SAFETYWIRE · FAA AVIATION MECHANIC GENERAL, AIRFRAME & POWERPLANT

The Ultimate A&P Hangar Cheat Sheet

Tape this to the inside of the toolbox lid.

1 Inspection Intervals, Part 91

Calendar month intervals run to the last day of the month they fall in.

ITEM	INTERVAL	RULE
Annual inspection	12 calendar months	91.409(a)
100-hour inspection	100 hours in service	91.409(b)
Altimeter and static system	24 calendar months	91.411
ATC transponder	24 calendar months	91.413
ELT inspection	12 calendar months	91.207(d)
ELT battery	1 hour of use, or half its life	91.207(c)

2 What a Record Entry Must Contain

43.9 for maintenance, 43.11 for an inspection under Part 91.

ELEMENT	43.9 MAINTENANCE	43.11 INSPECTION
Description of the work	Required	Extent of the inspection
Reference to acceptable data	May replace the description	n/a
Date of completion	Required	Required
Aircraft total time in service	Not required	Required
Name of the person, if different	Required	n/a
Signature and certificate number	Required	Required
Kind of certificate held	Required	Required
Certification statement	Not required	Required, in the words given

3 The Three Written Tests

TEST	CODE	QUESTIONS	TIME	PASS
Aviation Mechanic General	AMG	60	2 hours	70%
Aviation Mechanic Airframe	AMA	100	2 hours	70%
Aviation Mechanic Powerplant	AMP	100	2 hours	70%

> **An annual signed on 15 March is good through 31 March of the following year. The ten hour overrun belongs to the 100-hour, never to the annual, and the hours used come off the next interval.**

4 Weight, Balance and Sheet Metal

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CG = total moment / total weight
Ballast = (weight x distance out) / (ballast arm - limit)
BA = (0.01743 R + 0.0078 T) x degrees
Setback = K x (R + T), K = tan(angle / 2)
Wrench setting = torque x L / (L + A)
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5 Rivet Selection and Layout

DIMENSION	RULE
Diameter	3 times the thickest sheet
Length	Grip plus 1.5 diameters
Shop head formed	1.5 diameters across by 0.5 high
Edge distance	2 diameters minimum, 2.5 preferred
Pitch along a row	3 minimum, usually 4 to 6, at most 10
Transverse pitch	75 percent of pitch, never below 2.5 diameters

6 Allowable Voltage Drop, AC 43.13-1B Table 11-6

SYSTEM	CONTINUOUS	INTERMITTENT
14 volt	0.5 V	1.0 V
28 volt	1.0 V	2.0 V
115 volt AC	4.0 V	8.0 V
200 volt AC	7.0 V	14.0 V

7 Fluid Weights

FLUID	POUNDS PER US GALLON
Aviation gasoline	6.0
Jet A	6.7 standard
Engine oil	7.5
Water	8.345

Working these out by hand?

- Weight and balance, bend allowance, rivet layout and 20 more, each worked step by step
- A maintenance record builder that checks each entry against 43.9 and 43.11, and an inspections due tracker
- 1,121 practice questions across all 40 ACS subjects, free in your browser, and it works offline once opened

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A study and hangar aid. 14 CFR, the aircraft's maintenance manual and its type certificate data govern; check them before you rely on any figure here.