Cessna 120/140 Association

BOX 92
RICHARDSON, TEXAS 75080

OCTOBER 1980 ISSUE 35

* * * NEWTON * * *

It was a great time at Newton. Can't recall more congenial, convivial people all in one place at the same time. Fifty five folks registered and with their family members made a banquet crowd of eighty four! And we had thirty nine planes come in, a tribute to the perseverance of 120/140 drivers. The weather was foul Wednesday and Thursday on all points of the compass. Charlie and Todd Wilson, for example spent two days hemmed in at Hot Springs, Ark. Others were stuck at the blocks while the front went through. All the while the sun was shining and the wind was blowing at Newton.

Saturday was clear and cool with a nice breeze pretty much down runway 35, and the contest flying started at about 1:00 with thirty-two contestants! All the flour bombing was good, all short-field take-offs were short, and the spot landings, both wheel and dead-stick were near perfect. The judges spent nearly three hours faithfully doing the directing, measuring and freezing. They did an excellent job and we are all grateful to them.

Many thanks to John and Dorchen Forman for their efforts at the take-off coffee and doughnut breakfast at Lakeview Airport, Lake Dallas. As luck would have it weather shut things off, we managed to get there and loaded up on delicious apple rolls and some great little things with sausage in 'em. Lots of hot coffee too. We flew side by side with the Formans making one fuel stop at Ponca City, OK. 100LL, ugh, octane!

The flight back was even better. Beverly and Tom Teegarden, Dorchen and John Forman, Orville Spradling, Bill Cardiff, and myself left together and flew south in a sort of a gaggle. The air was smooth, cool and bright. We floated along hands off is seems to Lake Murray, OK., where we put down and hiked to the fishing barge for sandwiches. We then went our separate ways. A delightful trip, rare, restful.

We would like to thank Jan and Tom Norton for making the Newton Fly-In and Convention such a sucess. They organized, set up, and ran the entire affair with smoothness and orderliness, and took responsibility for the whole works. Jan and Tom have worked hard along with others to make the Association prosper, and it has been through their efforts that we have had such sucess at Oshkosh during the past two years. Tom has served us well during his two terms as president, and we wish to thank him on behalf of the membership.

* * * THANKS CESSNA * * *

Dean Humphry of Cessna and the guides assigned to our group took us on an excellent tour through the Pawnee Avenue Plant. Two school buses met us at Newton and carried us to Wichita. We spent about three hours mosying through the manufacturing and assembly areas where 182s, 210s, P210s, and Ag planes come off the line at the rate of two a day. Each month 1,000,000 lbs of Aluminum get poured, mashed, bent, cut, drilled, riveted, bonded, filed, pounded, deburred, shaped, and rolled into parts that make up a shiney new airplane. The amount of hand required in this modern plant is astounding, yet is there another way? Would one pre-

fer a Chrysler automatic spot welder type machine riveting a main spar together? The inspection proceedure of each step is impressive. Quality control really is all ther is!

We saw row upon row of brand-new Lycomings and Continentals, enough to make the strong cry. Couldn't lift one off the ground with a 140 but we just had to feel 'em. All had Slick mags installed.

We saw the new twin 303, a mid-rudder elevatored, trailing beam geared, six passengered beauty that will be on the market soon. We also heard and saw McConnell AFB Phantoms bending around over the plant at about 10 feet above the Cessn approach altitude. No one that we spoke with was too upset about not having the chance to fly in.

We had lunch in the plant cafeteria and chated with some of the line folks. On departure each of us was given a goodie bag with some Cessna literature of course, a copy of AOPA's Pilot magazine with the picture of Curly Owen's 140 on the cover, and a fine write up about 120/140s. The ladys got a nice Cessna scarf and the men a neat necktie with "Fly Cessna" on it. A very enjoyable and worthwhile tour.

We wish to thank Cessna, Dean, and all those involved for their interest and courtesy to the members of the International Cessna 120/140 Association.

* * * MOST MODIFIED? * * *

Many awards were given at the Newton Fly-In. One was for BEST MODIFICATION, and was won by Ralph Campbell of Kansas City. The award was well deserved. However, while we were sitting on the fishing barge chomping our hamburgers and discussing the events of the past few days, Orv Spradling said that he wondered why the award didn't go to the machine with the big round engine. "Didn't even have any wing struts and the fuselage was all stretched out to a funny looking round rudder." And it had a new yellow on white paint job. We all had private thoughts about Orv's statements until we realized we had been by God flimflammed. Jerry Vaught's pretty 190 was a great modification of a 140!

* * * FLY-IN * * *

November 15, Saturday, Nocona, Texas. The airport is a private one at the southeast tip of the little lake northeast of the City of Nocona Airport about seven miles. The runway is paved, 3000 ft long, and 900 MSL more or less, and is not marked on the chart as yet. You can fly the 360 radial from Bridgeport for 43 miles and you will be there, or you can fly westerly over highway 82 until you see the lake to the north, about 29 miles, hang a right and go north 5-6 miles. Great food at a local resaurant a short walk from the strip. Plan to be there about noon for the festivities. See ya'll there! Will have photos of Newton.

* * * CRAP SALE * * *

Certified Reusable Airplane Parts Sale! ! ! How's about everyone who has parts that they will part with sending in a list so that we can put so we can put it in the newsletter? We have many requests for parts, and occasionaly a note about something to sell, we print 'em but never hear if anything was accomplished. We feel there are lots of items that could be used, particularly by someone rebuilding a basket case. If we only knew about them, we could be of some help. For example we know where there is a good set of Goodyear brakes but hate to give the address without permission. Please consider this appeal and HELP-HELP-THE-NEWS ! !

* * * HELP HELP * * *

Allen Goerger, Wildrose Stock Farm, Barney, ND 58008, N3148N has a good excuse for not making the fly-in. Seems as though he got pretty well flattened by hail. Thirty five holes in the wings, dents all over the elevator and ailerons. But the flaps! Hit so hard that the spot welds on the trailing edges were popped open! Allen is now looking for some new flaps, or servicable ones that is. If anyone knows of a set please let him know at the above address.

Allen says that his A&P tells him that his exhaust system has about had it. N3148N is a 1947 140 with the flat muffler system. He wonders if it is possible to convert to the round canister type that is on the O-200 150. Is there an STC for the conversion, or does someone have information on this. Seems as though we saw this on someone's machine at Newton.

CESSNA CUSTOMER CARE OWNER ADVISORY SE79 - 45A September 17, 1979

Starting with the 1975 model year, fuel quick drains were made standard equipment on all Cessna single engine aircraft.

Accessory kits are now available to install fuel quick drains on all earlier single engine aircraft.

For further information, contact your Cessna Dealer referencing Service Information Letter SE79-45.

Your affected serial and registration number is shown on the mailing label.

(Ed: every one should have received this letter from Cessna. Our c/n 11696 and N77234 was included on the mailing lable as they say above. Your bird should have them so you can check for water and other misc. crud.)

* * * KEEPING POSTED * * *

We have received several notes about door post cracks. So, here's a report from Cessna about machines below c/n 8800, but probably applies to all c/n's. (c/n means construction number).

DATE: 10-8-46 S.L.N. - 30
SUBJECT: Inspection of Door Posts Below Serial No. 8800.

Reports have been received of some cracks developing in the forward door posts on airplanes below Serial No. 8800 and we would like to have you inspect them carefully now and at each 100 hour inspection. The inspection procedure consits of removing all inside door post fairing to the cabin floor and carefully examining the post. Examine particularly the flange section leading from the post to the instrument panel at the base of the windshield and the post itself just below the rivet cluster at the top. If no cracks are found, reinstall fairing and reinspect at the next 100 hour inspection period.

If cracks have developed, they fall into a minor and major classification.

Cracks (not over 3/4" in length) or any cracks in the door post structure itself are repaired by replacement with the later type door post. (It is unlikely that there are any machines in service with the original 1946 narrow door post. Ed.) For uniformity replacement of both right and left door posts is recommended even though major cracks appear in only one post.

The Service Letter goes on to say that a new post and replacement kit cost $52 each, and that it took 35 hours to replace one. Cessna allowed their dealers a labor rate of $1.50 per hour!

We have it from Robin Passley that Cessna has in stock two left hand door posts, don't know the price. Also the following Service Letter was given us by Robin:

Feb 13, 1978 SE78-7
SUBJECT: LOWER DOORPOST MODIFICATION.
AIRCRAFT APPLICABILITY: All Model 120, 140 and 140A Aircraft.

A service kit has been developed to provide a doubler for reinforcing the lower doorpost area on Model 120, 140 and 140A aircraft, and is recommended for installation whenever inspection reveals cracks in the doorpost near the strut attachment area.

This kit (part number SK150-53) contains all parts necessary to modify (1) doorpost and is available through the Cessna Dealer Organization at a suggested list price of $1.60 each. (now $2.28).

Of course, whatever crack or cracks you have, and the location of them should be inspected by your local A & P, preferably and AI.

Rick Corwin of Atlanta told us at Newton that his 140A suffered a broken gear post (leg, this is). It snapped at the step attachment bolt holes.

DATE: 11.5.47 S.L.N. -67
SUBJECT: Sampling Landing Gear Inspection.

We now have reports on eight landing gear failures. Nearly all failures in service and on lifetime tests occur at the top step hole. In the field they occurred within a serial number range of 12,000 to 14,000, and occurred within an airplane time of less than 450 hours. We have not yet been able to tie down the variations in these gears that might be the basic cause for these failures, but enough of a pattern has been extablished to make sampling inspections of landing gears on airplanes with these serial numbers a worth-while project. We will appreciate your making an inspection, therefore, of landing gears on airplanes between serial number 12,000 and 14,000 that are immediately and easily available to you.

The procedure necessary is to drill out the step rivets and inspect the landing gear around the step rivet holes. At least a three or four power magnifying glass should be used and the crack, if there, would normally appear on the underneath side of the gear. In reinstalling the step, use an AN526-1032 screw, and an AN365-1032 nut.

The above information brings to mind how infrequently we inspect the landing gear legs and their attachment within the gear box assembly. You know the whole thing hangs on by one little bolt with a couple little wedges to keep the leg in alignment! Stout to be sure, but the wheel that's attached to the axle that's attached to the leg that's attached to the gear box by the little bolt all should run straight down the runway. Not designed to withstand much side load. And then drill a couple holes in the leg and attach a steel "u" shaped plate with a bar step welded to it . After thirty-two years and probably five hundred eighty million landings, half going sideways at the cross-controlled hands of a student it is still doing it's job. No doubt the assembly has been rebuilt from the ground up more than once, yet there is still reason for amazement!

So do a thorough job inspecting the whole assembly. Get the flashlight and mirror out and concentrate on the little bolt and all the stuff to which it is attached. Remove the step, scratch some paint, clean up the rust and recoat with a primer that is right for the metal. And most important, if you see something you don't want to see show it to your AI, because a defect will only increase in size and severity if it is not corrected.

The service letters we have been putting are all old, twenty-thirty years, but they point out areas that have been problems and have recommended some fixes or modifications. We feel that they are not only interesting reading, they are also forerunners of ADs issued by the FAA. We will try to get them all in future newsletters. Hope you enjoy them too.

DATE 7.31.47 S.L.N. - 46
SUBJECT: Special Inspections at 100 Hour Periods or After Severe Windstorms.

Inspection - Elevator Spar at Hinges Serial Nos. 8000 - 13780

Scattered reports have been received of cracks in the elevator spar at the elevator hinges. These cracks appear underneath the elevator hinge and apparently start at the rivet holes. Beginning with Serial No. 13781, we are installing a double channel in back of the spar.

At each one hundred hour check it is recommended that this point be visually checked. It is not necessary to remove the elevator.

If cracks are found, we recommend that a reinforcement channel such as is now used on production airplanes be installed. It can be inserted by drilling out the spot welds in the trailing edge of the elevator or by removing the elevator tip. The channel can then be installed in place using the hinge rivets through the spar and tying the flange of the channel into the top and bottom skin. Rivets can then be used to fasten the elevator trailing edge or cherry rivets to replace the elevator tip if it is removed. The channels are part No. 0434151 for the outboard ends and 0434152 for the inboard ends. The price of them is 15¢ each!

Inspection - Flap Hinge Pin

The ends of the flap hinge are crimped to prevent the hinge pin from working out. On earlier production this crimping was done on both ends at one time. This resulted in one end of the hinge sometimes being crimped more positively than the other. For a short while the hinge pin was the same length as the hinge itself resulting in better crimping on one end than the other. Early in November we began crimping each end of the hinge as a separate operation with the hinge pin somewhat shorter than the hinge length. We have since received a few reports from the field of a flap hinge pin on an airplane which has worked part way out.

As airloads obviously cannot result in the pin working in any manner, the working out is apparently the result of the flaps banging in a high wind when the airplane is parked without the controls locked.

It is recommended, therefore, that at the next one hundred hour inspection and each one hundred hour inspection after that or when inspecting after wind damage, the flap hinge pins be checked to make sure that they are within the hinge and any end which is not positively crimped should have the crimping operation accomplished on it. If the hinge pin is the same length as the hinge and the pin can be easily removed, pull it out and cut a little off one end of it then push it back in the hinge and crimp the ends. Do not try to drive out any hinge pins that fit tight. The loose ones are the only ones that need attention. The crimping operation can be done without removing the flap. Place a bucking bar or similar tool on the underneath side of the hinge at the end, then with a chisel or other similar tool and a hammer drive or squeeze the end of the hinge to preclude the possibility of its working out.

This applies basically to 1946 airplanes as outlined above.

Inspection - Airleron Hinges Serial Nos. 8000 - 10209

Some reports indicate that the aileron outboard hinge is subject to bending or cracking in the narrowest part of the web next to the lightning hole. The reports indicate that the damage was done during high windstorms when the control surfaces were not locked. It is recommended that this point be visually checked after possible windstorm damage as outlined above and at each one hundred hour check. Beginning with Serial No. 10210 we began installing heavier aileron hinge rib assemblies and recommend that these ribs be used in all repairs and replacements. The part numbers are 0422200-2 left, and 0422200-3 right. In most cases it will be found that installation of a new aileron hinge rib is the best repair in the event that damage is discovered.

Inspection - Rudder Bottom Rib

The rudder is another point which should be inspected after it is subjected to battering back and forth against the stops during windstorms. Inspection is also recommended at each one hundred hour period. As the rudder horn moves over against the rudder stop the outer edge of the rudder continues to move due to centrifugal force. If this action is continued hard enough and often enough fatigue cracks will appear in the bottom rudder rib just aft of the rudder horn bracket. Beginning with Serial No. 10470 a steel channel was included as a reinforcement on the upper side of bottom rib. If the inspection reveals cracks as outlined above, our recommendation is the installation of a new bottom which has the steel reinforcement channel installed on it. The part number is 0433106.

Isolated reports have been received on small cracks appearing in the vertical fuselage bulkhead (tail post) which is part No. 0412143. These cracks start at the rivets which attach the anchor nuts to this bulkhead and the time on the airplanes reported has been in the neighborhood of 500 to 600 hours. Removal of the fin, therefore, is recommended at each 500 hour inspection. To check this point, if cracks are found, a simple repair is the installation of a new bulkhead.

DATE: 9.26.47 S.L.N. - 49
SUBJECT: Instructions - Wing Rigging.

The dihedral and angle of incidence on the Cessna 120 and 140 wings are set up originally at the factory by the pre-determined position of the fuselage wing fittings and wing strut lengths which are set up in a jig. For information purposes, the dihedral on the wings is 1 degree, and the angle of incidence is 1 degree in relation to the thrust line. These small angles would be difficult to measure with a protractor, and therefore, the setting up of the struts is the best and simplest way to arrive at proper wing rigging. The length of the front strut from centerline to centerline of the bolt holes is 98 13/64 inches. The rear length measured the same way is 109 13/16 inches.

The wing can then be set in place with the strut installed, and any additional rigging required due to wing heaviness after test flight should be rigged out by lengthening the rear strut on the light wing one rotation at a time. In doing this, there is one caution; namely, double check the length of the thread engagement in the strut adjustment. This can be done by the use of the safety hole in the fitting made for that purpose. If a wire will not go through the hole, the thread length is satisfactory.

DATE: 10.1.47 S.L.N. - 50
SUBJECT: Markings - Control Knobs and Switches Cessna 140's only. Serial No. 11850 thru 13492

The CAA recently reviewed its interpretation of Civil Air Regulations and decided that Cessna 140's in the above serial number range are technically not within CAR's as now interpreted. They feel that certain control markings on the instrument panel should be revised in such a manner that the correct method of use of the controls and switches cannot be mistaken.

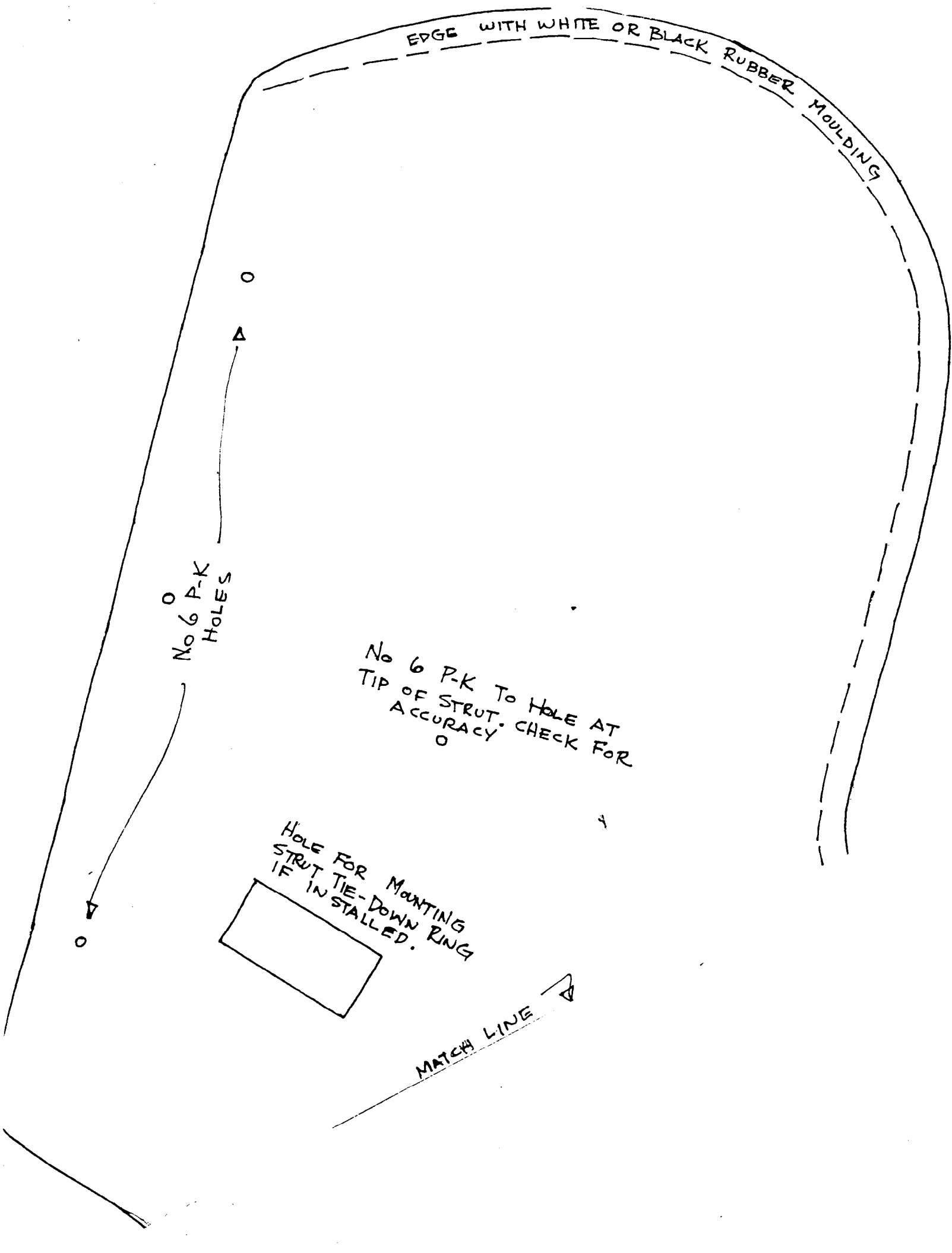
We are, therefore, supplying separately to each distributor, sufficient decals to take care of all 140's delivered to the distributors within the above serial number range. Instruct for installation of the decals appear on the reverse side of the decal sheet. All of the decals for one airplane will be on one sheet and it will be necessary to cut the decals out of the sheet, then install them in the correct location on the airplane. Figure 3- 15 details the location for the decals.

The revised markings appeared on 140 Models beginning with Serial No. 13493.

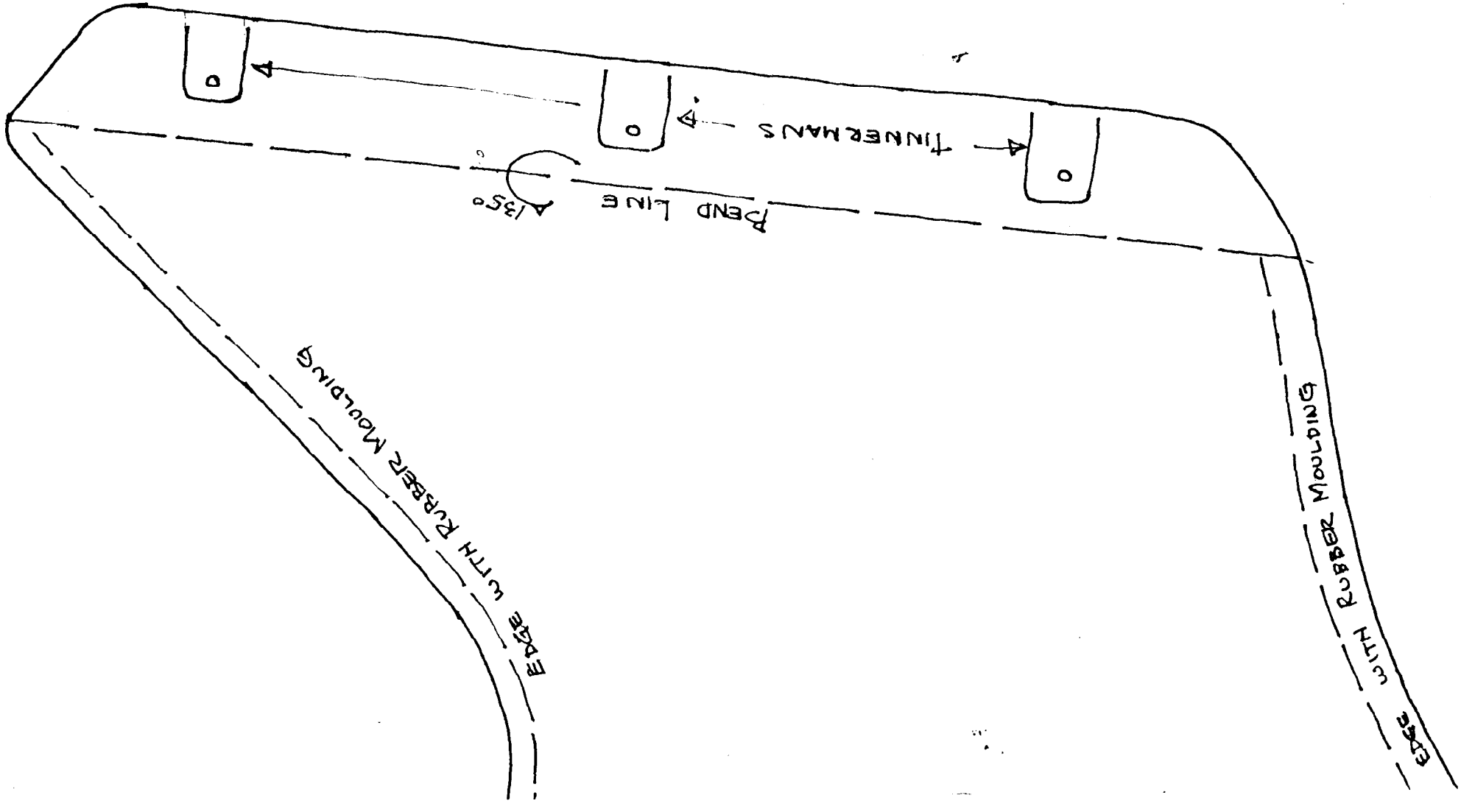
It is recognized that Cessna owners now are familiar with the operation of the controls of their airplane, but in order to take care of the technicality, the decals should be applied at the next 100 hour inspection.

* * * WELCOME NEW MEMBERS * * *

Gary W. Jones N2635N P.O. Box 13043 Airgate Station, Sarasota, FL 33578
Henry T. Kohlert N1894V 415 South 1st St., St. Charles, IL 60174
Elmer A. Ratzlaff Rural Route 1, Moundridge, KS 67107
Walter Beiske, 909 13th Ave N.W., Austin, MN 55912
Brice Lambert N72607 817 N. 26th , Billings, MT 59101
Gary Stoddard N89053 84 Spring Valley Lane, Gering, NB 69341
David H. Birch N2858N 115 W. Orange Rd., Delaware, OH 43015
Syd Hirshland N9418A 101 Marshall Ave., West Lawn, PA 19609
Bobby C. Terry N2181V #6 Garden Lane R R #2, Roanoke, TX 76262
Tom Flickinger N1945N 3680 Annandale Ct., Walnut Creek, CA 94598


EDGE WITH WHITE OR BLACK RUBBER MOULDING
No 6 P-K HOLES
No 6 P-K TO HOLE AT TIP OF STRUT. CHECK FOR ACCURACY.
HOLE FOR MOUNTING STRUT TIE-DOWN RING IF INSTALLED.
MATCH LINE

This pattern for a strut cuff was sent to us by Rawlin A. Smith N2313V, Churchill Rd., Woodsboro, TX 78393. We sure do thank you Rawlin because we have had many requests for the pattern.



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