



SERVICE BULLETIN

No. SBM-201

**MODIFICATION BULLETIN M644A - INTRODUCTION OF IMPROVED WHEEL BRAKE
SYSTEM - PRODUCTION**

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Issued By
Marshall Aerospace and Defence Group
The Airport, Cambridge, CB5 8RX

**LETTER OF TRANSMITTAL COVERING
INITIAL ISSUE OF SERVICE BULLETIN SBM-201**

1. General

This page transmits the initial issue of SBM-201 which amends Modification Bulletin M644A Applicability to include T67M260 aircraft.

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MODIFICATION No. M644A

1. PLANNING INFORMATION

A. EFFECTIVITY

(1) T67M260.

B. CONCURRENT REQUIREMENTS

(1) Refer to Modification Bulletin M644A.

C. REASON

(1) Refer to Modification Bulletin M644A.

D. DESCRIPTION

(1) Modification (M644A) introduces a brake system with an overall improved performance, this Service Bulletin amends the Applicability to include T67M260 aircraft.

E. COMPLIANCE

(1) Classification

Refer to Modification Bulletin M644A.

(2) Accomplishment Time scale

Refer to Modification Bulletin M644A.

F. APPROVAL

(1) Not Applicable.

G. MANPOWER

(1) Refer to Modification Bulletin M644A.

H. WEIGHT AND BALANCE

(1) Refer to Modification Bulletin M644A.

I. ELECTRICAL LOAD DATA

(1) Nil effect.

J. SOFTWARE ACCOMPLISHMENT SUMMARY

(1) Not applicable.

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K. REFERENCES

(1) Refer to Modification Bulletin M644A..

L. OTHER PUBLICATIONS AFFECTED

(1) Refer to Modification Bulletin M644A.

M. INTERCHANGEABILITY AND INTERMIXABILITY

(1) Refer to Modification Bulletin M644A.

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2. MATERIAL INFORMATION

A. MATERIALS NECESSARY FOR EACH AIRPLANE

- (1) Refer to Modification Bulletin M644A.

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3. ACCOMPLISHMENT INSTRUCTIONS

A. MAINTENANCE PRACTICES

(1) Refer to Modification Bulletin M644A.

B. PREPARATION AND GENERAL

(1) Refer to Modification Bulletin M644A.

C. MODIFICATION

(1) Refer to Modification Bulletin M644A.

D. REASSEMBLY

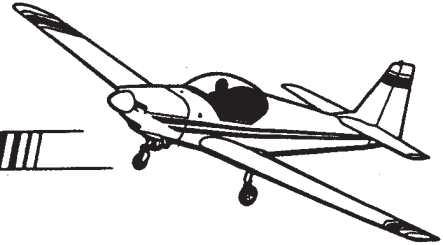
(1) Refer to Modification Bulletin M644A.

E. RE-IDENTIFICATION OF THE UNIT

(1) Refer to Modification Bulletin M644A.

F. TEST

(1) Refer to Modification Bulletin M644A.



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MOD No. : M644A

Aircraft Type : T67M260-T3A

TITLE : INTRODUCTION OF IMPROVED WHEEL BRAKE SYSTEM - PRODUCTION

Classification : This Modification has been classified by SAL as Special Order Only

Compliance : As required by customer

Issue 4 supersedes Issue 3.

Incorporates changes following initial installation.

1. **INTRODUCTION**

1.1 This Modification (M644A) introduces a brake system with an overall improved performance.

The modifications consist of: Higher capacity brake cylinders plus calipers, thicker disc (to dissipate more heat) and new low pressure lines with compression pipe fittings and a modified fluid reservoir.

Note: Part B of this Mod applies to trial installation on Works No. 2072 only.

1.2 The incorporation of this Mod (M644A) supersedes SAL Modification Bulletin Mod M726 "Introduction of Modified Brake Master Cylinder, Improved Spring with No Permanent Set", but does not supersede or satisfy work called up on any other SAL Service Bulletin.

2. **APPLICABILITY**

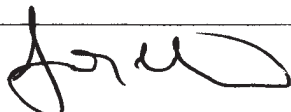
2.1 Retrospective: Works Numbers 2109, 2110, 2123 to 2158, 2160 to 2187, 2189 to 2233.

2.2 In Build (Customer ref only): T.B.A.

3. **THE FOLLOWING MODIFICATIONS WILL BE REQUIRED BEFORE THIS MOD (M644A) CAN BE SATISFACTORILY COMPLETED**

Nil.

APPROVED BY:

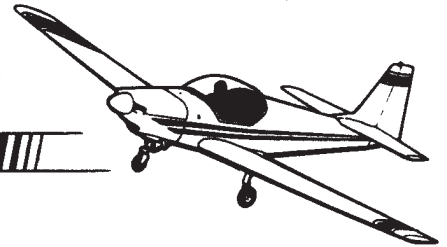


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for and on behalf of SLINGSBY AVIATION LTD Tel. 01751 432474
Kirkbymoorside, York YO6 6EZ England Fax 01751 431173

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4. **DRAWINGS REQUIRED**

| <u>Figure No.</u> | <u>Title</u> | <u>Page</u> |
|-------------------|-----------------------|-------------|
| 1 | Location of Mod M644A | 19 |
| 2 | Axle Collar Fit | 20 |

| <u>Drawing No.</u> | <u>Title</u> |
|--------------------------------|---|
| T67G-40-003/004 | Main Undercarriage Installation - Upgraded Brakes |
| T67G-73-003 (latest issues) | Hydraulic Brake System G.A. - Upgraded Brakes |

5. **DOCUMENTS REQUIRED**

T67M260 Maintenance Manual
 T67M260 Illustrated Parts Catalogue
 Parker Hannifin Service Bulletin SB 7057.

6. **TIME REQUIRED**

25 manhours excluding drying time.

7. **MATERIALS, PARTS AND SPECIAL TOOLS REQUIRED**

7.1 **Materials:**

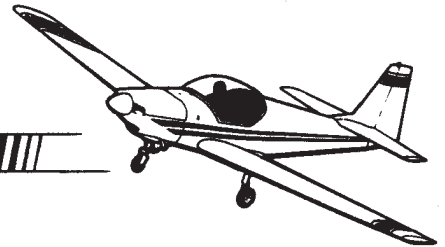
Brake fluid Aeroshell 41 (Aeroshell 4 alternative), 3M's EC1838, Aeroshell 8 Grease, Aeroshell 5, Silicon Grease M54, Loctite 638 (US equivalent Loctite 680) plus Activator T7471 (US equivalent T747), Teflon Tape (121-03-024) and Wirelock (120-08-012).

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7.2 Kit: Mod Kit Part Number T67A-05-644

| <u>Quantity</u> | <u>Description</u> | <u>Part Number</u> |
|-----------------|-------------------------------------|--------------------|
| 2 | Support Bracket Brake Cylinder-Port | T67G-45-235 |
| 2 | Support Bracket Brake Cylinder-Stbd | T67G-45-237 |
| 1 | Hydraulic Brake Reservoir | T67G-73-215 |
| 2 | Stiffnut - M5 | 126-22-003 |
| 3 | Stiffnut - M6 | 126-22-004 |
| 3 | Split Pin - SP90/C4 | 126-25-301 |
| 2 | Split Pin - SP90/G22 | 126-25-320 |
| 2 | 'P' Clip DG7 | 126-28-529 |
| 60 | Ty-rap | 126-31-134 |
| 4 | Ty-rap Base | 126-31-165 |
| 2 | Brake Master Cylinder | 126-33-331 |
| 2 | Brake Assy | 126-33-333 |
| 2 | Brake Disc and Seal Kit | 126-33-338* |
| 2 | Axle Collar, Shortened | 126-35-622 |
| 2 | Axle Spacer Collar | 126-35-623 |
| 1 | Flexible Brake Hose - Port | 126-36-085 |
| 1 | Flexible Brake Hose - Stbd | 126-36-086 |
| 2 | Flexible Brake Hose - Main U/C | 126-36-087 |
| 1.75 mtrs | Flexible tube 1/4" o/d x 5/32" i/d | 126-36-090 |
| 2.4 | Flexible tube 3/8" o/d x 1/4" i/d | 126-26-091 |
| 1 | Nylo-Seal Fitting | 126-37-180 |
| 1 | Nylo-Seal Fitting | 126-37-181 |

*Consists of:

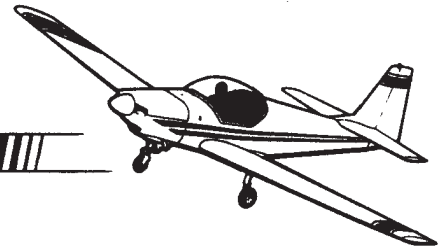
| <u>Quantity</u> | <u>Parker Pt No.</u> | <u>Description</u> | <u>Part Number</u> |
|-----------------|----------------------|-----------------------------------|--------------------|
| 2 | 154-01400 | Felt, Grease Seal | 126-33-335 |
| 4 | 153-00900 | Ring, Grease Seal | 126-33-336 |
| 2 | 155-00100 | Ring, Retaining | 126-33-340 |
| 1 | 164-24400 | Brake Disc | 126-33-334 |
| 1 | 166-19700 | Nameplate (for 40-407 Wheel Assy) | 126-33-341 |
| 1 | 166-20000 | Nameplate "Warning" | 126-33-342 |
| 1 | SB7057 | Service Bulletin | - |

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Customer Note:

Fasteners and similar not included in kit list but disturbed during course of Mod and damaged during removal etc., can be identified from Illustrated Parts Catalogue and/or Mod Bulletin text, ie Section 13, and may be obtained from SAL.

7.3 **Special Tools:**

De-burring tool and radius forming tool T67G-88-519.

8. **MODIFICATION TO SPARES**

Modify attachment brackets T67B-73-505 in accordance with paragraph 13.33.

9. **INTERCHANGEABILITY**

9.1 Not physically interchangeable.

9.2 Not functionally interchangeable.

10. **CHANGE OF PART NUMBER**

T67B-73-505 when modified to have Part Number T67G-73-501.

11. **RE-IDENTIFICATION**

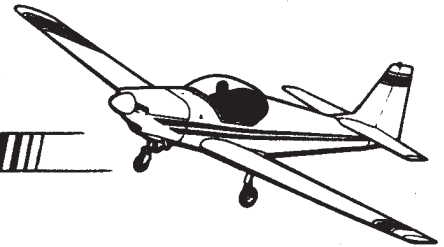
Identify modified bracket with "Mod M644A inc".

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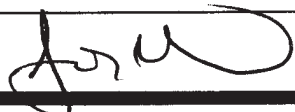
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12. REDUNDANT PARTS

| Quantity | Description | Part Number |
|----------|--------------------------------|--------------|
| 1 | Hydraulic Brake Reservoir Assy | T67B-73-021* |
| 2 | Flexible Brake Pipe | T67B-73-215 |
| 1 | Brake Pipe Assy U/C - Port | T67B-73-217 |
| 1 | Brake Pipe Assy U/C - Stbd | T67B-73-218 |
| 2 | Brake Pipe Clip | T67B-73-509 |
| 2 | Cylinder Support Brkt - Port | T67G-45-205 |
| 2 | Cylinder Support Brkt - Stbd | T67G-45-207 |
| 4 | Headed Bush | T67G-45-507 |
| 2 | Brake Master Cylinder | T67G-73-213 |
| 1 | Min Label | T67G-83-848 |
| 1 | Flexible Hose Assy - Port | T67M-73-217 |
| 1 | Flexible Hose Assy - Stbd | T67M-73-218 |
| 2 | Socket Head Cap Screw M5 x 30 | 126-21-012 |
| 2 | Stiffnut - M5 | 126-22-003 |
| 3 | Stiffnut - M6 | 126-22-004 |
| 2 | Washers - M5 | 126-23-103 |
| 2 | Washer - Lock | 126-23-306 |
| 3 | Split Pin | 126-25-301 |
| 2 | Split Pin | 126-25-320 |
| 2 | Washer - Plain | 126-27-018 |
| 6 | Pipe Clip | 126-28-519 |
| A/R | Ty-Raps | 126-31-134 |
| 2 | Caliper Assy | 126-33-302 |
| 4 | Grease Rings 1 set | 126-33-304 |
| 2 | Brake Disc | 126-33-305 |
| 2 | Collar | 126-35-619 |
| 1 | Flexible Pipe 2.4 mtrs long | 126-36-002 |
| 2 | Flexible Pipe .875 mtrs long | 126-36-002 |
| 1 | Tee Piece | 126-37-047 |
| 1 | Union | 126-37-096 |
| 2 | Nut | 126-37-098 |
| A/R | Wirelock | 120-08-012 |

*If alternative metal reservoir fitted, Part No. to be T67G-73-205.

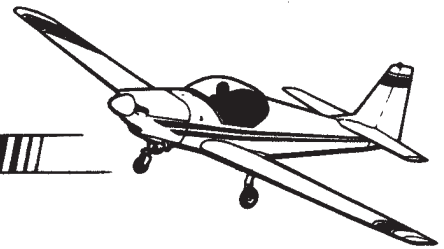
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Customer Note:

For any redundant fasteners and similar, refer to customer note at paragraph 7.2.

FOR WORK REQUIRED BY THIS MOD AND TO OPTIMISE THE BEST USE OF ANY WAITING TIME (IF APPLICABLE) READ MOD BULLETIN IN ITS ENTIRETY PRIOR TO COMMENCEMENT OF OPERATIONS AS PARAGRAPHERD BY SECTION 13 BELOW.

13. SEQUENCE OF OPERATIONS

Note 1: For location of Mod in aircraft refer Fig. 1.

13.1 Prior to commencement of Mod carry out the following actions:

- 13.1.1 Open canopy, remove sunshield if fitted, check master switch, ignition switch and fuel are off.
- 13.1.2 Disconnect external power (if connected).
- 13.1.3 Parking brake off.*
- 13.1.4 Hangar aircraft.*

*As applicable.

13.2 Remove from port seat, cushions and pads.

13.3 Disconnect battery as follows:

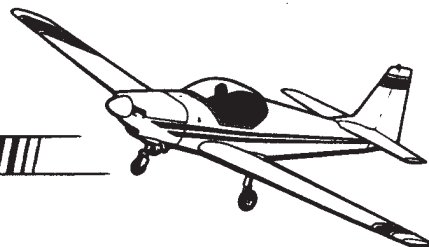
- 13.3.1 Unfasten baggage strap.
- 13.3.2 Remove battery box lid in the baggage compartment (4 off quarter turn wing studs).
- 13.3.3 Disconnect battery terminals (negative terminal first).
- 13.3.4 Lay insulating material over the terminals thus isolating battery cables from battery.

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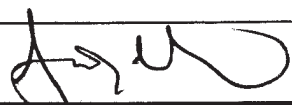
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- 13.4 Remove centre console panel as follows:
 - 13.4.1 Remove 2 off socket low head cap screws M5 x 16 plus washer at top front.
 - 13.4.2 Remove 5 off Pan-L-Screw (2 port, 3 starboard).
 - 13.4.3 Remove centre console panel from aircraft.
- 13.5 Remove aft centre console as follows:
 - 13.5.1 Unclip and unplug hand mike.
 - 13.5.2 Remove map light retaining socket cap screws, 2 off M5 x 16, plus washers.
 - 13.5.3 Remove mike/headphone socket plate attachment Pan-L-Screws, 2 off.
 - 13.5.4 Remove hand mike socket plate attachment Pan-L-Screws, 2 off.
 - 13.5.5 Remove canopy slide lock handle knob and remove 4 off Pan-L-Screws attaching mechanism to console.
 - 13.5.6 Remove aft centre console attachment Pan-L-Screws, 2 off.
 - 13.5.7 Remove aft centre console panel, unclip from Frame 4 by lifting and unplugging map light leads and clipping Ty-rap(s) holding map light leads together.
- 13.6 Disconnect port throttle pushrod at its forward attachment to layshaft by removing split pin and clevis. Note loose washers.
- 13.7 Remove port throttle lever assembly by releasing socket head csk screws 4 off M4 x 20.
- 13.8 Carefully remove port Frame 3 cover, attached to forward trim panels and middle trim panels with velcro.

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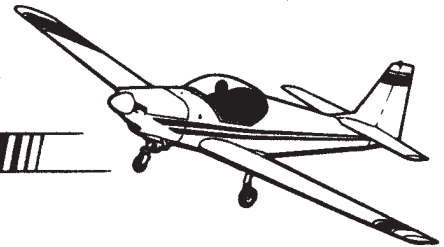
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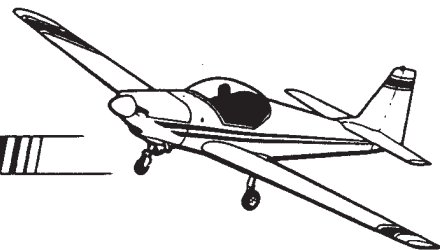
- 13.9 Remove port middle trim panel (between Frames 3 & 4) by removing Pan-L-Screws 3 off port and 4 off starboard.
- 13.10 Remove port aft trim panel (between Frames 4 & 5) by removing Pan-L-Screws (4 off each).
- 13.11 Remove port inertia reel shoulder harness as follows:
 - 13.11.1 Disconnect inertia reel locking mechanism cable by releasing knurled nut (at locking mechanism end).
 - 13.11.2 Remove port inertia reel assembly from Frame 4 as follows. (This paragraph effectively detaches seat from Frame 4):
 - 13.11.2.1 Remove plastic plug from rear top of seat.
 - 13.11.2.2 Cut wire locking from heads of socket head cap screws.
 - 13.11.2.3 Support port inertia reel and remove socket head cap screws. (Note the number of washers under screw heads). Lie inertia reels in baggage bay.
- 13.12 Remove both port seat lap straps by separating at adjusting buckles.
- 13.13 Untie gaiter from control column.
- 13.14 Remove 12 off M5 csk socket head screws (6 per retaining strip) from port seat. Remove loose strips.
- 13.15 Remove 5 off M5 csk screws and washers and remove access panel.
- 13.16 Remove crotch strap mounting 'U' bolts on forward seat bearer by removing 2 off HM14-060 nuts and washers, retain washers for reassembly.

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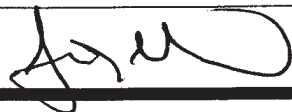
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- 13.17 Undo map pocket's velcro fastening from seat.
- 13.18 From front of forward centre console side panels, remove tie bar by extracting 1 off each side csk screws.
- 13.19 Remove starboard forward centre console side panel, then port, by removing 5 off each side Pan-L-Screws.
- 13.20 Carefully remove port seat from aircraft.
- 13.21 Slacken off bleed nipple on brake unit on each leg, push a flexible hose over top, and vent into a container.
- 13.22 Bleed brake system by selecting brake lever to off, and pumping brake pedals until fluid ceases to flow into containers.
- 13.23 Remove all 4 rudder pedal/slider assemblies by removing 1 off stop screw per pedal/slider assembly.
 - 13.23.1 If required, disconnect steering rod end from starboard rudder bar.
 - 13.23.2 If required, disconnect rudder return springs from port and starboard rudder bars.
 - 13.23.3 If required, allow rudder bars to lay aft for easy access to master cylinders.
- 13.24 Remove both brake cylinders T67G-73-213 as follows:
 - 13.24.1 Remove ty-raps from tee-fitting. Remove hose clamps and disconnect feed lines from tee-fitting. Plug end of feed lines with dust cap (Part No. 126-33-313) removed from brake caliper bleed nipple.
 - 13.24.2 Disconnect and cap braided pressure line (T67M-73-217/218) from unions on port and starboard floor panels.
 - 13.24.3 Remove split pin and washer from brake cylinder/rudder pedal pivot (top of cylinder).

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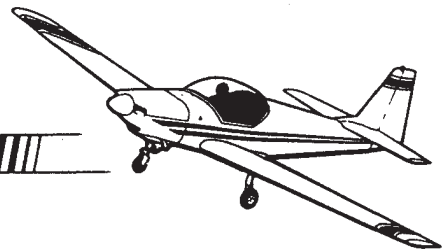
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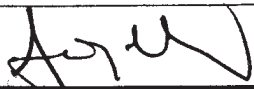
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- 13.24.4 Remove inboard brake cylinder bracket (T67G-45-205/207) in each position, by removing 2 off M5 x 16 socket head cap screw and washer. NOTE: Aft screws attach "P" clip (126-28-525) supporting braided hose. Retain "P" clip.
- 13.24.5 Slide brake cylinder off outboard cylinder bracket and remove brake cylinder and hoses from aircraft.
- 13.25 Remove, by unscrewing, brake reservoir vent cap from reservoir (T67B-73-021 or T67G-73-205 if metal alternative fitted).
- 13.26 Place oil absorbent material and container below reservoir. Supporting reservoir remove socket head cap screws retaining reservoir support bracket to Frame 4. Carefully pour remaining fluid into container.
- 13.27 Remove pipe from base of reservoir by removing hoseclip, plug pipe.
- 13.28 Remove transparent low pressure lines in their entirety including tee-piece by cutting ty-raps. Ensure any fluid spillage is kept to a minimum.
- 13.29 Remove remaining outboard brake cylinder support brackets (T67G-45-205/207).
- 13.30 Install new ty-rap for tee-fitting in accordance with T67G-73-003.
- 13.31 Route low pressure line from reservoir to new location of tee-fitting in accordance with assembly instructions on T67G-73-003 Sheet 2.
- 13.32 Cut low pressure line from reservoir to final length and connect to tee-fitting.
- 13.33 From brake reservoir support bracket T67B-73-505 remove max label. Not applicable if alternative metal reservoir was fitted.
- 13.34 Refit in reverse order to removal, ref paragraph 13.26, brake reservoir 126-33-331.
- 13.35 Fit in reverse order to removal ref paragraph 13.29 new outboard brake cylinder support brackets T67G-45-235/237.

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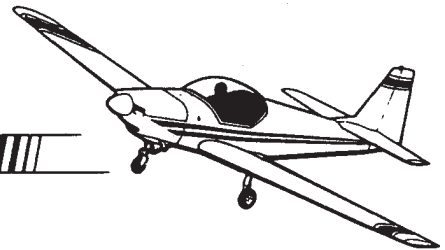


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- 13.36 Using old master cylinders as a reference, attach new high pressure brake line to new master cylinders (126-36-085 to left and 126-36-086 to right). Note: 90 degree fitting is attached to master cylinder.
- 13.36.1 Cut ¼" flexible tube so one length is approximately 100mm longer. Attach shorter length to left master cylinder using nylon-seal fitting. Attach longer tube to right master cylinder using nylon seal fitting.
- 13.36.2 Using old master cylinders as a reference, ty-rap pipes into position - refer to drg T67G-73-003. Remove existing "P" clip from old high pressure line and install in same position on new high pressure line.
- 13.37 Fit brake cylinders and inboard mounting brackets. Refitting is reversal to removal (reference para 13.24 to 13.27). Note: Lube master cylinder pins prior to installation.
- 13.37.1 Adjust pipes as necessary. Attach high pressure line to union. Attach low pressure line to tee-fitting. Ty-rap tee-fitting to ty-rap block.
- 13.37.2 If required, re-install rudder return springs and steering rod.
- 13.37.3 Install rudder pedal slider assemblies.
- 13.38 Ty-rap pipes into position, for pipe run and positioning of ty-raps refer drawing T67G-73-003.
- 13.39 Using 3 off jacks T67G-88-213, jack up aircraft, until wheels are clear of the ground.
- 13.40 Disconnect hydraulic line T67B-73-217/218 at wing underside and at brake caliper.
- 13.41 Remove union (nipple) 126-37-102 from brake caliper and retain.
- 13.42 Remove the two bolts which attach brake pressure plate and back plate to brake assembly.

Note: On pre Mod M729 aircraft wirelock to be removed.

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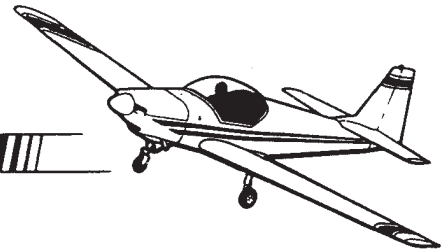
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- 13.43 Deflate tyre inner tube.
- 13.44 Remove split pin and large castellated axle nut. Remove wheel from axle. Note loose collar.
- 13.45 Remove brake disc by removing 3 off nuts, washers and bolts.
- 13.46 Fit new disc. Ensure when bolting up inner tube is not pinched. Retorque nuts to 150 lb/in (17Nm) and inflate tyre to 35psi (2.4bar). Note: Prior to installation, remove factory paint from rotor surfaces where brake pads will make contact.
- 13.47 Remove snap rings, seal rings and felt rings from each wheel half. Fit new felt seals 126-33-335, seal rings 126-33-336 and fit new snap ring 126-33-340 as required.
- 13.48 Clean axle.
- 13.49 Using tool T67G-88-519 remove any burrs on inner bearing shoulder and form radius. Ref Fig. 2.

The tool is designed to be operated by hand using a twisting action with a light pushing force. Continue cutting action until burr is removed and radius fully formed.

Note: Tool will not cut after the radius has been fully formed.
- 13.50 Carefully remove paint and/or anodising over area where collars are to be bonded.
- 13.51 Bond inner sleeve 126-35-623 into position using Loctite 638 and surface activator. Allow to cure.
- 13.52 Fit Parker Hannifin nameplate to wheel hub as per manufacturers instructions.

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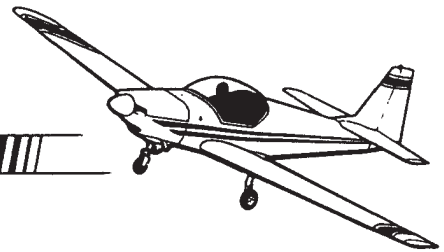


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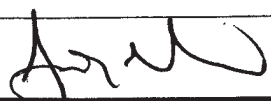
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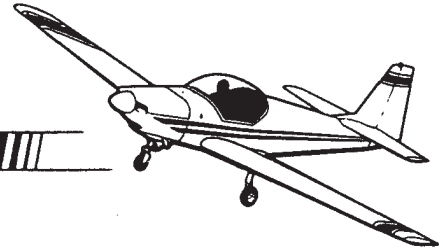
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Continued

- 13.53 Reposition wheel on axle. Slide on new outer collar 126-35-622. Install castellated axle nut and torque load to 40-50 lbf ft (greased). This initial torque "beds in" inner bearings onto axle nut. Loosen axle nut until wheel is free rolling. Re-torque nut to 10-15 lbf ft. Increase torque, if necessary up to a further 15 lbf ft, to align split pin hole with castellation. Install split pin.
- 13.54 If required, fit retained union ref paragraph 13.42 to new caliper 126-33-333 and assemble new brake caliper (bolt, washer) ensuring that floating portion of caliper mechanism is free to take up wear. Install tapped brake backing plate assembly to brake cylinder housing; torque bolt to 75-80 lbs in.
 - Note 1 Calipers may come with unions, These will require re-positioning.
 - Note 2 Teflon tape 121-03-024 to be used when installing either the old nipple or swapping the bleeder and nipple on the new calipers.
- 13.55 Remove both hydraulic lines T67B-73-217/218 from leg by removing clips T67B-73-509 around leg and disconnecting at bulkhead union bracket (attached to leg).
- 13.56 Fit new brake hose 126-36-087 to top of caliper and fit to union on the underside of the wing.
- 13.57 Refit 1 off leg clip T67B-73-509, and clip hose to leg using 'P' clip 126-28-529 ensuring hose is routed to minimise fouling with scissor link etc ref. Drg No. T67G-40-003/004. Refitting is opposite to removal ref paragraph 13.55.
- 13.58 Lower aircraft and remove jacks.
- 13.59 Fill system with Aeroshell 41 and bleed from the bottom in accordance with T67M260-T3A Maintenance Manual. Check for leaks and rectify.
- 13.60 Re-assemble seats, harnesses, consoles, trim panels. Re-connect throttle linkage, connect battery and replace cushions. Re-assembly is opposite to disassembly ref paragraphs 13.2 to 13.20.

Lubricate battery terminals with silicone grease MS4 (or equivalent) connecting negative last.

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13.61 Test: refer paragraph 14.2.

14. TESTS FOLLOWING INCORPORATION OF MOD

14.1 Materials, parts and special tools required for test:

Not applicable.

14.2 Tests:

Perform taxi tests and check for correct brake operation.

15. EFFECT ON MANUALS

15.1 Flight Manual:

Will reflect Post Mod M644 brake system at next amendment.

15.2 Aircrew Check List:

Nil.

15.3 Maintenance Manual:

Will reflect Post Mod M644 brake system at next amendment.

15.4 Maintenance Schedule:

Nil.

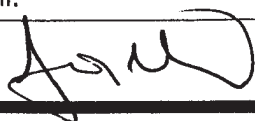
15.5 Repair Manual:

Nil.

15.6 Wiring Diagram Manual:

Nil.

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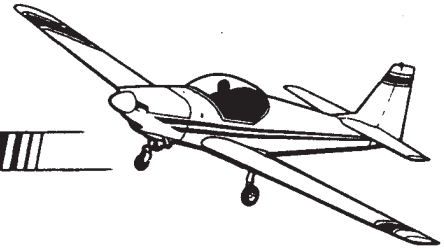


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15.7 Illustrated Parts Catalogue:

The following parts will be added and annotated "Pre Mod M644A".

| <u>Part No.</u> | <u>Description</u> | <u>Quantity</u> |
|-----------------|--|-----------------|
| T67B-40-869 | Caliper Bolt Pre Mod M729 Alternative to 126-21-960 | 2 |
| T67B-73-021 | Reservoir Assy, Brake System | 1 |
| T67B-73-209 | Connector-Brake Reservoir | 1 |
| T67B-73-215 | Pipe, Flexible Brake | 1 |
| T67B-73-217 | Pipe Assy, U/C Leg Port | 1 |
| T67B-73-218 | Pipe Assy, U/C Leg Stbd. | 1 |
| T67B-73-505 | Bracket Brake Reservoir | 1 |
| T67G-45-205 | Bracket Cylinder Support - Port | 1 |
| T67G-45-207 | Bracket Cylinder Support - Stbd | 1 |
| T67G-73-201 | Reservoir Body | 1 |
| T67G-73-205 | Reservoir Assy - Brake System | 1 |
| T67G-73-211 | Cylinder, Master Brake Mod M715 | 1 |
| T67G-73-213 | Cylinder, Master Brake Post Mod M726 | 1 |
| T67G-73-217 | Cylinder, Master Brake Post Mod M773 | 1 |
| T67G-83-848 | Label - Min | 1 |
| T67G-83-849 | Label - Max | 1 |
| T67M-73-217 | Hose, Flexible-Port | 1 |
| T67M-73-231 | Cylinder, Master Brake | 1 |
| 120-27-019 | Washer - Plain | 1 |
| 126-21-960 | Caliper Bolt Pre Mod M72 | 2 |
| 126-23-306 | Washer - Locking | 1 |
| 126-28-503 | 'P' Clip | 4 |
| 126-28-519 | Clip, Hose | 4 |
| 126-33-301 | Hub, Wheel Assy | 1 |
| 126-33-302 | Caliper Assy | 1 |
| 126-33-304 | Rings, Grease (1 set) | 2 |
| 126-33-311 | Caliper Bolt Post Mod M729 | 2 |

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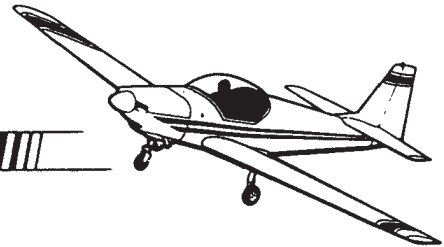
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| <u>Part No.</u> | <u>Description</u> | <u>Quantity</u> |
|-----------------|--------------------------------|-----------------|
| 126-35-502 | Leg Assembly - Main Port | 1 |
| 126-35-503 | Leg Assembly - Main Stbd | 1 |
| 126-35-601 | Cylinder (Port) | 1 |
| 126-35-602 | Cylinder (Stbd) | 1 |
| 126-36-002 | Pipe - Flexible 2.0 metres lg | 1 |
| 126-36-002 | Pipe - Flexible .875 metres lg | 2 |
| 126-37-047 | Connector Tee | 1 |
| 126-37-096 | Union | 1 |
| 126-37-098 | Nut-Lock | 1 |

15.7.2 The following items will be added and annotated "Post Mod M644A".

| <u>Part No</u> | <u>Description</u> | <u>Quantity</u> |
|----------------|--|-----------------|
| T67G-45-235 | Support Bracket Brake Cylinder - Port | 2 |
| T67G-45-237 | Support Bracket Brake Cylinder - Stbd | 2 |
| T67G-73-215 | Reservoir - Brake | 1 |
| T67G-73-221 | Outlet Pipe - Brake Reservoir | 1 |
| T67G-83-940 | Min/Max Label - Brake Reservoir | 1 |
| 126-28-529 | 'P' Clip (DG7) | 2 |
| 126-33-331 | Brake Master Cylinder | 2 |
| 126-33-333 | Brake Assy | 2 |
| 126-33-334 | Brake Disc | 2 |
| 126-33-335 | Grease Seal Felt | 4 |
| 126-33-336 | Seal Ring | 8 |
| 126-35-622 | Axle Collar - Shortened | 2 |
| 126-36-085 | Flexible Brake - Hose - Port | 1 |
| 126-36-086 | Flexible Brake - Hose - Stbd | 1 |
| 126-36-087 | Flexible Brake Hose Main U/C | 2 |
| 126-36-090 | Flexible Tube Brake Line - .875 metres lg | 2 |
| 126-36-091 | Flexible Tube 2.4 metres lg | 1 |

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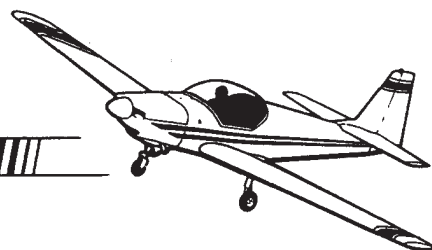
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| <u>Part No</u> | <u>Description</u> | <u>Quantity</u> |
|----------------|--------------------|-----------------|
| 126-37-179 | Nylo-Seal-Fittings | 1 |
| 126-37-180 | Nylo-Seal-Fittings | 1 |
| 126-37-181 | Nylo-Seal-Fittings | 1 |

15.8 On Equipment Tasks:

Nil.

16. DISPOSAL OF REDUNDANT PARTS

Refer to Paragraph 12, return to stores as redundant stock.

17. MASS AND MOMENT

Empty weight increase of .75kg (1.65 lbs), 1.25 metres (49.21 in) aft of datum, ie: Frame 1.

18. EFFECT ON AIRCRAFT OPERATION

Nil.

19. EFFECT ON AIRCRAFT HANDLING

The efficiency of the braking system during long distance taxiing in high ambient temperatures is improved.

20. EFFECT ON EQUIPMENT OPERATION

Nil.

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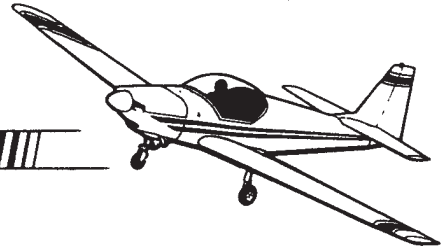
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21. EFFECT ON EQUIPMENT HANDLING

Nil.

22. EFFECT ON SERVICING AND MAINTENANCE

Nil.

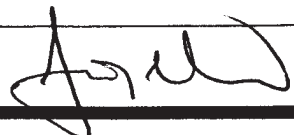
23. EFFECT ON GROUND HANDLING

Nil.

24. RECORDING ACTION

Annotate in aircraft logbook "Modification M644A Incorporated".

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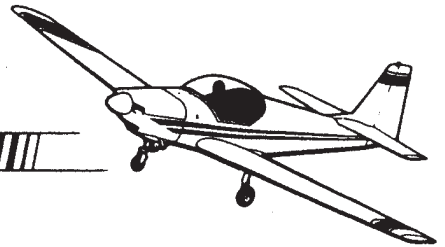


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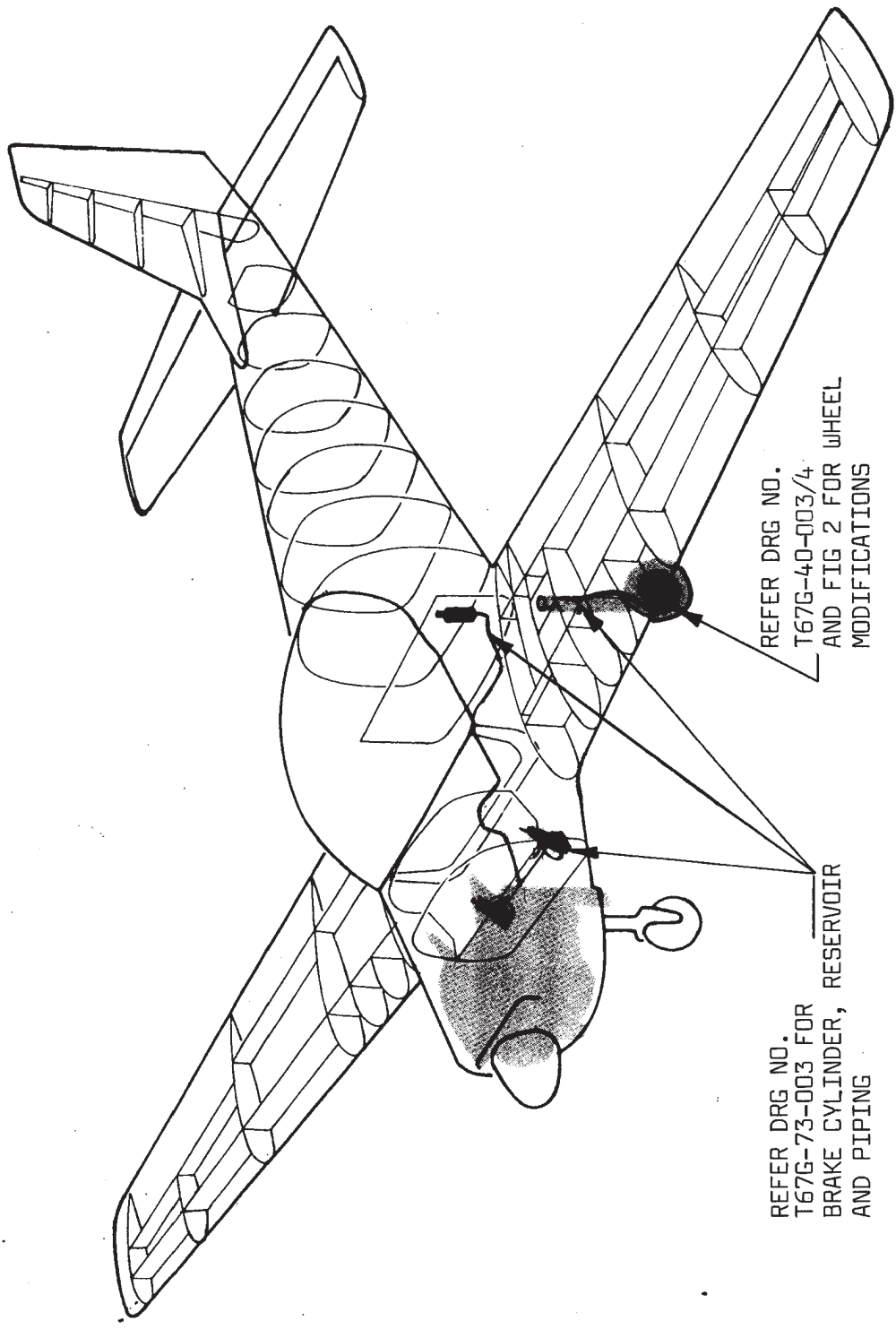


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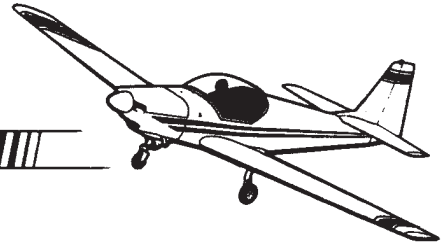
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REFER DRG NO.
T67G-40-003/4
AND FIG 2 FOR WHEEL
MODIFICATIONS

REFER DRG NO.
T67G-73-003 FOR
BRAKE CYLINDER, RESERVOIR
AND PIPING

FIG 1
LOCATION OF MOD M644A



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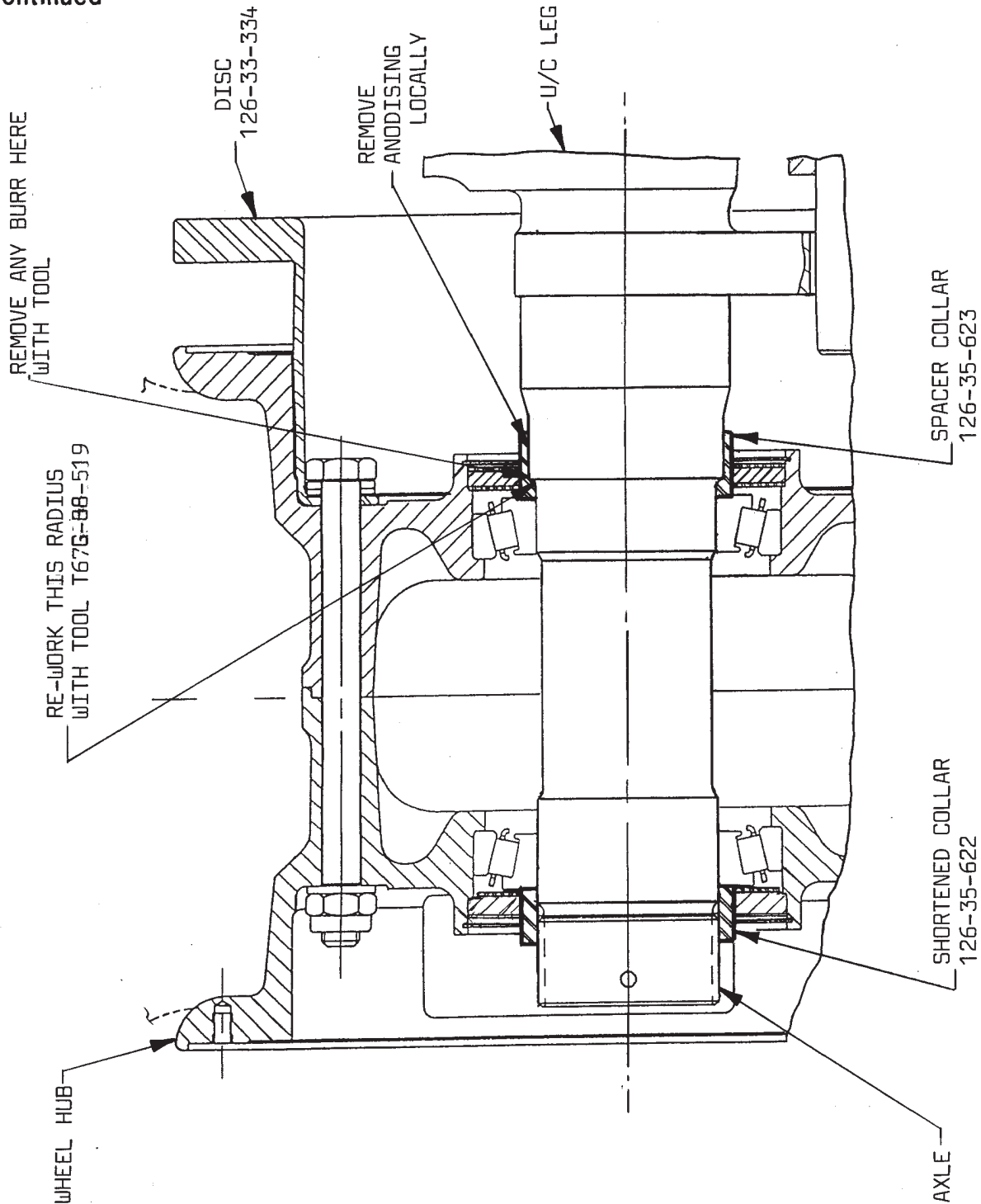


FIG 2
AXLE MODIFICATIONS

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