



**LAA TYPE ACCEPTANCE DATA SHEET**  
**TADS 025**  
**TIPSY NIPPER T.66 SERIES 1,2 AND 3**

Issue 1	Initial issue	Dated 27/04/20	MR
---------	---------------	----------------	----

This TADS is 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

Airweld holds the worldwide licence for the Topsy Nipper & operates its subsidiary company 'Nipper Aircraft' for parts, plans & support.

Nipper Aircraft.  
12 New Barn Farm Cottages,  
Crawley, Winchester,  
Hampshire SO21 2PP

Tel: 01962 776547  
Mob: 07885933514  
Email: [info@nipperaircraft.co.uk](mailto:info@nipperaircraft.co.uk)  
Website: <http://www.nipperaircraft.co.uk/index.htm>

### 1.2 Description

The Topsy Nipper is a small lightweight single seat mid winged aircraft developed in Belgium in the mid-50s. Designed to be a low-cost aircraft to both buy/build and operate. Topsy Nippers are both factory and amateur built aircraft with factory-built examples ceasing production in 1968 by Slingsby Sailplanes. The aircraft is constructed with a welded steel tubular fuselage and fin covered in fabric with a fabric covered wing constructed of wood with wooden ribs and spar. The tailplane, elevator and rudder follow the same construction techniques as the wing. Topsy Nippers were built as Series I, II & III models, each being the same base design with revisions to engine models and produced under different manufacturers.

The Topsy Nipper is typically powered by VW aero conversions with some fitted with Jabiru engines.



**LAA TYPE ACCEPTANCE DATA SHEET  
TADS 025  
TIPSY NIPPER T.66 SERIES 1,2 AND 3**

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.

**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. A Condition of a Permit to Fly requires that: "*the aircraft shall be maintained in an airworthy condition*".

**2.1 Fast Build Kit 51% Compliance**

No Nipper aircraft projects have been started since the 51% rule was implemented in the UK, the type having been built during the period when the 500-hour rule applied.

**2.2 Build Manual**

Tipsy Nipper kits included a set of detailed plans & assembly drawings required to complete the aircraft.

**2.3 Build Inspections**

Build inspection schedule 3.

Inspector approval codes A-A or A-M or A-W or V. Inspector signing off final inspection also requires 'first flight' endorsement

**2.4 Flight Manual**

Nipper Aircraft Owners Handbook Section II Includes pilots' notes, recommended procedures, handling & loading information.

**2.5 Mandatory Permit Directives**

The following MPDs are applicable to this aircraft type:

[MPD 1995-022](#) - Societe Fairey SA modifications.

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)**

LAA [MOD/025/003](#) Mandatory inspection of mainplane attachment bolts.

Chapter 3.5 includes a '*Safety Spot*' article published in May 2014 of a Tipsy Nipper that had issues regarding the mainplane attachment bolts of that in the above AIL.



**LAA TYPE ACCEPTANCE DATA SHEET  
TADS 025  
TIPSY NIPPER T.66 SERIES 1,2 AND 3**

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

Ailerons	Up: 21° Down: 12°
Elevators	Up: 21° Down: 19°
Rudder	Left: 19 Right: 19°

(Leading edge of the all moving rudder at maximum chord must be rigged 2.5mm to starboard when in neutral position)

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: One
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

Intentional spinning is permitted.

Aerobatic manoeuvres are permitted as follows: Steep turns up to 2g, inside Loops, slow rolls, stall turns, half loop and roll out, half roll and dive out.

Aerobatic manoeuvres imposing forces in excess of +4g or -2g prohibited.

2.2 Loading Limitations

Maximum Total Weight Authorised: 340 kg

CG Range: 14.3 inches to 16.5 inches aft of datum.

Datum Point is: Leading edge of wing at root in the horizontal position.

2.3 Engine Limitations

Maximum Engine RPM: (VW 1834) 3300.

2.4 Airspeed Limitations

Maximum Indicated Airspeed (V<sub>NE</sub>): 147 mph

2.5 Other Limitations

The aircraft shall be flown by day and under Visual Flight Rules only.

Smoking in the aircraft is prohibited.



**LAA TYPE ACCEPTANCE DATA SHEET  
TADS 025  
TIPSY NIPPER T.66 SERIES 1,2 AND 3**

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

The ‘Nipper Aircraft Owners Handbook’ includes useful maintenance information in Section III.

Use above contact details to source ‘Nipper Aircraft Owners Handbook’.

3.2 Standard Options

The following modifications have been carried out by previous builders and approved by the LAA, and are also available for incorporation by other LAA builders. Builders are encouraged to use these standard modifications rather than devise their own alternatives.

- Nipper T.66 long range tip tanks.

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

None.

3.4 Special Inspection Points

- PFA/025/1 – An in-flight incident occurred which caused the loss of aileron control on a Nipper T66 Mk3 aircraft. The loss of control was caused by the failure of the aileron Bell-crank arm (Part No.C559). Further Investigation showed that the other bell-crank was bent and on checking another Nipper both bell-cranks were found to be bent in a similar manner. It is believed that the cause of the bending may be due to the overtightening of the aileron operating cables beyond the standard tension of 35lb + or – 5lb. The bell-crank arms should be checked for straightness as shown in the attached sketch.

All aircraft must be checked within the next 5 hours or 14 days whichever is the soonest.



**LAA TYPE ACCEPTANCE DATA SHEET  
TADS 025  
TIPSY NIPPER T.66 SERIES 1,2 AND 3**

- PFA/025/2 – A crack found in the rudder cable attachment tab of one of the rudder pedals of Barry Smiths much flown Nipper G-APYB. Had the crack extended to failure, rudder control would have been lost.

Action required is that the pedals should be inspected before next flight to determine whether any crack is present. In cases of doubt remove the pedal assembly for closer inspection. If any crack is detected replace assembly or repair by TIG or gas welding.

Duplicate inspection required after system has been disturbed, certification required by suitably LAA approved inspector and appropriate logbook entry made quoting PFA/025/2.

- An accident involving a Topsy Nipper occurred in 2000. Though not the cause of the accident it was found that the aircraft involved had used paper alongside the sight gauge. Please ensure your sight gauge has appropriately fixed levels alongside for accurate fuel levels.

### 3.5 Operational Issues

Following articles were published in Popular Flying and may be use to owner.

[\*Editors Air Test 1989\*](#) (An air test & conclusion by Barry Wright)

[\*Nipper Mk III Air Test 1977\*](#) (Air test & conclusion of a Topsy Nipper by AC G. J.C. Paul)

[\*A Windy Tale 1975\*](#) (A Nippers Ferry Flight story by Vince Hallam)

[\*First Flight in a Nipper 1967\*](#) (Michael Kennedy first Nipper flight article)

The following *Safety Spot* articles are relevant to Topsy Nipper aircraft:

*Light Aviation* issue [February 2019](#)      *Engine failure*

Engine failure due to suspect carburettor ice. VW powered Nippers are particularly susceptible to carburettor icing due to design.

*Light Aviation* issue [May 2014](#)      *Wing bolt cracks*

Wing bolt cracks found in Topsy Nipper, did not show by dye penetrant NDT even though over 40% of the area had been compromised.

*Light Aviation* issue [December 2012](#)      *Loose aileron pulley bolt*

Aileron pulley bolt only put on finger tight, annual inspections must include remove of all inspection panels and cowlings allowing your inspector to look for anything awry.

*Light Aviation* issue [June 2011](#)      *Propeller Loss in Flight*

Topsy Nipper propeller lost in flight due to insufficiently torqued prop bolts. It is vital to retorque props with changes of the season and/or flight time.

*Light Aviation* issue [April 2011](#)      *Fuel tank valve leak*

Internal leak in the fuel valve allowed fuel transfer from central tank to wing tank over time. Lack of NRV and a visual check resulted in accidental fuel starvation.

*Light Aviation* issue [December 2010](#)      *Missing control column split pin*

Split pin absent from a bolt that secures the control column, the retaining nut only just still holding it on. Previous inspections had not spotted the fault.



**LAA TYPE ACCEPTANCE DATA SHEET  
TADS 025  
TIPSY NIPPER T.66 SERIES 1,2 AND 3**

*Light Aviation* issue [December 2010](#) *Unauthorised rudder pedal mod*

Inspections did not spot the unauthorised modification to the rudder pedals that would have restricted rudder travel. Thorough inspections vital and mods must be approved with oversight to ensure they are safe.

**3.6 Standard Modifications**

No standard modifications for this type.

----- END -----

Please report any errors or omissions to LAA Engineering: [engineering@laa.uk.com](mailto:engineering@laa.uk.com)