LAA TYPE ACCEPTANCE DATA SHEET
TADS 049
DRUINE CONDOR

Issue 1	Initial issue	Dated 08/11/16	JV

These TADS are intended as a summary of available information about the type and should be used during the build, operation and permit revalidation phases to help owners and inspectors. Although it is hoped that this document is as complete as possible, other sources may contain more up to date information, e.g. the manufacturer's website.

Section 1 contains general information about the type.
Section 2 contains information about the type that is **MANDATORY** and must be complied with.
Section 3 contains advisory information that owners and inspectors should review to help them maintain the aircraft in an airworthy condition. If due consideration and circumstances suggest that compliance with the requirements in this section can safely be deferred, is not required or not applicable, then this is a permitted judgement call. This section also provides a useful repository for advisory information gathered through defect reports and experience.

Section 1 - Introduction

1.1 UK contact

Manufacturer no longer trading.

1.2 Description

The Druine Condor is a two-seat, low-wing monoplane of wooden construction with a conventional tailwheel type undercarriage. Originally developed in France in the 1950's, the aircraft was also produced by Rollason Aircraft and Engines in the UK. Most examples on the LAA fleet are ex-CofA aircraft produced by Rollasons, although there are a small number of amateur-built examples.

The aircraft has a number of variants:

D.62 – Continental A75 or C90 engine
D.62A – Continental O-200A engine
D.62B – variant from 1964 with 4" shorter fuselage and flaps
D.62C – Continental O-240-A engine

Note that the only propeller(s) approved for an individual aircraft are those listed on the individual aircraft's Operating Limitations document or in the PTL/1 (Propeller Type List) for the type.

The type is an SEP aircraft ('Group A').

Section 2 – Mandatory information for owners, operators and inspectors

At all times, responsibility for the maintenance and airworthiness of an aircraft rests with the owner. Condition No 3 of a Permit to Fly requires that: *"the aircraft shall be maintained in an airworthy condition".*

2.1 Fast Build Kit 51% Compliance

Not applicable.

2.2 Build Manual

Not applicable. Drawings are archived at LAA and are available to members wishing to homebuild or make structural repairs.

2.3 Build Inspections

Build inspection schedule 1 (Wooden aircraft).
Inspector approval codes A-A or A-W. Inspector signing off final inspection also requires 'first flight' endorsement.

2.4 Flight Manual

Owners must obtain a copy of the Condor Pilots Notes and Maintenance manual (available from LAA).

2.5 Mandatory Permit Directives

None applicable specifically to this aircraft type; however, the following Airworthiness Directives are mandatory on ex-CofA aircraft and considered mandatory by LAA on amateur-built aircraft:

AD	*Title*	*Description*
2460 PRE 80	Security of seat cushions	To avoid control interference both seat cushions must be secured, by velcro for instance, to the seat structure. See TNS/D62/3.
2461 PRE 80	Heavy Landing Damage Check & Modification	Check for heavy landing damage. Specifically inspect for damage to rear spar top boom at the point of attachment to fuselage, on one or both sides. Look for a split along the grain that can ultimately spread inboard beyond the ash block, and outboard beyond the root rib. Remove seats and use mirror to inspect. The seat structure at these points is also prone to damage. Check condition of engine bearers and attachment bolts. Check for glue failure of upper portion of bulkhead to fuselage skin and at top longeron to bulkhead joint. Ensure that Mod WAR 224 has been accomplished, i.e. mandatory incorporation of steel brackets at front bulkhead/longeron joint inside cockpit.

Also check the LAA website for MPDs that are non-type specific (TL2.22).

2.6 LAA Required Modifications (including LAA issued AILs, SBs, etc)

None.

2.7 Additional engine operating limitations to be placarded or shown by instrument markings

Notes:
- Refer to the engine manufacturer's latest documentation for the definitive parameter values and recommended instruments.
- Where an instrument is not fitted, the limit need not be displayed.

2.8 Control surface deflections

TBC.

2.9 Operating Limitations and Placards

(Note that the wording on an individual aircraft's Operating Limitations document takes precedence, if different.)

1. Maximum number of occupants authorised to be carried: Two

2. The aircraft must be operated in compliance with the following operating limitations, which shall be displayed in the cockpit by means of placards or instrument markings:

   2.1 Aerobatic Limitations
   Aerobatic manoeuvres are prohibited.
   Intentional spinning is permitted not exceeding three turns.

   2.2 Loading Limitations
   Maximum Total Weight Authorised: 1475 lbs
   Maximum Total Weight Authorised for Spinning: 1400 lbs
   CG Range: 16.6 inches to 23.0 inches aft of datum.
   Datum Point is: leading edge of the wing at the root.

   2.3 Engine Limitations
   Maximum Engine RPM: 2625 (C90), 2750 (O-200-A), 2800 (O-240-A)
   Maximum Continuous Engine RPM: 2475 (C90)

   2.4 Airspeed Limitations
   Maximum Indicated Airspeed (V_{NE}): 147 knots
   Max Indicated Airspeed Flaps Extended: 70 knots

   2.5 Other Limitations
   The aircraft shall be flown by day and under Visual Flight Rules only.
   Smoking in the aircraft is prohibited.

Additional Placards:

"Occupant Warning - This Aircraft has not been Certificated to an International Requirement"

A fireproof identification plate must be fitted to fuselage, engraved or stamped with aircraft's registration letters.

2.10 Maximum permitted empty weight

Not applicable.

Section 3 – Advice to owners, operators and inspectors

3.1 Maintenance Manual

Owners must obtain a copy of the Condor Pilots Notes and Maintenance manual (available from LAA).

3.2 Standard Options

Not available.

3.3 Manufacturer's Information (including Service Bulletins, Service Letters, etc)

In the absence of any over-riding LAA classification, inspections and modifications published by the manufacturer should be satisfied according to the recommendation of the manufacturer. It is the owner's responsibility to be aware of and supply such information to their Inspector.

Ref	*Description*
TNS/D62/1	Attachment of wheel axle on sliding leg
TNS/D62/2	Fuse box
TNS/D62/3	Seat cushions
TNS/D62/4	Self aligning bearing joint
TNS/D62/5	Fuel tank capacity
TNS/D62/6	[obsolete]
TNS/D62/7	[obsolete]
TNS/D62/8	[obsolete]
TNS/D62/9	[obsolete]
TNS/D62/10	Heavy landings
TNS/D62/11	[obsolete]
TNS/D62/12	Bulkhead inspection
TNS/D62/13	WAR 225
TNS/D62/14	WAR 225
TNS/D62/15	Wooden propeller damage
TNS/D62/16	Aircraft batteries
TNS/D62/17	[obsolete]
TNS/D62/18	[obsolete]
TNS/D62/19	[obsolete]
TNS/D62/20	Propeller bolts

TNS/D62/21 Seat back frame attachments
TNS/D62/22 Brake systems
TNS/D62/23 [obsolete]

3.4 Special Inspection Points

- Other noteworthy TNS's are TNS 1 which recommends inspection for cracks of the welded joint between wheel axle and undercarriage leg every 100 hours and after heavy landings (dye penetrant method), and TNS 4 which recommends a check to ensure that the fork end at the rear of the elevator push pull rod does not foul the bellcrank at extreme aileron and elevator positions. TNS 4 also describes a fix if this condition exists. Copies of these are available from LAA to owners and inspectors on request.
- During 1997, an LAA Condor experienced engine failure during take-off and damage resulted from collision with a fence at the end of the runway. A subsequent fuel flow check obtained zero fuel flow from the AC Delco mechanical fuel pump. A strip inspection revealed the diaphragm was made of three layers of red rubber moulded over cotton, fitted with a steel push/pull rod; it having no identifying markings and was probably produced as a car part. The push/pull rod was corroded and worn, the end of the slot which housed the engine driven pump operating arm had completely corroded through and allowed the operating arm to disengage, hence the zero fuel flow. The electric fuel pump was found to be contaminated with a piece of swarf (origin unknown) which was free to move and in some positions prevented the outlet valve from opening. This was probably the final event that led to the engine failure. In the light of the above incident (and others) it is strongly recommended that unless the recent maintenance history is known and can be relied upon, owners and inspectors should give serious consideration to internal inspection of such pumps, especially repaired/second-hand pumps, prior to fitting. Further, because of their ever-increasing age, the merits of occasional pump removal to check for condition of mechanical and rubber parts should be considered. Although increasingly difficult to come by, new pumps and parts can still be obtained from Continental Engine agents (or try Airworld).
- As with any aged wooden aircraft, vigilant inspection for the continued airworthiness of the wood and glue, and joints thereof, is a pre-requisite for proper inspection. Access should be gained to areas of structure that might otherwise go a long time without proper inspection in order to carry out a careful and dedicated inspection for structural integrity.

3.5 Special Test Flying Issues

None known.

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Please report any errors or omissions to LAA Engineering: engineering@laa.uk.com