AIRWORTHINESS COMPLIANCE CHECKLIST: INSTALLATION OF APPROVED BELT DRIVEN GENERATORS AND ALTERNATORS

I HAVE DETERMINED THE PLANNED ALTERATION TO BE IN COMPLIANCE WITH PARAGRAPH C, CHECKLIST APPLICABILITY.

IA SIGNATURE_____DATE _____

AIRCRAFT MAKE _____MODEL_____

SERIAL # N# _____

TABLE 2-1. Installation of Approved Belt Driven Generators and Alternators - Checklist Qualifications for DER Data Review.

Item [1] Completed Initials	Planned FAA Approval Method			Subject Evaluated	(14 CFR)	(CAR)	Item to Consider or Intent of the regulation	DER Authority [3] (ref. 8110.37	Other Guidance	
	DER 8110-3	FSDO ASI, 337, Block 3	Other (AC 43.13)						AC Orders Policy	AC 43-13-1B/2A
				Design and Construction, General	23.601	3.291	• Determine suitability of each component on safety of essential systems • Alternator type, belt type etc., must be suitable for the aircraft and its intended operation. .			
				Materials and Workmanship	23.603	3.292	• All materials must meet suitable specifications.			
				Inspection Provisions [4]	23.611	3.296	• Inspection and servicing must be accomplished in an appropriate manner. • Are reasonable means provided for inspection and servicing.			
				Powerplant Accessories	23.1163	3.635	• Approved for mounting. • Use provisions for mounting. • Electrical sparking contact with flammable fluids or vapors must minimized. • Continued rotation during a malfunction, if hazardous, must have a means to prevent rotation without interfering with the continued operation of the engine.			
				Function and Installation	23.1301	3.651,	Additional equipment installed (per operating rules) must meet intended function			

				Hazard Assessments	23.1309	3.652, 3.681	• May not interfere with operation of equipment essential to safe operation. –or- other equipment unless there is a means to inform pilot. • Must be designed to minimize hazards to the airplane in the event of a probable malfunction. • Examine electrical system, charging and distribution separately and in relation to other systems, warning, engine instruments etc. • All equipment determined as essential must be taken into account in the load analysis. • Must be labeled as to identity, function, operation, operational limits, or any combination thereof.			
				Warning Lights	23.1322		Amber: caution lights (lights indicating the possible need for future corrective action.)			
				System Reverse Current Cutout	23.1351 23.1351 (c)(3)	3.690, 3.693 3.687	• Alternator and associated transmission cable must be rated for the loads applied to the electrical system in probable combinations and durations. • Reverse current cutout will not allow the battery to drain if alternator fails.		loads analysis AC or MIL spec –or- may applied all equipment and measure current from alternator.	
				Circuit Protective Devices	23.1357	3.690, 3.691	• If fused must carry a spare fuse. • Must be locatable and identifiable in flight for reset or replacement.			
				Master Switch	23.1361	3.688, 3.689	• Master switch arrangement shall be provided which will disconnect all sources of electrical power from the main distribution system at a point adjacent to the power sources. • Master switch will be easily discernable to crew member(s).			
				Switches	23.1367	3.694	• All switches must be capable of handling the required current. • Constructed with enough distance or insulating material between parts and housing so that vibration is not a problem. • Accessible to appropriate flight crewmembers			

							• Labeled as to operation and the circuit controlled.			
				Instruction for Continued Airworthiness	23.1529	-	• Must include procedures for removal and installation from aircraft. (ie exploded view, wiring diagrams etc) • Special tools required. • Encouraged to include required inspection interval. • May include repair of equipment component if not on replace as required basis. Equipment OEM manuals are encouraged but not alone acceptable..			
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