



U.S. Department of
Transportation
Federal Aviation
Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act 1958)

1. Aircraft	Make PIPER	Model J-3C-65
	Serial No. 18263	Nationality and Registration Mark USA - NC 98115
2. Owner	Name (As shown on registration certificate) R H Turner	Address (As shown on registration certificate) 7237 Werner Street San Diego, CA 92122

3. For FAA Use Only

The data identified herein complies with the applicable airworthiness requirements and is approved only for the above described aircraft, subject to conformity inspection by a person authorized in 14 CFR 43.7. Compatibility of this design change with previously approved modifications must be determined by the installer.

06-30-2011
Date

[Signature]
Signature of FAA Inspector - SAN FSDO, WP 09

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~(As described in item 1 above)~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address BOB TURNER 7237 Werner Street San Diego CA 92122-2833	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certified Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. AP2634677
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date	Signature of Authorized Individual
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit Standards Inspector	Manufacturer	X	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection		Certificate or Designation No. 2634677 IA	Signature of Authorized Individual		

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

NC 98115 Installation of Grove Master Cylinder on Piper Cub Piper J3-C65 S/N 18263

This alteration replaces the original Piper brake master cylinder parts with new brake master cylinders P/N 680-1 produced by *Grove Aircraft Landing Gear Systems, Inc.* The brake servos were replaced previously on January 6, 2005 under STC SA01704LA and include the installation of brake rotors and caliper style brake servos produced by *Grove Aircraft Landing Gear Systems Inc.*

Piper end bell P/N 238311-00, piston (item 58) P/N 750 295, diaphragm pad (item 57) P/N 750 385, and spring (item 59) P/N 750 386, were removed from both brake pedal housings and replaced with Grove master cylinders P/N 680-1. These master cylinders are produced for use on amateur built aircraft and have no TSO or PMA (see attached *Grove Aircraft Landing Gears Systems, Inc.* drawing no. 680-1). The master cylinders were installed directly to the Piper brake pedal housings with no modification to the housing using eight AN526-832R from the original configuration (see attached drawing "*Installation of Grove Master Cylinder on Piper Cub*").

The Grove Master Cylinder includes a fluid reservoir. Silicone based fluid conforming to MIL PRF 46176B is used with no change to operating characteristics of the brake system and is compatible with all operating components of the system.

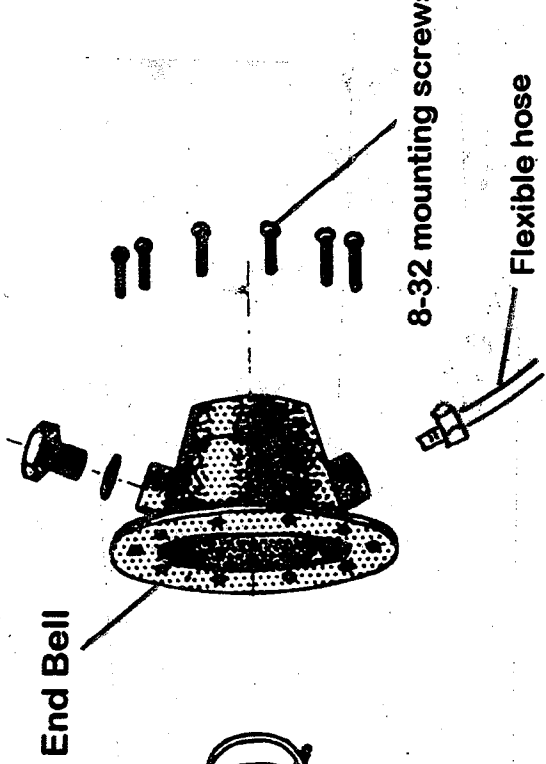
Flexible brake system hoses were replaced with new FAA/PMA Univair P/N U71061-004 hoses, tested to 4000 psi and certified to bursting pressures above 5000psi above under safety standards of 49 CFR 571.106. System pressures will be less than 650 psi (it takes less than 300 psi to lock a wheel).

This installation meets certification standards of CAR 3.363 and 14 CFR 23.735. All work was accomplished in accordance with standard practices of AC43.13-1B and AC43.13-2B. An operational check was performed that provided adequate braking action to conform to certification standards without excessive force that could cause a nose-over of the aircraft. The system leak checked ok.

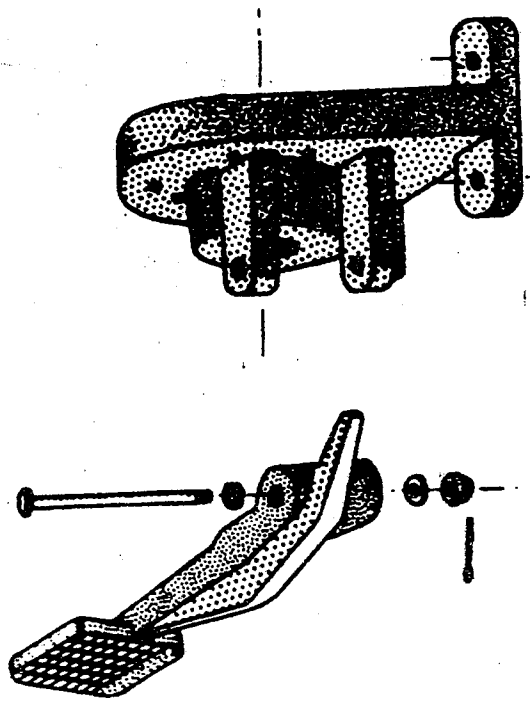
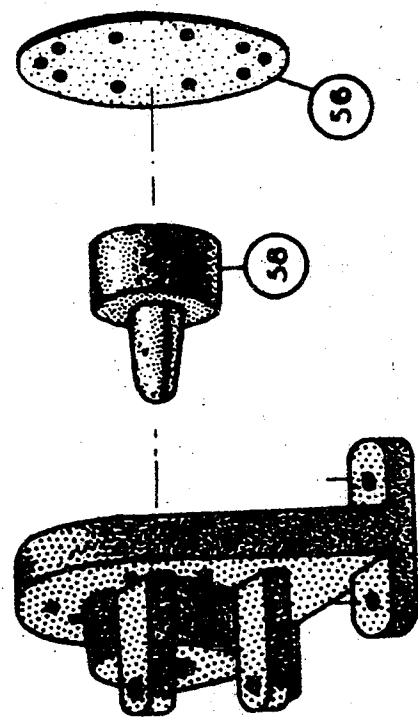
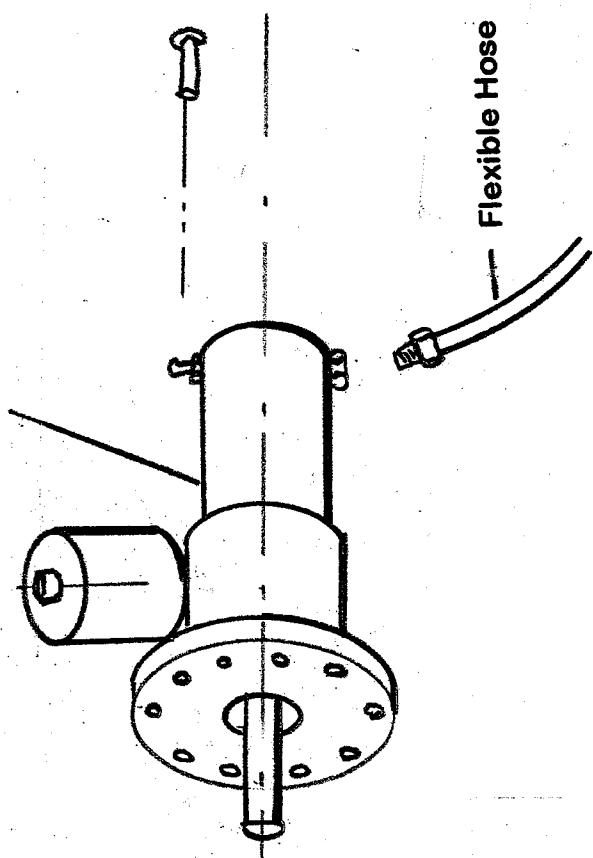
Instructions for Continued Airworthiness consist of checking the brake system for condition and leaks in accordance with 14CFR Part 43 Appendix D at each annual inspection and checking the brake fluid level each 50 hours.

End.

Additional Sheets Are Attached



Grove Master Cylinder



Installation of Grove Master Cylinder on Piper Cub

Remove parts 58, 56, 57, 59, and end bell. Remove hose from end bell and attach hose to Grove master cylinder. Install Grove Master cylinder to Scott housing as shown, using eight original screws symmetrically placed.