European Aviation Safety Agency

EASA

TYPE-CERTIFICATE
DATA SHEET

No. EASA.A.004

for
AIRBUS A330

Type Certificate Holder:
AIRBUS

1 Rond-point Maurice Bellonte
31707 Blagnac
FRANCE

A330-243F
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SECTION 1: GENERAL (ALL MODELS)

1. Data Sheet No: A.004

2. Airworthiness Category: Large Aeroplanes

3. Performance Category: A

4. Certifying Authority: EASA

5. Type Certificate Holder:
   AIRBUS
   1 Rond-point Maurice Bellonte
   31707 Blagnac, France

6. ETOPS:

   The Type Design, system reliability and performance of A330 model(s) were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, LR2/EASA: AMC 20-6/CMP.

   This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

   The following table provides details on the ETOPS approvals.
<table>
<thead>
<tr>
<th>Variant</th>
<th>Engine Type</th>
<th>120 Min Approval Date</th>
<th>180 Min Approval Date</th>
<th>Beyond 180 Min* Approval Date</th>
<th>Note</th>
</tr>
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<tbody>
<tr>
<td>A330-301</td>
<td>GE CF6-80E1A2</td>
<td>29 April 1994</td>
<td>06 February 1995</td>
<td>13 October 2009</td>
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<tr>
<td>A330-302</td>
<td>GE CF6-80E1A4</td>
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<td>13 October 2009</td>
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<td>A330-303</td>
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<tr>
<td>A330-321</td>
<td>PW 4168-1D</td>
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<td>A330-322</td>
<td>PW 4168-1D</td>
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<td>N/A</td>
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<tr>
<td>A330-323</td>
<td>PW 4168A</td>
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<td>A330-323</td>
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<td>A330-323</td>
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<td>A330-343</td>
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<td>A330-202</td>
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<tr>
<td>A330-223</td>
<td>PW 4168A</td>
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<td>A330-223</td>
<td>PW 4170</td>
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<td>13 October 2009</td>
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<tr>
<td>A330-223F</td>
<td>PW 4170</td>
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<td>A330-223F</td>
<td>Intermix PW 4168A/PW 4168A-1D</td>
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<tr>
<td>A330-243F</td>
<td>RR Trent 772B-60</td>
<td>N/A</td>
<td>09 July 2010</td>
<td>N/A</td>
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</tr>
</tbody>
</table>

* Note: Refer to the Airplane Flight Manual and ETOPS CMP document for maximum diversion time/distance.
SECTION 2: A330-300 SERIES

I. General

1. Aeroplane: Airbus A330-300

II. Certification Basis

1. Reference Application Date for EASA Certification:
   15 June 1988

2. EASA Certification Date (JAA recommendation):
   (DGAC-F TC 184 remains a valid reference for models certified before 28 September 2003).
   - A330-301: 21 October 1993
   - A330-321: 02 June 1994
   - A330-322: 02 June 1994
   - A330-341: 22 December 1994
   - A330-342: 22 December 1994
   - A330-323: 22 April 1999
   - A330-343: 13 September 1999
   - A330-302: 17 May 2004
   - A330-303: 17 May 2004

3. EASA Certification Basis:
   
   JAR 25 Change 13 effective on October 5, 1989 with the following exceptions:
   Deviation on limited areas for compliance against paragraphs 25.561 and 25.562 such as:
   - Compliance at change 12 for wing tank outside the fuselage contour
   - For showing compliance with JAR 25.785 (a)(b)(c), the front row seats located behind a
     bulkhead are not tested according to JAR 25.562(c)(5)(6). Instead, a minimum 35
     inches distance between the seats and the bulkhead is considered an acceptable
     alternative
   
   JAR AWO Change 1
   NPA JAR AWO-3 (Take-off in low visibility)
   OP 91/1 for discrete gust

4. Special Conditions:

   SC G-5  Resistance to fire terminology (NPA 25D-181)
   SC G-7  Function and reliability testing
   SC A-1  Discrete gust requirements (NPA 25C-205)
   SC A-2  Interaction of systems and structure (NPA 25C-199)
   SC A-3  Design manoeuver requirements
   SC A-4  Design dive speed
   SC A-5  Limit pilot forces and torque
   SC A-7  Stalling speeds for structural design
   SC A-11 Aeroelastic stability requirements (NPA 25B, C, D-236)
   SC F-1  Stalling and scheduled operating speeds
   SC F-2  Motion and effects of cockpit controls
   SC F-3  Static longitudinal stability
   SC F-4  Static directional and lateral stability
   SC F-5  Flight envelope protections
   SC F-6  Normal load factor limiting system
   SC S-3  Landing gear warning (NPA 25D-162)
SECTION 2: A330-300 SERIES - continued

- SC S-6  Lightning protection indirect effects
- SC S-10 Effects of external radiations upon aircraft systems
- SC S-13 Autothrust system
- SC S-16 Control signal integrity
- SC S-18 Electronic flight controls
- SC S-20 Emergency electrical power (NPA 25D, F-179)
- SC S-23 Electrical wiring and miscellaneous electrical requirements (NPA 25D, F-191)
- SC S-24 Doors (NPA 25D, F-251)
- SC S-38 Towbarless towing
- SC P-1 FADEC
- SC P-2 Trim tank
- SC E-2 Crew rest
- SC E-5.1 Lower deck Lavatory (applicable from August 2000)
- SC E-8.1 Lower deck stowage area (applicable from August 2000)
- SC E-11 Bulk crew rest compartment (applicable from January 2002)
- SC E-19 F/C sliding screens (applicable from September 2003)
- SC E-128 Improved flammability standards for thermal/acoustic insulation (applicable from February 2009)
- SC E-130 Application of heat release and smoke density requirements to seat materials (applicable from February 2010)
- SC E-1014 HIC compliance for front row seating (inflatable restraints) (applicable from July 2007)
- SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS (applicable from May 2010)

5. Equivalent Safety Findings:

SC F-8 and SC S-21 have been found to provide an equivalent safety level to JAR 25 accelerate-stop and brakes qualification requirements (NPA 25 B, D, G 244)

CRI S-45 provides an equivalent level of safety to JAR 25.1549(a)

CRI S-48 provides an equivalent level of safety to JAR AWO 313

CRI P-9 provides an equivalent level of safety to JAR 25.1203(d)

CRI E-15 provides an equivalent level of safety to JAR 25.772 (applicable from July 2002)

CRI E-18 provides an equivalent level of safety to JAR 25.819(f) (applicable from November 2003)

CRI E-1022 provides an equivalent level of safety to JAR 25.853(b) (applicable from August 2005)

6. Elect to comply

Post TC activity: Compliance with CS 25.811 and CS 25.812 Amdt. 3 issued September 19th 2007 for multi lingual "EXIT" signs (optional modification).

7. Environmental Requirements:

Environmental requirements for noise and vented fuel:

ICAO Annex 16 Volume I – Part II, Chapter 4 for Noise. Compliance with Chapter 4 had originally been demonstrated through MOD 55005. Compliance with Chapter 4 is now achieved without MOD 55005.

(See EASA TCDSN A.004 for details)

ICAO Annex 16 Volume II (Vented Fuel) - Part II, Chapter 2

8. ETOPS Technical Conditions:

For the Extended Twin-Engine Airplane Operations, the applicable technical conditions are contained in AMC 20-6 (AMJ 120-42 / IL 20) and JAA CRI G-6, G-106, EASA CRI G-8.
SECTION 2: A330-300 SERIES - continued

9. A330-302; A330-303; A330-323; A330-342 WV22&52; A330-343 models only:

9.1 Special Condition / Equivalent Safety Finding:
   The following requirements are in addition of Special Conditions / ESF identified in paragraphs 4/5 above:
   - SC F-8.1 is applicable instead of SC F-8
   - ESF S-148 (JAR NPA AWO-8) replaces S-48

9.2 ETOPS Technical Conditions:
   For the Extended Twin-Engine Airplane Operations, the applicable technical conditions are contained in AMC 20-6 (AMJ 120-42 / IL 20) and JAA CRI G-106, EASA CRI G-8.

III. Technical Characteristics and Operational Limitations

Two turbo-fan, medium to long range, twin-aisle, large category airplane.

1. A330-300 powered by General Electric engines

1.1 Type Design Definition:
   - A330-301: 00G000A0301/C00
   - A330-302: 00G000A0302/C00
   - A330-303: 00G000A0303/C00

1.2 Engines
   - A330-301: Two (2) General Electric CF6-80E1A2 turbofan engines
   - A330-302: Two (2) General Electric CF6-80E1A4 or CF6-80E1A4/B turbofan engines
   - A330-303: Two (2) General Electric CF6-80E1A3 turbofan engines

1.2.1 Engine Limits:

<table>
<thead>
<tr>
<th>Engine Limits Data Sheet E41NE (FAA) IM.E.007 (EASA)</th>
<th>A330-301 CF6-80E1A2</th>
<th>A330-302 CF6-80E1A4</th>
<th>A330-303 CF6-80E1A3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static thrust at sea level:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- take-off (5mn) *</td>
<td>64,530 lbs</td>
<td>66,870 lbs</td>
<td>68,530 lbs</td>
</tr>
<tr>
<td>- maximum continuous</td>
<td>60,400 lbs</td>
<td>60,400 lbs</td>
<td>60,400 lbs</td>
</tr>
</tbody>
</table>

Approved oils: conform to GE specification D50TF1 Class B or GE Service Bulletin 79-1

* May be extended to 10 mn in the event of a power unit having failed or been shut down: see notes in Engine TCDS.

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

Note: Thrust “Bump” function capability for A330-302 (option):
   When CF6-80E1A4/B engines are installed, the thrust “Bump” function can be activated for take-off (Mod 52776).
SECTION 2: A330-300 SERIES - continued

1.3 Fuel

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEROSENE: refer to GE Specification D50TF2</td>
<td>JET A, JETA-1, JP5, JP8, N°3 JET Fuel, TS-1, RT</td>
</tr>
</tbody>
</table>

Additives: See GE “Specific Operating Instructions”, installation manual. The above mentioned fuels and additives are also suitable for the APU.

1.4 Limit Speeds:
  Refer to approved Airplane Flight Manual.

1.5 Centre of Gravity Range:
  Refer to approved Airplane Flight Manual.

1.6 Maximum Certified Weights:

Valid for A330-301 only

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>000 (BASIC)</th>
<th>001 (42200)</th>
<th>002 (42600)</th>
<th>003 (44270)</th>
<th>004 (44849)</th>
<th>010 (43308)</th>
<th>051 (51806)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>212</td>
<td>184</td>
<td>212</td>
<td>215</td>
<td>215(*)</td>
<td>217</td>
<td>212</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>174</td>
<td>174</td>
<td>177</td>
<td>177</td>
<td>182</td>
<td>179</td>
<td>187</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>164</td>
<td>164</td>
<td>167</td>
<td>167</td>
<td>172</td>
<td>169</td>
<td>175</td>
</tr>
</tbody>
</table>

((*) Linear variation between those weights

Valid for A330-302 and A330-303 only

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>050 (51805)</th>
<th>052 (51807)</th>
<th>054 (201648 for Production) (202218 for Retrofit)</th>
<th>055 (202462)</th>
<th>056 (202878)</th>
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</thead>
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<tr>
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<td>230</td>
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<td>MZFW (T)</td>
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<td>173 to 175</td>
<td>175</td>
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Valid for A330-302 only

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<tr>
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<tr>
<td>MLW (T)</td>
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</tr>
<tr>
<td>MZFW (T)</td>
<td>173</td>
</tr>
</tbody>
</table>
SECTION 2: A330-300 SERIES - continued

1.7 Note:
Aircraft model conversion:
A330-301 can be converted into A330-303 by application of Airbus Service Bulletin A330-00-3036 covering modification 53107.

2. A330-300 powered by Pratt & Whitney engines

2.1 Type Design Definition:
- A330-321: 00G000A0321/C00
- A330-322: 00G000A0322/C00
- A330-323: 00G000A0323/C00

2.2 Engines:
- A330-321: Two (2) Pratt & Whitney 4164 turbofan engines
- A330-321: Two (2) Pratt & Whitney 4164-1D turbofan engines
- A330-322: Two (2) Pratt & Whitney 4168 turbofan engines
- A330-322: Two (2) Pratt & Whitney 4168-1D turbofan engines
- A330-323: Two (2) Pratt & Whitney 4168A turbofan engines
- A330-323: Two (2) Pratt & Whitney 4168A-1D turbofan engines
- A330-323: Two (2) Pratt & Whitney 4170 turbofan engines

2.2.1 Engine Limits:

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Static thrust at sea level:</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- take-off (5mn)</td>
<td>64,500 lbs</td>
<td>68,600 lbs</td>
<td>68,600 lbs</td>
<td>70,000 lbs</td>
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<tr>
<td>- maximum continuous</td>
<td>55,800 lbs</td>
<td>59,357 lbs</td>
<td>59,357 lbs</td>
<td>59,357 lbs</td>
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</table>

Approved oils: see Pratt & Whitney engine Service Bulletin N°238, latest revision

* 10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around in accordance with DGAC "Fiche de caractéristiques moteur".

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

Note: Thrust reverser and Exhaust System
Installation of Thrust Reverser and Exhaust System (Reverser Assembly P/N 70M001, Nozzle Assembly P/N 76A008 and Exhaust Plug Assembly P/N 75A001) on PW4164, PW4164-1D, PW4168, PW4168-1D, PW4168A, PW4168A-1D and PW4170 engines according to FAA STC SE825NE is approved.

2.3 Fuel:

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
</table>

Note: The above mentioned fuels and additives are also suitable for the APU.
SECTION 2: A330-300 SERIES - continued

2.4 Limit Speeds:
Refer to approved Airplane Flight Manual.

2.5 Centre of Gravity Range:
Refer to approved Airplane Flight Manual.

2.6 Maximum Certified Weights:

Valid for A330-321 and A330-322 only

<table>
<thead>
<tr>
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<th>000 Basic</th>
<th>002 (42600)</th>
<th>003 (44270)</th>
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<td>215 ((^*)) 209</td>
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<td>218</td>
<td>215</td>
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<tr>
<td>MLW (T)</td>
<td>174</td>
<td>177</td>
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<td>((^*)) 182</td>
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<td>179</td>
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<td>177</td>
</tr>
<tr>
<td>MZFW (T)</td>
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<td>167</td>
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<td>((^*)) 172</td>
<td>167</td>
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<td>167</td>
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(\(^*\)) Linear variation between those weights

Valid for A330-323 only

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<th>025 (49651)</th>
<th>050 (51805)</th>
<th>052 (51807)</th>
<th>054 (201648 for Production)</th>
<th>055 (202462)</th>
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<tr>
<td>MTOW (T)</td>
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</tr>
<tr>
<td>MZFW (T)</td>
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<td>175</td>
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<td>173</td>
<td>175</td>
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<td>173 to 175</td>
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(\(^*\)) 173 to 175 (depending on TOW)

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<td>174</td>
</tr>
<tr>
<td>MZFW (T)</td>
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<td>164</td>
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2.7 Note
Aircraft model conversion:
A330-321 can be converted into A330-322 by application of Airbus Service Bulletin A330-00-3013 covering modification 46661.
SECTION 2: A330-300 SERIES - continued

3. A330-300 powered by Rolls Royce engines

3.1 Type Design Definition:
A330-341: 00G000A0341/C00
A330-342: 00G000A0342/C00
A330-343: 00G000A0343/C00

3.2 Engines:
A330-341: Two (2) Rolls Royce Trent 768-60 turbofan engines
A330-342: Two (2) Rolls Royce Trent 772-60 turbofan engines
A330-343: Two (2) Rolls Royce Trent 772B-60 turbofan engines
A330-343: Two (2) Rolls Royce Trent 772C-60 turbofan engines

3.2.1 Engine Limits:

<table>
<thead>
<tr>
<th>Engine Limits Data Sheet 1050 (CAA)</th>
<th>A330-341</th>
<th>A330-342</th>
<th>A330-343</th>
<th>A330-343</th>
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<tbody>
<tr>
<td>E.042 (EASA) Trent 768-60</td>
<td>Trent 772-60</td>
<td>Trent 772B-60</td>
<td>Trent 772C-60</td>
<td></td>
</tr>
<tr>
<td>Static thrust at sea level:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- take-off (5mn) *</td>
<td>67,500 lbs</td>
<td>71,100 lbs</td>
<td>71,100 lbs</td>
<td>71,100 lbs</td>
</tr>
<tr>
<td>- maximum continuous</td>
<td>60,410 lbs</td>
<td>63,560 lbs</td>
<td>63,560 lbs</td>
<td>63,560 lbs</td>
</tr>
<tr>
<td>Approved oils: See Rolls Royce Service Bulletin RB.211-12-F139, latest revision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS).

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

3.3 Fuel:

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JET fuel, TS-1, RT</td>
</tr>
</tbody>
</table>

Note: The above mentioned fuels and additives are also suitable for the APU.

3.4 Limit Speeds:
Refer to approved Airplane Flight Manual.

3.5 Centre of Gravity Range:
Refer to approved Airplane Flight Manual.
SECTION 2: A330-300 SERIES - continued

3.6 Maximum Certified Weights

**Valid for A330-341 and A330-342 only**

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>000 (42600)</th>
<th>002 (44270)</th>
<th>003 (44849)</th>
<th>004 (43308)</th>
<th>010 (44803)</th>
<th>011 (45086)</th>
<th>012 (46688)</th>
<th>013 (48377)</th>
<th>014 (48377)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>212</td>
<td>212</td>
<td>215</td>
<td>215 (*)</td>
<td>217</td>
<td>212</td>
<td>218</td>
<td>215</td>
<td>205</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>174</td>
<td>177</td>
<td>177</td>
<td>179</td>
<td>177</td>
<td>182</td>
<td>177</td>
<td>182</td>
<td></td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>164</td>
<td>167</td>
<td>167</td>
<td>169</td>
<td>167</td>
<td>172</td>
<td>167</td>
<td>172</td>
<td></td>
</tr>
</tbody>
</table>

(*) Linear variation between those weights

**Valid for A330-342 and A330-343 only**

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>022 (47785)</th>
<th>052 (51807)</th>
<th>054 (201648 for Production) (202218 for Retrofit)</th>
<th>055 (202462)</th>
<th>056 (202878)</th>
<th>057 (203716)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>233</td>
<td>233</td>
<td>235</td>
<td>235</td>
<td>205</td>
<td>184</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>187</td>
<td>187</td>
<td>187</td>
<td>187</td>
<td>187</td>
<td>174</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>175</td>
<td>175</td>
<td>173</td>
<td>173 to 175  (depending on TOW)</td>
<td>175</td>
<td>164</td>
</tr>
</tbody>
</table>

**Valid for A330-343 only**

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>020 Basic (48350)</th>
<th>024 (51805)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>230</td>
<td>205</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>185</td>
<td>185</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>173</td>
<td>173</td>
</tr>
</tbody>
</table>

3.7 Note
It is feasible for A330-343 to be fitted with RR Trent 772 engines by application of Service Bulletin 72-3008 (Mod 49684) and to be reverted to RR Trent 772B engines installation by Service Bulletin 72-3009 (Mod 49685).

Aircraft model conversion:
A330-343 can be converted into A330-342 by application of Airbus Service Bulletin A330-00-3039 covering modification 50943.
4. Data pertinent to all A330-300 series

4.1 Fuel quantity (0.8 kg/liter):

<table>
<thead>
<tr>
<th>TANK</th>
<th>2-TANK AIRPLANE</th>
<th>Usable fuel liters (kg)</th>
<th>Unusable fuel liters (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A330-301</td>
<td>A330-302/-303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A330-321/-322</td>
<td>A330-323</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A330-341/-342</td>
<td>A330-343</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A330-342 except WV22 &amp; 52</td>
<td>A330-342 WV22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WING 91764 (73 411)</td>
<td>91300 (73 040)</td>
<td>348 (279)</td>
<td></td>
</tr>
<tr>
<td>TRIM TANK 6 121 (4 897)</td>
<td>6 230 (4 984)</td>
<td>6 (5)</td>
<td></td>
</tr>
<tr>
<td>TOTAL 97 885 (78 308)</td>
<td>97 530 (78 024)</td>
<td>354 (284)</td>
<td></td>
</tr>
</tbody>
</table>

4.2 Minimum Flight Crew:
Two (2): Pilot and Co-pilot

4.3 Maximum Seating Capacity:
The maximum number of passengers approved for emergency evacuation is:
- 375 basic (3 Type A and 1 Type 1 doors installed)
- 440 option (4 Type A doors installed – Mod 40161)

See interior layout drawing for the maximum passenger capacities approved for each aeroplane when delivered.

4.4 Cargo compartment loading:

<table>
<thead>
<tr>
<th>Cargo compartment</th>
<th>Maximum load (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td>22861</td>
</tr>
<tr>
<td>Aft</td>
<td>18507</td>
</tr>
<tr>
<td>Rear (bulk)</td>
<td>3468</td>
</tr>
</tbody>
</table>

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights), see Weight and Balance Manual ref. 00G080A0006/C3S.

4.5 Environmental Flight Envelope:
Refer to approved Airplane Flight Manual.

4.6 Other Limitations:
Refer to approved Airplane Flight Manual.

4.7 Auxiliary Power Unit (APU):
One GARRETT GTCP 331-350C (Specification 31-7677A)
Oils: refer to applicable approved Manual
SECTION 2: A330-300 SERIES - continued

4.8 Equipment:
The equipment required by the applicable requirements shall be installed.
Cabin furnishings, equipment and arrangement shall conform to the following specification:
- 00F252K0005/C01 for cabin seats
- 00F252K0006/C01 for galley
- 00F252K0020/C01 for cabin attendant seats

4.9 All Weather Capabilities:

A330-301:
- If modification 42390 is embodied the aircraft is qualified to Cat 2 precision approach
- If modification 42792 is embodied the aircraft is qualified to Cat 3 precision approach and autoland

A330-321 / A330-322:
- If modification 43397 is embodied the aircraft is qualified to Cat 3 precision approach and autoland

A330-323:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

A330-341 / A330-342:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

A330-343:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

A330-302 / A330-303:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

4.10 Wheels and Tyres:
Refer to Airbus Service Bulletin A330-32-3004.

4.11 Hydraulics:
Fluid specifications: TYPE IV (NSA 307-110).

4.12 Maintenance Instructions and Airworthiness Limitations:

- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by EASA;
- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) Part 2 approved by EASA;
- Certification Maintenance Requirements are provided in the A330 Airworthiness Limitations Section (ALS) Part 3 approved by EASA;
- Limitations applicable to Ageing System Maintenance are provided in the A330 Airworthiness Limitation Section (ALS) Part 4 approved by EASA;
- Fuel Airworthiness Limitations are provided in the A330 Airworthiness Limitations Section (ALS) Part 5 approved by EASA;
SECTION 3: A330-200 SERIES

I. General

1. Aeroplane: Airbus A330-200

II. Certification Basis

1. Reference Application Date for EASA Certification:
   23 January 1996

2. EASA Certification Date (JAA recommendation):
   (DGAC-F TC 184 remains a valid reference for models certified before 28. September 2003)
   - A330-201: 31 October 2002
   - A330-203: 20 November 2001
   - A330-243: 11 January 1999

3. EASA Certification Basis:

   JAR 25 Change 13 effective on October 5, 1989 with the following exceptions:
   - Paragraph 25.561 is applied at change 12 for wing tanks outside the fuselage contour
   - For showing compliance with JAR 25.785(a)(b)(c), the front row seats located behind a bulkhead are not tested according to JAR 25.562(c)(5)(6). Instead, a minimum 35 inches distance between the seats and the bulkhead is considered as an acceptable alternative

   The following JAR 25 paragraphs are applicable at change 14:
   - JAR 25.21 Proof of compliance
   - JAR 25.29 Empty weight and corresponding center of gravity
   - JAR 25.101 Performance - General
   - JAR 25.111 Take-off path
   - JAR 25.125 Landing
   - JAR 25.145 Longitudinal control
   - JAR 25.147 Directional and lateral control
   - JAR 25.149 Minimum control speed
   - JAR 25.175 demonstration of static longitudinal stability
   - JAR 25.177 Static directional and lateral stability
   - JAR 25.181 Dynamic stability
   - JAR 25.205 Stalls : critical engine inoperative
   - JAR 25.251 Vibration and buffeting
   - JAR 25.253 High speed Characteristics
   - JAR 25.305 Strength and deformation
   - JAR 25.307 Proof of structure
   - JAR 25.321 Flight loads - general
   - JAR 25.331 Symmetric manoeuvring conditions
   - JAR 25.333 flight envelope
   - JAR 25.335 design airs Tobias
   - JAR 25.341 Gust and turbulence loads
   - JAR 25.343 Design fuel and oil loads
SECTION 3: A330-200 SERIES – continued

JAR 25.345  High lift devices
JAR 25.349  Rolling conditions
JAR 25.351  Yawing manoeuvring conditions
JAR 25.361  Engine and APU torque
JAR 25.371  Gyroscopic loads
JAR 25.373  Speed control devices
JAR 25.391  Control surfaces loads – general
JAR 25.395  Control system
JAR 25.397  Control system loads
JAR 25.415  Ground gust condition
JAR 25.427  Unsymmetrical loads
JAR 25.459  Special devices
JAR 25.571  Damage tolerance
JAR 25.603  Materials: applicable to vertical stabilizer only
JAR 25.613  Material strength properties and design values applicable to vertical stabilizer only
JAR 25.615  Design values: applicable to vertical stabilizer only
JAR 25.679  Control system gust locks
JAR 25.723  Shock absorption tests
JAR 25.729  Landing Gear retracting mechanism
JAR 25.731  Wheels
JAR 25.733  Tyres
JAR 25.735  Brakes
JAR 25.772  Pilot compartment door
JAR 25.777  Cockpit controls
JAR 25.779  Motion and effect of cockpit control
JAR 25.783  Doors
JAR 25.851  Fire extinguishers
JAR 25.863  Flammable fluid fire protection
JAR 25.867  Fire protection: other components
JAR 25X899  Electrical bonding and protection against lightning and static electricity: applicable to vertical stabilizer only
JAR 25.963(g)  Fuel tanks access covers (fuel center tank only)
JAR 25.979  Pressure fuelling system
JAR 25.1303  Flight and navigation instruments
JAR 25.1381  Instrument lights
JAR 25.1415  Ditching equipment
JAR 25.1419  Flight in icing condition
JAR 25.1533  Additional operating limitations
JAR 25.1543  Instrument markings, general
JAR 25.1551  Oil quantity indicator

JAR AWO change I plus:
- orange paper AWO 91/1
- NPA JAR AWO 3
- NPA JAR AWO 8 (CRI S-148)

4. Special Conditions:

SC G-105  Resistance to fire
SC G-7  Function and reliability testing
SC A-2  Interaction of systems and structure
SC A-3  Design manoeuvre requirements
SECTION 3: A330-200 SERIES - continued

SC A-4 Design dive speed VD
SC A-5 Limit pilot forces and torque
SC A-7 Stalling speeds for structural design
SC A-11 Aeroelastic stability requirements
SC F-101 Stalling and scheduled operating speeds
SC F-2 Motion and effects of cockpit controls
SC F-3 Static longitudinal stability
SC F-4 Static directional and lateral stability
SC F-5 Flight envelope protections
SC F-6 Normal load factor limiting system
SC S-6 Lightning protection indirect effects
SC S-10 Effects of external radiations upon aircraft systems
SC S-10.1 Effects of external radiations upon aircraft systems
SC S-10.2 Effects of external radiations upon aircraft systems
SC S-13 Autothrust system
SC S-16 Control signal integrity
SC S-18 Electronic flight control
SC S-20 Emergency electrical power
SC S-23 Electrical wiring and miscellaneous electrical requirements
SC S-38 Towbarless towing
SC P-1 FADEC
SC P-2 Trim Tank
SC P-27 Flammability Reduction System (applicable from June 2010)
SC E-2 Underfloor Crew rest compartment
SC E-5.1 Lower Deck Lavatory (applicable from August 2000)
SC E-8.1 Lower Deck Stowage Area (applicable from August 2000)
SC E-11 Bulk crew rest compartment (applicable from January 2002)
SC E-19 F/C sliding screens (applicable from September 2003)
SC E-128 Improved flammability standards for thermal/acoustic insulation (applicable from February 2009)
SC E-130 Application of heat release and smoke density requirements to seat materials (applicable from February 2010)
SC E-1014 HIC compliance for front row seating (inflatable restraints) (applicable from July 2007)
SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS (applicable from May 2010)

5. Equivalent Safety Findings:

SC F-8.1 and SC S-21 have been found to provide an equivalent safety level to JAR 25 accelerate-stop and brakes qualification requirements (NPA 25 B, D, G 244)
CRI S-45 provides an equivalent level of safety to JAR 25.1549(a)
CRI P-9 provides an equivalent level of safety to JAR 25.1203(d)
CRI E-15 provides an equivalent level of safety to JAR 25.772 (applicable from July 2002)
CRI E-18 provides an equivalent level of safety to JAR 25.819(f) (applicable from November 2003)
CRI E-1022 provides an equivalent level of safety to JAR 25.853(b) (applicable from August 2005)

6. Elect to comply

Post TC activity: Compliance with CS 25.811 and CS 25.812 Amdt. 3 issued September 19th 2007 for multi lingual “EXIT” signs (optional modification).
SECTION 3: A330-200 SERIES - continued

7. Environmental Requirements:

Environmental requirements for noise and vented fuel:
ICAO Annex 16 Volume I – Part II, Chapter 4 for Noise.
Compliance with Chapter 4 had originally been demonstrated through MOD 55005.

Compliance with Chapter 4 is now achieved without MOD 55005.
(See EASA TCDSN A.004 for details)
ICAO Annex 16 Volume II (Vented Fuel) - Part II, Chapter 2

8. ETOPS Technical Conditions:

For the Extended Twin-Engine Airplane Operations, the applicable technical conditions are contained in AMC 20-6 (AMJ 120-42 / IL 20) and JAA CRI G-106, EASA CRI G-8.

III. Technical Characteristics and Operational Limitations

Two turbo-fan, medium to long range, twin-aisle, large category airplane.

1. A330-200 powered by General Electric engines

    1.1 Type Design Definition:
        A330-201: 00G000A0201/C00
        A330-202: 00G000A0202/C00
        A330-203: 00G000A0203/C00

    1.2 Engines:
        A330-201: Two (2) General Electric CF6-80E1A2 turbofan engines
        A330-202: Two (2) General Electric CF6-80E1A4 or CF6-80E1A4/B turbofan engines
        A330-203: Two (2) General Electric CF6-80E1A3 turbofan engines

    1.2.1 Engine Limits:

<table>
<thead>
<tr>
<th>Engine Limits Data Sheet E41NE (FAA) IM.E.007 (EASA)</th>
<th>A330-201 CF6-80E1A2</th>
<th>A330-202 CF6-80E1A4</th>
<th>A330-203 CF6-80E1A3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static thrust at sea level:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- take-off (5mn) *</td>
<td>64,530 lbs</td>
<td>66,870 lbs</td>
<td>68,530 lbs</td>
</tr>
<tr>
<td>- maximum continuous</td>
<td>60,400 lbs</td>
<td>60,400 lbs</td>
<td>60,400 lbs</td>
</tr>
<tr>
<td>Approved oils: conform to GE specification D50TF1 Class B or GE Service Bulletin 79-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* may be extended to 10 mn in the event of a power unit having failed or been shut down: see notes in Engine TCDS.

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

Note: Thrust "Bump" function capability for A330-202 (option):
When CF6-80E1A4/B engines are installed, the thrust “Bump” function can be activated for take-off (Mod 52776).
SECTION 3: A330-200 SERIES - continued

1.3 Fuel:

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEROSENE: refer to GE Specification D50TF2</td>
<td>JET A, JETA-1, JP5, JP8, N°3 JET fuel, TS-1, RT</td>
</tr>
</tbody>
</table>

Note: The above mentioned fuels and additives are also suitable for the APU.

1.4 Limit Speeds:
Refer to approved Airplane Flight Manual.

1.5 Centre of Gravity Range:
Refer to approved Airplane Flight Manual.

1.6 Maximum Certified Weights:

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>020 (BASIC)</th>
<th>021 (46892)</th>
<th>022 (47784)</th>
<th>023 (47888)</th>
<th>024 (49819)</th>
<th>026 (51712)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validity</td>
<td>A330-201</td>
<td>-</td>
<td>-</td>
<td>A330-201</td>
<td>A330-201</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>A330-202</td>
<td>-</td>
<td>A330-202</td>
<td>A330-202</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MTOW (T)</td>
<td>230</td>
<td>230</td>
<td>233</td>
<td>233</td>
<td>202</td>
<td>192</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>180</td>
<td>182</td>
<td>182</td>
<td>180</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>168</td>
<td>170</td>
<td>170</td>
<td>168</td>
<td>168</td>
<td>168</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>050 (51802)</th>
<th>051 (51803)</th>
<th>052 (51804)</th>
<th>053 (53109)</th>
<th>054 (54106)</th>
<th>055 (54107)</th>
<th>056 (55813)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>230</td>
<td>192</td>
<td>233</td>
<td>210</td>
<td>230</td>
<td>192</td>
<td>233</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>180</td>
<td>180</td>
<td>182</td>
<td>180</td>
<td>182</td>
<td>182</td>
<td>180</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>168</td>
<td>168</td>
<td>170</td>
<td>168</td>
<td>170</td>
<td>170</td>
<td>168</td>
</tr>
</tbody>
</table>

Valid for A330-201/-202/-203

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>057 (58859 for Production) (201436 for Retrofit)</th>
<th>058 (58860 for Production) (201437 for Retrofit)</th>
<th>059 (57439)</th>
<th>060 (57440)</th>
<th>061 (200561)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>236</td>
<td>238</td>
<td>202</td>
<td>220</td>
<td>230</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>182</td>
<td>182</td>
<td>182</td>
<td>182</td>
<td>182</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>170</td>
<td>168</td>
<td>170</td>
<td>170</td>
<td>168</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>062 (201701)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>238</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>182</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>168 to 170   (depending on TOW)</td>
</tr>
</tbody>
</table>
SECTION 3: A330-200 SERIES - continued

1.7 Note:
A330-202 can be fitted with CF6-80E1A2 engines by application of Service Bulletin 72-3003 (Mod 46549), and can be reverted to CF6-80E1A4 engines installation by Service Bulletin 72-3005 (Mod 47332).

Aircraft model conversion:
– A330-203 can be converted into A330-202 by application of Airbus Service Bulletin A330-00-3034 covering modification 53335
– A330-201 can be converted into A330-202 by application of Airbus Service Bulletin A330-00-3051 covering modification 55917

2. A330-200 powered by Pratt & Whitney engines

2.1 Type Design Definition:
A330-223: 00G000A0223/C00

2.2 Engines:
A330-223: Two (2) Pratt & Whitney 4168A turbofan engines
A330-223: Two (2) Pratt & Whitney 4168A-1D turbofan engines
A330-223: Two (2) Pratt & Whitney 4170 turbofan engines

2.2.1 Engine Limits:

<table>
<thead>
<tr>
<th>Engine Limits</th>
<th>A330-223</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Sheet E36NE (FAA)</td>
<td>PW4168A</td>
</tr>
<tr>
<td>M-IM37 (DGAC)</td>
<td>Static thrust at sea level:</td>
</tr>
<tr>
<td></td>
<td>- take-off (5mn) *</td>
</tr>
<tr>
<td></td>
<td>- maximum continuous</td>
</tr>
<tr>
<td></td>
<td>68,600 lbs</td>
</tr>
<tr>
<td></td>
<td>59,357 lbs</td>
</tr>
</tbody>
</table>

Approved oils: see Pratt & Whitney engine Service Bulletin N°238, latest revision

* 10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around in accordance with DGAC "Fiche de caractéristiques moteur".

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

Note: Thrust reverser and Exhaust System
Installation of Thrust Reverser and Exhaust System (Reverser Assembly P/N 70M001, Nozzle Assembly P/N 76A008 and Exhaust Plug Assembly P/N 75A001) on PW4164, 4168, 4168A, 4168A-1D and 4170 engines according to FAA STC SE825NE is approved.

2.3 Fuel:

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
</table>

Note: The above mentioned fuels and additives are also suitable for the APU.
2.4 Limit Speeds:
Refer to approved Airplane Flight Manual.

2.5 Centre of Gravity Range:
Refer to approved Airplane Flight Manual.

2.6 Maximum Certified Weights:

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>020 Basic</th>
<th>021 (46892)</th>
<th>022 (47784)</th>
<th>023 (47888)</th>
<th>050 (51802)</th>
<th>052 (51804)</th>
<th>054 (54106)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>230</td>
<td>230</td>
<td>233</td>
<td>233</td>
<td>230</td>
<td>233</td>
<td>230</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>180</td>
<td>182</td>
<td>182</td>
<td>180</td>
<td>180</td>
<td>182</td>
<td>182</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>168</td>
<td>170</td>
<td>170</td>
<td>168</td>
<td>168</td>
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<td>170</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>055 (54107)</th>
<th>056 (55813)</th>
<th>057 (58859 for Production)</th>
<th>058 (58860 for Production)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>192</td>
<td>233</td>
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</tr>
<tr>
<td>MLW (T)</td>
<td>182</td>
<td>180</td>
<td>182</td>
<td>182</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>170</td>
<td>168</td>
<td>170</td>
<td>168</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>059 (57439)</th>
<th>060 (57440)</th>
<th>061 (200561)</th>
<th>062 (201701)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>202</td>
<td>220</td>
<td>230</td>
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<tr>
<td>MLW (T)</td>
<td>182</td>
<td>182</td>
<td>182</td>
<td>182</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>170</td>
<td>170</td>
<td>168</td>
<td>168 to 170 (depending on TOW)</td>
</tr>
</tbody>
</table>

3. A330-200 powered by Rolls Royce engines

3.1 Type Design Definition:
A330-243: 00G000A0243/C00

3.2 Engines:
A330-243: Two (2) Rolls Royce Trent 772B-60 turbofan engines or two (2) Rolls Royce Trent 772C-60 turbofan engines

3.2.1 Engine Limits:

<table>
<thead>
<tr>
<th>Engine Limits</th>
<th>A330-243 Trent 772B-60</th>
<th>A330-243 Trent 772C-60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static thrust at sea level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- take-off (5mn)</td>
<td>71,100 lbs</td>
<td>71,100 lbs</td>
</tr>
<tr>
<td>- maximum continuous</td>
<td>63,560 lbs</td>
<td>63,560 lbs</td>
</tr>
<tr>
<td>Approved oils: see Rolls Royce Service Bulletin RB.211-12-F139, latest revision</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS).

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.
SECTION 3: A330-200 SERIES - continued

3.3 Fuel:

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JET fuel, TS-1, RT</td>
</tr>
</tbody>
</table>

Note: The above mentioned fuels and additives are also suitable for the APU.

3.4 Limit Speeds:
Refer to approved Airplane Flight Manual.

3.5 Centre of Gravity Range:
Refer to approved Airplane Flight Manual.

3.6 Maximum Certified Weights:

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>020 (BASIC)</th>
<th>021 (46892)</th>
<th>022 (47784)</th>
<th>023 (47888)</th>
<th>024 (49819)</th>
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</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
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<td>230</td>
<td>233</td>
<td>233</td>
<td>202</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>180</td>
<td>182</td>
<td>182</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>168</td>
<td>170</td>
<td>170</td>
<td>168</td>
<td>168</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>025 (50864)</th>
<th>026 (51712)</th>
<th>027 (54519)</th>
<th>050 (51802)</th>
<th>052 (51804)</th>
<th>054 (54106)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
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<td>180</td>
<td>180</td>
<td>182</td>
<td>182</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>170</td>
<td>168</td>
<td>168</td>
<td>168</td>
<td>170</td>
<td>170</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>055 (54107)</th>
<th>056 (55813)</th>
<th>057 (58859 for Production)</th>
<th>058 (58860 for Production)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(201436 for Retrofit)</td>
<td>(201437 for Retrofit)</td>
</tr>
<tr>
<td>MTOW (T)</td>
<td>192</td>
<td>233</td>
<td>236</td>
<td>238</td>
</tr>
<tr>
<td>MLW (T)</td>
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<td>180</td>
<td>182</td>
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</tr>
<tr>
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<td>170</td>
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</tr>
</tbody>
</table>

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<tr>
<th>Variant (MOD)</th>
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</tr>
<tr>
<td>MZFW (T)</td>
<td>170</td>
<td>170</td>
<td>168</td>
<td>168 to 170</td>
</tr>
</tbody>
</table>

(depending on TOW)
4. Data pertinent to all A330-200 series

4.1 Fuel quantity (0.8 kg/liter):

<table>
<thead>
<tr>
<th>TANK</th>
<th>3-TANK AIRPLANE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Usable fuel liters (kg)</td>
<td>Unusable fuel liters (kg)</td>
</tr>
<tr>
<td>WING</td>
<td>91300 (73040)</td>
<td>348 (279)</td>
</tr>
<tr>
<td>CENTER</td>
<td>41 560 (33 248)</td>
<td>83 (67)</td>
</tr>
<tr>
<td>TRIM TANK</td>
<td>6 230 (4 984)</td>
<td>6 (5)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>139 090 (111 272)</td>
<td>437 (350)</td>
</tr>
</tbody>
</table>

4.2 Minimum Flight Crew:
Two (2): Pilot and Co-pilot

4.3 Maximum Seating Capacity:
The maximum number of passengers approved for emergency evacuation is:
- 375 basic (3 Type A and 1 Type 1 doors installed);
- 406 option (4 Type A doors installed – Mod 40161).

See interior layout drawing for the maximum passenger capacities approved for each aeroplane when delivered.

4.4 Cargo compartment loading:

<table>
<thead>
<tr>
<th>Cargo compartment</th>
<th>Maximum load (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td>18869</td>
</tr>
<tr>
<td>Aft</td>
<td>15241</td>
</tr>
<tr>
<td>Rear (bulk)</td>
<td>3468</td>
</tr>
</tbody>
</table>

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights), see Weight and Balance Manual ref. 00G080A0006/C2S.

4.5 Environmental Flight Envelope:
Refer to approved Airplane Flight Manual.

4.6 Other Limitations:
Refer to approved Airplane Flight Manual.

4.7 Auxiliary Power Unit (APU):
One GARRETT GTCP 331-350C (Specification 31-7677A)
Oils: refer to applicable approved Manuals
SECTION 3: A330-200 SERIES - continued

4.8 Equipment

The equipment required by the applicable requirements shall be installed. Cabin furnishings, equipment and arrangement shall conform to the following specification:

- 00F252K0005/C01 for cabin seats
- 00F252K0006/C01 for galley
- 00F252K0020/C01 for cabin attendant seats

4.9 All Weather Capabilities

A330-201 / A330-202 / A330-203:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

A330-223:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

A330-243:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

4.10 Wheels and Tyres

Refer to Airbus Service Bulletin A330-32-3004.

4.11 Hydraulics

Fluid specifications: TYPE IV (NSA 307-110).

4.12 Maintenance Instructions and Airworthiness Limitations

- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by EASA;
- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) Part 2 approved by EASA;
- Certification Maintenance Requirements are provided in the A330 Airworthiness Limitations Section (ALS) Part 3 approved by EASA;
- Limitations applicable to Ageing System Maintenance are provided in the A330 Airworthiness Limitation Section (ALS) Part 4 approved by EASA;
- Fuel Airworthiness Limitations are provided in the A330 Airworthiness Limitations Section (ALS) Part 5 approved by EASA;

4.13 Fuel tank flammability Reduction System (FRS)

If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (Modification 58723). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with Modification 58723.
SECTION 4: A330-200 FREIGHTER SERIES

I. General

1. Aeroplane: Airbus A330-200F

II. Certification Basis

1. Reference Application Date for EASA Certification:
   30 August 2006

2. EASA Certification Date:
   A330-223F: 09 April 2010
   A330-243F: 09 April 2010

3. EASA Certification Basis:
   JAR 25 Change 13 effective on October 5, 1989 with the following exceptions:
   
   - Paragraph 25.561 is applied at change 12 for wing tanks outside the fuselage contour;
   - For showing compliance with JAR 25.785(a)(b)(c), the front row seats located behind a bulkhead are not tested according to JAR 25.562(c)(5)(6). Instead, a minimum 35 inches distance between the seats and the bulkhead is considered as an acceptable alternative.

   Plus following JAR 25 paragraphs applicable at change 14:

   JAR 25.21  Proof of compliance
   JAR 25.29  Empty weight and corresponding center of gravity
   JAR 25.101 Performance - General
   JAR 25.111 Take-off path
   JAR 25.125 Landing
   JAR 25.145 Longitudinal control
   JAR 25.147 Directional and lateral control
   JAR 25.149 Minimum control speed
   JAR 25.175 Demonstration of static longitudinal stability
   JAR 25.177 Static directional and lateral stability
   JAR 25.181 Dynamic stability
   JAR 25.205 Stalls : critical engine inoperative
   JAR 25.251 Vibration and buffeting
   JAR 25.253 High speed Characteristics
   JAR 25.305 Strength and deformation
   JAR 25.307 Proof of structure
   JAR 25.321 Flight loads - general
   JAR 25.331 Symmetric manoeuvring conditions
   JAR 25.333 Flight envelope
   JAR 25.335 Design airspeeds
   JAR 25.341 Gust and turbulence loads
   JAR 25.343 Design fuel and oil loads
   JAR 25.345 High lift devices
SECTION 4: A330-200 FREIGHTER SERIES - continued

JAR 25.349  Rolling conditions
JAR 25.351  Yawing manoeuvring conditions
JAR 25.361  *  Engine and APU torque
JAR 25.371  Gyroscopic loads
JAR 25.373  Speed control devices
JAR 25.391  Control surfaces loads – general
JAR 25.395  Control system
JAR 25.397  *  Control system loads
JAR 25.415  Ground gust condition
JAR 25.427  Unsymmetrical loads
JAR 25.459  *  Special devices
JAR 25.571  Damage tolerance
JAR 25.603  Materials (applicable to vertical stabilizer only)
JAR 25.613  Material strength properties, design values (applicable to vertical stabilizer only)
JAR 25.615  Design values (applicable to vertical stabilizer only)
JAR 25.679  *  Control system gust locks
JAR 25.723  Shock absorption tests
JAR 25.729  Landing Gear retracting mechanism
JAR 25.731  Wheels
JAR 25.733  Tyres
JAR 25.735  Brakes
JAR 25.772  Pilot compartment door
JAR 25.777  Cockpit controls
JAR 25.779  Motion and effect of cockpit control
JAR 25.783  Doors
JAR 25.851  Fire extinguishers
JAR 25.863  Flammable fluid fire protection
JAR 25.867  *  Fire protection: other components
JAR 25X899  Electrical bonding and protection against lightning and static electricity (applicable to vertical stabilizer only)
JAR 25.963(g)  Fuel tanks access covers (fuel center tank only)
JAR 25.979  *  Pressure fuelling system
JAR 25.1303  Flight and navigation instruments
JAR 25.1381  *  Instrument lights
JAR 25.1415  Ditching equipment
JAR 25.1419  *  Flight in icing condition
JAR 25.1533  Additional operating limitations
JAR 25.1543  *  Instrument markings, general
JAR 25.1551  *  Oil quantity indicator

* Paragraphs not modified between JAR 25 and CS 25 Amdt 1.

Plus requirements at CS 25 Amdt 1 for the following paragraphs derived from Part 21.A.101

- For main deck cargo door

SECTION 4: A330-200 FREIGHTER SERIES - continued

- For cargo floor

- For cargo barrier wall

- For NLG attachment point / NLG bay

- For courier area

* See reversion

- For MDCC class E

- For All aircraft
25.853, 25.855

Plus requirements at CS 25 Amdt 4 for Main deck cargo door
25.783

Plus CS 25 Amdt 1 paragraphs elected by Airbus

- All weather operation:
  JAR AWO change I plus:
  - Orange paper AWO 91/1,
  - NPA JAR AWO 3,
  - NPA JAR AWO 8 (CRI S-148).
SECTION 4: A330-200 FREIGHTER SERIES - continued

Reversions:

Reversion to JAR 25.1309 at Change 13 for all the equipment part of the Product Level Change, except those linked to secondary changes (certified according to the pax certification basis without any request of reversion). For consistency JAR 25.1301 should also remain at change 13.
See letter ref. G03ME0729726 dated 24 Oct 2007

Reversion to JAR 25.365 (e)(f)(g) at Change 13 for the courier area.

4. Special Conditions:

New Special Conditions for the A330-200F

E-124 Courier compartment
E-125 Class E cargo compartment fire protection of essential systems
E-127 Flammability standard for thermal / acoustic insulation materials

– The following original Special Condition CRIs applicable to the A330-200 defined in CRI G-101 issue 4 remain effective for the A330-200F

SC A-2 Interaction of systems and structure
SC A-3 Design manoeuvre requirements
SC A-4 Design dive speed VD
SC A-5 Limit pilot forces and torque
SC A-7 Stalling speeds for structural design
SC A-11 Aero-elastic stability requirements
SC F-101 Stalling and scheduled operating speeds
SC F-2 Motion and effects of cockpit controls
SC F-3 Static longitudinal stability
SC F-4 Static directional and lateral stability
SC F-5 Flight envelope protections
SC F-6 Normal load factor limiting system
SC G-105 Resistance to fire
SC P-1 FADEC
SC P-2 Trim Tank
SC S-6 Lightning protection indirect effects
SC S-10.2 Effects of external radiations upon aircraft systems
SC S-13 Auto-thrust system
SC S-16 Control signal integrity
SC S-18 Electronic flight control
SC S-20 Emergency electrical power
SC S-23 Electrical wiring and miscellaneous electrical requirements
SC S-38 Towbarless towing
SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS (applicable from May 2010)
SECTION 4: A330-200 FREIGHTER SERIES - continued

5. Equivalent Safety Findings:

The following original ESF validated from A330-200 pax:
  – CRI F-8.1 and CRI S-21 provide an equivalent safety level to JAR 25 accelerate-stop and brakes qualification requirements (NPA 25 B, D, G 244).
  – CRI S-45 provides an equivalent level of safety to JAR 25.1549(a).
  – CRI P-9 provides an equivalent level of safety to JAR 25.1203(d) for Rolls-Royce Trent 700 engines.
  – CRI E-21 provides an equivalent level of safety to JAR 25.811(f)

Acceptable Means of Compliance specific to A330-200 Freighter
  – CRI A-128 Rigid barrier wall emergency conditions

6. Elect to comply
Post TC activity: Compliance with CS 25.811 and CS 25.812 Amdt. 3 issued September 19th 2007 for multi lingual “EXIT” signs (optional modification).

7. Environmental Standards:

EASA CS 36 for noise requirements
EASA CS 34 for engine emission and fuel venting

8. ETOPS Technical Conditions:
For the Extended Twin-Engine Airplane Operations, the applicable technical conditions are contained in AMC 20-6 (AMJ 120-42 / IL 20) and EASA CRI G-106F.

III. Technical Characteristics and Operational Limitations

Two turbo-fan, medium to long range, twin-aisle, large category airplane.

1. A330-200F powered by Pratt & Whitney engines

1.1 Type Design Definition:
  A330-223F: 00G000A223F/C00 issue 1

1.2 Engines:
  A330-223F:two (2) Pratt & Whitney 4170 turbofan engines
  A330-223F:two (2) Pratt & Whitney 4168A-1D turbofan engines
  A330-223F:one (1) Pratt & Whitney 4168A turbofan engines

1.2.1 Engine Limits:

<table>
<thead>
<tr>
<th>Engine Limits</th>
<th>Data Sheet E36NE (FAA) M-IM37 (DGAC)</th>
<th>A330-223F PW4170</th>
<th>PW4168A-1D (58344 issue 3)</th>
<th>PW4168A ** (MOD 202393)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static thrust at sea level:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- take-off (5mn) *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- maximum continuous</td>
<td>70,000 lbs</td>
<td>68,600 lbs</td>
<td>68,600 lbs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59,357 lbs</td>
<td>59,357 lbs</td>
<td>59,357 lbs</td>
<td></td>
</tr>
</tbody>
</table>
Approved oils: see Pratt & Whitney engine Service Bulletin N°238, latest revision

* 10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around in accordance with DGAC "Fiche de caractéristiques moteur".

** Only one of the PW4168A engine should be installed on the freighter.

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.
SECTION 4: A330-200 FREIGHTER SERIES – continued

1.3 Fuel:

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
</table>

Note: The above mentioned fuels and additives are also suitable for the APU.

1.4 Limit Speeds:
Refer to approved Airplane Flight Manual.

1.5 Centre of Gravity Range:
Refer to approved Airplane Flight Manual.

1.6 Maximum Certified Weights:

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>000 Basic (range mode)</th>
<th>001 Payload mode</th>
<th>002 Dynamic payload modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>233</td>
<td>227</td>
<td>233</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>182</td>
<td>187</td>
<td>187</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>173</td>
<td>178</td>
<td>173 to 178 (depending on TOW)</td>
</tr>
</tbody>
</table>

2. A330-200F powered by Rolls Royce engines

2.1 Type Design Definition:
A330-243F: 00G000A243F/C00 issue 1

2.2 Engines:
A330-243F: Two (2) Rolls Royce Trent 772B-60 turbofan engines

2.2.1 Engine Limits:

<table>
<thead>
<tr>
<th>Engine Limits Data Sheet 1050 (CAA) E.042 (EASA)</th>
<th>A330-243 Trent 772B-60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static thrust at sea level:</td>
<td></td>
</tr>
<tr>
<td>- take-off (5mn) *</td>
<td>71,100 lbs</td>
</tr>
<tr>
<td>- maximum continuous</td>
<td>63,560 lbs</td>
</tr>
</tbody>
</table>

Approved oils: see Rolls Royce Service Bulletin RB.211-12-F139, latest revision

* The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS).

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.
SECTION 4: A330-200 FREIGHTER SERIES – continued

2.3 Fuel:

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
</table>

Note: The above mentioned fuels and additives are also suitable for the APU.

2.4 Limit Speeds:
Refer to approved Airplane Flight Manual.

2.5 Centre of Gravity Range:
Refer to approved Airplane Flight Manual.

2.6 Maximum Certified Weights:

<table>
<thead>
<tr>
<th>Variant (MOD)</th>
<th>000 Basic (range mode)</th>
<th>001 Payload mode</th>
<th>002 Dynamic payload modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW (T)</td>
<td>233</td>
<td>227</td>
<td>233</td>
</tr>
<tr>
<td>MLW (T)</td>
<td>182</td>
<td>187</td>
<td>187</td>
</tr>
<tr>
<td>MZFW (T)</td>
<td>173</td>
<td>178</td>
<td>173 to 178 (depending on TOW)</td>
</tr>
</tbody>
</table>

3. Data pertinent to all A330-200F series

3.1.1 Fuel quantity (0.8 kg/liter) with 58623 and without mod 200281:

<table>
<thead>
<tr>
<th>TANK</th>
<th>2-TANK AIRPLANE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Usable fuel liters (kg)</td>
</tr>
<tr>
<td>WING</td>
<td>91300 (73040)</td>
</tr>
<tr>
<td>TRIM TANK</td>
<td>6 230 (4 984)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>97530 (78024)</td>
</tr>
</tbody>
</table>
SECTION 4: A330-200 FREIGHTER SERIES – continued

3.1.2 Fuel quantity (0.8 kg/liter) with mod 58623/200281 or without 58623:

<table>
<thead>
<tr>
<th>TANK</th>
<th>3-TANK AIRPLANE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Usable fuel liters (kg)</td>
</tr>
<tr>
<td>WING</td>
<td>91300 (73040)</td>
</tr>
<tr>
<td>CENTER</td>
<td>41 560 (33 248)</td>
</tr>
<tr>
<td>TRIM TANK</td>
<td>6 230 (4 984)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>139 090 (111 272)</td>
</tr>
</tbody>
</table>

3.2 Minimum Flight Crew:
Two (2): Pilot and Co-pilot

3.3 Maximum Seating Capacity:
A maximum of 12 supernumeraries may occupy the courier area located aft of the flight deck compartment. The total occupancy of the airplane is limited to 16 persons.

3.4 Cargo compartment loading:

<table>
<thead>
<tr>
<th>Cargo compartment</th>
<th>Maximum load (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td>18689</td>
</tr>
<tr>
<td>Aft</td>
<td>15241</td>
</tr>
<tr>
<td>Rear (bulk)</td>
<td>3468</td>
</tr>
<tr>
<td>MDC Compartment</td>
<td>65000 (range mode)</td>
</tr>
</tbody>
</table>

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights), see Weight and Balance Manual ref. 00G080A0006/C2S.

3.5 Environmental Flight Environment:
Refer to approved Airplane Flight Manual.

3.6 Other Limitations:
Refer to approved Airplane Flight Manual.

3.7 Auxiliary Power Unit (APU):
One GARRETT GTCP 331-350C (Specification 31-7677A)
Oils: refer to applicable approved Manuals
SECTION 4: A330-200 FREIGHTER SERIES – continued

3.8 Equipment
The equipment required by the applicable requirements shall be installed.
Cabin furnishings, equipment and arrangement shall conform to the following speciﬁcation:
- 00F252K0005/C01 for cabin seats
- 00F252K0006/C01 for galley
- 00F252K0020/C01 for cabin attendant seats

3.9 All Weather Capabilities

A330-223F:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

A330-243F:
- Aircraft Type Design is approved for Cat 3 precision approach and autoland

3.10 Wheels and Tyres
Refer to Airbus Service Bulletin A330-32-3004. This SB will be updated to include the Freighter version prior to Entry Into service.

3.11 Hydraulics
Fluid speciﬁcations: TYPE IV (NSA 307-110).

3.12 Maintenance Instructions and Airworthiness Limitations
- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by EASA;
- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) Part 2 approved by EASA;
- Certification Maintenance Requirements are provided in the A330 Airworthiness Limitations Section (ALS) Part 3 approved by EASA;
- Limitations applicable to Ageing System Maintenance are provided in the A330 Airworthiness Limitation Section (ALS) Part 4 approved by EASA;
- Fuel Airworthiness Limitations are provided in the A330 Airworthiness Limitations Section (ALS) Part 5 approved by EASA;
SECTION: ADMINISTRATIVE
Starting with Issue 18

I. Acronyms and Abbreviations

A/C Aircraft
AFM Airplane Flight Manual
AMC Acceptable Means of Compliance
APU Auxiliary Power Unit
AWO All Weather Operations
CAA Civil Aviation Authority
CRI Certification Review Item
CS Certification Specification
EASA European Aviation Safety Agency
EC European Commission
ES(F) Equivalent Safety (Finding)
ETOPS Extended Range Operations with Two-Engined Aeroplanes
EU European Union
EU MS European Union Member States
EWIS Enhanced Wiring Interconnection System
FAA Federal Aviation Administration
FAR Federal Aviation Regulation
FRS Flammibility Reduction Systems
ICA Instructions for Continued Airworthiness
ICAO International Civil Aviation Organization
JAA Joint Aviation Authorities
JAR Joint Aviation Requirements
NAA National Aviation Authority
NPA Notice of Proposed Amendment
RR Rolls Royce
SB Service Bulletin
SC Special Condition
S/N Serial Number
TC Type Certificate
TCDS Type Certificate Data Sheet
TCDSN Type Certificate Data Sheet for Noise

II. Type Certificate Holder Record

AIRBUS
1 Rond-point Maurice Bellonte
31707 Blagnac
FRANCE
### III. Change Record

<table>
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<th>TCDS Changes</th>
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### SECTION: ADMINISTRATIVE – continued

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<th>TC Date</th>
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<td>27.0</td>
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<td>09/04/10</td>
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<td>06/05/11</td>
<td>Addition of MOD 201436 to Variant 057 and addition of MOD 201437 to Variant 058 in Maximum Certified Weights for A330-201/-202/-203/-223/-243: Addition of PW4164-1D and PW4168-1D in the ETOPS table as a result of previous certification of MOD 58776 and 58777</td>
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<td>30.0</td>
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<td>Addition of Variant 054 in Maximum Certified Weights for A330-302/-303/-323/-342/-343 (Section 2.III.1.6, 2.III.2.6 and 2.III.3.6)</td>
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<td>Removal of SC P-27 Flammability Reduction System from A330-300 Certification Basis Addition of SC E-130 and E-1014 to A330-300/-200 Certification Basis Addition of Weight Variants 054 and 055 for A330-302/-303/-323/-342/-343 Addition of Weight Variant 062 for A330-201/-202/-203/-223/-243 Correction Section 3.III.1.7: Service Bulletin 72-3003 was erroneously listed as 72-003 Addition of PW4168A-1D Engine for A330-223F (Section 4.III.1.2.1,)</td>
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<td>Addition of SC E-128 to A330-300/-200 Certification Basis Addition of Weight Variant 056 for A330-302/-303/-323/-342/-343 Correction of MOD number (43308) for A330-301 Weight Variant 010</td>
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<td>34</td>
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<td>Addition of paragraph “Elect to comply” for A330-200/-200F/-300. After certification of MOD 200542 on Symbolic Exit Sign, the TCDS need to reflect the compliance with CS 25.811 and CS 25.812 Amdt. 3 Installation of one PW 4168A engine on A330-223F aircraft basically fitted with two PW4168A-1D Addition of PW4168A-1D and Intermix PW4168A/4168A-1D for A330-223F on Section 1 §6 reflecting ETOPS capabilities and approval of LR2/EASA: AMC 20-6 CMP Revision 25.</td>
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<td>Addition of WV057 for A330-323/-342/-343</td>
<td>09/04/10</td>
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<td>36</td>
<td>22/11/2013</td>
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