









CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.77	b)	Steady gradient of climb min 2,5% - N,U,A reciprocated-powered aircraft >2722 kg and turbine engined powered a/c		p					s								
23.77	c)	Steady gradient of climb min 3,2%- C a/c		p					s								
<b>FLIGHT CHARACTERISTICS</b>																	
<b>General</b>																	
23.141	a)	Flight characteristics- General		p													
<b>CONTROLLABILITY AND MANOEUVRABILITY</b>																	
<b>General</b>																	
23.143	a)	Controllability and maneouvrability- all flight phases		p													
23.143	b)	Determine structural design loads at all critical combinations of parameters		p	s												
23.143	c)	Magnitute and distribution of the loads		p	s												
<b>Longitudinal control</b>																	
23.145	a)	pitch the nose downwards- conditions		p													
23.145	b)	Performance of maneouvres- conditions		p													
23.145	c)	maneouvring capability of 1.5g		p													
23.145	d)	pilot control force vs maintain a speed of not more than VREF- co		p													
23.145	e)	establish a zero rate of descent- conditions		p													
<b>Directional and lateral control</b>																	
23.147	a)	Directional control for twin-engined a/c		p					s								
23.147	b)	Lateral control for twin-engined a/c		p					s								
23.147	c)	contolability and flight characteristics		p					s								
<b>Minimum control speed</b>																	
23.149	a)	Control of the a/c- Vmc		p					s								
23.149	b)	determination of Vmc for take-off- conditions		p					s								
23.149	c)	Control of the a/c- Vmc- landing configuration		p					s								
23.149	d)	Establishing the one-engine inoperative speed, VSSE.		p					s								
23.149	e)	ruder pedal force		p					s								
23.149	f)	determination of VMCG, the minimum control speed on the ground		p					s								
<b>Aerobatic manoeuvres</b>																	
23.151		Aerobatic manoeuvres - safe entry speeds		p													
<b>Control during landings</b>																	









CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.302	b)	Requirements applicable to the function performed by these surfaces			p												
<b>Factor of safety</b>																	
23.303	a)	Factor of safety 1,5			p												
<b>Strength and deformation</b>																	
23.305	a)	deformation - limit loads			p	s											
23.305	b)	Ultimate loads			p												
<b>Proof of structure</b>																	
23.307	a)	23.305 compliance in each critical condition			p												
23.307	b)	Tests reqs for certain parts of the structure			p												
<b>FLIGHT LOADS</b>																	
<b>General</b>																	
23.321	a)	Flight load factors			p												
23.321	b)	Flight load- showing compliance			p												
23.321	c)	Effect of the compresibility			p												
<b>Symmetrical flight conditions</b>																	
23.331	a)	balancing horizontal tail load			p												
23.331	b)	Incremental horizontal tail load			p												
23.331	c)	Influence of the aerodynamic surfaces			p												
<b>Flight envelope</b>																	
23.333	a)	General			p												
23.333	b)	Maneuvering envelope			p												
23.333	c)	Gust envelope			p												
23.333	d)	Flight envelope			p												
<b>Design airspeeds</b>																	
23.335	a)	Design cruising speed - VC			p												
23.335	b)	Design dive speed - VD			p												
23.335	c)	Design manoeuvring speed - VA.			p												
23.335	d)	Design speed for maximum gust intensity - VB			p												
<b>Limit manoeuvring load factors</b>																	
23.337	a)	Positive limit manoeuvring load factor - conditions			p												
23.337	b)	Negative limit manoeuvring load factor - conditions			p												
23.337	c)	Manoeuvring load factors < a), b)			p												
<b>Gust load factors</b>																	



CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.365	d)	1,33 factor															
23.365	e)	Primary structure design consideration			p	s											
<b>Unsymmetrical loads due to engine failure</b>																	
23.367	a)	unsymmetrical loads - turbopropeller a/c			p					s							
23.367	b)	Pilot corrective actions		s	p												
<b>Rear lift truss</b>																	
23.369	a)	Rear lift truss conditions			p					s							
23.369	b)	Calculation consideration			p												
<b>Gyroscopic and aerodynamic loads</b>																	
23.371	a)	Design considerations engine mount			p												
23.371	b)	Design considerations for commuter a/c			p												
23.371	c)	Design considerations for aerobatic a/c			p												
<b>Speed control devices</b>																	
23.373	a)	Considerations for speed control devices			p	s											
23.373	b)	Desidn conditions in case of automatic operating or load limiting features			p												
<b>CONTROL SURFACE AND SYSTEM LOADS</b>																	
<b>Control surface loads</b>																	
23.391	a)	Control surface loads			p												
<b>Loads parallel to hinge line</b>																	
23.393	a)	Control surfaces and supporting hinge brackets			p												
23.393	b)	Caluculation considerations of inertia loads			p												
<b>Control system loads</b>																	
23.395	a)	Design conditions of flight control system and its supporting structure			p	s											
23.395	c)	Calculation factor			p												
23.395	b)	Pilot forces considerations			p	s											
<b>Limit control forces and torques</b>																	
23.397	a)	Control surface flight loading condition			p	s											
23.397	b)	The limit pilot forces and torques			p	s											
<b>Dual control system</b>																	

CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.399	a)	Design consideration - pilot forces opposite direction			p	s											
23.399	b)	Design consideration - pilot forces same direction			p	s											
<b>Secondary control system</b>																	
23.405	a)	Secondary control system design considerations			p	s											
<b>Trim tab effects</b>																	
23.407	a)	Trim tab effects			p	s											
<b>Tabs</b>																	
23.409	a)	Tabs			p	s											
<b>Ground gust conditions</b>																	
23.415	a)	Ground gust conditions- design considerations			p	s											
23.415	b)	The limit hinge moment factor K			p	s						s					
23.415	c)	Control system, surfaces and associated gust locks			p	s											
<b>HORIZONTAL TAIL SURFACES</b>																	
<b>Balancing loads</b>																	
23.421	a)	Horizontal surface balancing load			p	s											
23.421	b)	Horizontal balancing surfaces design considerations			p	s											
<b>Manoeuvring loads</b>																	
23.423	a)	Design considerations for maneouvering loads			p	s											
23.423	b)	Design considerations for maneouvering loads			p	s											
<b>Gust loads</b>																	
23.425	a)	Horizontal surface other than a main wing			p												
23.425	b)	Reserved															
23.425	c)	Total load on the horizontal surfaces			p												
23.425	d)	The incremental load due to the gust			p												
<b>Unsymmetrical loads</b>																	
23.427	a)	Unsymmetrical loads			p												
23.427	b)	Design assumptions			p												
23.427	c)	Design assumptions - unconventional a/c			p												
<b>VERTICAL SURFACES</b>																	
<b>Manoeuvring loads</b>																	
23.441	a)	Manoeuvring loads – Vertical surfaces			p												
23.441	b)	Manoeuvring loads – Commuter a/c			p												
23.441	c)	Yaw angle considerations			p												
<b>Gust loads</b>																	







CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.533	b)	Local pressures			p												
23.533	c)	Distributed pressures			p												
		<b>Auxiliary float loads</b>															
23.535	a)	General			p												
23.535	b)	Step loading			p												
23.535	c)	Bow loading			p												
23.535	d)	Unsymmetrical step loading			p												
23.535	e)	Unsymmetrical bow loading			p												
23.535	f)	Immersed float condition			p												
23.535	g)	Float bottom pressures			p												
		<b>Seawing loads</b>															
23.537	a)	Seawing design loads			p												
<b>EMERGENCY LANDING CONDITIONS</b>																	
		<b>General</b>															
23.561	a)	General			p							s					
23.561	b)	Design consideration - structure			p							s					
23.561	c)	Design consideration - landing			p							s					
23.561	d)	Design consideration - structure; turnover			p							s					
23.561	e)	Design consideration - supporting structure;			p							s					
		<b>Emergency landing dynamic conditions</b>															
23.562	a)	Seat/restraint system			p							p					
23.562	b)	Dynamic test			p							p					
23.562	c)	Compliance with the requierments- dynamic test			p							p					
23.562	d)	Design consideration for single engine a/c			p							p					
23.562	e)	Alternate approach for occupant protection			s							p					
<b>FATIGUE EVALUATION</b>																	
		<b>Metallic pressurised cabin structures</b>															
23.571	a)	Methods for fatigue strength investigation			p												
23.571	b)	Fail safe strength investigation consideration			p												
23.571	c)	Damage tolerance evaluation			p												
		<b>Metallic wing, empennage and associated structures</b>															
23.572	a)	Fatigue strength investigation			p												
23.572	b)	Evaluation consideration			p												
		<b>Damage tolerance and fatigue evaluation of structure</b>															

















CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.777	g)	Landing gear control		p		s			s								
23.777	h)	Fuel feed selector control		p					p								
<b>Motion and effect of cockpit controls</b>																	
23.779	a)	Aerodynamic controls		p		s											
23.779	b)	Powerplant and auxiliary controls		p		s			p								
<b>Cockpit control knob shape</b>																	
23.781	a)	Flap and landing gear control knobs		p		s											
23.781	b)	Powerplant control knobs		p					p								
<b>Doors</b>																	
23.783	a)	External door				p						s					
23.783	b)	Passenger door location				p											
23.783	c)	Requierements for external passenger or crew door			s	p											
23.783	d)	Requierements for external passenger or crew door - commuter a/c				p											
23.783	e)	Requierements for external door - commuter a/c, external door forward of any engine or propeller on a normal, utility, or aerobatic category a/c, and each door of the pressure vessel on a pressurised a/c				p											
23.783	f)	additional requierements commuter a/c			s	p											
23.783	g)	Lavatory doors			s							p					
<b>Seats, berths, litters, safety belts and shoulder harnesses</b>																	
23.785	a)	Seat or berth			s							p					
23.785	b)	Considerations for forward-facing or aft-facing seat/restraint system in normal, utility, or aerobatic category aeroplanes										p					
23.785	c)	Design considerations seat and its structure - commuter a/c			s							p					
23.785	d)	Restraint system - single point release										p					
23.785	e)	Restraint system crew member										p					
23.785	f)	Pilot seat										p					
23.785	g)	Means to secure each safety belt and shoulder harness										p					
23.785	h)	Parachute- utility, anerobatic a/c										p					
23.785	i)	Occupant protection										p					
23.785	j)	Seat track										p					
23.785	k)	Design considerations seat/restraint system										p					



CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.785	l)	Front seat										p					
23.785	m)	Berth, litter			p							p					
23.785	n)	Proof of compliance with the static strength requirements			p							p					
<b>Baggage and cargo compartments</b>																	
23.787	a)	Baggage and cargo compartment			p							p					
23.787	b)	Occupant protection			p							p					
23.787	c)	Flight crew emergency exits - cargo			s							p					
<b>Passenger information signs</b>																	
23.791	a)	Passenger information signs										p					
23.791	b)	Installation considerations										p					
<b>Emergency evacuation</b>																	
23.803	a)	Evacuation demonstration										p					
23.803	b)	Considerations for emergency lighting system during the evacuation demonstraion										p					
<b>Flight crew emergency exits</b>																	
23.805	a)	Flight crew emergency exit										p					
23.805	b)	Emergency exit - location and size										p					
23.805	c)	Assisted means										p					
<b>Emergency exits</b>																	
23.807	a)	Number and location										p					
23.807	b)	Type and operation				s						p					
23.807	c)	Tests										p					
23.807	d)	Doors and exits				s						p					
23.807	e)	Ditching emergency exits - commuter aircraft										p					
<b>Emergency exit marking</b>																	
23.809	a)	Marking										p					
23.809	b)	Marking - additional requierement for commuter a/c										p					
23.809	c)	Additional provisions to the emergency exit										p					
<b>Emergency lighting</b>																	
23.812	a)	Emergency lighting system					s					p					
23.812	b)	Crew warning light					s					p					
23.812	c)	Manual operation					s					p					
23.812	d)	Means to safeguard against inadvertent operation of the cockpit control device					s					p					

CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.812	e)	Emergency lighting activation					s					p					
23.812	f)	Considerations for armed emergency lighting system					s					p					
23.812	g)	Deactivation/Resetting of the emergency lighting system					s					p					
23.812	h)	Internal lightning					s					p					
23.812	i)	Energy supply considerations					p					s					
23.812	j)	emergency lighting system v- rechargeable batteries					p					s					
23.812	k)	Emergency lighting system, components operability					p					s					
23.812	l)	Design considerations for crash landing					p					s					
<b>Emergency exit access</b>																	
23.813	a)	Access to window-type emergency exits - commuter a/c											p				
23.813	b)	Other emergency exit access provisions											p				
<b>Width of aisle</b>																	
23.815	a)	Width of the main passenger aisle - commuter a/c											p				
23.815	b)	Main passenger aisle											p				
<b>Ventilation</b>																	
23.831	a)	Ventilation passenger and crew compartment															
23.831	b)	Considerations for pressurized a/c															
<b>PRESSURISATION</b>																	
<b>Pressurised cabins</b>																	
23.841	a)	cabin pressure altitude in the event of any probable failure or malfunction in the pressurisation system															
23.841	b)	Design considerations for pressurised cabins															
<b>Pressurisation tests</b>																	
23.843	a)	Strength test				p											
23.843	b)	Functional test															
<b>FIRE PROTECTION</b>																	
<b>Hand fire extinguishers</b>																	
23.851	a)	Hand fire extinguisher - passenger compartment															
23.851	b)	Hand fire extinguisher - pilot compartment															
23.851	c)	Considerations for hand fire extinguishers															
<b>Passenger and crew compartment interiors</b>																	
23.853	a)	Materials															
23.853	b)	Reserved											n/ a				









CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.965	b)	Withstand tests			s				p								
23.965	c)	Integral fuel tanks- vibration test			s				p								
23.965	d)	Tanks with a non-metallic liner - sloshing test							p								
<b>Fuel tanks installation</b>																	
23.967	a)	Tank loads							p								
23.967	b)	Tank compartment- ventilation							p								
23.967	c)	Fuel tanks relative position to the firewall							p								
23.967	d)	Fuel tank isolation							p								
23.967	e)	Design consideration, installation and location							p								
<b>Fuel tank expansion space</b>																	
23.969	a)	Fuel tank expansion space							p								
<b>Fuel tanks sump</b>																	
23.971	a)	Drainable sump							p								
23.971	b)	Drainage							p								
23.971	c)	Sediment bowl or chamber accessible for drainage							p								
23.971	d)	Sump, sediment bowl and sediment chamber drain							p								
<b>Fuel tank filler connection</b>																	
23.973	a)	Fuel tank filler connection							p								
23.973	b)	Prevention of spilled fuel							p								
23.973	c)	Filler caps							p								
23.973	d)	Fuel filling points					s		p								
23.973	e)	Inside diameter of the fuel filler- reciprocating engined a/c							p								
23.973	f)	Inside diameter of the fuel filler - turbine engined a/c							p								
<b>Fuel tank vents and carburettor vapour vents</b>																	
23.975	a)	Fuel tank vents							p								
23.975	b)	Vapour vent line							p								
23.975	c)	Loss of fuel during aerobicic manoeuvres							p								
<b>Fuel tanks outlet</b>																	
23.977	a)	Fuel strainer							p								
23.977	b)	Design considerations for the clear area of each fuel tank outlet strainer							p								
23.977	c)	Diameter of each strainer							p								
23.977	d)	Accesibility for inspection and cleaning							p								
<b>Pressure fuelling systems</b>																	



































CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.1435	b)	Tests				p											
23.1435	c)	Accumulators				p											
<b>Accessories for twin-engine aeroplanes</b>																	
23.1437	a)	Accessories for twin-engine aeroplanes					s		p								
<b>Pressurisation and pneumatic systems</b>																	
23.1438	a)	Pneumatic system elements - Burst pressure test								p							
23.1438	b)	Pressurisation system elements - Burst pressure test								p							
23.1438	c)	Analysis and tests								p							
<b>Oxygen equipment and supply</b>																	
23.1441	a)	General								p		s					
23.1441	b)	Free from hazards								p							
23.1441	c)	Means to determine during the flight the quantity of oxygen								p							
23.1441	d)	Demand flow oxygen equipment								p							
23.1441	e)	Means to turn on and shut off the oxygen supply in flight								p							
<b>Minimum mass flow of supplemental oxygen</b>																	
23.1443	a)	Continuous flow oxygen equipment installation								p		s					
23.1443	b)	Demand equipment								p							
23.1443	c)	First aid oxygen equipment								p							
23.1443	d)	BTPS/STPS definition								p							
<b>Oxygen distributing system</b>																	
23.1445	a)	Considerations for using nonmetallic tubing								p		s					
23.1445	b)	Non-metallic oxygen distribution lines								p		s					
<b>Equipment standards for oxygen dispensing units</b>																	
23.1447	a)	Individual dispensing unit for each occupant		s						p		s					
23.1447	b)	Certification for operation up to and including 5486m (18 000 ft) (MSL)								p							
23.1447	c)	Certification for operation above 5486m (18 000 ft) (MSL)								p							
23.1447	d)	Pressurised a/c operating >7625 m (20 000 ft)		s						p		s					
23.1447	e)	Certification for operation above 9144m (30 000 ft)								p							
23.1447	f)	Automatic dispensing unit								p							
<b>Means for determining use of oxygen</b>																	
23.1449	a)	Means for determining use of oxygen								p		s					
<b>Chemical oxygen generators</b>																	

CS 23 Paragraph	Sub-Para	Requierment title	0	1	3	4	5	6	7	8	10	11	12	14	19	All	Note
23.1450	a)	Definition								p		s					
23.1450	b)	Design considerations and installation								p							
23.1450	c)	Portable chemical oxygen generator								p							
<b>Fire protection for oxygen equipment</b>																	
23.1451	a)	Outside of designated fire zone								p		s					
23.1451	b)	Protection from heat								p							
23.1451	c)	Installation considerations								p							
<b>Protection of oxygen equipment from rupture</b>																	
23.1453	a)	Strength to withstand the maximum pressure and temperature			s					p							
23.1453	b)	Considerations for the oxygen pressure sources and the lines between the source and shut-off means								p							
<b>Cockpit voice recorders</b>																	
23.1457	a)	General						p									
23.1457	b)	Installation						p									
23.1457	c)	Channels recording						p									
23.1457	d)	Design considerations						p									
23.1457	e)	Record container location			s			p									
23.1457	f)	CVR with bulk erasure device						p									
23.1457	g)	Record container						p									
<b>Flight recorders</b>																	
23.1459	a)	General						p									
23.1459	b)	N on-ejectable record container - installation						p									
23.1459	c)	Correlations with the corresponding readings						p									
23.1459	d)	Record container						p									
23.1459	e)	Parameters						p									
<b>Equipment containing high energy rotors</b>																	
23.1461	a)	General				s	s		s								p/s (check with P3, P4, P5) depending on the affected component
23.1461	b)	Withstanding damage caused by malfunctions, vibration, abnormal speeds and abnormal temperatures			s	s	s		s								p/s (check with P3, P4, P5) depending on the affected component











