



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 of 1958).

<b>1. Aircraft</b>	Make <b>PIPER</b>	Model <b>PA-22-150</b>
	Serial No. <b>22-6699</b>	Nationality and Registration Mark <b>N9812D</b>
<b>2. Owner</b>	Name (As shown on registration certificate) <b>B. Craig Baldwin</b>	Address (As shown on registration certificate) <b>14906 E. Columbia Dr. Aurora Co. 80014</b>

**3. For FAA Use Only**  
The data alteration identified herein complies with the applicable airworthiness requirements and is approved for the aboved make and model aircraft subject to conformity inspection by a person authorized by FAR Part 43. See Section 43.7. The person performing this work must determine interrelationship with any previous modification or repair.

Date 8-14-92 Signature B. Craig Baldwin P.D. No. 1003

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

<b>A. Agency's Name and Address</b> <b>Univair Aircraft Corp.</b> <b>2500 Himalaya Rd.</b> <b>Aurora Co 80011</b>	<b>B. Kind of Agency</b> <input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	<b>C. Certificate No.</b> <b>Airframe</b> <b>Class 1 &amp; 3</b> <b>VS3R930L</b>
--	---	---

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 <b>July 29, 1992</b>	Signature of Authorized Individual <i>B. Craig Baldwin</i> <b>B. Craig Baldwin</b>
------------------------------	--

### 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**

<b>BY</b>	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection <b>8-14-92</b>		Certificate or Designation No. <b>AIRFRAME CLASS 1 &amp; 3 VS3R930L</b>	Signature of Authorized Individual <i>B. Craig Baldwin</i>	

**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.)

Removed original drum and shoe type wheel and brakes from main gear. Installed Cleveland disc wheel and brake kit, p/n 199-08700 (199-87). Installation performed in accordance with Cleveland kit blueprint no. 50-58 and Univair conversion instructions dated July 28, 1992.

original installation: 14.0 lbs at +31.5 moment arm

new installation: 15.0 lbs at +31.5 moment arm

1 lb. weight increase considered not significant for weight and balance calculations.

+++++end+++++

Additional Sheets Are Attached

JUL 28 1992

CONVERSION OF PA-22 BRAKES FROM DRUM TO DISC TYPE USING  
CLEVELAND KIT 199-08700

1. Properly jack up aircraft.
2. Remove and cap hydraulic lines from existing brakes.
3. Deflate main wheel tires.
4. Remove existing wheels and brakes.
5. Using hardware supplied in kit, install 075-07700 torque plate assembly as shown in detail "A" of Cleveland drawing 50-58. If wheel pants are installed, attach flange mounting brackets at this time. Install an extra AN960-416 washer under each nut as required or replace the AN4-7A bolts supplied in the kit with AN4-6A bolts. Torque mounting nuts to 80-90 in-lbs.
6. Remove AN365-524 nuts from 040-09704 wheel assembly to split wheel. Mount 6.00 x 6 4 ply tube type tires. Torque wheel nuts to 150 in-lbs. after assembly.
7. Install mounted 040-09704 wheel assembly on axle. Install spacer P/N U1105-04 on axle and start axle nut on threads. While rotating the wheel, hand tighten the axle nut to properly seat bearings. When the bearings are seated, hand tighten the the nut until it stops and back off nut to nearest hole. If wheel pants are installed, attach axle mounting bracket at this time. Insert cotter pin and safety axle nut. A maximum of two threads on the axle nut may extend beyond the end of the axle.
8. Remove 2 each LP4-17AM bolts from brake assembly to remove back plate.
9. Slide cylinder assembly onto torque plate.
10. Slip back plate between brake disc and wheel. Position to align holes and install LP4-17AM bolts. Torque bolts to 75-90 in-lbs.
11. Connect flexible brake line P/N 207-01200 to brake fitting P/N AN816-4D. Connect other end to rigid brake line on landing gear using AN821-4 elbow between the flexible hose and landing gear brake line nut. Brass, aluminum or steel type AN821-4 elbow may be used.

JUL 28 1992

12. Bleed brakes. Repeat cycle until all air has been purged from system.
13. With the aircraft still on jacks, apply brake pressure to check for system leakage. Repeat 3 to 4 times.
14. With pressure at 0, rotate each wheel to check for binding or excessive drag.
15. If wheel covers are desired, use Cleveland P/N 157-00900 (dish type) or Piper P/N 24918-000 (flat plate type). Secure with AN526-832-4 screws and AN936A8 lock washers.
16. Remove aircraft from jacks and condition linings per PRM No. 13A sheet enclosed in Cleveland kit.
17. Prepare Form 337, make log book entry and Weight and Balance corrections. State that Cleveland 199-08700 wheel and brake kit is installed per Univair STC -----.
18. For weight and balance calculations, the old Cleveland drum brake assembly weighs 14.0 lbs. (total) at +31.5 moment arm. The new Cleveland disc brake assembly weighs 15.0 lbs. (total) at +31.5 moment arm.
19. Those late production PA-22 aircraft that were originally equipped with early style Cleveland disc brakes may also be converted to new style brakes using Cleveland kit 199-08700. Follow steps 1-17 as with the drum type conversion. For weight and balance calculations, the early Cleveland disc brake assembly weighs 14.5 lbs. (total) at +31.5 moment arm. The new Cleveland disc brake assembly weighs 15.0 lbs. (total) at +31.5 moment arm.