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- See Discrepancy Sheets
- **Revision date 11/28/2017**

# 100-Hour/Annual Inspection Checklist (GA) Part 23 & CAR 3 Aircraft

## Reference Data:

Order 8130.2, CAR-3, CFR 21 Certification, CFR 23 Airworthiness Standards, CFR 43 Maintenance, CFR 45 Markings, CFR 47 Registered properly, CFR 91 Pilot Responsibility, CFR 36 Noise, CFR 33 engines, CFR 39 AD's, CFR 145 Repair Stations and AC 43.13-1B & 2A Major Repair and Alterations, Manufacture Maintenance Manuals.

### INTERPRETATION OF THE TERM "AIRWORTHY" Section 44704(d) of 49 U.S.C

#### 1) The aircraft must conform to its type certificate.

a. When aircraft configuration and the components installed are consistent with drawings, specifications, and other data that are part of the type certificate (T/C), and include any supplemental T/C and field approval alterations incorporated into the aircraft.

#### 2) The aircraft must be in condition for safe operation.

a. Aircraft relative to wear and deterioration i.e., corrosion, fluid leaks, tire wear, window delimitation/crazing.

**NOTE: If one or both of these conditions are not met, the aircraft would be considered un-airworthy. Order 8130.2F para 9**

**NOTE:** This is only a guide and should not be considered FAA approved data for 100 hour or annual inspection checklist. Consult CFR 43 subpart D, for scope and detail of items to be included for 100 hour or annual inspections.

**This checklist is not exhaustive**

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**The owner or operator is responsible for the maintaining of the aircraft in an airworthy condition.** Including compliance with all applicable Airworthiness Directives as specified in Part 39 of the Code of Federal Regulations and "Airworthiness Limitations" of the applicable manufactures manual. It is also the responsibility of the owner to ensure that the aircraft is inspected in compliance with the requirements of Part 21, 43, and 91 of the Code of Federal Regulations.

## Aircraft Data

1. N-Number: N \_\_\_\_\_ Date: \_\_\_\_\_

2. Airframe Type Certificate No. \_\_\_\_\_ Rev. \_\_\_\_\_

3. ASTM No. \_\_\_\_\_ Rev. \_\_\_\_\_ N/A

4. Aircraft Model \_\_\_\_\_ Model No. \_\_\_\_\_

5. Aircraft Serial No. \_\_\_\_\_ Year manufactured \_\_\_\_\_

6. Certification Basis: CAR or FAR \_\_\_\_\_

7. HOBB Meter reading \_\_\_\_\_ Tach reading (1); \_\_\_\_\_ Tach reading (2); \_\_\_\_\_

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## Airman Attitude

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Has a constrictive attitude toward compliance	Order 2150.3B par. 205			
2.	Verify A&P/IA certificate number and picture ID	CFR 65.91			
3.	Verify Pilots certificate number and picture ID	CFR 61.3			

## Data

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	FAA-Approved maintenance manuals available	CFR 43.13			
2	Alternations IAW approved STC/TSO/PMA/Field approval or other FAA data, (337's)	CFR 21.97/101/113			
3	Instructions for Continued Airworthiness	CFR 21.31, 21.50, 23.1529			
4	Type Certificate Data Sheets (TCDS)	CFR 21.41 / CAR 3.15			
5	Aircraft Flight Manual / Pilot Operating Hand Book	CFR 21.5 / CAR 3.72			
6	AFM / POH Date _____ REV # _____				
7	Data Plate on aircraft exterior	CFR 45.13			
8	Data Plate for aircraft MFG prior to <b>March 7, 1988</b> , Make/Model & serial number	CFR 45.11(e) / AC45-2D			
9	Data Plate on engine – Make/Model & serial number	CFR 45.11 / CFR 21.182			
10	Data Plate on critical components'	CAR 3.18 / CFR 45.15			
11	Data Plates on life limited parts	CFR 45.16			

## Records

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Registration current and in the aircraft ( <b>No Photo Copy</b> )	CFR 91.9 CAR 3.792			
2	Airworthiness Certificate in aircraft dated and signed	CFR 91.203(a) & 21.175			
3	A. Annual Inspection Total Time _____ B. Description of work accomplished _____ C. Date Completed _____ D. A & P / IA Signature _____	CFR 43.11 & 91.417	A. B. C. D.	A. B. C. D.	
4	All AD's recorded n maintenance records and checked recurring AD's A. Airframe B. Engine(s) C. Propeller D. Appliances	A. CFR 39 & 91.417 B. CFR 39 & 91.417 C. CFR 39 & 91.417 D. CFR 39 & 91.417	A. B. C. D.	A. B. C. D.	
5	Reduced Vertical Separation Minimums ( <b>RVSM</b> ) with a letter of authorization (LOA)	CFR 91.706			
6	Last Annual inspection completion date: MM / DD / YY _____ A. IA Name _____ B. IA Cert Number _____ C. Repair Station Number _____ D. Repair station sign off date _____	A. CFR 65.91 B. CFR 665.91 C. D.	A. B. C. D.	A. B. C. D.	
7	Last <b>Progressive</b> inspection phase signed off date. A. Phase Inspection date: _____ B. Phase Inspection sign off date: _____ C. 145 Repair station Number: _____	A. CFR 91.409(d) & (1) B. CFR 145.5 / 107 / 201 / 204 C.	A. B. C.	A. B. C.	

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#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
8	Last <b>100-hour</b> Inspection Date: _____ A. A & P sign of date _____ Total Time _____ B. 145 Repair Station Nbr _____ C. A & P sign off date _____ Cert. # _____ D. A & P IA Signature _____	A. CFR 91.405(b) B. CFR 145.5/107/201/ 204 C. CFR 43.15, 65.85, 91.409 D. CFR 43.11 & 91.417	A. B. C. D.	A. B. C. D.	
9	Equipment List is current and in the aircraft	CFR 3.73. CFR 23.29, & 91.9			
10	Equipment list up-dated to match conformity of the aircraft	CAR 3.777, CFR 23.29 & 91.9			
11	Status of Life limited Parts <b>Effective 04-15-2002</b>	CFR 43.10			
12	Current weight and balance report dates and signed	CAR 3.71, 23.158, 91.9			
13	Current flight manual Pilot Operating Handbook (POH) <b>(before 03-01-1979)</b> in the aircraft <small>circle one</small> Yes No. Revision number _____ / Date _____ Limitations and placard.	CAR 3.778, CFR 21.5, 21.1559, 23.1581, 91.9			
14	Identification Plate secured to the aircraft fuselage exterior	CFR 45.11			
15	If Applicable, check MEL to determine that: A. Issued by N- Number and serial number to the aircraft operator B. A Letter of Authorization from a district office, check deferred items for placards and dates.	CFR 91.213	A. B.	A. B.	
16	Maintenance records for the following A. Engine Left B. Engine Right C. Propeller Left D. Propeller Right E. Appliances Left F. Appliances Right G. Airframe Are in accordance with	CFR 91.417	A. B. C. D. E. F. G.	A. B. C. D. E. F. G.	
17	<b>ATC Transponder date</b> _____ 24 calendar months check	CFR 91.413 & 23.1301			
18	<b>ELT TSO-C91a / TSO-C216 every 12 months</b> check date	CFR 91.207			
19	<b>Pitot static transponder test every 24 months</b>	CFR 3.665, CFR 43 Appendix F			
20	<b>Altimeter test every 24 months</b>	CFR 91.411 and CFR 43 appendix E			
21	Deferred items under part 91.213 Day VFR A. Is the item placardable? B. Is there a maintenance record? C. Is the item disabled or removed?	CFR 91.213	A. B. C.	A. B. C.	

## Cockpit Inspection

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	<b>Placards</b> read correctly Instruments & placards are correctly, located per POH / AFM & TCDS	CFR 23.1541-1567 / CAR 3.755, CFR 91.31			
2	Inoperative Placards A. INOP instruments disabled or removed by an A&P B. Equipment list up to date C. Maintenance record entry D. Minimum Equipment List (MEL) for aircraft	CFR 91.213 A. CFR 91.213 B. CFR 91.213 C. CFR 91.213 D. CFR 91.213(a)(1)	A. B. C. D.	A. B. C. D.	
3.	Vacuum Indication system, <b>Life limited</b> pump	CFR 23.1301			
4.	Compass Card readable <small>circle one</small> Yes / No	CAR 3.385, CFR 23.1347 and 25.1547			
5	Additional instruments not on equipment list or from 337	CAR 3.661 CFR 21.113			
6	Type of Clock installed original analog or digital working	AC 20-94			
7	NAV Radio P/N 1 _____ NAV Radio P/N 2 _____ Matches equipment list				
8	Conforms to type certificate (TC) per POH/AFM see (5,6)				

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#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
9	Cockpit fuel smell	CAR 3.440 / CFR 23.863			
10	Data Plate information matches registration	CFR 45.11/13 and 47.3			
11	Intercom jack(s) how many? Any extra _____ and required 337 form				
12	Fire Extinguisher gage - In the Green or Red <small>circle one</small>	CFR 23.1199			
13	Fire Extinguisher Agent <b>commuter category</b> installed	CFR 23.1197			
14	Fire Extinguisher easy access to pilot	CFR 23.851			
15	Oxygen equipment and supply lines condition	CFR 23.1441 thru 1453			
16	Oxygen bottle if required Green _____ RED _____ Hydro Test AA 5 years, HT 3 years retire at 24 years	CFR 23.1441 AC 43.13-1b para 9-51			
17	Instrument filters covers installed				
18	Yoke chain safety wired, loose or corrosion present	CFR 43.13			
19	Cockpit control knob shape correct type	CAR 3.384 CFR 23.781			
20	Flap, gear knobs installed	CAR 3.384 CFR 23.781			
21	Electrical wiring more <b>than ½” slack</b>	AC 43.13-1B para. 11-118			
22	Electrical wiring clamps / markings as required	AC 43.13-1B sec. 11			
23	Tie-wraps items of mass in the cabin	CFR 23.561			
24	Loose wires under dash not clamped	CFR 23.1351			
25	Fuel selector moves to all positions and placards readable	CAR 3.364 CFR 23.951			
26	Brake Master cylinder leaking A. Left Brakes yes no B. Right Brake yes no	CFR 43.13			
27	Thoroughly Clean aircraft and aircraft engines(s)	CFR 43 Appendix “D”			
28	Cargo tie downs or nets condition if installed	CFR 91.525			
29	General, uncleanliness and loose equipment that might foul the controls, apparent and obvious defects and insecurity of attachment.	CFR 43 Appendix “D”			
30	Stall Warning system horn works	CAR 3.120 CFR 23.1223			
31	Windshield STC for one piece	CFR 43 Appendix “D”			
32	Window tinted	TCDS / Equipment List			
33	Sun Visor installation or STC with a Form 337	CFR 43.13			
34	Windshield and window condition	CAR 3.382 CFR 23.775			
35	Windscreen A. Clear B. Scratched C. Crazing	CFR 23.775 AC 43.13-1b and MIL-P-5425	A. B. C.	A. B. C.	
36	Windows A. Clear B. Scratched C. Crazing	CAR 3.382, CFR 23.775, and AC 43.13-1B chapter 3 Para. 318(a)(2), and MIL-P-5425, CFR 91.205	A. B. C.	A. B. C.	

## Instruments

### Flight Instruments Minimum required

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	An Air Speed Indicator installed	CAR 3.655 CFR 23.1303			
2	An Altimeter Indicator installed	CAR 3.655 CFR 23.1303			
3	A Directional Indicator	CAR 3.666 CFR 23.1303			

### Minimum Instruments Required Visual – Flight rules (day)

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Air Speed Indicator	CAR 3.655 CFR 91.205(b)			
2	Altimeter	CAR 3.655 CFR 91.205(b)			
3	Magnetic direction indicator	CAR 3.655 CFR 91.205(b)			
4	Tachometer for each engine	CAR 3.655 CFR 91.205(b)			
5	Oil pressure gauge for each engine using pressure system	CAR 3.655 CFR 91.205(b)			
6	Manifold pressure gauge for each altitude engine	CAR 3.672 CFR 91.205(b)			
7	Fuel gauge indicating the quantity of fuel in each tank	CFR 91.205(b)			
8	Landing gear position indicator, if retractable	CFR 91.295(b)			

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**Minimum Instruments Required for Instrument Flight rules ( IFR )**

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Two way radio communications and navigation equipment	CFR 91.205(.C.)			
2	Gyroscopic rate-of-turn indicator	CAR 3.668 CFR 91.205(.C.)			
3	Slip-Skid Indicator	CFR 91.205(.C.)			
4	Sensitive Altimeter, adjustable for barometric pressure	CFR 91.205(.C.)			
5	Clock displaying hours, minutes, and seconds with a sweeping secondhand pointer or digital presentation	CFR 91.205(.C.)			
6	Gyroscopic direction indicator ( directional gyro )	CFR 91.205(.C.)			
7	Gyroscopic pitch and bank indicator (artificial Horizon)	CFR 91.205(.C.)			
8	Generator or Alternator of adequate capacity	CFR 91.205(.C.)			

**Power Plant Instruments ( All aircraft ) CAR – 3 Subpart F and Part 23**

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Fuel Quantity Indicator for each fuel tank	CAR 3.672 CFR 23.1305(a)			
2	Oil Pressure Indicator for each engine	CAR 3.674 CFR 23.1305(a)			
3	Oil Temperature Indicator for each engine	CFR 23.1305(a)			
4	Oil Quantity measuring device for each engine	CAR 3.674 CAR 23.1305(a)			
5	Fire warning indicator if required by mfg.	CFR 23.1205			
6	Tachometer indicator for each engine	CFR 23.1305(b)			
7	1. Cylinder head indicator each engine a) Cowl flaps Installed b) Commuter category aircraft	CFR 23.1305(b) CAR 3.675 CFR 23.1305(b) CFR 23.1305(b)	1. a. b.	1. a. b.	
8	Manifold pressure indicator for each engine and for each engine with an controllable pitch propeller	CFR 23.1305(b)			

**Instrument Arrangement CAR 3.661 CFR 23.1321**

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Attitude indicator on panel <b>top center</b>	CFR 23.1321			
2	Airspeed indicator adjacent to and directly to the <b>left</b> of the instrument in the top center position	CFR 23.1321			
3	Altitude indicator adjacent to and directly to the <b>right</b> of the instrument in the top center.	CFR 23.1321			
4	Magnetic direction indicator more than <b>10 degrees</b> off	CFR 23.1547			
5	Magnetic direction indicator placard must state whether the calibration was made with the radio receiver <b>On or Off.</b>	CFR 23.1547			

**Instrument Markings CAR 3.755 CFR 23.1543**

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Markings on cover glass must be in alignment with face of indicator	CFR 23.1543			
2	Each arc and line must be clearly visible to the pilot	CFR 23.1543			
3	All related instruments must be calibrated in compatible units	CFR 23.1543			

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# Electrical

## Electrical Systems CAR 3.694 CFR 23.1367

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	<b>Switches</b>				
	a. Able to Carry rated current	CAR 3.682 CFR 23.1367			
	b. Enough distance or insulating material between current carrying parts and the housing so that vibration (s) will not cause shorting.	CAR 3.681 CFR 23.1367			
	c. Labeled as to operation and circuit controlled	CFR 23.1367			
2.	<b>Circuit Breaker / Fuses</b>				
	a. Circuit protection	CFR 3.690 CFR 23.1357			
	b. Each resettable circuit trip free cannot be overridden	CFR 23.1357			
	c. Fuse readily available and a spare	CAR 3.692 CFR 23.1357			
	d. Breakers labeled and rating	CAR 3.691 CFR 23.1357			
3.	<b>Master Switch</b>				
	a. Wired to disconnect each electrical power source from the distribution system.	CAR 3.688 CFR 23.1361			
	b. Switch is easily discernable and accessible to crew	CAR 3.695 CFR 23.1361			
4.	<b>Wiring Inspection</b>	CAR 3.681 CFR 23.1351 AC 43.13 Chapter 11			
	a. Chafed or frayed wiring				
	b. Insulation penetration				
	c. Outer insulation cracking				
	d. Damage to exposed wiring				
	e. Evidence of arcing				
	f. Evidence of over heating				
	g. Evidence of chemical contamination				
5.	<b>Wire Marking</b>	CFR 23.1351 AC 43.13 Chapter 11			
	a. Gage, circuit, and gage size				
	b. Marked 15 inches maximum interval				
6.	<b>Ground Points</b>	CFR 23.1351 AC 43.13 Chapter 11, AC 25-10			
	a. Tightness of nuts (torque)				
	b. Cleanliness of attach points				
	c. Corrosion				
7.	<b>Sleeving and Conduits</b>	CFR 23.1351 AC 43.13 Chap 11, AC 25.16 and AC 25-10			
	a. Damage outer surface (Kinks, Holes, Flats, Spots, ect.)				
	b. Wear				
	c. Adequate drain holes				
8.	<b>Clamping Points</b>	CFR 23.1351 AC 43.13 Chap. 11. AC 25-16 and AC 25-10			

# Miscellaneous Fuselage

## Miscellaneous Fuselage

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1.	Cabin pressure controller service compressor 24 months	CAR 3.395 CFR 23.843			
2.	Pressurization seals / boots / gaskets, voids, and cracks	CFR 23.843			
3.	Antenna installation doubler installed as per	AC 43.13-1B Chapter 2			
4.	Corrosion on Antenna's	CAR 3.395 CFR 23.609			
5.	Fabric covered aircraft condition Good _____ Poor _____	AC 43.13-1B Chapter 2			
6.	Emergency exit placards	CAR 3.768 CFR 23.1557(d)			
7.	Any additional mirrors installed on wings require FAA form 337	CFR 43 Appendix A			
8.	Condition of Paint, is corrosion present <b>NOT</b> allowed	CAR 3.295 CFR 23.609			

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# Equipment and Furnishings

## Equipment / Furnishings

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Equipment installed functions properly	CAR 3.622 CFR 23.1301.(d)			
2	Flight Manual correct for aircraft	TCDS			
3	Trim Tab indicator readable and functions properly	CFR 43.13			
4	Emergency brake handle installed	CFR 21.31			
5	Batteries proper installation, and charging	CAR 3.683 CFR 23.1353			
6	Battery vented over board	CAR 3.683 CFR 23.1353 AC 43.13-1B para. 11.22			
7	Battery NiCad gage for thermal run away	CFR 23.1353			
8	Thermal / Noise insulation	CFR 23.853			
9	Relief tube, corrosion area	CFR 43.13			
10	New Interior material certifications	CAR 3.388 CFR 23.853 / 25.853			
11	Interior replaced Yes _____ No _____ Have burn Certificates ____				
12	Seat covers, sheep skin material certification	CFR 23.853			
13	Seat covers ( <b>Automotive</b> )require burn certificates	CFR 23.853			
14.	Worn Seat material	CFR 25.853 for a CAR 3.388, aircraft Part 91 & 23.853, AC 43.13-1B Para 9-61			
15	Has interior been altered or material substituted	CFR 21.303/43.11			
16	Seat back locks broke	CAR 3.390 CFR 23.785			
17	Seat rails holes elongated Yes _____ No _____ Check AD	CFR 39			
18	Seating configuration, how many seats are allowed	TCDS			
19	Head rest missing and not on equipment list	CFR 91.9			
20	Seat belts for stitching, cuts, or frayed	CFR 91.107 & 23.785			
21	Seat belts proper storage and markings	CAR 3.715 TSO -22 & 23.785			
22	Seat belts secured when not in use	CFR 23.785(d)			
23	Seat belts plastic locking ring missing, FWD _____ AFT _____	CFR 45.14			
24	TSO C-22 marking on seat belts	CAR 3.390/715 CFR 45.15 CFR 91.205(b)(13,14)			
25	<b>Shoulder Harness required after July 18, 1978</b>	CFR 23.785(g)(i)			
26	<b>Shoulder harness required after Sept. 16, 1992 (PAX) helicopter</b>				
27	Cabin divider(s) / Curtains / Door(s)	CFR 23.853			
28	Heating system / AD's / decay test	CAR 3.388 CFR 23.859			
29	Cabin cooling (air conditioning), check	CAR 3.393 CFR 23.831			
30	Out flow / Safety / Dump valve(s) condition	CAR 3.394 CFR 23.843			
31	Pressurization seals / boots / gaskets condition	CAR 3.396 CFR 23.831			
32	Glare shield painted flat black	CFR 23.773			
33	Door Latches lock	CFR 23.773			
	a. Door sprung	CAR 3.389 CFR 23.783			
	b. Door Seals worn	CAR 3.387 CFR 23.783			
	c. Door slide track lock broken	CAR 3.387 CFR 23.783			

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# Aircraft Exterior

## Aircraft exterior inspection

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Wash and clean all oil, grease and dirt from aircraft	CFR 43 appendix D			
2	Nationality and registration marks per CFR 45.29 check 3 inch <b>markings per date Jan. 1, 1983</b> and repaint Over 30 years 2 or 12 inch Glider exemption letter onboard for exterior markings	CFR 45.22(b)			
3	Rotating beacon installation proper doubler <b>Required after 08-11-71</b>	CFR 23-1401			
4	Anti-collision light system installed	CAR 3.705 CFR 91.209(B) / CFR 23.1401			
5	Anti-collision light installed after 3/11/1996 <b>Red or white</b>	CFR 91.206(b)(11)			
6	AFT Nav light proper color is White	CAR 3.702 CFR 23.1385-1399			
7	Panel seams miss match, extra paint in front of static ports	CFR 23.1325			
8	Static ports paint in hole or other things in port Left _____ Right _____	CAR 3.665 CFR 23.1325			
9	Static vent painted over Left _____ Right _____	CAR 3.665 CFR 23.1325			
10	Pitot heat indicator is an amber light	CFR 23.1326			
11	Pitot heat element operational	CFR 23.1326			
12	Pitot Tube worn around hole Yes, _____ No. _____ Plugged Yes _____ No _____				
	a. Air Speed Last inspection date _____	CFR 23.1325			
13	Static wicks Missing	CFR 23.867			
	a. Right wing	CFR 23.867			
	b. Left wing	CFR 23.867			
	c. Right elevator	CFR 23.867			
	d. Left elevator	CFR 23.867			
	e. Rudder	CFR 23.867			

# Landing Gear

## Landing Gear CAR-3 and Part 23

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Correct tire and wheel for the aircraft	CAR 3.362 CFR 23.733			
2	Tire service pressure a. Left Main _____ b. Right Main _____ c. Nose _____	CAR 3.362 CFR 23.733			
3	Tire condition wear, cuts, or weather cracking a. Left Main _____ b. Right main _____ c. Nose _____	AC 43.13 para 9-14			
4	Landing gear struts leaking a. Left Main _____ b. Right Main _____ c. Nose _____	AC 43.13 PARA 9-2/4			
5	Landing gear strut extension a. Left main _____ b. Right main _____ c. Nose _____	AC 43.13 pars 9-2/4			
6	Landing gear Fairings condition a. Left main _____ b. Right main _____ c. Nose _____	CFR 23.607, CFR 23.1193			
7.	Fairings cracked / Missing hardware a. Left main _____ b. Right main _____ c. Nose _____	CFR 23.607/1193			

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8	Landing gear fairings missing, check Equipment list / WT BAL paperwork	CFR 21.29			
9	Steering shimmy dampener leaking, won't track	CFR 23.745			
10	Brake Pads worn - 0.100 in thickness minimum Left Side _____ Right side _____	CAR 3.363 CFR 23.735			
11	Brake lines condition, frayed, corrosion on fittings Left side _____ Right side _____	CFR 23.735			
12	Brake rotor corrosion, wrapped, or under size Left Hand _____ Right Hand _____	CFR 23.735			
13	Left hand MLG strut / axle / torque links condition	CFR 23.721			
14	Right hand MLG strut / axle / torque links condition	CFR 23.721			
15	NLG strut / axle / torque links conditions	CFR 23.721			
16	Left MLG door actuating systems / Hose condition	CFR 23.1435			
17	Right MLG door actuating systems / hose condition	CFR 23.1435			
18	NLG door actuating system / Hose condition	CFR 23.1435			
19	LH MLG Landing gear actuator switch(s) condition	CFR 23.729			
20	RH MLG Landing gear actuator switch(s) condition	CFR 23.729			
21	Repack wheel bearing	CFR 43 Appendix "D"			
22	Wheel nut cotter pin proper length and installed correctly	AC 43.13-1-B			
23	NLG Landing gear actuator switch(s) condition	CFR 23.729			
24	Landing gear strut chrome damaged – reference manufacture maintenance manual				
25	Landing Light covers cracked, Missing hardware Left side _____ Right side _____ Nose _____	CFR 23.729			
26	Position / warning / Safety squat switch or (WOW) switch	CFR 23.729			
27	Emergency extension / blow down	CAR 3.358 CFR 23.729			
28	Gear Emergency extension / operation	CAR 3.357 CFR 23.729			
29	Landing Gear Retraction / Extension systems	CAR 3.356 CFR 23.729			
30	Main landing gear locking mechanism for operation	CFR 43 Appendix "D"			
31	Main gear trunnion strut bushing for wear Left gear _____ Right gear _____ Nose gear _____	CFR 43.13			
32	Main gear bungee cord condition per Manufactures Manual Left gear _____ Right Gear _____	Manufactures Manual			
33	Main landing and nose gear lubrication while on jacks Left Main gear _____ Right Main gear _____ Nose gear _____	CFR 43.13			
34	Lubrication of gear – Type of grease per MFG Manual _____	CFR 43.26			
35	Floats and skis for security and defects	CFR 43 Appendix "D"			

<b>Landing Gear</b>	<b>Specification</b>			<b>Actuator</b>		
	<b>Up</b> _____	<b>Down</b> _____		<b>Up</b> _____	<b>Down</b> _____	
Down lock over center	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____
Down lock clearance	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____
Up lock clearance	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____
Up lock cable tension	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____	<b>N</b> _____	<b>L</b> _____	<b>R</b> _____

- See Discrepancy Sheets
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# Hydraulic Systems

## Hydraulic Systems

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Hydraulic Distribution / Hoses condition / Life Limit	CAR 3.726 CFR 23/1435			
2	Hydraulic pressure relief valve	CAR 3.728 CFR 23.1435			
3	Hydraulic reservoir / venting	CFR 23.1435			
4	Hydraulic filter change life limit	CFR 23.1435			
5	Hydraulic accumulator charge	CAR 3.728 CFR 23.1435			
6	Hydraulic electric motor brushes and condition	CFR 23.1351			

# Flight controls / Wings

## Flight control / wings

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Left Wing attach fitting for cracks, elongated bolt holes	CAR 3.317 CFR 23.572			
2	Right Wing attach fittings for cracks, elongated bolt holes	CAR 3.317 CFR 23.572			
3	<b>Left wing</b> -dents, cracks, Loose rivets, Corrosion, NAV light <b>RED</b>	CAR 23.603 / 1385			
4	Left wing Fuel vent direction <b>check AD's</b> FWD _____ AFT _____	CFR 23.975			
5	<b>Right wing</b> dents, cracks, loose rivets, Corrosion, Nav light <b>Green</b>	CAR 3.295 CFR 23.603/1385			
6	Right wing Fuel vent direction <b>check AD's</b> FWD _____ AFT _____	CFR 23.975			
7	Left Hand Flaps a. Cracks _____ b. Loose hardware _____ c. Properly installed _____ d. Cracks stop drilled _____	CAR 3.339 CFR 23.655/697			
8	Right Hand Flaps a. Cracks _____ b. Loose hardware _____ c. Properly installed _____ d. Cracks stop drilled _____	CAR 3.339 CFR 23.655/697			
9	Right Aileron a. Cracks _____ b. Loose hardware _____ c. Properly Installed _____	CAR 3.294			
10	Left Aileron a. Cracks _____ b. Loose hardware _____ c. Properly Installed _____	CAR 3.294			
11	Left and Right Aileron Cable rigging loose Annual/100-hour inspection	CAR 3.337 CFR 23.655/685/689			
12	Deicer boots condition worn, holes, debonded,	CAR 3.7127 CFR 23.1416/1419			
13	<b>Rudder</b> moves up & down, bearing loose, cracks, repairs	CAR 3.332 CFR 23.685			
14	<b>Rudder</b> / trim tab attach fittings condition, loose	CAR 3.337 CFR 23.685			
15	<b>Lubrication</b> – system lube per manufactures recommendations	CAR 43.13			
16	Electrical bonding straps broken or frayed	CAR 3.337-1 CFR 23.867			
17	<b>Left Horizontal Stab</b> a. Cracks _____ b. Loose rivets _____ c. Hardware installation and safetied _____ d. Stop drill cracks _____ e. Stops _____	CFR 23.572 CFR 23.675			

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
18	<b>Right Horizontal Stab</b> f. Cracks _____ g. Loose rivets _____ h. Hardware installation and safetied _____ i. Stop drill cracks _____ j. Stops _____	CFR 23.572 CFR 23.675			
19	RH Elevator Stopped drilled holes in elevator without doubler	CFR 23.572			
20	LH Elevator Stopped drilled holes in elevator without doubler	CFR 23.572			
21	Elevator trim control system rigging	CAR 3.337 CFR 23.659			
22	Elevator trim indicator control works	CAR 3.337 CFR 23.677(a)			
23	LH elevator / trim tab attach fittings	CAR 3.337 CFR 23.572			
24	RH elevator / trim tab attach fittings	CAR 3.337 CFR 23.572			
25	L/H Elevator / trim servo tab structure	CAR 3.337 CFR 23.572			
26	R/H Elevator / Trim servo tab structure	CAR 3.337 CFR 23.572			
27	Control surface attached fittings condition	CAR 3.337 CFR 23.572			
28	Control surface balancing all primary controls after repair or paint	CAR 3.159 CFR 23.659			
29	STOL devices / control system condition	CFR 23.572			
30	Boundary layer control / vortex generators, cracks and condition	CFR 23.572			
31	Flight Control Surface Travels / Cables Tension	CAR 3.345 CFR 23.143			
32	Gust lock, condition, worn holes	CAR 3.341 CFR 23.572			
33	Auto pilot trim indicator annual / 100 hour checks rigging	CAR 3.343 CFR 23.143			
34	Autopilot system condition	CFR 23.143			
35	Yaw damper condition	CAR 3.347 CFR 23.143			
36	Electric trim rigging and conditions	CAR 3.343 CFR 23.143			
37	Flight control pulleys worn, broken, or frozen up	CAR 3.345 CFR 23.689			
38	Flight control cables broken strands / rust	AC 43.13 CFR 23.689			
39	Flight control Surface Travel/ Cable Tension	CAR 3.345 CFR 23.391 to 23.459			

	Travel Spec Actual	Tension Spec	Actual
Control Column			
Aileron			
Aileron Trim Tab(s)			
Rudder			
Rudder Trim Tab			
Elevator / Stab Tab(s)			
Flap			
Moveable Stabilizer			
Rudder Pedals			

## Engine Inspection

### Engine Inspection Left

Engine Type Certificate number T/C \_\_\_\_\_ Rev. \_\_\_\_\_

Left Engine Part number \_\_\_\_\_ S/N \_\_\_\_\_

NA the right engine section of this check list for a single engine aircraft

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Thoroughly clean the Left engine	CFR 43 App. D			
2	Perform engine static run – Left engine	CFR 33.26 / 43.15			
3	Perform engine idle run R.P.M check- Left engine	CFR 33.26 / 43.15			
4	Perform engine Magneto drop check – Left engine	CFR 33.37			
5	Mag “P” lead(s) wires not cracked - Left engine	CFR 33.28			
6	Shut down engine and check for engine oil / fuel leaks Left engines	CFR 33.25			
7	Engine data plate installed – Left Engine	CAR 3.670 CFR 45.13			
8	L/H engine Make Model / Serial matches TCDS	CFR 45.13			
09	Certification basic of components installed 337’s	CFR 45.15			
11	Left Engine Instruments a. Cylinder head temperature limitations b. Oil temperature check limitations placard c. Engine d. Accessories	CFR 23.1305 CFR 43.15 CFR 43.15 CFR 23.1301 CFR 23.1301			
12	Engine cowl loose / missing hardware – locations Left Engine	CAR 3.625 CFR 23.1193			
13	Fire wall bent, cracked, or missing fasteners – Left Engine	CAR 3.625 CFR 23.1193			
14	Fire wall wire and hose grommets condition – Left Engine	CAR 2.625 CFR 23.1191(.C.)			
15	Fire wall has no corrosion – Left Engine	CAR 3.624 CFR 23.1119(e)			
16	Engine mount structure for cracks, dents, ext. Left Engine	CFR 23.23			
17	<b>Retorque</b> cylinder base nuts and case halves, per manufacture recommendation - Left Engine				
18	Engine shock mount cracks, worn, hardware condition – Left Engine	CFR 33.33			
19	Flex tubing condition weather cracking, worn, ect. – Left Engine	CAR 3.638 CFR 23.1183			
20	Engine Oil leak(s) Location Left engine _____	CAR 3.638 CFR 23.1183			
21	STC for Bracket air filter if installed & form 337 Left Engine	CFR 21.111 / 1091			
22	Air filter dirty / foreign particles – Left Engine	CAR 3.605 CFR 232.1107			
23	Condition of Baffle seals and installation – Left Engine - Substituted type of baffle material	CAR 3.625 CFR 33.15 / 17 / 21 and CFR 23.1043			
24	Wire chafing, fuel lines, no wire clamped under them – Left Engine	CAR 3.681 AC 43.13-1B			
25	Electrical wire Slack between supports <b>MAX ½ inch</b> - Left Engine	AC 43.13-1B fig. 11.9			
26	Engine / Electrical fuel pump condition wires, mounting Good / Worn – Left Engine	CFR 23			
27	Ignition harness condition a. Left Engine - Left mag b. Left Engine - Right mag	CFR 23	a. b.	a. b.	
28	Clean and gap spark plugs - Left Engine	Per engine manufactures recommendation			
29	Rotate spark plugs - One gasket required - Left Engine	per engine manufactures recommendations			
30	Starter ring broken teeth - Left engine	CFR 23			
31	Alternator / generator drive belts condition worn, cracked, broke - Left engine	CFR 23			
32	Left Engine Cylinders cracked fins, rocker covers leaking 1. Cyl 1 2. Cyl 2 3. Cyl 3 4. Cyl 4 5. Cyl 5 6. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21			
	Intentionally Left Blank				

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
33.	Left Engine Cylinders Barrel cracked ( Chrome ) 1. Cyl 1 2. Cyl 2 3. Cyl 3 4. Cyl 4 5. Cyl 5 6. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21			
34.	Left engine Check Cylinder records for times & certification 1. Cyl 1 2. Cyl 2 3. Cyl 3 4. Cyl 4 5. Cyl 5 6. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21			
35.	Left engine exhaust stacks cracks, defects, installation 1. Cyl 1 2. Cyl 2 3. Cyl 3 4. Cyl 4 5. Cyl 5 6. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21			
36.	Left Engine Muffler cracked, document Location _____ <b>Recurring AD's</b>	CAR 3.617 CFR 23.1121			
37.	Left Engine Muffler Leak check test to 2 PSI internal pressure	AC 43.13-1b para. 8.49 (d)			
38.	Left Engine Rocker cover or push rod leaks past oil seals Location _____				
39	Left Engine Valve inspection (freedom of valve rockers when valves are closed ) (400 hours)	Manufactures recommendation			
40	Left Preheater shroud conditions cracks, vibrations Location _____	CAR 3.617 CFR 23.1101			
41	Left Engine Carburetor heat box condition / holes a. Proper hardware and nuts being used	CAR 3.617 CFR 23			
42	Left Engine controls are properly a. Safeties are correct b. Travel is correct	AC 43.13-1B para 7-122 thru 127			
43	Left Engine case for cracks, leaks and security of seam bolts	CFR 33			
44	Left Engine case nuts torqued and right side up	CFR 43 Appendix D(d)(2)			
45	Left Engine mounts for corrosion, cracks <b>None Allowed</b>	CFR 43.13			
46	Left Engine Cowl flap control and operational limitations	CAR 3.606 CFR 23.1093			
47	Left Engine Cowl flap check for cracks	CFR 43.13			
48	Left Engine Alternate / Ram air / Carb Heat	CAR 3.606 CFR 23.1093			
49	Left Engine Turbo waste gate ( Non – Automatic )	CFR 23.1091			
50	Left Engine Vacuum pump lines, clamps condition Good / worn - Identify location	CFR 23			
51	Left Engine Supercharger overall condition Good / worn Location _____	CFR 23.1109			
52	Left Engine electrical wiring cracked, burned, broken Location _____	CAR 3.693 CFR 23.1163(b)			
53	Left Engine Oil filter opening placard Location _____	CAR 3.767 CFR 23.1557(.C) (2)			
54	Left Engine Drain Oil Location _____	CFR 43 Appendix "D"			
55	Left Engine Clean Oil screen	CFR 43 Appendix "D"			
56	Left Engine Replace oil Filter	CFR 43 Appendix "D"			
57	Left Engine - Check filters for metal particles in accordance with manufactures recommendation	CFR 43.15, 23.1019			
58	Left Engine - Check for metal particles or foreign matter on screens and sump drain plugs	CFR 43 Appendix "D"			
59	Left Engine - Oil drain plug / valve condition and positive Locking.	CAR 3.574 CFR 23.1021			
60	Left Engine - Oil radiator supporting structure for security	CAR 3.572 CFR 23.1023			
61	Left Engine - Oil tanks condition and free of vibration	CAR 3.563 CFR 23.1013			
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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
62	Left Engine - Hose inspection / replacement manufactures limits	CFR 43.10			
63	Mechanic has a master orifice for differential compression tester	(MFG requirements )			
64	Differential compression test, 80 psi / 60 psi per cyl	CFR 43 Appendix "D", AC 43-13-1B para 8-14			
65	Compression readings <b>Left Engine</b> – Cyl 1- 80/ ____ Cyl 2-80/____ Cyl 3- 80/ ____ Cyl 4 – 80/ ____ Cyl 5-80/____ Cyl 6- 80/ ____	If 25% difference check cylinder for problem			
66	Turbocharger inspect all air ducting and connections	Per Manufactures Manual			
67	Exhaust Condition performance completed run-up	Per Manufactures Manual			

**Engine Inspection (Right)**

Engine Type Certificate number T/C \_\_\_\_\_ Rev. \_\_\_\_\_

Right Engine Part number \_\_\_\_\_ S/N \_\_\_\_\_

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Right Engine - thoroughly clean the engine(s)	CFR 43 App. D			
2	Right Engine Perform engine static run	CFR 33.26 / 43.15			
3	Right Engine - Perform engine idle run R.P.M check	CFR 33.26 / 43.15			
4	Right Engine - Perform engine Magneto drop check	CFR 33.37			
5	Right Engine - Mag "P" lead(s) wires not cracked	CFR 33.28			
6	Right Engine - Shut down engine and check for engine oil / fuel leaks	CFR 33.25			
7	Right Engine data plate installed	CAR 3.670 CFR 45.13			
8	Right Engine - Make Model / Serial matches TCDS	CFR 45.13			
9	Right Engine Make Model / Serial matches TCDS	CFR 45.13			
10	Right Engine Certification basic of components installed 337's	CFR 45.15			
11	Right Engine - Instruments a. Cylinder head temperature limitations b. Oil temperature check limitations placard c. Engine d. Accessories	CFR 23.1305 CFR 43.15 CFR 43.15 CFR 23.1301 CFR 23.1301	a. b. c. d.	a. b. c. d.	
12	Right Engine cowl loose / missing hardware – record locations of items	CAR 3.625 CFR 23.1193			
13	Right Engine Fire wall bent, cracked, or missing fasteners	CAR 3.625 CFR 23.1193			
14	Right Engine Fire wall wire and hose grommets condition	CAR 2.625 CFR 23.1191(.C.)			
15	Right Engine Fire wall has no corrosion	CAR 3.624 CFR 23.1119(e)			
16	Right Engine mount structure for cracks, dents, ext	CFR 23.23			
17	Right Engine <b>Retorque</b> cylinder base nuts And case halves, per manufacture recommendation				
18	Right Engine shock mount cracks, worn, hardware condition	CFR 33.33			
19	Right Engine Flex tubing condition weather cracking, worn, ect.	CAR 3.638 CFR 23.1183			
20	Right Engine Oil leaks Location(s)	CAR 3.638 CFR 23.1183			
21	Right Engine STC for Bracket air filter if installed & form 337	CFR 21.111 / 1091			
22	Right Engine Air filter dirty / foreign particles	CAR 3.605 CFR 232.1107			
23	Right Engine Condition of Baffle seals and installation - Substituted type of baffle material	CAR 3.625 CFR 33.15 / 17 / 21 and CFR 23.1043			

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
24	Right Engine - Wire chafing, fuel lines, no wire clamped under them	CAR 3.681 AC 43.13-1B			
25	Right Engine - Electrical wire Slack between supports <b>MAX ½ inch</b>	AC 43.13-1B fig. 11.9			
26	Right Engine / Electrical fuel pump condition wires, mounting Good / Worn	CFR 23			
27	Right engine - Ignition harness condition a. Right Engine – Left mag b. Right engine – Right mag	CFR 23	a. b.	a. b.	
28	Right engine - Clean and gap spark plugs	Per engine manufactures recommendation			
29	Right engine Rotate spark plugs - One gasket required	per engine manufactures recommendations			
30	Right engine Starter ring broken teeth	CFR 23			
31	Right engine\Alternator / generator drive belts condition worn, cracked, broke.	CFR 23			
32	Right Engine Cylinders cracked fins, rocker covers leaking a. Cyl 1 b. Cyl 2 c. Cyl 3 d. Cyl 4 e. Cyl 5 f. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21	a. b. c. d. e. f.	a. b. c. d. e. f.	
33	Right Engine Cylinders Barrel cracked ( chrome ) a. Cyl 1 b. Cyl 2 c. Cyl 3 d. Cyl 4 e. Cyl 5 f. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21	a. b. c. d. e. f.	a. b. c. d. e. f.	
34	Right engine Check Cylinder records for times & certification a. Cyl 1 b. Cyl 2 c. Cyl 3 d. Cyl 4 e. Cyl 5 f. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21	a. b. c. d. e. f.	a. b. c. d. e. f.	
35	Right engine exhaust stacks cracks, defects, installation a. Cyl 1 b. Cyl 2 c. Cyl 3 d. Cyl 4 e. Cyl 5 f. Cyl 6	CFR 3.615 CFR 23.1121 CFR 33.21	a. b. c. d. e. f.	a. b. c. d. e. f.	
36	Right Engine Muffler cracked, Location _____ <b>Recurring AD's</b>	CAR 3.617 CFR 23.1121			
37	Right Engine Muffler Leak check test to 2 PSI internal pressure	AC 43.13-1b para. 8.49 (d)			
38	Right Engine Rocker cover or push rod leaks past oil seals Location _____				
39	Right Engine Valve inspection ( freedom of valve rockers when valves are closed ) ( 400 hours )	Manufactures recommendation			
40	Right Engine Preheater shroud conditions cracks, vibrations Location _____	CAR 3.617 CFR 23.1101			
41	Right Engine Carburetor heat box condition / holes Proper hardware and nuts being used	CAR 3.617 CFR 23			
42	Right Engine controls properly for a. Safetying b. Travel	AC 43.13-1B para 7-122 thru 127	a. b.	a. b.	
43	Right Engine case for cracks, leaks and security of seam bolts	CFR 33			
44	Right Engine case nuts torqued and right side up	CFR 43 Appendix D(d)(2)			

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
45	Right Engine mounts for corrosion, cracks <b>None Allowed</b>	CFR 43.13			
46	Right Engine Cowl flap control and operational limitations	CAR 3.606 CFR 23.1093			
47	Right Engine Cowl flap check for cracks	CFR 43.13			
48	Right Engine Alternate / Ram air / Carb Heat	CAR 3.606 CFR 23.1093			
49	Right Engine Turbo waste gate (Non –Automatic )	CFR 23.1091			
50	Right Engine Vacuum pump lines, clamps condition Good / worn Location _____	CFR 23			
51	Right Engine Supercharger overall condition Good / worn Location _____	CFR 23.1109			
52	Right Engine Electrical wiring cracked, burned, broken Location _____	CAR 3.693 CFR 23.1163(b)			
53	Right Engine Oil filter opening placard Location _____	CAR 3.767 CFR 23.1557(.C) (2)			
54	Right Engine Drain Oil Location	CFR 43 Appendix “D”			
55	Right Engine Clean Oil screen	CFR 43 Appendix “D”			
56	Right Engine Replace oil Filters	CFR 43 Appendix “D”			
57	Right Engine Check filters for metal particles in accordance with manufactures recommendation	CFR 43.15, 23.1019			
58	Right Engine Check for metal particles or foreign matter on screens and sump drain plugs	CFR 43 Appendix “D”			
59	Right Engine Oil drain plug / valve condition and positive locking	CAR 3.574 CFR 23.1021			
60	Right Engine Oil radiator supporting structure for security	CAR 3.572 CFR 23.1023			
61	Right Engine Oil tanks condition and free of vibration	CAR 3563 CFR 23.1013			
62	Right Engine Hose inspection / replacement manufactures limits	CFR 43.10			
63	Right Engine Mechanic has a master orifice for differential compression tester	(MFG requirements)			
64	Right Engine Differential compression test, 80 psi / 60 psi per cyl	CFR 43 Appendix “D”, AC 43-13-1B para 8-14			
65	Right Engine - Compression readings <b>Right Engine</b> – Cyl 1- 80/ ____ Cyl 2-80/____ Cyl 3- 80/ ____ Cyl 4 – 80/ ____ Cyl 5-80/____ Cyl 6- 80/ ____	If 25% difference check cylinder for problem			
66	Right Engine - Turbocharger inspect all air ducting and connections	Per Manufactures Manual			
67	Right Engine Exhaust Condition performance completed run-up	Per Manufactures Manual			

## Fuel Systems

### Fuel System\_CAR-3 Subpart E and Part 23

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Remove cowling and clean engine of all oil and dirt Left - Right	CFR 43 Appendix “D”			
2	Injection fuel lines <b>RECURRING AD</b> if required every 100 hours Left - Right	CFR 39			
3	Fuel bowl leaking Left - Right	CAR 3.431 CFR 23.999			
4	Fuel Quantity sensor / Transmitter condition Left - Right	CFR 23.955			
5	Fuel Boost / Aux. Pump(s) bypass condition Left - Right	CAR 3.449 CFR 23.955			
6	Fuel lines vibration / clamped Left - Right	CAR 3.550 CFR 23.993 AC 43.13-1B para 8-31			
7	Carburetor security, throttle arm / bushing loose Left - Right	CAR 3.551 CFR 23.994			
8	Mixture control linkage condition Left - Right	CAR 3.630 CFR 23.1147			
9	Throttle control binding Left - Right	CAR 3.628 CFR 23.1143			
10	Engine Primer Leaking Left - Right	CAR 3.442 CFR 23.1141			
	<b>Intentionally blank</b>				

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
11	Remove and clean carburetor screen Left - Right	Manufactures Maintenance Manual			
12	Induction System Screens conditions Left - Right	CFR 23.991			
13	Fuel pump condition and AD requirements Left - Right	CFR 23.991			
14	Fuel system lines and fittings conditions Left - Right	CAR 3.550 CFR 23.993			
15	Fuel systems drains, lock shut and drains properly Left - Right	CFR 23.999			
16	Clean and inspect fuel tank strainer condition Left - Right	CFR 23.977			
17	Filler cap must have electrical bonding ( Chain on cap ) Left - Right	CFR 23.973			
18	Fuel placards - Must be present a. Left wing Gallons _____ Type Fuel _____ b. Right wing Gallons _____ Type Fuel _____	CAR 3.761 CFR 23.1557(c)			
19	Left Fuel Tank caps a. seal condition, b. tight seal, c. flat, d. cracked Right Fuel tank caps a. seal condition b. tight seal c. flat d. cracked	CAR 3.445 CFR 23.973(c)			
20	Fuel tank sumps drained of water Left - Right	CAR 3.444 CFR 23.971			
21	Fuel tank condition for cracks, vibration, Leaks Left - Right	CFR 23.963			
22	Fuel line and hose condition Left - Right	CFR 23.993			
23	Fuel drain valve positive locking Left - Right	CAR 3.551 CFR 23.999			
24	Fuel strainer or filter condition Left - Right	CAR 3.448 CFR 23.997			
25	Blistering of sealant in a fuel cell caused by corrosion Left - Right	CFR 23.963(c)			
26	Fuel nonmetallic liner leaks Left - Right	CAR 3.442-1 CFR 23.965 (d)			
27	Unusable fuel supply check reference ( TCDS)	CAR 3.440 CFR 23.959			
28	Fuel gage reads zero when fuel tank is empty Left - Right	CAR 3.440 CFR 23.1337(b)			
29	Lubricate all control rod ends and fuel systems components	MFG instructions			

## Propeller Inspection

### Propeller Inspections

Left Propeller Type Certificate Number T/C \_\_\_\_\_ Rev. \_\_\_\_\_

Left Propeller Part number \_\_\_\_\_ S/N \_\_\_\_\_

Date of installation \_\_\_\_\_ TSPOH \_\_\_\_\_ Current Total time on Prop \_\_\_\_\_

Right Propeller Type Certificate Number T/C \_\_\_\_\_ Rev. \_\_\_\_\_

Right Propeller Part number \_\_\_\_\_ S/N \_\_\_\_\_

Date of installation \_\_\_\_\_ TSPOH \_\_\_\_\_ Current Total time on Prop \_\_\_\_\_

#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
1	Propeller Part number and serial numbers agree with latest records Left - Right	CFR 45.11			
2	In there a propeller maintenance record ( Log book ) Left - Right	CFR 43.2a			
3	If no propeller log book is there a 100-hour sign off in the log book Left - Right	CFR 43.11			
4	Propeller Seal leaking Left - Right	CFR 23.907			
5	Propeller for nicks, cracks, and damage Left - Right	AC 43.13-2B Para 8-73			

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
6	File marks after dressing propeller <b>NOT</b> allowed Left - Right	CFR 43.13			
7	Mechanics record entry after dressing nicks Left - Right	CFR 43.9			
8	Propeller spinner had doubler added to repair cracks <b>NOT ALLOWED</b>	CFR 23.907			
9	Propeller spinner(s) cracks <b>Not allowed</b> , Propeller Nuts are safety wires, Missing screws from spinner <b>None allowed</b> Reference Service letters if cracked:	a. Sensenich See aircraft maintenance manuals b. McCauley 1992-14C – part <b>Must be replaced</b> c. Hartzell HC-SL-61-91 <b>Requires a Field Approval</b>			
10	Propeller grinding when rotating Left - Right	AC 43.13-1B para 8-2 (c ) (2)			
11	Corrosion pitting on bladed or hub – <b>None allowed</b> Left - Right	CFR A35.3			
12	Paint on propeller blades, type per manufacturer maintenance manual	CFR 3.295 CFR 23.609			
13	If repainted after rework type of paint applied lacquer base or polyurethane enamel and was it recorded in the propeller maintenance log / record. Left - Right	CFR 43.5			
14	Is there a STC for a different propeller for other than the TCDS. Left - Right	CFR 21.111			
15	Is there a STC for the propeller to check engine gages for new limitations Left - Right	CFR A35.4			
16	Is the Propeller the correct diameter and width Left - Right	CAR 3.416 CFR 23.45			
17	Propeller ground clearance Left - Right	CAR 3.422 CFR 23.925			
18	Has the propeller tips been altered ( rounded or square ) Left - Right	CAR 43 Appendix “A”			
19	Are there repairs in the propeller maintenance record Left - Right	CFR 43.9			
20	Has the shotpeen been removed after rework at hub Left - Right	CFR 43.9			
21	Has the hub seal been replaced ( service Life ) Left - Right	CFR 43.9			
22	Propeller hub is oiled / greased filled and or leaking Left - Right	CFR 35.3			
23	When was the last Hub overhaul Date Left _____ Right _____	CFR 35.3			
24	Pitting corrosion on Hub <b>NONE ALLOWED</b> Left - Right	CFR 35.3			
25	Hub, blade clamps, and pitch change mechanism should be inspected for corrosion. <b>NONE ALLOWED</b> Left - Right	CFR A35.3			
26	Were new propeller bolts installed Left - Right	CFR A35.3			
27	Were new nuts used on the propeller bolts Left - Right	CFR A35.3			
28	Were new cotter pins installed in the retaining nuts	Per Manufacturer CFR A35.4			
29	In the spinner shimmed to the spinner bracket if required Left - Right	CFR A35.3			
30	Pitch change counterweights on blade clamps should be inspected for security, safety Left - Right	CFR A35.3			
31	Adequate counterweight clearance within the spinner Left - Right	CFR 23.925			
32	Are the propeller blades in track Left - Right	CFR 23.925			
33	De-icer boots for signs of deterioration and security Left - Right	CFR 23.929			
34	Propeller time ( <b>TOTAL TIME</b> ) recorded in the aircraft propeller log books Left - Right	CFR 91.417(2)			
35	Propeller vibration rate Left - Right	CAR 3.431 CFR 23.907			
36	Propeller clearance to the ground and gear Left - Right	CAR 3.417 CFR 23.925			
37	Propeller blade play and track Left - Right	CFR 43.13			

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
38	Lubricate the propeller assembly Left - Right Refer to Hartzell Service letter HC-SL-61-184 for procedures for a Hartzell prop	CFR 43.13			
39	Propeller backing plate made of composite check propeller bub for pitting corrosion Left - Right	CFR 43.13			

## Avionics

### Avionics Installed

#	Text	Ref.	Satisfactory	Unsatisfactory*
1	Altimeter Left - Right P/N: _____ S/N: _____ P/N: _____ S/N: _____			
2	Encoder Altimeter Left - Right P/N: _____ S/N: _____ P/N: _____ S/N: _____			
3	Audio Panel Left - Right P/N: _____ S/N: _____ P/N: _____ S/N: _____			
4	TCAS Left - Right P/N: _____ S/N: _____ P/N: _____ S/N: _____			
5	Comm's Left - Right P/N: _____ S/N: _____ P/N: _____ S/N: _____			
6	NAV's Left - Right P/N: _____ S/N: _____ P/N: _____ S/N: _____			
7	Transponder Left - Right P/N: _____ S/N: _____ P/N: _____ S/N: _____			
8	Auto Pilot P/N: _____ S/N: _____ P/N: _____ S/N: _____			

## DE-ICING Systems

### De-icing Systems

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Known Ice System	CFR 23.1416			
2	Ice Lights work and condition	CFR 23.1416			
3	Propeller De-Ice condition	CFR 23.1416			
4	Wing Tail boots condition	CAR 3.712 CFR 23.1416			
5	De- Ice Type: Air / Electric / Fluid	CFR 23.1416			
6	Boots condition:	CAR 3.712 CFR 23.1416			
7	Windshield De-Ice conditions	CFR 23.1416			
8	Windshield wiper condition	CFR 23.1416			
9	Jet Intake De-Ice condition	CFR 23.1416			
10	Pitot heat condition	CFR 23.1416			

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# ADDITIONAL EQUIPMENT

## Additional Equipment

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Dual controls:	CFR 23.777			
2	Type Yoke:	CFR 23.777			
3	Stall warning system works	CFR 23.703			
4	Stick shaker works	CFR 23.672			
5	Rotating beacon works (upper / Lower )	CAR 3.703 CFR 23.1401			
6	Strobe lights work	CFR 23.1401			
7	Taxi Light works	CAR 3.655 CFR 23.1383			
8	Navigation lights work	CAR 3.661 CFR 23.1389			
9	Wing light work	CAR 3.661 CFR 23.1389 ****			
10	Interior lights work – reading lights				
11	Instrument back ground lights work				
12	Map lights work				
13	Long Range fuel tanks	CFR 23.959			
14	AUX fuel Quantity works	CFR 23.955			
15	Single point refuel condition	CFR 23.953			
16	Lavatory condition	CFR 23.1561			
17	Galley condition	CFR 23.1561			
18	Cabinetry Condition	CFR 23.1561			
19	Other Equipment condition	CFR 23.1561			
20	Intercom system works	CFR 23.1561			
21	Entertainment system installed check for 337 alteration form	CFR 43 Appendix “A”			
22	USB ports installed Check for 337 alternation forms	CFR 32 Appendix “A”			
23	Gap Seal kit installed	CFR 43 Appendix “A”			
24	Brackett Aero Filter STC installed	CFR 43 Appendix “A”			
25	Air filter replacement <b>DATE</b> _____ Bracket air filter check hours	CFR 43 Appendix “A”			

## Special Inspection Items

### Special Inspections

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Airworthiness Directives AD's Hours Months Years	CFR 39			
2	Engine fuel and oil Lines Hours Months Years	Per Manufacture Manual			
3	Brakes Lines Hours Months Years	Per Manufacture Manual			
4	Air Filter engine Hours Months Years	Per Manufacture Manual			
5	Air filter Instruments Hours Months Years	Per Manufacture Manual			
6	Wing Structure area Hours Months Years	Per Manufacture Manual			
7	Hard and overweight landing Hours Months Years	Per Manufacture Manual			
#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
8	Lighting Strike damage Hours Months Years	Per Manufacture Manual			
9	Hail Damage Hours Months Years	Per Manufacture Manual			
10	Severe Turbulence damage Inspection Hours Months Years	Per Manufacture Manual			
11	Corrosion damage Inspection Hours Months Years	Per Manufacture Manual			
12	Radio Equipment Inspection Hours Months Years	Per Manufacture Manual			

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#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
13	Emergency Location Transmitter ( ELT ) 12 month test – 24 month replace	CFR 91.208			
14	Pitot Static test - 24 month re- cert	CFR 91.208			
15	Transponder - 24 month test	CFR 91.411			
16	Rigging test	CFR 43 Appendix “D”			
17	New weight AND balance aircraft for compensation / hire				
18	Magneto 200, 500 and ect, coil, contacts, ect inspection				
19	Rigging inspection	Per Manufacture Manual			
20	Oxygen bottle Inspection Hydrostat	AC 43.12-1B Chapter 9 Section 3			
21	Lubrication inspection	Per Manufactures Manual			
22	Hose Inspection Fuel and Hydraulic	Per Manufactures Manual			
23	Compass magnetic direction ( calibration)	CFR 23.1327			
24	Airspeed indicator inspection	CFR 23.1327			
25	Remove the rocker box covers and check for freedom of valve rockers ( 400 hours )				
26	Glider towing installation				
27	Pitot Static plate heaters				

## Misc., Items aircraft Inspections

### Misc., Items aircraft Inspections

Below are some of the reported items found on New and Low time aircraft, which should be stress the importance of performing a thorough inspection.

#	Text	Ref.	Satisfactory	Unsatisfactory *	NA
1	Aileron control cable not over pulley				
2	Aileron cable improperly installed in bell crank / cable retaining pin was not installed				
3	Bolts loose on the vertical and horizontal stabilizer fin attachment's				
4	Broken and cracked electrical terminal's				
5	Control cable turn buckles not safetied				
6	Flap follow up cable chaffing on brake line				
7	Foreign items in fuel cells / tanks				
8	Fuel lines chaffing – inadequate clamping				
9	Fuel lines twisted, bent, kinked, obstructing flow				
10	Incorrect propeller bolts installed				
11	Jam nuts drilled but not safety wire installed				
12	Lock clips missing from control cable turn buckles				
13	Loose rivets in horizontal stabilizer leading edge				
14	Main wheel tires do not clear the wheel bays				
15	Numerous drill chuck marks in the face of the aft face of the pressure bulk head.				
16	Oil lines leaking at connections				
17	Primer line “T” fitting is not installed				
18	Propeller blade retention ferrules under torqued				
19	Elevator trim cable wrapped around primary ruydder control cable				
20	Rivet holes drilled but rivets not installed, in different areas				
21	Rudder cable bell crank attach bolts loose				
#	Text	Ref.	Satisfactory	Unsatisfactory*	NA
22	Rudder cable bolts fitted upside down and no safeties				
23	Unreliable fuel quantity indication				

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# LIFE LIMIT ITEMS

## Life Limits CFR 43.10

**This is not an exhaustive list nor does this list supersede the manufacture's publication and is up-dates periodically**

This is only a guide and should not be considered FAA approved data for life limits. Consult the manufactures recommendations; type certificate data sheets (TCDS), AD's, or the limitations section of the FAA – Approved airplane or rotorcraft flight manuals and aircraft maintenance manuals.

<u>Calendar / Hourly Life limited Items:</u>	<u>Years</u>	<u>Hours</u>	<u>Satisfactory</u>	<u>Unsatisfactory*</u>	<u>NA</u>
<b>AIRFRAME</b>					
Gyro air filters, central	5				
Non-Teflon fuel, Oil, and Hydraulic hoses	15	3000			
Teflon fuel, Oil, and Hydraulic hoses	20	4000			
Seat belt / shoulder harness webbing	20				
Stabilizer attach bolts	25				
Wing Bolts	25				
<b>Engine</b>					
Engine Shock mounts	15	TBO			
Non-Teflon fuel, Oil, and Hydraulic hoses	8	TBO			
Teflon fuel, Oil and Hydraulic hoses	15	TBO			
Continental Engines		2000 SL 98-9			
<b>Special Inspection Items:</b>					
<b>Airframe</b>					
Gyro air pump carbon vanes	6	500			
Electric Hydraulic Motor pump	15	500-1500			
Electro mechanical gear actuator	15	3000			
Gear actuator motor brushes	2	250			
Gear motor internal inspection lubrication	15	2000			
Flight control trim actuator(s)	15	4500			
Electric flap actuators / motors	20	4000			
Stabilizer mounting bolts torque inspection	5				
Wing attach bolts torque inspection	5				
<b>Propeller</b>					
Fixed Pitch propeller recondition	6	500			
Mounting Hardware	20	2000			
Constant Speed propeller overhaul	6	2400			
Propeller governor reseal	15	1500			
Governor ( Woodward )	5	2400			
Accumulators	5	1800			
<b>Engine</b>					
Alternator		500			
Gear drive alternator internal inspection	5	300			
Belt driven alternator internal inspection	5	500			
Internal Magneto inspection	5	500			
Valve inspection / Dry lash clearance	15	TBO			
Cam / Cam Follower inspection ( TCM engines)	15	Mid Life			
Bendix fuel injector servo overhaul	20	TBO			
Pressure carburetor overhaul	20	TBO			
Primer nozzles cleaned and spray pattern	5				
Continental unmetered fuel pressure check	2	400			
Diaphragm fuel pumps overhaul	20	TBO			
Internal starter inspection	5	Mid – life			
Turbo charge oil inlet check valve(s)	10	1000			
Turbo charger oil scavenge check valve(s)	10	1000			
Hydraulic waste gate actuator(s) resealing	10	1000			

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