

August, 1967.

TECHNICAL INSTRUCTION NO. 29

T.51 DART 17R

Mandatory Modification No.66

STRENGTHENING OF MANUAL RETRACTABLE UNDERCARRIAGE

Due to a small number of main undercarriage fork failures a design change has been made, introducing strengthening of the Fork.

This modification is in the form of an internal tube inserted into the existing 1.0"  $\phi$ /D Tubes.

Embodiment: This modification has been made mandatory by the British Gliding Association and should be incorporated as soon as possible and in any case before the 30th November, 1967.

Modification Procedure:

1. Remove undercarriage doors.
2. Disconnect wheel brake.
3. Remove Wheel.
4. Remove radius rod bolts.
5. Remove ply skin between longeron and wheel box top in line with undercarriage pivot bolts taking care not to damage longeron. Remove only sufficient to enable nuts to be removed from undercarriage fork pivots.
6. Remove wheel brake lever.
7. Remove undercarriage fork, 51-1-417.
8. Cut existing fork as shown on SK 51/423 (attached).
9. Carry out instructions as per SK 51/423.
10. Fit  $\frac{7}{8}$ "  $\phi$ /D 12G. tube inside undercarriage fork as shown.
11. Drill and Ream for 4 taper pins or bolts, each side as shown.
12. Fit taper pins or bolts.
13. Touch up paint on undercarriage as required.



14. Replace undercarriage fork 51-1-417.
15. Replace wheel brake lever.
16. Reconnect radius rod.
17. Replace wheel.
18. Reconnect wheel brake.
19. Replace undercarriage doors.
20. Check operation of undercarriage mechanism.
21. Splice in 2 mm ply skin where removed and finish to existing undercarriage finish.
22. Ensure that tyre pressure is between 20 and 25 P.S.I.
23. Make the appropriate entry into the glider log-book to certify that the modification has been incorporated.

Parts required for the embodiment of this modification can be obtained from Slingsby Sailplanes Ltd., Kirkbymoorside, York, England, and comprise:

<u>Part No.</u>	<u>Description</u>	<u>No. Off</u>
SK 51/443/1	Tube	2
	Taper Pin $\frac{1}{4}$ dia.	8
	Bolt. Nut	8 each

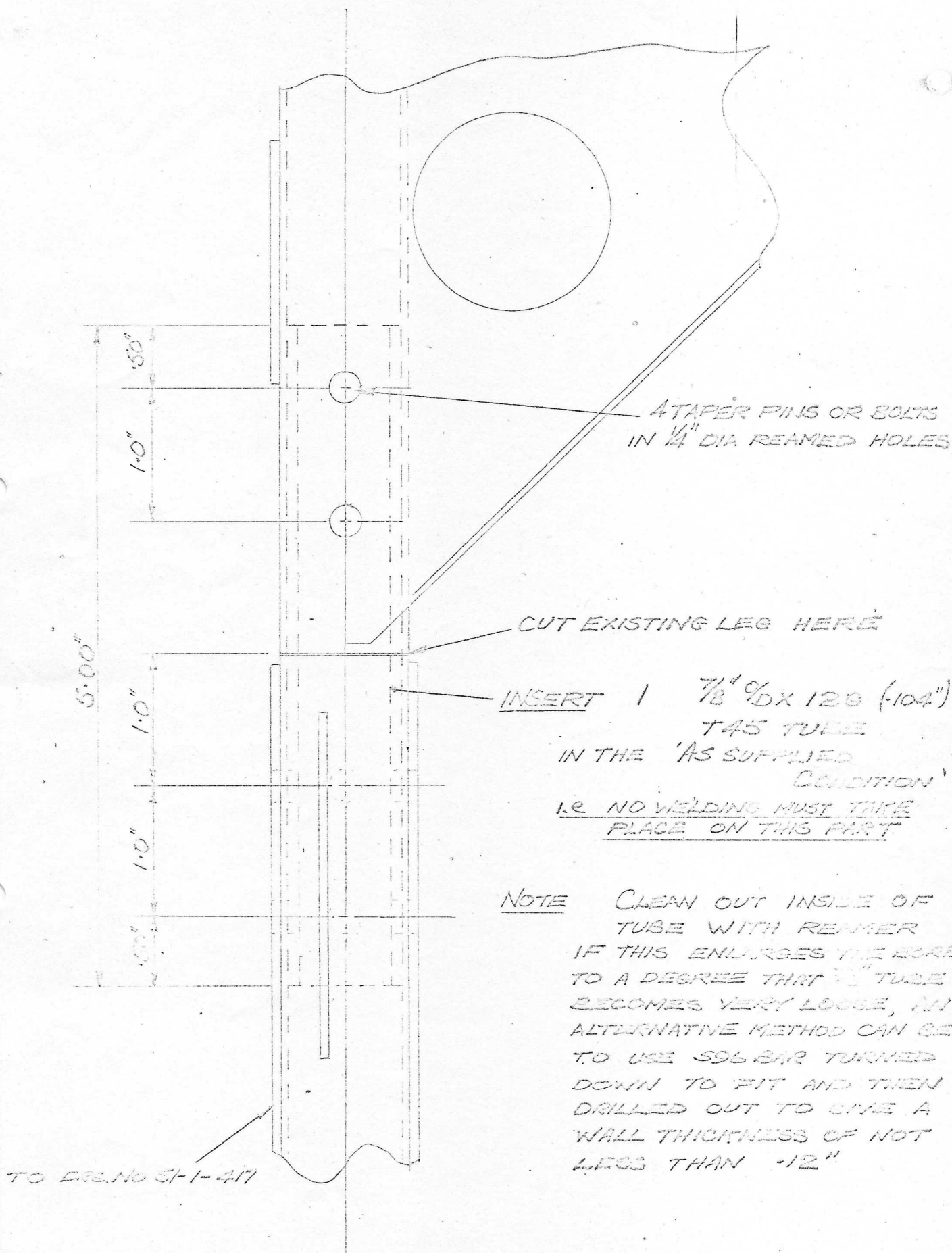
NOTE: Operations 8 to 13 inclusive will be undertaken by Slingsby Sailplanes Limited free of charge, upon receipt of the undercarriage fork at their Kirkbymoorside factory.



SK51/443

DART 17R

UNDERCARRIAGE REPAIR SCHEME



CUT EXISTING LEG HERE

INSERT 1  $\frac{7}{8}$ "  $\phi$  X 120 (-104")  
T45 TUBE  
IN THE 'AS SUPPLIED  
CONDITION'  
I.E. NO WELDING MUST TAKE  
PLACE ON THIS PART

NOTE CLEAN OUT INSIDE OF  
TUBE WITH REAMER  
IF THIS ENLARGES THE BORE  
TO A DEGREE THAT THE TUBE  
BECOMES VERY LOOSE, AN  
ALTERNATIVE METHOD CAN BE  
TO USE S96 BAR TURNED  
DOWN TO FIT AND THEN  
DRILLED OUT TO GIVE A  
WALL THICKNESS OF NOT  
LESS THAN .12"

*Com.*

SK51/443 ISSUE 1 TRIPED off

10-8-67