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To:

From: ERIC

Fax:

Date: 1/17/97

Pages: 9

To all G-200 customers:

Please take note of the following service bulletin. A hard copy will be sent to all customers and known builders. Parts are presently being vended and should be shipped out the first part of February. Although the G-200 is a kit and construction details are the responsibility of the builder of the aircraft, AkroTech considers all service bulletins to be mandatory.

AkroTech Service Bulletin #4

Models Affected: G-200

Serial Numbers: 002-028

Part: Main gear mounting structure

Bulletin: Builders of G-200 kits with serial numbers of 002 through 028 should modify the landing gear mounting structure per the enclosed instructions. This will require the installation of pre-cut phenolic blocks, aluminum angles, and rubber pads in the landing gear mounting system. In addition, two stiffener bulkheads must be installed in the lower fuselage. The addition of the bulkheads will restrict access to the lower forward tank mounting bolts, so an alternate procedure is given.

All parts required by this service bulletin will be furnished by AkroTech.

If you have any questions regarding this service bulletin, please contact AkroTech Aviation at 503-543-7960.

Thank you,

SERVICE BULLETIN #4

INSTRUCTIONS

NOTE: These instructions are for gear that is already installed. If the gear is not installed, position the gear blocks (PN 10-038) as far aft as possible in the gear saddle area before drilling the gear bolt holes (file a slight radius on the corner of the block that contacts the corner of the gear saddle). This will ensure adequate clearance for the head of the forward gear bolt.

STEP A

Study the illustrations and determine the locations for the 4" x 3" phenolic blocks (PN 10-095). The blocks should be located on the back of the firewall with the lower edge of the block resting on the top of the gear box. The centerline of the blocks should be the same distance from the center of the fuselage as the main gear bolts. After properly preparing the appropriate surfaces, use Hysol to bond the blocks in place.

STEP B

Remove the gear mounting bolts and backing plates. Mark lines running fore and aft on the top of the gearbox that are $5/8$ " to the inside of the center of the gear bolt holes. These lines represent the outside faces of the reinforcing bulkheads.

STEP C

Trial-fit the bulkheads into position. The bulkheads may need to be trimmed slightly in order to fit properly. There should not be any gaps over $1/8$ " between the bulkheads and the structure. After the bulkheads have been trimmed to fit, prepare the surfaces of the bulkheads for bonding.

FOR MAXIMUM BOND STRENGTH, IT IS IMPORTANT THAT THE AREAS OF THE PHENOLIC BULKHEADS WHERE THE WET LAY-UPS ARE APPLIED BE THOROUGHLY SANDED BEFORE BONDING THE BULKHEADS INTO POSITION. USE 80 GRIT SANDPAPER, THEN CLEAN THE BOND AREAS WITH ACETONE.

STEP D

After the bonding areas are properly prepped, bond the bulkheads in place using Hysol mixed with structural filler to a peanut butter consistency. Wipe off the excess that squeezes out of the joint. Leave a small radius for the upcoming wet lay-up.

STEP E

After the Hysol has set up, add a 4-ply wet lay-up to each side of the entire joint between the bulkhead and the structure. The lay-ups should extend approximately 1.5 inches onto the bulkheads and 1.5 inches onto the surrounding structure. Allow to cure.

STEP F

Place one of the aluminum angles in position. The angle should be centered over the gear bolt hole, and tight against the firewall. Radius the outside corner of the angle if necessary to obtain a good fit. Drill a $5/16$ " hole for the gear bolt in the angle by drilling up through the existing bolt hole in the gear box. Have someone hold the aluminum angle in position with a block of wood while the hole is being drilled (an alternative would be to drill just enough into the aluminum angle to establish the exact location of the hole, then remove the angle and finish drilling the hole). Remove the angle and drill the $1/4$ " holes. Deburr all holes. Repeat the procedure for the remaining angle bracket.

STEP G

Position the angle brackets and install the new gear bolts. The forward bolt is an AN5C23A and the aft bolt is an AN5C21A. Use an AN960-416 washer under the heads of the bolts. Install the main gear, using the rubber pads (PN 10-096) in position between the gear and the fuselage. The pads go directly under the gear blocks. Add the AN960-516 washers and MS21042-5 nuts, then tighten securely.

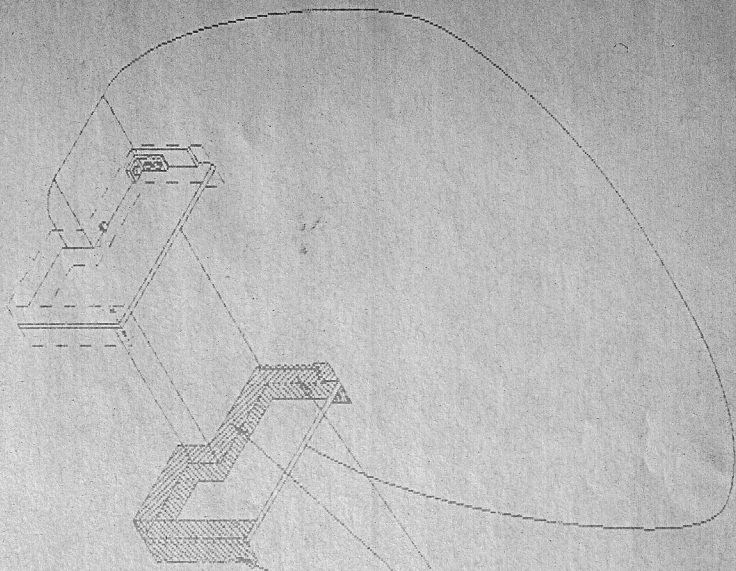
STEP H

Using the holes in the angles as guides, drill the 1/4" holes through the firewall. This may require the use of a long bit or a flex attachment. Install the AN4C13A bolts, AN960-416 washers, and AN365-428A nuts. Tighten the nuts securely, but not so much as to crush the firewall.

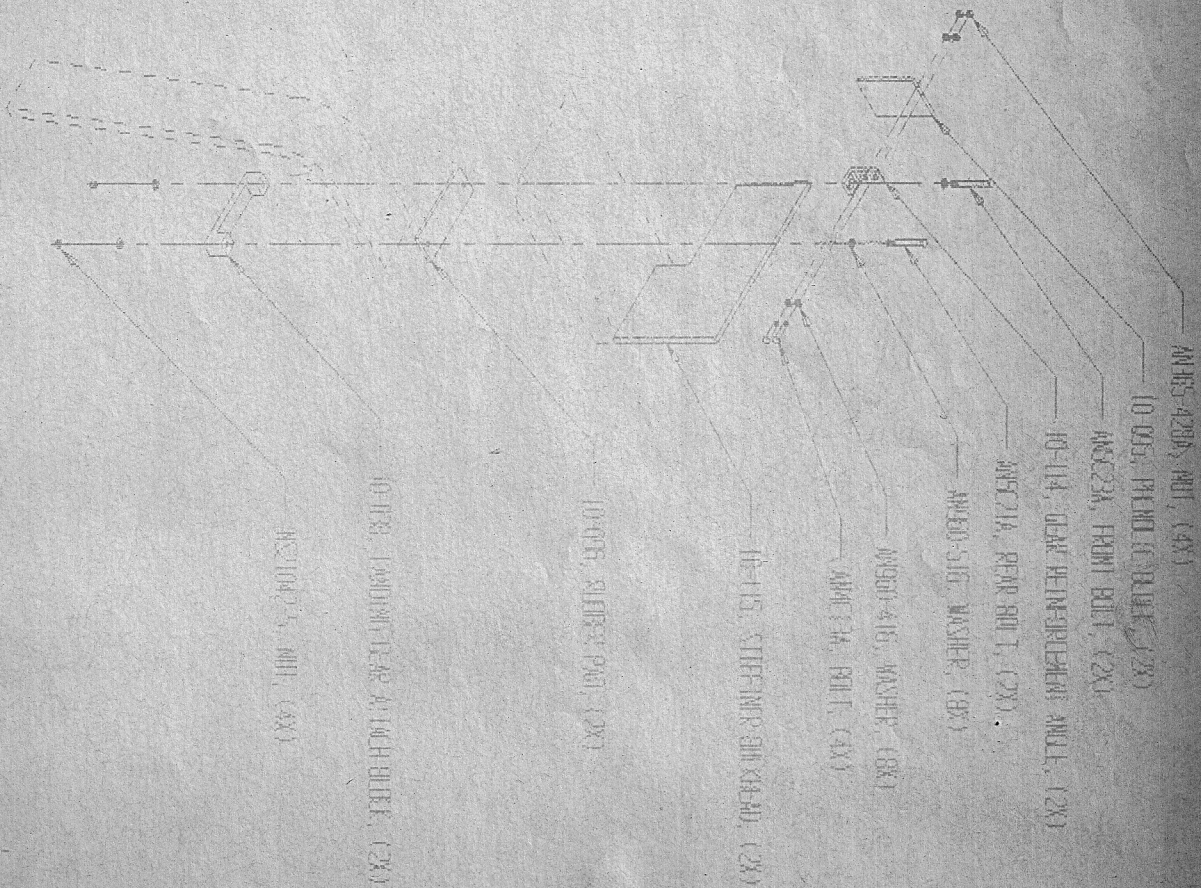
STEP I

The installation of the bulkheads may make access to the lower tank mounting bolts difficult. An alternate method for installing the bolts is to drill holes in the firewall large enough for the proper size socket, then install the bolts from the front side of the firewall. This will require the installation of a nutplate on the aft face of each of the forward lower tank tabs, and the removal of the nutplates from the lower hat sections. After the tank is permanently installed, seal the holes with hi-temp silicone.

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NOTES:
 1 - 4 PLY WET LAY UP EXTENDING 1 1/2" BEYOND BOTH
 PERIMETER STIFFENER BRIGHEADS AND AIRCRAFT
 STRUCTURE (FIREWALL, LANDING GEAR STEP,
 AND SPAR BOX), BOTH SIDES



DRAWING NO SB004	REV. NO 001	DATE 11/20/00	TITLE SERVICE BULLETIN #4	PART NO 1/2
AkroTech				

AN34A, BOLT, (2X)

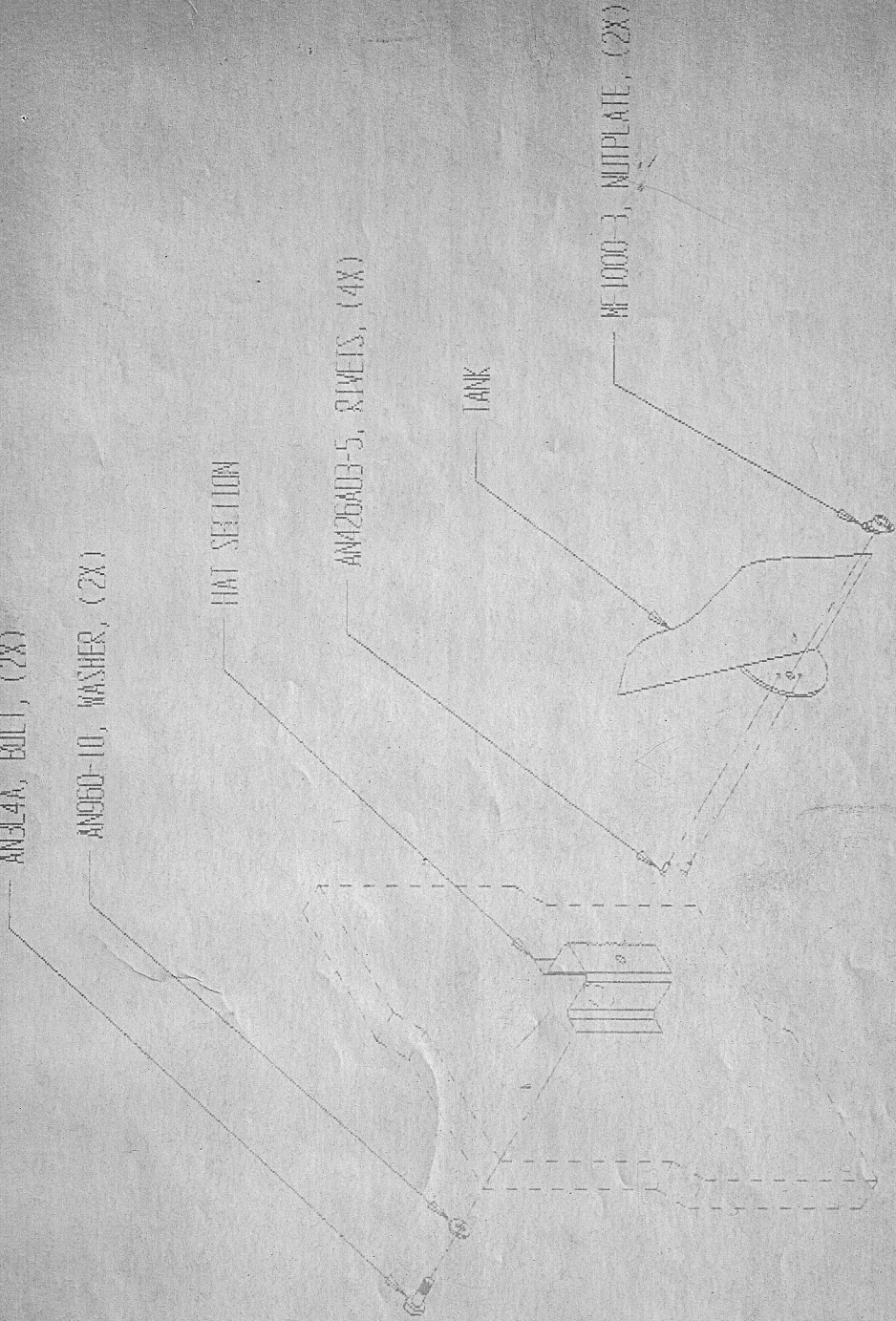
AN960-10, WASHER, (2X)

HAT SECTION

AM26AB3-5, RIVETS, (4X)

TANK

M 1000-3, NUPLATE, (2X)



OPTIONAL LOWER TANK ATTACHMENT ARRANGEMENT

AkroTech

SERVICE BULLETIN #4

8H004

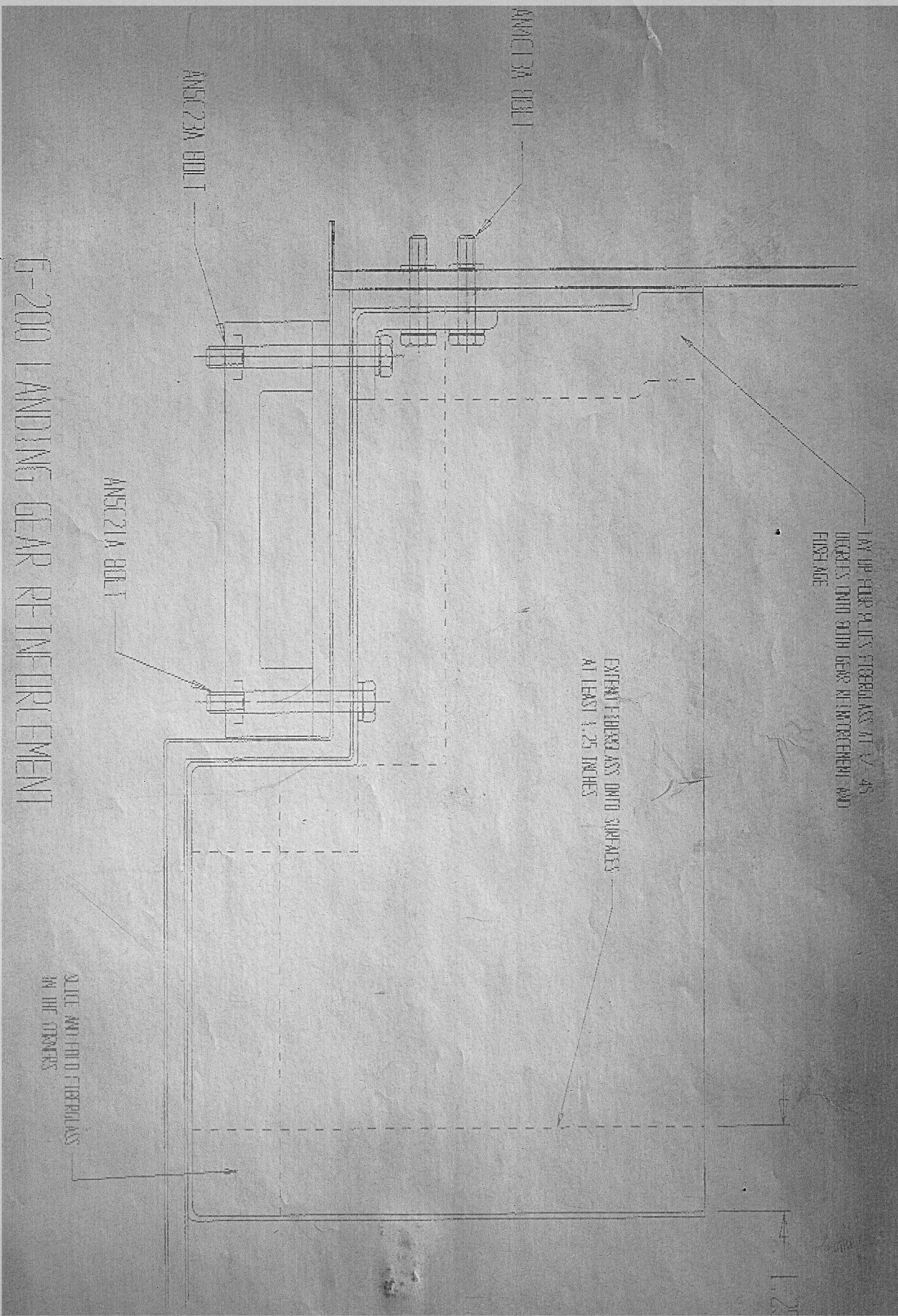
REV. 200

FIG. NO.

REV. NO.

FIG. NO.

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G-200 LANDING GEAR REINFORCEMENT