

Slingsby (UK)

Status	Subject	Detail	Reference information	TNS
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T 1 Grasshopper

Air Cadet Operational Notes and Maintenance Manuals are available from the BGA

Tutor (Cadet Mk 2) & T.31 (Cadet Mk 3, Tandem Tutor)

M	Main spar failure Rudder cable stops	major modification adjust to avoid fin loads	Mod.80	1962? 08/89
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T.21A & B Sedbergh

	Tow hook	side plates cracked		10/93 & 08/80
	Control stick	inter connect – failure threads cracked		12/93,10/91 & 06/83
	Drag spar	attachment at pylon front cracked at bolt-hole		10/83
	Elevator	disconnection in flight clevis pin too long - safety pin fouls on tailplane		06/84
	Elevator	drive rod failure at ball-end fitting in cockpit - inspect annually		08/85
	Elevator	end fitting to drive tube rivet failure- inspect annually		02/96 & 08/95
	Main frames	1 & 4 cracked inspect annually		09/85 & 06/86
	Control cables	damaged by lightening		04/87
	Rudder cable stops	adjust to avoid fin loads		08/89
	Wing root fittings	Cracks in welds		06/93
O	Weak Link	For mod BGA 2005/03 C of G release, BLUE link is approved		5/2006

T.41 Skylark 2

M	Shoulder harness	canvas seats	Mod 96 (CAA)	
M	Shoulder harness	non canvas seats	Mod 97 (CAA)	
M	Canopy catch	improved type (lift off)	Mod 98 (CAA)	
M	Canopy catch	improved type (hinged)	Mod 99 (CAA)	
	Rudder stops	adjust to avoid fin load		06/87
	Fin spar inspection at the base	annual & after heavy landings etc	TN 107/T50	08/87
	Rudder cables	fouling on the fin		04/88

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<u>T.42 Eagle</u>				
M	Canopy retention strap	fouls rear stick	Mod 1	
	Wing spars	strengthening	Mod 5	
<u>T.43 Skylark 3 & T.50 Skylark 4</u>				
M	Wing root strengthening		Mod 7	
	Wing fittings	severe corrosion inspect & treat as necessary		10/96 & 12/81
M	Harness attachments		Mod 96 & 97	
	Canopy catch worn	excess backlash external lever does not function	Mod 99	06/83
	Fin spar inspection at the base	annual & after heavy landings etc	TN 107/T50	08/87
	Rudder stops	adjust to avoid fin loads		06/87
	Aileron misrigging	fit wing tips with ailerons neutral		10/92
	Aileron pip-pin connector	failed - aileron disconnected		06/93
	Elevator misconnected	driver lower lug not in slot - loosens in flight	Skylark 3	04/97
	Rudder horn	severe corrosion		02/99
<u>T.45 Swallow</u>				
M	Canopy catches	insecure	Mod 10	
	Fin spar	damaged by rudder cables after wearing through the fairlead		04/88
	Rudder stops insecure	resulting in rudder over-travel		
	Cockpit torque tube	cracks		12/90
<u>T.49 A & B Capstan</u>				
	Cracks in bracing at frame 3			08/74
	Air brake rod	threaded end fractured adjacent to the brake		03/75
	Tow release	cable frayed at pulley guard		08/84
	Rudder lower hinge	corroded		12/82
	Rudder stops	adjust to avoid fin loads		08/87
	Rudder-post	cracked at weld		10/93
	Airbrakes jammed	protruding bolt on brake paddle		06/97
	Fuselage skin	damaged by skid rubber air brake mechanism damaged		08/98
	Rudder cables	damage airbrake rod cables wrapped around rod behind cockpit		08/98

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M	Rudder torque tube	Inspection and modification	BGA 029/05/2002 iss.1	06/02

T51 Dart 15, 15R, 15WR, 17, 17R, 17WR

M	Undercarriage strengthening		Mod 66	
	Drag spar safety pins too long	become unlocked		08/79
	Aileron flutter	caused by excessive backlash (5 mm total play)		10/76 & 10/83
	Longerons	cracked at frame 6 in flight break up inspect annually & after any "event"		04/85
	Centre section frames & diagonals	cracked		08/85
	Longerons inspection	after heavy landings etc & annually		08/87
	Spar	corrosion at wing root		04/93 & 12/91
M	Dural spar boom	corrosion at bond mandatory inspection every 5 years	TI 109 iss 3	
		Revised inspection at issue 3		12/97 & 08/00
	Elevator flutter	excess play between elevators		10/98

T.53/YS-53 Sovereign

	Airbrakes locked out	mechanism jammed at fuselage frame 6		08/80
M	Elevator lever mounting bracket	replace (at rear control box)	TI 36, Mod 11	05/81
M	Tailplane incidence change		TI 40, Mod 15	05/81
M	Wing centre section	inspection and strengthening	AD 002-05-81, TI 66 & 68	05/81
M	Wing attachment	bracket (frame 6) inspection and replacement	AD 003-05-81, AD 004-05-81, TI 69 & 70	05/81
	Wing attachment	bracket (frame 6) inspection of replacement parts	TI 90	02/80 & 05/81
	Centre sections cracks	at frames 4 & 6	TI 100	08/85
	Frames 4 to 6	corrosion and loose rivets		07/86
M	Wing	Inspection of centre section	AD 001-10-82, TI 100/T53	

T.59 A, C, D & H Kestrel 17, 19, 20 & 22 (Kestrel "2")

See Glasflugel section for Glasflugel 401 aircraft

M	canopy	Modify canopy catch spigot mounting	TI 43, Mod 4	1973
M	Landing Gear	Reposition bolts on u/c operating shaft	Mod 5	
	Seal flaps and ailerons		TI 49, Mod 11	1973
M	Fit servo tab to elevator	series I becomes series II, aft C of G limit from 14.76" to 15.83"	TI 52, Mods 9 & 13	1973
M	Controls	Introduction of take off flap position on landing flap control	Mod 15	
M	Aileron	mass balance limits changed to avoid wing flutter	TI 54	1973

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Status	Subject	Detail	Reference information	TNS
	Wings	Inspection	TI 62	
	Elevator	Actuator fitting inspection	TI 63	
	Landing flap rods	check for end bending	TI 64	
M	Elevator actuator replacement	by part number 59A-30-25	TI 65, Mod 18	1974
	Rudder actuator	improved bearings fitted	TI 67, Mod 26	
	Airbrake	Tensions airbrake caps as necessary to prevent flap flutter		10/75
	Dive brakes	Operating limitations	TI 72	
M	Air brake	control system improvement	TI 75, Mod 28	04/75 & 06/75
	Root rib	'uniballs' - loctite them in	TI 76, Mod 31	1975
	Rudder cables	Inspection	TI 77	
M	Rudder cable failures (fatal)	fit stop to prevent rudder pedals going fully forward.	TI 78, Mod 33	10/75
	Controls	Repeated failures if pedal geometry is wrong		04/76
	Controls	Frequently inspect cables in the nose		04/77
M	New mass balancing limits	addendum 7 to pilot's notes		01/76
	Flap/aileron connections	reversed at bell cranks - check after assembly		07/76
	Critical areas	Inspection for loose bolts	TI 89	
M	Rudder drive annual crack check	mandatory 'Magnaflux' check	AD 002-01-82, TI 101/T59	
	07/86 & 12/81			
	Undercarriage operating arm	weld failure R H side of wheel box		09/82
	Flap drive shaft mount loose	damaged while rigging - caused flap flutter		10/83
	Flap and aileron 'buzz'	max total freeplays $\frac{1}{8}$ " & $\frac{1}{16}$ "		06/88 & 09/85
M	Elevator push rod inspection	for internal corrosion	TI 106,	02/87
	LE delamination	water ballast leak drill extra drain holes & inspect annually		08/88 & 06/87
	Aileron skew-drives	assemble with loctite to minimise backlash		06/88
	Aileron LE foul	with detached/loose gelcoat		06/90
	Tailplane front mounting lock	must be wire locked		BGA
	Winch hook angle changed	improved launch (optional)		04/99
	Water ingress at wing root rib	caused 12" x 6" of disbonding		12/99
I	Landing gear	Operating rod weld failure at attachment to operating shaft (poor weld)		4-2006

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Status	Subject	Detail	Reference information	TNS
<u>T61 Series</u>				

The BGA holds a .ZIP file with all manuals, drawings and other information. Download it by clicking here - <http://www.gliding.co.uk/wp-content/uploads/2018/07/T61%20Venture.zip>

Airworthiness Directives and Mandatory Modifications listed in CAA MAMIS

M	Elevator	Change of control rigging pin T61A	AD0170 PRE 80, TI 42, Mod 3	
M	Engine mount studs	replacement of 10mm studs	AD0171 PRE 80, TI 45, Mod 10	
M	Canopy	Addition of fasteners	AD0172 PRE 80, TI 50, Mod 15	
M	Elevator ctr hinge	Inspection & replacement	AD0173 PRE 80, TI 53, Mod 16	
M	Elevator tab	Inspection	AD0174 PRE 80, TI 55	
M	Aileron	Inspection of operating lever	AD 011-10-80, TI 79, Mod 17	
M	Rudder pedals	Reduction of stops	AD 012-10-80, TI 80, Mod 18	
M	Wing root fitting	Pin inspection	AD 009-11-80, TI 94	
M	Fuel shut off valve Truma V8M	8 year (seals) life limitation	AD 82-50/2, SB 653-41	02/90
M	Tailplane	Forward bracket inspection	AD 003-01-82, TI 102/T61	04/90
M	Wings	Inspection of wing centre pin	AD 003-06-82	04/95
M	Truma V8 fuel valves made after 1/6/96	exchange valve for new	AD 97-140, SB 653-67	08/97
M	Fuel shut off valve NK 490	fitted in place of Truma V8M	SB 653-70	02/98
M	Wings	Inspection of wing centre joint additional limitations	AD 001-07-82, TI 103/T61	07/82
M	Structural Audit (F)	Inspection of airframe (to be completed by April 2004)	TI 111/T61	02/03
M	Fatigue life limits	This AD has been raised to mandate revised fatigue lives.	G-2018-0001 (issued 12/02/18)	

T61 In Service Reports (Advisory)

I	SF-25/T-61 elevator tab cables	wire lock at tab		06/73
I	T-61 spar delamination at wing root			11/74
I	Longerons corroded at fin post	adjacent to microballoon filler		01/75
I	T-61 aileron hinges cracked	cracked at pin supporting plate weld	TI 73	06/75
I	T-61 elevator push rod fitting	cracks around holes at fork end in fus centre	TI 74	06/75
I	Wheel assembly bolt failures	fit larger (8mm) bolts		11/77
I	T-61 tailplane spar delamination	inspect annually	TI 81	03/79
I	SF-25/T-61 compass errors	magnetised canopy frame		12/79
I	Spar deterioration	water in spoiler boxes		06/95 & 12/80
I	SF-25/T-61 wing main pin holes	worn & splayed oval		12/80
I	T-61 ignition switch "live"	test		12/85

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I	Crank case cracks	numerous cases - inspect regularly		02/87
I	SF-25/T-61 tailplane	front attachment cracked	TI 102	04/90
I	SF-25 fuel flow restriction	filter incorrectly installed		06/90
I	Top harness attachments	secure to transverse tube		01/93
I	Tubing on fuel gauges	hardens and leaks		06/95
I	T-61 magneto to crankshaft coupling	failure of type without reinforcing ring		06/96
I	Rear fuselage structure corrosion	near fin attachments		02/99
I	Aileron drive bearing failure	central hanger upper bearing between sticks		04/99
I	Tailplane front mount cracked through	inspect for cracks and poor welds		08/99
I	Throttle cable disconnected	check security at carburettor connection		10/99

T.65 A & D Vega & T.65C Sport Vega

	Loose pieces of resin in the wings	jam ailerons to be shaken out	TI 83	06/84, 08/83 & 08/79
M	Aileron actuator	fouls outboard hand hole	TI 84	08/79
M	Flap/airbrake	Modification if Mod 12 not c/out	TI 85, Mod 12	
	Water tanks	do not pressure fill at more than 2½ PSI	TI 86	08/79
M	Airbrakes inadvertently opening	airspeed restriction - lifted when Mod 12 has been carried out	TI 82	08/79
M	Wing spigots	replace	TI 87 issue 2	10/79
M	Wing strengthening		TI 88, Mod 27	10/79
	Critical areas	Inspection for loose bolts	TI 89	
M	Elevator actuator pin retention	replace circlip with split-pin	TI 91	04/80
M	Aileron vibration	mass balance increased (all models)	AD 002-05-81, AD 004-01-82, TI 92, TI 95	12/80
M	Elevator centre hinge-mounting	rib loose in TP - reinforce	TI 104	11/82
	Canopy jettison inoperative	check system annually	TI 105	11/82
	Flap drive failure	at universal joint at pilots quadrant Pre Mod 16 aircraft only	TN 108	08/90 & 08/87
	Tailplane attachment	cracks inspection within 6 months and after ground loops etc	TI 110/T65	06/99
M	Elevator Drive	BGA inspection of elevator drive U channel	BGA 006/08/2000 iss1	08/00
M	Flying controls	Elevator disconnection and tailplane attachment	BGA 013/13/2001 iss1, TI 104/T65 iss2	04/01

Vega In Service Reports, Advisory

Seat pan fouls elevator control	cut clearance as necessary	10/80
Canopy lock	screws loose in frame	12/80
Stern post detached from fin skin	inspect & repair as necessary	03/82

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	Tailplane mounting spigot	tongue cracked at bolt holes		02/83
	Rudder travel restricted	at extremes of pedal adjustment limit pedal adjustment		06/84
	Rudder cables	damaged by a screw at tail wheel retraction hinge, inspect		06/84
	Elevator drive at base of fin	delaminated		08/85
	Ailerons	jammed by wheel retraction with one U/C mechanism bolt reversed		09/85
	Elevator hinge	axis & drive misaligned align to avoid excess backlash & flutter	02/88 & 10/86	
	Undercarriage mechanism wear	excess free play causes collapse		04/87
	Rudder	water drains blocked		06/87
	Tailplane	attachments cracks in GRP inspect frequently		02/88
	Aileron	hinges and drive box corroded		08/88
	Tailplane upper skin	unbonded from root rib		02/89
	Tow release & brake cables	corroded & failed		06/89
	Aileron actuator cover plate	jammed ailerons - always tape into place		06/89
	Undercarriage lever failure	at rod end bearing in cockpit		06/91
	Undercarriage lever failure	at weld on u/c		12/93
	Flap drive yokes dis-bonded	noticed because of excess play in flaps		10/97
	Canopy	locking lever must face upwards to prevent accidental canopy opening		08/98
	Canopy	Latching lever bent, fouling seat and difficult to operate		04/05
	Landing gear	Frame damaged by incorrectly fitted bolt on operating arm.		3-2006