BGA TECHNICAL COMMITTEE

Technical Newsheet. TNS2/3/78.

PART 1. AIRWORTHINESS "AGGRO". (Please add to the 1978 "Pink" Compendium).

1.1. ASTIR (Models CS, CS77, CS JEANS). Rudder Control Lever Assy. TM 102-8 introduces as MANDATORY, a solid lever where control cables are attached in centre section. This modification will eliminate failure of the cast lever, caused by ground loads applied through the rudder. Compliance required at next C of A Renewal. (Copy attached).

1.2. "DUSTER" (California Sailplanes). Mandatory Bulletin dated 12/1/78 (herewith) requires fin/rudder modifications and reduction of Vne to 100 kts to eliminate rudder flutter.

1.3. Blanik. Bulletin L13/047 (cable- release lever) introduces modification to re-enforce No 1 bulkhead, carrying the cable release lever assembly. (Mod kit and bulletin from Peter Clifford Aviation Ltd, Oxford Airport, Kidlington, Oxon. (Kidlington 4262).

1.4. D.G. 100. Tail-plane attachment. Tech. Note 301/5 introduces mandatory modification to t/plane lock assembly. (Copy attached).

1.5. Skylark 3 series (and other types). Cracks in solid links in control systems. Cracks radiating from clevis-pin holes in sheet-steel links may be difficult to detect without dismantling and removal of paint. (Len Morris - Swindon G.C.).

1.6. Gypsy Series Engines. BTH series magnetos. Contact breaker assemblies. TNS G. No. 78 and TNSGM/10/48 (attached) draws attention to safety modifications applicable to contact breaker cap assemblies.

2.0. General Matters

2.1. Blanik Oleo inflation. Damage, far in excess of the cost of maintaining the correct inflation pressure, will be incurred, if oleos are not properly maintained.

2.2. Blanik Elevator Travel. Bulletin L13/046 ammends the Technical Manual Part 1 Para 2, to permit upward elevator deflection of $32^{\circ} + 2^{\circ}$ (previously 32°).

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3.0. Tug Matters.

3.1. Fabric Repairs - Refer to Para 2.4. and CAIP Leaflet BL/6-26.

3.2. Glider Towing Weights.

BGA letter 15/2/78 to Airworthiness Division CAA recommends the following (ad hoc) changes:

(a) Tugs of 130 shp or more. Towing weight to be increased to 1500 lbs.

(b) Chipmunk. Restriction on 2 crew operation to be lifted.

(c) Dual towing. Pending a more detailed investigation of L/D ratio versus power/weight ratio, that the dual towing weight shall not exceed the max authorised towing weight provided (a) engine operating temperature limitations are not exceeded,
(b) a rate-of-climb of 300ft/min can be maintained,
(c) Article 32 of the ANO be complied with.

These recommendations will have to be agreed with the CAA, and incorporated as Flight Manual ammendments, before they become legally effective.

R.B. Stratton
Chief Technical Officer

March 1978

Encs.

NOTE CTO is planning to be away in the USA for 10 days early in April, so please avoid generating any "aggro" around about that time!

4.0. Motor glider and tug operations.

Please refer to CAA General Aviation Safety Information GASI 2/78 and Information Circular 31/1977 "The effect of icing on piston engines in light aircraft".

4.1. Water in Fuel Systems.

Several cases have been reported, caused by:-

(a) Tank covers/caps not sealing properly

(b) Water-drain valves in tank sumps and filter-bowls not being used, on a daily basis, to extract accumulated water.

4.2. Water-on-wings.

Two cases of serious accidents to motor-gliders have been caused by water-on-the-wings. (also applies to slippery GRP ships).

4.3. Carb-Icing. (GASI 2/78 and circular 31/1977 refer to re-curring cases of carb-icing.

GASI 2/78 reminds pilots of the need to select hot air whilst there is still sufficient heat available in the engine to do a worthwhile job. It recommends that you periodically increase the power to increase the heat available. At the same time you effectively check the response of the engine.

BGA Note.

Beware of "over-stoking" by excessive use of throttle/accelerator pump, until the engine is too rich to accelerate.

PLAY IT SAFE BY CHECKING ENGINE RESPONSE PERIODICALLY DURING THE DESCENT.

Applies also to MOTOR GLIDERS.

R.B. Stratton
Chief Technical Officer

March 1978

WHY NOT TEAR OFF AND NAIL TO NOTICE BOARD?

B.GROB FLUGZEUGBAU	Technical Information TM 102-8	ASTIR CS ASTIR CS 77 ASTIR CS JEANS L – 306

BGA Note: LBA/AD/78-30 Refers. Dated 9/2/78.

Subject: Change of rudder control.

Effectivity: Sailplane Astir CS, work-no. 1180–1536.
Sailplane Astir CS 77, work-no. 1613–1679.
Sailplane Astir CS Jeans, work-no. 2001–2032.

Accomplishment: Next periodical inspection latest 28. 2. 78

Reason: Forcing the rudder hard against the stop (in case of gusts on the ground, pushing the sailplane by the rudder, loading the glider in the trailer), an overstressing of the rudder control is possible.

Material: We deliver
for sailplane Astir CS, work-no. 1180–1536
rudder control 102–4209
for sailplane Astir CS 77, work-no. 1613–1679 and
sailplane Astir CS Jeans, work-no. 2001–2032
rudder control 102–4933
3 hexagonal nuts M 6 LN 9348
1 hexagonal nut M 8 LN 9348.

Instructions:

1. Check if a clean control or a control with cutouts is mounted.
2. If a clean control is mounted, no change is necessary. (picture 5, 5a)
3. If a control with cutouts is mounted, it has to be changed for the new control 102–4209 or 102–4933 as described in our instruction. The installation-instructions are then applicable.
4. The deflection of the rudder has to be checked in accordance to the manual and to be adjusted if necessary.

Weight and balance: no influence.

remarks: The proper carrying out of the mounting instructions is to be attested in the logbook by an inspector class III.

Mindelheim-Mattsies, 28th november 1977

TWS 2/3/78

"DUSTER" Change Bulletin
MANDATORY

Jan. 12th, 1978

A structural weakness in the fin attachment has come to light which makes the fin susceptible to damage in case of hard landing loads or dropping of the tail during ground-handling. Skin delamination or glue separation between the fuselage deck and the fin root-rib is possible which can in turn cause catastrophic vertical tail flutter at speeds as low as 60 knots. The structural damage as described may be visible only after very close inspection, and all owners who are presently flying their DUSTERs are advised to make an immediate inspection of fin root-rib area.

The following changes will be mandatory on all existing DUSTERs, effective immediately:

A. Install a partial bulkhead which ties the fin leading-edge into the fuselage structure. (see enclosed dwg)

B. Replace skin doubler at elevator control-horn slot in fuselage deck with 1/4"x3/4" wide doubler, extending it behind the fin leading-edge extension.

C. Install access-hole cover (smaller and relocated downward) on left side of fuselage aft of sta. 185.5 .

D. Install 1/8"x3/4" wide skin doubler inside fuselage skins at rudder cable exit points.

E. Install 3/8" capstrip bracing on top side of fin root-rib.

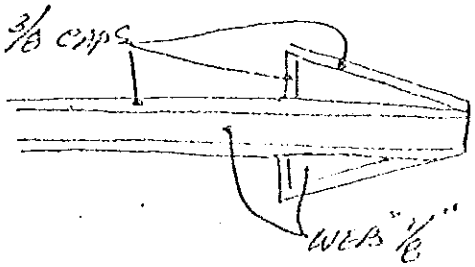
F. Replace rudder with redesigned fabric-covered and balanced unit.

G. Lower V_{ne} to 100 knots.

H. Einar Thor, Designer

The above modifications will necessitate removal of the left-side fuselage skin aft of sta. 185.5 . A standard (ten x t) scarf joint is called for, centered over the bulkhead at sta. 185.5, so take care when removing the discarded skin piece that the area to be scarfed remains intact on the fuselage.

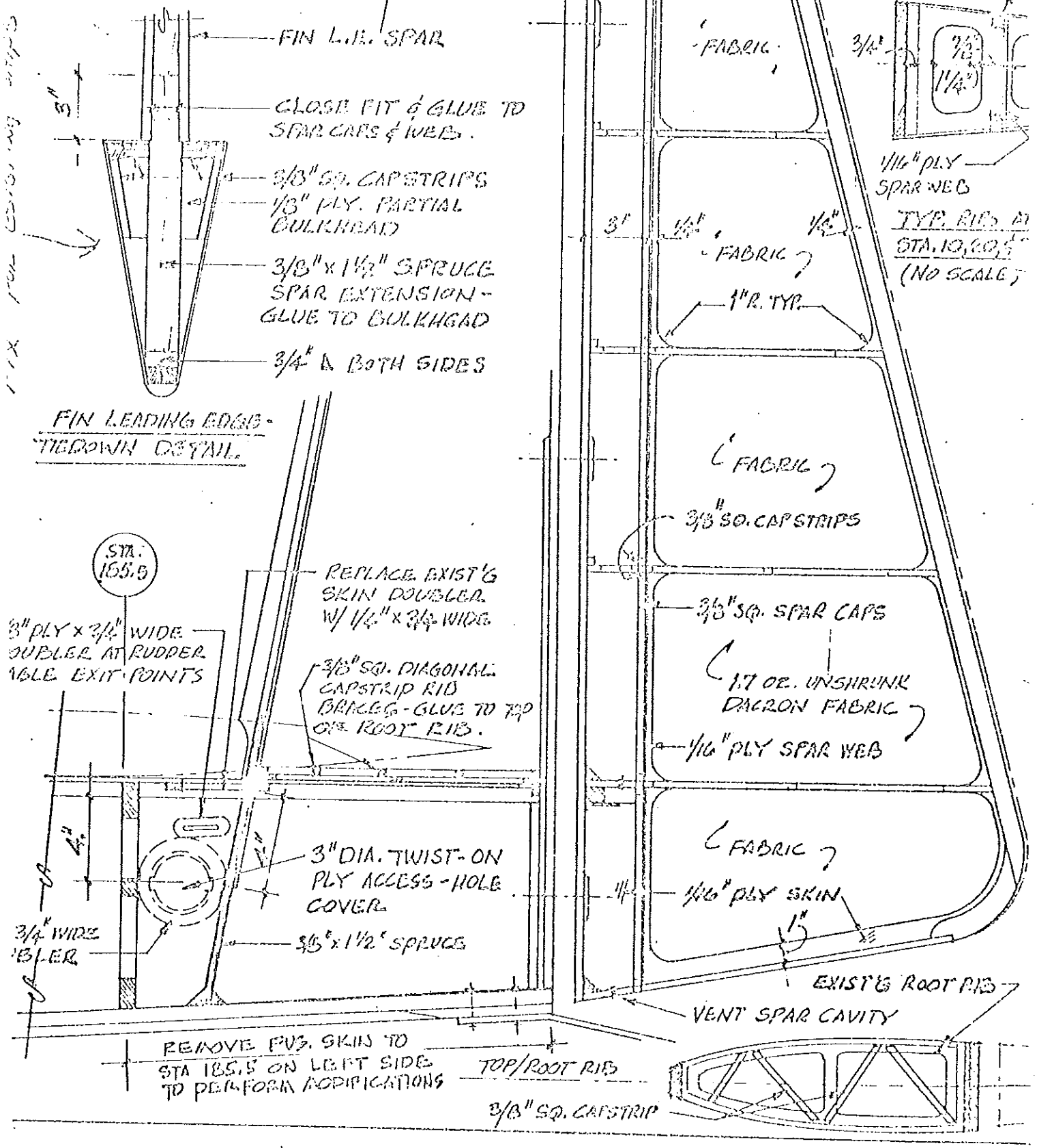
DUSTER PLANS HAVE BEEN CHANGED TO SHOW FIN LEADING EDGE WEB AND CAP STRIPS RUNNING FULL DEPTH INTO FUSELAGE TO FORM A LEADING EDGE - SPAR - WEB / BULKHEAD.



MANDATORY FIN & RUDDER MODIFICATION - JAN 18-78 H.E. TECH.

HOLLOW OUT FOAM-GLASS FAIRING & FILL W/ LEAD SHOT POTTED IN RESIN. BALANCE RUDDER AS CLOSE TO HINGE LINE AS POSSIBLE.

DOUBLER

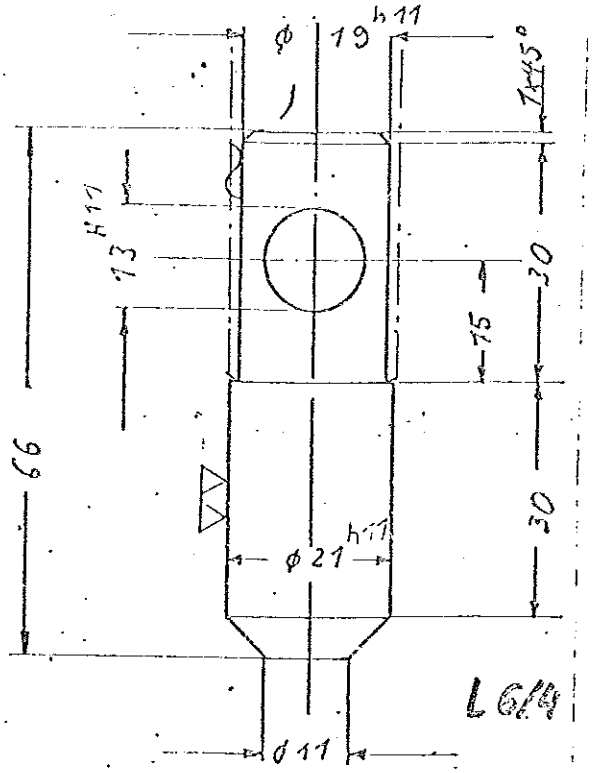


MANDATORY ! D.G. 100/[illegible]3/78

	Technical Note	Nr. 301/5

Subject: Assembly of the all flying tailplane
Effectivity: DG-100 all W.Nrs. (not DG-100 G)
Accomplishment: Till 30. May 1978
Reason: Caused by an incomplete assembly of the tailplane a DG-100 crashed.
To prevent a repetition a modification was worked out so that an incomplete assembly is to be seen from far away.

Instructions: 1.) A plastic pin is to be glued into the main fitting of the all flying tailplane (see flight manual page 18 a).



Procedure:

a) Degrease with acetone: Inside of tubular part of all flying tailplane fitting and cylindrical part L 6/4
b) Scour with 100 grit sandpaper: Inside of tubular part and cylindrical part L 6/4 at 19 mm ϕ.
c) Apply metal adhesive Araldit AW 106 with hardener HV 953 U or similar on cylindrical part outside and inside tube, push part L 6/4 into tubular part. Remove excess glue. The bore for the pip-pin must remain clean and open.
d) Allow 20 hrs at min. 20° C. to cure.

2.) Change Service Manual page 18 arcticle 5 byhand: "(The cockpit trim control should be in the aft position)."
3.) Add on Page 2 Ammendments:
"Assembly of the all flying tailplane, page 18."

Material: metal adhesive Araldit AW 106 with hardener HV 953-U or similar.
part L 6/4 can be obtained from Glaser-Dirks.

Weight and balance: no effect

Remarks: This work can be done by an experienced person.

Bruchsal 4, 2.02.1978

ROLLS-ROYCE GIPSY AERO ENGINE

Technical News Sheet

T.N.S. G. No.78

T.N.S. G.M.10 No.48

March 16 1976

IGNITION-AUTOMATIC CIRCUIT BREAKER

Gipsy Major Engines

An investigation into a recent Tiger Moth accident requires that the attention of all operators of Gipsy Major Series engines be drawn to Modification News Sheet No.2190.

It is essential, to ensure correct operation of the automatic ignition earthing contact when the contact breaker cover is either fitted or removed, that Modifications No.G2010, 2166, and 2190 are embodied together.

If an operator wishes to dispense with the earthing system, he should ensure that no part of Modifications No.G2010, 2166, and 2190 are embodied. A previous case of partial embodiment of these modifications, created a very unsafe standard.

Modification G2010 introduced an earthing contact leaf spring which short circuits the primary windings when the contact breaker cover is removed rendering the magneto inoperative. This spring is assembled below the check spring which retains the contact breaker lever. The earthing contact spring and check spring should be examined in-situ for distortion paying particular attention to the "lug" on the check spring.

Modification G2166 introduced a reinforcing coil spring behind the leaf spring in the contact breaker cover to ensure de-activation of the earthing contact spring when the contact breaker cover is fitted.

Modification G2190 introduced an improved location of this coil spring and added two "ears" to the earthing contact spring to ensure correct alignment with the lug on the check spring. The earthing contact spring should be checked for freedom of movement ensuring that the ears cannot jam the spring or restrict the movement.

In the light of the above information it is recommended that owners and operators of these types of engines inspect the ignition systems at the earliest opportunity.

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