# FAA VALIDATION OF EASA COUNTRY
# SMALL AIRPLANES
# TYPE VALIDATION PRINCIPLES AGREEMENT
# POTENTIAL VALIDATION ITEMS

## Significant Standard Differences (SSD)

14 CFR Part 23 AMENDMENT 62 ***compared to*** CS-23, Amdt. 3

| Item | Title | 14 CFR Part 23 Section | Remarks |
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| **SSD** | | | |
| 1 | Performance, General | 23.45(h) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 2 | Takeoff speeds | 23.51(c) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 3 | Takeoff performance | 23.53(c) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 4 | Accelerate-stop performance | 23.55 | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 5 | Takeoff path | 23.57 | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 6 | Takeoff distance and takeoff run | 23.59 | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to |

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| | | | commuter category. |
| 7 | Takeoff flight path | 23.61 | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 8 | Climb, General | 23.63(c) | Part 23 has requirements for single engine turbines and multiengine turbine over 6,000 pounds while CS has requirements for all turbine airplanes. |
| 9 | Climb, General | 23.63(d) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 10 | Climb: all engines operating | 23.65 | Part 23 has requirements for single engine turbines and multiengine turbine over 6,000 pounds while CS has requirements for all turbine airplanes. |
| 11 | Takeoff climb, one engine inoperative | 23.67(a) | Part 23 has exceptions for planes that comply with Section 23.562(d). |
| 12 | Climb: one engine inoperative | 23.67(c) | Part 23 has requirements for jets of 6,000 pounds or less that are not in CS-23. |
| 13 | Climb: one engine inoperative | 23.67(d) | Applies to all Part 23 airplanes that are jets over 6,000 pounds. CS applies only to commuter category. |
| 14 | Balked landing | 23.77(b) | Part 23 has requirements for recips and single engine turbine powered airplanes of more than 6,000 pounds and multiengine turbines of 6,000 pounds or less in the normal, utility and acrobatic categories; while CS applies the same requirements to all turbine engine airplanes in the normal, utility and acrobatic categories. |
| 15 | Balked landing | 23.77(c) | Applies to all Part 23 |

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| | | | airplanes that are jets over 6,000 pounds. CS applies only to commuter category. |
| 16 | Wings level stall | 23.201(e) | Part 23 has roll and yaw limits of 25 degrees or less for airplanes that have a stalls performed at or above 25,000 feet. |
| 17 | Spinning | 23.221 | Spin resistant airplanes are permitted under Paragraph 23.221(a)(2). EASA has no rules for Spin resistant airplanes |
| 18 | Vibration and buffeting | 23.251(b) | Part 23 requires no perceptible buffeting condition in cruise in straight flight except stall buffeting. |
| 19 | Vibration and buffeting | 23.251(c) | Part 23 requires the load factor at onset of perceptible buffeting be determined for airplanes with $M_D$ more than M 0.6 or an operating altitude above 25,000 feet. |
| 20 | Out of trim characteristics | 23.255 | No corresponding section in CS-23. |
| 21 | Metallic pressurized cabin structures | 23.571(d) | For flight above 41,000 feet MSL, requires a damage tolerance evaluation of the fuselage pressure boundary per § 23.573(b) must be conducted. |
| 22 | Flutter | 23.629 | Part 23 requires speed ranges up to $V_{DF}/M_{DF}$ for jets. |
| 23 | Artificial stall barrier system | 23.691 | All airplanes that use 23.691 for 23.201, Wings level stall, compliance. EASA CS-23 has no corresponding requirement. |
| 24 | Takeoff warning system | 23.703 | Part 23 applies to all jets and other airplanes with a maximum weight above 6,000 pounds; while CS-23 is applicable to commuter category only. |
| 25 | Brakes | 23.735(e) | Part 23 requires rejected takeoff kinetic energy absorption be determined for airplanes required to meet |

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| | | | 23.55; while CS-23 is applicable to commuter category only. |
| 26 | Seats, berths, litters, safety belts and shoulder harnesses | 23.785(c) | Per Paragraph 23.785(c), seat restraint systems must protect occupants per the load factors in 23.561(b)(2). EASA is more stringent in requiring seat/restraint system meet CS 23.562 in CS 23.785(c). |
| 27 | Seats, berths, litters, safety belts and shoulder harnesses | 23.785(m) | Per Paragraph 23.785(m), berths or litters parallel to the longitudinal axis must withstand 9g's forward. EASA is more stringent in requiring berths and seats parallel to the longitudinal axis to withstand 18g's forward in CS 23.785(m). |
| 28 | Emergency exits | 23.807(e)(3) | Part 23 permits a side exit below the waterline if there is a barrier to keep water out for a sufficient time in a ditching. |
| 29 | Ventilation | 23.831(c) and (d) | Part 23 has requirements for operations above 41,000 feet MSL that are not in CS-23. |
| 30 | Pressurized cabins | 23.841(a) | Part 23 has limits in cabin altitude during decompressions that are not in CS-23. |
| 31 | Pressurized cabins | 23.841(b)(6) | Part 23 allows resetting the warning of cabin altitude above 10,000 feet MSL when taking off or landing at high altitude airports. |
| 32 | Pressurized cabins | 23.841(c) | Part 23 has requirements for operations above 41,000 feet and up to 45,000 feet MSL that are not in CS-23. |
| 33 | Pressurized cabins | 23.841(d) | Part 23 has requirements for operations above 45,000 feet and not more than 51,000 feet MSL that are not in CS-23. |

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| 34 | Cargo and baggage compartment fire protection | 23.855 | CS-23 allows flame resistant flammability for normal, utility and acrobatic airplanes while Part 23 requires self-extinguishing. |
| 35 | Thermal/Acoustic insulation materials | 23.856 | There is no corresponding section in CS-23. |
| 36 | Installation | 23.901 | Turbine engine inlet capability to withstand rain, hail, ice, and bird ingestion not less than part 33 in 14 CFR, but CS-23 has specific requirements for rain into inlets of 4% by weight but no corresponding requirements for birds, hail or ice. |
| 37 | Engines | 23.903 | Part 23 has requirements for embedded jet engines. |
| 38 | Reversing systems | 23.933 | EASA is more stringent in that CS-23 has turbopropeller, commuter category rule not in 14 CFR, part 23. |
| 39 | Fuel system independence | 23.953 | 14 CFR, part 23, Section 23.953, Fuel system independence: permits one fuel tank in multiengine airplanes in Paragraph 23.953(a) and gives requirements for a single fuel tank in multiengine airplanes in Paragraph 23.953(b). CS-23 has no rule for single fuel tanks or series of interconnected fuel tanks used in a multiengine airplane as in Paragraph (b). |
| 40 | Induction system icing protection | 23.1093 | To ensure compliance to US methods, for icing protection. |
| 41 | Cowling and nacelle | 23.1193(g) | Part 23 applies to all airplanes with embedded engines or those engines in pylons on the aft fuselage; while CS-23 is applicable only to commuter category. |
| 42 | Fire extinguishing systems | 23.1195(a) | Part 23 applies to all airplanes |

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| | | | with embedded engines or those engines in pylons on the aft fuselage; while CS-23 is applicable only to commuter category. |
| 43 | Fire extinguishing systems | 23.1195(a)(2) | Part 23 requires a two-shot system for embedded engines. |
| 44 | Fire extinguishing agents | 23.1197 | Part 23 applies to all airplanes with embedded engines or those engines in pylons on the aft fuselage; while CS-23 is applicable only to commuter category. |
| 45 | Extinguishing agent containers | 23.1199 | Part 23 applies to all airplanes with embedded engines or those engines in pylons on the aft fuselage; while CS-23 is applicable only to commuter category. |
| 46 | Fire extinguishing system materials | 23.1201 | Part 23 applies to all airplanes with embedded engines or those engines in pylons on the aft fuselage; while CS-23 is applicable only to commuter category. |
| 47 | Electrical and electronic system lightning protection | 23.1306(b) | IFR approval requires function recovers in a timely manner. |
| 48 | High-intensity radiated fields (HIRF) protection | 23.1308 | Part 23 has a HIRF rule that is not in CS-23. |
| 49 | Electronic display instrument systems | 23.1311 | Part 23 requires secondary displays for IFR operations, while CS-23 applies to all airplanes. |
| 50 | Airspeed indicating system | 23.1323(e) | Part 23 requires rejected takeoff calibration for commuter category and other Part 23 airplanes of more than 6,000 pounds; while CS-23 applies only to commuter category. |
| 51 | Instruments using a power source | 23.1331(c) | Part 23 exempts VFR airplanes and applies only to heading, altitude, airspeed, and attitude. |
| 52 | Storage battery design and | 23.1353 | Part 23 requires 60 minutes |

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| | installation | | battery capacity for all airplanes with a service ceiling above 25,000 feet. |
| 53 | Ice protection | 23.1419 | Paragraph 23.1419(a) defines "Capable of operating safely" and Paragraph 23.1419(b) requires natural icing flight tests unless similarity per 23.1419(c) is appropriate. EASA CS-23 does not define "Capable of operating safely" in CS 23.1419 and has no corresponding requirement to 14 CFR, Part 23, Paragraph 23.1419(b). To ensure use of most recent US compliance methods. |
| 54 | Minimum mass flow of supplemental oxygen | 23.1443 | Part 23 has requirements for continuous flow oxygen systems for passengers in airplanes with operations above 41,000 feet MSL that are not in CS-23. |
| 55 | Oxygen distributing system | 23.1445 | Part 23 requires crewmembers be able to reserve a minimum supply for themselves when they share a common source of $O_2$ with passengers. |
| 56 | Equipment standards for oxygen dispensing units | 23.1447(g) | Part 23 has requirements for crew oxygen equipment in airplanes with operations above 41,000 feet MSL that are not in CS-23. |
| 57 | Cockpit voice recorders | 23.1457(d)(4) | Part 23 prohibits a single failure that fails both the CVR and FDR. |
| 58 | Cockpit voice recorders | 23.1457(d)(5) | Part 23 requires the CVR and cockpit area microphone have an independent power source good for 10+/- minutes. |
| 59 | Flight data recorders | 23.1459(a)(6) | Part 23 prohibits a single failure that fails both the CVR and FDR. |

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| 60 | Airworthiness Limitations | 23.1529 | Per Order 8110.52, approved manual changes are SSDs. |
| 61 | AFM | 23.1581 | Per Order 8110.52, approved manual changes are SSDs |
| 62 | Operating limitations | 23.1583(c)(3) | Part 23 has requirements for single engine turbines and multiengine turbine 6,000 pounds or less while CS has requirements for all turbine airplanes. |
| 63 | Operating limitations | 23.1583(c)(4) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 64 | Operating limitations | 23.1583(c)(5) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 65 | Operating procedures | 23.1585(f) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |
| 66 | Performance information | 23.1587(d) | Applies to all Part 23 airplanes that are multiengine jets over 6,000 pounds. CS applies only to commuter category. |

Note 1: 14 CFR, part 23, has rules in Sections 23.57, 23.61, and 23.1309 for more than two engines airplanes that are not in EASA CS-23. These are standards differences but are not considered Significant.

Note 2: The SSD List is based on the comparison of 14 CFR, part 23, Amendment 23-62, and CS-23, Amendment 2. Many of the changes in Amendment 23-62 incorporated FAA special conditions and equivalent levels of safety (ELOS). In many cases, EASA has CRIs that are equivalent to the FAA special conditions and ELOSs that are incorporated in Amendment 23-62.