

No. 67-19

Rev. I

Kit 23-9003 S (For Model A23 and A23A aircraft, serials M-803, M-812 through M-1068, and those A23 aircraft, serials M-555 through M-811, having complied with the Service News Article issued October, 1965).

Kit 23-9003-1 S (For Model A23's prior to M-812, except M-803, which have not complied with the Service News Article issued October, 1965).

Kit 23-9003-2 S (For all Model 23, serials M-1 through M-554, and Model A23-19, serials MB-1 through MB-264).

Kit 23-9003-3 S (For all Model A23-24, serials MA-1 through MA-272).

SUBJECT: A NEW THROTTLE CONTROL FOR THE BEECHCRAFT MUSKETEER

AIRCRAFT AFFECTED: All BEECHCRAFT Model 23, A23 and A23A aircraft, serials prior to M-1069; all Model A23-19, serials prior to MB-265; all Model A23-24, serials prior to MA-273.

NOTE

This Service Letter supersedes Service News Articles on the same topic issued October, 1965, and September, 1966.

On all current BEECHCRAFT Musketeers, a new, improved, throttle control assembly is now installed. The new throttle increases service life and improves operation. On older BEECHCRAFT Musketeers, with the model numbers and serial numbers noted above, which required throttle replacement, installation of the improved throttle control is necessary, since the original control is no longer available.

Part I: For Model A23 and A23A aircraft, serials M-803, M-812 through M-1068, and those A23 aircraft, serials M-555 through M-811, having complied with the Service News Article issued October, 1965. (Kit 23-9003 S):

1. Remove the old throttle control from the airplane and remove the lower throttle control bracket, P/N 169-920016-1, from the engine.

2. Install the new throttle control bracket, P/N 169-910001-55, on the throttle body of the engine and on the existing bracket, using the existing bolts, nuts and washers.

3. Mount the new throttle control assembly, P/N 169-940013-3, in the instrument panel and route the control cable as the old cable was routed, using the existing 112412 grommets and NAS51-87 retainer ring with the new 112413-2 ball halves at the firewall.

4. Discard the existing 169-910001-51 blocks formerly used on the cable at the throttle control bracket upper end and replace them with two 169-910004-33 blocks, using the existing clamp and attaching parts.

5. Install the existing HF3 rod end and AN345-10 nut on the control end.

6. A few of the Musketeers after M-812 required a bushing, P/N 105739X-ZM0100, in the throttle arm. Make sure that this bushing, when removed, is replaced during re-assembly.

7. Connect the throttle control cable to the throttle linkage with the existing hardware.

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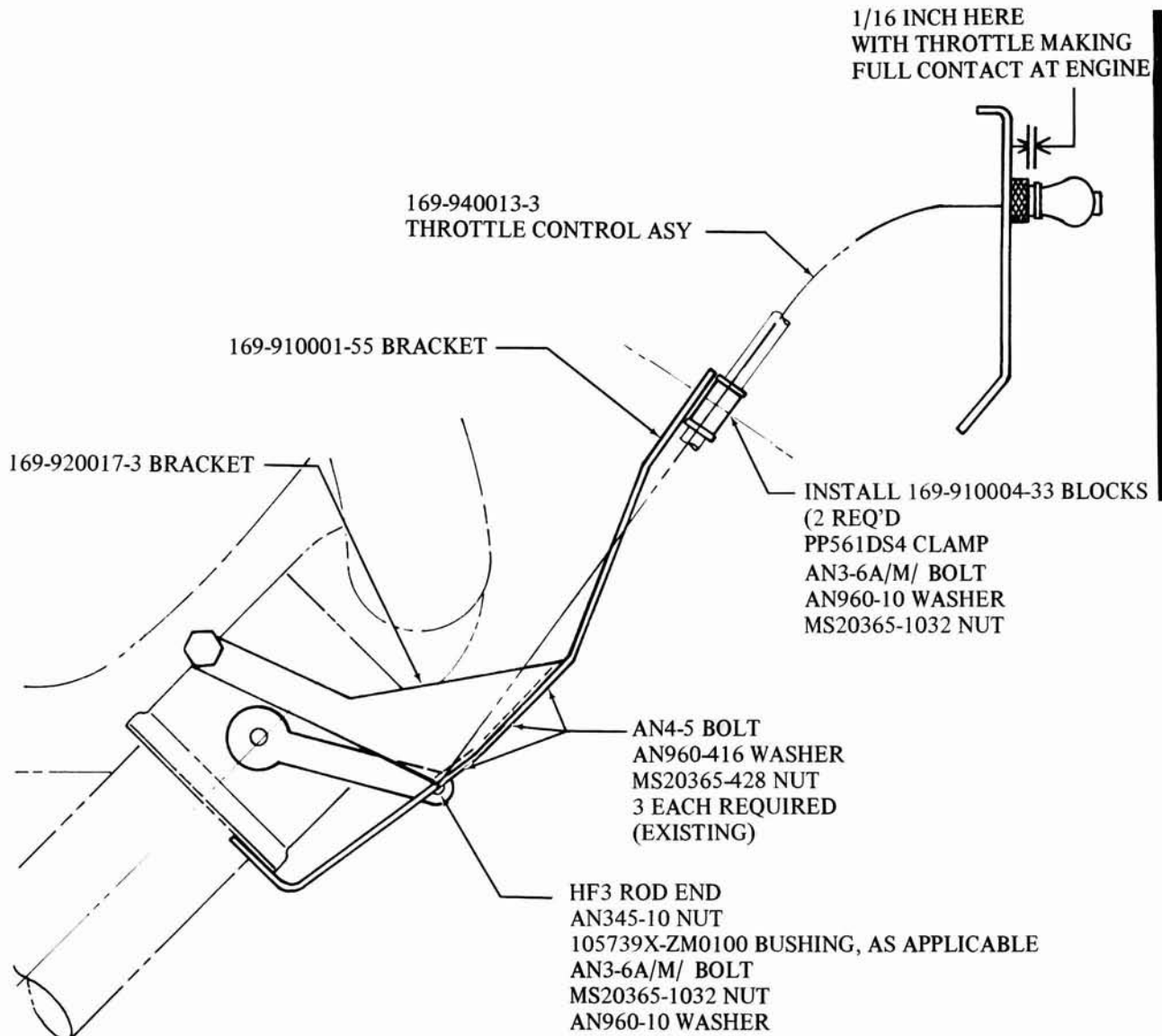
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8. Tie or clamp the control as required to prevent abrasion with other components. Adjust the control cable so that when the control is making full throttle contact at the throttle body, a gap of 1/16 inch remains between the knurled nut and the stop nut at the instrument panel. (See

figure 1 for an illustration of the properly rigged throttle control assembly installed in Part I.)

The parts required for the rework described in Part I are included in Kit 23-9003 S.



MODEL A23 AND A23A

FIGURE I

Part II: For Model A23 Musketeers prior to M-812, except M-803, which have not complied with the Service News Article issued October, 1965. (Kit 23-9003-1 S):

1. Remove the old throttle control from the airplane.
2. Enlarge the throttle control hole in the instrument panel to .75 inch.
3. Enlarge the throttle control hole in the firewall to .88 inch.
4. Remove the throttle control brackets, P/N's 169-920016 and 169-920017, and install the new brackets, P/N's 169-910001-55 and 169-920017-3, with the existing bolts, nuts and washers.
5. Mount the new throttle control, P/N 169-940013-3, in the instrument panel and route as the old control was routed through the firewall and engine compartment.
6. Install two 112412 grommets and two 112413-2 ball halves around the cable at the firewall and secure them with the NAS51-87 retainer ring.
7. Attach the control to the bracket, using two 169-910004-33 blocks and one each PP561DS4 clamp, AN3-6A/M/ bolt, AN960-10 washer and MS20365-1032 nut.
8. Install the HF3 rod end and AN345-10 nut on the control end.
9. The throttle arm holes (shaft and bolt hole) should be 2.50 inches on center. Should the arm be longer, it may be cut off; and a new .190 - .194 inch hole may be drilled. In the event that the airplane is equipped with the simulated landing gear retract switch, the arm should be 2.25 inches between hole centers; and again redrilling is in order.
10. If the throttle arm hole is .250 inch in diameter, and the arm does not require shortening, a bushing, P/N 105739X-ZM0100, should be installed.
11. Connect the rod end to the arm with an AN3-6A/M/ bolt, AN960-10 washer and MS20365-1032 nut.
12. Tie or clamp the control as required to prevent abrasion with other components. Adjust the control cable so that, when the control is making full throttle contact at the throttle body, a gap of 1/16 inch remains between the knurled nut and the stop nut at the instrument panel. (See figure 1 for an illustration of the properly rigged throttle control assembly installed in Part II.)

The parts required for this rework are included in Kit 23-9003-1 S.

Part III: For all Model 23 (including those which have complied with the Service News Article Issued September, 1966, "Installation of Vernier Throttle") and Model A23-19. (Kit 23-9003-2 S):

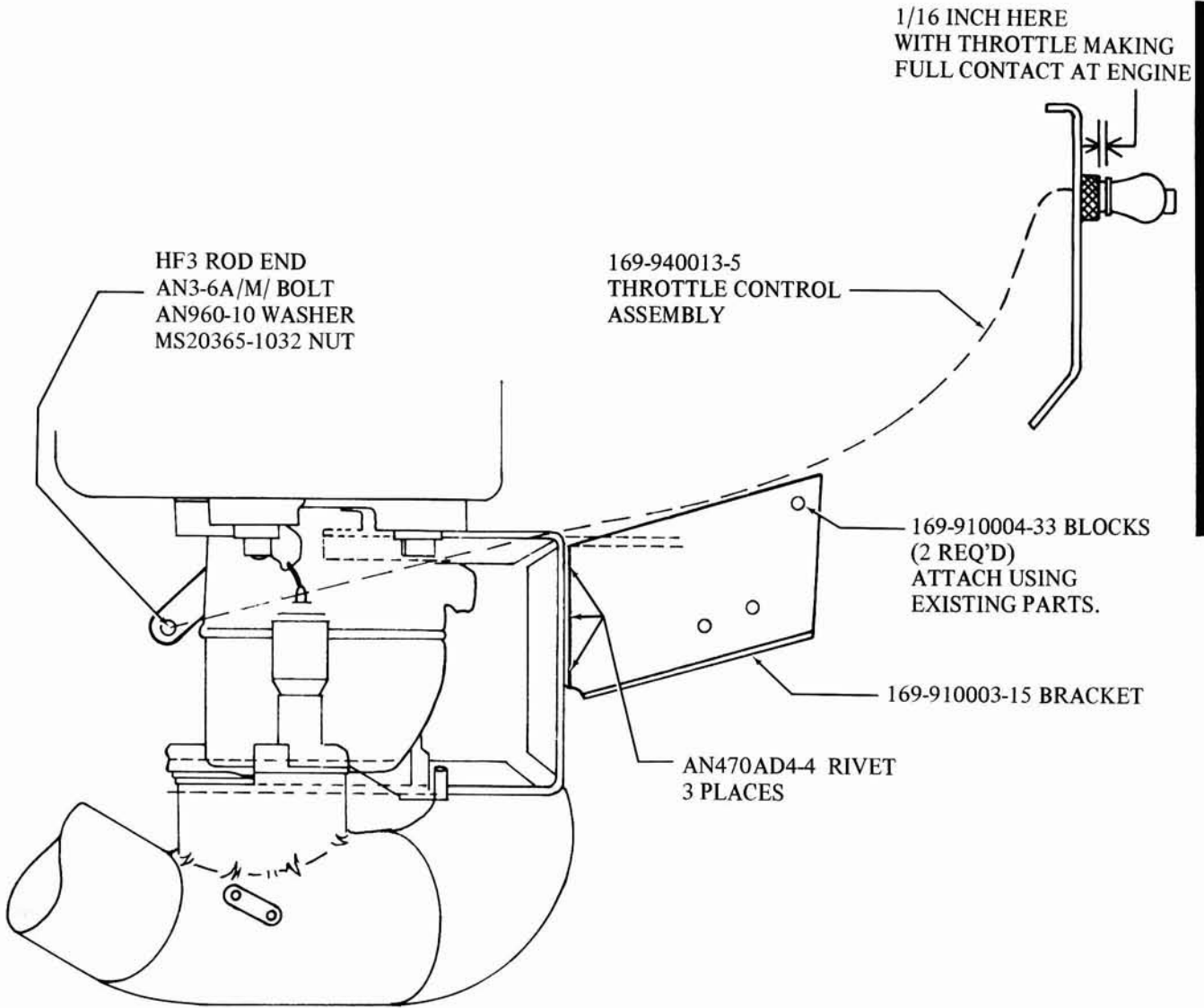
1. Remove the old throttle control from the airplane and remove and discard the small bracket on the aft side of the bracket attached to the carburetor. Those Model 23 Musketeers which have not complied with the above-noted Service News will not be equipped with this bracket.
2. Install a new throttle control bracket, P/N 169-910003-15, on the aft side of the bracket mounted on the carburetor, in the location shown in the illustration, using three AN470AD4-4 rivets.
3. Mount the new throttle control assembly, P/N 169-940013-5, in the instrument panel, and route the control cable as the old cable was routed, using two 112412 grommets and two 112413-2 ball halves around the cable housing at the firewall; and secure the assembly with one NAS51-87 retainer ring.

NOTE

Those Model 23's which have not complied with the September, 1966, Service News Article should have the panel hole increased to .75 inch and the firewall hole increased to .88 inch.

4. Discard the existing 169-910001-51 blocks formerly used around the cable at the upper end of the bracket and replace them with two 169-910004-33 blocks, using the existing clamp and attaching parts.
5. Secure the control at the engine mount member with one MS21919DG4 clamp and one MS21919DG10 clamp, one AN3-4A/M/ bolt, one AN960-10 washer and one MS20365-1032 nut. Tie the control as required to prevent abrasion.
6. On those Musketeers equipped with the old vernier throttle, install the rod end on the new control and attach the control to the throttle arm with the existing hardware. Those Model 23 Musketeers which had the original wire/housing type throttle control should install the new rod end, HF3, and nut, AN345-10, on the control end and attach the rod end bearing to the throttle arm with an AN3-6A/M/ bolt, AN960-10 washer and MS20365-1032 nut.
7. Adjust the control cable so that, when the control is making full throttle contact at the throttle body, a gap of 1/16 inch remains between the knurled nut and the stop nut at the instrument panel. (See figure 2 for an illustration of the properly rigged throttle control assembly installed in Part III.)

The parts required for this rework are included in Kit 23-9003-2 S.



MODEL 23 AND A23-19 AIRCRAFT

FIGURE 2

Part IV: For Model A23-24 Musketeers. (Kit 23-9003-3 S):

1. Remove the old throttle control from the airplane and remove the existing throttle control bracket from the engine.
2. Install the new 169-910004-21 throttle control bracket on the location of the discarded bracket, using two MS20074-04-05/M/ bolts, two AN936A416 washers and two AN960-416 washers to attach the bracket to the crankcase.
3. Mount the new throttle control assembly, P/N 169-940013-1, in the instrument panel, and route the control cable as the old cable was routed, using the existing firewall grommet retainers and the new 112413-2 ball halves.
4. Discard the existing 169-910001-51 blocks formerly used on the cable at the aft end of the bracket and replace them with two 169-910004-33 blocks, using the existing clamp and attaching parts. Tie or clamp the control to the existing structure to maintain proper clearances.
5. Connect the control to the throttle arm with the existing hardware.

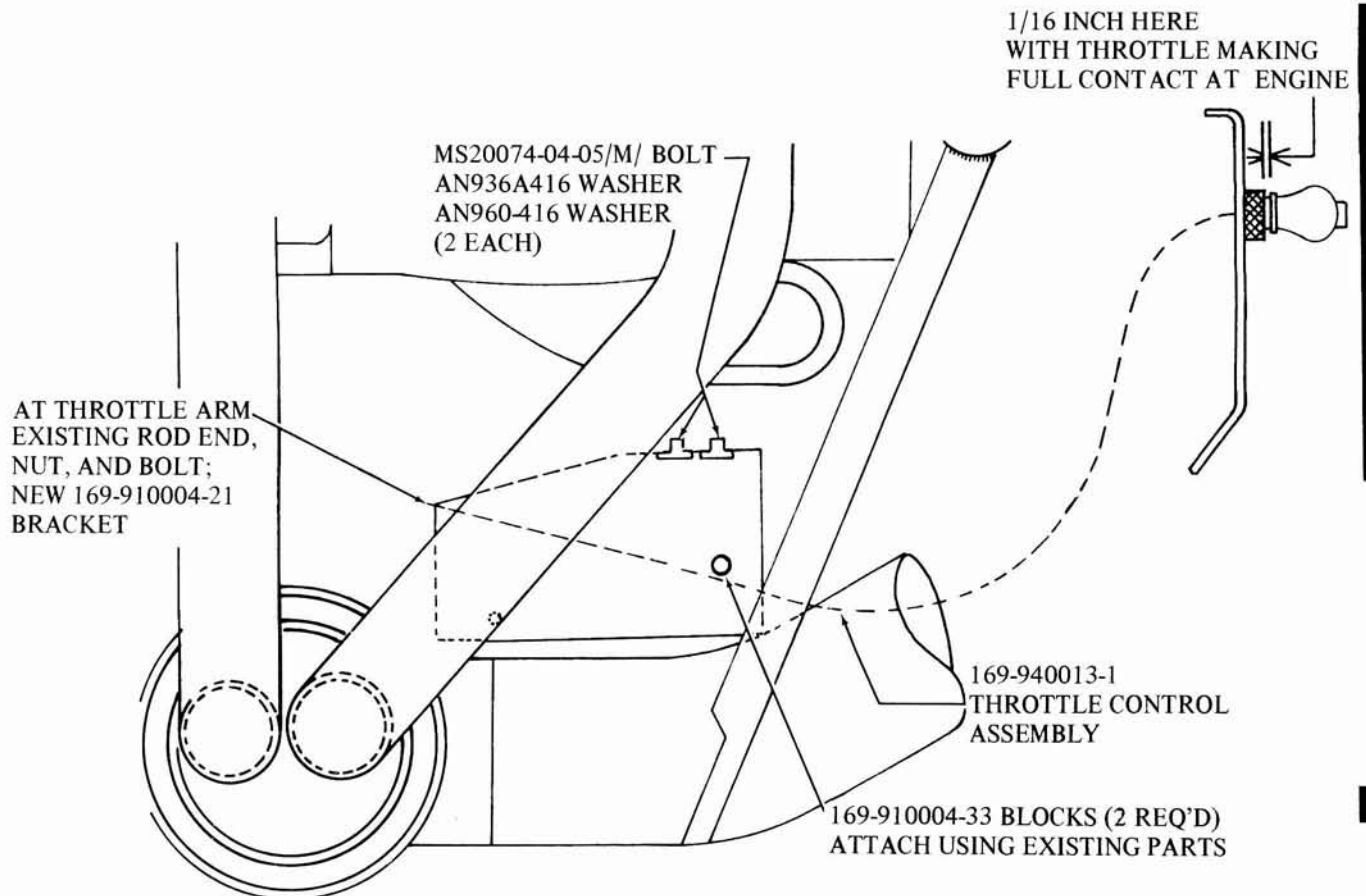
6. Adjust the control cable so that, when the control is making full throttle contact at the throttle body, a gap of 1/16 inch remains between the knurled nut and the stop nut at the instrument panel. (See figure 3 for an illustration of the properly rigged throttle control assembly installed in Part IV.)

The parts required for this rework are included in Kit 23-9003-3 S.

NOTE

Please change your parts catalog to indicate that replacement throttle control assemblies for the Musketeer should be ordered under the new control assembly numbers given above (for those aircraft having complied with this Service Letter) or under the kit numbers given above (for those aircraft not having complied with this Service Letter), since all the old throttle control assemblies are being discarded from stock.

It is suggested that the parts list contained in the kit used be filed for future reference until the listing of parts has been incorporated in the Parts Catalog.



MODEL A23-24
(VIEW LOOKING INBOARD FROM LEFT SIDE)

FIGURE 3