REPAIR AND OVERHAUL INSTRUCTIONS

STABILIZER ATTACHING FITTINGS

1 The horizontal stabilizer attaching fittings, at the top of the tail wheel well should be inspected carefully for cracks or misalignment and for gaps between the mating surfaces of the fittings at the next CAIR. If the fittings do not mate, shims should be fabricated and installed between the mating surfaces and the bolt holes enlarged to accommodate 5/16" NAS bolts, to correct misalignment. The bolts must be correctly torqued.

2 The following instructions outline the recommended procedure for installation of the shims and the 5/16" bolts:-

(a) Loosen the top stabilizer fairings enough to allow removal of the tail fairing.

(b) Remove the inspection door at the forward centre of the stabilizer, the door under the tail fairing.

(c) Remove the Lord plugs to the left and right of the above mentioned inspection door.

(d) Working through the openings from which the plugs were removed, remove the two 1/4" bolts which connect the stabilizer fittings to the fuselage fittings.

(e) Inspect the fittings carefully for cracks or deformations. If the fittings are damaged, replace them.

(f) If there is any clearance between the top and bottom fitting, manufacture a shim from 24ST material to make up for the gap. Take measurements on all four corners, since the gap may be tapered. Establish measurements by testing with a feeler gage. If a shim is required, it should correspond in area to the contact surfaces of the two fittings.

(g) Insert the finished shim and mark the bolt hole with a scribe. Remove the shim, drill the 5/16" hole, prime with zinc chromate and re-install.

(h) For the actual reaming operation, use a pilot spiral fluted hand reamer with a 1/4" pilot and an outside diameter to produce a finish bore of not over .329".

NOTE

If a 5/16" extension reamer is not available, it may be manufactured by brazing a 5/16" drill rod approximately 6" long to a standard pilot reamer.

(j) Since there is not enough room to install a washer under the bolt head, chafer the finish bore to accommodate the rounded shoulder between the shank and the head of a NAS145-17 bolt. This can be accomplished by grinding an extension 3/8" spiral drill bit to an angle of 90° instead of the customary 118° point angle. If desired, the extension bit may be made by brazing a length of drill rod to a standard bit.

CAUTION

The drill bit should be operated by hand and a tapered surface not exceeding .040" in width should be established.

(k) In order to obtain proper clearance for the new nut, the forged fittings may be reworked with a rotary file to the finished dimensions in Figure 1. Install the NAS145-17 bolt from the kit in the stabilizer and fuselage fittings and inspect the bolt heads for proper seating on the top of the stabilizer fittings. As the space in the top fitting is very

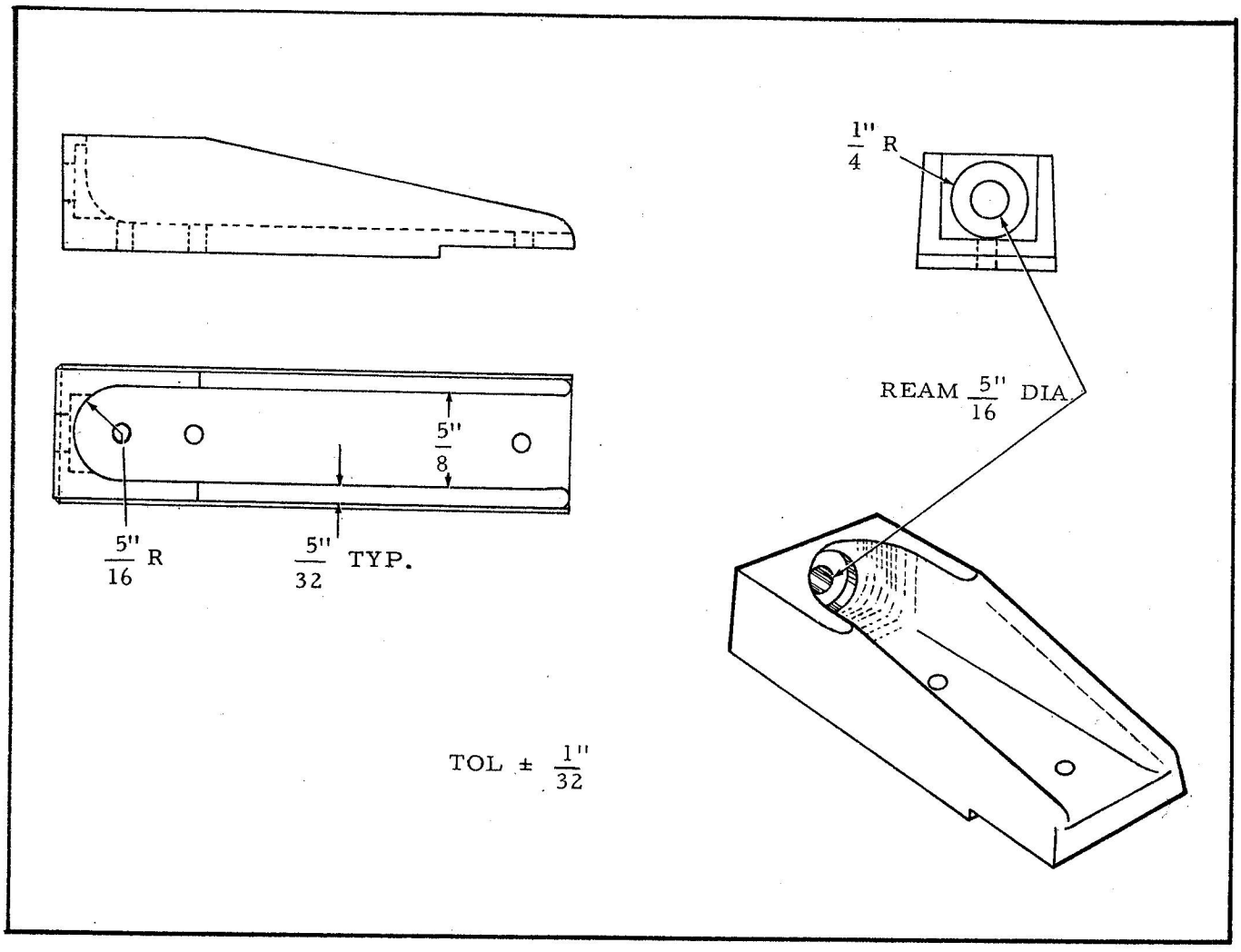

Figure 1

restricted, no washer will be installed under the bolt head.

(m) If, after a careful inspection, the bolt head is properly seated, the fittings can be bolted together. Since space in the lower fittings is also very confined, a small spacer, 105740-A0323-0500-0250, must be installed first and then the NAS433-5 nut. Torque the nut to 140 to 225 ins.-lbs.

(n) After a final inspection, the forward inspection door may be replaced, the tail fairing re-installed and the stabilizer fairings tightened down. Replace the Lord plugs in the stabilizer bolt access holes.

3 This leaflet originated from Beech Service Letter #32.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

Prepared By:
AMC/SACO/ACR