



THE GLIDING FEDERATION OF AUSTRALIA

BUILDING 130, WIRRAWAY ROAD, ESSENDON AIRPORT, VICTORIA 3041.

AIRWORTHINESS DIRECTIVE. GLIDER/POWERED SAILPLANE

GFA/AD 233

ROLLADEN SCHNEIDER
19

Issue 2

21st June, 1982

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AIRCRAFT AFFECTED: All LS1f, LS3, LS3A, LS3-17, LS4 series gliders.

SUBJECT: Undercarriage serviceability.

BACKGROUND: AN 51 discussed reports concerning premature undercarriage retraction on LS series gliders, following which GFA requested that Rolladen-Schneider supply drawings and data on the under-carriage systems to allow proper inspection and maintenance to be carried out.

Drawing 7BR-45 has been prepared by Rolladen Schneider and copies are available from the GFA CTO/A. (Attached as Sheets 3 to 7).

ACTION REQUIRED:

During Form 2 inspection and inspections following ground loops or heavy landings, drawing No. 7BR-45 is to be used as a reference for determining system serviceability.

ADJUSTMENT OF LANDING GEAR DRIVE. (Refer drawing 7BR-45)

Effective leverage too short: Hand forces increase considerably
Wheel "bottoms" on landing gear housing when retracted.

Effective leverage too long: Insufficient locking when extended, because gas pressurized spring not or not enough compressed.
Insufficient retraction, doors stay partly open.

With correct effective leverage the connection point (C) for the gas pressurized spring may be too much forward or aft, symptoms are the same ones as for wrong length.

- Start adjustment at (A) with 2 turns out, tighten locking nut.
- Adjust at (B) such that gas pressurized spring is compressed 5 to 8 mm at down and locked position, tighten locking nut.
- Retract gear. If wheel "bottoms" on housing screw 1 turn out at (A), half a turn out at (B). If doors stay partly open screw 1 turn in at (A), half a turn in at (B).
- Check again compression of gas pressurized spring as under b).
- Check according to c).
- Check hand force for retraction: maximum 20 kg.

LIST OF PARTS ON DRAWING 7BR-45

POS..	PART No.	NAME
1	1R2-1	Forward landing gear fork
2a	1R2-2	Right folding strut
2b	1R2-44	Left folding strut
3	1R2-3	Rear landing gear fork
4	1R2-4	Swinging arm
5	1R2-5	Inner drive
6	4R2-6	Flat link
7	4R2-15	Outer drive
8	4R2-17	Adjustment bolt
9	4R2-8	Adjustment bolt with fork

.... / 2



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(Contd.)	POS	PART NO.	NAME
	10		Gas pressurized spring "Lift-o-mat".
	11		Hydraulic shock absorber
	12		Rubber torsion spring "Bugelement 31700 SM650"
	13		Rubber bearing "Bugelement 31510 SM 550"

COMPLIANCE

Compliance with this Airworthiness Directive is mandatory. This Directive is issued pursuant to Air Navigation Regulations under the delegated authority of the Secretary of the Department of Aviation.

M. P. Burns

M.P. BURNS
CHIEF TECHNICAL OFFICER AIRWORTHINESS
GLIDING FEDERATION OF AUSTRALIA.

NOTE: SHOULD DRAWING 7BR-45 BE FOUND TO BE INADEQUATE OR INACCURATE, ADVICE TO GFA WILL ENSURE THE MANUFACTURER IS ADVISED AND FURTHER ASSISTANCE OBTAINED.



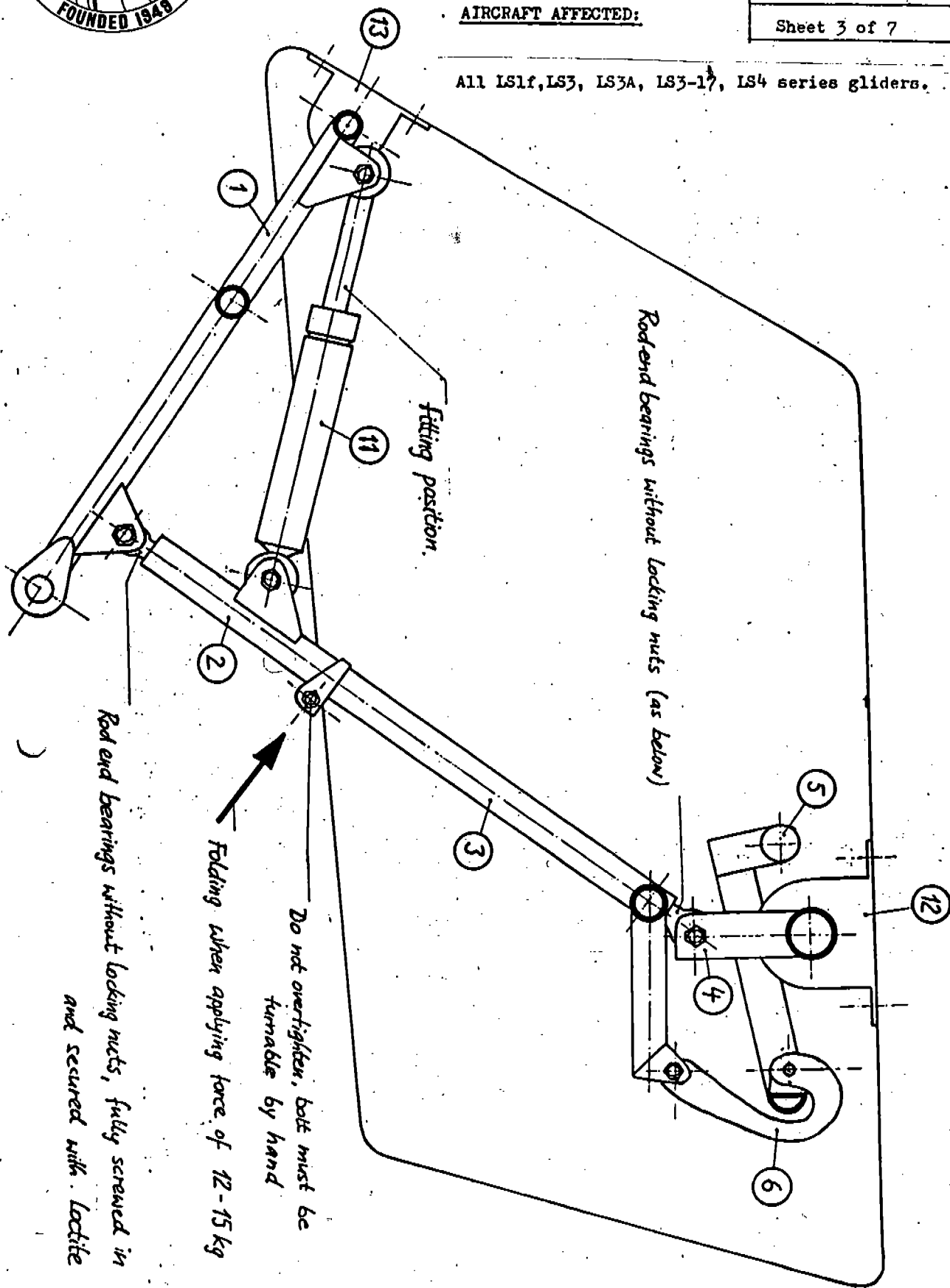
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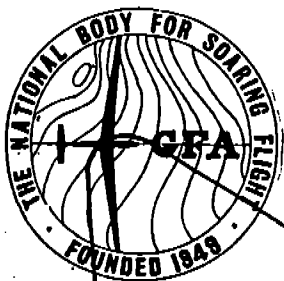
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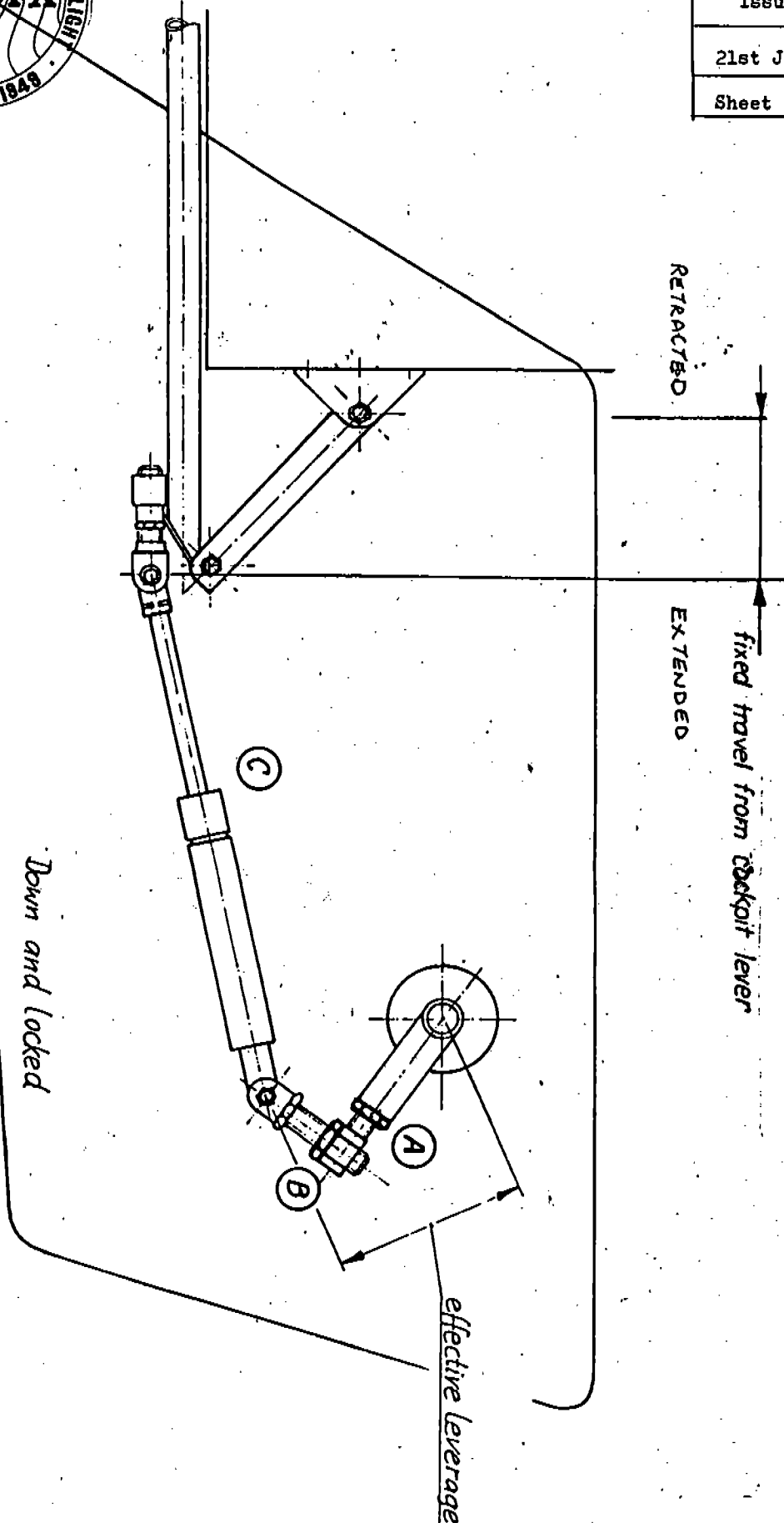
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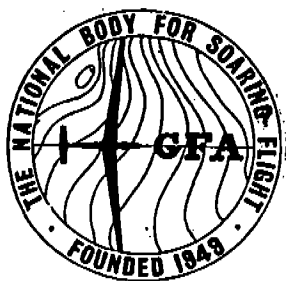
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LS3/LS3-a/LS3-17/LS4

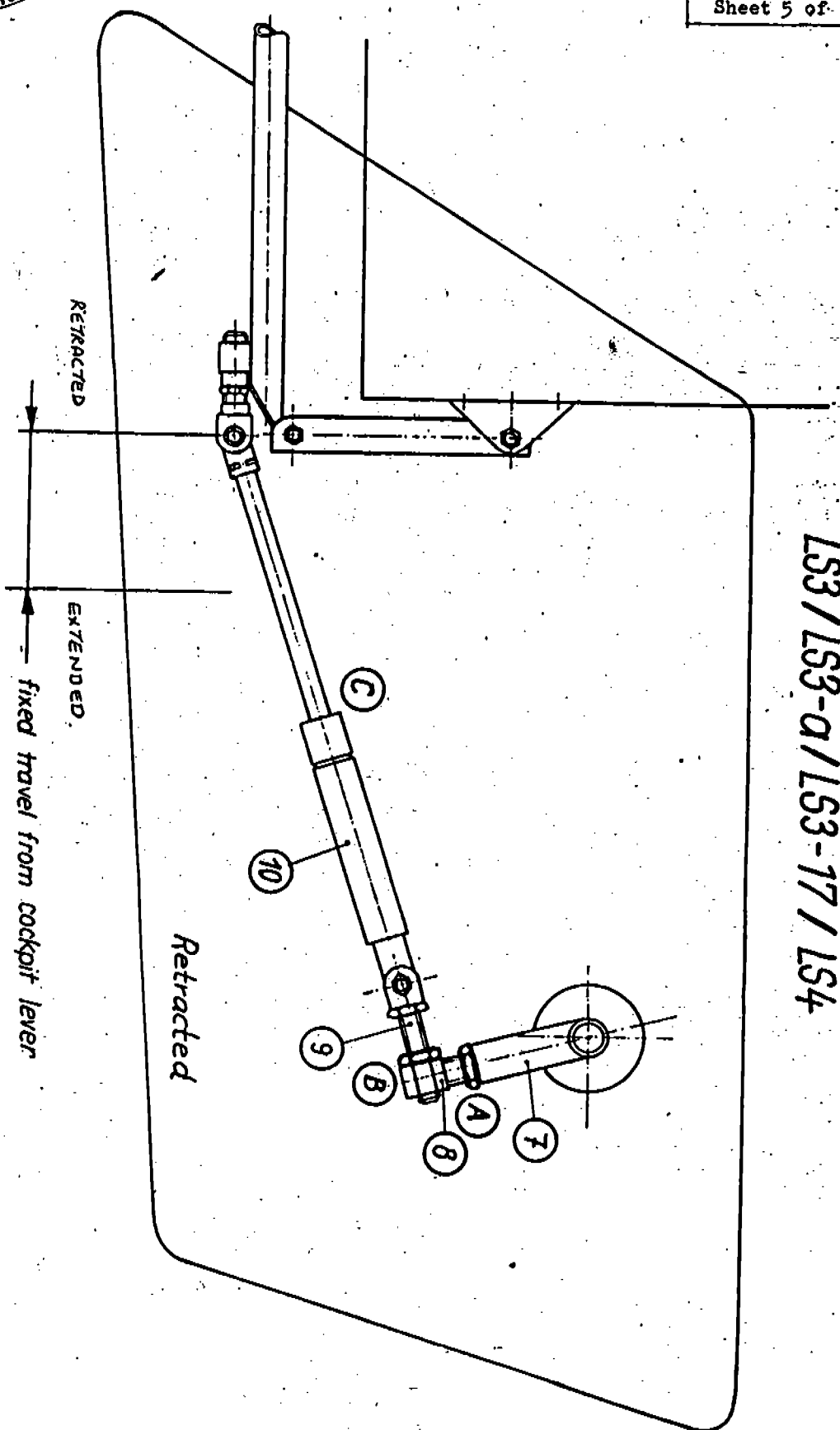
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LS3/LS3-a/LS3-17/LS4

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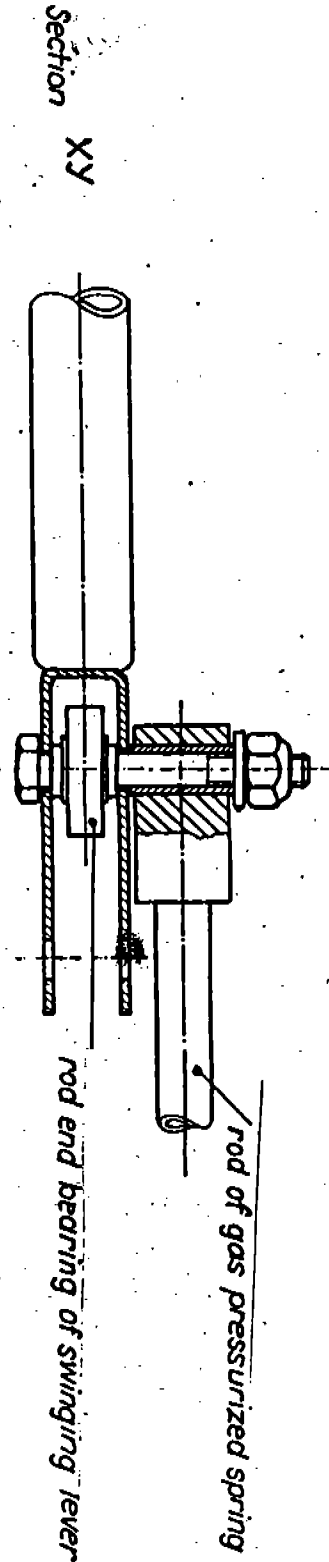
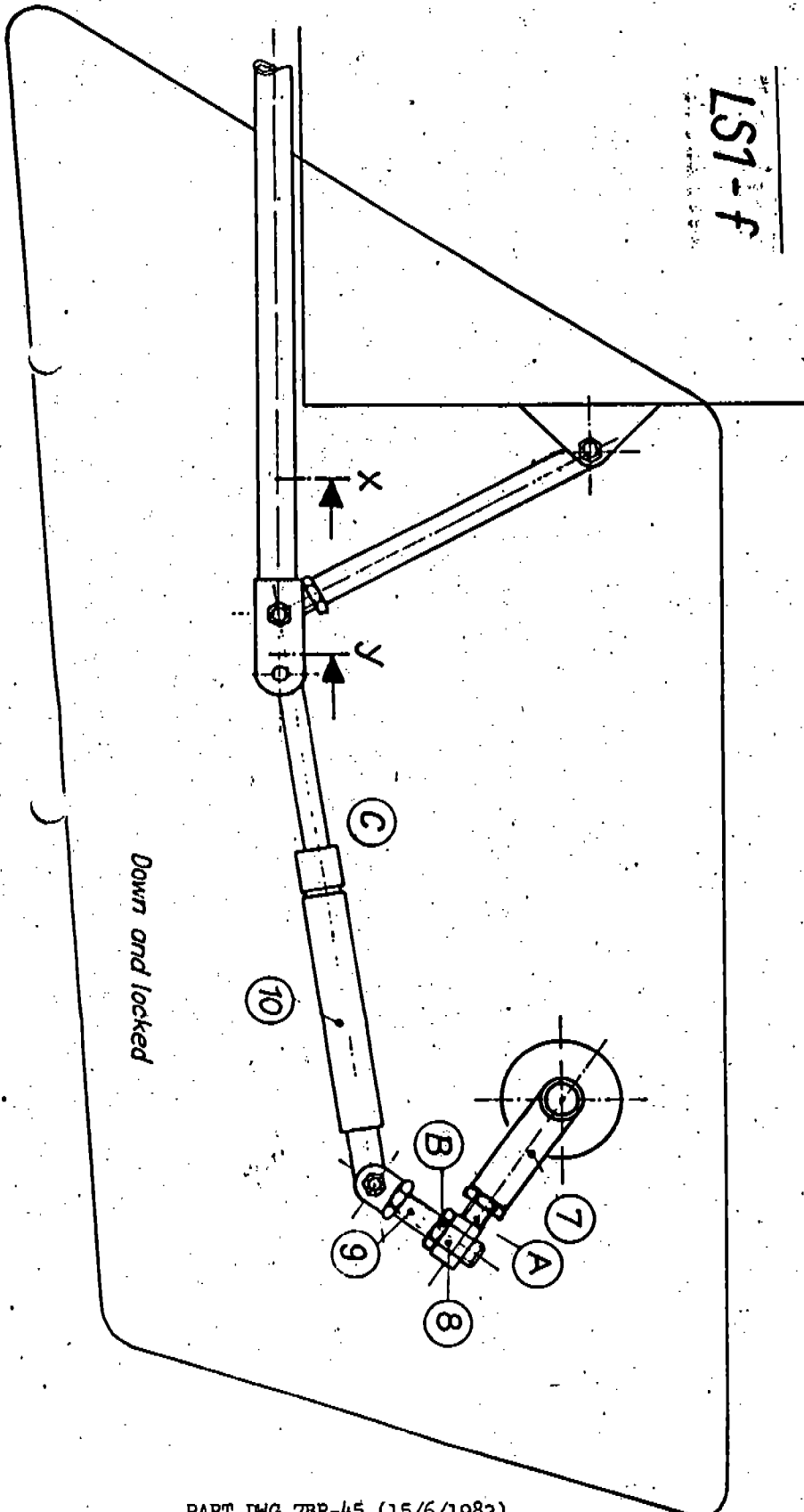
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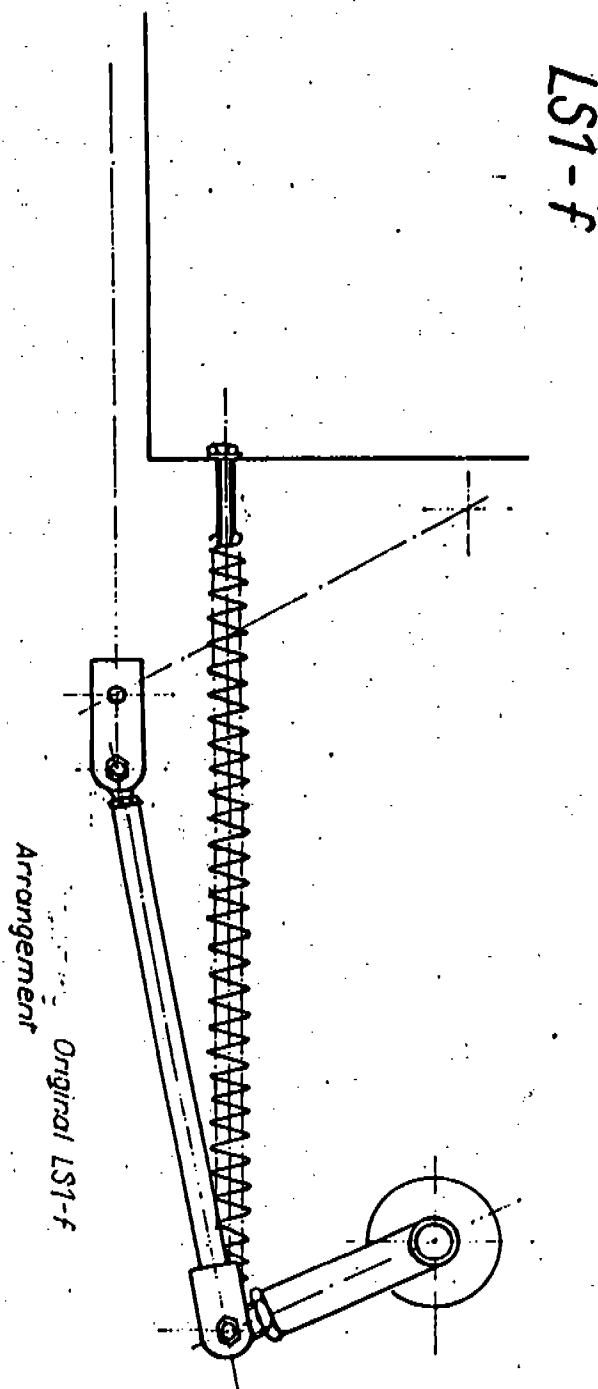
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