

SERVICE KIT NO. SK-118-2B  
(Supersedes SK-118-2A)K  
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DATE: March 5, 1973

TITLE: Large Pulley Installation - AA5 Control System -

SERIALS AFFECTED: AA5-0001 through AA5-0209

WEIGHT AND BALANCE CHANGE: Negligible

Parts List

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
12	MS20220-2	Pulley
1	5600009-1	Bracket
1	5600009-2	Bracket
4	MS20470AD5-5	Rivet
3	601054-1	Bracket
1	ST-1162	Drill Jig - 3
2	5607012-2	Strap
4	1601-0410	Rivet

Description of Modification

This modification covers the installation of larger diameter pulleys in the control system pulley groups located under the console just forward of the center spar and under the baggage floor just behind the rear seat. This requires installing new larger pulleys and larger support brackets at the forward location and new larger pulleys and new riveted support brackets in the aft location. Additional holes must be drilled at the aft position in the center pulley supports to accommodate the new location of the pulley shaft and cable guard. A drill jig is provided for this operation.

Modification Instructions

1. Remove console side panels and the forward screw in the aft center console.
2. Remove rear seat back.
3. Remove inspection panel under rear seat bottom.
4. Remove baggage floor covering and inspection cover.
5. Remove forward pulley group located just forward of the center spar.
6. Disassemble pulley group and reassemble using larger pulleys and brackets supplied in kit. Assemble shaft in forward holes of support brackets. See Figure 1.
7. Remove and discard the two (2) original fuel line support straps attached to the front inboard seat brackets. Reinstall seat bracket bolts.
8. Install a new 5607012-2 strap on each side of the console with 1601-0410 rivets to support the fuel lines as shown in Figure 1. Use existing bolt, washer and nut on each clamp.
9. Reinstall new pulley group assembly in aircraft. Be sure all cables are in the correct pulleys. i.e. aileron cables in the two (2) outside pulleys, rudder cables in the next to the outside pulleys and the elevator cables in the two (2) center pulleys. See Figure 2.
10. Disassemble the aft pulley group located under the baggage floor. Access is through the baggage floor inspection cover and through six (6) lightening holes in the bulkhead behind the rear seat. Note AN960-516L washers located between outboard pulleys.
11. After the aft pulley group is disassembled, remove the 5600006-1 and -2 outboard brackets by drilling out the two (2) rivets attaching each bracket to the bulk-

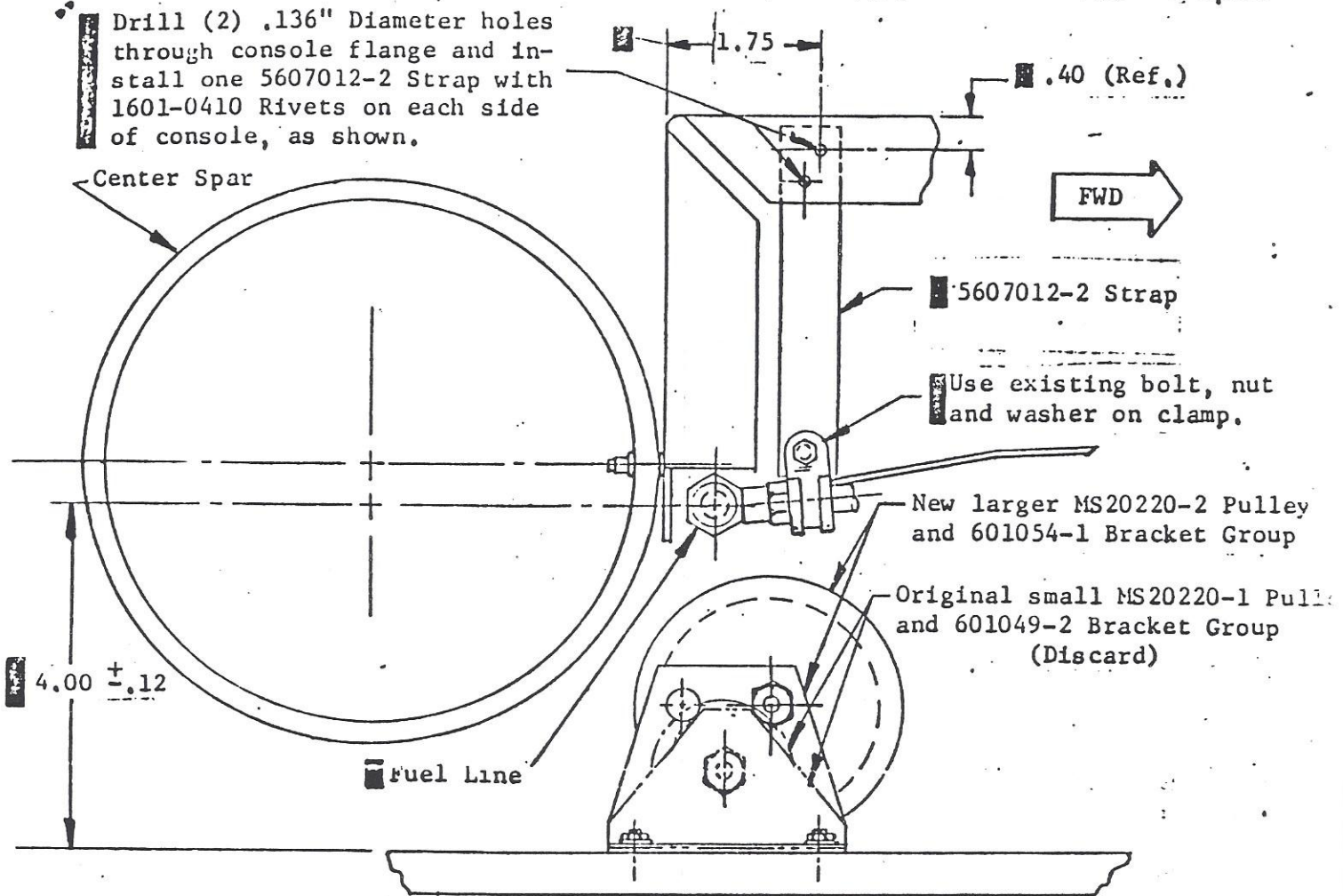
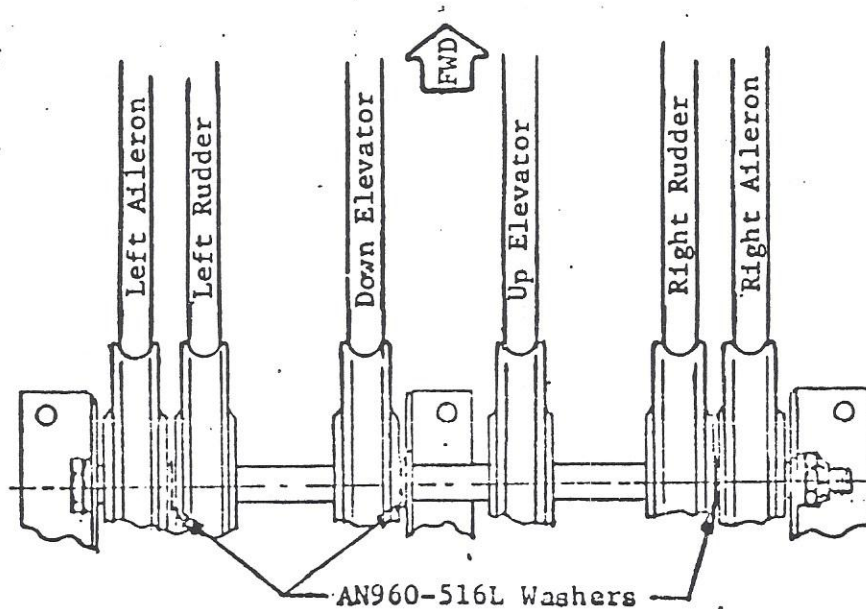


Figure 1. Large Pulley Installation- Forward



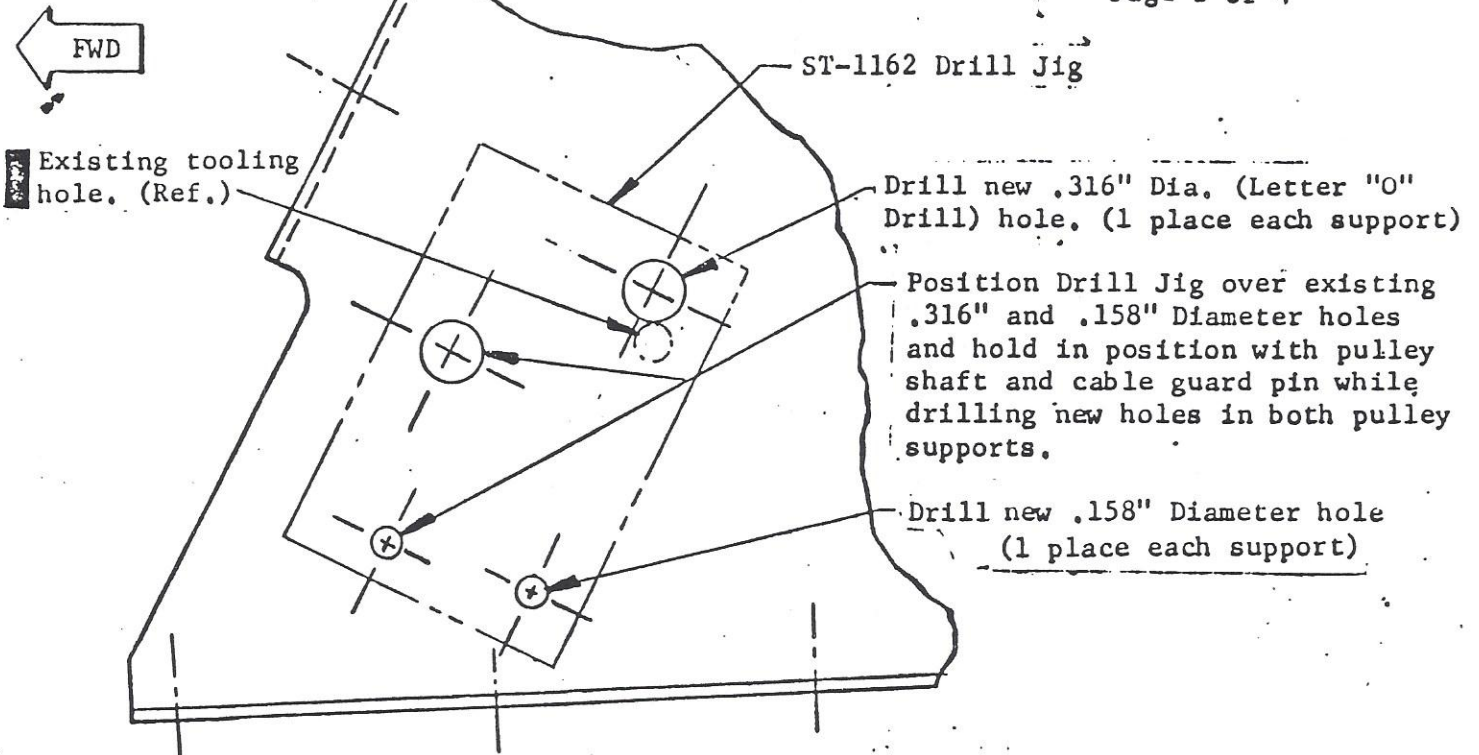
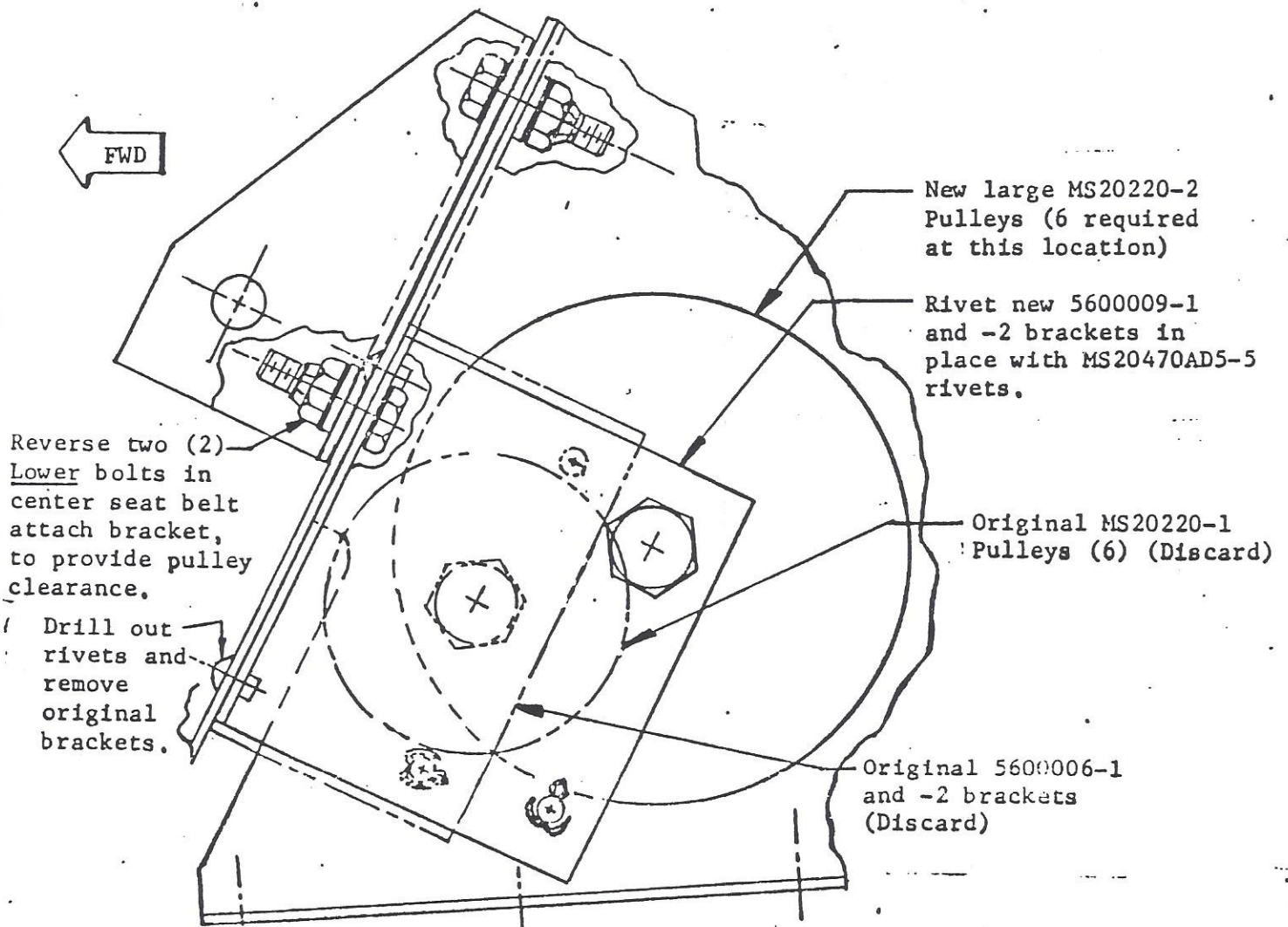


Figure 3. Drilling New Pulley Shaft and Cable Guard Pin Holes - Aft



12. Locate the ST-1162 drill jig on each aft 5102303-1 and -2 pulley support bracket as shown in Figure 3. Hold in place with the original pulley shaft and cable guard pin and drill a new .316" diameter hole and a new .158" diameter hole in each support bracket.
13. Rivet new 5600009-1 and -2 brackets in place with the MS20470AD5-5 rivets. See Figure 4.
14. Inspect all control cables for wear and broken wires, paying particular attention to both the forward and aft pulley areas. (Reference Service Bulletin No. 127). Cables with more than four (4) broken wires must be replaced.
15. Reverse the two (2) lower bolts in the center seat belt attach bracket to provide pulley clearance as shown in Figure 4. Reassemble the aft pulley group using the larger MS 20220-2 pulleys. Be sure all cables are in the correct pulleys and AN960-516L washers are installed between outboard pulleys. (Cables aligned same as the forward pulley group).
16. Check control cable tension as follows:

Aileron Cables =  $30 \pm 2$  lbs.  
Elevator Cables =  $35 \pm 0 - 5$  lbs.

17. Check travel of control surfaces as follows:

Ailerons =  $15^\circ + 2^\circ - 0$  up and  $7\frac{1}{2}^\circ + 2\frac{1}{2}^\circ - 0^\circ$  down  
Elevators =  $30^\circ \pm 2^\circ$  up and  $20^\circ \pm 2^\circ$  down  
Rudders =  $25^\circ \pm 2^\circ$  left and right

NOTE: COMPLETE CONTROL SYSTEM RIGGING PROCEDURES ARE DESCRIBED IN THE AIRCRAFT SERVICE MANUAL.

18. Reinstall the baggage floor inspection cover and floor covering.
19. Reinstall the inspection panel under the back seat bottom.
20. Reinstall the rear seat back.
21. Reinstall the console side panels and the forward screw in the aft center console.

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NOTE: REVISION "A" INCORPORATES TWO (2) 5607012-2 STRAPS AND FOUR (4) 1601-0410 ATTACHING RIVETS TO RAISE FUEL LINES FOR PROPER CLEARANCE WITH LARGER PULLEY CLUSTER.

NOTE: REVISION "B" REVISED INSTRUCTION 15 AND FIGURE 4 TO PROVIDE INSTRUCTIONS FOR REVERSING THE TWO (2) LOWER BOLTS IN THE CENTER SEAT BELT ATTACH BRACKET TO PROVIDE PULLEY CLEARANCE.