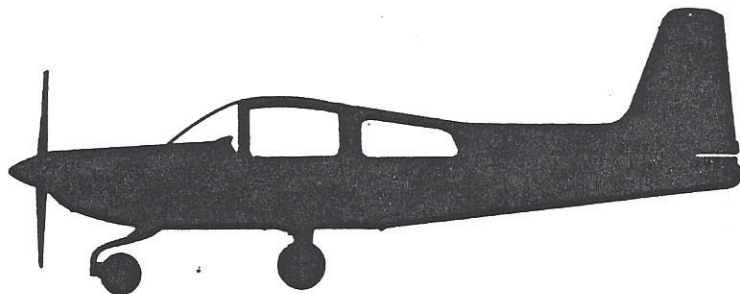
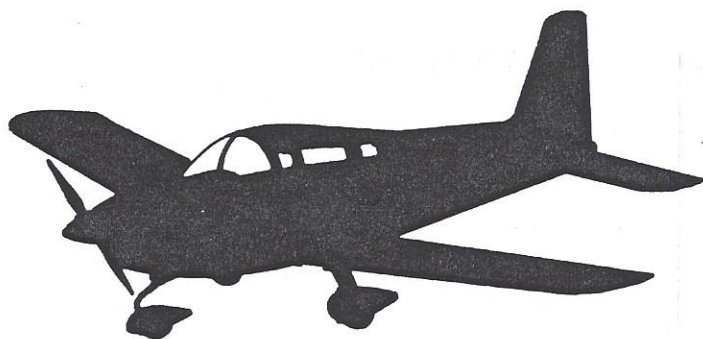
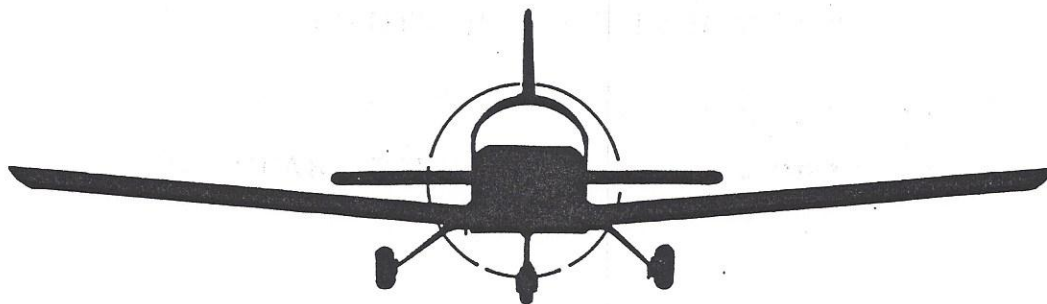


SINGLE ENGINE AIRCRAFT SERVICE KIT NO.139

SUBJECT: LANDING GEAR (ATA NO. 32) FORGED NLG FORK-
INSTALLATION OF



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1 October 1976

GRUMMAN AMERICAN AVIATION
CORPORATION
PO BOX 2206, SAVANNAH, GEORGIA 31402

PILOT'S INFORMATION SHEET

SINGLE ENGINE AIRCRAFT SERVICE KIT NO. 139

LANDING GEAR, FORGED NLG FORK - INSTALLATION OF

There will be no cockpit procedural changes due to the incorporation of this Service Kit.

GRUMMAN AMERICAN SINGLE ENGINE AIRCRAFT SERVICE KIT NO. 139

THIS SERVICE KIT CANCELS ACCESSORY KIT AK-120.

PROPRIETARY INFORMATION

This document consisting of 5 pages with 2 figures contains information proprietary to Grumman American Aviation Corporation. It shall not be used, duplicated or further disseminated for any purpose, other than for use in connection with an installation in All Model aircraft without consent of an authorized representative of Grumman American Aviation Corporation.

GRUMMAN AMERICAN SINGLE ENGINE AIRCRAFT SERVICE KIT NO. 139

SUBJECT: Landing Gear (ATA No. 32) Forged NLG Fork - Installation of

PURPOSE/DISCUSSION: The purpose of this kit is to install an improved Nose Landing Gear Fork (Forged) on all models having extended fork and using 6.00 x 6 main tires.

DESCRIPTION: This kit installs a new improved forged nose landing gear fork and installation hardware. On aircraft with wheel fairings, the kit provides modification instructions to modify the nose wheel fairing.

SPECIAL TOOLS/
EQUIPMENT REQUIRED: Standard Aircraft Mechanics tools and Spring Scale (Range 0-30 lbs.)

| EFFECTIVITY: | <u>MODEL</u> | <u>SERIAL NUMBER</u> |
|--------------|--------------|----------------------|
| | *AA-1 | 0001 and Sub. |
| | *AA-1A | 0001 and Sub. |
| | AA-1B | 0001 - 0596 |
| | AA-5 | 0001 and Sub. |
| | AA-5A | 0001 - 0075 |
| | AA-5B | 0001 - 0210 |

* Aircraft must have previously complied with AK-120 or have extended fork and 6.00 x 6 main tires installed.

| WEIGHT AND BALANCE: | <u>WEIGHT</u> | <u>ARM</u> | <u>MOM.</u> |
|---------------------|---------------|------------|--------------------|
| | + .75 lbs. | 31.0 in. | + 23.25 (lb. -in.) |

THIS IS A DESIGN IMPROVEMENT. NO PARTS OR LABOR CREDIT WILL BE GIVEN.

PRICE: Prices are subject to change without notice:

List Price (E)

\$ 140.00

The following instructions, in step by step form, are written as a guide to perform this installation or modification. Compliance with safe maintenance practices as recommended in the maintenance manual and FAA Regulations is Mandatory.

GRUMMAN AMERICAN SINGLE ENGINE AIRCRAFT SERVICE KIT NO. 139

MODIFICATION INSTRUCTIONS:

- A. Prepare the aircraft for safe maintenance as follows:
- Insure Master Switch OFF.
 - Aircraft grounded.
- B. Removal instructions.
- B-1 Remove the weight from the nose gear by either tying down the tail or placing a suitable support under the front of the fuselage.
- B-2 Remove the Nose Landing Gear Fork Assy. and discard hardware used to attach fork to strut. If SK-107A has been complied with, proceed to Step B-3. If SK-107A has not been complied with remove spring plunger and nut and discard. See Figure 1.
- B-3 Remove Wheel Assy. Discard cotter pin, locknut and retain hardware for reuse.
- B-4 If installed, remove wheel fairing. Retain hardware for reuse.
- B-5 Clean, inspect and remove rust (if present) from strut bearing cup. Insure that drain hole in bottom of strut is open.
- B-6 Clean, inspect and repack wheel bearings.
- C. Installation Instructions.
- C-1 Install wheel fairing, if removed, on Fork Assy. using hardware retained in Step B-4. Add additional AN960-416 Washers (2) to act as shims as shown in Figure 1.
- C-2 Install AN5-10A Bolts (2) and 14-902019-4 Spacers on 702069-501 Fork Assy. See Figure 1.
- C-3 Install Wheel Assy. using hardware retained in Step B-3. Add AN960-516, -516L Washers as shown in Figure 1. Install new MS20365-524 Nut (Self Locking) and AN380-2-2 Cotter Pin in axle nut. Tighten axle nut until slight drag is felt while rotating wheel. See Figure 1, Detail A.
- C-4 Install built-up Fork Assy. on strut using new hardware as shown in Figure 2. Lubricate all parts with Aero Shell Grease 6 (MIL-G-7711A) prior to installation.
- C-5 With fork installed on strut, tighten AN320-10 Nut to obtain a force of 10-22 lbs. pull (Running Force), using a spring scale attached to fork at wheel center line (Axle). This sets the nose fork friction (anti-shimmy). Temporarily insert MS24665-353 cotter pin in Nut each time a measurement is taken. See Figure 1, Detail B.
- NOTE
- As break away force will be larger, measurement should be taken while rotating fork (running force). It is preferable to set on high side of tolerance.
- C-6 With AN320-10 Nut properly adjusted, safety with MS24665-353 Cotter Pin.

GRUMMAN AMERICAN SINGLE ENGINE AIRCRAFT SERVICE KIT NO. 139

- C-7 On aircraft with wheel fairing, it will be necessary to trim hole, at tow bar access, to allow tow bar to clear wheel fairing.
- C-8 Check nose wheel for proper inflation. See Section F.
- C-9 Remove fuselage support or un-tie tail depending on method used to raise nose gear off ground.
- D. Return aircraft to flight status.
- E. Record compliance in the log book.

PARTS REQUIRED PER AIRCRAFT

| <u>PART NUMBER</u> | <u>NOMENCLATURE</u> | <u>QTY</u> |
|--------------------|---------------------|------------|
| 702069-501 | Fork Assy. | 1 |
| TT-1508-1 | Thrust Bearing | 1 |
| TT-1508-2 | Thrust Bearing | 1 |
| 702054-5 | Washer | 2 |
| AM341615 | Spring | 3 |
| AN960-1016L | Washer | 1 |
| AN320-10 | Nut | 1 |
| MS24665-353 | Cotter Pin | 1 |
| MS29513-224 | O Ring | 1 |
| AN960-516 | Washer | 8 |
| AN380-2-2 | Cotter Pin | 2 |
| AN960-416 | Washer | 4 |
| AN960-416L | Washer | 2 |
| AN960-516L | Washer | 2 |
| AN5-10A | Bolt | 2 |
| 14-902019-4 | Spacer | 2 |
| MS20365-524 | Nut | 1 |

F. Nose Tire Inflation.

F-1 Proper Inflation as follows:

- a. AA1, AA1A, AA1B 22 lbs.
- b. AA5, AA5A 21 lbs.
- c. AA5B 25 lbs.

Service Kit prepared by Grumman American Aviation Corporation,
P.O. Box 2206, Travis Field, Savannah, Georgia 31402.

FAA (DER) Approval of this Service Kit has been granted.

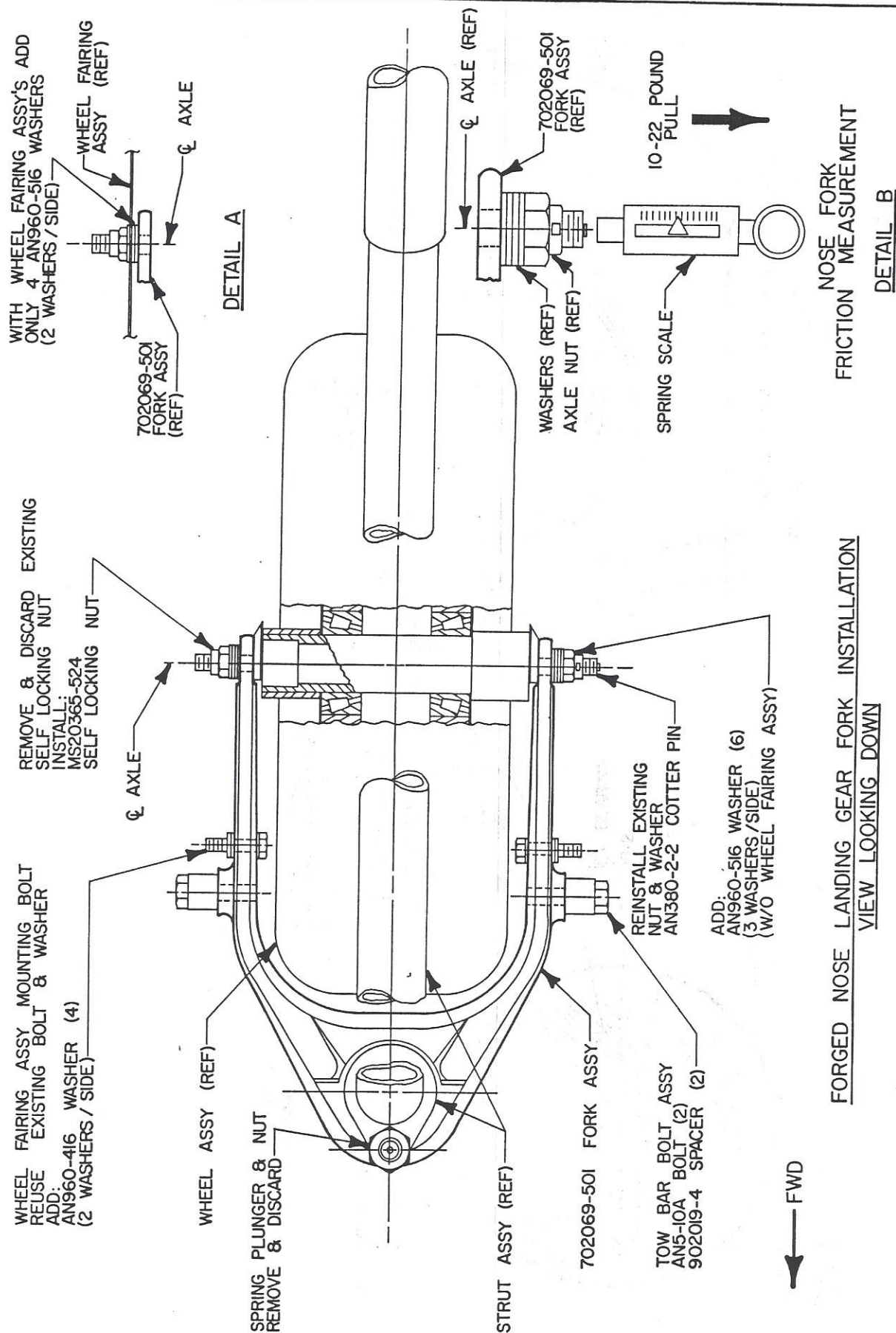


FIGURE 1

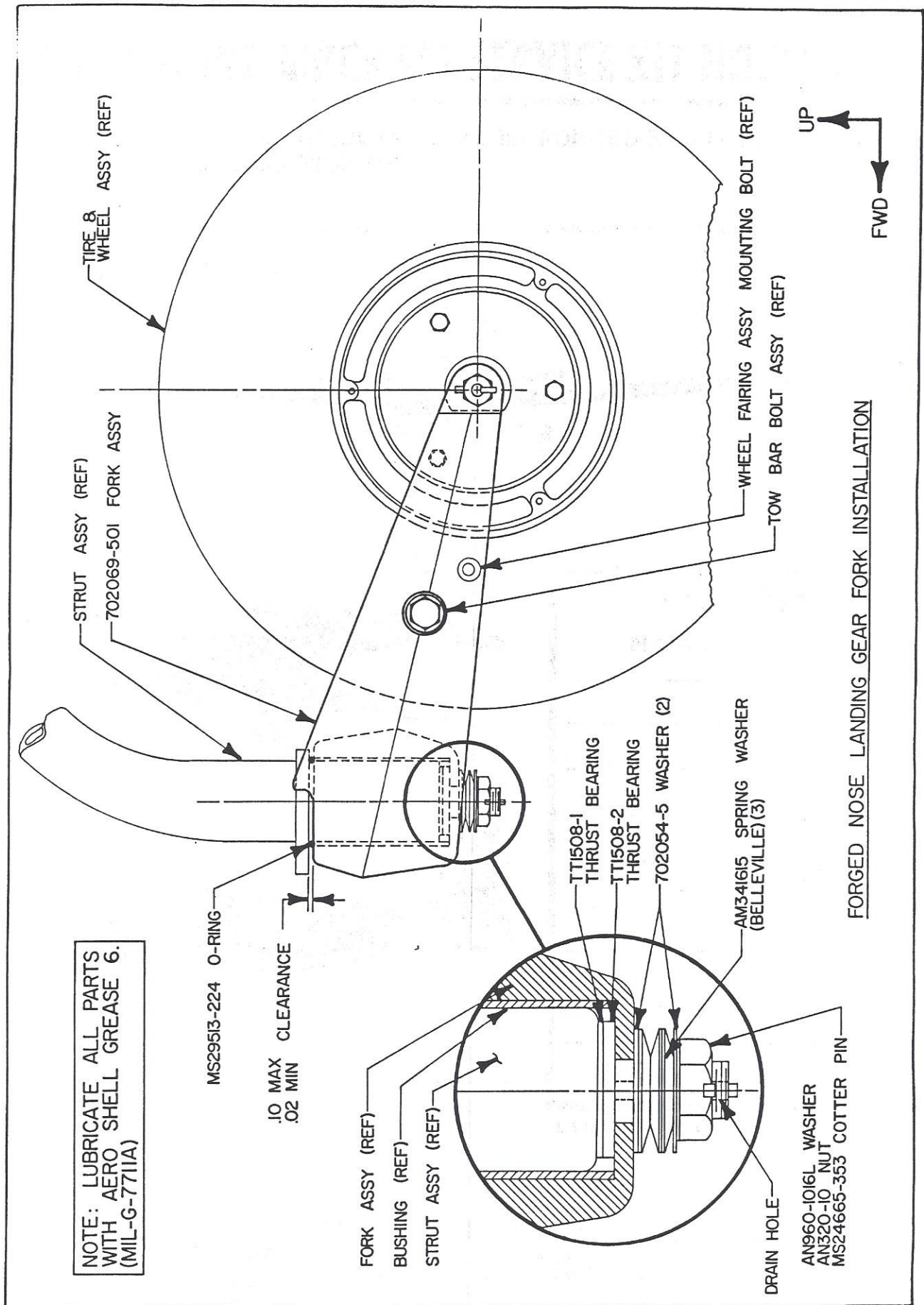


FIGURE 2