></td>
</tr>
<tr>
<td>L0081K (CT7-8E5)</td>
<td>L0081H (CT7-8F)</td>
<td>L0091W (CT7-8F5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Power ratings for the CT7-8A and -8E are based on operation in test cell mode (engine capabilities), which disables the FADEC torque limiting corresponding to the rotorcraft capabilities. In their respective rotorcraft installations, the FADEC applies the following torque limits in N-m (ft-lb):  

<table>
<thead>
<tr>
<th>Engine Rating</th>
<th>CT7-8A</th>
<th>CT7-8E</th>
<th>CT7-8F5</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Second OEI</td>
<td>953,5 (703,3)</td>
<td>764,7 (564,0)</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>811,6 (598,6)</td>
<td>764,7 (564,0)</td>
<td>816,2 (602,0)</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>811,6 (598,6)</td>
<td>764,7 (564,0)</td>
<td>N/A</td>
</tr>
<tr>
<td>Takeoff (5-Min)</td>
<td>743,9 (548,7)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>N/A</td>
<td>634,4 (467,9)</td>
<td>816,2 (602,0)</td>
</tr>
</tbody>
</table>

See also, engine Installation Manual and Operating Instructions for additional details.

For CT7 -5A2, -7A:

Static sea level standard conditions of 15°C (59°F) and 101,3 kPa (29.92 inches Hg). No inlet system loss, no anti-icing, no customer bleed or power extraction. Exhaust system specified per Note 36 in the installation drawing.

Engine performance decks #85151 (CT7-5A2), #84129 (CT7-7A) summarize performance data. CT7-5A2 takeoff flat rated to 34°C, maximum continuous flat rated to 35°C. CT7-7A takeoff flat rated to 33°C, maximum continuous flat rated to 30°C

For CT7 -9B, -9B1, -9B2, -9C -9C3:

Static sea level standard conditions of 15°C (59°F) and 101,3 kPa (29.92 inches Hg). No inlet system loss, no anti-icing, no customer bleed or power extraction. Exhaust system specified per Note 36 in the installation drawing.

The following engine performance decks summarise the data:

<table>
<thead>
<tr>
<th>Engine Deck</th>
<th>CT7-9C</th>
<th>CT7-9B</th>
</tr>
</thead>
<tbody>
<tr>
<td>88252A (CT7-9C)</td>
<td>95031A (CT7-9C3)</td>
<td>88250A (CT7-9B)</td>
</tr>
</tbody>
</table>
Alternate performance defined by 88250B applies to CT7-9B engines that comply with GE Service Bulletin 73-0046. The Service Bulletin configures the CT7-9B engine with an alternate fuel control that is capable of increased fuel flow at high throttle positions.

CT7-9B1/9B2, There are no current applications for these engine models.

For CT7-9B:
Maximum takeoff flat rated to 34°C, normal takeoff flat rated to 34°C, maximum continuous flat rated to 33°C.

CT7-9C:
Maximum takeoff flat rated to 35°C, normal takeoff flat rated to 41°C, maximum continuous flat rated to 41°C.

CT7-9C3:
Maximum takeoff flat rated to 38.5°C, normal takeoff flat rated to 38.5°C, maximum continuous flat rated to 41°C.

For CT7-2E1:
Static sea level standard conditions of 15°C (59°F) and 101,3 kPa (29.92 inches Hg).
GE Aircraft Engines air inlet, GE Aviation P/N 1076662-542 and shaft shield, GE Aviation P/N 1076662-592.
Exhaust configuration as defined by GE Aviation P/N 1076662-524 or P/N 1076662-554.
No inlet system loss, no anti-icing airflow, no customer bleed airflow or power extraction.
Engine performance deck #L0098W (CT7-2E1) is the prime source of engine performance data throughout the flight envelope.

Power ratings for the CT7-2E1 are based on operation in test cell mode (engine capabilities), which disables the FADEC torque limiting corresponding to the rotorcraft capabilities. In its rotorcraft installation, the FADEC applies the following torque limits in N-m (ft-lb):

<table>
<thead>
<tr>
<th>Airframe Rating</th>
<th>CT7-2E1</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Minute</td>
<td>482,0 (355,5)</td>
</tr>
<tr>
<td>30-second OEI</td>
<td>714,7 (527,2)</td>
</tr>
<tr>
<td>2-minute OEI</td>
<td>677,3 (499,6)</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>590,0 (435,2)</td>
</tr>
</tbody>
</table>

See also, Installation Manual GEK 112765 and Operating Instructions GEK 112766 for additional details.

For CT7-2F1:
Static sea level standard conditions of 15°C (59°F) and 101,3 kPa (29.92 inches Hg).
GE Aircraft Engines air inlet, GE Aviation P/N 1076662-542 and shaft shield, GE Aviation P/N 1076662-592.
Exhaust configuration as defined by GE Aviation P/N 1076662-524 or P/N 1076662-554.
No inlet system loss, no anti-icing airflow, no customer bleed airflow or power extraction.
Engine performance deck #L0098Q (CT7-2F1) is the prime source of engine performance data throughout the flight envelope.

Power ratings for the CT7-2F1 are based on operation in test cell mode (engine capabilities), which disables the FADEC torque limiting corresponding to the rotorcraft capabilities. In its rotorcraft installation, the FADEC applies the following torque limits in N·m (ft·lb):

<table>
<thead>
<tr>
<th>Contingency/OEI</th>
<th>Torque Limit (per engine)</th>
<th>Total Torque Limit (two engines)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 second</td>
<td>718.6 (530)</td>
<td>1305.7 (963)*</td>
</tr>
<tr>
<td>2 minute</td>
<td>718.6 (530) +</td>
<td>1305.7 (963)*</td>
</tr>
<tr>
<td>Continuous</td>
<td>618.3 (456) +</td>
<td>1305.7 (963)*</td>
</tr>
<tr>
<td>AEO</td>
<td>30 second OEI</td>
<td>1305.7 (963)**</td>
</tr>
<tr>
<td>5 minute take off</td>
<td>698.3 (515) +</td>
<td>1044.0 (770) +</td>
</tr>
<tr>
<td>Max continuous</td>
<td>664.4 (490) +</td>
<td>932.8 (688) +</td>
</tr>
</tbody>
</table>

*Note that, because an engine may determine that it is in an OEI situation when, in fact the other engine is producing power, Two engine limits are applied in OEI.

**AEO limits are set at the 30 sec OEI limits nominally.

+Limits are based on bits sent to engine by aircraft. The aircraft may or may not choose to use these bits.

Note: All transmission specific limits are at the direction and request of the Airframer.
4. Sea Level Static Power Limits below 15°C (59°F).

<table>
<thead>
<tr>
<th>Rating</th>
<th>CT7-8</th>
<th>CT7-8A</th>
<th>CT7-8A5</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Second OEI</td>
<td>Increases linearly to 1995 kW (2675 shp) at 8°C (47°F), then flat to -49°C (-7°F), decreasing linearly to 1972 kW (2644 shp) at -54°C (-65°F)</td>
<td>Increases linearly to 2051 kW (2750 shp) at 11°C (51°F), then flat to -38°C (-3°F), decreasing linearly to 1972 kW (2645 shp) at -54°C (-65°F)</td>
<td>Flat to -49°C (-7°F), then decreasing to 1985 kW (2662 shp) at -54°C (-65°F)</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>Takeoff (5-min)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>30-Minute AEO</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>Increases linearly to 1573 kW (2110 shp) at 12°C (53°F), then flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rating</th>
<th>CT7-8B</th>
<th>CT7-8B5, 8E5</th>
<th>CT7-8E</th>
<th>CT7-8F, -8F5</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Second OEI</td>
<td>Flat to -39°C (-3°F), then decreasing to 1972 kW (2645 shp) at -54°C (-65°F)</td>
<td>Flat to -38°C (-3°F), then decreasing to 1985 kW (2662 shp) at -54°C (-65°F)</td>
<td>Flat to -42°C (-4°F), then decreasing to 1981 kW (2656 shp) at -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>Continuous OEI</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>30-Minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Takeoff (5-min)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>30-Minute AEO</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>Ratings</td>
<td>CT7-2A</td>
<td>CT7-2E1</td>
<td>CT7-2F1</td>
<td>CT7-6, -6A</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>30-Second OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>Decreases linearly to 1447 kW (1940 shp) at -58°F</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Minute OEI</td>
<td>N/A</td>
<td>N/A</td>
<td>Decreases linearly to 1447 kW (1940 shp) at -58°F</td>
<td>N/A</td>
</tr>
<tr>
<td>Flat 30-second/2-minute OEI</td>
<td>N/A</td>
<td></td>
<td>Decreases linearly to 1476 kW (1980 shp) at -50°C (-58°F)</td>
<td>N/A</td>
</tr>
<tr>
<td>2½-minute OEI</td>
<td>Increases linearly to 1303 kW (1748 shp) at 0°C (32°F). For characteristics below 0°C, refer to Performance Bulletin, SEI-601</td>
<td>N/A</td>
<td></td>
<td>Increase linearly to 1620 kW (2,173 shp at -54°C (-65°F)</td>
</tr>
<tr>
<td>Takeoff (5-min) &amp; Maximum Takeoff* &amp; 30-Min OEI* &amp; Continuous OEI</td>
<td>Increases linearly to 1284 kW (1,722 shp) at 0°C (32°F); increases linearly to 1296 kW (1738 shp) at -5°C (23°F). For characteristics below -5°C, refer to Performance Bulletin, SEI-601.</td>
<td>Flat rated to -29°C (-20°F); decreases linearly to 1433 kW (1922 shp) at -50°C (-58°F)</td>
<td>Flat rated to -31°F, decreases linearly to 1447 kW (1940 shp) at -58°F</td>
<td>Increase linearly to 1589 kW (2,131 shp) at -38°C (-65°F), then flat rated to -54°C (-65°F)</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>Increases linearly to 1573 kW (2110 shp) at 12°C (53°F), then flat rated to -54°C (-65°F)</td>
<td>Flat rated to -50°C (-58°F)</td>
<td>Flat rated to -58°F</td>
<td>Flat rated to -54°C (-65°F)</td>
</tr>
</tbody>
</table>

* Maximum Takeoff and 30-Min OEI are not applicable to the CT7-2E1 and the CT7-2F1.

5. The following optional additive may be used in approved fuels (all CT7 models):

Phillips PFA-55-MB or anti-icing additives to specification MIL-1-27696 at a concentration not in excess of 0,15% by volume.

6. The EASA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness is published in chapter 5 “Airworthiness Limitations” of the applicable Engine Maintenance Manual:

SEI-570 (CT7-2A)
GEK-112043-02 (CT7-2E1)
GEK-112043-03 (CT7-2F1)
SEI-695 (CT7-6, -6A)
SEI-576 (CT7-5A2, -7A, -9B, -9C, -9C3)
GEK-105159 (CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5)
7. Recommended maintenance inspection intervals are published in the Engine Maintenance Manual, GEK 105159 (CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5), SEI-570 (CT7-2A), GEK-112043-02 (CT7-2E1), GEK 112043-03 (CT7-2F1), SEI-695 (CT7-6, -6A), and SEI-576 (CT7-5A2, -7A, -9B, -9C, -9C3).

8. The engine casing and component temperature values and/or nacelle airflow requirements specified in Paragraphs A-8 and A-9 of the Installation Manual, SEI-866 (CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F), and GEK 114116 (CT7-8F5), SEI-520 (CT7-2A), Table B-7 in GEK 112765 (CT7-2E1) and GEK 112103 (CT7-2F1), SEI-693 (CT7-6, -6A), must be observed when installing the engine.

The requirements specified in Paragraph A-9 of Installation Manual SEI-585 must be met when installing the turboprop engine (CT7-5A2, -7A). Similar requirements for CT7-9B, -9C, -9C3 installations are specified in Paragraph A-7 of Installation Manual SEI-726. Compliance with 14 CFR 33.17 Amendment 6 concerning ignition of leaking oil is obtained only when the above requirements are met.

9. Limits have been established for certain models with regard to electromagnetic interference (EMI) and lightning. Refer to the Installation Manual for details:
   - SEI-726 : CT7-9B, -9C, -9C3
   - SEI-866 : CT7-8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F
   - GEK 114116 : CT7-8F5
   - GEK 112765 : CT7-2E1
   - GEK 112103 : CT7-2F1

10. For 8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5, the FADEC system is synchronously governs Np/Nr and incorporates torque matching between engines. Automatic operational limiters are provided for torque, speed and gas generator exhaust gas temperature (T4.5/ITT).

For the CT7-2E1 and CT7-2F1 the FADEC system isosynchronously governs aircraft main rotor speed (Nr) by governing engine output shaft speed (Np), and incorporates torque or power turbine inlet temperature matching (pilot selectable) between engines. The FADEC also provides automatic operational limiters for torque, speed and power turbine inlet temperature (T4.5/ITT) as defined in the Installation Manual GEK 112765 (CT7-2E1) and GEK 112103 (CT7-2F1).

11. For the CT7-2E1 model, in an all engines operating (AEO) condition, the T4.5 limit will be automatically set to the flat 30-second/2-minute OEI limit when the engine senses a PT rotor speed (Np) droop to 95% of the reference speed, or to 99.5% of the reference speed with a rate of decrease faster than 3% per second. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is greater than 99.5% of the reference speed and T4.5 is at least 5.5°C below the AEO T4.5 reference temperature for 3 seconds.

For the CT7-8, -8A, -8A5, -8E, -8E5, -8F and -8F5 models, in an AEO condition, the FADEC provides torque, speed and T4.5 Limiting at takeoff power. For specific models,

CT7-8, -8A, -8A5: The T4.5 limit will be automatically set to 30-second OEI limit when the engine senses an Np droop of more than 5%. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is at or above 99% of the reference Np speed.

CT7-8E, -8E5: The T4.5 limit will be automatically set to 30-second OEI limit when the engine senses an Np droop to 96% or less. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is at or above 99% of the reference Np speed.

CT7-8F, -8F5: The T4.5 limit will be automatically set to 30-second OEI limits when the engine senses an Np droop to 93% or less. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is at or above 99% of the reference Np speed.
Any such event will trigger a 30-second OEI rating cockpit annunciation and post-flight maintenance action in accordance with the Maintenance Manual.

12. The operating / starting envelope is provided in the Engine Installation Manual

13. The Component Maintenance Manual (CMM) for the CT7-8A5, -8B, -8B5, -8E5, -8F FADEC has not been issued. Any FADEC removed from service on a CT7-8A5, -8B, -8B5, -8E5, -8F engine may not be repaired until the CMM is issued.

14. Note deleted, duplication of note 11.

15. For 8, -8A, -8A5, -8B, -8B5, -8E, -8E5, -8F, -8F5, -2E1, and -2F1 models, engine maintenance logic is provided by the FADEC system, which transmits maintenance information over an ARINC data bus. This information includes system fault event indications and power assurance calculation results. For the -8 models, refer to Maintenance Manual GEK 105159 and Installation Manual SEI-866 (-8F5: GEK 114116). For the CT7-2E1, refer to Installation Manual GEK 112765 and Maintenance Manual GEK 112043-02. For the CT7-2F1, refer to Installation Manual GEK 112103 and Maintenance Manual GEK 112043-03.

16. CT7-8A engines and parts thereof manufactured by Vector Aerospace Helicopter Services Inc., 4551 Agar Drive, Richmond, British Columbia, Canada under Licensing Agreement Number 10.0062 with the General Electric Company, are identified by engine Serial Numbers 530001 to 530099.

17. CT7-8F5 engines and parts thereof manufactured by Industria de Turbo Propulsores S. A. (ITP)/Industria de Turbinas Helicoptero S.A. (ITH) Edificio 300, Parque Tecnologico, 48170 Zamudio, Vizcaya, Spain under Appendix of Licensing Agreement Number 79.0055 with GE Aviation are identified by engine Serial Numbers 731004 to 731099 and 733001 to 733100.

18. For the CT7-9C model, the limits for gas generator speed (Ng) and power turbine inlet temperature (T4.5/ITT) at normal takeoff power rating are further defined as follows:

   The Ng limit is 45288 rpm when outside air temperature (OAT) is less than 35°C (95°F). When OAT is between 35°C and 41°C (106°F), the Ng limit varies linearly with OAT. When OAT is greater than 41°C the Ng is 45600 rpm.

   The T4.5/ITT limit is 921°C (1690°F) when OAT is less than 35°C (95°F). When OAT is between 35°C and 41°C (106°F), the T4.5/ITT limit varies linearly with OAT from 921°C (1689°F) to 944°C (1731°F). When OAT is greater than 41°C the T4.5/ITT limit is 950°C (1742°F).

19. The CT7-2A engine control system incorporates total torque limiting capability which limits total torque of a twin engine installation to a combined output of approximately 834 Nm (615 ft-lb) at rated output speed.

20. For CT7-5A2, -7A, -9B, -9C, -9C3: propeller steady state avoidance ranges are 375 to 500 rpm and 625 to 950 rpm.

21. CT7-5A2, -7A, -9B, -9C, -9C3 engines can incorporate a propeller brake assembly as optional equipment. Refer to CT7-5A2, -7A Installation Manual SEI 585 or CT7-9B, -9C, -9C3 Installation Manual SEI 726 for aircraft installation considerations. The aircraft propeller brake system must preclude inadvertent brake applications.
22. Turboprop models (CT7-5A2, -7A, -9B, -9C, -9C3) incorporate a constant torque governing system including overtorque and overtemperature limiting features.

23. For the CT7-9B, -9C, -9C3 models, the normal takeoff power, power turbine inlet temperature (T4.5/ITT) and gas generator speed (Ng) limits are presented for the purpose of defining the maximum T4.5/ITT and Ng at which normal takeoff power can be set to ensure that maximum takeoff power will be achieved if demanded by the automatic power reserve (APR) mechanism in the engine control system and that no maximum limits will be exceeded.

24. The CT7-5A2, -7A, -9B, -9C, -9C3 engines, may be operated under the Derivative Engine Takeoff Rating program as outlined in GE Aviation CT7 Operations Engineering Bulletins 1 and 11, latest Revisions. The Derivative Engine Takeoff Rating reduces the Note 3 flat rating temperatures for maximum takeoff, normal takeoff and maximum continuous by 5°C.


26. CT7-8E engines and parts thereof manufactured by AVIO S.p.A., Strada del Drosso 145, Torino, Italy, under Licensing Agreement Number 79.0055 with the General Electric Company, are identified by engine Serial Numbers 087001 to 087050.

27. For foreign object ingestion abatement, the turboprop CT7-5A2/7A/9B/9C3 shall be fitted with an inlet duct conforming to the following GE Aviation inlet duct reference drawings:

   17A133-912 and SK585500-121 Sheets 1, 2 and 3 (CT7-5A2/7A)
   17A151-828 and 17A151-837 (CT7-9B/9C3)

GE Aviation should be consulted regarding the aerodynamics and structural requirements of this feature.

The turboshaft CT7-8F5 shall be limited to aircraft installation in which it is shown that a bird cannot strike the engine, be ingested into the engine, or adversely restrict airflow into the engine as defined in the Installation Manual (GEK 114116).

28. CT7-8F5: Following an EASA and FAA major change, GE requested to elect to comply with CS-E Initial Issue as a revised certification basis for the CT7-8F5. Following approval of the major change the certification basis for the CT7-8F5 was reidentified as CS-E Initial Issue on the 12.06.2015.

29. CT7-8A/-8E: Following an EASA and FAA major change, GE requested to elect to comply with CS-E Initial Issue as a revised certification basis for the CT7-8A and CT7-8E. Following approval of the major change 10064599

   the certification basis for the CT7-8A and -8E was reidentified as CS-E Initial Issue on 7 February 2018. All CT7-8Es will be issued to the CS-E Initial Issue cert basis. For the CT7-8A, the CS-E Initial Issue cert basis is applicable from engine serial number 947931 onwards.

SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

n/a

II. Type Certificate Holder Record

n/a
### III. Change Record

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