



CARBON CUBS
LIGHT SPORT **SS**

CC11-160 AIRCRAFT MAINTENANCE MANUAL

Applicable to CC11-00294 – AND ON

S/N: CC11-00XXX
Registration Number: NXXXXX

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Record of Revisions

Rev.	Change	Date	Prepared By	Approved By
NC	Initial Issue	12/18/2013	AMS	ECL
A	Revised Section 5.4.13, 6.A	08/07/2014	VCS	ECL
B	List of Effective Pages Updated. Revised Sections 0, 6.3.5, 6.3.6, 6.3.12, 6.3.13, 6.3.14, 6.3.15, 6.3.17, 6.3.19, and Appendix 6.A.	05/18/2023	MH	MRG

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List of Effective Pages

Rev	Pages	Change	Date	Prepared By	Approved By
NC	All	Initial Issue	12/18/2013	AMS	ECL
A	5.4.13 Pg 1 Pg 2 Pg 3 Pg 4 Pg 6 Pg 8 Pg 9 Pg 10 6.A Pg A6 Pg A9	Updated Table of Contents Removed Note, Updated Figure Numbering Inserted Executive Glass Touch Instrument Panel Detail, Removed Garmin GPS 695 option. Added PM3000 Remote Intercom to MyPanel Added GPS to Garmin aera Removed (Optional) from PM3000 Intercom on World VFR Panel Moved Engine Monitor from Section 3 to Section 2. Removed Fuel Management computer statement and distance to empty parameter. Removed OAT Probe from Section 4.3, not optional on CC11 aircraft. Removed options 396, 496, 696 and 560, added 796. Clerical Corrections. Separated Garmin GPS models into two sections. Updated Transponder Antenna Location. Added Section 4.6 Garmin G3X Touch. Added Backup Battery Inspection Added IBBS Battery Inspection Added Garmin G3X Software Updates	08/07/2014	VCS	ECL
B	0 Pg. All 6.3.5 Pg. All 6.3.6 Pg. All 6.3.12 Pg. 3 Pg. 6 6.3.13 Pg. 3	Updated record of revisions. Updated list of effective pages. Added serial number effectivity. Updated tail wire rigging procedure. Updated tail wire figures. Updated flight control rigging procedures. Entire section re-organized. Added additional filter oil options. Typographical corrections. Corrected exhaust installation procedure. Added torque value. (CONTINUED)	05/18/2023	MH	MRG

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<p>B (cont.)</p>	6.3.14 Pg. 2-4	Corrected cowl removal and installation procedures.			
	6.3.15 Pg. 7	Revised carburetor inlet screen servicing.			
	6.3.17 Pg. 6	Added inspection requirement for alternator belt.			
	Pg. 9	Added note for installing forward interior panels.			
	6.3.19 Pg. 3	Removed Nav light warranty information			
	6.A Pg. A3	Added inspection requirement for alternator belt.			
	Pg. A4	Added inspection requirement for rear seat. Referenced manufacturer's manual for ELT replacement intervals.			
	Pg. A5	Added inspection requirement for interior panels near rudder pedals.			
	Pg. A7	Added inspection requirement for horizontal stabilizers and referenced SB00018. Added requirement to change all brace wires if one is found to be damaged.			

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1 SCOPE

1.1 General

This manual has been prepared by Cub Crafters, Inc. in accordance with the standards of ASTM F2483. The manual provides the practices for the servicing and the maintenance of Cub Crafters' CC11-160 Carbon Cub Light Sport Aircraft (LSA) and guidance for the qualifications necessary to perform the various levels of maintenance. It provides practices and guidance for servicing and maintenance that can be performed by a qualified pilot and owner, the preventive maintenance requirements of a 100-hour and an annual condition inspection, and the corrective line maintenance actions for the repairs, alterations, and the removal and re-installation of components.

The owner is reminded that it is her/his responsibility to ensure that Cub Crafters has the appropriate contact information so that flight safety and other important information can be communicated in a timely manner. Please use the form on Cub Crafters' website (www.cubcrafters.com) to register any changes in ownership or address. Alternatively, complete the form on page 3 and email, fax or mail to the address below:

E-mail: support@cubcrafters.com
Fax: 509 248-1421
Address: 1918 South 16th Avenue
Yakima WA 98903

Cub Crafters may also be contacted by telephone at (509) 248-9491.
(note that Cub Crafters is on US Pacific Time and office hours are from 8:00 am to 5:00 pm.)

Service Alerts, Service Bulletins and the latest versions of the Pilot's Operating Handbook and Maintenance Manual Supplements for this aircraft may be found on Cub Crafters' website (www.cubcrafters.com).

1.2 Safety of Flight and Service Difficulty Reporting

Please report any service difficulties or any other issue relating to flight safety directly to Cub Crafters using the form on the website. Alternatively complete the form on Page 5 and email or fax to the address in Section 1.1.

1.3 Pilot/Owner Servicing and Maintenance

This manual identifies servicing and maintenance actions, which can be performed by the owner/pilot, as, identified in ASTM F2483, and who holds a light sport aircraft pilot's certificate (or greater) and who may not have received any specific authorized Carbon Cub training. The maintenance actions authorized in this manual comply with the intent of FAA 14 CFR Part 43.3 with regard to preventive maintenance.

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1.4 Preventive Maintenance

This manual identifies the Carbon Cub preventive maintenance tasks, which are to be accomplished by qualified personnel, and include the actions for the 100-hour inspection and the annual inspection.

1.5 Corrective Maintenance & Alterations

This manual identifies the line maintenance, minor repair, and minor alteration tasks that can be accomplished by a holder of an LSA repairman certificate with either an inspection or maintenance rating.

No heavy maintenance, major repairs, or major alterations, as outlined in ASTM F2483 Sections 7 through 9, or in this maintenance manual, are authorized at this time, for this Carbon Cub aircraft.

Any heavy maintenance, major repairs, or major alterations, as outlined in ASTM F2483 Sections 7 through 9, can only be performed by Cub Crafters, Inc. or only as provided by Cub Crafters' approved engineering data.

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CHANGE OF ADDRESS/OWNERSHIP FORM			
Aircraft Serial Number: CC11-		Aircraft Registration Number:	
CURRENT OWNER (Last, First)		NEW OWNER (Last, First)	
COMPANY/ORGANIZATION		COMPANY/ORGANIZATION	
PREVIOUS ADDRESS Number and Street		NEW ADDRESS Number and Street	
City		City	
State/Province	Postal Code	State/Province	Postal Code
Country		Country	
TELEPHONE NUMBER(S)		TELEPHONE NUMBER(S)	
SIGNATURE		DATE	
FOR CUB CRAFTERS' USE ONLY			
Change of Ownership/Address Log Number:		Date Received:	

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CONTINUED OPERATIONAL SAFETY REPORTING FORM			
NAME (Last, First)			
COMPANY/ORGANIZATION			
ADDRESS Number and Street			
City		AIRCRAFT MODEL	
		CC11-_____	
State/Province	Postal Code	AIRCRAFT SERIAL NUMBER	
		CC11-_____	
Country		AIRCRAFT REGISTRATION NUMBER	
TELEPHONE NUMBER(S)			
DESCRIPTION OF SAFETY OF FLIGHT ISSUE OR SIGNIFICANT SERVICE DIFFICULTY:			
SIGNATURE		DATE	
FOR CUB CRAFTERS' USE ONLY			
COS Log Number:		Date Received:	

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2 REFERENCE DOCUMENTS

ASTM F2483 – Standard Practice for Maintenance and the Development of Maintenance Manuals for Light Sport Aircraft

ASTM F2245 – Specification for the Design and Performance of a light Sport Aircraft.

ASTM F2295 – Practice for Continued Operational Safety Monitoring of a Light Sport Aircraft

14 CFR Part 43 – Maintenance, Preventive Maintenance, Rebuilding, and Alteration

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3 TERMINOLOGY

(1) DEFINITIONS

- (a) LSA Airplane (Light Sport Aircraft Airplane) – a powered fixed wing aircraft designed per Specification F2245 that is manufactured and delivered ready to fly. The Light Sport Aircraft is also defined by 14 CFR Part 1.1
- (b) Annual Condition Inspection – detailed inspection accomplished once a year on a LSA in accordance with instructions provided in the maintenance manual supplied with the aircraft. The purpose of the inspection is to look for any wear, corrosion, or damage that would cause an aircraft to not be in a condition for safe operation.
- (c) A&P – airframe and powerplant mechanic as defined by 14 CFR Part 65 in the U.S. or equivalent certification in other countries.
- (d) FAA – United States Federal Aviation Administration.
- (e) Heavy Maintenance – any maintenance, inspection, repair, or alteration a manufacturer has designated that requires specialized training, equipment, or facilities.
- (f) Line Maintenance – any repair, maintenance, scheduled checks, servicing, inspections, or alterations not considered heavy maintenance that is approved by the manufacturer and is specified in the manufacturer's maintenance manual.
- (g) LSA Repairman Inspection – U.S. FAA certificated repairman (light sport aircraft) with an inspection rating, defined by 14 CFR Part 65, authorized to perform the annual condition inspection on experimental light sport aircraft, or an equivalent rating issued by other civil aviation authorities.
- (h) Discussion – Experimental LSA do not require the individual performing maintenance to hold any FAA airman certificate in the U.S.
- (i) LSA Repairman Maintenance – U.S. FAA certificated repairman (light sport aircraft) with a maintenance rating as defined by 14 CFR Part 65, authorized to perform line maintenance on aircraft certificated as special LSA aircraft. Authorized to perform the annual condition/100-hour inspection on an LSA, or an equivalent rating issued by other civil aviation authorities.

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- (j) Maintenance Manual(s) – manual provided by an LSA manufacturer or supplier that specifies all maintenance, repairs, and alterations authorized by the manufacturer.
- (k) Major Repair, Alteration, or Maintenance – any repair, alteration, or maintenance for which instructions to complete the task excluded from the maintenance manual(s) supplied to the consumer are considered major.
- (l) Manufacturer – any entity engaged in the production of an LSA or component used on an LSA.
- (m) Minor Repair, Alteration, or Maintenance – any repair, alteration, or maintenance for which instructions provided for in the maintenance manual(s) supplied to the consumer of the product are considered minor.
- (n) Overhaul – maintenance, inspection, repair, or alterations that are only to be accomplished by the original manufacturer or a facility approved by the original manufacturer of the product.
- (o) Overhaul Facility – facility specifically authorized by the aircraft or component manufacturer to overhaul the product originally produced by that manufacturer.
- (p) Repair Facility – facility specifically authorized by the aircraft or component manufacturer to "repair the product originally produced by that manufacturer.
- (q) 14 CFR-Code of Federal Regulations Title 14 Aeronautics and Space also known as the "FARs" or Federal Aviation Regulations.
- (r) 100-hour inspection – same as an annual condition inspection, except the interval of inspection is 100 h of operation instead of 12 calendar months. This inspection is utilized when the LSA is being used for commercial operations such as flight instruction or rental, or both.

(2) ACRONYMS

- (a) POH – pilot operating handbook.
- (b) LSA (Light Sport Aircraft)—used herein to refer to both LSA airplanes and LSA airplane kits.

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4 SIGNIFICANCE AND USE

The purpose of this maintenance manual is to provide guidance to owners, mechanics, airports, regulatory officials, and aircraft and component manufacturers who may accomplish maintenance, repairs, and alterations on the Cub Crafters CC11-160 Carbon Cub Light Sport Aircraft.

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CHAPTER

5

**AIRCRAFT
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5 AIRCRAFT MAINTANENCE MANUAL

5.1FORMAT & GUIDANCE FOR THE USE OF THIS MANUAL
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5.3PERIODIC & ANNUAL INSPECTION REQUIREMENTS
5.4MAINTENANCE, REPAIR & ALTERATIONS of PRIMARY STRUCTURES
5.5STRUCTURAL REPAIRS
5.6PAINTING & COATINGS

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5.1 FORMAT & GUIDANCE FOR THE USE OF THIS MANUAL

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CUB CRAFTERS, INC. CC11-160 MAINTENANCE MANUAL

1 GENERAL

Cub Crafters, Inc. prepared this aircraft maintenance manual. It contains the information that a trained mechanic will need to maintain the aircraft in an airworthy condition.

The Aircraft Maintenance Manual was prepared to meet the ASTM F2483 Standard Specification requirements. The format of the manual is designed to be familiar to most modern aircraft mechanics.

This maintenance manual does not reflect part numbers and cannot be used for ordering replacement parts.

The wiring schematics that have been included in the manual are for general information purposes only. Aircraft will have optional equipment for which there will be specific drawings that will either be included with the aircraft's documentation on delivery or be available from Cub Crafters, Inc.

2 LAYOUT OF THE MANUAL

This maintenance manual is divided into chapters. The chapter numbers appear at the foot of each page.

Each chapter contains its own table of contents. Where the systems are complex, the table of contents will be found in the sub chapter (as is the case of Chapter 6).

3 WARNINGS, CAUTION AND NOTES

WARNING
**AN OPERATING PROCEDURE, PRACTICE, OR A CONDITION, WHICH,
IF NOT CORRECTLY FOLLOWED OR REMEDIED, COULD RESULT IN
SERIOUS PERSONAL INJURY OR LOSS OF LIFE.**

CAUTION
**An operating procedure, practice, or a condition, which, if not strictly
observed or corrected, could result in destruction of, or damage to
equipment.**

NOTE
**An operating procedure, practice, or condition,
which is important to emphasize.**

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5.2 GENERAL: SPECIFICATIONS AND DATA

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1. GENERAL

The location of any point on the aircraft is identified in a three axis grid as follows (Reference Figure 5.2.1):

- FS - Fuselage Station is a horizontal reference designation starting in front of the nose of the airplane at a point 60 inches ahead of the wing leading edge.
- WL - Water Line is a vertical reference designation measured parallel to the ground from a point 38.53 inches below the center of the bolts that attach the landing gear to the fuselage.
- BL - Buttock Line is a horizontal reference designation starting at the airplane centerline. When the aircraft is viewed from above, the letters "L" and "R" indicates whether the point is to the left or the right of the centerline.
- WS - Wing Station is measured outboard from the center of the respective wing attachment bolt to the wing tip. The letters "L" and "R" designate left or right wing respectively.

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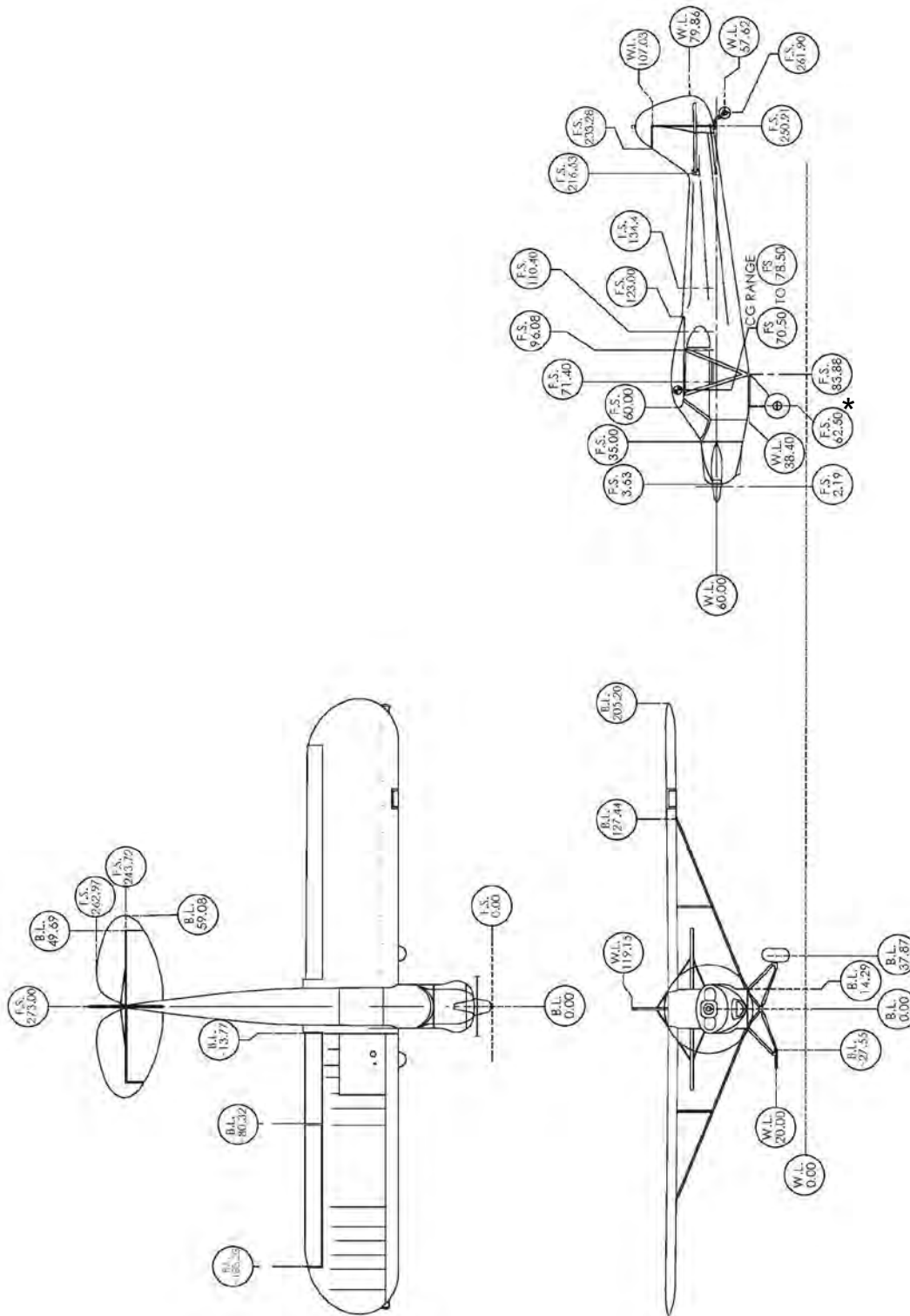


Figure 5.2.1: Aircraft Geometry
 * - Optional 3X3 Landing Gear F.S. is 59.50

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MAIN DIMENSIONS

Span	411 in.
Length (level flight attitude)	273 in.
Length (three point attitude)	290 in.
Height	111 in.
Height (tail wheel on ground, propeller blade vertical at top)*	84.5 in.
Propeller Ground Clearance*	23 in.
Design Gross Weight (Wheels)	1320 lbs
Seaplane/Amphibs	1430 lbs

*With Catto Propeller, 6.00x6 wheels, and standard tail wheel.

(1) WINGS

Type.....	Externally Braced, High Wing
Airfoil Section	USA 35B Mod at Root and Tip
Chord at Root	63 in.
Dihedral (measured on underside of front spar)	0.75°
Area	179 sq ft
Aspect Ratio	6.50

(2) AILERONS

Area (Both ailerons)	19.25 sq ft
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(3) FLAPS

Area (Both flaps)	12.60 sq ft.
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(4) HORIZONTAL STABILIZER

Span	118 in.
Maximum Chord.....	27 in.
Incidence (in neutral position)	-2.5°
Dihedral	0°
Area (including elevators)	14.10 sq ft.

(5) FIN AND RUDDER

Area	11.22 sq ft.
------------	--------------

(6) LANDING GEAR

Wheel Track (main to main)	75.74 in.
Wheel Base (main to tail)	199.4 in.
Wheel Base with 3X3 (main to tail)	202.4 in.

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(7) CONTROL SURFACE TRAVELS AND CABLE TENSION SETTINGS

(a) Aileron

Aileron Up	18° ± 2°
Aileron Down	18° ± 2°
Aileron Cable Tension.....	40 ± 5 lbs.

(b) Flaps

First Notch	15° ± 3°
Second Notch	35° ± 3°
Third Notch	50° ± 3°

(c) Stabilizers

Neutral Setting	-2.5° relative to longitudinal axis
Stabilizers Up	2.5° ± 0.5°
Stabilizers Down	4° ± 0.5°

(d) Elevators

Elevator Up	25° ± 2°
Elevator Down	15° ± 2°
Elevator Cable Tension.....	60 ± 2 lbs.

(e) Rudder

Rudder Left	25° ± 2°
Rudder Right	25° ± 2°

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2. EQUIPMENT LIST

This section provides a list of components and equipment that the operator is likely to change on the aircraft.

Description	Ref. In AMM
6.00x6, 8.00x6, 8.50x6, 26"x6, 29"x6 main wheel and tires	5.4.6 or 6.3.7
Main landing gear without wheels and tires	5.4.6 or 6.3.7
Tail wheel with tire	5.4.6 or 6.3.7
Catto Propellers Wood/Fiberglass Composite	5.4.11 or 6.3.16

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3. PURCHASE PARTS SOURCE LISTS

3.1 Consumable or Frequently Replaced Items

Description	Part Number (Reference purpose)	Source
Brake Fluid	MIL-H-5606G (Aeroshell #41)	Cub Crafters or Aircraft Parts Store
Air Filter	PC54108-001	Cub Crafters

4. ENGINE SPECIFICATIONS AND DATA

Engine Model	Titan CC340
Number of Cylinders	4
Bore & Stroke	5.125 in x 4.125 in
Compression Ratio	8.9:1
Piston Displacement	340.4 in ³
Ignition Type	Dual Electronic
Rated Power at Sea Level < 5 minutes	180 HP @ 2700 RPM
Maximum Rated Continuous Power	80 HP (RPM dependant on altitude)
Minimum Idling Oil Pressure	25 psi
Maximum Oil Pressure	100 psi
Maximum Oil Temperature	245° F
Maximum Cylinder Head Temperature	450° F
Engine Weight – Dry	250 lb
Oil Sump Capacity	6 quarts maximum
Recommend TBO	2400 hours
Engine to Engine Mount Torque Value	60 in-lbs

Refer to Titan CC340 Engine Manual (SSC50000 Rev B or later) for operating limits.

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5. WEIGHT AND BALANCE DATA

Refer to the Pilot's Operating Handbook and Airplane Flight Manual, SSC10000AFM, Section 6 for the Weight and Balance Data.

6. TIRE INFLATION

Refer to section 6.2.3 of this manual for the tire inflation data.

7. APPROVED OILS AND CAPACITIES

Refer to the POH or Section 6.2.3 of this manual for the approved oil and capacity data.

8. RECOMMENDED FASTENER TORQUES

8.1 General Torque Values

This chapter gives the requirements for torquing the fasteners.

No lubricating or anti-seize compounds are to be applied to threaded fasteners except when specified. At the time of installation, the threads must be clean and free of corrosion, paint or any products other than those applied by the fastener's manufacturer

8.2 Definitions

Running Torque: The average torque developed after the fastener is at least one full thread through the nut, but prior to the tightening of the joint (also called self-locking torque, locking torque, friction drag torque).

Assembly Torque: The torque required by design engineering in order to create the desired axial load on the bolt/nut assembly (also called tightening torque or installation torque).

8.3 Torquing Requirement

Whenever possible, the nut shall be turned during torquing.

Where it is necessary to tighten the fastener assembly from the head, the installation torque shall be the maximum torque indicated in Chapter 5.2.8.7 + 10 percent.

NOTE

This is only applicable for fasteners greater than 3/16" in diameter.

When nuts are to be secured to fasteners by means of cotter pins or lock wire, the low side of the specified torque range shall be approached for tightening. If necessary, tightening shall be continued until the next slot aligns with the hole.

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Nuts shall not be loosened to obtain the required alignment.

The maximum torque shall not be exceeded.

Threaded fasteners which have been torqued above the maximum value specified **shall not** be backed off and re-torqued but shall be removed, rejected and rendered unserviceable.

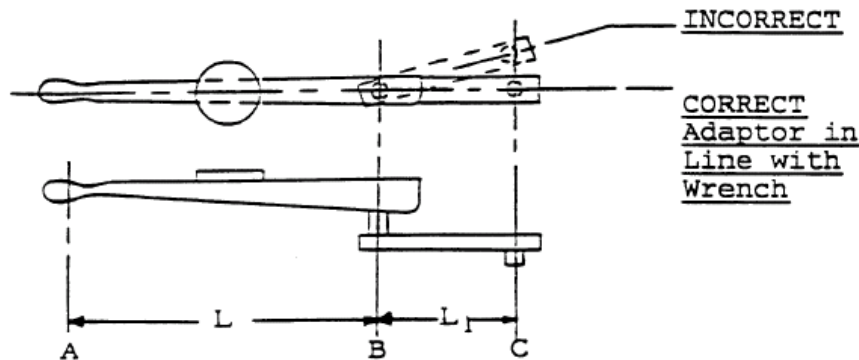
If there is any doubt a fastener has been under-torqued, the nut shall be backed off one complete rotation (360°) maximum and retightened to the specified value; the bolt, screw or stud must not be allowed to rotate.

8.4 Use of Torque Wrenches and Adapters

All final torquing shall be carried out with certified torque wrenches or torque screwdrivers.

When adaptors or extensions are used on manually operated torque wrenches, they shall be aligned as shown in Figure 5.2.2 and the dial reading required shall be calculated from the following formula:

$$\text{Dial Reading} = \frac{\text{Specified Torque} \times L}{L+L_1}$$



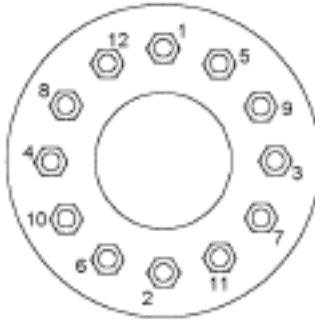
- A = fulcrum point of handle
- B = centre line of wrench drive
- C = centre line of adaptor or extension drive
- L = distance from fulcrum point of handle to centre line of wrench drive
- L1 = distance from centre line of wrench drive to centre line of adaptor or extension drive

Figure 5.2.2: Use of Torque Wrenches

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Dimensions must be measured in the same units (i.e. both in inches, both in feet, etc.) for each calculation. Different units must not be mixed.

8.5 Torquing Patterns



TYPICAL CIRCULAR PATTERN TORQUING SEQUENCE



TYPICAL LINEAR PATTERN TORQUING SEQUENCE

Figure 5.2.3: Torque Pattern

Whenever applicable, the following pattern must be followed when torquing fasteners:

8.6 Specific Torque Requirements

Item	Chapter/Section Reference	Torque Inch Pounds	Torque Foot Pounds
Catto Propeller	6.3.16	420	35
Spark Plugs	6.3.18	180	15

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8.7 General Torque Values

BOLTS - STEEL TENSION					BOLTS - STEEL TENSION				BOLTS - ALUMINUM			
AN3 THRU AN 20 AN42 THRU AN49 AN73 THRU AN81 AN173 THRU AN186 MS20033 THRU MS20046 MS20073 MS20074 AN509 MS24694 AN525 MS27039					MS20004 THRU MS20024 NAS 144 THRU NAS158 NAS333 THRU NAS340 NAS538 THRU NAS590 NAS624 THRU NAS644 NAS1303 THRU NAS1320 NAS172 NAS174 NAS517 STEEL SHEAR BOLT NAS464 NAS1103 NAS1104 NAS1105				AN3DD THRU AN20DD AN173DD THRU AN186DD AN509DD AN525D MS27039D MS24694DD			
NUTS - STEEL					NUTS - STEEL				NUTS - ALUMINUM			
TENSION		SHEAR			TENSION		SHEAR		TENSION		SHEAR	
AN363 AN365 NAS1021 MS21045 MS20365 MS20500 NAS679		AN364 MS20364 NAS1022 NAS1024-1030 NAS1067-1068 NAS680-687 NAS696-698			AN363 AN365 MS20365 MS21045 NAS1021 NAS1291 NAS679		AN364 NAS1022 MS20364		AN365D NAS1021D		AN364D NAS1022D	
THREAD SIZE (FINE)	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
10-32	38	43	30	33	43	48	33	38	28	33	23	28
1/4-28	80	100	60	70	110	130	80	90	60	75	45	60
5/16-24	160	200	120	145	180	205	130	150	100	125	85	100
3/8-24	240	270	175	190	280	330	200	230	155	190	125	150
7/16-20	550	600	370	400	620	730	400	500	280	380	210	270
THREAD SIZE (COARSE)	MIN.	MAX.	MIN.	MAX.								
8-32	27	30	22	24								
10-32	38	43	30	33								
1/4-20	70	80	55	60								
5/16-18	140	150	108	115								
3/8-16	240	265	175	190								
7/16-14	335	355	240	255								

Table 5.2.1: Torque Values (Friction drag torque already included)

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9. GENERAL SAFETY INFORMATION

There are many hazards inherently present when performing any maintenance task on this aircraft. To minimize the risk to both yourself and others, begin by thinking through each task that is to be performed before starting any work. Using common sense, think of ways to avoid these hazards. Remember also that many accidents happen because of carelessness. Be sure to also use the right tool for the task at hand and to use the proper personal protective equipment. Such equipment may include, but is not limited to:

- Eye protection – safety glasses, goggles, and face shield
- Gloves
- Hearing protection – ear plugs or muffs
- Apron
- Protective footwear with non-slip soles

You should also keep on hand a suitable fire extinguisher, absorbent material to contain spills, an eyewash bottle, and a general-purpose first aid kit. It is also advisable to have on hand the material safety data sheet (MSDS) for all products and chemicals that will be used during the servicing of the aircraft.

Some other general rules to follow are:

- Never leave the ignition switch or the master switch turned on when the engine is not running. Doing so could allow the engine to fire if the propeller were rotated by hand.
- Never operate the engine with untrained personnel around – everyone who is essential to be in the area should be reminded that a spinning propeller may be lethal yet almost invisible. Remove hats when running the engine to keep them from being removed by the propeller slipstream.
- Remove any loose clothing, such as neckties and scarves. Tuck in your shirt and secure any long hair to prevent them from becoming tangled in power tools.
- Remove all jewelry. Not only can items such as rings, watches, and necklaces become caught in rotating tools, they can also conduct electricity and may cause a short circuit. This could result in burns or damage to electrical circuits.
- Disconnect the negative lead from the battery when doing any electrical work that does not involve troubleshooting the electrical systems. This will reduce the risk of a short circuit or even a fire.
- The lead acid battery will emit hydrogen gas when charging, which is highly flammable. Any nearby source of ignition such as sparks or an open flame can result in an explosion. Keep all ignition sources away from the battery.
- Aviation gasoline is also highly flammable. When working with the fuel system, always work in a well-ventilated environment. Any nearby source of ignition such as sparks or an open flame can result in a fire or explosion. Keep all ignition sources away. Always ground the airframe to a suitable earth ground during fueling/defueling operations to reduce the risk of a static discharge ignition source.
- When working with the landing gear, always support the aircraft properly with jacks. Do not work underneath the aircraft unless it is properly supported.

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10. FLIGHT SAFETY REPORTING INSTRUCTIONS

The owner is reminded that it is her/his responsibility to ensure that Cub Crafters has the appropriate contact information so that flight safety information can be communicated in a timely manner.

Please report any service difficulties or any other issue relating to flight safety directly to Cub Crafters using the forms on the website or in Section 1.2 of this manual.

www.cubcrafters.com

The information may also be sent by e-mail to:

support@cubcrafters.com

or by telephone to

509 248-9491

Toll Free: 1-877-484-7865

(Note that Cub Crafters is on US Pacific Time and office hours are Monday-Friday from 8:00 am to 5:00 pm)

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5.3 PERIODIC AND CONDITION INSPECTION REQUIREMENTS

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(2) OPERATIONAL INSPECTION	3
(3) FUNCTIONAL INSPECTION.....	3
2. CONDITION INSPECTION TASKS.....	5
3. PERIODIC INSPECTION TASKS	5

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1. GENERAL

This section is intended to serve as a guide for a certified airframe and powerplant mechanic to perform routine maintenance on the aircraft. It is the responsibility of the owner and/or the operator to maintain the aircraft in an airworthy condition and ensure that all applicable Safety Directives, Safety Alerts, and Service Bulletins have been complied with. Furthermore, it is the responsibility of the owner and/or the operator to ensure that the airplane is inspected as specified in Parts 43 and 91 of the Federal Aviation Regulations. This inspection guide is not intended to replace the good judgment of a certified airframe and powerplant mechanic.

The guide will make reference to service information provided by other vendors, such as the manufacturer of the engine. The persons performing the maintenance on the aircraft must ensure that they have the latest editions of these publications. This guide will not make reference to revision levels of vendor publications.

This guide will be applicable to the aircraft in the configuration it left Cub Crafters when it was first delivered and it may not cover modifications made to the aircraft subsequently.

Inspection Groups and Criteria

(1) VISUAL INSPECTION

Visual inspections will normally apply to those areas, surfaces, and/or items that become visible by the removal or opening of access doors, panels, fairings, or cowlings.

Visual Inspection criteria will normally consist of, but are not limited to the following criteria:

(A) Moving Parts

Proper operation, correct alignment, security, sealing, cleanliness, lubrication, adjustment, tension, travel, condition, binding, excessive wear, cracking, corrosion, deformation, and any other apparent damage.

(B) Fabric Covered Parts

Security, condition, cleanliness, wear, cracking, obstruction of drainage or vent holes, deformation, heat deterioration, fluid saturation, and any other apparent damage.

(C) Metal Parts

Security, condition of finish, cleanliness, distortion, fatigue cracks, cracked welds, corrosion, and any other apparent damage.

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(D) Fuel and Hydraulic Oil Lines and Hoses

Cracks, dents, kinks, loss of flexibility, deterioration, obstruction, chaffing, improper bend radius, cleanliness, security, and any other apparent damage.

(E) Electrical Wiring

Cleanliness, loose, corroded, or broken terminals, chaffed, broken, or worn insulation; security; heat deterioration, and any other apparent damage.

(F) Bolts and Nuts

Fretting, wear, damage, stretch, proper torque and safety wiring.

(G) Filters and Screens

Filters and screens shall be removed, cleaned, inspected for contamination, or replaced as applicable.

(H) Fuel Tank Areas

Evidence of leaks

Inspection forms in Appendix 6.A may be used as a guidance to perform the visual inspection.

(2) OPERATIONAL INSPECTION

An operational inspection is a check intended to determine that a component or system is fulfilling its intended purpose. The operational inspection does not require quantitative tolerances.

(3) FUNCTIONAL INSPECTION

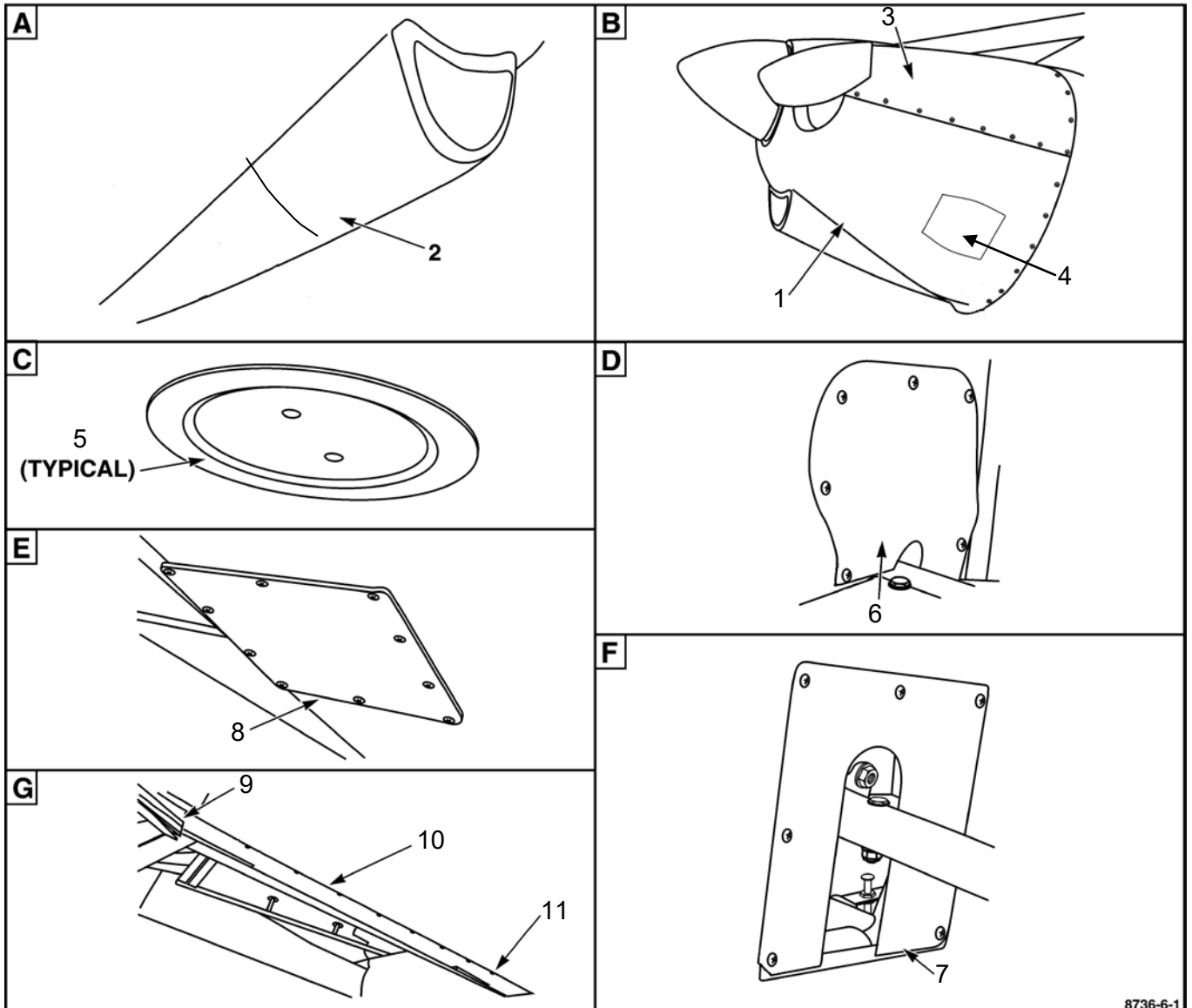
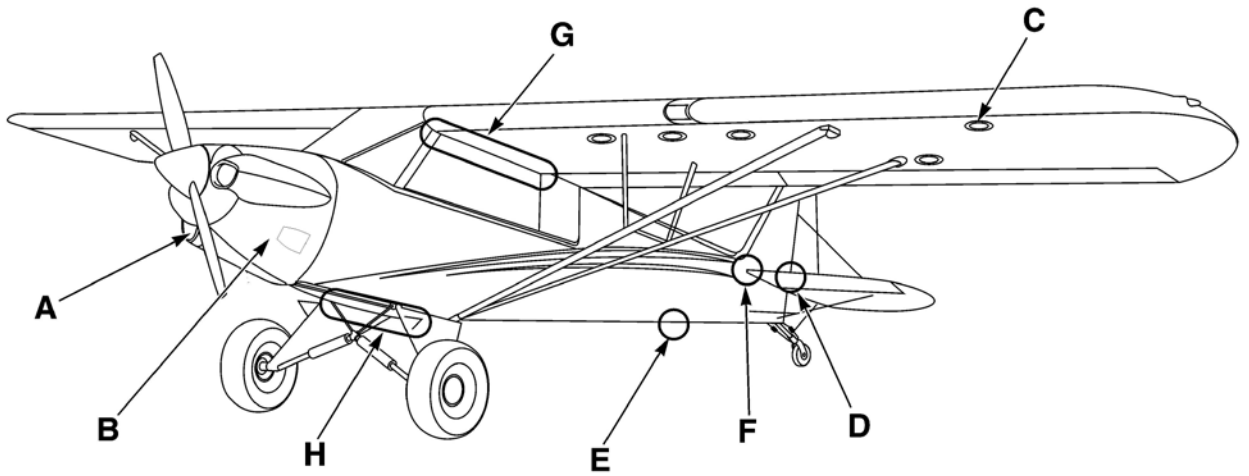
When called for by an inspection task, a functional inspection is a quantitative check to determine if one or more functions of a component perform within specified limits. The functional inspection is a comparative examination of a component or system against a specific standard.

NOTE

The operational and functional checks involve operating the engine and taxiing the aircraft. Therefore, whoever performs this check must be familiar with the aircraft and its systems and the risks and dangers of operating an aircraft on the ground. Attention is drawn to the fact that this aircraft has a tail wheel configuration and its behavior during taxiing is different from an aircraft with a nose gear. The operator must be familiar with taxiing a tailwheel aircraft before attempting to perform these checks.

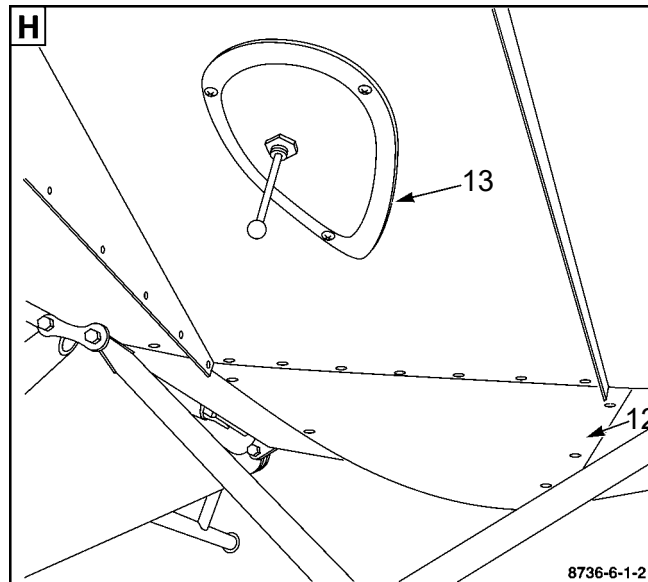
During the check, observe engine temperatures limitations.

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LEGEND:

- | | |
|-------------------------------------|---------------------------------|
| 1. LOWER ENGINE COWLING | 8. INSPECTION COVER (1) |
| 2. INSPECTION COVER | 9. WING TRIM, FRONT (2) |
| 3. UPPER ENGINE COWLING | 10. WING TRIM STRIP (2) |
| 4. COWL FLAP (2) | 11. WING TRIM, AFT (2) |
| 5. INSPECTION COVER, ROUND (5 INCH) | 12. BELLY PANEL |
| 6. INSPECTION COVER (2) | 13. PULLEY COVER/XPDR ANT.MOUNT |
| 7. INSPECTION COVER (2) | |

2. CONDITION INSPECTION TASKS

If the aircraft is registered in the United States, ASTM F2483 requires that all LSA category airplanes must undergo a complete inspection at least once every 12 calendar months. An authorized maintenance person, as described in ASTM F2483, must perform this inspection. A signed and dated record must be maintained as each inspection task is completed. When the last task of the inspection has been completed, the Inspection Report is to be signed off in the log book/maintenance record. The inspection items to be covered in the condition inspection are identical to the 100-hour Inspection items. The inspection interval to the next condition inspection may not exceed twelve calendar months. Refer to Appendix 6.A of this manual for the inspection forms.

3. PERIODIC INSPECTION TASKS

If the aircraft is operated commercially (for hire) in the United States, it must also have an inspection every 100 flight hours. The 100-hour interval between inspections should never be exceeded by more than 10 hours, and then only if additional time is required to reach a place where the inspection can be satisfactorily accomplished. Additionally, the time the interval was exceeded must be included as flight hours in the next 100-hour interval. Inspection tolerances cannot be accumulated. Refer to Appendix 6.A of this manual for the inspection forms.

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5.4 LINE MAINTENANCE, REPAIRS, AND ALTERATIONS OF PRIMARY STRUCTURES

5.4.1.....GENERAL
5.4.2FUSELAGE
5.4.3.....WINGS
5.4.4.....EMPENNAGE
5.4.5..... FLIGHT CONTROLS
5.4.6.....LANDING GEAR
5.4.7..... WHEEL & BRAKE ASSEMBLIES
5.4.8..... ENGINE MOUNT
5.4.9..... ENGINE
5.4.10..... FUEL SYSTEM
5.4.11..... PROPELLER
5.4.12.....UTILITY SYSTEMS
5.4.13..... AVIONICS AND INSTRUMENT SYSTEMS
5.4.14..... ELECTRICAL SYSTEMS

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5.4.1 GENERAL

No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

Cub Crafters, Inc.
1918 South 16th Avenue
Yakima, WA. 98903
Tel: 509-248-9491
support@cubcrafters.com

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5.4.2 FUSELAGE

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1 GENERAL

The structure of the fuselage consists of a truss made of high-strength steel tubing. The members are joined together using inert gas fusion welding. The steel structure is powder coated to protect it from corrosion.

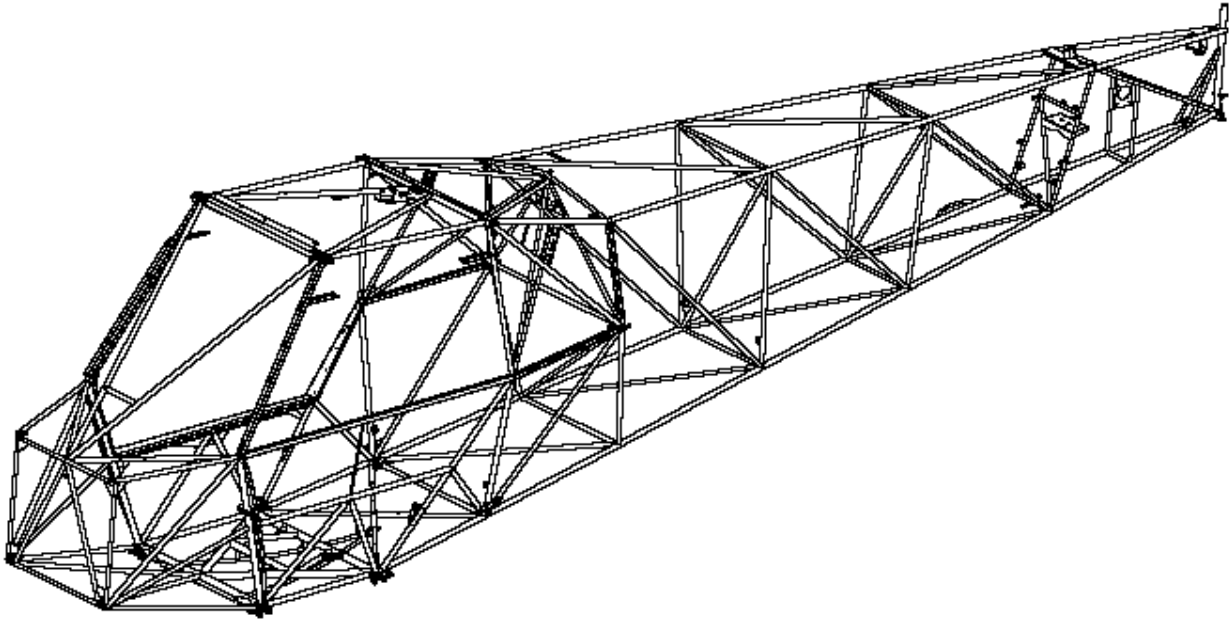


Figure 5.4.2.1: Fuselage Frame

2 MAINTENANCE

No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

Cub Crafters, Inc.
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5.4.3 WINGS

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1. GENERAL

The wing is covered with fabric, has two extruded aluminum spars, pressed aluminum ribs, and aluminum leading and trailing edge skins. Rigidity is provided by drag wires and drag braces. The left or right wing panels may house optional landing lights. A stall warning vane is installed on the leading edge of the left wing. The wing incorporates slotted wing flaps inboard of the ailerons.

2. MAINTENANCE

Refer to Section 6.3.4 for maintenance and servicing of the wings. No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

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5.4.4 EMPENNAGE

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1. GENERAL

The stabilizers, elevators, and rudder are constructed of tubular steel with steel channel ribs. Stainless steel tie rods and fittings brace the horizontal stabilizers to the vertical stabilizer and fuselage.

The aircraft is trimmed in flight by changing the stabilizer's angle of incidence. The pitch trim is controlled by an electric servo, which moves the leading edge of the horizontal stabilizer up and down. The servo is actuated with a rocker switch located on the front control stick. Some aircraft are equipped with an aft control stick rocker switch.

2. MAINTENANCE

Refer to Section 6.3.5 for maintenance and servicing of the empennage. No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

Cub Crafters, Inc.
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5.4.5 FLIGHT CONTROLS

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1. GENERAL

The aircraft has conventional Friese-type ailerons that are operated with a stick and actuated with cables. The surfaces have an aluminum structure and are covered with aluminum sheet.

The flaps are operated mechanically by moving a lever located in the upper, left-hand side of the cockpit ahead of the pilot. The flaps are slotted and have four detent positions: retracted, first notch (15°), second notch (35°), and full flaps (50°). The flap lever has a spring latch system that holds the flap in the selected position. To extend the flaps, depress the trigger and then move the lever down. To retract them, depress the trigger while simultaneously applying a slight back pressure. Smoothly move the handle forward and release the trigger.

2. MAINTENANCE

Refer to Section 6.3.6 for maintenance and servicing of the flight control surfaces. No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

Cub Crafters, Inc.
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5.4.6 LANDING GEAR

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1 GENERAL

The conventional landing gear is fixed (i.e. not retractable) and has a tailwheel. The main landing gear has bungee type shock absorbers or the optional Alpha Omega Suspension System. The landing gear legs are made from welded high strength steel tubing. Both main wheels are fitted with hydraulically operated disc brakes, actuated by pressing toe brakes at each crew position. The tailwheel has leaf springs, is steerable, and has the ability to caster through 360° via the rudder pedals.

2 MAINTENANCE

Refer to Section 6.3.7 for maintenance and servicing of the landing gear. No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

Cub Crafters, Inc.
1918 South 16th Avenue
Yakima, WA. 98903
Tel: 509-248-9491
support@cubcrafters.com

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5.4.7 WHEEL AND BRAKE ASSEMBLIES

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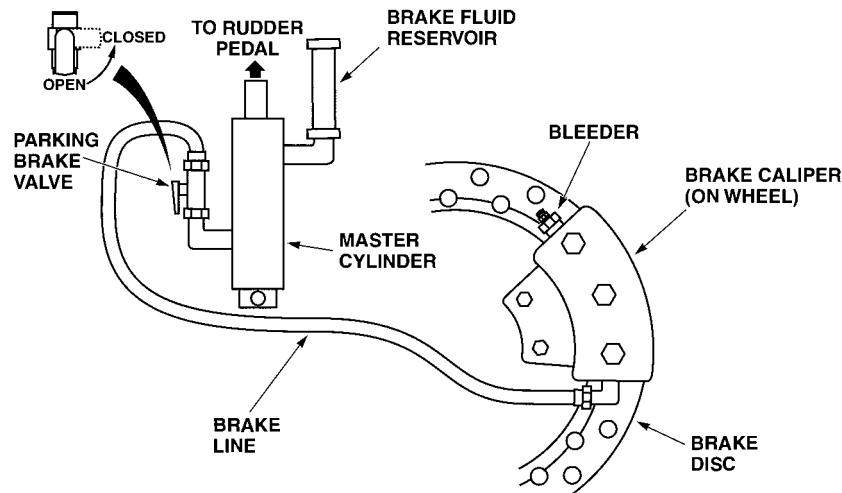
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1 GENERAL

The main wheels are of aluminum construction and are designed to be used with tires and tubes. The approved tire sizes are 6.00 x 6, 8.00 x 6, 8.50 x 6, 26" Airstreak, and 29" Airstreak.

Each main wheel is provided with a set of single disc brakes. The left and right systems are independent of each other. There is a valve at the front of each rudder pedals that operate the parking brake. The units form an integral part with the copilot's rudder brakes. To operate the parking brake, press the upper section of both rudder pedals and toggle the valve (vertical is open, horizontal is locked). The master cylinders push hydraulic fluid to the calipers where two pistons are displaced and force the brake linings against a disc. Each main wheel utilizes a Grove 6.00x6 caliper, secured by a four-hole backing plate.

The tailwheel swivels through 360 degrees and is steerable via the rudder pedals. It is mounted to the fuselage with steel spring leaves.



2 MAINTENANCE

Refer to Section 6.3.8 for maintenance and servicing of the wheel and brake assemblies. No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

Cub Crafters, Inc.
1918 South 16th Avenue
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5.4.8 ENGINE MOUNT

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1 GENERAL

The structure of the mount is made of high-strength steel and the engine is attached to the mount through rubber mounts that help reduce vibration.



2 MAINTENANCE

No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

To obtain engineering approvals for any major repairs or alterations, please contact Cub Crafters at:

Cub Crafters, Inc.
1918 South 16th Avenue
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5.4.9. ENGINE

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**CUB CRAFTERS, INC.
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1 GENERAL

The aircraft is powered by an AEC Titan 340CC engine. This is an air-cooled, four cylinder powerplant that is capable of delivering up to 180 hp at 2700 RPM for less than 5 minutes, and a constant 80 hp at given altitude and RPM settings.

A throttle controls power to the engine. There is a forward and aft throttle control on the left side of the cockpit. The aft throttle control is optional on some models. The air-to-fuel mixture is adjusted manually with a control on the left side of the instrument panel. Pulling the mixture control all the way back operates a cut-off valve on the carburetor that stops the supply of fuel to the engine. The mixture control should always be used to stop the engine.

2 ENGINE SERVICING

Refer to Section 6.3.10 and to AEC Titan 340CC Engine Manual by AEC for servicing, maintenance, and overhaul of the engine.

3 ENGINE MAINTENANCE

No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

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5.4.10. FUEL SYSTEMS

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2. MAINTENANCE.....	3

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1. GENERAL

The fuel system has a sump and drain located in the bottom right side of the fuselage aft of the door opening. Some aircraft have an additional sump and drain located on the bottom left side of the aircraft just aft of the firewall. These should be drained before each flight to test for water and sediment in the fuel system. The fuel system is a gravity flow system with no separate boost pump. Fuel drains from the wing tanks through a selector valve and fuel strainer to the carburetor.

Fuel may flow from one tank to the other when the selector is in either the OFF or the BOTH position. When parking the aircraft on a slope, leave the selector on either the left or the right position to prevent cross feeding and possibly overfilling the lower of the two tanks

There is an engine fuel primer system that may be used to start the engine, especially in cold conditions. The fuel primer draws fuel from the strainer by means of a hand-operated pump on the instrument panel and injects it into cylinder #3 for starting.

The fuel flows from the tanks into a selector valve that has four positions and is located on the lower, left side of the cockpit:

- Both - The engine is fed by both fuel tanks
- Left - Fuel is supplied by the left tank.
- Right - Fuel is supplied by the right tank.
- Off - Fuel supply to the engine is cut off.
- The engine may be operated in the Both, Left, or Right positions. However, the Both position is required for takeoff and landing.

Fuel quantity is determined with two sight gauges located on either side of the cockpit at the wing root. The ventilation of the tanks is through tubes located on each of the fuel tank caps. The vented caps should face forward.

Prior to refueling the aircraft, connect the fueling equipment's grounding wire to either of the wing tie downs or the engine exhaust pipe. This will ensure there is no electrical potential difference between the aircraft and the fueling equipment and will minimize the risk of electrical sparks when the aircraft is being refueled.

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1. STANDARD FUEL TANKS

The aircraft is equipped with two tanks located on the inboard end of the wings. Each tank has a total capacity of 12.5 gallons for a total of 25 gallons. The total usable fuel is 24 gallons. The tanks are made of aluminum.

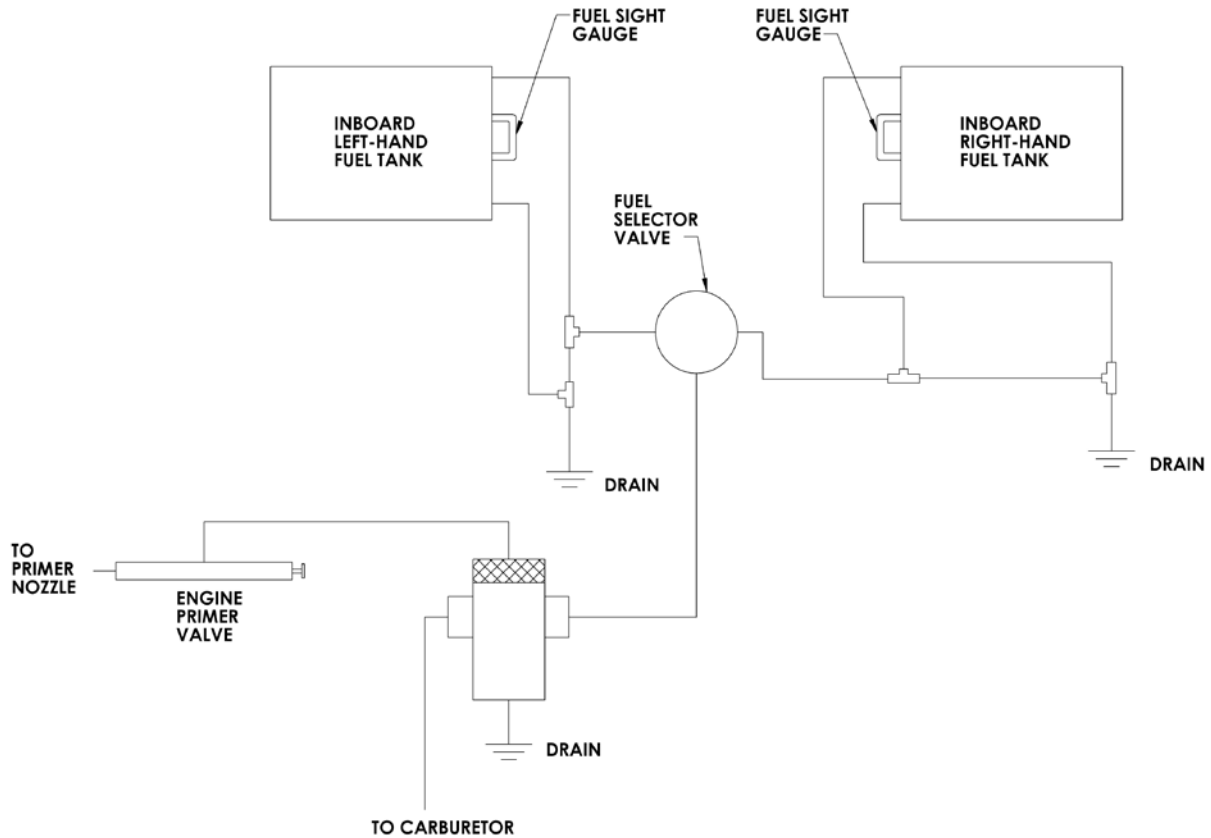


FIGURE 5.4.10.3 - STANDARD FUEL TANK CONFIGURATION

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2. EXTENDED RANGE FUEL TANKS - OPTIONAL

The aircraft can be equipped with two interconnected tanks on the inboard end of each wing. Between the two tanks, they have a capacity of 22 gallons for a total of 44 gallons. The total usable fuel is 40 gallons. The tanks are made of aluminum.

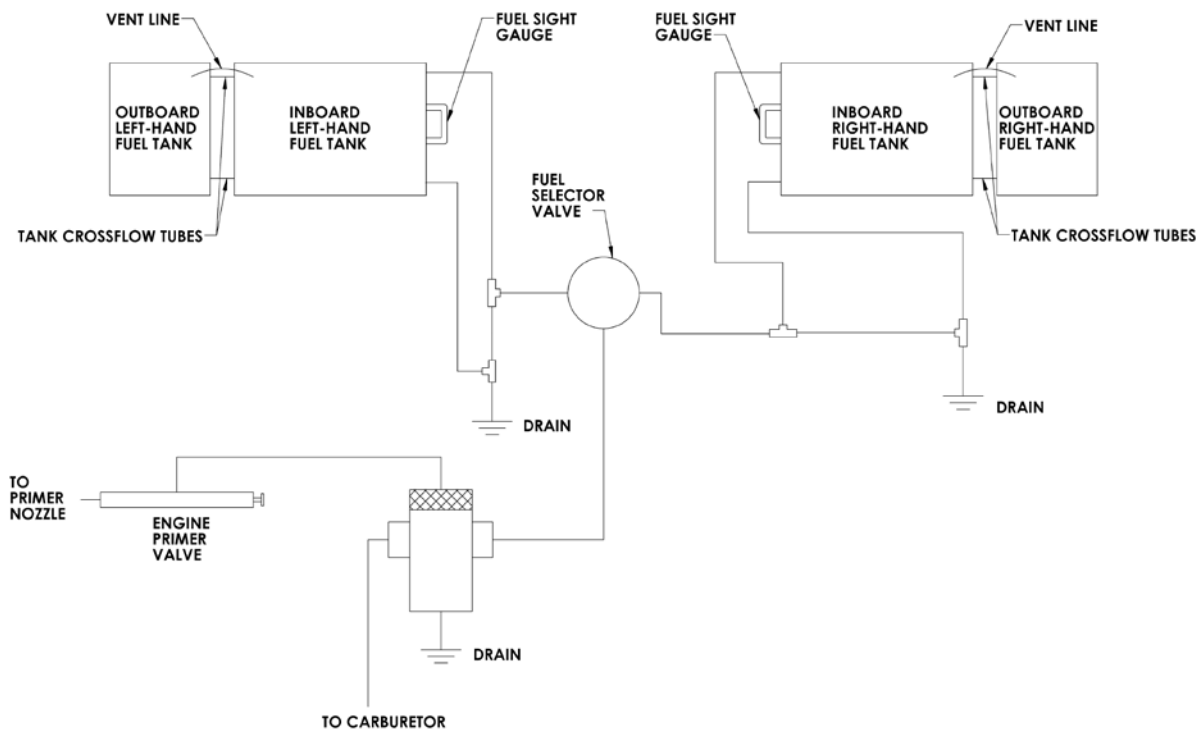


FIGURE 5.4.10.4 - OPTIONAL EXTENDED RANGE FUEL TANK CONFIGURATION

2 MAINTENANCE

Refer to Section 6.3.15 for the maintenance of fuel system. No major repair or alterations, as outlined in ASTM F2483, FAR 43, or in this manual are authorized at this time.

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5.4.10

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5.4.11. PROPELLER

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1. GENERAL

The standard aircraft comes with a Catto Propellers 80" Diameter, 50" Pitch, Nickel Leading Edge (NLE), Wood/Fiberglass/Carbon Composite Propeller.

2 MAINTENANCE

Refer to Section 6.3.16 or to the manufacturer's instructions for the maintenance of all propellers.

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5.4.12. UTILITY SYSTEMS

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1. GENERAL

The aircraft is equipped with a cabin heat system. Hot air for heating the cabin is supplied by a heat exchanger located around the engine exhaust. There is a small ram air scoop located below the right cowling inlet that provides air for the cabin heat system. Hot air enters the cabin through an opening on floorboard. To select the heater, the control on the upper right part of the instrument panel must be pulled aft.

2 MAINTENANCE

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5.4.13 INSTRUMENTS AND AVIONICS SYSTEMS

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1 GENERAL

The aircraft is equipped with an instrument panel containing all flight, navigation, and engine instruments that are required for VFR operations. Table 5.4.6 summarizes the equipment installed on the aircraft.



Figure 5.4.13.1: Standard VFR Instrument Panel



Figure 5.4.13.2: MyPanel Instrument Panel

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Figure 5.4.13.3: World VFR Instrument Panel



Figure 5.4.13.4: Executive Glass Instrument Panel



Figure 5.4.13.5: Executive Glass Touch Instrument Panel

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INSTRUMENTS/GAUGES	AVIONICS SYSTEM
Standard Instrument Panel	
Tachometer	Garmin GTR200 COM
Altimeter	SMARTmonitor
Air Speed Indicator	CHT Monitor
Oil Pressure / Temperature Gauge	
Inclinometer (skid/slip indicator)	
MyPanel Instrument Panel	
Airspeed Indicator	2 1/4" Round Trig COM Radio
Digital Tachometer	2 1/4" Round Trig Mode S Transponder
Altimeter	SMARTmonitor
Digital Oil Pressure/Temperature Gauge	CHT Monitor
	PM3000 Remote Intercom
World VFR Instrument Panel	
Electronics International CGR-30P Engine Monitoring System	2 1/4" Round Trig COM Radio
Altimeter	Garmin (aera™ 795 or aera™ 796)
Airspeed Indicator	2 1/4 " Round Trig Mode S Transponder
Inclinometer (skid/slip indicator)	PM3000 Remote Intercom
Vertical Speed Indicator	SMARTmonitor
Executive Glass Instrument Panel	
Airspeed Indicator	Garmin SL40 COM
Dynon D-180 EFIS and EMS	Garmin GPS (GDU370 or GDU375)
	Garmin Transponder (GTX327 or GTX330)
	PM3000 Intercom
	SMARTmonitor
Executive Glass Touch Instrument Panel	
For maintenance information, refer to the Garmin G3X Installation Manual, Section 30, P/N 190-01115-01 Rev. M dated March 2014 or later revision.	
Garmin G3X Touch 10.6" Flight Display System	Garmin GTR 200 VHF COM
• GDU 465 Display	Garmin GTX 23 ES Mode S Transponder
• GSU 25 Air Data Computer and Attitude and Heading Reference System	Garmin GDL 39R ADS-B (Optional)
• GMU 22 Magnetometer	
• GTP 59 Temperature Probe	
• GAP 26 Pitot/AOA Probe	
• GEA 24 Engine and Airframe Unit	

Table 5.4.6.1: Instrument and Avionics Equipment List

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2 INSTRUMENTS

2.1 Electronics International CGR-30P Engine Monitor

The CGR-30P displays and monitors engine parameters on a digital display and can automatically alert the pilot to out of range parameters.

Parameters include:

- RPM
- Fuel Flow
- System voltage
- Oil Temperature and Pressure
- 4x CHT
- 4x EGT
- Flight Timer
- Engine Time
- Zulu Time

Fuel management functions include:

- Fuel Flow
- Fuel Remaining per Tank
- Time to Empty
- Fuel
- Time and Distance in Reserve
- Fuel Used for the Trip
- Fuel Used Since Last Fill-Up



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3 COM SYSTEM

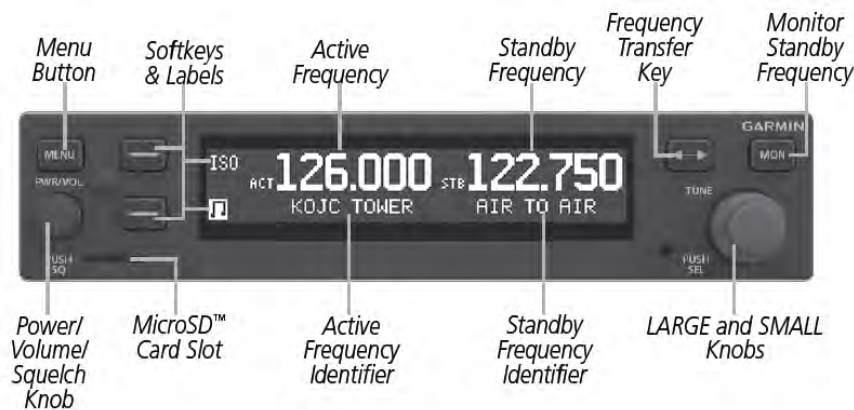
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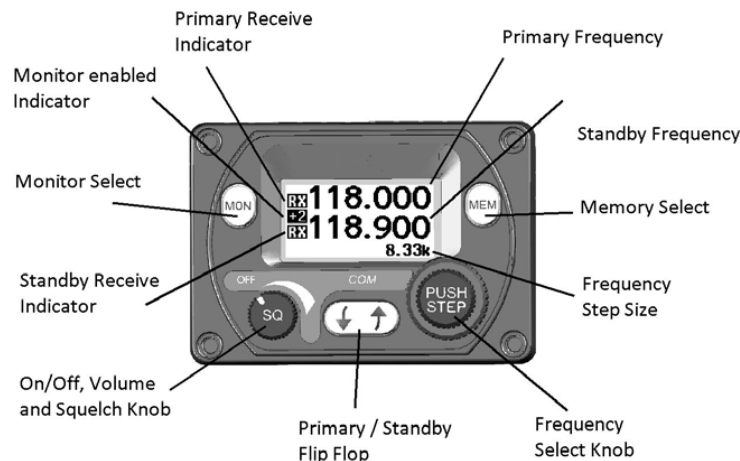
3.1 GTR 200 COM

The GTR200 COM is a VHF COM radio transceiver with dual monitor function, a built in stereo intercom, and aviation frequency database.



3.2 Trig TY91 VHF Radio

Trig TY91 VHF Radio is a small and lightweight VHF COM radio transceiver with dual monitor function.



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3.3 PM3000 Intercom

The PM3000 is a two-place panel mounted intercom designed to allow the pilot and co-pilot/passenger voice activated communication and to listen to hi-fi stereo music.



3.4 PM3000 Remote Stereo Intercom

The PM3000 Remote Stereo Intercom is a remotely installed PM3000 with the controls conveniently located on the left wing root panel.



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4 NAVIGATION SYSTEM

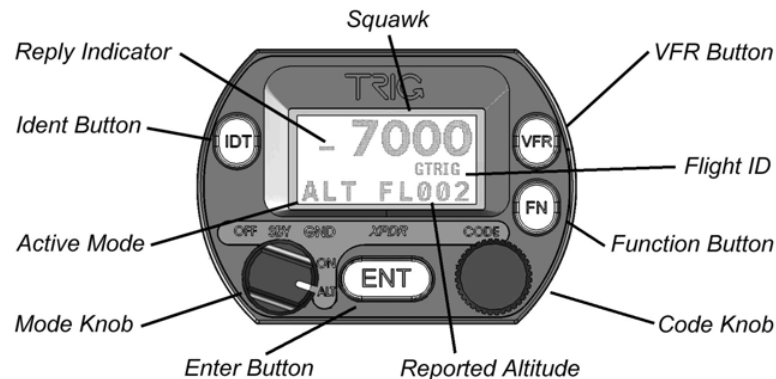
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4.1 Trig TT21 Mode S Transponder

The Trig TT21 Mode S Transponder is a small and lightweight transponder that also provides TIS traffic on compatible displays.



4.2 Garmin GTX 327 Transponder

The GTX 327 is a solid-state Mode C digital transponder. It is TSO certified and its transmitter provides 200 watts nominal power output. The GTX 327 has a DSTN Liquid Crystal Display and a numeric keypad with a dedicated VFR code button. The GTX 327 also offers timing and display functions such as flight time and count-up and count-down timers, as well as current pressure altitude.



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4.3 Garmin GTX 330 Transponder

The GTX 330 is a solid-state Mode S digital transponder. It is TSO certified, uses a DSTN Liquid Crystal Display and a numeric keypad with a dedicated VFR code button.

The GTX 330 is Mode S, IFR-certified with data link capability, including local traffic updates. The GTX 330 is able to receive FAA Traffic Information Services (TIS), including location, direction, altitude, and climb/descent information of nearby aircraft.

The GTX 330 also offers several timing and display functions: flight time, count-up and count down timers, and current pressure altitude. Other features include remote ident and auto standby, plus altitude monitor with voice alerting.



NOTE

The GTX 330 meets the requirements of Level 2 Mode-S to satisfy the upcoming European Mode-S mandate for Elementary Surveillance.

4.4 Garmin aera™ 795/796

The Garmin aera™ 795/796 is a large touch screen GPS that includes charting functions and XM weather and radio capabilities. May display traffic information from external sources and send radio frequency setting to compatible VHF COMS radios.



4.5 Garmin GDU370/375

The Garmin GDU370/375 is an all-in-one, versatile navigation system. This GPS navigator features a 256-color TFT screen that is easy to read in bright sun, a built-in base map, and Jeppesen aviation database.

The 375 or 796 GPS include an XM antenna and access, with a paid subscription, to XM WX Satellite weather. This allows pilots to have constant access to NEXRAD radar, lightning, METARs, TAFs, TFRs, and more. In addition, these units offer XM Satellite Radio capabilities, featuring more than 150 digital channels of commercial free music; more than 30 channels of news, sports, talk and entertainment; and more than 20 dedicated channels of XM Instant Traffic and Weather.



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4.6 Dynon FlightDEK D180

The FlightDEK-D180 combines all EFIS and Engine Monitoring functions into a single, powerful instrument. The primary functions of EFIS include attitude, airspeed, altitude, vertical speed, gyro-stabilized magnetic compass, slip/skid ball, turn rate, clock, timers and g-meter. The FlightDEK-D180's EMS replaces up to 16 different types of gauges. It continuously monitors up to 27 available sensor inputs that cover the engine, fuel and other miscellaneous systems and annunciate any abnormality immediately upon detection.



4.7 Garmin G3X Touch

The G3X Touch is a 10.6" single-display system that can work as your PFD or in split PFD/MFD mode, providing complete attitude/directional guidance with electronic engine monitoring and interactive moving-map multifunction (MFD) capabilities.

A front-loading SD™ card slot makes it easy to update software and databases. The aviation basemap helps provide realistic visual reference — identifying cities, roads, rivers, lakes and other guide points. You can choose topographic VFR or airway-style IFR map modes. And there's also a built-in terrain elevation database that uses color-coding to alert you as you approach potentially hazardous terrain. Overhead and vertical profile views of this information is graphically depicted on the terrain page.



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5 ANTENNAS

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5.1 Antenna Locations

5.1.1 COM Antenna

The COM antenna is attached to the turtle deck above the passenger on top of the aircraft.

5.1.2 Transponder Antenna

The transponder antenna is a 3" long antenna located on the bottom of the boot cowl.

5.1.3 GPS Antenna

The GPS antenna is attached to the upper side of the front seatbelt mounting plate located under the skylight.

5.1.4 XM Antenna

The XM antenna is attached to the upper side of the front seatbelt mounting plate located under the skylight.

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