

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION  <b>MAJOR REPAIR AND ALTERATION</b> <b>(Airframe, Powerplant, Propeller, or Appliance)</b>	<i>Form Approved</i> <i>Budget Bureau No. 04-R060.1</i> <hr/> <b>FOR FAA USE ONLY</b> <hr/> <b>OFFICE IDENTIFICATION</b>
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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.

<b>1. AIRCRAFT</b>	MAKE CESSNA	MODEL A185 F
	SERIAL NO. 18502213	NATIONALITY AND REGISTRATION MARK 3946Q
<b>2. OWNER</b>	NAME (As shown on registration certificate) MENNEN, PAUL	ADDRESS (As shown on registration certificate) 756 Clara Drive Palo Alto, CA 94303

**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**

<b>A. AGENCY'S NAME AND ADDRESS</b>	<b>B. KIND OF AGENCY</b>	<b>C. CERTIFICATE NO.</b>
PAUL R. DAVIDS Calaveras County Airport 3600 Carol Kennedy Drive San Andreas, CA 95249.	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	2011632
	<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 January 22, 1988	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Paul R. Davids</i> Paul R. Davids
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**7. APPROVAL FOR RETURN TO SERVICE**

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

<b>BY</b>	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 January 22, 1988	CERTIFICATE OR DESIGNATION NO. 2011632	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Paul R. Davids</i> Paul R. Davids
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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.)

- INSTALLED WHEEL PANTS IN ACCORDANCE WITH STC# SA2381NM.

\*\*\*\*\*THE END\*\*\*\*\*

ADDITIONAL SHEETS ARE ATTACHED

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

*Number* SA2381NM

*This certificate, issued to* Paul Davids

*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 \* of the \**

*Regulations.*

*Original Product — Type Certificate Number:* \* \*See Attached Master Eligibility List (MEL) Number SA2381NM for List of Approved Airplane Models and Applicable Airworthiness Regulations.  
*Make:* \*  
*Model:* \*

*Description of Type Design Change:*

Installation of wheel and body fairings in accordance with Flight Structures Drawing Lists and Paul Davids' Installation Instructions as noted in MEL Number SA2381NM.

*Limitations and Conditions:* Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this Certificate and MEL dated February 14, 1985, or later FAA approved revision, must be maintained as part of the permanent records for the modified aircraft.

*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:* November 16, 1983

*Date issued:* May 30, 1984

*Date of issuance:* May 14, 1984

*Date amended:* February 14, 1985, March 15, 1985,  
May 1, 1985

*By direction of the Administrator*



*[Handwritten Signature]*  
(Signature)

Manager, Seattle 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.*

FAA APPROVED MASTER ELIGIBILITY LIST (MEL) SA2381NM

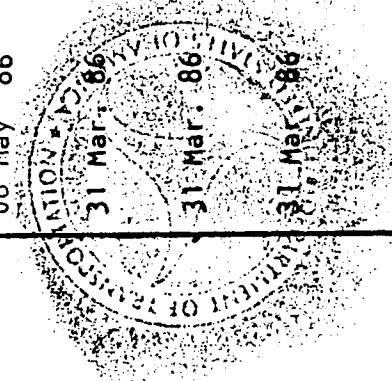
PAUL DAVIDS

FOR

INSTALLATION OF WHEEL AND BODY FAIRINGS

Issue Date: February 14, 1985

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	FAA SEALED DRAWING/DRAWING LIST		INSTALLATION INSTRUCTIONS	MEL AMENDMENT DATE
					NUMBER	REV.		
1.	Cessna	172 Series	3A12	Part 3 of Civil Air Regulations & TCDS No. 3A12	84FS0901	C 15 Apr 85	2 N/A 6 Feb 85	15 Mar. 85
2.	Cessna	182 Series except R182 & TR 182	3A13	Part 3 of Civil Air Regulations & TCDS No. 3A13	84FS0903	D 12 Mar 86	3 N/A 6 Feb 85	15 Mar. 85
3.	Cessna	P172D, R172K	3A17	Part 3 of Civil Air Regulations & TCDS No. 3A17	84FS0901	C 15 Apr 85	2 N/A 6 Feb 85	31 Mar. 86
4.	Cessna	206 Series	A4CE	Part 3 of Civil Air Regulations & TCDS No. A4CE	83FS0771	E 12 Mar 86	N/A	15 Mar. 85
5.	Cessna	150 Series	3A19	Part 3 of Civil Air Regulations & TCDS No. 3A19	84FS1441	A 12 Mar 86	N/A	31 Mar. 86
6.	Cessna	177 Series	A13CE	Part 23 of Fed. Aviation Regulations & Aircraft Specification No. A13CE	84FS1441	A 12 Mar 86	N/A	08 May 86
7.	Cessna	175 Series	3A17	Part 3 of Civil Air Regulations & TCDS No. 3A17	84FS1441	A 12 Mar 86	N/A	31 Mar. 86
8.	Cessna	205 Series	3A21	Part 3 of Civil Air Regulations & TCDS No. 3A21	84FS1441	A 12 Mar 86	N/A	31 Mar. 86
9.	Cessna	207 Series	A16CE	Part 23 of Civil Aviation Regulations & TCDS No. A16CE	84FS1441	A 12 Mar 86	N/A	31 Mar. 86



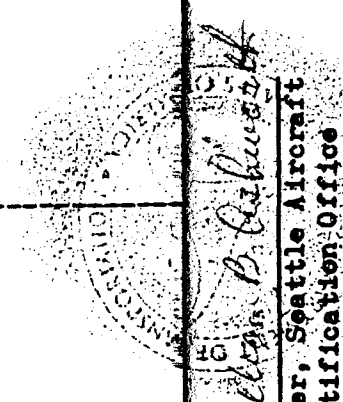
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					NUMBER	REVISION NO. AND DATE		
10.	Cessna	180 Series	5A6	Part 3 of Civil Air Regulations & TCDS No. 5A6	84FA1441	A 12 Mar. 86	N/A	31 Mar. 86
11.	Cessna	185 Series	3A24	Part 3 of Civil Air Regulations & TCDS No. 5A6.	84FS1441	A 12 Mar. 86	N/A	31 Mar. 86



FAA Approved:

*William B. Ashworth*

Manager, Seattle Aircraft Certification Office

Date: May 8, 1986

DATE 7-10-86

DAVIDS AVIATION SERVICES  
RT. 2 - 3600 CAROL KENNEDY DR.  
SAN ANDREAS, CA 95249

**WHEEL PANT, BODY COWL, GEAR LEG INSTALLATION INSTRUCTIONS #5  
CESSNA MODEL 180/185/205/206/207  
STANDARD AND OVERSIZE**

**READ COMPLETE MATERIAL BEFORE ANY WORK IS PERFORMED ON AIRCRAFT!**

INCLUDED IN THE WHEEL PANT KIT IS A COMPLETE PARTS LIST. BE SURE ALL PARTS LISTED ARE IN THE KIT BEFORE YOU START THE INSTALLATION.  
NOTE: THIS KIT IS DESIGNED TO FIT GOODYEAR FLIGHT CUSTOM II TIRES. OTHER TIRES MAY REQUIRE ADDITIONAL TRIMMING FOR CORRECT CLEARANCES.

1. REMOVE ALL WHEEL PANTS (MAIN AND NOSE) AND BRAKE CUFFS, IF APPLICABLE. ON ALL 205, & 1974 & EARLIER 206,207, YOU WILL NEED CESSNA PN 1241114-1 & 2 TO ACCEPT INSTALLATION TO OUR SPEED PANTS.[MOUNTING PLATE ASS.] ON OVERSIZE APPLICATION, MOUNTING PLATE NUMBERS ARE 1241661-1 & 2. UPON INSTALLATION THE PANT MOUNTING PLATE MUST HAVE THE ALIGNMENT SHIMS POSITIONED BETWEEN THE MOUNTING PLATE & GEAR LEG. REMOVE BOTTOM COWL, DOOR ASSEMBLY, TUNNEL ACCESS CESSNA PN 1213669-16 ON 205 & 206 ONLY AND REAR PANEL ASSEMBLY CESSNA PN 1213609-19 & 20 ON 205,206 & 207. THE LAST PARTS ARE THE LITTLE PANELS ON THE FUSELAGE BELLY BEHIND THE NOSE GEAR.
2. REMOVE ALL STANDARD CESSNA FASTENERS IN COWL ACCESS DOOR ON 206 ONLY AND REAR PLATES. THESE FASTENERS ARE TO BE INSTALLED IN THE NEW PARTS. BE SURE TO FIT EACH ONE CAREFULLY BEFORE PUTTING IN PINS OR WAVY WASHERS, AS APPLICABLE. THE HOLE SIZE AND COUNTERSINK MAY NEED TO BE A LITTLE LARGER. WHEN FASTENERS ARE PROVEN OUT, INSTALL AS THEY ARE IN CESSNA PARTS. MOUNT REAR FAIRING FIRST. FRONT FAIRING SLIPS OVER REAR FAIRING.

ON OLDER AIRCRAFT WITH OLDER STYLE FASTENERS: THESE FASTENERS MAY BE WORN OUT AND/OR DIFFICULT TO REPLACE THE ENCLOSED PINS ON FASTENER SHAFT. MOST ALL OF THE FEMALE RECEPTACLES ARE WORN. YOU MAY ELECT TO REMOVE THE RECEPTACLES ON LIPS OF COWL OPENING AND REPLACE WITH NAS 686 A3 FLOATING NUT PLATE. BE CAREFUL HOW YOU DRILL THE RECEPTACLES OUT SO AS NOT TO ENLARGEN THE RIVET HOLE. USE ENCLOSED COUNTERSUNK AN426-A3-4,RIVETS & RIVET SQUEEZER RATHER THAN A GUN AND BAR. INSTALL NUT PLATES AND USE AN507-1032-R8 SCREWS PROVIDED TO INSTALL COWL & BODY FAIRING.

ON THE 207 WE DO NOT REPLACE COWL ACCESS DOOR AS ON THE 206. PLACE FORWARD COWL FAIRING ON LOWER COWL. BRING REAR OPENING TO 1/8" OF NOSE GEAR STRUT PISTON. TAPE FRONT OF FAIRING ONTO COWL ACCESS DOOR. DRILL & CLECO NEW FAIRING TO COWL ACCESS DOOR. REMOVE CLECOS, REMOVE FAIRING, REMOVE COWL ACCESS DOOR.

MOVE WORK ON FORWARD COWL FAIRING AND ACCESS DOOR TO A WORK BENCH. CLECO FAIRING TO COWL ACCESS DOOR. IN BETWEEN EACH FASTENER FOR COWL ACCESS DOOR TO LOWER COWL, DRILL AND COUNTER SINK 4 HOLES FOR 1/8" CHERRY RIVETS. ACROSS FRONT SHOULD BE 6 COUNTERSUNK HOLES USING 1/8" CHERRY COUNTERSUNK RIVETS.

AT EACH FASTENER ON COWL ACCESS DOOR, LOCATE 1/4" HOLE OR LARGER FOR ACCESS TO FASTENERS TO RE-INSTALL TO COWL AFTER FAIRING IN RIVETED TO DOOR.

THE REAR PLATES IN BACK OF NOSE GEAR COMING FORWARD TO COWL ACCESS DOOR ARE TO BE REMOVED.

AFTER RIVETING FORWARD FAIRING TO COWL ACCESS DOOR, FABRICATE ALUMINUM STRIPS TO BE RIVETED ON THE REMAINDER OF FLANGE OF REAR PORTION OF FORWARD FAIRING. THIS IS TO REPLACE THICKNESS OF METAL REMOVED AS REAR PLATES AROUND GEAR AND BEHIND FIREWALL. FASTENERS ON FORWARD PORTION OF REAR PLATES ON BELLY SHOULD BE MOUNTED TO THESE STRIPS WITH HOLES IN FIBERGLASS, THE SAME AS COWL ACCESS DOOR.

REAR FAIRING TAKES PLACE OF REAR PORTION OF PLATES BACK OF NOSE GEAR. LOCATE AND DRILL HOLES FOR THE 6 REAR FASTENERS. REMOVE FASTENERS FROM REAR PLATES AND INSTALL THROUGH FIBERGLASS AND INSTALL.

3. USING THE SAME SCREWS FROM STOCK PANT, INSTALL BOTH INSIDE MAIN PANT HALVES. LEAVE THESE SCREWS SLIGHTLY LOOSE AT THIS TIME. INSTALL OUTER MAIN PANTS NOW, USING SEVERAL AN507-632-RB SCREWS TO SUPPORT PANT AT CENTER, FORE AND AFT MOUNTING LIP. INSTALL OUTBOARD MOUNTING BOLT FROM STOCK INSTALLATION. LEAVE SLIGHTLY LOOSE AT THIS TIME. CHECK TIRE CLEARANCE ALL AROUND, FRONT AND OUTBOARD TO 1/4", REAR AREA AT CURVE FOR TIRE SHOULD BE AT LEAST 3/8". SHIFT PANTS TO ACHIEVE CLEARANCE, HOLD IN POSITION TIGHTEN OUTBOARD MOUNTING BOLT AND INBOARD SCREWS. ALL TIRES SHOULD BE AT MAXIMUM ALLOWABLE PRESSURE, AT LEAST 50 LBS. AT COLD TEMPERATURE OF TIRE. ALL PRESSURES SHOULD BE CHECKED AT LEAST ONCE EACH MONTH OR PANTS WILL BREAK OUT. IF YOU DO NOT HAVE ADEQUATE QUALITY TIRES TO ACCEPT 50 LBS. PRESSURE, PUT NEW TIRES ON PLEASE! DON'T SHORT CHANGE INSTALLATION WITH JUNK TIRES. LOW TIRE PRESSURE COULD BREAK PANTS OUT AT REAR AND IF CONTINUED, WILL INVALIDATE WARRANTY.

ON OVERSIZE GEAR, WE HAVE INCLUDED A SPACER FOR THE AXLE "NECK" BOLT. YOU MAY NEED TO GRIND THE SPACER DOWN TO MAKE IT FIT PROPERLY CESSNA HAS THREE DIFFERENT LENGTHS SO WE USE THE LONGEST. IF YOU NEED TO SHIFT THE PANTS INBOARD, USE LARGE AREA WASHERS BETWEEN FIBERGLASS AND MOUNTING PLATES. OLDER AIRCRAFT SHOULD HAVE CAMBER

CHECKED FOR PROPER RIG. WE HAVE 1/8" SPACERS IF AXLES NEED TO BE MOVED OUTBOARD FOR PROPER BRAKE CUFF FIT. WE DO NOT INCLUDE THIS WITH THE KIT SINCE THIS PROBLEM DOESN'T SHOW UP VERY OFTEN.

ON 180/185 OVERSIZE, APPLICATION OF ALL PARTS ARE THE SAME. WE DO NOT USE RUBBER YET ON GEAR LEGS AND WE DO NOT YET HAVE UPPER GEAR LEG CUFF.

4. USING 3M TRIM CEMENT, INSTALL LEADING EDGE GEAR LEG LIP. BE SURE BE SURE TO CLEAN LEADING EDGE OF GEAR LEG FROM ALL OIL AND DIRT, THEN WIPE WITH ANY PAINT THINNER, THE SAME FOR THE CURVED INNER LIP OF MOLDED RUBBER. STRIP SHOULD BE INSTALLED TO FIT UNDER BRAKE CUFF AND UNDER UPPER GEAR LEG CUFF.
5. INSTALL BOTH LOWER AND UPPER BRAKE CUFFS. TIGHTEN ALL SCREWS AN 507-632-R8. MOUNT ALL SCREWS ON LOWER GEAR LEG PORTION ALSO, FORE AND AFT. (1 EA.) ON 205,206: IF RUBBER FAIRING DOES NOT MATE GOOD TO BRAKE CUFF, YOU MAY TRIM BACK NECK OF CUFF OR TRIM DOWN RUBBER.

SOME OLDER AIRCRAFT HAVE LARGE #AN-NUTS AND UNION AT THE UPPER NECK OF BRAKE CUFF AREA. ALSO, THESE OLDER AIRCRAFT MAY HAVE AN OLD FLEX LINE FROM THIS UNION TO THE BRAKE CALIPER. OLDER BRAKE INSTALLATIONS ALSO HAVE THE CALIPER ON THE REAR. THE CALIPERS MUST BE RELOCATED TO FRONT OF WHEEL BY SWITCHING CALIPER PLATES FROM WHEEL TO WHEEL. THIS NECESSITATES FABRICATING A NEW BRAKE LINE FROM THE UNION TO CALIPER. OLD FLEX LINES SHOULD BE REPLACED AT THIS TIME REGARDLESS, USING STANDARD SOFT ALUMINUM LINE AND FABRICATING IN ACCORDANCE WITH AC 43 OR CESSNA SERVICE MANUAL AND GOOD JUDGMENT. THIS DOES NOT CONSTITUTE A CHANGE IN OUR STC.

6. PLACE UPPER GEAR LEG FAIRING AROUND GEAR LEG AND SLIDE TO FUSELAGE. PARTS ARE TAGGED LEFT AND RIGHT. SPLIT IN FAIRING IS TO THE REAR. AT THIS TIME OPEN ANY INSPECTION PANELS ON BOTH SIDES OF THE FLOOR TO SEE INTO THE BELLY AREA. YOU ARE LOOKING FOR ANY FUEL LINES OR WIRING THAT WOULD BE DAMAGED WHEN YOU DRILL MOUNTING HOLES FOR LEG FAIRINGS. RELOCATE FUEL LINE, HYDRAULIC LINES OR WIRES AS NECESSARY. LAY UP FAIRINGS AND PLACE MARK FOR DRILLING HOLES IN FUSELAGE SKIN USING PRE-DRILLED HOLES IN FAIRING. THE 207 DOES NOT HAVE UPPER GEAR LEG CUFF. SLIDE FAIRING DOWN AND DRILL PROPER HOLES AND INSTALL NAS1329 A6K75 RIVNUTS. INSTALL FAIRING WITH AN 507-632-R8 SCREWS. IF GAP OF FAIRING TO SKIN IS MORE THAN 1/32", REAM OUT MATING SURFACE OF FAIRING TO FUSELAGE TO ALLOW SHOULDER OF RIVNUT TO RECESS INTO FIBERGLASS SO FAIRING WILL LAY FLAT TO FUSELAGE. SAME WITH ANY RIVETS ON FUSELAGE THAT CAUSE FAIRING TO NOT LAY FLUSH.
7. INSTALL NOSE GEAR SPEED PANTS BASICALLY THE SAME AS THE MAINS. MOUNT SEVERAL SCREWS ON THE FORE AND AFT MOUNTING LIP TO SUPPORT PANTS. INSTALL UPPER NOSE GEAR FORK BOLT AND AXLE SHAFT. LEAVE EVERYTHING SLIGHTLY LOOSE. INSTALL BALANCE OF FORE AND AFT MOUNTING SCREWS. TIGHTEN ALL THESE SCREWS AT THIS TIME. ADJUST PANT TO 1/4" CLEARANCE ALL AROUND TIRE, WITH 3/8" CLEARANCE IN REAR AND AT CURVATURE OF TIRE. KEEP TIRE PRESSURE UP TO MAXIMUM! SUPPORT PANT TO KEEP PROPER CLEARANCES AND TIGHTEN AXLE SHAFT NUT



TO PROPER VALUE. TIGHTEN UPPER NOSE PANT FORK BOLT. DO NOT OVER TIGHTEN AS THIS WOULD CRACK AND CRUSH THE FIBERGLASS, AS IT WOULD THE ORIGINAL PLASTIC PANT. USE NEW AXLE ON OVERSIZE NOSE PANT.

NOTE: ON MOST NOSE GEAR FORKS, THE TOW BAR BOLT IS ON THE BOTTOM. IF LOCATION IS NOT CORRECT FOR TOW BAR HOLES IN CAP, YOU MUST CHANGE TO PROPER POSITION.

8. INSTALL THE UPPER NOSE CAP WITH AN 507-632-R8 SCREWS IN PROVIDED NUT PLATES IN NOSE PANT. WE DO NOT USE UPPER CAP ON OVERSIZE KIT.

NO WEIGHT AND BALANCE CHANGE WHEN INSTALLING COMPLETE KIT REPLACEMENT TO FACTORY PARTS.

IF LESS THAN FULL KIT IS INSTALLED, YOU SHOULD DETERMINE WEIGHT AND BALANCE CHANGE IF PARTS ARE ADDED TO AIRCRAFT.

COMPLETE FAA-FORM 337 AND LOG BOOK ENTRY FOR THE MODIFICATION AND WEIGHT CHANGE.

APPROVAL SIGNATURE Paul R. Dards

DATE 7-10-86