

MD – RAMinister's Delegates - Recreational Aviation
Représentants du Ministre - Aviation de loisir

Inspection Service

Service d'inspection

**MDRA C20 MANUAL of PROCEDURES for INSPECTION of METAL, TUBE, and COMPOSITE
AMATEUR-BUILT AIRCRAFT, INSPECTION AND TECHNICAL INFORMATION RECORD**

BUILDER <input type="checkbox"/> IMPORTER <input type="checkbox"/>		MD-RA REGISTRY NUMBER:	
SURNAME:		GIVEN NAME(S)	
ADDRESS:			
CITY:	PROVINCE:	POSTAL CODE:	
HOME TELEPHONE:		FACSIMILE:	
BUSINESS TELEPHONE:		EMAIL:	
REGISTRATION MARKS C-		CERT OF REGISTRATION DATE:	
A/C MAKE:	MODEL:	SERIAL NO.:	
PRESSURIZED <input type="checkbox"/>	PISTON ENGINE <input type="checkbox"/>	TURBINE <input type="checkbox"/>	
MAXIMUM TAKE- OFF WEIGHT _____ Lb <input type="checkbox"/> Kg <input type="checkbox"/>			
WOOD <input type="checkbox"/>	METAL <input type="checkbox"/>	TUBE/ FABRIC <input type="checkbox"/>	
OWN DESIGN <input type="checkbox"/>		FROM PLAN <input type="checkbox"/>	
LISTED ON TCA/FAA ELIGIBLE KITS LIST <input type="checkbox"/>		KIT REQUIRING MAJOR PORTION, (51%) INSPECTION <input type="checkbox"/>	
QUICK BUILT KIT <input type="checkbox"/>			
DATE CONSTRUCTION STARTED:		DATE CONSTRUCTION COMPLETED:	
NAME of DESIGNER or SOURCE of PLANS, KIT and/or MATERIALS (ATTACH LIST IF REQUIRED):			
ADDRESS:			
CHANGE OF OWNERSHIP <input type="checkbox"/> OR ADDRESS <input type="checkbox"/>		DATE:	
SURNAME:		GIVEN NAME(S)	
ADDRESS:		CITY:	
PROVINCE:	POSTAL CODE:	TELEPHONE:	

RECORD OF INSPECTIONS					
Job number	Type	Inspector Name (Print)	Obs. Sheet No.	Date	Signature

The builder must be present for the inspection

Section 1.0 GENERALITIES

1. Will the builder be incorporating any modifications to the structure which will affect flight, structural integrity of the aircraft, or eligibility for aerobatic waiver? (Y N)
 If yes, give details below.

1. Is the builder using professional assistance? (Y N)
 If yes, provide:
 Contractor Name: _____ Telephone _____

2. What work is subject to assistance? (List below)

(Y) - Indicates compliance with requirements for Amateur Built aircraft contained in the applicable sections of CARs and the exemption from section 549.01 of the Canadian Aviation Regulations and Chapter 549 of the airworthiness manual - airworthiness standards-amateur -built aircraft.

(N) - Indicates non-compliance. State nature of discrepancy under "Notes"

(N/A) - Indicates not applicable.

Section 1.1 COMPLIANCE WITH AMATEUR-BUILT REQUIREMENTS

1. Has the builder filed a Letter of Intent? (Y N)
2. Is an Amateur Built Information Package available? (Y N)
3. Is the builder familiar with the applicable legislation? (Y N)
4. Does the aircraft gross weight comply with the weight specified by the aircraft designer and / or kit supplier? (Y N)
5. Does the aircraft wing loading indicate high performance? (Y N)
6. Will the builder be requesting an Aerobatic Waiver? (Y N)
7. Does the aircraft meet aerobatic design requirements? (Y N)
8. Is the builder familiar with special inspection requirements? (Y N)
9. Will the aircraft be built from a kit (Y N)
10. Does the builder have copies of applicable newsletters or other pertinent information from the kit supplier? (Y N)
11. Does the project meet major portion requirements? (Y N)
12. Does the builder have "Acceptable Methods, Techniques and Practices" (AC 4313 1B or latest amendment) (Y N)
13. Has the builder established a project record system? (Y N)
14. Are drawings available? (Y N)
15. Is the shop adequately heated and does it provide the proper environment for the construction of the project? (Y N)

Summary, Compliance with Amateur-Built Requirements:

Has builder been notified of your findings? On site? By Mail?

Date - _____ Inspector's Signature _____ Print Name _____
yyyy-mm-dd

End of Section 1.1 Use the space below for notes if required

Section 1.2, SHEAR WEBS, INSPECTION replaced by Section 1.5.1

Section 1.3 PRE- COVER INSPECTION

GENERAL

List parts inspected:

Type of structure and materials:

What is material quality?

What provision has been made to allow for testing of glue and/or weld samples?

1. Have all Box Sections been inspected previously? (See Section 1.5.1) (Y N)
2. Have all discrepancies from previous Box Section or pre- cover inspections been rectified? (Y N)
3. Does builder have invoices for materials? (Y N)
4. Do parts conform to drawings with respect to dimensions and material? (Y N)

FUSELAGE (HULL)

1. Are welded parts to accepted practice (Y N)
2. Are all attachment fittings to accepted practice? (Y N)
3. Are all drilled holes properly located, free from elongation and are all interiors treated for protection from environmental deterioration? (Y N)
4. Is venting and drainage provided and are there any moisture traps evident? (Y N)
5. Are all surfaces protected against environmental deterioration? (Y N)
6. Is all attachment hardware employed and safetied? (Y N)
7. Are rivets, where employed, of proper type (ref dwgs) and suitably installed? (Y N)
8. Is sheet metal fabrication to accepted practice? (Y N)
9. Are fittings fabricated to acceptable practice and do they conform to dwgs? (Y N)
10. Has builder assured alignment and symmetry? (Y N)
11. Is craftsmanship to accepted practice? (Y N)

MAINPLANE (WINGS)

1. Are all drilled holes properly located, free from elongation? (Y N)
2. Are all interiors treated for protection from environmental deterioration? (Y N)
3. Are all surfaces protected against environmental deterioration? (Y N)
4. Are all compression members secure and free of bends or other apparent defects? (Y N)
5. Has provision been made against chafing of drag and anti-drag wires? (Y N)
6. Has builder assured symmetry? (Y N)
7. Is craftsmanship to accepted practice? (Y N)
8. Have provisions been made for drainage and ventilation? (Y N)
9. Is all attachment hardware employed and safetied? (Y N)
10. Have all bays been trammed? (Y N)

CONTROL SURFACES

1. Are all drilled holes properly located and free from elongation (Y N)
2. Are interiors treated for protection against environmental deterioration? (Y N)
3. Are all surfaces protected against environmental deterioration? (Y N)
4. Is craftsmanship to accepted practice? (Y N)
5. Have provisions been made for drainage and ventilation? (Y N)

- 6. Is all attachment hardware employed and safetied? (Y N)
- 7. Has builder assured symmetry? (Y N)

UNDERCARRIAGE

- 1. Type: Wheels Skis Floats
- 2. Is undercarriage complete? (Y N)
- 3. Is undercarriage installed? (Y N)
- 4. Are all attachment fittings installed and safetied? (Y N)
- 5. Is brake plumbing, components, and all attachment hardware employed and safetied? (Y N)
- 6. Has undercarriage symmetry been assured? (Y N)

SAILPLANE

- 1. Is tow hook installed? (Y N)
- 2. Tow hook attachment OK? (Y N)
- 3. Is tow hook properly located in reference to data? (Y N)

Note: See section 1.5 Pre Paint Inspection, if aircraft structure is composite.

SUMMARY, Pre- Cover Inspection:

- 1. Is the inspection complete? (Y N)

Re-inspection of following is required: None

Has builder been notified of your findings? On site? By Mail?

Date - _____ Inspector's Signature _____ Print Name _____
 yyyy-mm-dd

End of Section 1.3 Use the space below for notes if required

Section 1.5 COMPOSITE STRUCTURES INSPECTION,

PRE PAINT INSPECTION

- 1. Has kit of materials been purchased from a recognized dealer and do materials meet designer's specs? (Y N)
- 2. Has the builder constructed confidence samples and presented them for examination? (Y N)
- 3. Is the builder fully conversant with procedures and is he following kit instructions? (Y N)
- 4. Has the builder kept resin samples, labeled for identification, and were they presented for your examination? (Y N)
- 5. Do shop conditions meet minimum standards? eg-temp, humidity, cleanliness (grease, oil) (Y N)
- 6. Are all lay-ups done in accordance with designer's instructions? (Y N)
- 7. Is workmanship to accepted practice? (Y N)
If not, elaborate:
- 8. How have alignment and symmetry of aircraft been assured? (Y N)
Explain
- 9. Are surfaces fair and free of large deviation in contour? Are there voids or irregularities? (Y N)
- 10. Have any repairs been carried out by the builder? (Y N)
If so, do they meet designer's criteria? (Y N)
- 11. Has all attachment hardware been installed and is the work in accordance with designer's instructions? (Y N)
- 12. Will large amounts of filler be required to prepare surfaces for paint? (Y N)
- 13. Is there any evidence of over-sanding of structure with resultant damage to glass-cloth structure? (Y N)
- 14. Does builder understand the need to adhere to designer's colour preference? (Y N)
(Light basic colours, white, pale blue, etc)?
- 15. Is pre paint inspection complete? (Y N)

SUMMARY, Pre Paint Inspection:

Re-inspection of following is required: None

Has builder been notified of your findings? On site? By Mail?

Date - _____ Inspector's Signature _____ Print Name _____
yyyy-mm-dd

End of Section 1.5 Use the space below for notes if required