

ENGINEERING CHANGE NOTICE #7

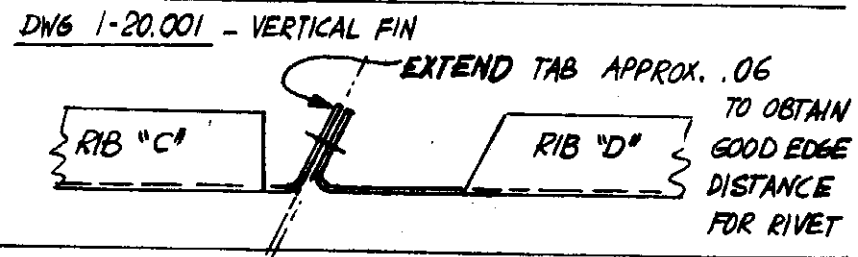
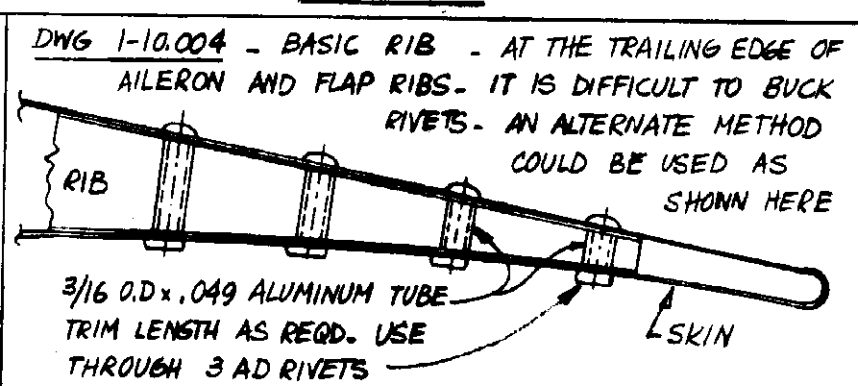
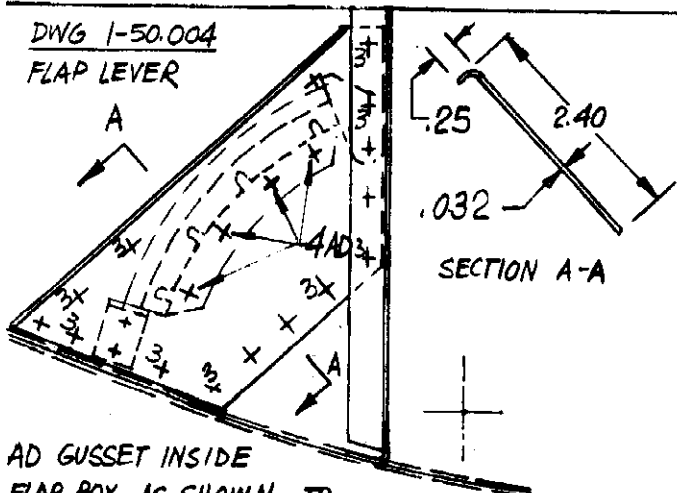
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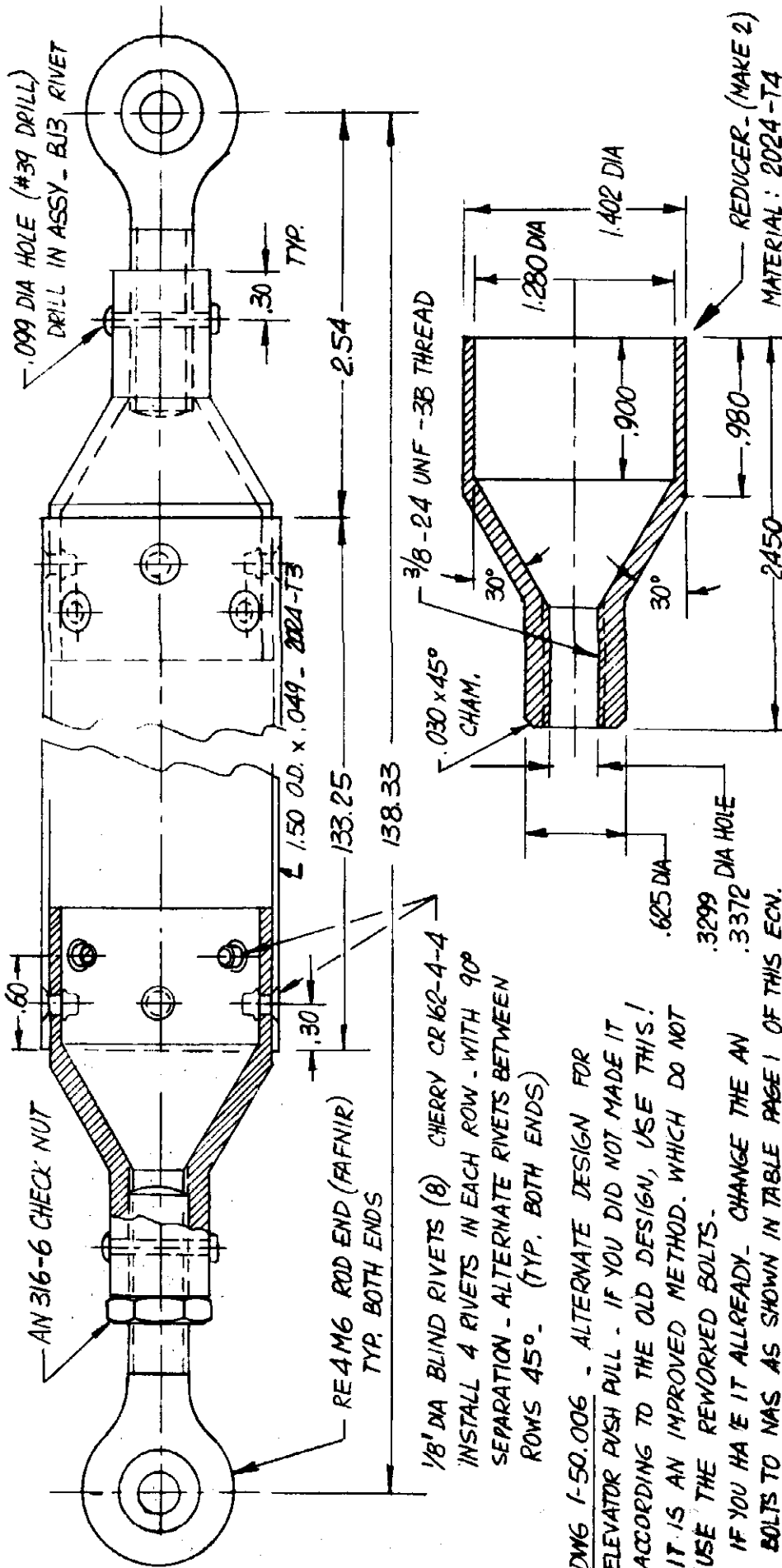
AN BOLTS USED ON THE PL-1 - RECENTLY IT WAS FOUND THAT SOME OF THE AN BOLTS WIDELY USED IN LIGHT AIRCRAFT DO NOT MEET THE MINIMUM STRENGTH REQUIREMENTS SPECIFIED IN THE HANDBOOKS. A HIGHLY RELIABLE LABORATORY MADE STRENGTH TEST OF SEVERAL AN BOLTS PURCHASED FROM DIFFERENT SUPPLIERS. IN MANY CASES THEY FAILED WAY BELOW THE REQUIRED LOADS. IN VIEW OF THIS I RE-CHECKED THE SAFETY MARGINS IN ALL AN BOLTS USED ON THE PL-1 USING MUCH LOWER ALLOWABLES (55,000 psi INSTEAD OF 125,000 psi AS REQD. PER MIL-HDBK-5). FORTUNATELY I FOUND THAT EVEN WITH THE REDUCED ALLOWABLE LOADS MOST OF THE BOLTS STILL HAVE PLENTY OF SAFETY MARGIN. BUT A FEW BOLTS MUST BE CHANGED TO NAS BOLTS. (WHICH ARE MORE EXPENSIVE BUT HAVE A MUCH BETTER QUALITY CONTROL). SO NEXT IS THE LIST:

PRESENT BOLT	DWG.	APPLICATION	QTY	NEW BOLT
AN 5-20A	1-40.004	ATTACH ENGINE MOUNT TO FIREWALL	4	NAS 1005-22
AN 6-46	1-40.005	ATTACH ENGINE TO LORD MOUNTS	4	NAS 1006-66
AN 6H-31A	1-40.005	ATTACH PROPELLER TO ENGINE FLANGE	6	NAS 1006-40H
AN 5-20	1-50.002	BOLT REWORKED AS STUD FOR AILERON PUSH-PULL	4	NAS 1005-22
AN 5-20	1-50.006	" " " FOR ELEVATOR "	2	NAS 1005-22
AN 5-20	1-50.007	" " " FOR AILERON "	2	NAS 1005-22
AN 4-15	1-50.007	ATTACH ROD END TO AILERON PUSH-PULL TUBE	2	NAS 1104-21
AN 4-5	2-60.001	ATTACH LANDING GEAR TO WING SPAR	16	NAS 1104-4
AN 4-26	2-60.001 & 60.002	ATTACH SCISSOR TO FITTING	6	NAS 1104-38
AN 4-7	2-60.001	ATTACH BRAKE PLATE TO -45	8	NAS 1104-9
AN 3-7	2-60.002	CONNECT STEERING TUBE	2	NAS 1103-10

ALTERNATE DESIGNS FOR AILERON PUSH-PULL TUBES SHOWN IN ECN #4 (SEP 1966) ARE STRONGLY RECOMMENDED. BOLTS MARKED * ARE NOT REQUIRED IF ALTERNATE PUSH PULL DESIGN IS USED. THE LARGER TUBE (3/4 x .049) SHOWN IN ECN #4 FOR AILERON PUSH-PULL IS MANDATORY!



DEAR PL-1 BUILDERS: - I JUST CAME BACK FROM THE ROCKFORD FLY-IN WHERE I MET BOB MILLER AND HIS LYCOMING POWERED PL-1. BOB FROM CALGARY, ALBERTA, CANADA, FINISHED HIS AIRPLANE IN 26 MONTHS WITH THE HELP OF HIS WIFE. I FLEW WITH BOB AND I CANT TELL WHO WAS MORE HAPPY AND PROUD!. BOB HAD A PL-1 FORUM RUNNING ALL DAY IN FRONT OF HIS BIRD. I THINK HE IS A BETTER SALESMAN THAT I AM. BUT HE HAD A REAL GOOD ARGUMENT. I CERTAINLY HOPE TO SEE MANY MORE NEXT YEAR. *Page*



1/8" DIA BLIND RIVETS (8) CHERRY CR 162-4-4
INSTALL 4 RIVETS IN EACH ROW - WITH 90° SEPARATION - ALTERNATE RIVETS BETWEEN ROWS 45°. (TYP. BOTH ENDS)

DWG 1-50.006 - ALTERNATE DESIGN FOR ELEVATOR PUSH PULL - IF YOU DID NOT MAKE IT ACCORDING TO THE OLD DESIGN, USE THIS! IT IS AN IMPROVED METHOD. WHICH DO NOT USE THE REWORKED BOLTS. IF YOU HAVE IT ALLREADY. CHANGE THE AN BOLTS TO NAS AS SHOWN IN TABLE PAGE 1 OF THIS ECN.

THE PL-1 MUTUAL AID NEWS LETTER IS PUBLISHED BY MR J.D. WALLER 605 HOWARD DR. BRUNSWICK GEORGIA - 31520 - RECENTLY, I RECEIVED ISSUE #9 WRITE DIRECTLY TO MR WALLER PLEASE. ON ECN # 6 I PUBLISHED A LIST OF OPTIONAL PL-2 DRAWINGS, FUEL SYSTEM, BREAK INSTALLATION, EXHAUST SYSTEM, ELECTRICAL SYSTEM, COWL FOR LYCOMING ETC. THEY ARE VERY COMPLETE. IF YOU WISH A DETAILED LIST WITH PRICES SEND ME A POST CARD.
L. Pazmany

