LAA TYPE ACCEPTANCE DATA SHEET
TADS 877 TAYLORCRAFT BC-65
TADS 878 TAYLORCRAFT BC12-65, BC12-D, BC12-D1
TADS 879 TALORCRAFT DF-65
TADS 880 TAYLORCRAFT F-19
TADS 881 TAYLORCRAFT F-21, F-22A
TADS 882 TAYLORCRAFT PLUS D, GOULD PLUS D

Issue 2	AD information relocated to Section 2	17/02/21	JP

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

There is no definitive type support in the UK although there is an enthusiast's group based at Leicester. Another possible source of information is the USA-based Taylorcraft Foundation. Although there is a Taylorcraft factory in Texas who hold many of the Taylorcraft TCDS, their support should not be counted on and owners would be better placed making contact with the UK-based Taylorcraft enthusiast's group.

Tel:	n/a
Email:	n/a
UK Enthusiast's Website:	http://www.taylorcraft.org.uk/
USA Support Website:	http://www.taylorcraft.org/
USA Taylorcraft Forum	https://vb.taylorcraft.org/

1.2 Description

Clarence Taylor was one of the earliest 'private aviation' aircraft designers in America and was initially in partnership with William T Piper. After a disagreement, Taylor split from Piper and formed his own company, the Taylor Aircraft Company, in 1935, which was renamed in 1939 as the Taylor Aviation Company.

It was Taylor's mission to modify the Piper Cub he had helped Piper develop into a superior aircraft in all respects. During World War II, the tandem seating DCO-65 model was designated the L-2 by the United States Army Air Force and served alongside the military version of the Piper Cub. High production rates continued after the war until a fire at the factory effectively closed it down. In 1949, Taylor bought the assets and set up a new company, Taylorcraft Inc. The new company began production of the BC-12D.

In the mid-1950s production reduced and eventually halted with the type certificate being handed over to Univair. Then, in 1971, a Charles Feris took over with the Taylorcraft Aviation Corporation producing the F-19 and then F-21 variants. After Feris passed away, George Ruckle took the reins as Taylorcraft Aircraft but that was fairly

short lived and company was acquired by owners and through various identities now trades under the name of Taylorcraft 2000, LLC based in Brownsville, Texas.
The Taylorcraft Aeroplanes (England) Ltd was licensed in 1938 by Taylor to produce Taylorcraft designs in the United Kingdom for the British market, the first being the Plus D was a British-built Taylorcraft Plus C and powered by a Cirrus Minor 1. Subsequently the company became Auster Aircraft developing its own range from the basic Taylorcraft design.

The LAA has nearly 30 US-built Taylorcraft of several different model types on Permits to Fly, mostly the model BC12-D. The Permit to Fly status of existing LAA-administered Taylorcraft is secure, but unfortunately, due to a shift in CAA policy, future imported examples will be required by the CAA to qualify for a Certificate of Airworthiness.

The basic design was a steel tube, fabric covered fuselage normally fitted with a strut braced high wing and a conventional (tailwheel) fixed undercarriage. The wing is made up of two wooden spruce spars braced with welded steel drag struts and diagonal bracing wires. The remaining structure consists of light alloy ribs and trailing edge. The leading edge is aluminium and the complete wing structure is fabric covered.

Engine types include Blackburn Cirrus in the Plus D model, Lycomings in the F-21 and F-22 and Continental powerplants in the other models. Some models on the LAA fleet may have been re-engined with different engines than they were originally built with.

Propellers, again, vary depending on the model and powerplant used but are mostly two blade metal or wood fixed pitch propellers from pretty much every propeller manufacturer.

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 (where applicable).

The Taylorcraft types are all classified as SEP (Group A) aircraft.Type number and model description:

LAA Type No	*Model*	*Original Model Description*	*Current Engine Types*
877	BC-65	BC fitted with Continental A-65	Continental A-65-8
878	BC12-65	Later designation of BC-65	Continental A65-8, A65-8F
	BC12-D	'Twosome', post-war version of BC12-65	Continental A65, A65-8, A65-8F, A75-8, C85-8F, C85-12, C85-12F
	BC12-D1		Continental A65-8F
879	DF-65	'Tandem Trainer', DC-65 with Franklin AC-176 engine	Continental A65-8, O-200A
880	F-19	'Sportsman', Model 19 with Continental O-200 & increased MTWA	Continental O-200A
881	F-21	F-19 with 118 hp Lycoming O-235-C engine. 1500 lb MTWA	Lycoming O-235 L2C
	F-22A	F-21B with tricycle u/c, new flaps, seats & cabin cage structure	Lycoming O-235 L2C
882	PLUS D	Based on the Taylorcraft Plus C with Cirrus Minor 1 engine, built by Auster Aircraft Ltd, UK.	Cirrus Minor 1
	GOULD PLUS D		Continental C90-14F

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

2.3 Build Inspections

Not applicable

2.4 Flight Manual

Flight Manuals should be available for most aircraft but should be used with caution if the aircraft has been modified in any way from original, such as with a different engine or propeller, for instance.

For the Taylorcraft Plus D, the International Auster Club is probably a good place to start to find out information on obtaining a particular manual.

2.5 Airworthiness Directives

The majority of the Airworthiness Directives for the Taylorcraft family were issued decades ago and concerned one-off inspections and modifications, although some are repetitive inspections. Nevertheless, they should all be taken into consideration, especially on aircraft being restored to flying condition.

FAA Airworthiness Directives

FAA AD	*Associated Docs*	*Subject*	*Applicability & Notes*
47-13-02	Taylorcraft SB No 60	Fuel hose	BC-65, BC12-65, BC12-D & BC12-D1,
47-16-03	n/a	Wing strut fittings	BC-65, BC12-65 & BC12-D
50-41-01	Taylorcraft, Inc. SB No 65	Elevator horn bolt	BC-65, BC12-65, BC12-D & BC12-D1,
51-09-03	Taylorcraft SB No 66	Fuel shutoff valve clip	BC-65, BC12-65, BC12-D, BC12-D1, F-19, F-21 & F-22A
75-18-05	Taylorcraft SB No 75-002	Engine mount bolts	F-19

78-20-11	Taylorcraft Bulletin No 78-002	Aileron control malfunction	BC12-D, F-19
79-04-04	n/a	Charging circuit fire hazard	F-19
87-03-08	n/a	Oil pressure gauge hose	BC-65, BC12-65, BC12-D, F-19 & F-21
96-09-06	Brackett Air Filter Document I-194	Air filter assemblies	BC-65, BC12-65, BC12-D, F-19, F-21 & F-22A
2008-04-09	Taylorcraft Aviation, LLC SB 2007-001	Left and right wing front and aft lift struts	BC-65, BC12-65, BC12-D, BC12-D1, F-19, F-21 & F-22A
2008-09-18	Taylorcraft Aviation, LLC SB No 2007-002	Wing strut attach fittings	BC-65, BC12-65, BC12-D, BC12-D1, F-19, F-21 & F-22A

CAA Airworthiness Directives

For the purposes of this TADS, the following CAA ADs listed in CAP 747 are relevant to the Taylorcraft Plus D:

CAA AD	*Associated Docs*	*Subject*	*Applicability & Notes*
2465 PRE 80	Mod 144	Introduction of 5/8" diameter rudder mass balance arm	Taylorcraft Plus Model C & D. Mod. 159 (Introduction of rudder mass balance weight to P/N J4252) is an alternative to this modification.
2466 PRE 80	Mod 154 SB 53 SB RFS/AUS/3	Introduction of wing fabric DTD 575, using specially woven tape of greater strength with 3" pitch stringing	Taylorcraft Plus Model C & D. mainplanes. Mod 138 (Strengthened fabric attachments) & Mod 167 (Fabric to DTD 540, superseded by BS 7F1) are alternatives. On all other variants, the mod is incorporated into the build standard, but if mainplanes and/or ailerons are to be re-covered, Mod 154 must be embodied in accordance with the relevant fabric covering drawings. (Use of DTD 540 fabric, now superseded by BS 7F1 is an alternative fabric to DTD 575). Beagle SB 53 (Auster Series) & R F Saywell Ltd SB RFS/73/2 refer.
2470 PRE 80	Mod 1838	Introduction of starter isolation switch	All Auster aircraft with electric starter motors.
2471 PRE 80	Mod 2555	To introduce safety tube in tailplane attachment tube	Not specified.

2484 PRE 80	SB 50	Life limitation of rudder control cables	Rudder cables P/N JA 2393X & JA 2394X when installed over small (1 3/4") diameter pulleys at the change of direction some 12" rearward from the rudder bar must be renewed at periods not exceeding 200 flight hours. In all other cases cables P/N JA 2393X & JA 2394X may remain in service up to a maximum of 1200 flight hours. NOTE: Reference should be made to Auster SB 50. The inspections of rudder cables detailed in this bulletin are mandatory.
2485 PRE 80 Revision 1	SB 54	Inspection of the engine mounting attachment bolts	Model D. Compliance is required at intervals not exceeding 1000 flight hours. Inspect the engine mounting attachment bolts in accordance with the SB. NOTE: This AD revision removes the 5 year repeat requirement of the SB.
015–11–80	SB RFS/AUS/3	Inspection of Bendix brake back plates	All aircraft fitted with Bendix mechanical brakes. Inspect IAW R F Saywell Ltd SB RFS/AUS/3 at next 50 hour inspection and thereafter at each 100 flight hour or Annual Inspection whichever is the sooner.

FAA Airworthiness Directives (and CAA CAP 747 for the Plus C and Plus D models) should be checked for new or revised ADs and also for applicable ADs pertaining to the engine, propeller or installed equipment.

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.

2.6 Mandatory Permit Directives

The following MPDs are applicable to this aircraft type:

MPD 1995-001 R5 Regarding ex C of A aircraft now operating on a Permit to Fly

Also check the LAA website for MPDs that are non-type specific (TL 2.22).

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

There are no LAA mandatory modifications, LAA issued AILs or SBs for these aircraft types.

Note: Manufacturer issued Service Bulletins and other continuing airworthiness data are listed in paragraph 3.3.

2.8 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.

2.9 Control surface deflections

Due to the large number of models covered by this TADS, the relevant documentation for a specific model should be consulted for information on the control surface deflections.

2.10 Operating Limitations and Placards

Due to the large number of models covered and the fact that modifications may have been carried out to individual aircraft, the Operating Limitations document for a specific aircraft should be consulted regarding that aircraft's operating limitations and placards.

Additional Placards

In addition to the placards stated on an individual aircraft's Operating Limitations, all aircraft will also require the following 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 Taylorcraft Foundation Technical Resources section has various manuals and technical support data. Remember that individual aircraft may have been modified from their original production state and that the information provided may not be up to the latest amendment.

Two Taylorcraft manuals that may be of some use for reference purposes to owners are the BC12D Service Manual and B & B12 Owner's Manual.

Another potentially useful source of information is the FAA Type Certificate Data Sheet (TCDS):

LAA Type No	*Model*	*Type Certificate Data Sheet*
877	BC-65	A-696 Rev 25
878	BC12-65	
	BC12-D	
	BC12-D1	
879	DF-65	A-746
880	F-19	1A9 Rev 22
881	F-21	
	F-22A	

For engine information, consult the relevant engine manufacturer's maintenance schedule.

Owners should obtain copies of the relevant Maintenance Manuals and make them available as required to their Inspector.

3.2 Manufacturer's/Standard Options

There are no standard options for these types.

Note: Any modifications to these types of aircraft require LAA Engineering approval for that specific modification and aircraft.

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

Whilst not strictly Taylorcraft, the following continuing airworthiness data was produced by Auster and later companies providing type support for the Austers and some information may be relevant, especially for the Taylorcraft Plus D variant. These were in the form of Service Bulletins (SB) and often concern information on a variety of subjects rather than the more normal one SB for one particular issue. Service Letters (SL) were also produced by Beagle after they took over the type support.

Ref No	*Description*	*Applicability*
SB 1	Strengthened aileron brackets, tacho drives, propeller bolts, operations, tail wheels, wheels, silencers, door locks, spares, publications, Cirrus engine mods, BTH magneto coupling & sparking plug adapters.	Various
SB 2	Shock cords, equipment weights, tailplane bracing wires, lift strut bonding, engine cowling rivets, window fasteners, tail spring attachment bolts & rear seat.	Various
SB 3	CofA, exhaust deflector plate, engine oil, undercarriage inspection, window fasteners, Cirrus engine mods, propeller bolts, Cirrus magneto drive oil leak, Cirrus propeller hub mod & Autoklean filter inspection.	Various

SB 4	Tailplane attachment, carburettor heat, tail wheels, Cirrus engine notes, magneto drive gear lubrication, tacho drive & Cirrus engine mods.	Various
SB 5	Lift struts, carburettor heater, mods, serial plates & Model D.	Various
SB 6	Cirrus engine.	Various
SB 7	Fraying of rudder cables, Continental engines, Long range tanks, fabric & Cirrus engine studs.	Various
SB 8	Wooden propellers, carburettor heat control, sparking plugs, radio, increase in all up weight, Cirrus side chutes & attachment studs.	Various
SB 9	Manual of instructions, C-75 engine mods, serial plates, Cirrus engine controls & Service Instructions.	Various
SB 10	Tailplane bracing wires, long range tank support bolts, safety harness, heavy landing undercarriage inspection, seat bolts & brake cables.	Various
SB 11	Seat back support, serial plates, safety harness & Cirrus SI.	Various
SB 13	Seat canvasses, approval of new propeller, Cirrus engine notes.	Various
SB 15	Starter isolation switch, tail wheel pivot bolt, flap limiting speed, Cirrus engine notes, cylinder heads, carburettor steady bracket.	Various
SB 16	Long range tank, increase in all up weight, corrosion of lift struts & spare parts.	Various
SB 17	General servicing instructions, floorboard attachments, double rear seat, electrical installations, overhauled Lycoming engines.	Various
SB 18	Essential mods, towing hook & double rear seat.	Various
SB 19	Towing hook, undercarriage attachment bolts & essential mods.	Various
SB 20	Metal propeller, filling oil tank, fuel system water trap, carburettor control, undercarriage attachment bolts & oil pressure.	Various
SB 21	Cirrus Minor Series II essential mods.	Various
SB 22	Lycoming O-290 and wind driven generators.	Various
SB 24	Model D MTWA, Cirrus engine SBs.	Various
SB 25	Flap operating lever & fire extinguisher.	Various
SB 26	Maximum diving speeds, mods & technical publications.	Various
SB 27	Windscreen fabric strip, spares schedules, technical publications & Aiglet manual of instructions.	Various
SB 28	Elevator trim tab control wires, Goodyear crosswind wheels & brakes, Gipsy major exhaust pipes, crankshafts & throttle controls, exhaust danger, technical publications, J5 manual of instructions and Cirrus engine SIs.	Various
SB 30	Tailplane attachment, technical publications.	Various
SB 31	Fuel primer, fine pitch windmill generator, cockpit lighting, compass sun cover & battery access door.	Various
SB 32	Tailplane leading edge tube & general servicing note.	Various

SB 33	Brake lining oil deflector plate & essential mods.	Various
SB 34	Tailplane bracing wire attachment lugs, rudder stops and VHF aerial.	Various
SB 35	Fixed pitch wooden propeller.	Various
SB 36	Starter installation & primer feed line.	Various
SB 37	Throttle control, VHF aerial, battery & radio access door, essential mods & tailplane leading edge tube inspections.	Various
SB 38	Teleflex controls.	Various
SB 39	Introduction of counter-poise to aerial installation.	Various
SB 40	Exhaust manifold support stays & crop dusters.	Various
SB 41	Elevator trimmer control, damage to lift struts & technical publications.	Various
SB 42	Gipsy Major engine corrosion of carburettors & fuel pumps.	Various
SB 43	Assembly of aileron link cable to control column, J1N undercarriage mod, fully castoring tail wheel & throttle control.	Various
SB 45	Cabin penetration by rain, fitment of wing tanks, approved shock cords & ordering of spares.	Various
SB 46	Elevator trim cables, carburettor prime system & rudder control cables.	Various
SB 47	Hinged servicing panel on firewall (Workmaster), torque loading of tail wheel units, excessive use of brakes, price supplement & SBs.	Various
SB 50	Rudder cable failure.	Various with small (1 ¾") pulley 12" aft of the rudder pedals
SB 51	Engine lubricating oil recommendations.	Various
SB 53	Fabric covering of components.	Model D
SB 54	Engine mount attachment bolts.	Model D
SB 56	Fabric testing.	All Auster series aircraft
SB 58	Replacement of toxic type fire extinguishers.	Model D
SB 59	Elevator trim tab wires.	All Auster variants
SB RFS/AUS/3	Bendix brakes.	All Auster types with Bendix brakes

3.4 Special Inspection Points

Please note, that some of the following information was produced for, and by, Auster but may be relevant to Taylorcraft, especially the Plus D.

1. Taylorcraft Aileron Attachment Bracket Failure

Some years ago, after over-wintering outside at Popham, the owner of a Taylorcraft BC12-D conducted a pre-flight inspection prior to the first flight of the year. During the

inspection the starboard outer aileron hinge bracket, one of three cast magnesium brackets each side, was found to be completely separated from the wing, having 'snapped' across its middle. The damage was most likely caused by strong tailwinds whilst tethered and apparently there have been similar incidents reported occurring to Taylorcraft in the States. Furthermore, there have been recorded incidences of severe dissimilar metal corrosion between the magnesium aileron bracket and the steel end fitting.

2. Auster Shock Cord Reference Guide

An Auster Shock Cord Cross Reference Guide was produced in 1987 detailing the equivalent American shock cords for Austers. Note: the relevant part numbers may have changed since the guide was produced.

3. Recovering of Auster Aircraft With Synthetic Fabric

In 1974, the CAA issued CAA AP AAU108 which is basically a letter permitting the use of a synthetic polyester covering in place of the original natural cotton or linen fabric on all types of Auster aircraft.

4. Auster Upholstery Screw Note

The potential dangers of using upholstery attachment tacks and canopy screws that are too long was highlighted in an internal letter: Auster Upholstery Screw Note. It may be that if they are too long, screws and tacks can pass through the wooden members and contact the steel fuselage tubes causing corrosion.

3.5 Special Test Flying Issues

There are no special test flying issues, the aircraft performance and handling being typical of the type.

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