

## GRUMMAN AMERICAN AVIATION

313 HSHOR ROAD CLEVELAND, OHIO 44133  
(216) 449-8200 TELEEX NO. 980-245

## SERVICE

SERVICE KIT NO. SK-119

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DATE: March 14, 1973  
TITLE: Shock Mount Kit - Small Wheel Fairing  
SERIALS AFFECTED: All AA-1 and AA-1A Aircraft with Wheel Fairings.  
WEIGHT AND BALANCE CHANGE: Weight Increase - 5.72 LBS.  
Arm - 82.00 IN.

PARTS LIST

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
4	804046-5	Spacer (Upper)
2	804046-6	Spacer (Lower)
4	AN6-24A	Bolt
16	AN960-616	Washer
8	MS20365-624	Nut
2	804046-501	Support Assembly
4	AN960-616	Washer
2	804046-2	Bearing
2	AN6-13A	Bolt
2	AES1024-1	Bolt
2	AN936A516	Washer
2	AN960-516	Washer
2	804046-3	Bearing
2	5804023-1	Bracket
2	5804023-3	Support
2	5804023-4	Shim
2	5804023-5	Shim
2	J-4624-4	Flex Bolt
4	AN936A416	Washer
4	AN960-416L	Washer
4	MS35649-2252	Nut
16	AN3-5A	Bolt
8	AN960-10	Washer
2	804021-11	Lead Weight
2	AN509-10R14	Screw
2	A3235-028	Washer
2	AN960-10	Washer
2	MS20365-1032	Nut
1	804021-505	Bracket Assembly
1	804021-506	Bracket Assembly
2	AN380-4-8	Cotter Pin
4	AN6-22A	Bolt
4	AN6-21A	Bolt
1	804021-511	Doubler Assy. (LH)
1	804021-512	Doubler Assy. (RH)
44	MS20470AD4-5	Rivets
8	AN970-3	Washer
1	804021-507	Bracket Assy. (LH)
1	804021-508	Bracket Assy. (RH)

*5804022-5*  
*5804022-6*  
*LARGE*

## DESCRIPTION OF MODIFICATION

This modification covers the installation of shock mounts on main gear fairings that were originally solid mounted. It requires removal and replacement of the original solid mount brackets with shock mounted brackets and the addition of a lead weight in the nose of each fairing to provide static balance at the mount pivot points. No changes are required in the nose gear fairing. The installation of this kit reduces the fairing sensitivity to vibration caused by main gear tire out of balance or out of roundness.

## MODIFICATION INSTRUCTIONS

### A. Fairing Removal

NOTE: THE AIRCRAFT WEIGHT MUST BE REMOVED FROM THE LANDING GEAR FOR THIS INSTALLATION. POSITION THE TWO FORWARD JACKS ON THE SIDES OF THE FUSELAGE JUST AFT OF THE COWLING. THE REAR JACK CAN BE THE CRADLE TYPE OR THE HOOK TYPE THAT ATTACHES TO THE REAR TIE DOWN RING. (Reference Section II of each applicable Service Manual)

CAUTION: A RUBBER PAD AND WOOD BLOCK SHOULD BE PLACED BETWEEN AIRFRAME AND JACK.

1. After aircraft is jacked up, remove the main gear fairings. Discard the outboard attach bolt and washer, and the six (6) inboard (upper and lower), support bracket to fairing bolts and washers on each fairing.

### B. Fairing Modification (Refer to Figure 2)

1. Drill out the attaching rivets and remove the inboard fairing doubler and the outboard fairing support bracket.
2. Inspect the fairing for cracks and any other damage which may have occurred in service. Repair as necessary using standard fiberglass repair techniques.
3. Rivet the 804021-507 (LH) or -508 (RH) outboard fairing support bracket assembly and the 804021-511 (LH) or -512 (RH) inboard doubler assembly in place on the fairing using MS20470AD4-5 rivets. Locate the inboard doubler assembly using the lower rivet holes. See Figure 2.
4. Thoroughly clean the inside nose surface of the fairing and install the lead weight as shown in Figure 2. The lead weight must seat firmly centered against the inside nose surface of the fairing. Drill a 3/8 dia. hole in the fairing to accommodate the A3235-028 recessed washer which goes on the outside of the fairing when installing the lead weight attach bolt.
5. Using the new inboard doubler as a pattern, modify the fairing as follows:
  - a. Enlarge the four (4) original .193 dia. lower inboard mounting holes to .250 dia. See Figure 2.
  - b. Drill four (4) additional .193 dia. holes, in the fairing only (use caution to avoid drilling into the nutplates), in line with the four (4) nutplates at the top of the doubler. See Figure 2.
  - c. Slot the fairing to match the slot located in the top of the doubler between the holes drilled in step "B". See Figure 2.



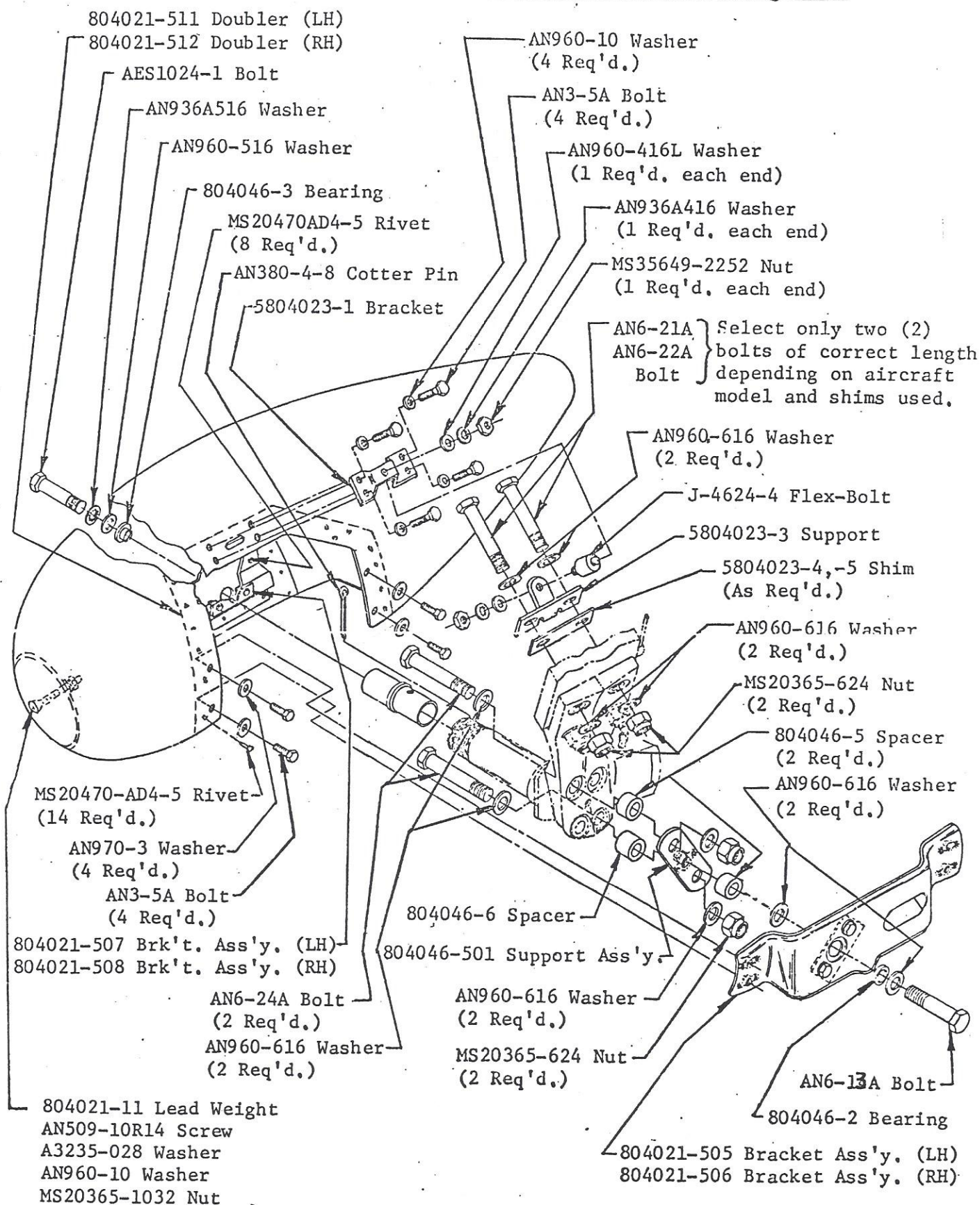


FIGURE 1. MAIN WHEEL FAIRING INSTALLATION, SMALL SHOCK-MOUNTED  
(Right Hand shown, Left Hand opposite)

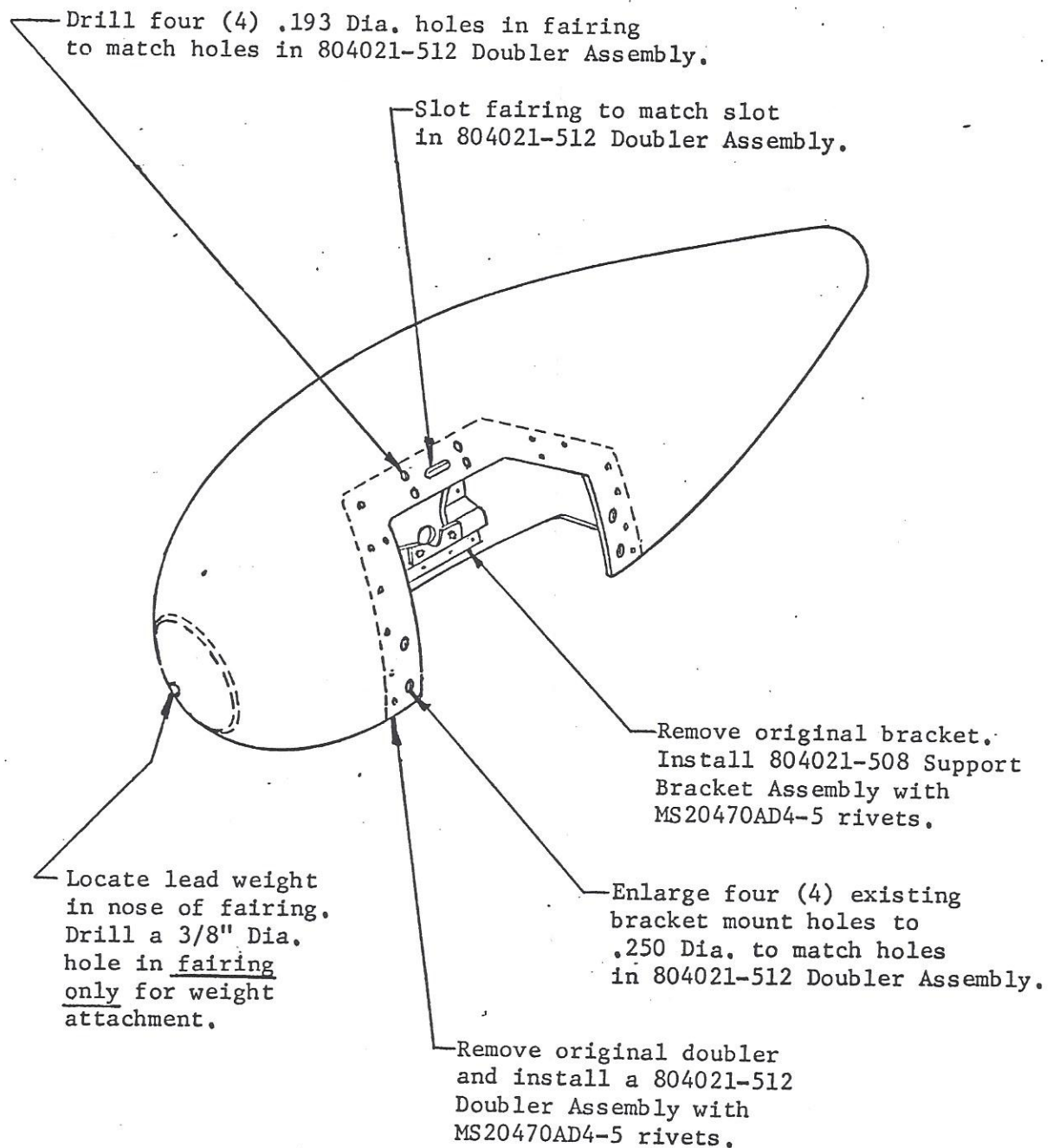


FIGURE 2. FAIRING MODIFICATIONS  
(RH shown, LH opposite)



### C. Support Brackets - Removal and Replacement

1. Remove the two (2) bolts holding the brake halves together.
2. Remove cotter pin and nut on outboard end of axle and remove wheel.
3. Remove the two (2) bolts holding the brake torque plate to the axle forging and replace them with AN6-24A bolts supplied with kit. Install a 804046-5 spacer (upper), 804046-6 spacer (lower), 804046-501 support assembly, two (2) AN960-616 washers and two (2) MS20365-624 nuts as shown in Figure 1. Torque nuts to 250-300 in. lbs..

NOTE: CHECK TIRES FOR OUT OF ROUNDNESS AND OUT OF BALANCE. TIRES SHOULD BE BALANCED TO WITHIN 5 INCH OUNCES ON A STATIC "BUBBLE BALANCER".

4. Reinstall wheel and brake half in reverse of removal. Tighten axle nut until a slight drag is felt when wheel is rotated. Line up nut with cotter pin hole (if 804021-509 adapter assembly has been removed, coat mating surfaces of adapter assembly and axle with loctite retaining compound, insert adapter assembly in end of axle), and install the cotter pin.
5. Assemble the inboard fairing support brackets as follows: Assemble a 804021-505 (LH) or -506 (RH) support bracket assembly to the 804046-501 support assembly with an AN6-13A bolt, two (2) AN960-516 washers, a 804046-2 bearing and a 804046-5 spacer as shown in Figure 1. Be sure to assemble an AN960-516 washer on each side of the 804046-2 bearing.

### D. Fairing Installation

1. Loosen scraper on wheel fairing assembly and slide to the full aft position. Install fairing on aircraft using four (4) AN3-5A bolts with four (4) AN970-3 washers to attach the lower inboard side to the inboard support bracket assembly and one (1) AES1024-1 bolt with an AN936A516 washer, an AN960-516 washer and an 804046-3 bearing on the outside. Torque bolt to 100-140 in. lbs. Snap NAS451-56 plug button in place.
2. Assemble the upper flex mount assembly as follows: Assemble the J-4624-4 flex bolt to the 5804023-1 bracket with an AN960-416L washer, an AN936A416 washer and a MS35649-2252 nut as shown in Figure 1. Assemble the other end of the flex bolt to the 5804023-3 support using the same washers and nut as shown in Figure 1.
3. Remove and discard the two (2) upper bolts holding the axle forging to the strut.
4. Install the flex mount assembly on the fairing with four (4) AN3-5A bolts and four (4) AN960-10 washers. Add 5804023-4 and/or -5 shims as required under the 5804023-3 support to properly align the rubber flex bolt in a nondeformed position and install the longer AN6-21A or AN6-22A bolts (length as required), supplied with the Kit. Be sure brake line clamp support tab is installed under head of aft bolt. Install the two (2) AN960-616 washers, the two (2) MS20365-624 nuts and torque to 250-300 in. lbs.
5. Adjust scraper to a minimum of .5 inch clearance with tire and tighten adjusting bolts.
6. Check fairing for freedom of movement on flex mounts.
7. This completes the installation.