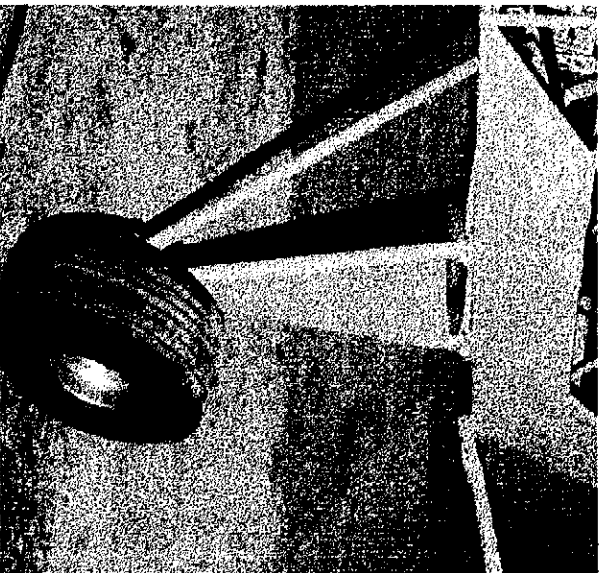


LANDING GEAR INSTALLATION

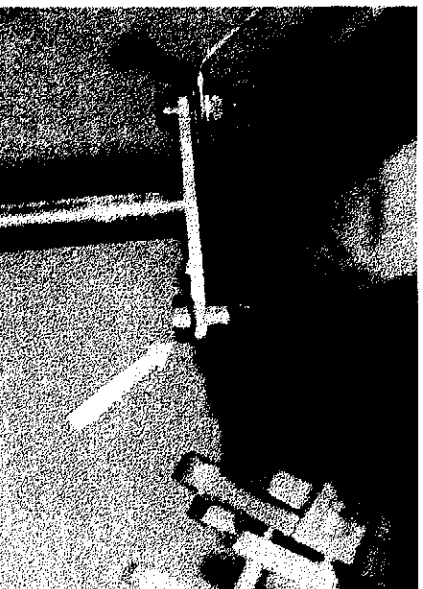
Sub-Section "A"



Landing Gear Weldment to Fuselage



Steel torque plate



Trim as shown for late model torque plate

INSTALL AXLE

STEP 1: REAM AND FIT WELDMENTS

Ream the P/N 35003 and P/N 35004 Landing Gear Weldment bushings and the matching tabs on the fuselage to .25". (The Landing Gear mounting lugs are the two center pairs). With the fuselage mounted on saw horses, temporarily pin the Weldments in place with AN4-22 Bolts and check for fit. Use additional reaming as required. When a satisfactory fit, has been achieved, remove the gear legs.

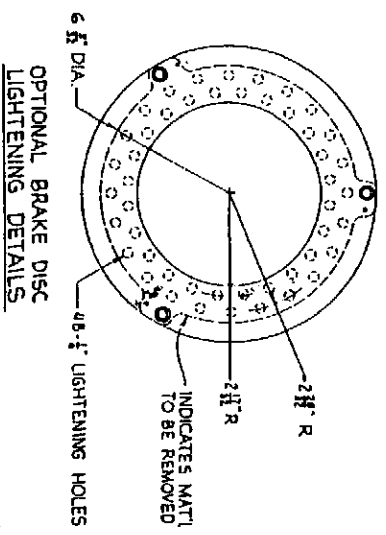
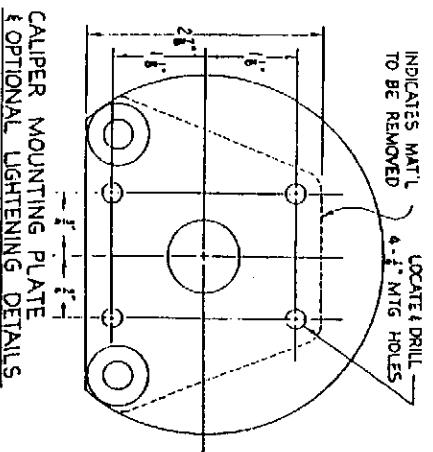
STEP 2: DRILL TORQUE PLATE HOLES

Use Fig. LG-A-1 as a template, and affix to the Torque Plate. Clamp the Torque Plate to the bracket of the Axle housing. Refer to Fig. LG-A-1. Drill four 1/8" pilot holes through the Caliper and backing plate. Drill and ream the four holes to .25". Attach plate to bracket with AN364-428 nuts and 91156 bolts. The later model steel Matco Torque plates are cut to shape at the factory. These will not need to be trimmed but will need the bushings in the plate altered. The bushings must allow the calipers to center on the disc so grind off the outer surface of the bushing 1/8 in. so the caliper will center on the disc. See arrow in accompanying photo.

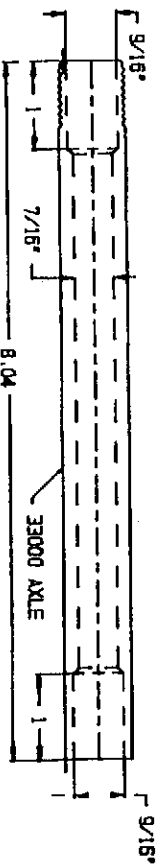
STEP 3: TRIM AXLE MATERIAL

The P/N 33000 Axle Material is supplied in one piece. Cut the Axle Material into two pieces 8.04" (+ or - .03") long. You can cut the Axle Material in half and trim later. (The Axle stock is approximately 0.5" too long).

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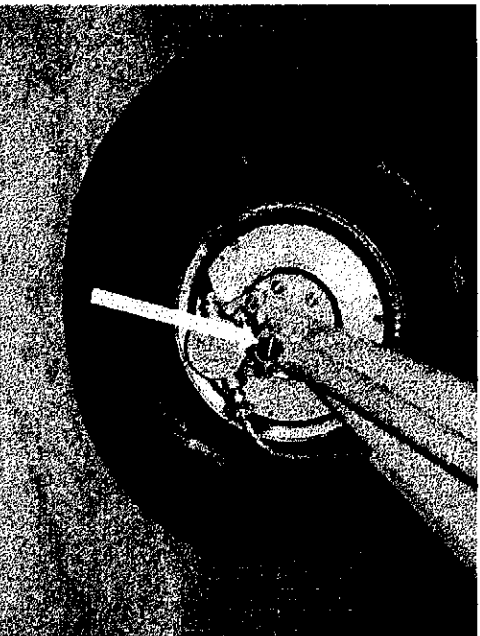


Brake Caliper And Disc Drilling Template
Fig. IV LG-A-1



Optional Lightening Details
Fig. LG-A-2

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Axle Lightening - Attach Bolt

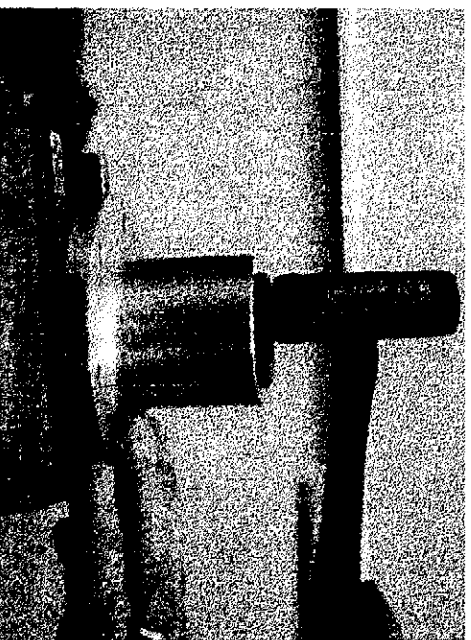
STEP 4: INSERT AXLE
Insert an Axle into the axle housing. It may be necessary to ream the Axle housing. If so, ream to .7500". A soft hammer is recommended to keep from damaging the Axle. If installation is difficult, shrink the Axle by putting it in the freezer. Heat the Axle housing with a heat gun and immediately insert Axle while the temperature extremes maximize size differential. It is not absolutely necessary to have the inboard side of the Axle flush with the housing. It can vary + or - 1/16".

NOTE: OPTIONAL - Lighten the Axle per Fig. LG-A-2. This procedure will require the use of a lathe and drill bits. Electing to do this option, will save approximately 14 ounces total. If you are going to install wheel pants on your aircraft, you will need to bore the threaded end of the Axle as shown in Fig. LG-A-3. Wheel pant instructions are found in Sub-Section "F" of this Section of the manual.

ASSEMBLE WHEEL

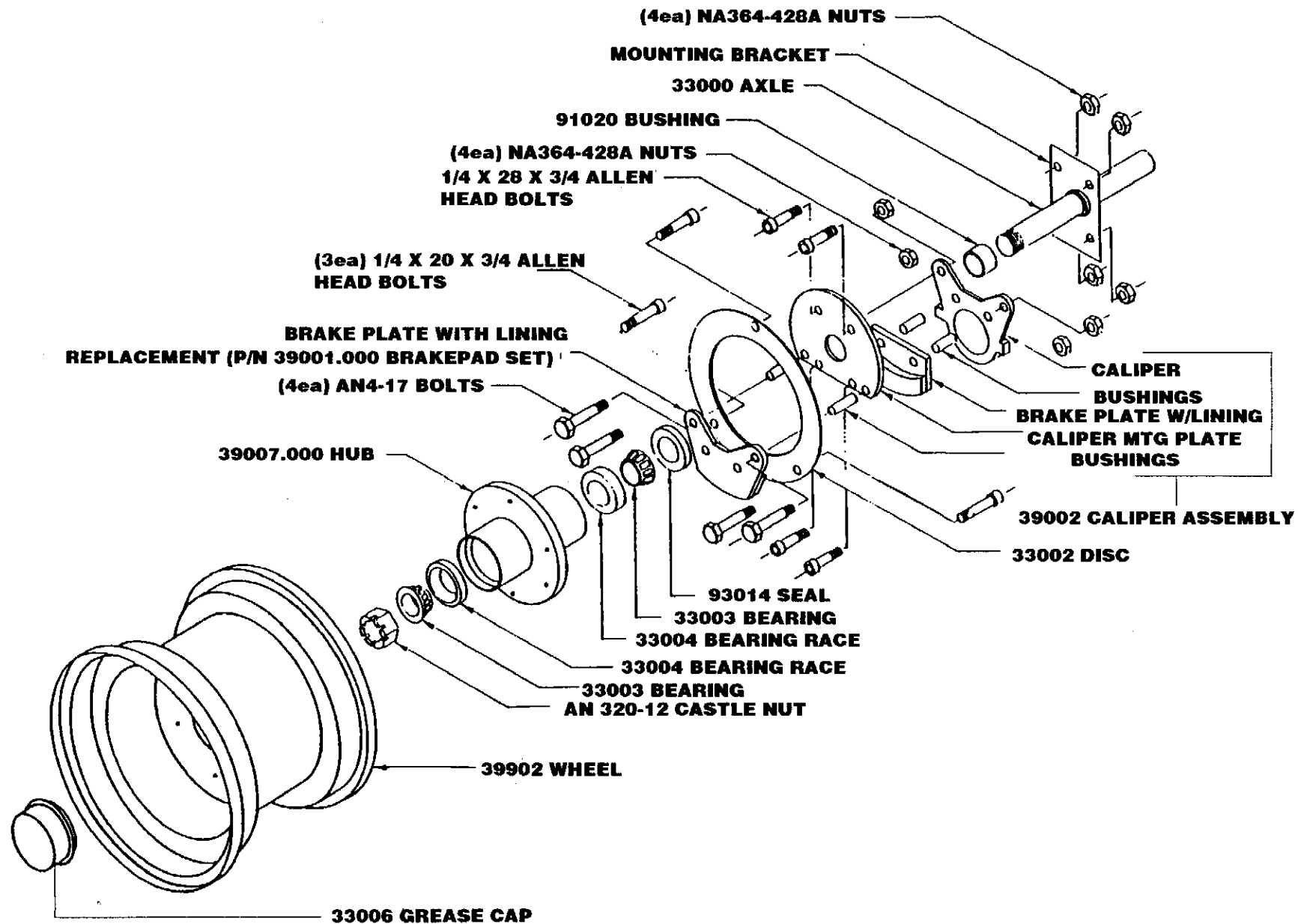
STEP 5: ASSEMBLE HUB & WHEEL

Assemble the P/N 36002 Hub and Wheel on the Axle, per Fig. LG-A-3. (refer to the wheel manufacturers instructions, for detailed assembly procedure).



Wheel Seal Installation

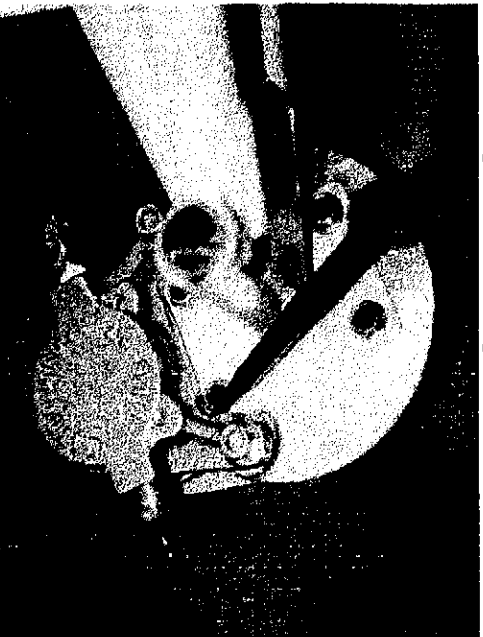
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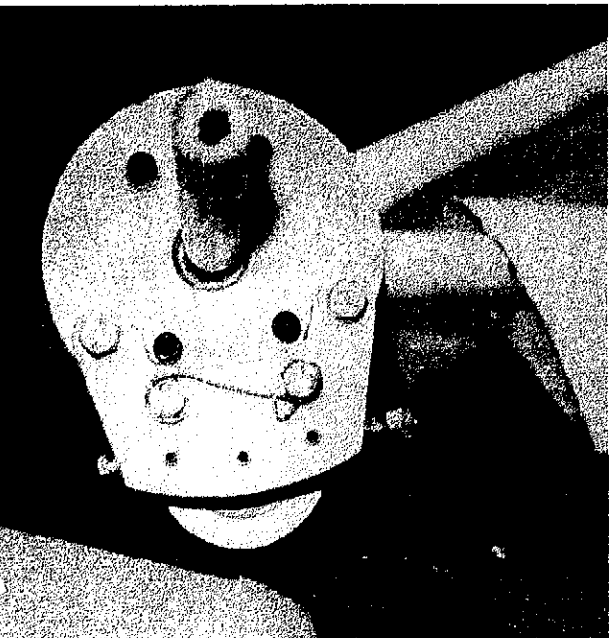
Wheel & Hub Assembly
Fig. LG-A-3



Relieve Caliper metal as required to clear screw head



Round corner of Mounting Plate as shown



Use Safety Wire

STEP 6: DRIVE SEAL - INSTALL NUT

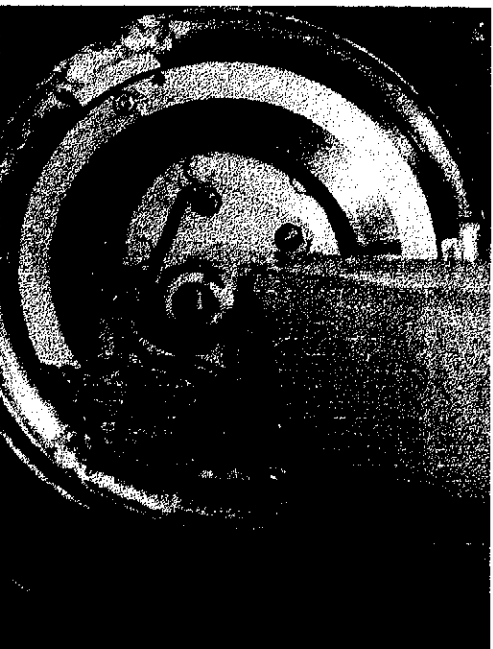
Measure the depth of the inner wheel bearing bore and record the measurement. Install inside and outside P/N 33003 outer races by tapping them in place using a bearing driver or a large socket that is just slightly smaller than the bearing bore. Pack inner bearing 33004 with grease and install in the outer race. Install the wheel bearing seal P/N33014. If the bore depth above the race is .625 (5/8") do not drive the seal down tight against the bearing race, leave 1/16 inch protruding. - see Photo. Driving the seal all the way down causes the seal lip to ride where the bushing seam and bearing inner race meet and will damage the seal lip. If your Hub is bored 0.75" deep, then you may drive seal flush. Install the P/N 91020 Spacer in the Wheel before mounting the Wheel onto the Axle. This will keep the seal lip from getting pinched between the P/N 91020 Spacer and the bearing inner race. Pack the outer bearing with grease, install and lightly tighten the AN320-12 Nut down to the bearing. With the Nut in place, there should be 3/32" to 1/8" of threaded Axle extending beyond the Nut. The Axle can be moved in or out of the housing to obtain that dimension.

NOTE: It is not necessary to remove the Axle when painting, although it should be masked before sand blasting or painting.

STEP 7: DRILL AXLE AND HOUSING

With the Axles installed and adjusted for fit, drill a 1/8" hole through the Axle and housing, parallel to the fuselage attach bushings, and 3/8" from the inboard end of each Axle housing - see Fig. LG-A-2. Re-drill with a #13 drill and ream to .1865". The AN3-12A Bolt with appropriate AN960-10 Washer and AN365-1032 Nylock Nut can be installed at this time.

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		Landing Gear	



Axle Housing and Mounting Plate



Option lightening



Retaining Nut

STEP 8: DRILL HOLE FOR COTTER PIN

With the AN3-12A Bolts installed on the Axles, turn the AN320-12 Nut until there is no end play in the Hub Bearing. Take care not to over-tighten the Nut and bind the Bearing. The Hub should be able to turn freely. Section .

INSTALL BRAKE CALIPER

STEP 9: REMOVE WHEEL ASSEMBLY

If the Gear has been painted, bolt the P/N 39015 Caliper to the Gear Weldment using Bolts, with Washers, and AN365-1032 Nuts supplied with caliper. Safety wire drilled head bolts as shown. Slip brake disc between pads of caliper and install wheel assembly. Install the disc using the 1/4 28X3/4 in allen screws. Safety wire on final assembly.

NOTE: Upon final assembly of the Landing Gear to the fuselage - and other parts that require a "bearing" fit on bolts - coat the bearing areas of the bolts with a coating of graphite impregnated grease. It's best to do this after the parts have been painted or it will require extra degreasing and cleaning measures to get the paint to adhere properly. Use dry type silicone lubricant on brake caliper bushings.

STEP 10: INSTALL FITTINGS

Install two of the P/N 39005 Brake Line Fittings in the Caliper assemblies. With the Caliper installed on the Gear, the Fitting should point up the back leg of the Gear toward the rear attach bushing. Use Teflon tape or Rectorseal #5 to seal threads. **CUTION** Over tightening the fittings into the calipers will crack the calipers.

NOTE: Do not seat the ferrules on the Brake Line Fitting until painting and final assembly is complete.

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