



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark USA N6244P	Serial No. 24-1349		
	Make PIPER	Model PA-24-250	Series PA-24	
2. Owner	Name (As shown on registration certificate) WMJ CORP.		Address (As shown on registration certificate) Address 3 WIDEFIELD BLVD.	
			City COLORADO SPRINGS	State COLORADO
			Zip 80911-2126	Country USA

3. For FAA Use Only

"The technical data identified herein has been found to comply with the applicable airworthiness requirements and is hereby approved for use only on the above described aircraft, subject to conformity inspection by a person in FAR section 43.7"

FAA INSP

ANM04

DATE

2/5/2020

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME		(As described in Item 1 above)	
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name NATRONA AVIONICS LLC		<input type="checkbox"/> U. S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address 7958C FULLER STREET		<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City CASPER	State WYOMING	<input checked="" type="checkbox"/> Certificated Repair Station	N4NR506Y
Zip 82604	Country USA	<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual 2/5/2020
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. N4NR506Y	Signature/Date of Authorized Individual 2/5/2020
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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.)

USA

N6244P

PIPER PA-24-250

S/N 24-1349

2/4/2020

(Radio Installation per AC43.13-2B Chapter 2)

System: The Installation of dual aircraft powered Bose Series X Headset jacks TSO C57a and C139. The headset jacks were installed in addition to the Pilot and Copilot positions. Instrument mounting per AC43.13-2B Chapter 2.

Wiring: The Pilot's and Copilot's Bose jacks were wired to the Avionics buss through a 1 AMP fuseholder labeled "BOSE" with 24 AWG Mil22759/16 wire. (Wire selected per AC43.13-1B, Chapter 11 sec 5-7 and AC43.13-1B Chapter 11 Sec 4 para 11-47 to 11-50 circuit protection). Load analysis was accomplished per AC43.13-1B Chapter 11 Sec 4 para 11-55 and was found to be acceptable. Wire routing, tying and clamping was accomplished per AC43.13-1B Chapter 11 Sec 9 paras 11-115 to 11-121 and Sec 10 to Sec 12.

Operational Flight and Ground Checks: The post Install checkout procedures for the Bose Headsets were satisfactorily completed. All systems operated in accordance with the manufacturers instructions and did not interfere with the normal operation of the other equipment installed in the aircraft.

Unit	Manual or Drawing Reference	Circuit Protection	Wire
Install Manual	AM323160 Rev. 02	1 AMP	24 AWG

Weight and Balance/Equipment List Updated Negligible (AC43.13-1B Chapter 10)

Instructions for continued airworthiness refer to Bose Install manual, maintenance manual, and this 337. Inspect IAW FAR 43, Appendix D.

-----END-----

☐ Additional Sheets are Attached



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1. Aircraft	Nationality and Registration Mark USA	N6244P	Serial No.	24-1349
	Make PIPER		Model PA-24-250	Series PA-24
2. Owner	Name (As shown on registration certificate) WMJ CORP.		Address (As shown on registration certificate)	
			Address 3 WIDEFIELD BLVD.	
			City COLORADO SPRINGS	State COLORADO
			Zip 80911-2126	Country USA

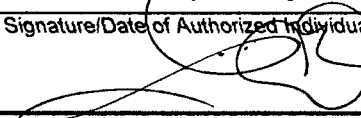
3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME		(As described in Item 1 above)	
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

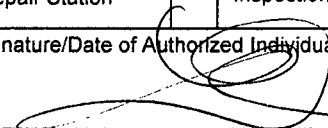
A. Agency's Name and Address		B. Kind of Agency	
Name	NATRONA AVIONICS LLC	<input type="checkbox"/> U. S. Certificated Mechanic	Manufacturer
Address	7956C FULLER STREET	<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City	CASPER State WYOMING	<input checked="" type="checkbox"/> Certificated Repair Station	N4NR506Y
Zip	82604 Country USA	<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual  12/27/2019
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)
Certificate or Designation No. N4NR506Y		Signature/Date of Authorized Individual  12/27/2019		

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.)

USA N6244P PIPER PA-24-250 S/N 24-1349 12/27/2019

(Radio Installation per AC43.13-2B Chapter 2)

System: The removal of a Garmin GTX-327 Transponder and the installation of a GARMIN GTX 345 Transponder ATCRBS/Mode S Transponder with ADS-B In/Out TSO C112e, C154c, C157a, C166b per STC SA01714WI dated 10/31/2016. The GTX 345 was mounted in the position of the removed GTX-327 (Sta. 48.50). GPS position and Velocity are provided by the GNS-530W. Instrument mounting per AC43.13-2B Chapter 2.

Wiring: The GTX 345 was wired to the Radio Master buss through a Klaxon 7277-2-3 3 Amp circuit breaker labeled "XPNDR" with Mil22759/16 22 AWG wire. (Wire selected per AC43.13-1B, Chapter 11 sec 5-7 and AC43.13-1B Chapter 11 Sec 4 para 11-47 to 11-50 circuit protection). Load analysis was accomplished per AC43.13-1B Chapter 11 Sec 4, para 11-55 and was found to be acceptable. Wire routing, tying and clamping was accomplished per AC43.13-1B Chapter 11 Sec 9 paras 11-115 to 11-121 and Sec 10-12.

Displayed Information: The GTX-345 traffic and weather are displayed on the GNS-530W.

Antennas: The existing Transponder antenna was reused.

Operational Flight and Ground Checks The GARMIN checkout procedures for the GTX-345 systems were satisfactorily completed. All systems operated in accordance with the manufacturers instructions and did not interfere with the normal operation of the other equipment installed in the aircraft.

Unit	Manual or Drawing Reference	Circuit Protection	Wire
GTX 345	190-00734-10 Rev.13 9/3/2019	3 Amp	22 AWG

Weight and Balance/Equipment List Updated _ 12/27/2019 _____ (AC43.13-1B Chapter 10)

Instructions for continued airworthiness refer to GTX 345 Install manual, maintenance manual, and this 337. Inspect IAW FAR 43, Appendix D.

-----END-----

☐ Additional Sheets are Attached



U.S. Department
of Transportation
Federal Aviation
Administration

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Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation (49 U.S.C. §46301(a)).

1. Aircraft	Nationality and Registration Mark N6244P	Serial No. 24-1349
	Make Piper	Model PA-24-250
2. Owner	Name (As shown on registration certificate) WMJ Corp	Address (As shown on registration certificate) Address 3 Widefield Blvd City Colorado Springs State Co Zip 80911 Country USA

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME		(As described in item 1 above)	
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name	Benjamin M Kellogg	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address	4119 W Commonwealth Ave	<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City	Fullerton State Ca	<input type="checkbox"/> Certificated Repair Station	AP/IA 2698724
Zip	92833 Country USA	<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B ☐ Signature/Date of Authorized Individual Benjamin M Kellogg 10-1-2018

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ APPROVED ☐ REJECTED

BY	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No. AP/IA 2698724 Signature/Date of Authorized Individual Benjamin M Kellogg 10-1-2018

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.)

N6244P

Nationality and Registration Mark

10-1-2018

Date

CW AD 2012-17-06 IAW Attached AMOC. Installed billet stabilator horn assembly IAW STC SA04016AT

All work done in accordance with the supplied instructions ADS 100517-1-14

No change in the weight and balance. The rigging was checked, and all control travels and tensions are in spec IAW The Piper Service Manual.

Attached is the ICA, STC and the STC Permission statement

☒ Additional Sheets Are Attached



U.S. Department
of Transportation
Federal Aviation
Administration

Small Airplane Directorate
Atlanta Aircraft Certification Office
1701 Columbia Ave.
College Park, Georgia 30337

JUL 30 2013

Alan Paul Kerr
The Aeronautical Design Service Pty Ltd
5 Gunnaroo Lane
Montville: Queensland 4560 Australia

Mr. Kerr,

We received your proposal dated June 18, 2013 (and clarifications on June 19, 2013), requesting approval of Civil Aviation Safety Authority of Australia (CASA) Supplemental Type Certificate (STC) SVA 532 as an alternative method of compliance (AMOC) to FAA Airworthiness Directive (AD) 2012-17-06. You requested the AMOC apply globally to all PA-24, PA24-250, PA24-260 and PA-39 aircraft which have had the Piper stabilator horn part number (P/N) 20397-00 replaced with The Aeronautical Design Service Pty Ltd (ADS) stabilator horn P/N ADS1008020828 in accordance with the instructions provided in CASA STC SVA 532.

AD 2012-17-06 applies to Piper model PA-24, PA-24-250, and PA-24-260 airplanes with P/N 20397-00 stabilator horn installed and requires replacement of the stabilator horn assembly and/or repetitive inspections of the stabilator horn assembly for corrosion or cracks, as applicable. The AD paragraphs (f) and (g) require replacement of the horn assembly with the Piper part number. The proposal for AMOC is to paragraphs (f) and (g) of the AD, to serve as terminating action to the AD.

The basis for this approval is referenced in your letter and was assessed in the review and validation of the data supporting CASA STC SVA 532, leading to FAA STC SA04016AT.

We approve ADS stabilator horn P/N ADS1008020828 installed following the requirements of STC SA04016AT as an AMOC to paragraphs (f) and (g) of AD 2012-17-06. The approval applies to all Piper model PA-24, PA24-250, and PA24-260 aircraft and is considered terminating action to the AD. Note: AD 2012-17-06 does not apply to Piper model PA-39 aircraft, or other Piper model aircraft that the ADS horn may be applicable to. Therefore, we have not included those models in this approval.

In accordance with FAA Order 8110.103, the following conditions apply:

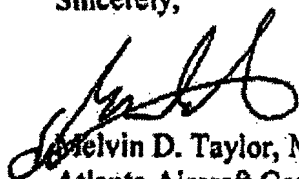
- All provisions of AD 2012-17-06 that are not specifically referenced above remain fully applicable and must be complied with accordingly.
- This approval is transferable with airplane(s) to other operators.
- Before using this AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
- When complying or verifying compliance with AD 2012-17-06 using this AMOC, a copy of this letter shall be inserted into the maintenance records of the airplane.



COPY

If you have any questions or need additional information, please contact Gregory K. (Keith) Noles at (404) 474-5551, (404) 474-5606, or electronic mail at gregory.noles@faa.gov.

Sincerely,



Melvin D. Taylor, Manager,
Atlanta Aircraft Certification Office

cc: ACE-100
ACE-113 (Showers / Wessley)
ACE-MKC-AEG-11 (Alquist)



The Aeronautical Design Service P/L
5 Gunnaroo Lane: Montville, QLD, 4560

ABN: 28 110 924 989
Mob 0408 767 135

STC Permission Statement

FAA STC's SA 04016AT and SA04019AT

To whom it may concern,

Please use this letter as an indication of my authority for use ST SA04016AT (or STC SA04019AT) to modify the aircraft listed below

Aircraft Registration N6244P
Make PIPER
Model PA24-250
Serial Number 24-1349

Signed by

Alan Kerr
Managing Director
The Aeronautical Design Service

Dated .

08-29-2018

Form #10-01

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

IMPORT

Number SA04016AT

Description of Type Design Change (Continued)

Required type design data:

- Installation per ADS 100517-1-MDL (Rev 7) dated 10 July 2013, or later FAA approved revision.
- Maintenance per ADS 100517-1-15-FAA Instructions for Continuing Airworthiness Service Manual Supplement, Revision 6, dated 11 July 2013, or later FAA approved revision

Limitations and Conditions (Continued)

2. FAA Airworthiness Directive (AD) 2012-17-06 applies to the stabilator horn. This STC has been assessed as an alternative method of compliance to the AD. Contact the design approval holder, ADS, for further information.
3. Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated, unless it is determined by the installer that the interrelationship between this change and any other previously approved modifications, including changes in type design, will produce no adverse effect upon the airworthiness of that airplane.
4. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

Certification Basis

-----END-----

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SA04016AT

This certificate issued to The Aeronautical Design Service Pty Ltd
5 Gunnaroo Lane
Montville: Queensland 4560 Australia

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.

Original Product-Type Certificate Number: 1A15
Make: Piper
Model: PA-24, PA-24-250, PA-24-260, PA-24-400

Description of Type Design Change: Installation of The Aeronautical Design Service (ADS) part number 1008020828 Stabilator Horn in accordance with drawing list ADS 100517-1-MDL revision 7 (section 2) dated 10 July 2013, or later FAA approved revision, as a replacement for the Piper component P/N 20397-00 (also identified as 20397-000).

See continuation sheet (page 3).

Limitations and Conditions:

1. Instructions for Continued Airworthiness, ADS 100517-1-15-FAA Rev 6, dated 11 July 2013, or later FAA approved revision, is a required part of this STC, and must be incorporated into the operator's maintenance program.

See continuation sheet (page 3).

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: December 13, 2010

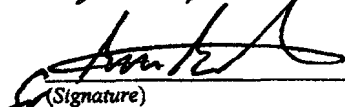
Date received: September 12, 2013

Date of issuance: July 23, 2013

Date amended:



By direction of the Administrator


(Signature)

Melvin D. Taylor
Manager, Atlanta Aircraft Certification Office

(Title)

Instructions for Continuing Airworthiness Service Manual Supplement (FAA STC) Replacement Comanche Stabilator Horn P/No ADS 1002080828

Revisions Notes

This report at its latest revision status superseded all previous revisions. Only a total reprint of the report promulgates revisions. All pages bear the same revisions/date status

Rev No.	Revision Date	Signature	Details of Change
0			Original Issue
1	3 Nov 2010		Editorial
2	18 Nov 2010		Minor Corrections in terminology added.
3	24 Mar 2011		Bolt Orientations corrected in Drawings. Reference made to apply and Check "Torque Seal"
4	11 Apr 2011		Removed PA40, updated references, updated temperature references, updated service manual section.
5	5 July 2011		Updated service manual section.
6	11 July 2013		Updated in Response to FAA email Dated 10 July 2013.

1. Preamble

This Service Manual Supplement has been raised to specify the maintenance activities which are required to ensure that the Replacement Stabilator Horn P/No ADS 1008020828 will operate safely in service.

This supplement only contains information which is associated with the Replacement Horn and needs to be read in conjunction with the PIPER Comanche Service Manual which contains instructions for all other features of the aircraft.

This Supplement is to be inserted into the Piper Service Manual at the beginning of Section 5 when the replacement Stabilator horn is installed on the aircraft.

Where information in this manual is contradictory with information contained in the Piper Service Manual the Piper Service Manual will take precedence over all things except those which are explicitly stated for the stabilator horn. In those instances this supplement, should take precedence.

2. Description and Operation

The Aeronautical Designs Stabilator Horn has been designed as a replacement component for the Piper Stabilator horn P/No 20397-00 in the aircraft listed in Table #1. Added strength and manufacturing features have generated a distinctively different shape for this component. Even with this change in shape the AeroDesigns Component is a direct replacement for the Piper Component.

Models Affected	Type	Serial Numbers Affected
PA-24	Comanche	24-1 through 24-3687
PA 24-250	Comanche	24-1, 24-103 through 24-3687
PA 24-260	Comanche	24-3642 and 24-4000 through 24-5034
PA24-400	Comanche	26-2 through 26-148
PA 30	Twin Comanche	30-1 through 30-2000
PA 39	Twin Comanche	39-1 through 39-162

The stabilator horn is a fixed component which has no operating features once it is installed. The next higher assembly in which the stabilator is a component is the Stabilator Torque tube assembly.

Figure #1 shows the Stabilator Horn as a separate component.

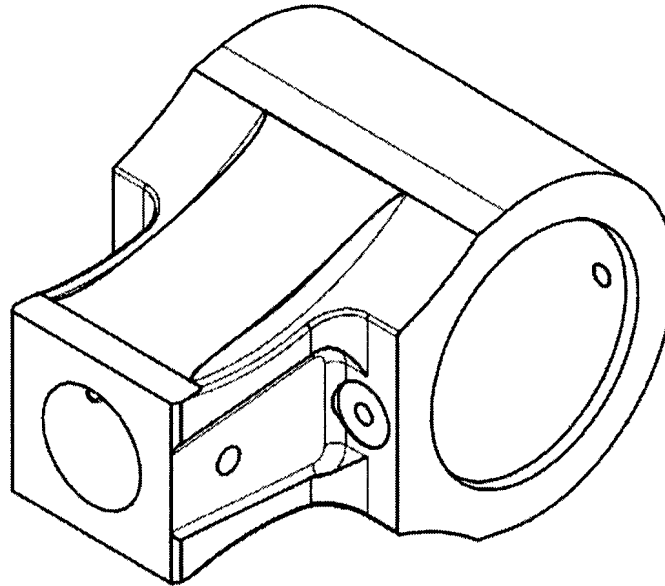
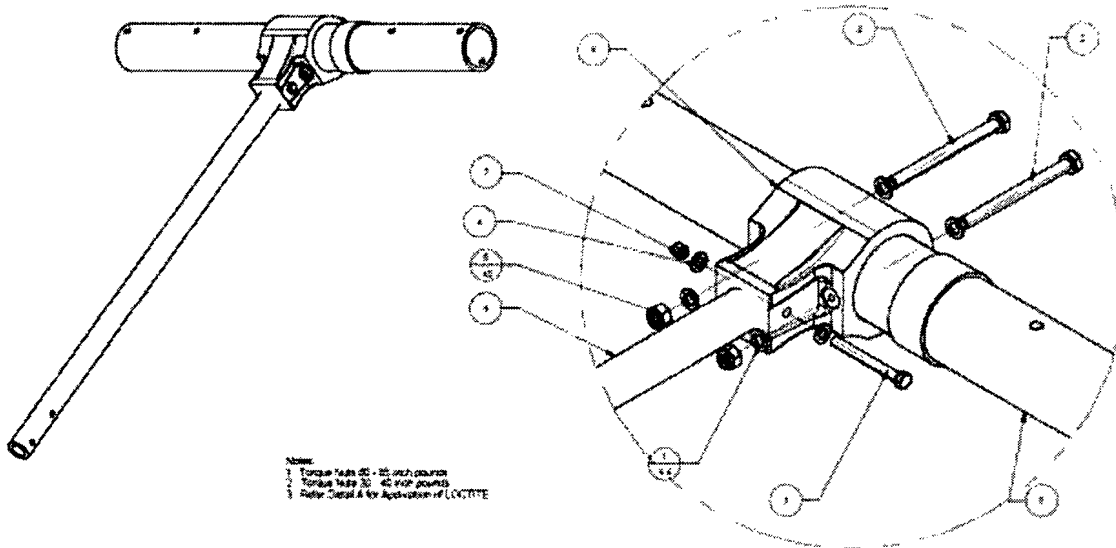


Figure 1

Figure #2 shows the Stabilator torque tube assembly and includes the Parts List .



Notes:
1. Torque Tube 45 - 45 inch diameter
2. Torque Tube 30 - 40 inch diameter
3. Refer Detail A for Application of LOCUTITE

Part Number	Quantity	Part Number	Part Name	Part Name	Comments
1	1	45000-1-1	45000-1-1	45000-1-1	
2	2	45000-1-1	45000-1-1	45000-1-1	
3	1	45000-1-1	45000-1-1	45000-1-1	
4	2	45000-1-1	45000-1-1	45000-1-1	
5	1	45000-1-1	45000-1-1	45000-1-1	
6	2	45000-1-1	45000-1-1	45000-1-1	
7	1	45000-1-1	45000-1-1	45000-1-1	
8	1	45000-1-1	45000-1-1	45000-1-1	
9	2	45000-1-1	45000-1-1	45000-1-1	
10	1	45000-1-1	45000-1-1	45000-1-1	
11	1	45000-1-1	45000-1-1	45000-1-1	

Figure 2

3. Airworthiness Limitations

No additional airworthiness limitations are required for this modification.

This Airworthiness Limitations Section is FAA Approved and Specifies Maintenance required under Secs.. 43.16, and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

5. Servicing

Servicing procedures specified in the Piper Comanche Service Manual continue to apply when this Aeronautical Designs Stabilator horn is fitted however additional inspections are required to check features which are unique to this component. The additional instructions specified in Figure #3 are to be completed at each 100 hourly inspection of the aircraft.

This servicing is done with the stabilator installed on the aircraft. There is no need to remove the stabilator unless the inspection identifies defects which require further investigation.

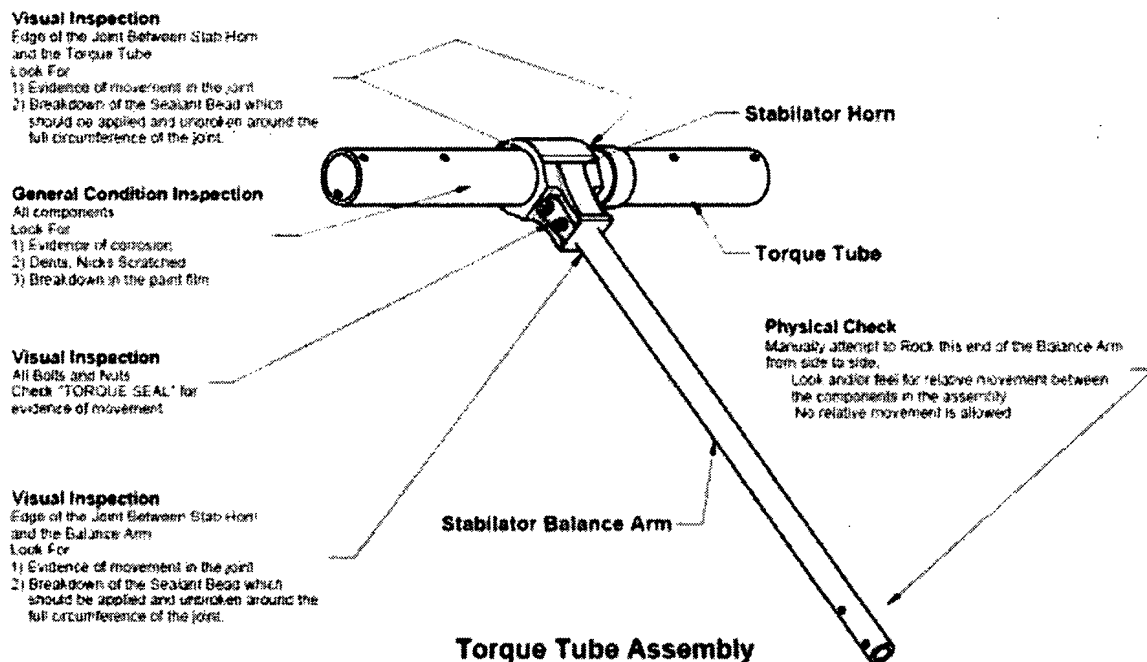


Figure 3

When conducting these inspections it is important to understand the following acceptance criteria

- 1) Any evidence of movement in the joints is unacceptable, and an engineering dispensation is required before further flight after the movement is detected
- 2) Any evidence of corrosion nicks or scratches should be addressed.
 - a. Assessment and treatment of damage on the torque tube and balance arm is to be done in accordance with the instructions provided by Piper in the appropriate section of the Comanche Service Manuals
 - b. Classification and assessment of defects on the Replacement Stabilator Horn should be in accordance with the following
 - i. Scratches
 1. Surface Scratches and Sharp Edged Nicks are unacceptable
 - a. All scratches and Sharp Edged nicks are to be removed by blending.
 - i. Acceptable blends have a depth to surface length ration of 1:3 or greater
 - ii. Blend depths up to 0.5mm are allowable
 - iii. Blend depths exceeding 0.5mm must receive evaluation and Engineering Dispensation
 - ii. Dents
 1. Smooth dents with no visible cracking are acceptable up to 0.5mm

- a. Dents should be checked with Fluorescent Dye Penetrant NDI methods (Per SAE -AMS 2647 or ASTM E1417, or equivalent) to check for cracking
 - b. Dents deeper than 0.5 mm will require Engineering Dispensation
 - iii. Corrosion
 - 1. All corrosion damage must be addressed by
 - a. Abrading to remove all traces of corrosion
 - b. Blending to achieve a smooth 1:3 (or larger) blend profile
 - c. Etch prime and paint the reworked surface.
 - iv. Cracks
 - 1. It is unacceptable to have any evidence of cracking in the Replacement Stabilator Horn
 - 2. Any evidence of cracking is to be reported to Mr Alan Kerr (alan@aerodesignservice.com) for evaluation and if applicable repair instructions
 - c. If it is evident that the sealant applied to the structure is deteriorated or has disbonded from the surface then it is necessary to remove all existing sealant and apply new sealant over all of the joints.

6. Installation and Removal Instructions for the Stabilator Horn

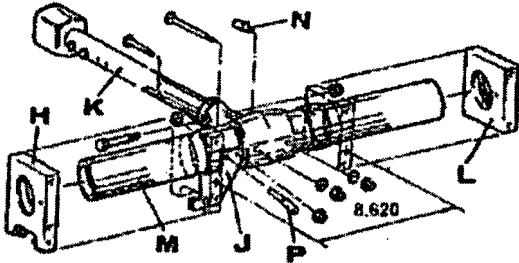
6.1. Initial Installation

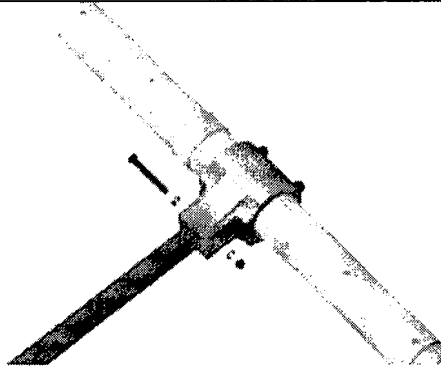
Initial installation of the Stabilator horn is to be done in accordance with the instructions provided in ADS Report 100517-1-14 which is included with the STC installation package that is supplied with each new Stabilator Horn.

6.2. Removal in Service

Removal of the stabilator halves and the stabilator torque tube assembly is done in accordance with instructions provided in the Piper Service Manual for the aircraft.

6.2.1. Removal of the Stabilator Horn from the torque tube

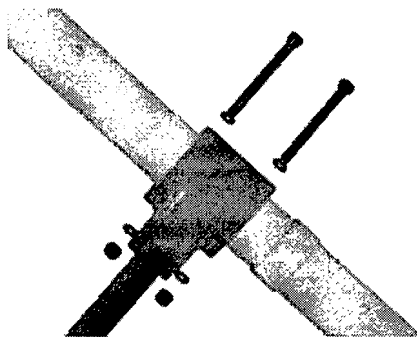
1.	<p>Remove all paint and rust from the outer surface of the torque tube. Coat the torque tube with a light oil to aid the removal of the various components.</p> <p>Note: During the removal of components from the torque tube assembly, note the relative position of the components to help reassembling them correctly.</p>
2.	<p>Remove the Both Bearing Blocks (Item H and L on diagram)</p> <p>Note the position of any shims, Record the thickness and location for later reinstallation</p> 
3.	<p>Look Up inside the Torque Tube to visually inspect the exposed sections of the stabilator horn and collar attaching bolts for corrosion. Dress the bolts using emery paper, to remove the corrosion if present on the bolts.</p>
4.	<p>Remove the AN4 Bolt attaching the Balance Arm to the Stabilator Horn.</p>



Note: LOCTITE is used as a retaining compound for this bolt, and the AN5 bolts. If the bolt cannot be driven out easily it may be necessary to apply heat (60 – 80 degrees Celsius) to the stabilator horn to soften the LOCTITE.

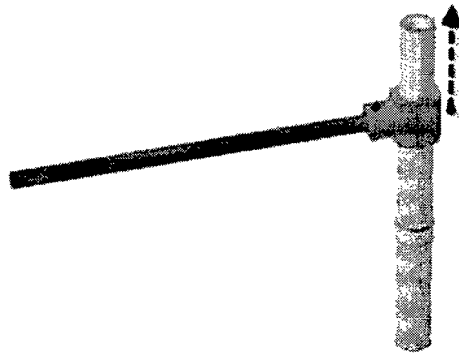
Apply heat to the stabilator horn using a hot air gun (not a propane or similar gas burner). Continue to apply the heat until the horn is at 60 to 80 deg Celsius (Use an Infrared Thermometer to measure this temperature) Avoid heating the torque tube shaft as much as possible.

5. Remove the two bolts attaching the Stabilator Horn to the Torque tube.



6. Place the Torque Tube Assembly in a soft jaw vice with the torque tube axis vertical. Tighten the vice sufficiently to hold prevent the torque tube from rotating.

Note: Experience has shown that it is easy to permanently deform the torque tube, particularly the torque tube from single engine aircraft, when clamping in a vice. Use of the clamping Collar (ADS 1011031045) or similar fixture is recommended to reduce the risk of permanently deforming the torque tube.



Apply heat to the stabilator horn using a hot air gun (not a propane or similar gas burner). Continue to apply the heat until the horn is at 60 to 80 deg Celsius (Use an Infrared Thermometer to measure this temperature) Avoid heating the torque tube shaft as much as possible.

Break the LOCTITE joint by attempting to rotate the stab horn on the torque tube. You can use the balance arm as a lever for this operation.

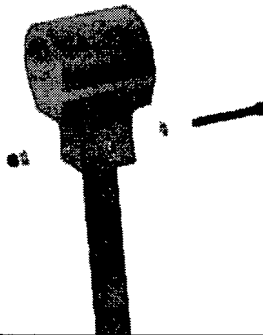
Once the LOCTITE Joint is broken, raise the stab horn up the torque tube by rotating the balance arm backwards and forwards whilst applying an upward pressure.

Note: Use of a puller may be necessary if the LOCTITE joint cannot be relieved by the above method.

7. Clean off all LOCTITE from the joint.

6.2.2. Removal of the Balance Arm from the Stabilator Horn

8. Remove the 1/4inch bolt attaching the balance arm to the horn.



9.	<p>Withdraw the balance arm from the stabilator horn.</p> <p>Note: The joint between the balance arm and the stabilator horn is an interference fit and it is secured with LOCTITE Retaining Compound.</p> <p>Use of heat (60-80 degrees Celsius) and a puller will be necessary to withdraw the arm from the horn.</p> <p>Take care not to damage the horn or the balance arm in this process as both items will be reused on assembly</p> <p>Apply heat to the stabilator horn using a hot air gun (not a propane or similar gas burner). Continue to apply the heat unto the horn is at 60 to 80 deg Celsius (Use an Infrared Thermometer to measure this temperature) Avoid heating the torque tube shaft as much as possible.</p>
10.	<p>Visually inspect the balance arm internal and external surfaces</p> <ul style="list-style-type: none">• looking for corrosion,• evidence of cracking, or• other damage <p>Warning: Replace the balance arm, or seeking further engineering appraisal of there is evidence of cracking.</p> <p>Caution: Remove light surface corrosion, using 3M Abrasive Impregnated Nylon Wheel (ROLOC) Fine Grade.</p> <p>Material removal up to 0.5mm (0.0020") is acceptable.</p> <p>Seek further engineering evaluation depth of material removed exceeds this amount at any location on the shaft.</p>
11.	<p>Dress the end of the balance arm where it is inserted into the stabilator horn, to remove any debris, or material which is adhered the surface of the tube either because of the interference fit or LOCTITE from a previous installation.</p> <p>Note: Use Fine Grade 3M Impregnated nylon wheel, or 600 grit abrasive papers. On completion ensure that the surface is "smooth", uniform, and free from any obtrusions.</p>
12.	<p>Wipe the surface of the balance arm with light machine oil if reassembly will not occur within 60 minutes.</p>

6.3. Inspection of the Stabilator Horn

Clean and inspect the Stabilator Horn. Acceptable defect, and rework criteria are provided in Figure #4

Visual Inspection

External Surface for Dents, Nicks, Corrosion or Contamination

Smooth Dents up to 0.5mm deep are acceptable
Blending of corrosion to a depth of 0.5mm is acceptable
Blend nicks to a smooth profile, up to 0.5mm deep
Seek engineering Dispensation if greater blend depth is required.

No Cracking is allowed. Contact Alan Keer (alan@acodesignservice.com) for engineering dispensation on all cracks.

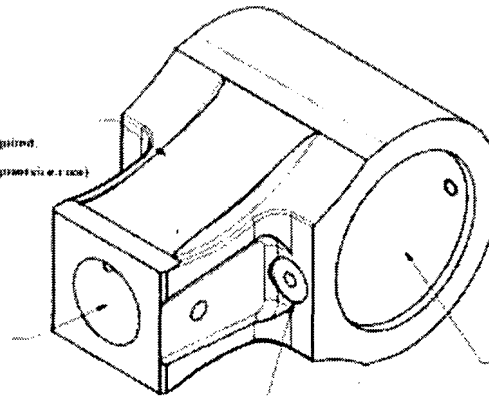
Visual Inspection

Internal Bore for evidence of cracks or corrosion.
Inspect using Dye Penetrant Methods for cracks.
The edges of all bolt holes

Smooth Score marks in the bore cause by installation or removal operations. Permitted depth is 0.5mm

No Cracking is allowed. Contact Alan Keer (alan@acodesignservice.com) for engineering dispensation on all cracks.

Blending of Corrosion to a depth of 0.5mm is acceptable

**Visual Inspection**

Internal Bore for evidence of cracks or corrosion.
Inspect using Dye Penetrant Methods for cracks.
The edges of all bolt holes

Smooth Score marks in the bore cause by installation or removal operations. Permitted depth is 0.5mm

No Cracking is allowed. Contact Alan Keer (alan@acodesignservice.com) for engineering dispensation on all cracks.

Blending of Corrosion to a depth of 0.5mm is acceptable

Visual Inspection

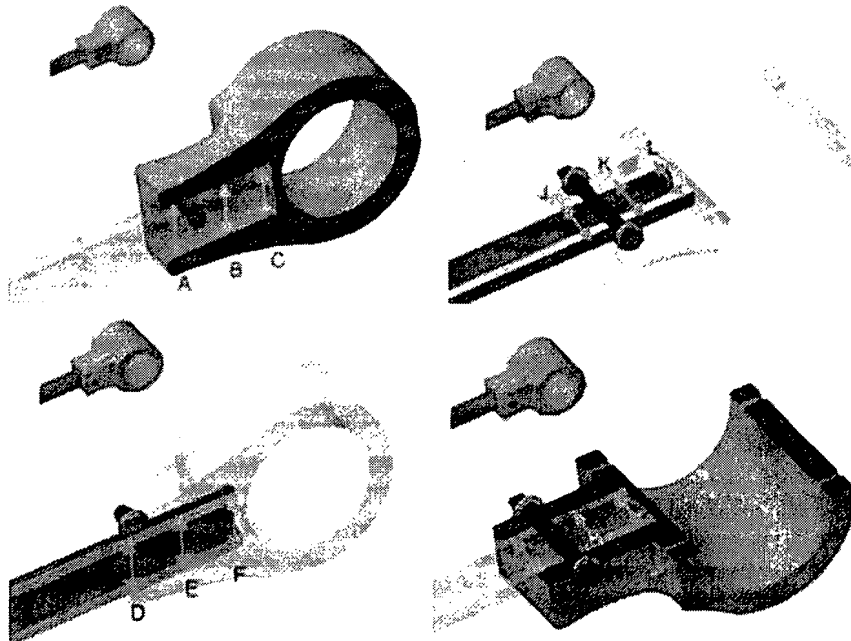
All Bolt Holes for elongation.
Obtain Engineering Dispensation if Oversize holes are required.

□ Figure 4

6.4. Reassembly in Service**6.4.1. Installation of the Balance Arm into the Stabilator Horn**

13.	<p>WARNING: Assembling the joint between the balance arm and the stabilator horn, is a process which requires speed and experience. If the process is not done correctly or if any unforeseen problems occur during the assembly then it is likely that the joint will lock before the balance arm is fully inserted into the horn. If this does occur you will need to apply heat (60-80 degrees Celsius) to the horn and use the puller to withdrawn the balance arm from the horn and start the process again.</p> <p>Suggestion: If this is the first time that you are attempting to assemble the joint in this way. Then it is suggested that you have at least one DRY practice run, using the original horn. Do Not apply the LOCTITE for the practice run.</p>
14.	<p>Identify the value of the bore diameter which is written on the release sheet for the stabilator horn and write this in the Measurement Table included at the end of these instructions.</p>

15. Use a 25 to 50mm (1 to 2 inch) micrometer to measure the outside diameter of the balance arm at the six locations "D", "E", "F", "J", "K", and "L" shown in the diagram opposite. .
Record the readings in the Measurement Table at the end of these instructions.
(Measurement Accuracy 0.0005")



Note: Dimensions "A", "B", "C" and "G", "H", and "I" are measurements of the "BORE" sizes, while "D", "E" and "F" and "J", "K", and "L" are measurements of the shaft diameter.

16. Calculate the level of interference at each of the six locations using the following relationship


$$\text{Interference} = \text{Shaft Diameter} - \text{Bore Diameter}$$



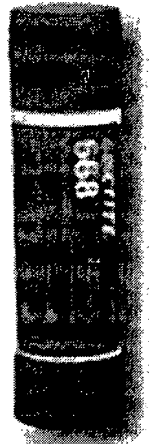
17. The allowable level of interference is within the range 0.000" to 0.002" (0.00mm to 0.05mm).

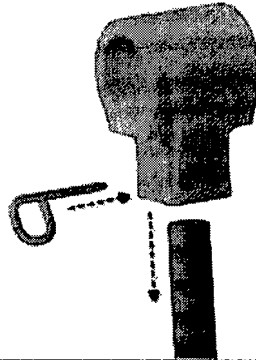
Note: This level of interference is applied to each of the individual measurement and not as an average value.

- If Interference is in range 0.000" to 0.002" (0.00mm to 0.05mm).
 - Interference is acceptable, proceed to next step in assembly sequence
- If interference is less than 0.000". (i.e. a negative number).
 - Replace balance arm, or
 - Seek Engineering Dispensation. Contact Alan Kerr
support@aerodesignservice.com
- if interference is higher than 0.002" (0.05mm)
 - Hone the bore in the stabilator to enlarge the diameter
 - Use TF6806 hone
 - Check the diameter regularly at the 6 locations "A", "B", "C", "G", "H", "I"
 - Diameter variation is not to exceed 0.001

Warning: Be careful when honing to ensure that the diameter along the length of the bore is uniform and not tapering. A tapered bore will make it more difficult to insert the balance arm

	<p>into the horn. Make the measurements regularly and adjust the honing technique to achieve this.</p> <p>Warning: Be careful not to allow the hone to bottom out in the bore as this may cause scoring on the end face. If uncorrected this scoring could lead to a premature failure of the Stabilator horn.</p>
18.	If there has been a need to hone the bore then measure record the final dimensions of the bore at the 6 locations "A", "B", "C", "G", "H", and "I" in the measurement table, and confirm that the level of interference is acceptable.
19.	Verify that the 0.25" Guide pin from the installation kit is a running fit in the stabilator horn and will traverse through both sides of the horn with only mild resistance. Ream the hole if required to achieve a running fit.
	<p>WARNING: Assembling the joint between the balance arm and the stabilator horn is a process which requires speed and experience. If the process is not done correctly or if any unforeseen problems occur during the assembly then it is likely that the joint will lock before the balance arm is fully inserted into the horn. If this occurs you will need to use a heat gun to apply heat (60 – 80 degrees Celsius) to the horn and use the puller to withdrawn the balance arm from the horn and start the process again.</p> <p>Suggestion: If this is the first time that you are attempting this assembly, then it is suggested that you have at least one DRY practice run, using the original horn. Do Not apply the LOCTITE for the practice run.</p> <p>Suggestion: It is suggested that assembling the balance arm into the stabilator horn be done using two people; one person to remove the horn from the oven and insert it over the balance arm, and one person to direct the alignment of the horn with the balance arm, and insert the pin.</p>
20.	<p>Clean the 28mm bore by wiping with a clean lint free cloth moistened with LOCTITE Cleaner Degreaser</p> 

21.	<p>Apply LOCTITE Primer (Product 7649 to the surface of the bore, and allow to dry)</p> 
22.	<p>Clean the mating surface of the balance arm using a clean lint free cloth moistened with LOCTITE Cleaner De Greaser.</p> 
23.	<p>Apply LOCTITE primer 7649 to the mating surface of the balance arm and allow to dry.</p>
24.	<p>Preheat the oven to 200degC +/- 10degC. (400degF +/- 20degF), then place the stabilator horn in the oven and allow to heat soak for 20 minutes.</p>
25.	<p>Stand the Balance arm in a vertical orientation and secure using a soft jawed vice. Orientate the balance arm so that axis of the 1/4" hole is pointing outward from the vice.</p>
26.	<p>Coat the mating surface of the balance arm with LOCTITE 668 Retaining Compound</p> <ul style="list-style-type: none"> 100% coverage up to 50mm (2inches) from the end of the tube 
27.	<p>Remove the horn from the oven.</p>
28.	<p>Hold the horn above the end of the balance arm and rotate the horn to obtain a correct alignment of the 1/4 inch hole in the horn with the 1/4 inch hole in the balance arm.</p>



29.	Quickly lower the horn onto the balance arm until it bottoms on the arm. Note: you may need to rotate the horn backwards and forwards to assist the sliding motion when inserting the horn. Don't forget to work quickly!
30.	Rotate the horn to obtain the correct alignment and insert the alignment pin. Note: you may need to raise the horn slightly (about 3mm (0.125inches)) to insert the alignment pin. The tapered end of the alignment pin will assist with this movement.
31.	Allow the assembly to cool to room temperature
32.	Remove excess LOCTITE from around the joint.
33.	Allow the joint to stand for at least 30 minutes for the LOCTITE to cure before moving the assembly.
34.	Remove the ¼ inch alignment pin.

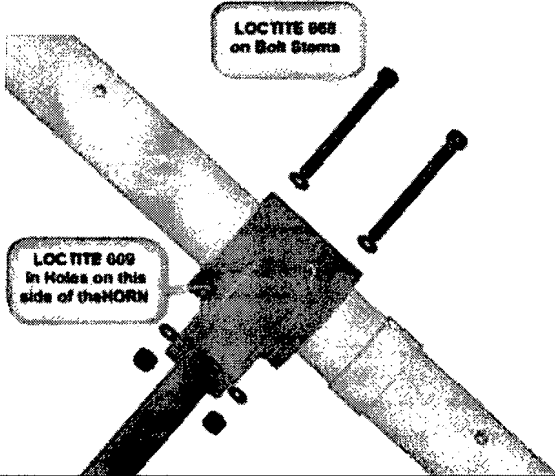
6.4.2. Assembly of the Stabilator Horn onto the Torque Tube

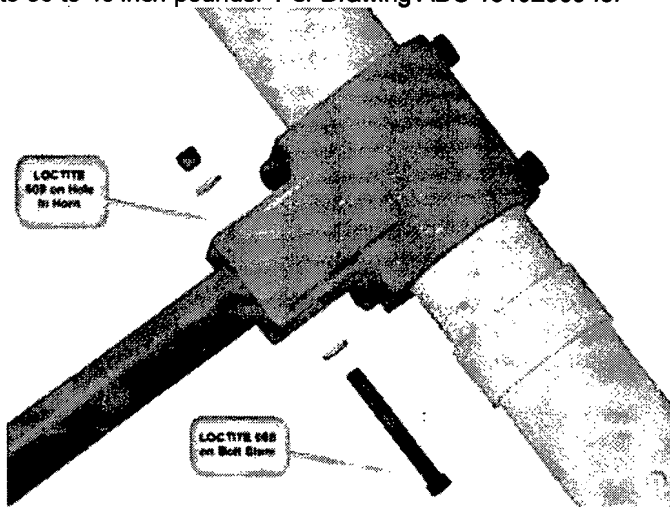
35.	<p>Torque Tube:</p> <ol style="list-style-type: none"> 1. Examine external Surface of torque tube for any surface defect which will prevent the new stabilator horn from being fitted. Corrosion, burrs, and bruising of the ends are examples of such defects. Note: Any assessment of the serviceability of the Torque Tube is to be made in accordance with the maintenance instructions provided in the PIPER Maintenance Manuals for the aircraft. 2. Blend any defects which are found to ensure a smooth surface. <ol style="list-style-type: none"> a. These blending operations will remove the plating which is applied to the torque tube for corrosion resistance. Blended areas will need to be treated before final assembly. Note: All blending and treating operations are to be done in accordance with the Piper Maintenance Manual
36.	<p>Stabilator Horn</p> <ol style="list-style-type: none"> 1. Examine the inside surface of the bore in the stabilator horn that will mate with the torque tube. 2. Verify that the bore is clean, free from any paint, or primer 3. Verify that there are no burrs on any of the edges or scratches in the bore.
37.	Examine the holes in the horn.

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PROJECT: COMANCHE STABILATOR HORN APPROVAL

	<ol style="list-style-type: none"> 1. Check that the hole has been correctly reamed to full depth 2. Clear the holes with the reamer if necessary
38.	Slide the Horn onto the torque tube and align it correctly with the attachment holes.
39.	Use a permanent spirit marker to mark where the edges of the horn are located on the torque tube
40.	Slide the horn off the torque tube.
41.	<p>Solvent Wipe the external surface of the torque tube using a clean lint free rag moistened with LOCTITE Cleaner Degreaser. Do not remove the marker lines.</p> <p>Note: Clean the area where the horn will be bolted and the section of the torque tube over which the horn will pass.</p>
42.	Clean the internal bore of the stabilator horn, in accordance with a clean lint free cloth moistened with LOCTITE Cleaner degreaser.
43.	Apply LOCTITE 668 to the surface of the torque between the marker lines. 100% coverage is required.
44.	<p>Slide the stabilator horn onto the tube until the leading edge is close to the marker lines.</p> <p>Note; Do Not slide past this point at this time. Monitor the orientation such that the holes in the horn and the tube will align when the two items are finally positioned.</p>
45.	<p>Use a rotating motion to push the horn onto the tube, until the holes are correctly aligned. (Use a short machining bush with the tapered end inwards as a guide for correct alignment if necessary.)</p>
46.	Apply LOCTITE 668 as a 15mm wide band below the heads of the AN5-34A bolts.
47.	Apply LOCTITE 609 onto the surfaces of the 5/16 hole in the Stab-Horn and Torque tube, on rear side of the stab horn. (i.e. the side away from the balance arm).
48.	<p>Install AN5-34A bolts from the front of the horn until fully seated on the horn.</p> 
49.	<p>Fit MS21083N-5 nuts and AN960L-516 washer. Torque nuts to 60 to 85 inch pounds. (ADS Dwg 1010250946 Refers).</p>

50.	<p>Coat the shank of the bolt 15mm from the head with LOCTITE 668 prior to installation. Install the AN4-22A Bolt, MS21044-4 nut and AN906-416 Torque Nut to 30 to 40 inch-pounds. Per Drawing ADS 1010250946.</p> 
51.	<p>Allow the LOCTITE to cure Apply TORQUE SEAL to the heads of all bolts and nuts.</p>
52.	<p>Apply PR1422 (PROSEAL) or similar to seal the edges of all of the joints between the stabilator horn, and the torque tube. Apply PROSEAL to all the exposed bolt joints as well, and if possible to the bolt joints on the inside of the tube as well.</p>
53.	<p>Repaint the torque tube assembly in the region between the two collars on the torque tube. Include the stabilator horn, and the balance arm.</p>

6.4.3. Installation of the Torque Tube Assembly into the Aircraft

54.	<p>Note: The LOCTITE will require 24 hours at Room Temperature to cure before attempting to reinstall the torque tube assembly into the aircraft.</p>
55.	<p>Reinstall the torque tube assembly on the aircraft in the reverse order of the removal process. Torque the bearing block bolts per the fine thread series of the torque table in the "Handling and Servicing Section of the Service Manual.</p>

6.4.4. Installation of the LH and RH Stabilator halves

56.	<p>Note: Stabilator attachment bolts require one thin washer under each bolt head, one thick washer under the inboard attach fitting nut, and two thick washers under the outboard attach fitting nut.</p>
57.	<p>Ensure that the attach fittings in the stabilator halves are lubricated and free of corrosion. If Necessary lubricate the torque tube to facilitate installation of the stabilator halves.</p>
58.	<p>Slide the left hand stabilator half onto the torque tube assembly. Position the stabilator attachment fitting holes so that they are in line with the torque tube holes. Install new bolts to secure the stabilator half.</p>
59.	<p>Slide the right hand stabilator half onto the torque tube assembly. Position the stabilator attachment fitting holes so that they are in line with the torque tube holes. Install new bolts to secure the stabilator half.</p>
60.	<p>Install a new bolt in the stabilator rear spar.</p>

AERONAUTICAL DESIGN SERVICE REPORTREPORT NO
ADS 100517-1-15-FAA**PROJECT: COMANCHE STABILATOR HORN APPROVAL**

61.	Install a new bolt in the stabilator trim tab horn. Torque the bolt per the fine thread series in the "Handling and Servicing" Section of the service manual
62.	Reinstall the stabilator balance weight.
63.	<p>Balance the Stabilator in accordance with the Balancing procedures specified the applicable Piper Comanche Service Manual.</p> <p>Note: Having the stabilator correctly balanced cannot be overemphasized. Installation of the replacement horn has the potential to change the balance. It is important therefore to check that the stabilator is correctly balanced.</p>
64.	Reconnect the stabilator control cables with new bolts.
65.	<p>Check the stabilator, and stabilator trim rigging in accordance with the rigging requirements that are stated in the applicable service manual. Adjust as required. Torque bolts per fine thread series torque tables in the "Handling and Servicing" Section of the service manual.</p> <p>Note: Installation of the replacement stabilator horn has the potential to alter the rigging. DO Not omit this step from the installation procedures</p>



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark N6244P	Serial No. 24-1349		
	Make PIPER	Model PA-24-250	Series N/A	
2. Owner	Name (As shown on registration certificate) WWJ CORP		Address (As shown on registration certificate) Address 3 WIDEFIELD BLVD	
			City COLORADO SPRINGS	State COLORADO
			Zip 80911-2126	Country USA

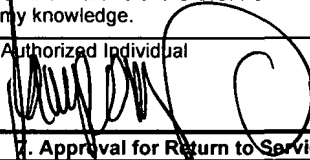
3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name FRANCISCO JIMENEZ JR		<input checked="" type="checkbox"/> U. S. Certificated Mechanic	Manufacturer
Address 2898 MONTECITO ROAD HANGER G		<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City RAMONA State CA		<input type="checkbox"/> Certificated Repair Station	
Zip 92065 Country USA		<input type="checkbox"/> Certificated Maintenance Organization	AP3230538

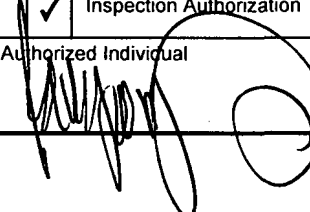
D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual  05-04-2012
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	Inspection Authorization <input checked="" type="checkbox"/>	

Certificate or Designation No. 3230538IA	Signature/Date of Authorized Individual  05-04-2012
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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.)

N6244P

Nationality and Registration Mark

05-04-2012

Date

1. INSTALLED LO PRESTI SPEED SLIPPER + SPEED SPATS I.A.W. STC SA3077SO AND INSTALLATION INSTRUCTIONS LSM-100-001 | 004 REV B 07/12/06 | REV C 10/28/11
2. AIRCRAFT LANDING GEAR SWING AND OPS SATISFACTORY. FLIGHT TEST SATISFACTORY
3. WEIGHT AND BALANCE UPDATED TO REFLECT CHANGES

--INSTRUCTIONS FOR CONTINUED AIRWORTHINESS--

1. INSPECT INSTALLATION FOR SECURITY OF THE SPEED SPATS AND SPEED SLIPPER. REPLACE ANY LOOSE RIVETS.
2. INSPECT SPEED SPAT AND SPEED SLIPPER PARTS FOR CRACKS. ANY CRACKS SHOULD BE STOP DRILLED WITH A #30 DRILL BIT.

-----END-----

☐ Additional Sheets Are Attached

United States of America
Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate

Number SA3077SO

This certificate, issued to LoPresti Speed Merchants
260 Seagull Avenue
Vero Beach, FL 32960

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Aviation Regulations.

Original Product — Type Certificate Number: 1A15
Make: Piper
Model: PA-24, -250, -260, and -400

Description of Type Design Change:
Installation of "speed spats" main landing gear fairings and/or installation of "Comanche speed slipper" nose gear fairing in accordance with LoPresti Speed Merchants MDL Report No. 1, Revision "B", dated October 25, 1991 and MDL Report No. 2, dated October 25, 1991, respectively, or later FAA approved revision.

Limitations and Conditions:
This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will produce no adverse effect upon the airworthiness of that airplane.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 16, 1991

Date received:

Date of issuance: December 6, 1991

Date amended: January 8, 1992

By direction of the Administrator



(Signature)
John Tighe
Manager, Atlanta Aircraft
Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

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1. Aircraft	Nationality and Registration Mark USA N6244P	Serial No. 24-1349	
	Make PIPER	Model PA24-250	Series PA24
2. Owner	Name (As shown on registration certificate) WMJ CORPORATION	Address (As shown on registration certificate) Address 3 WIDEFIELD BLVD City COLORADO SPRINGS State COLORADO Zip 80911-2126 Country USA	

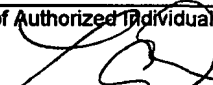
3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
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<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

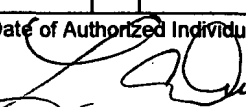
A. Agency's Name and Address		B. Kind of Agency	
Name NATRONA AVIONICS LLC		<input type="checkbox"/> U. S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address 7856C FULLER STREET		<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City CASPER State WYOMING		<input checked="" type="checkbox"/> Certificated Repair Station	N4NR506Y
Zip 82604 Country USA		<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual  10/22/2011
--	---

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	
Certificate or Designation No. N4NR506Y		Signature/Date of Authorized Individual  10/22/2011		

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.)

USA N6244P

PIPER PA24-250

S/N 24-1349

10/22/2011

(Radio Installation per AC43.13-2B Chapter 2.)

System: The Installation of a GARMIN GDL-69 XM WX Data link Transceiver per STC SA01487SE for the GDL-69 dated 12/20/04 for the first time airworthiness approval. The GDL-69 was mounted on the aft Avionics Shelf (Sta. 150.00). Instrument mounting per AC43.13-2B Chapter 2.

Wiring: The GDL-69 was wired to the Battery Master through a 5 AMP W58-5 circuit breaker with Mil 22759/16 18 AWG wire, (Wire selected per AC43.13-1B, Chapter 11 sec 5-7 and AC43.13-1B Chapter 11 Sec 4 para 11-47 to 11-50 circuit protection). Load analysis was accomplished per AC43.13-1B Chapter 11 Sec 4, para 11-55 and was found to be acceptable. Wire routing, tying and clamping was accomplished per AC43.13-1B Chapter 11 Sec 9 paras 11-115 to 11-121 and Sec 10-12.

Displayed Information: All information is displayed on the GNS-530W.

Antennas: A Garmin GA-55 Antenna was mounted on the aft fuselage left of centerline (Sta. 176.00). The Antenna was installed per AC43-13.2B Chapter 3.

Operational Flight and Ground Checks The Garmin checkout procedures for the GNS-530W and GDL-69 were satisfactorily completed. All systems operated in accordance with the manufacturers instructions and did not interfere with the normal operation of the other equipment installed in the aircraft.

Unit	Manual or Drawing Reference	Circuit Protection	Wire
GDL-69 Install	190-00355-02 Rev. K 4/1/2011	5 Amp	18 AWG

Weight and Balance/Equipment List Updated __10/22/2010__ (AC43.13-1B Chapter 10)

Instructions for continued airworthiness refer to Garmin Document 190-00355-00 Rev. A, GNS-530W, and GDL-69 Install manual, maintenance manual, and this 337. Inspect IAW FAR 43, Appendix D.

-----END-----



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark USA N6244P	Serial No. 24-1349	
	Make PIPER	Model PA24-250	Series PA24
2. Owner	Name (As shown on registration certificate) WMJ CORPORATION	Address (As shown on registration certificate) Address 3 WIDEFIELD BLVD City COLORADO SPRINGS State COLORADO Zip 80911-2128 Country USA	

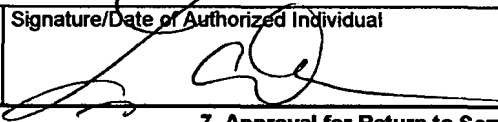
3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name	NATRONA AVIONICS LLC	<input type="checkbox"/> U. S. Certified Mechanic	<input type="checkbox"/> Manufacturer
Address	7856C FULLER STREET	<input type="checkbox"/> Foreign Certified Mechanic	C. Certificate No.
City	CASPER State WYOMING	<input checked="" type="checkbox"/> Certified Repair Station	N4NR506Y
Zip	82604 Country USA	<input type="checkbox"/> Certified Maintenance Organization	

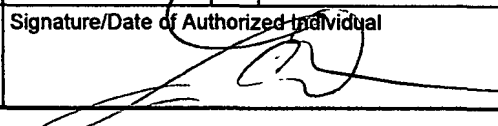
D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual  10/22/2011
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	

Certificate or Designation No. N4NR506Y	Signature/Date of Authorized Individual  10/22/2011
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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.)

USA N6244P PIPER PA24-250 S/N 24-1349 10/22/2011

(Radio Installation per AC43.13-2B Chapter 2.)

System: The installation of a JPI EGT-701 Temperature Monitoring system TSO C43b for EGT, CHT, and fuel flow per STC SA2586NM Dated June 17, 1999 and STC SA00432SE dated 12/18/2000 amended.

Operational Flight and Ground Checks: The post Install checkout procedures for the JPI EDM-730 were satisfactorily completed. All systems operated in accordance with the manufacturers instructions and did not interfere with the normal operation of the other equipment installed in the aircraft.

<u>Unit</u>	<u>Manual or Drawing Reference</u>	<u>Circuit Protection</u>	<u>Wire</u>
EDM-730 Install Manual #103	Rev. E 1/20/2009	2 AMP	22 AWG

Fuel Flow Install manual #503 Rev. B 3/14/97

EDM-730 Pilot's Guide Rev. C 6/1/2010

Weight and Balance/Equipment List Updated __10/22/2011__ (AC43.13-1B Chapter 10)

FAA Approved Flight Manual Supplement Dated 11/12/92

Instructions for continued airworthiness refer to EDM-730 and fuel flow Install manual, maintenance manual, and this 337. Inspect IAW FAR 43, Appendix D.

END

☐ Additional Sheets are Attached



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark USA N6244P	Serial No. 24-1349	
	Make PIPER	Model PA24-250	Series PA24
2. Owner	Name (As shown on registration certificate) WMJ CORPORATION	Address (As shown on registration certificate) Address 3 WIDEFIELD BLVD City COLORADO SPRINGS State COLORADO Zip 80911-2126 Country USA	

3. For FAA Use Only

"The technical data identified herein has been found to comply with the applicable airworthiness requirements and is hereby approved for use only on the above described aircraft, subject to a conformity inspection by a person in FAR 43.7"

FAA APPROVED [Signature] ANM04 DATE 10/24/2011

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME		(As described in Item 1 above)	
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name NATRONA AVIONICS LLC		U. S. Certificated Mechanic	Manufacturer
Address 7956C FULLER STREET		Foreign Certificated Mechanic	C. Certificate No.
City CASPER State WYOMING		<input checked="" type="checkbox"/> Certificated Repair Station	N4NR506Y
Zip 82604 Country USA		Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <u>[Signature]</u> 10/24/2011
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)
Certificate or Designation No. N4NR506Y		Signature/Date of Authorized Individual <u>[Signature]</u> 10/24/2011		

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.)

USA N6244P

PIPER PA24-250

S/N 24-1349

10/22/2011

IFR APPROVAL

System: This is a follow-on installation of a Garmin GNS-530W GPS/VOR/LOC/GS/WAAS/Terrain Receiver with an internal 760 channel VHF Communications Transceiver per STC SA01933LA, dated 12/21/2006 for the first time air worthiness approval criteria.

Unit: The Garmin GNS-530W Unit, Software version 3.30, was installed per manuals listed below. The GNS-530W was mounted in the left Radio Stack (Sta.62.00) previously occupied by the #1 VHF-251 and DME-190. Instrument panel mounting per AC43.13-2B Chapter 2.

Antenna: A Garmin GA-35 GPS/WAAS Antenna was mounted on the top aft fuselage right of centerline (Sta. 176.00). The existing Comm, Nav and GS antennas were used. Antennas were mounted per AC43.13-2B Chapter 3.

Wiring: The Garmin GNS-530W system was wired to the Battery Master electrical buss through a 10 amp Klixon 7277-2-10 circuit breaker with a 18 AWG Mil22759/16 and a 5 amp W58-5 circuit breaker with 22 AWG Mil22759/16 wires. (Wire selected per AC43.13-1B, Chapter 11, Sec 5-7 and AC43.13-1B Chapter 11, Sec 4, para 11-47 to 11-50 circuit protection). Load analysis accomplished per AC43.13-1B, Chapter 11, Sec 4 para 11-55 and was found to be acceptable. Wire routing, tying and clamping were accomplished per AC43.13-1B Chapter 11, Sec 9 paras 11-115 to 11-121 and Sec 10-12

Switching and Annunciation: Provided by the GNS 530W unit. Display is on a Garmin GI-106A Course Indicator. No external switching/annunciation is required.

Operational Flight and ground Checks: The GARMIN post install checkout procedures for the GNS 530W Section 5 were satisfactorily completed. (VHF TX harmonic test per para 10, Note 2 FSAW 94-32A (amended) dated 10/18/95. The system operated in accordance with manufacturer's specifications and did not interfere with the other equipment installed in the aircraft. The following paragraphs from AC20-138A provide the basis for IFR approval. 8c(1)(ii) found the GNS 530W system to meet all the requirements for installation in this aircraft. 8c(3) A flight data evaluation was conducted and the installation was found to be acceptable. All functions of the GPS system interface, controls, and system operation were checked and found to be correct.

Documents Provided:

GNS 530W Pilot's guide	190-00357-00 Rev. G 4/10
GNS-530W Quick reference guide	190-00357-01 Rev. F 1/10
Garmin Optional displays Pilot's Guide Addendum	190-00356-30 Rev H 7/10

FAA Approved Flight Manual Supplement Dated 7/2009 Revision B.

<u>Unit</u>	<u>Manual or Drawing</u>	<u>Circuit Protector</u>	<u>Wire</u>
GNS-530W	190-00357-08 Rev. E Sep 1, 2011	10/5 Amp	18/22 AWG

Weight and Balance/Equipment List Updated 10/22/2011 (AC43.13-1B Chapter 10)

Instructions for continued airworthiness refer to GNS-530W Install, maintenance manual, ICA P/N 190-00357-65, and this 337. Inspect IAW FAR 43, Appendix D.

☐ Additional Sheets are Attached



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

NM03

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 PA24-250
	Serial No. 24-1349	Nationality and Registration Mark N6244P
2. Owner	Name (As shown on registration certificate) Underwood Aviation Services, LLC	Address (As shown on registration certificate) 2815 N. Chelton Colorado Springs, CO 80909

3. For FAA Use Only

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 Neil D. Wickliff 7950 Windfall Way Black Forest, CO 80908	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. A&P 484664369
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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 May 5, 2005	Signature of Authorized Individual <i>Neil D. Wickliff</i>
---------------------	---

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 May 5, 2005		Certificate or Designation No. IA 484664369		Signature of Authorized Individual <i>Neil D. Wickliff</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.

[illegible]

U.S.GPO:1989-0-663-171

SUPPLEMENTAL TYPE CERTIFICATE

INSTRUCTIONS - Submit in triplicate to local CAA Aviation Safety Agent. Copy will be returned to applicant upon issuance.

1. NAME AND ADDRESS OF APPLICANT

Symons Engineering
Box 90002 Airport Station
Los Angeles 90, California

2. SUPPLEMENTAL TYPE CERTIFICATE APPLIED FOR:

☒ AIRCRAFT ☐ ENGINE ☐ PROPELLER

ORIGINAL MODEL DESIGNATION

PA-24-

NEW MODEL DESIGNATION (If desired)

None

3. DESCRIPTION OF CHANGE

Installation of 20 gallon auxiliary fuel tank in the baggage compartment in accordance with Symons Engineering Installation Instructions - Piper-24 series, 20 gallon fuel tank, Drawing No. SY-116 and SY-116A, dated July 1, 1959.

LIMITATION ON APPLICABILITY: This approval should not be extended to other specific airplanes of this model on which other previously approved modifications are incorporated, unless it is determined that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of that airplane.

OPERATING LIMITATIONS: This modification approved for installation on PA-24 series aircraft S/N PA-24-1 and PA-24-103 and subsequent only.

4a. WILL DATA BE AVAILABLE FOR SALE OR RELEASE TO OTHER PERSONS?

☐ YES ☒ NO

b. WILL PARTS BE MANUFACTURED FOR SALE (Ref. CAR 1.55)?

☒ YES ☐ NO

5. SIGNATURE AND TITLE OF APPLICANT

March 25, 1960

DATE OF APPLICATION

SIGNATURE

TITLE

6. TO BE COMPLETED BY CAA-FAA

NATURE AND LOCATION OF DATA

Forms ACA-1600 and 337, photographs, sealed copy of Symons Engineering Parts List No. 9000 and Installation Instructions dated 7-1-59 are on file at the Aircraft Engineering Division, Region IV, Los Angeles 45, California.

Certification Basis: CAR 3

Symons Engineering Airplane Flight Manual Supplement (dated March 30, 1960) to Piper FAA approved Flight Manual is required as part of this installation.

ORIGINAL TYPE CERTIFICATE NO.

1415

SUPPLEMENTAL TYPE CERTIFICATE NO.

SA4-971

DATE OF APPROVAL

November 9, 1959 (Revised 3-25-60)

CAA APPROVAL

FAA

SIGNATURE

Chief, Aircraft Engineering Division

TITLE

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				Form Approval ONB No. 2120-0020	
				For FAA Use Only	
				Office Identification <i>AWM FAW-03 JAC</i>	
US Department of Transportation Federal Aviation Administration					
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).					
1. Aircraft	Make Piper		Model PA-24-250		
	Serial No. 24-1349		Nationality and Registration Mark USA N6244P		
2. Owner	Name (As shown on registration certificate) Underwood Aviation Services LLC		Address (As shown on registration certificate) 2815 North Chelton Rd Colorado Springs CO 80909		
3. For FAA Use Only					
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		B. Kind of Agency		C. Certificate No.	
James A. Schwab 13695 Woodlake Rd Elbert CO 80106		X	U.S. Certified Mechanic	268580933	
			Foreign Certified Mechanic		
			Certificated Repair Station		
			Manufacturer		
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 02/25/2004		Signature of Authorized Individual James A. Schwab <i>James A. Schwab</i>			
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA Flt. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)	
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group		
Date of Approval or Rejection 02/25/04		Certificate or Designation No. 268580933	Signature of Authorized Individual James A. Schwab <i>James A. Schwab</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 aircraft nationality and registration mark and date work completed.)
Piper PA-24-250 N6244P S/N 24-1349 Date: February 25, 2004

Removed:
Narco AT-150 Transponder from Sta. Loc. 62
STS 120MC Loran-C Receiver from Sta. 62

Installed:
Garmin GTX-327 Transponder at Sta. Loc. 62 IAW Garmin Installation Manual P/N 190-00187-02 Rev. J Dated May 2003.
Removed existing transponder antenna NPN and replaced with Comant CI-105 Transponder antenna mounted using MS20365-1032A nuts and AN960-10 washers.

All work accomplished in accordance with AC 43.12-1B, Chapter 11 Sections 7,9,12,15,16,17,19, Chapter 12 Section 2, and AC43.13-2A Chapter 3 Figure 3.2 and Figure 3.6.

Weight and balance has been revised.

Log book entry has been made.

Continued airworthiness is contingent upon compliance with manufacturer's recommendations or FAA approved inspection program. Continued airworthiness for the Garmin GTX-327 Transponder is contingent upon an inspection and function test IAW FAA FAR 43 Appendix E as required by FAA FAR 91.413.

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				Form Approved Budget Bureau No. 04-R060.1 FOR FAA USE ONLY OFFICE IDENTIFICATION ABQ FSDO	
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.					
1. AIRCRAFT	MAKE Piper		MODEL PA24-250		
	SERIAL NO. 24-1349		NATIONALITY AND REGISTRATION MARK N6244P		
2. OWNER	NAME (As shown on registration certificate) David A. DeMunbrun		ADDRESS (As shown on registration certificate) 509 Timber Oaks El Paso, TX 79925		
	3. FOR FAA USE ONLY				
RECEIVED NOV 06 1989 ABQ FSDO					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
Elgin A. Esensee 10330 Gateway N., #1-D El Paso, TX 79924			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC		A&P461686008
			<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC		
			<input type="checkbox"/> CERTIFICATED REPAIR STATION		
			<input type="checkbox"/> MANUFACTURER		
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 11/01/89			SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Elgin A. Esensee</i>		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	OTHER (Specify)	
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/>		
DATE OF APPROVAL OR REJECTION 11/01/89		CERTIFICATE OR DESIGNATION NO. A&P461686008		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Elgin A. Esensee</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.)

Repaired lower bulkhead assemblies at fuselage stations 105 and 136. Repaired lower left side of fuselage firewall. Repaired engine mount. Replaced left and right side bottom rear fuselage side skins, bottom center rear fuselage skin and bottom rear fuselage skin. Repaired right flap assembly. Repairs were accomplished in accordance with F.A.A. A.C. 43.13-1A, Chapter 2, Section 3. There was no change in weight and balance.

-----END-----

☐ ADDITIONAL SHEETS ARE ATTACHED

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-RM60.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FAA USE ONLY	
				OFFICE IDENTIFICATION SW-FSDO-61	
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.					
1. AIRCRAFT	MAKE Piper		MODEL PA24-250		
	SERIAL NO. 1349		NATIONALITY AND REGISTRATION MARK N6244P		
2. OWNER	NAME (As shown on registration certificate) David A. DeMunbrun		ADDRESS (As shown on registration certificate) 509 Timber Oaks El Paso, Tx. 79925		
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT					X
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
Julie's Aircraft Service 6805 Boeing Dr. El Paso, Tx. 79925			U.S. CERTIFICATED MECHANIC		JULR259K Class 1&2
			FOREIGN CERTIFICATED MECHANIC		
			X CERTIFICATED REPAIR STATION		
			MANUFACTURER		
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 March 22, 1989			SIGNATURE OF AUTHORIZED INDIVIDUAL <i>R. Guesare</i>		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION		OTHER (Specify)
	FAA DESIGNEE	X REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTION OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION 3/2/89		CERTIFICATE OR DESIGNATION NO. JULR259K		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>R. Guesare</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.)

Installed STS 120MC, Loran-C receiver, s/n 90200140, in accordance with the manufacturer's installation manual and AC 43.13-2A, chapter 2, paragraph 21 & 40. Aircraft placard'd " Loran-C approved for VFR only" as per manufacturer's instructions. Reference weight & balance data this date for W&B change.

=====END=====

31-13-001

☐ ADDITIONAL SHEETS ARE ATTACHED

JUL 22 1987

JUL 02 1987

OK

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FAA USE ONLY	
				OFFICE IDENTIFICATION	
				SW FSDO 61	
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.					
1. AIRCRAFT	MAKE	PIPER		MODEL	PA-24-250
	SERIAL NO.	24-1349		NATIONALITY AND REGISTRATION MARK	N6244P
2. OWNER	NAME (As shown on registration certificate)			ADDRESS (As shown on registration certificate)	
	DAVE DEMUNBRUN			509 TIMBER OAKS DR. EL PASO, TX. 79932	
3. FOR FAA USE ONLY					
<p>The data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized by FAR Part 43, Section 43.7.</p> <p>SW-FSDO-61 MAY 27 1987 <i>David A. Carreni</i> District Office Date Signature of FAA Inspector</p>					
4. UNIT IDENTIFICATION					5. TYPE
UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				XXXXXX
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY		C. CERTIFICATE NO.	
J.A. CARREON 3413 A HICKMAN EL PASO, TX. 79936		<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		APL65788975 IA	
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			
27 MAY '87		<i>J.A. Carreni</i>			
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION		CERTIFICATE OR DESIGNATION NO.		SIGNATURE OF AUTHORIZED INDIVIDUAL	
27 MAY '87		APL65788975 IA		<i>J.A. Carreni</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.)

PA 24-250 S/N 24-1349 WAS ALTERED ON 27 MAY '87 AS FOLLOWS:

REMOVED ITEMS:

- 1 ea. LEAR CONTROL 23026 (from pilot radio stack)
- 1 ea. LEAR INDICATOR 2330A (from instr. panel, center)
- 1 ea. LEAR RECEIVER 55150 (from aft fuselage avionic shelf)
- 1 ea. LEAR FIXED LOOP ANT (from aft fuse. bottom, beneath baggage comp. deck)

INSTALLED ITEMS:

- 1 ea. MARCO DME -190 (pilots radio stack)
- 1 ea. BENDIX ADF T-12C (co-pilot radio stack)
- 1 ea. BENDIX ADF IND. (instr. panel)
- 1 ea. BENDIX LOOP ANT. (bottom fuse. beneath rear seat)
- 1 ea. MARCO UCR-2 G/S RXR (aft fuse. avionic shelf)
- 1 ea. AERO MECH BLIND ENCODER (behind co-pilot instr. panel)
- 1 ea. DAVTRON SOLB CLOCK (pilot panel above radio stack)

A/C SKIN PATCHED WHERE OLD ADF ANT. REMOVED I.A.W. FAR AC 43.13-1A, CHAP. 2, SECT. 2, PARA. 100. GLIDESLOPE INSTALLATION UTILIZED EXISTING WIRING AND CONNECTORS (from old G/S). INSTALLED AD-9 NAV/G/S SIGNAL SPLITTER. INSTALLED "T" IN STATIC SYSTEM LINE BEHIND AIRSPEED INDICATOR (for blind encoder). TESTED A/C STATIC SYSTEM IAW FAR 91.171, AND PART 43, APPX. E. AS WELL AS FAR 91.36. WIRED BLIND ENCODER TO MARCO AT-50A TRANSPONDER PER AC 43.13-1A, CHAP. 11, SECT. 3 and 7, AND APPLICABLE MANUFACTURERS INSTRUCTIONS. ALL AVIONICS EQUIPMENT MOUNTED IN SPACES PROVIDED FOR THAT PURPOSE BY THE AIRFRAME MAN. WITH AN SCREWS AND LOCKING NUTS I.A.W. AC 43.13-1A, CHAP. 5, SECT. 1, PARA. 228 and 230. ALL EQUIPMENT PROTECTED BY CIRCUIT BREAKERS MOUNTED IN SPACES PROVIDED BY THE AIRFRAME MFG. A/C NORMAL RUNNING ELECTRICAL LOAD DOES NOT EXCEED THE ALTERNATOR MAXIMUM OUTPUT AS DETERMINED BY AC 43.13-1A, CHAP. 11, SECT. 2, PARA. 128. A/C MAGNETIC COMPASS SWUNG AND CORRECTED ACCORDINGLY. A/C WEIGHT AND BALANCE DATA AND EQUIPMENT LIST UPDATED ACCORDINGLY.

END

☐ ADDITIONAL SHEETS ARE ATTACHED

JUN 02 1987

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FAA USE ONLY	
				OFFICE IDENTIFICATION SW-FSDO-01	
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.					
1. AIRCRAFT	MAKE	PIPER		MODEL	PA -24-250
	SERIAL NO.	24-1349		NATIONALITY AND REGISTRATION MARK	N624LP
2. OWNER	NAME (As shown on registration certificate)			ADDRESS (As shown on registration certificate)	
	DAVE DEMUNERON			509 TIMBER OAKS DR. EL PASO, TX. 79932	
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
FLYTRONICS 6805 BOEING EL PASO, TX. 79925			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		#261-L0
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 27 MAY 1987			SIGNATURE OF AUTHORIZED INDIVIDUAL J. A. Carver		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 27 MAY 1987		CERTIFICATE OR DESIGNATION NO. 46578975 DA		SIGNATURE OF AUTHORIZED INDIVIDUAL J. A. Carver	

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.)

PA-24-250 WAS ALTERED ON 27 MAY 1987 AS FOLLOWS:

REMOVED ITEMS:

- 1 ea. LEAR CONTROL 23026 (from pilots radio stack)
- 1 ea. LEAR INDICATOR 2330A (instrument panel)
- 1 ea. LEAR RECEIVER 5515G (aft fuselage avionics shelf)
- 1 ea. LEAR FIXED LOOP ANTENNA (aft fuselage, beneath baggage comp. deck)

INSTALLED ITEMS:

- 1 ea. NARCO DME-190 (pilots radio stack)
- 1 ea. BENDIX ADF T-12C (co-pilots radio stack)
- 1 ea. BENDIX ADF INDICATOR (instrument panel)
- 1 ea. BENDIX LOOP ANTENNA (bottom fuselage beneath rear seat)
- 1 ea. NARCO UGR-2 G/S RECEIVER (aft fuselage avionics shelf)
- 1 ea. AERO-MECH AM250-C2C BLIND ENCODER (INST. PANEL CO-PILOTS SIDE)
- 1 ea. DAVTRON 801B CLOCK (pilots panel above radio stack)

A/C SKIN PATCHED WHERE OLD A.D.F. ANTENNA WAS REMOVED I.A.W. F.A.R. A/C 43.13-1A CHAPTER 2, SECTION 3, PAR. 100. GLIDESLOPE INSTALLATION UTILIZED EXISTING WIRING AND CONNECTORS. INSTALLED ANTENNA DEVELOPEMENT AD-9 NAV ANTENNA TRI-FLYER. INSTALLED "T" IN STATIC SYSTEM LINE BEHIND AIRSPEED INDICATOR. TESTED A/C STATIC SYSTEM I.A.W. F.A.R. 91.171 AND 91.36 AFTER INSTALLING BLIND ENCODER AND WIRING IT TO NARCO AT-50A TRANSPONDER PER F.A.R. AC 43.13-1A, CHAPTER 11, SECTIONS 3 AND 7. ALL RADIO RACKS MOUNTED IN SPACES PROVIDED BY THE AIRFRAME MFG. WITH AN SCREWS AN LOCKING NUTS I.A.W. A/C 43.13-1A, CHAPTER 5, SECTION 1, PAR. 228 and 230. ALL EQUIPMENT PROTECTED WITH CIRCUIT BREAKERS MOUNTED IN SPACES PROVIDED BY AIRFRAME MFG. A/C NORMAL RUNNING ELECTRICAL LOAD DOES NOT EXCEED ALTERNATOR MAXIMUM OUTPUT, AS DETERMINED BY A/C 43.13-1A, CHAPTER 11, SECTION 2, PAR. 428. A/c; MAGNETIC COMPASS SWUNG AND CORRECTED ACCORDINGLY. A/C WEIGHT AND BALANCE INFORMATION AND EQUIPMENT LIST REVISED ACCORDINGLY.

☐ ADDITIONAL SHEETS ARE ATTACHED

U. S. DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Form Approved. Budget Bureau No. 41-RM1.5
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT		INSTRUCTIONS Please print or type. Submit this form to the Civil Aeronautics Administration Aviation Safety Field Representative.
1. TYPE OF APPLICATION (Check which)		
<input checked="" type="checkbox"/> ORIGINAL ISSUANCE OF CERTIFICATE <input type="checkbox"/> ANNUAL INSPECTION FOR RENEWAL OF CERTIFICATE <input type="checkbox"/> AMENDMENT OR MODIFICATION OF CURRENT CERTIFICATE <input type="checkbox"/> RECERTIFICATION UNDER THE PROVISIONS OF CAR 8 <input type="checkbox"/> MULTIPLE CERTIFICATE UNDER THE PROVISIONS OF CAR 8		
2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s)) It is requested that the Certificate of Airworthiness be issued to permit operation of the aircraft in the following airworthiness classification(s):		
<input checked="" type="checkbox"/> STANDARD (NORMAL, UTILITY, ACROBATIC, STEEP CLIMB CATEGORIES) <input type="checkbox"/> LIMITED (SEE CAR 9) <input type="checkbox"/> RESTRICTED (SEE CAR 8) (Check the restricted special purpose operation(s) to be conducted) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> AGRICULTURAL AND PEST CONTROL <input type="checkbox"/> AERIAL ADVERTISING <input type="checkbox"/> AERIAL SURVEYING <input type="checkbox"/> GLIDER TOWING </div> <div style="width: 45%;"> <input type="checkbox"/> PATROLLING <input type="checkbox"/> FOREST AND WILDLIFE CONSERVATION <input type="checkbox"/> WEATHER CONTROL <input type="checkbox"/> OTHER </div> </div> <input type="checkbox"/> EXPERIMENTAL (Check the type of experimental operation(s) to be conducted) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> RESEARCH AND DEVELOPMENT <input type="checkbox"/> AMATEUR-BUILT <input type="checkbox"/> DEMONSTRATION </div> <div style="width: 45%;"> <input type="checkbox"/> RACING <input type="checkbox"/> EXHIBITION <input type="checkbox"/> OTHER </div> </div>		
3. AIRCRAFT IDENTIFICATION (Complete all items)		
a. AIRCRAFT MAKE Piper	b. AIRCRAFT MODEL PA-24 "250"	c. AIRCRAFT SERIAL NO. 24-1349
d. ENGINE MAKE Lycoming		e. ENGINE MODEL O-540-A1C5
4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)		
a. REGISTERED OWNER'S FULL NAME PIPER AIRCRAFT CORPORATION	b. PERMANENT MAILING ADDRESS LOCK HAVEN, PENNA.	c. AIRCRAFT NATIONALITY AND REGISTRATION MARK N-6244P
5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item) I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:		
<input type="checkbox"/> CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE _____ <input type="checkbox"/> APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____ (DATE) <input checked="" type="checkbox"/> DEALER'S REGISTRATION, CERTIFICATE, FORM ACA-1707, DATED December 8, 1959		
<p>*In order to be eligible for registration an aircraft must be owned by a citizen of the United States, as defined by Section 1 (15) of the Civil Aeronautics Act of 1938, as amended.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>ATTACHMENTS (Check which)</p> <input type="checkbox"/> ACA-313 <input type="checkbox"/> WEIGHT AND BALANCE REPORT <input type="checkbox"/> ACA-337 <input type="checkbox"/> DATA, DRAWINGS, ETC. <input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA </div> <div style="width: 55%;"> <p>I hereby certify that the above statements are true.</p> <p style="text-align: center;"><i>Virginia H. Hargrave</i> (SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)</p> <p>August 26, 1959 Supv. Order & Del. Dept. (DATE) (TITLE)</p> </div> </div>		

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

AIRCRAFT INSPECTION REPORT

(To be completed by a CAA representative or approved repair station)

The aircraft described in Item 3 on the reverse of this form has been inspected and found to conform to the following:
(Check and complete applicable items)

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS

- a. ☒ AIRCRAFT SPECIFICATION NO. 1A15 THROUGH SHEET REVISION NO. 7
b. ☐ AIRCRAFT LISTING PAGE NO. _____
c. ☒ AIRWORTHINESS DIRECTIVE SUMMARY 1959 THROUGH CARD NO. 59-16
(YEAR)
d. ☐ CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

- a. ☒ AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY
b. ☒ COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED
c. ☐ AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF _____ HOURS
d. ☐ ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:
SERIAL NO. _____ TOTAL HOURS _____
SERIAL NO. _____ TOTAL HOURS _____
SERIAL NO. _____ TOTAL HOURS _____
SERIAL NO. _____ TOTAL HOURS _____

3. PREVIOUS INSPECTION RECORD (INSPECTION RECORDED ON FORM ACA-319)

- a. **LAST AIRWORTHINESS INSPECTION CONDUCTED** _____ (DATE)
☐ BY AIRCRAFT MANUFACTURER
☐ BY APPROVED REPAIR STATION, CERTIFICATE NO. _____
☐ BY MECHANIC, CERTIFICATE NO. _____
b. ☐ PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

- a. ☐ OPERATION LIMITATIONS, FORM ACA-329, WAS ISSUED (COPY ATTACHED)
b. ☐ CURRENT OPERATION LIMITATIONS, FORM ACA-309, IS AVAILABLE IN AIRCRAFT
c. ☒ CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT
d. ☒ CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT
e. ☐ THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS
f. ☐ CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED ~~RECEIVED~~ August 26, 1959
(DATE)
g. ☐ PREVIOUS FORM ACA-1262 WAS ISSUED TO EXPIRE _____ (DATE)
BY _____ (NAME OF ISSUING REPRESENTATIVE) _____ (DESIGNATION NO.)

5. CAA APPROVED REPAIR STATION CERTIFICATION

The aircraft described on the reverse has been inspected under the authority accorded certificated repair station No. _____ by CAR 52 and was found to be:

- ☐ AIRWORTHY
☐ UNAIRWORTHY

(REPAIR STATION AUTHORIZED SIGNATURE)

(DATE)

6. CAA REPRESENTATIVE CERTIFICATION

I HAVE INSPECTED THE AIRCRAFT DESCRIBED ON THE REVERSE AND FOUND IT ☒ AIRWORTHY ☐ UNAIRWORTHY
(Check appropriate item)

DESIGNER'S SIGNATURE U. W. McNary
Asst. Ch. Engr., Piper Aft. Corp.

DESIGNATION NO.
DACR 1-1

DATE
8/26/59

AVIATION SAFETY AGENT'S SIGNATURE

CAA DESIGNATION NO.

DATE

- ☐ ACCEPTED
☐ REINSPECTED
☐ SPOT CHECKED

☐ ATTACHMENT

FAA-CAX

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				Form Approved Budget Bureau No. 04-R060.1 FOR FAA USE ONLY OFFICE IDENTIFICATION - GADO 2-0-04	
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.					
1. AIRCRAFT	MAKE Piper			MODEL PA-24-250	
	SERIAL NO. 24-1349			NATIONALITY AND REGISTRATION MARK N6244P	
2. OWNER	NAME (As shown on registration certificate) H & W Inc.			ADDRESS (As shown on registration certificate) 1008 Village Place Ft. Worth, Texas 76103	
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT				XXX	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
Andrew E. Williams 4000 Delaware Trail Ft. Worth, Tx. 76135			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC		A & P 1985330IA
			<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC		
			<input type="checkbox"/> CERTIFICATED REPAIR STATION		
			<input type="checkbox"/> MANUFACTURER		
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 11-17-77			SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Andrew E. Williams</i>		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/>	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 11-17-77		CERTIFICATE OR DESIGNATION NO. A & P 1985330IA		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Andrew E. Williams</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.)

A. Pertains to Repair of PA24-250, N6244P completed 11-17-77

1. Repair accomplished to belly of aircraft from station 68.0 to station 117.0 to pick up stringers and channels 22.0 Inches each side of fuselage center line on Belly. Replaced all skin panels within this area. Manufactured skins from 2024T3 .032 aluminum.
2. Replaced Bulkhead P/N 20971-06 at Sta #68. Installed new skins using original Rivet Pattern and spacing. Used MS20470AD-4- or MS20426AD-4- of appropriate length for installation. All skin lap joints are as factory installed. All manufactured lap joints are of 2 inches minimum.
3. Repair accomplished in accordance with Piper Service Manual Section 4 2nd AC 43.13-IA Paragraph 100.
4. All surfaces on skins corrosion protected Prior to assembly. Primed and painted after assembly.
5. No weight and balance change as a result of this repair.

LAST ITEM

☐ ADDITIONAL SHEETS ARE ATTACHED

<small>DEPT. OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</small> MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				<small>Form Approved Budget Bureau No. 04-R060.1</small> FOR FAA USE ONLY <small>OFFICE IDENTIFICATION CODE</small> 2-0-08	
<small>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.</small>					
1. AIRCRAFT	MAKE Piper		MODEL PA24-250		
	SERIAL NO. 24-1349		NATIONALITY AND REGISTRATION MARK N6244P		
2. OWNER	NAME (As shown on registration certificate) Nolan, William F.		ADDRESS (As shown on registration certificate) 414 East California Gainesville, Texas		
	3. FOR FAA USE ONLY				
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY		C. CERTIFICATE NO.	
V. E. Sichley P.O. Box 502 Ardmore, Okla. 73401		<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		A&P 1551504	
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 April 16, 1976		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>V. E. Sichley</i> V. E. Sichley			
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/>	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION Apr 16, 1976		CERTIFICATE OR DESIGNATION NO. A&P 1551504		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>V. E. Sichley</i> V. E. Sichley	

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.

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

Removed the following radio equipment:

- 1ea Cessna 3 light Marker Beacon Receiver
- 2ea MB-12 Nav/Com Systems

Installed the following equipment:

- 2ea Bendix RT-241A VHF Communications Transceivers
- 1ea Barco Nav-12 ILS Converter Indicator
- 1ea Barco Nav-11 ILS Converter Indicator
- 1ea King BMA 20 Isolation Amplifier and switch panel.
- 1ea Slide Slope Interconnecting cable.
- 1ea Hopkins Silver Star Strobe Light

The King BMA 20 switch panel and the Bendix RT-241A Transceivers were installed in the space provided by the removal of the Barco Nav/Com system in the left hand radio rack instrument panel. The existing Lear ADF receiver was relocated and the JAKCO A1-50 Transponder was moved from the right hand radio rack. Existing left hand hand radio rack and was installed beneath the ADF receiver. The audio power and antenna circuits were utilized.

The Hopkins Silver Star Strobe light was installed on the belly of the aircraft 150" aft of the datum.

The Nav 12/Nav 11 VOR ILS indicators were installed in the space provided by the removal of the Barco VOA 50 and VOA 4.

An electrical load analysis was computed and it was determined that the maximum probable continuous electrical load does not exceed 84% of the generating capacity of this aircraft (150 amp generator).

All work was accomplished in accordance with FAR Part 23, Part 43; AC 3.13-1 Chapters 11 & 15, AC 43.13-2 Chapters 2 & 3, and the manufacturers installation instructions. A supplemental weight control and equipment list was computed and added to the permanent aircraft file.

***** NOTHING FOLLOWING *****

☐ ADDITIONAL SHEETS ARE ATTACHED

DEPT. OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				Form Approved Budget Bureau No. 04-R0601 FOR FAA USE ONLY OFFICE IDENTIFICATION DAL GADO	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof)					
1. AIRCRAFT	MAKE Piper	MODEL PA24-250		NATIONALITY AND REGISTRATION MARK N242P	
	SERIAL 24-1343				
2. OWNER	NAME (As shown on registration certificate) William F. Nolan		ADDRESS (As shown on registration certificate) 414 East California Gainesville, Texas		
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****			X	
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
L. H. Morrison c/o Modern Aero Inc. Redbird Airport Dallas, Texas 75232			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC		A&P 1123811
			<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC		
			<input type="checkbox"/> CERTIFICATED REPAIR STATION		
			<input type="checkbox"/> MANUFACTURER		
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 2-10-75			SIGNATURE OF AUTHORIZED INDIVIDUAL <i>L.H. Morrison</i>		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	OTHER (Specify)	
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/>		
			INSPECTION AUTHORIZATION		
			CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION 2-10-75		CERTIFICATE OR DESIGNATION NO. A&P 1123811		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>L.H. Morrison</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.)

This aircraft has been repaired by replacing the following parts.

Fuselage Part Numbers

line
*20600-10 Skin spliced five inches from center/ of aircraft outbd. to right side baggage door sill. *20600-17 Skin spliced 12 inches from center line of aircraft to right side of aircraft. *20600-19, *20600-13 spliced 12 inches from aircraft center line outbd to right side cabin door sill. All splices made at existing hat section, and are in accordance with AC 41-13-1A Fig 2.18 A.
*20660-11 *20615-04 *20600-15 20554-03 20554-05 20554-23
20600-83 20600-75 20600-59 20600-67 22620-19 20600-21
20539-21 20600-62 22870-03 22870-05 20600-47 20615-03
*25383-07 *25382-02 *23056-02 22607-31

Right Wing Part Numbers

20377-49 20377-47 20377-45 20360-29 20377-19 *20360-09
30277-29 20266-03 20252-04 20303-19 30304-43

Left Wing Part Numbers

*30277-28 20377-46 *20360-04 20377-20

*These parts were job fabricated from equivalent or greater material.
All repairs were made in accordance with applicable portions of AC 43.13-1A and Piper Service Manual.

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FEB 15 1978

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☐ ADDITIONAL SHEETS ARE ATTACHED

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)					
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.					
1. AIRCRAFT	MAKE	PIPER		MODEL	PA24-250
	SERIAL NO.	24-1349		NATIONALITY AND REGISTRATION MARK	N 6244P
2. OWNER	NAME (As shown on registration certificate)			ADDRESS (As shown on registration certificate)	
	WILLIAM F. NOIAN			414 E. CALIFORNIA ST GAINESVILLE TEXAS 76240	
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
DONALD M. LOUDERBACK RT1 Box 123K GAINESVILLE, TEXAS 76240			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		ATP 484344
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		
Oct 10, 1974			Donald M. Louderbach		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION		OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/> CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION		CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL		
10 OCT 74		171598677	Garnon J. Cherry		

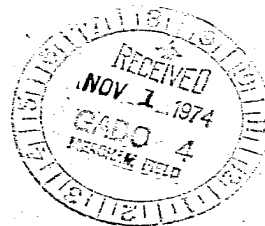
NOTICE

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.)

Installed Rudder Balance Weight Kit 760705
in accordance with Piper Kit Instructions and
Sketches. and in Compliance with AD 72-22-5

End



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☐ ADDITIONAL SHEETS ARE ATTACHED

FEDERAL AVIATION AGENCY MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				Form Approved Budget Bureau No. 04-R060.1 FOR FAA USE ONLY OFFICE IDENTIFICATION NO. 2102	
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.					
1. AIRCRAFT	MAKE Piper	MODEL PA-24-250			
	SERIAL NO. 21-1349	NATIONALITY AND REGISTRATION MARK N6244P			
2. OWNER	NAME (As shown on registration certificate) CHARLES H. CLAYTON		ADDRESS (As shown on registration certificate) 1102 HILLSIDE DRIVE GAINSVILLE, TEXAS - 76240		
	3. FOR FAA USE ONLY				
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> RECEIVED MAY 21 1968 F. DALLAS </div>					
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			B. KIND OF AGENCY		C. CERTIFICATE NO.
Ronald W. Cox C&C Aircraft Service, Inc. Addison Airport Addison, Texas			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC		ARP 314749
			<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC		
			<input type="checkbox"/> CERTIFICATED REPAIR STATION		
			<input type="checkbox"/> MANUFACTURER		
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 5-18-68			SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Ronald W. Cox</i>		
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 Agency and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION		OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/> CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION 5-18-68		CERTIFICATE OR DESIGNATION NO. ARP 314749		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Ronald W. Cox</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.)

On inspection of airplane, found previously installed Narco Mark 12 with VOA-4 Omni indicator. The TR Unit was mounted in the left instrument panel with four No. 6 Machine screws and plate nuts. The VOA-4 was mounted in a standard instrument hole. The T-12MP-12 power supply was mounted aft of the baggage compartment on a factory shelf with four no. 8 machine screws and stop nuts. The wire is of Mil Spec W-5086 and routed as per AC 43.13-1, Chapter 11, Section 7. The "A" Plus wire is 16 gauge and a 10 Amp trip free breaker was installed. The electrical load check was conducted as per AC 43.13-1, Chapter 11, Section 2 and found satisfactory. (50 Amp Generator).

The installation conforms to AC 43.13-2, Chapter 2, Section 21, 22, 23 and 25. Functional check as per CAR'S 3.652 and 3.721 found satisfactory.

SEE AIRCRAFT LOG BOOK FOR WEIGHT AND BALANCE CHANGE.

" END2

☐ ADDITIONAL SHEETS ARE ATTACHED

500 1155 FEDERAL AVIATION AGENCY						Form Approved Budget Bureau No. 04-R080
MAJOR REPAIR AND ALTERATION FORM (AIRFRAME, POWERPLANT, PROPELLER OR APPLIANCE)						
1. AIRCRAFT	MAKE Piper	MODEL PA-24-250	SERIAL NO. 24-1348 1249	NATIONALITY AND REGISTRATION MARK N6244P		
2. OWNER	NAME (First, middle, last) Miehner Oil Co.		ADDRESS (Street and number, city, zone and State) 1314 E. Vickery Ft. Worth, Texas			
3. COMPLETE ONLY FOR UNIT REPAIRED AND/OR ALTERED. DESCRIBE WORK ACCOMPLISHED ON REVERSE IN ACCORDANCE WITH CIVIL AERONAUTICS MANUAL 18.						
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)		
				MAJOR REPAIR	MAJOR ALTERATION	
a. AIRFRAME	***** (As described in item 1 above) *****				X	
b. POWERPLANT						
c. PROPELLER						
d. APPLIANCE	TYPE AND MANUFACTURER					
4. AIRCRAFT WEIGHT AND BALANCE DATA *AFTER the repairs and/or alterations described below were made.						
This item must be completed by repair or alteration agency. However, in the case of a spare component, it will not be completed until such component is installed in an aircraft. At this time, it will be completed by the installing agency, if applicable.						
CATEGORY	EMPTY WEIGHT (Pounds)*		EMPTY CENTER OF GRAVITY (Inches from datum)*		USEFUL LOAD (Pounds)*	
Normal	1681.5		82.4"		1118.5	
5. CONFORMITY STATEMENT (Complete and check)						
a. AGENCY'S NAME AND ADDRESS			b. KIND OF AGENCY		c. CERTIFICATE NO.	
Air Carrier Electronics, Inc. Meacham Field Ft. Worth, Texas			<input type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input checked="" type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)		4337 Radio	
d. I certify that the repair and/or alteration made to the unit(s) identified under item 3 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 18 of the U. S. Civil Air Regulations and that the information furnished herein is true and correct to the best of my knowledge.						
3-25-65 (Date repair and/or alteration completed)			Gerald F. Heffley, Chief Insp. (Signature of authorized individual)			
6. APPROVAL FOR RETURN TO SERVICE (Check and complete appropriate items)						
Pursuant to the authority specified below the unit identified in item 3 was inspected in the manner prescribed by the Administrator of the Federal Aviation Agency and is						
<input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED		BY { <input type="checkbox"/> FAA Designee <input type="checkbox"/> Manufacturer <input type="checkbox"/> Canadian Department of Transport Inspector of Aircraft <input type="checkbox"/> FAA Flight Standards Inspector <input checked="" type="checkbox"/> Repair Station <input type="checkbox"/> Other (Specify)				
3-25-65 (Date of approval or rejection)		Gerald F. Heffley, Chief Inspector (Signature of authorized individual; title or identification number)				
7. TO BE COMPLETED ONLY BY FAA PERSONNEL						
a. <input type="checkbox"/> Forwarded for engineering comment <input type="checkbox"/> See attached memorandum						
b. <input checked="" type="checkbox"/> Accepted 3/29/65 (Date) <input type="checkbox"/> Reinspected (Date) <input type="checkbox"/> Spot Checked (Date)						
214 SW-GADO-4 (FAA designation number)		 (Signature Flight Standards Inspector)				

INSTRUCTIONS

This form must be completed in duplicate each time a major repair and/or alteration is made of an aircraft, airframe, power-plant, propeller or appliance. After the repair and/or alteration has been inspected and item 6 completed, the original copy of this form will be made available to the aircraft owner for retention as part of the aircraft records. The duplicate copy is retained by the FAA for administrative purposes.

See CAM 18 for detailed instructions concerning the information to be furnished with this form and instructions concerning its preparation.

8. DESCRIPTION OF WORK ACCOMPLISHED.

1. Installed new Narco MK 12 VHF transceiver, VOA-4 VOR/LOC converter-indicator, and ARC A-25A broad-band antenna.
2. The Mark 12 panel unit was installed in the standard factory cut-out in LH side of instrument panel, and the VOA-4 was installed in a standard instrument hole. The T12MP12 modulator/power supply was mounted to an existing shelf aft of the baggage compartment. The A-25A VHF antenna was mounted atop the fuselage aft of the baggage compartment. An aluminum doubler plate was installed for extra strength.
3. All units were installed in accordance with the requirements of FAR part 3 (CAM material in CAR 18) and CAR part 3.
4. The magnetic compass was checked with engine running and all radios on. No re-calibration was necessary.
5. An electrical load measurement was made, and it was determined that the maximum probable continuous load was 25.3 amps, which does not exceed 80% of the generator output rated at 50 amps.

NEW WEIGHT AND BALANCE COMPUTED 3-25-65

ITEM	WEIGHT	ARM	MOMENT
Old aircraft empty weight	1667.1	82.29	137185.66
ADDED:			
Narco Mark 12 panel unit	5.1	62.00	316.20
Narco MK T12MP12 pwr sup.	3.9	187.00	729.30
Narco VOA-4 VOR/LOC converter	2.9	64.00	185.60
ARC A-25A antenna	.5	187.00	93.50
Cables	2.0	125.00	250.00
New Empty Weight	1681.5	New CG 82.4	138760.26
New Useful Load	1118.5		

*****NOTHING FOLLOWS*****

*If additional space is needed attach additional sheets bearing aircraft nationality and registration mark and date work completed.

Check block if additional sheets are attached. ☐

U.S. GOVERNMENT PRINTING OFFICE: 1961-O-587860

Form FAA-337 (4-52)

FEDERAL AVIATION AGENCY				Form approved. Budget Bureau No. 41-8082.4	
MAJOR REPAIR AND ALTERATION FORM (AIRFRAME, POWERPLANT, PROPELLER OR APPLIANCE)					
1. AIRCRAFT	MAKE PIPER	MODEL PA24-250	SERIAL NO. 24-1349	NATIONALITY AND REGISTRATION MARK N 6244P	
2. OWNER	NAME (First, middle, last) MICHENER OIL COMPANY		ADDRESS (Street and number, city, zone and State) 1314 East Vickery, Ft. Worth, Texas		
3. COMPLETE ONLY FOR UNIT REPAIRED AND/OR ALTERED. DESCRIBE WORK ACCOMPLISHED ON REVERSE IN ACCORDANCE WITH CIVIL AERONAUTICS MANUAL 18.					
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
				MAJOR REPAIR	MAJOR ALTERATION
a. AIRFRAME	***** (As described in item 3 above) *****				X
b. POWERPLANT					
c. PROPELLER					
d. APPLIANCE	TYPE AND MANUFACTURER				
4. AIRCRAFT WEIGHT AND BALANCE DATA *AFTER the repairs and/or alterations described below were made.					
This item must be completed by repair or alteration agency. However, in the case of a spare component, it will not be completed until such component is installed in an aircraft. At this time, it will be completed by the installing agency, if applicable.					
CATEGORY	EMPTY WEIGHT (Pounds)*	EMPTY CENTER OF GRAVITY (Inches from datum)*		USEFUL LOAD (Pounds)*	
NORMAL	1667.1	82.29		1132.9	
5. CONFORMITY STATEMENT (Complete and check)					
a. AGENCY'S NAME AND ADDRESS		b. KIND OF AGENCY		c. CERTIFICATE NO.	
 Hoyt V. Barnum Meacham Field Fort Worth, Texas		<input checked="" type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)		AP 722535	
d. I certify that the repair and/or alteration made to the unit(s) identified under item 3 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 18 of the U. S. Civil Air Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
12-8-61 (Date repair and/or alteration completed)		Hoyt V. Barnum (Signature of authorized individual)			
6. APPROVAL FOR RETURN TO SERVICE (Check and complete appropriate items) Pursuant to the authority specified below the unit identified in item 3 was inspected in the manner prescribed by the Administrator of the Federal Aviation Agency and is					
<input checked="" type="checkbox"/> APPROVED } BY { <input type="checkbox"/> FAA Designee <input type="checkbox"/> Manufacturer <input type="checkbox"/> Canadian Department of Transport Inspector of Aircraft <input type="checkbox"/> REJECTED <input type="checkbox"/> FAA Flight Standards Inspector <input type="checkbox"/> Repair Station <input checked="" type="checkbox"/> Other (Specify) Inspection Authorization					
12-8-61 (Date of approval or rejection)		J.F. FORD AP393982 (Signature of authorized individual; title or identification number)			
7. TO BE COMPLETED ONLY BY FAA PERSONNEL					
a. <input type="checkbox"/> Forwarded for engineering comment <input type="checkbox"/> See attached memorandum					
b. <input checked="" type="checkbox"/> Accepted 12-18-61 <input type="checkbox"/> Reinspected <input type="checkbox"/> Spot Checked					
Reg. 2 FW ASDO 8 (FAA designation number)		William L. Shultz (Signature Flight Standards Inspector)			

INSTRUCTIONS

This form must be completed in duplicate each time a major repair and/or alteration is made of an aircraft, airframe, power-plant, propeller or appliance. After the repair and/or alteration has been inspected and item 6 completed, the original copy of this form will be made available to the aircraft owner for retention as part of the aircraft records. The duplicate copy is retained by the FAA for administrative purposes.

See CAM 18 for detailed instructions concerning the information to be furnished with this form and instructions concerning its preparation.

8. DESCRIPTION OF WORK ACCOMPLISHED.*

Installed Whelen Model NR Rotating Beacon as per Piper Kit #754188

	<u>Height</u>	<u>ARM</u>	<u>Moment</u>
Old EF -	1665	82.8	137862
Whelen Rotating Beacon	<u>2.1</u>	161	<u>338.1</u>
	1667.1	New BECG 82.29	138200.1

Electrical Load Not Exceeded

OKLAHOMA CITY, OKLA.

DEC 20 1 18 PM '81

*If additional space is needed attach additional sheets bearing aircraft nationality and registration mark and date work completed.

Check block if additional sheets are attached. ☐

U.S. GOVERNMENT PRINTING OFFICE 16-64010-5

Form FAA-837 (4-52)