CHAPTER

55

STABILIZERS

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STABILIZERS - DESCRIPTION AND OPERATION

1. DESCRIPTION

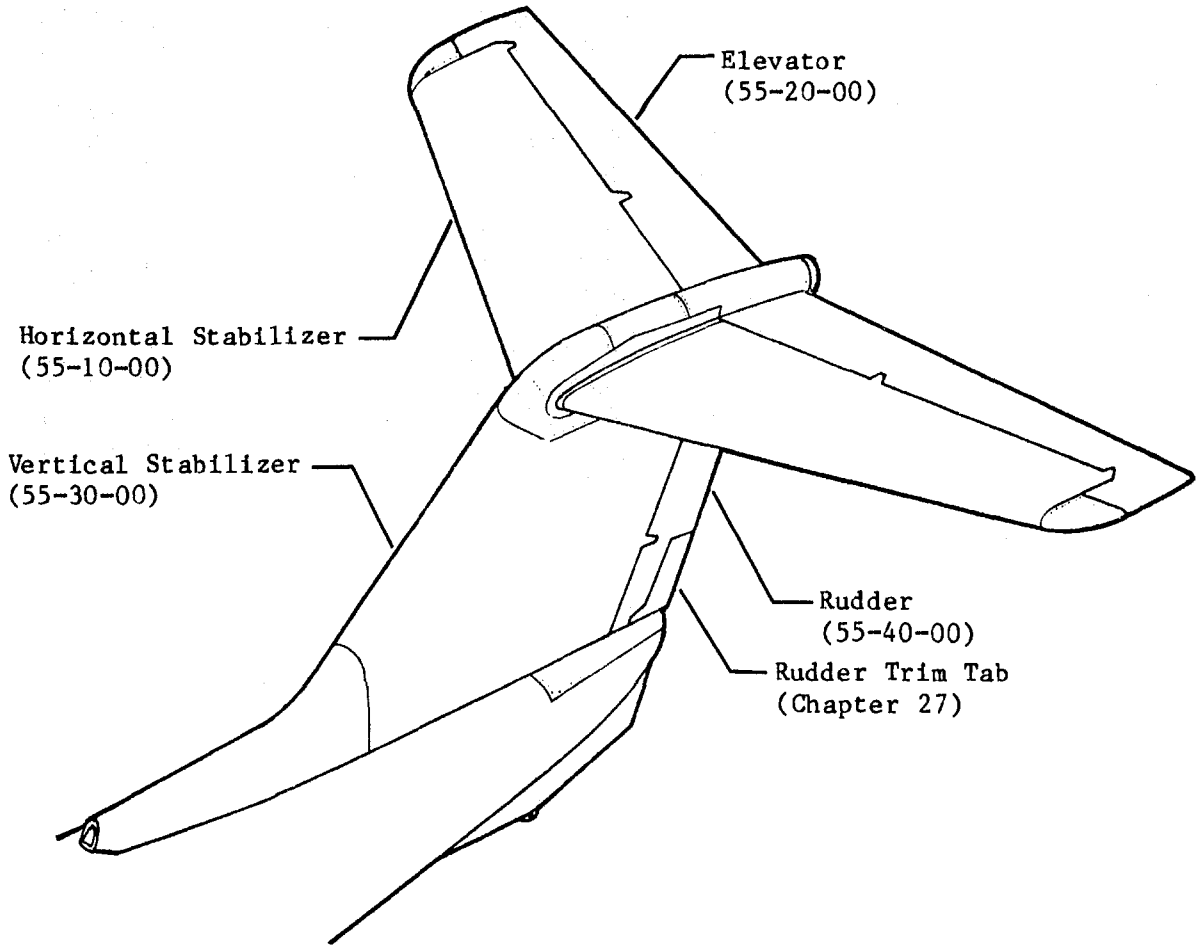
A. Stabilizers include the horizontal stabilizer, elevators, vertical stabilizer, and rudder.

B. The one-piece horizontal stabilizer is attached to the vertical stabilizer at two points. The aft attach point serves as a pivot and consists of a large pin inserted through bearings in the horizontal and vertical stabilizers. The forward attach point attaches to the arm end of the horizontal stabilizer actuator. The bottom end of the actuator is secured to the vertical stabilizer forward spar. The horizontal stabilizer is constructed of spars and ribs covered with skin. Access covers on the lower skin of the horizontal stabilizer provide access to the hinge points. Access covers on the upper skin provide access to anti-ice thermoswitches. On *Aircraft 35-664 and Subsequent and 36-061 and Subsequent*, additional access covers on the upper skin allow debris removal. For more information on the horizontal stabilizer, refer to Chapter 27.

C. Each elevator is connected to the horizontal stabilizer at three hinge points. The elevator structure consists of ribs and spars covered with skin. Counterbalance weights are located in the leading edge of the tip cover. An access cover located on the leading edge of the elevator provides access to the center hinge point. For more information on the elevators, refer to Chapter 27.

D. The vertical stabilizer structure consists of spars and ribs covered with skin. Access covers located on the vertical stabilizer provide access for structural inspection and access to electrical wiring, horizontal stabilizer actuator, elevator controls, and rudder hinges. Attach fittings for the rudder and horizontal stabilizer are located on the vertical stabilizer.

E. The rudder is mounted on a torque tube with a bellcrank attached to its lower end. The bellcrank provides attach points for the rudder control cables. Balance weights are located in the rudder leading edge. A rudder trim tab is located on the rudder lower trailing edge and is controlled by an actuator located in the rudder leading edge. Access covers on the leading edge of the rudder provide access to the hinge points, balance weights, and trim tab actuator.



Stabilizers
Figure 1

HORIZONTAL STABILIZER - DESCRIPTION AND OPERATION

1. DESCRIPTION

A. The horizontal stabilizer is assembled in one piece and is built up of ribs and spars covered with skin. Drain holes through the lower skin are provided near B.L. 4.50 on both the LH and RH sides (two holes on each side).

B. The horizontal stabilizer is attached to the vertical stabilizer at two points. The aft attach point is the pivot and consists of a large hinge pin inserted through heavy bearings in the horizontal stabilizer and vertical stabilizer. The forward attach point is to the horizontal stabilizer actuator. The bottom end of the actuator is secured to the vertical stabilizer forward spar. The actuator changes the attitude of the horizontal stabilizer to provide pitch trim.

C. A fiberglass bullet fairing is installed on each side of horizontal stabilizer where it passes through the vertical stabilizer cutouts. The fairings cover the open area at the vertical stabilizer cutouts when the horizontal stabilizer is in the full up or down position. The fiberglass fairings are coated with an anti-static coating to prevent buildup of static electricity on the non-conductive fairings.

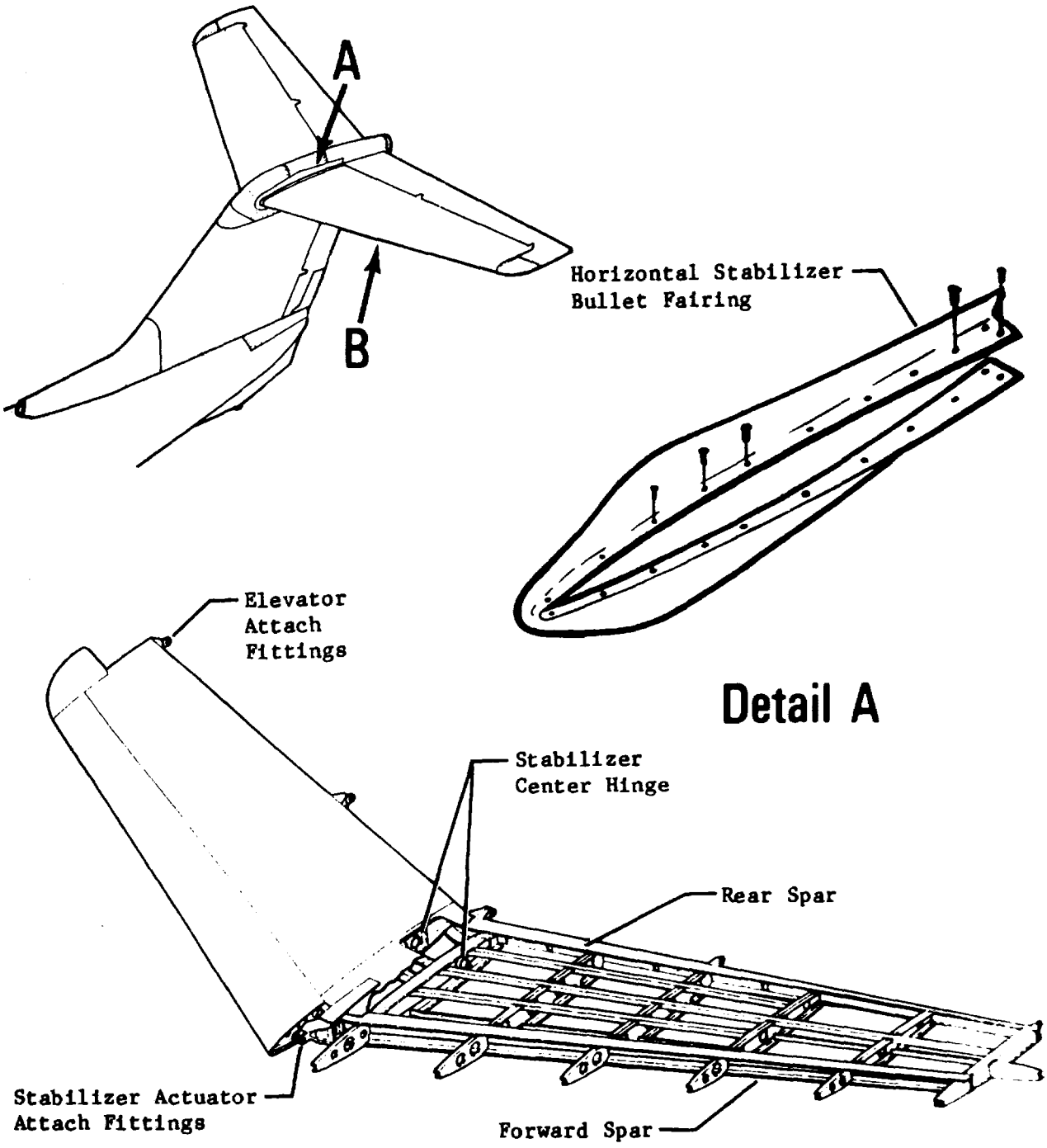
D. An access cover is located on the inboard lower skin of the stabilizer. The cover allows access to the hinge pin for removal and installation. Access to the actuator is through a cover on the side of the vertical stabilizer and by removing the fairing on top of the vertical stabilizer.

E. Horizontal stabilizer leading edge anti-icing is accomplished by directing engine bleed air through a diffuser tube installed in the stabilizer leading edge. Bleed air is exhausted from the stabilizer leading edge through the outboard horizontal stabilizer rib and stabilizer tip.

F. Access to the horizontal stabilizer leading edge anti-ice thermoswitches is gained through access covers located on the RH and LH forward upper surface of the horizontal stabilizer.

G. On *Aircraft 35-664 and Subsequent and 36-061 and Subsequent*, access covers located outboard and aft on the LH and RH upper surfaces of the horizontal stabilizer allow debris removal.

H. Refer to Chapter 30 for anti-ice maintenance practices. For additional information on the horizontal stabilizer, refer to Chapter 27.



Horizontal Stabilizer
Figure 1

HORIZONTAL STABILIZER GAP FAIRING - MAINTENANCE PRACTICES

1. Removal/Installation

A. Removal of Stabilizer Gap Fairing (See Figure 201.)

(1) Remove attaching parts securing gap fairing to horizontal stabilizer.

NOTE: Identify screw location during removal.

Screw grip lengths vary depending on location.

(2) Remove horizontal stabilizer gap fairing from horizontal stabilizer.

B. Installation of Stabilizer Gap Fairing (See Figure 201.)

(1) Position stabilizer gap fairing on horizontal stabilizer and secure with identified attaching parts.

NOTE: Ensure proper grip length screw is installed.

(2) Perform Stabilizer Gap Fairing Clearance Check. (Refer to Inspection/Check, this section.)

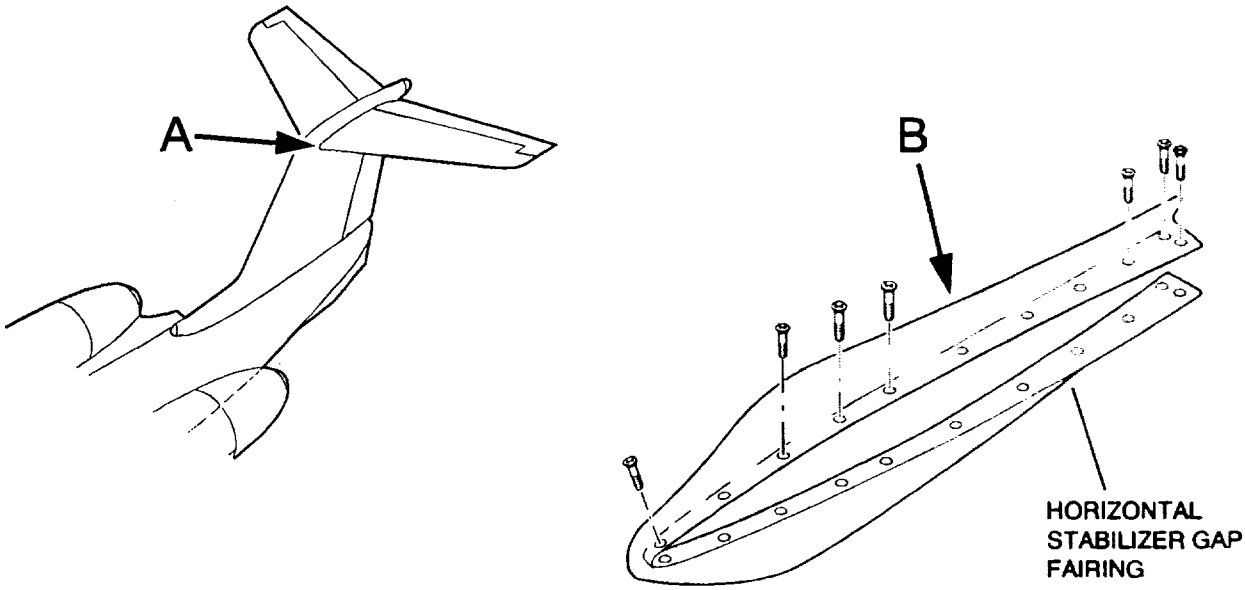
2. Inspection/Check

A. Stabilizer Gap Fairing Clearance Check

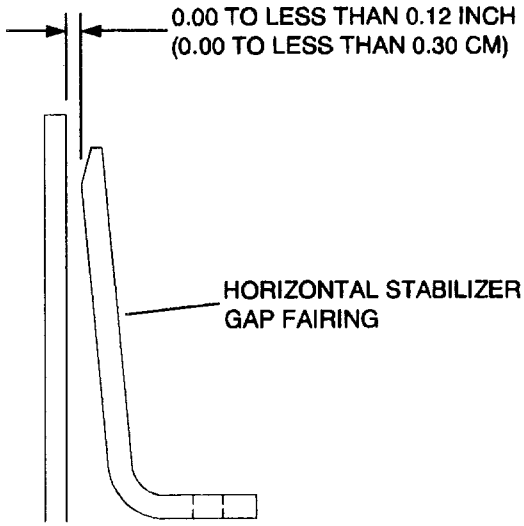
(1) Set stabilizer at 0°. (Refer to Chapter 27.)

(2) Measure and record clearance between gap fairing and vertical stabilizer fairing along gap fairing periphery.

(3) Clearance is to be from 0.00 to less than 0.12 inch [0.00 to less than 0.30 cm] along gap fairing periphery. Clearance may be a maximum of 0.12 [0.30 cm] along only 20% of the gap faring periphery.



Detail A



Detail B

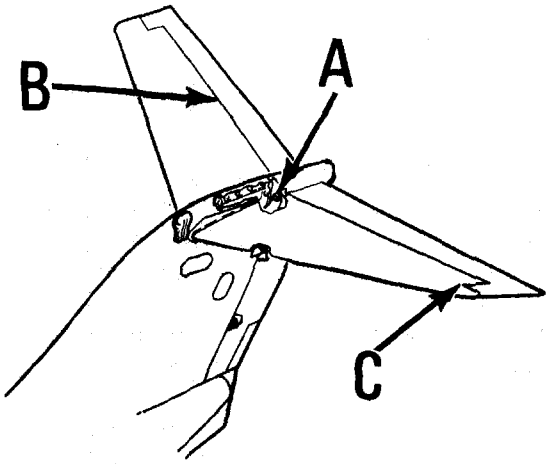
M35-551001-201-01

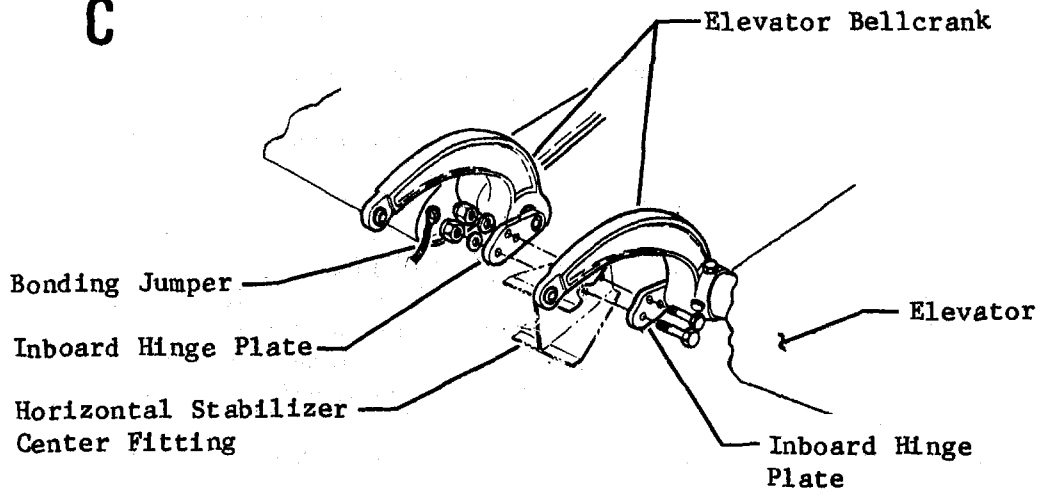
Horizontal Stabilizer Gap Fairing Installation
Figure 201

EFFECTIVITY: ALL

ELEVATOR - DESCRIPTION AND OPERATION

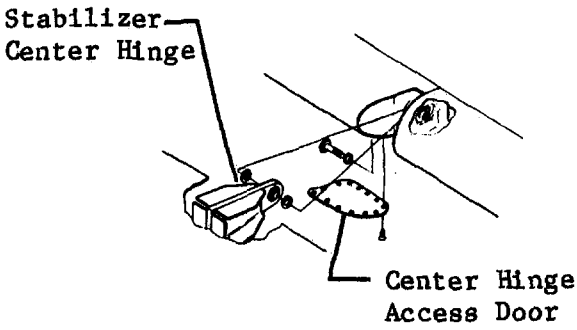
1. DESCRIPTION
   A. The elevators provide longitudinal control of the aircraft. The elevators are controlled by push-pull tubes located in the vertical stabilizer. The push-pull tubes are connected to elevator bellcranks located inside the vertical stabilizer fairing. The bellcranks are connected to torque tubes which extend into the elevators. Access to the elevator control is through vertical stabilizer fairings and access covers.
   B. Each elevator is connected to the horizontal stabilizer at three hinge points. Access covers adjacent to the hinge points allow access to the hinge bolts.
   C. The elevators are constructed using the standard ribs and spars configuration. Each elevator contains a balance weight located in the outboard leading edge. The balance weights are accessible by removing the elevator tips.
   D. Bonding jumpers are connected between the vertical stabilizer and the inboard leading edge of the elevators. Static dischargers are located on the outboard trailing edge of the elevators.
   E. When replacing the elevator tip cover, it is necessary to locate, drill, and dimple attaching screw holes in a new tip cover. In addition, the new tip cover must be trimmed and a scupper and static discharger must be located and attached. Refer to 55-20-01 for instructions for replacing elevator tip cover.
   F. For additional information on the elevators, refer to Chapter 27.





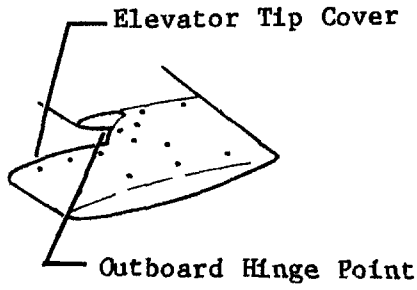
INBOARD ELEVATOR HINGE POINT

Detail A



CENTER ELEVATOR HINGE POINT

Detail B



ELEVATOR TIP AND OUTBOARD HINGE POINT

Detail C

Elevators
Figure 1

ELEVATOR - MAINTENANCE PRACTICES

1. **REMOVAL/INSTALLATION**

A. Remove Elevator Tip Cover

(1) Remove screws from upper and lower surfaces of elevator tip cover.

(2) Slide elevator tip cover straight out and off of elevator.

(3) If a new tip cover is to be installed and scupper and/or static discharger is to be reused, drill out rivets and remove scupper and/or static discharger.

NOTE: The static discharger is bonded to the surface and must be pried off.

B. Install New Elevator Tip Cover (See figure 201.)

(1) Position tip cover over end of elevator and push onto elevator as far as possible.

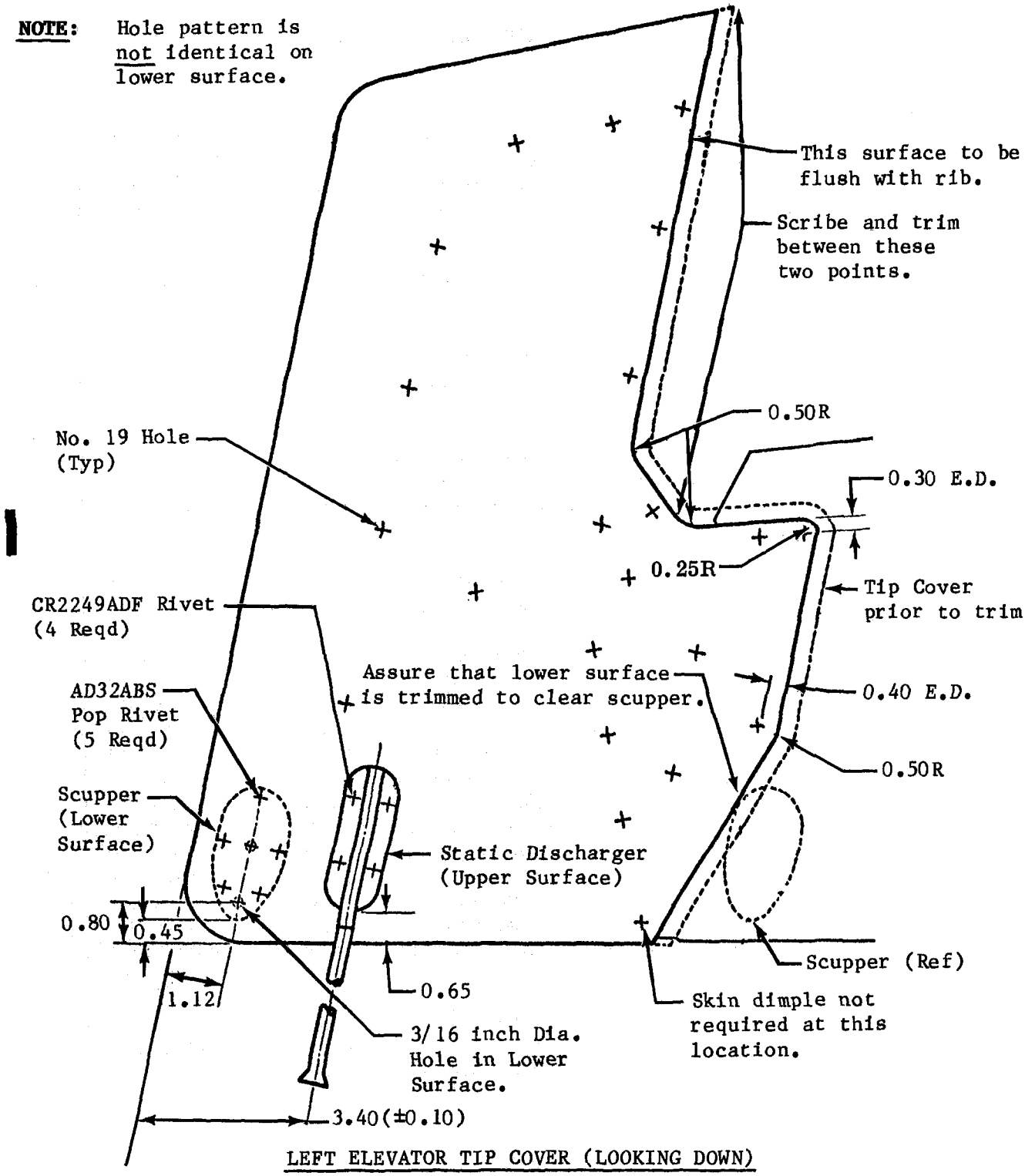
NOTE: The open end of the tip cover will have to be spread slightly to go completely onto the elevator ribs. The tip cover will probably protrude past the rib and overlap the scupper on the elevator.

(2) Using a hole finder, locate as many holes as possible in tip cover assuring that holes are located on center.

NOTE: There are three basic methods of locating the remaining holes. One method is to place a sheet of heavy mylar or clear plastic over the elevator rib structure and mark the hole locations on the mylar. The mylar is then transferred to the tip cover and aligned with the holes previously located. After locating the mylar on the tip cover, pilot holes are drilled into the tip cover through the mylar. The second method of locating the holes is by using the old tip cover, if it is not damaged too severely. The old tip cover may be cut in half, carefully aligned on the new tip cover, and used as a template to locate the holes. The third method is to locate several holes, using a hole finder, remove the tip cover, measure the hole locations in the rib structure and transfer the measurements to the tip cover.

(3) After all holes have been located, final drill using a No. 19 drill.

(4) Excluding the hole located at the inboardmost trailing edge of the tip cover, dimple all holes 0.329 to 0.339 inch dia. x 100°.



LEFT ELEVATOR TIP COVER (LOOKING DOWN)

Elevator Tip Cover Installation
Figure 201

(5) Position tip cover on elevator and align holes. Secure with several screws on both upper and lower surface.
(6) Scribe a line on inside of tip cover along rib at forward inborad portion of tip cover. This line shall follow rib down to and along elevator hinge bracket.
(7) Remove tip cover and trim along scribe line. Reinstall tip cover and check to see that it is flush with rib and hinge bracket.
(8) Trim and radius the remaining portion of inboard side of tip cover to obtain correct edge distance as shown in figure 201.

NOTE: If the elevator is painted, the paint line where the old tip cover was, may be used as a trim guide.

(9) Locate and drill drain hole on lower surface as shown in figure 201.
(10) Locate scupper on lower surface as shown in figure 201. Drill holes and secure scupper with AD32ABS pop rivets.
(11) Locate static discharger base on upper surface as shown in figure 201. Install static discharger in accordance with 23-60-00.
(12) Install elevator tip and secure with screws.
(13) Paint tip cover. Refer to 20-50-00.
(14) Check elevator overbalance. Refer to 27-00-00.

VERTICAL STABILIZER - DESCRIPTION AND OPERATION

1. DESCRIPTION

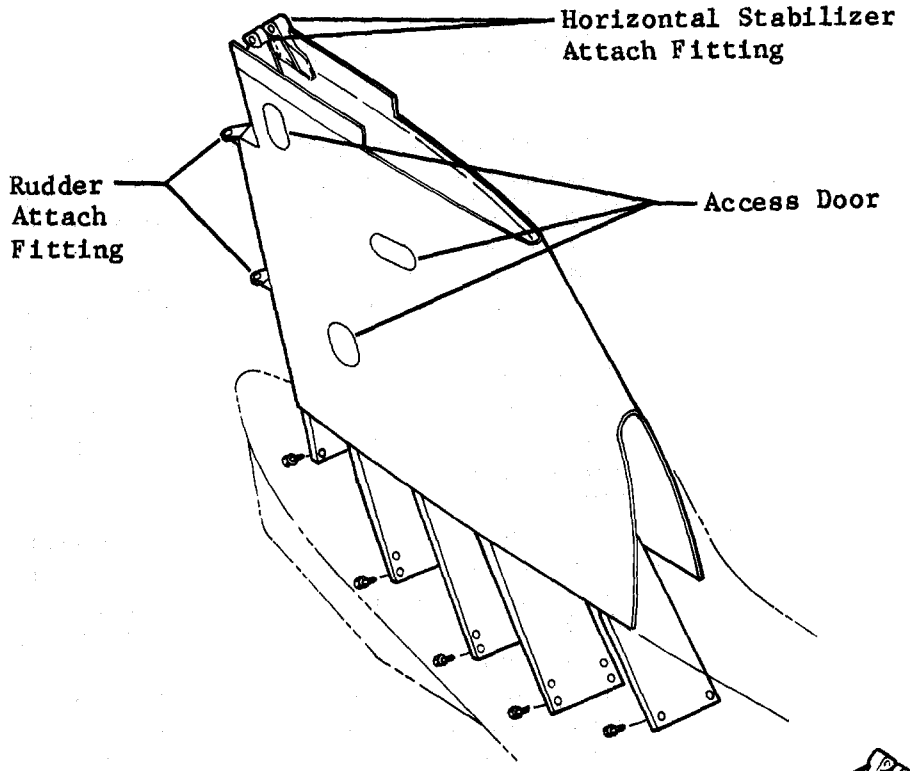
A. The vertical stabilizer is a fully-cantilevered structure consisting of spars and ribs covered with skin. The lower leading edge of the vertical stabilizer is faired into the fuselage by the dorsal inlet which is made of fiberglass and provides ram air for the heat exchanger.

B. A removable fairing is located at the upper tip of the vertical stabilizer. The fairing provides access to the horizontal stabilizer actuator, inboard elevator hinge fitting, anti-ice plumbing, navigation light electrical wiring, and horizontal stabilizer rigging plate. Access covers are located on the right and left sides of the vertical stabilizer and provide access to electrical wiring, lower horizontal stabilizer actuator attach point, elevator downspring assembly, and controls.

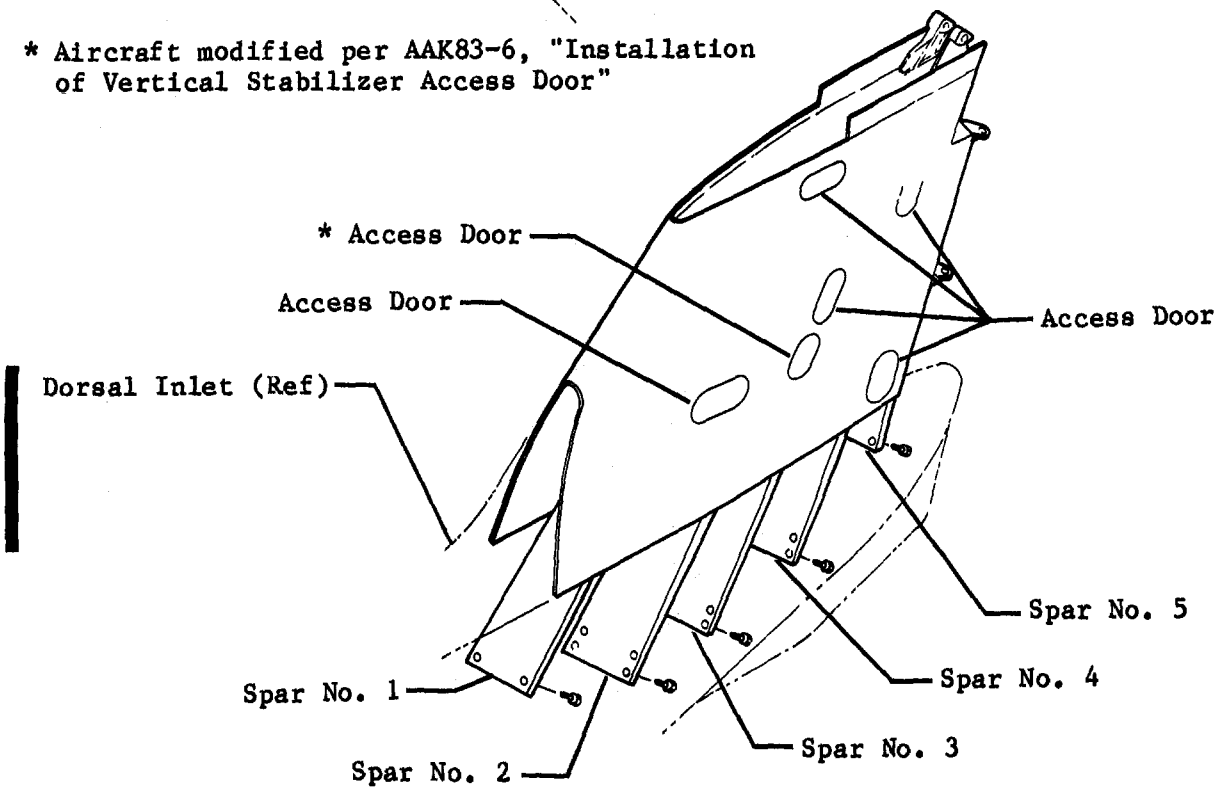
C. Engine bleed air plumbing for horizontal stabilizer anti-ice is routed up through the vertical stabilizer. Navigation light and horizontal stabilizer actuator wiring is also routed through the vertical stabilizer.

D. Attach fittings on the vertical stabilizer consist of a lower attach point for the horizontal stabilizer actuator, a hinge fitting for the horizontal stabilizer and two of the rudder's three hinge fittings.

E. The vertical stabilizer is attached to the tailcone by attaching the stabilizer spars to the tailcone bulkheads and by an attach angle on each side of the stabilizer that is riveted to the tailcone.



* Aircraft modified per AAK83-6, "Installation of Vertical Stabilizer Access Door"



Vertical Stabilizer
Figure 1

RUDDER - DESCRIPTION AND OPERATION

1. DESCRIPTION

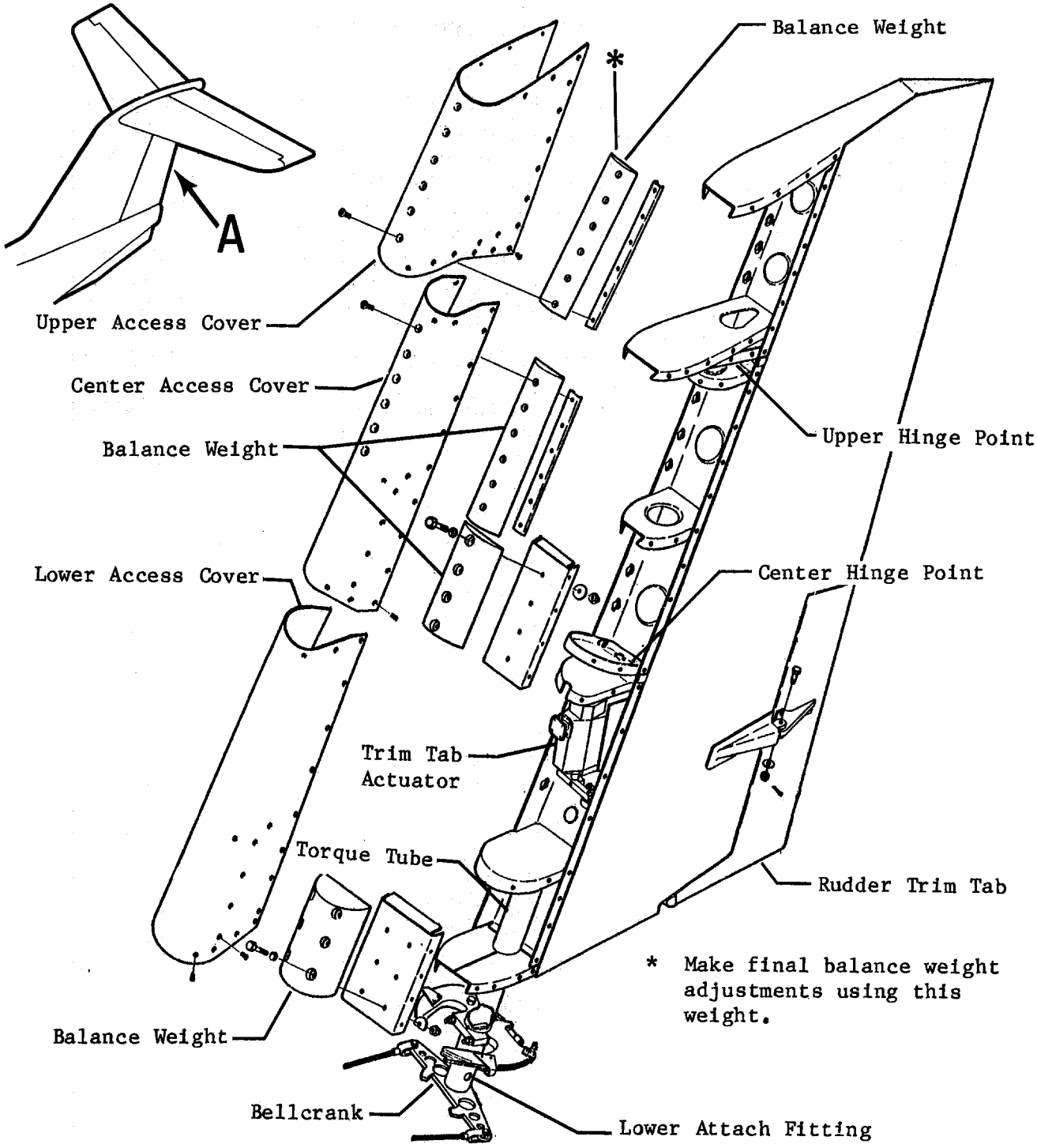
A. The rudder is attached to the vertical stabilizer at two hinge points. A third hinge point is located in the tailcone below the vertical stabilizer.

B. The rudder structure is made up of spars and ribs covered with skin. A torque tube extends out the lower end of the rudder. The lower end of the torque tube fastens to the lower hinge point and has a bellcrank attached. Balance weights are located in the rudder leading edge.

C. A rudder trim tab is attached to the rudder trailing edge by a piano-type hinge. A push-pull tube attaches the trim tab to an electrical actuator located in the rudder leading edge. The lower leading edge of the trim tab contains balance weights.

D. Access covers on the rudder leading edge provide access to balance weights, hinge bolts and trim tab actuator.

E. For additional information on the rudder and trim tab, refer to Chapter 27.



Detail A

Rudder
Figure 1

ATTACH FITTINGS - DESCRIPTION AND OPERATION

1. DESCRIPTION

A. Attach fittings for the stabilizers consist of fittings in the vertical and horizontal stabilizers for attachment of the horizontal stabilizer, rudder, rudder trim tab, and elevators.

B. Attach fittings for attaching the horizontal stabilizer to the vertical stabilizer are located as follows:

(1) One on the forward spar of the vertical stabilizer. The base of the horizontal stabilizer actuator secures at this point with the actuator arm attached to the horizontal stabilizer.

(2) One on the upper trailing edge of the vertical stabilizer. This attach point serves as a pivot point for the horizontal stabilizer. The horizontal stabilizer is attached to the vertical stabilizer by a hinge pin inserted through bearing blocks. For horizontal stabilizer removal and installation, refer to Chapter 27.

C. Attach fittings for attaching the elevators to the horizontal stabilizer are as follows:

(1) The inboard attach point consists of a bearing block on the horizontal stabilizer that attaches to the elevator torque tube.

(2) The center and outboard attach fittings consist of a bracket and bearing to which the elevator is secured with a bolt and nut. For elevator removal and installation, refer to Chapter 27.

D. Attach fittings for attaching the rudder to the vertical stabilizer are as follows:

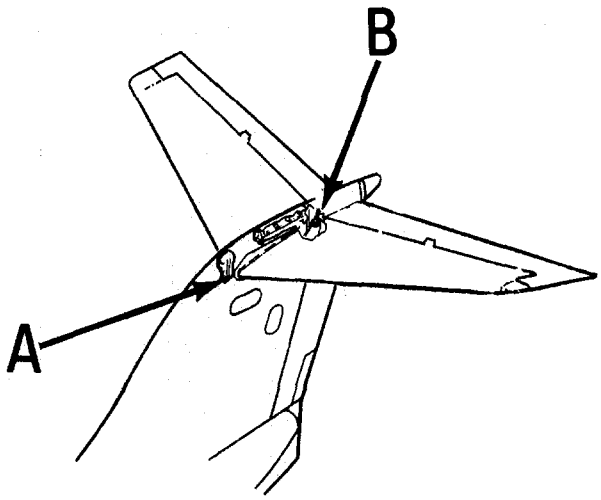
(1) Two attach fittings on the rear spar of the vertical stabilizer consist of brackets and bearings to which the rudder is attached with bolts and nuts.

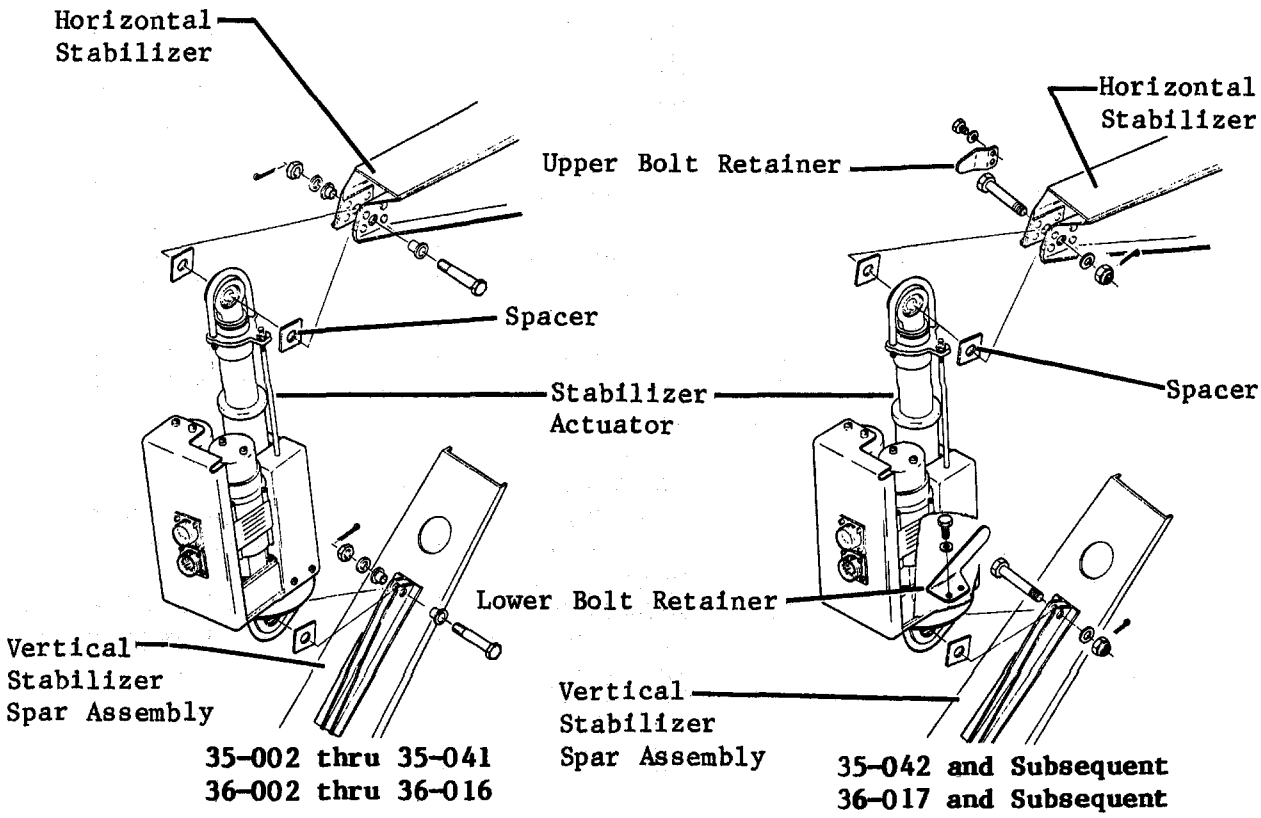
(2) The lower attach fitting is a bearing block located in the tailcone below the vertical stabilizer. The rudder torque tube attaches to the bearing block. For rudder removal and installation, refer to Chapter 27.

E. The attach fitting for the rudder trim tab is as follows:

(1) The rudder trim tab attach fitting is a piano-type hinge located on the lower trailing edge of the rudder. For rudder trim tab removal and installation, refer to Chapter 27.

F. Attach points for the vertical stabilizer consist of the spars that are attached to the tailcone bulkheads and an attach angle on each side of the vertical stabilizer that is riveted to the tailcone.

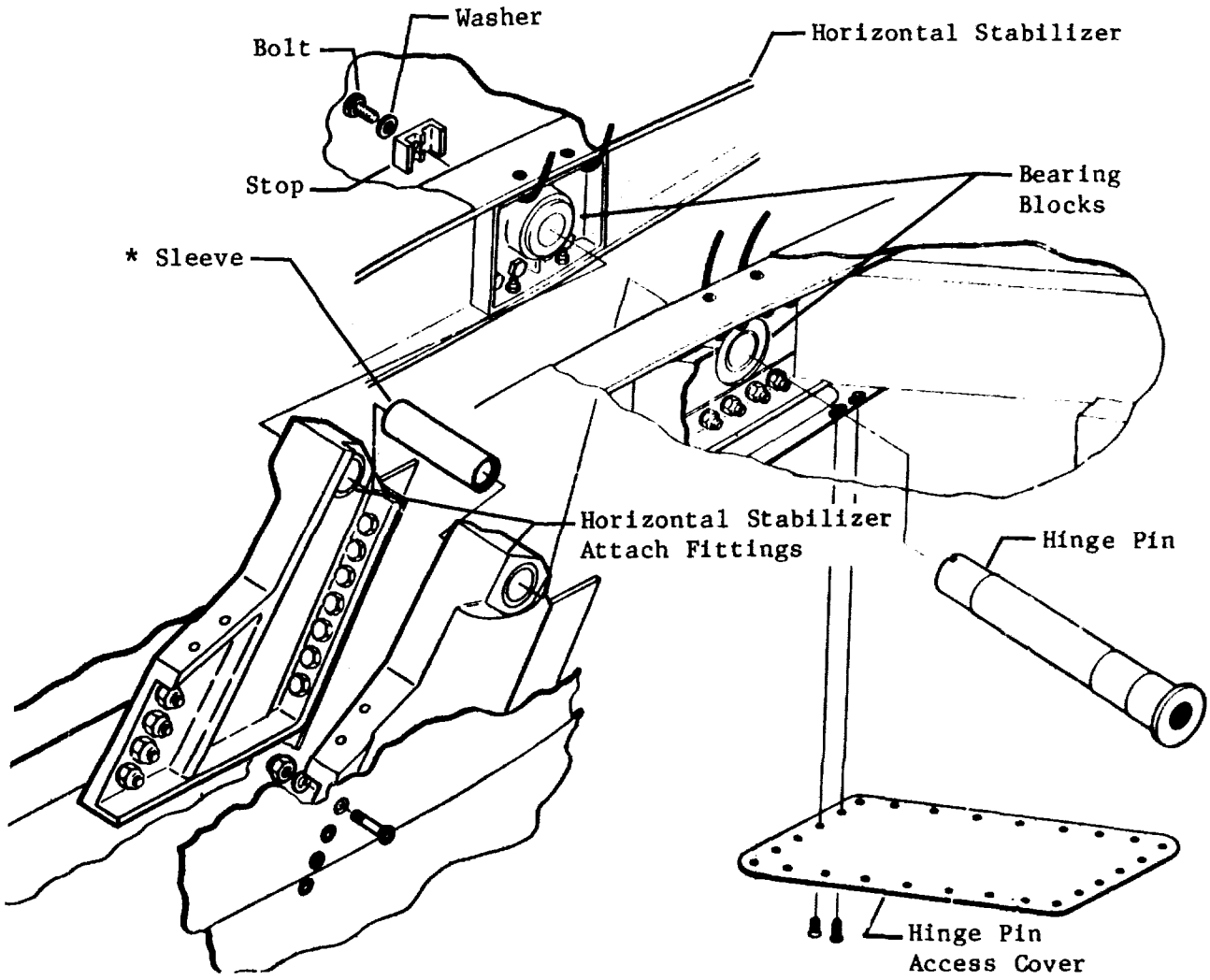




Detail A

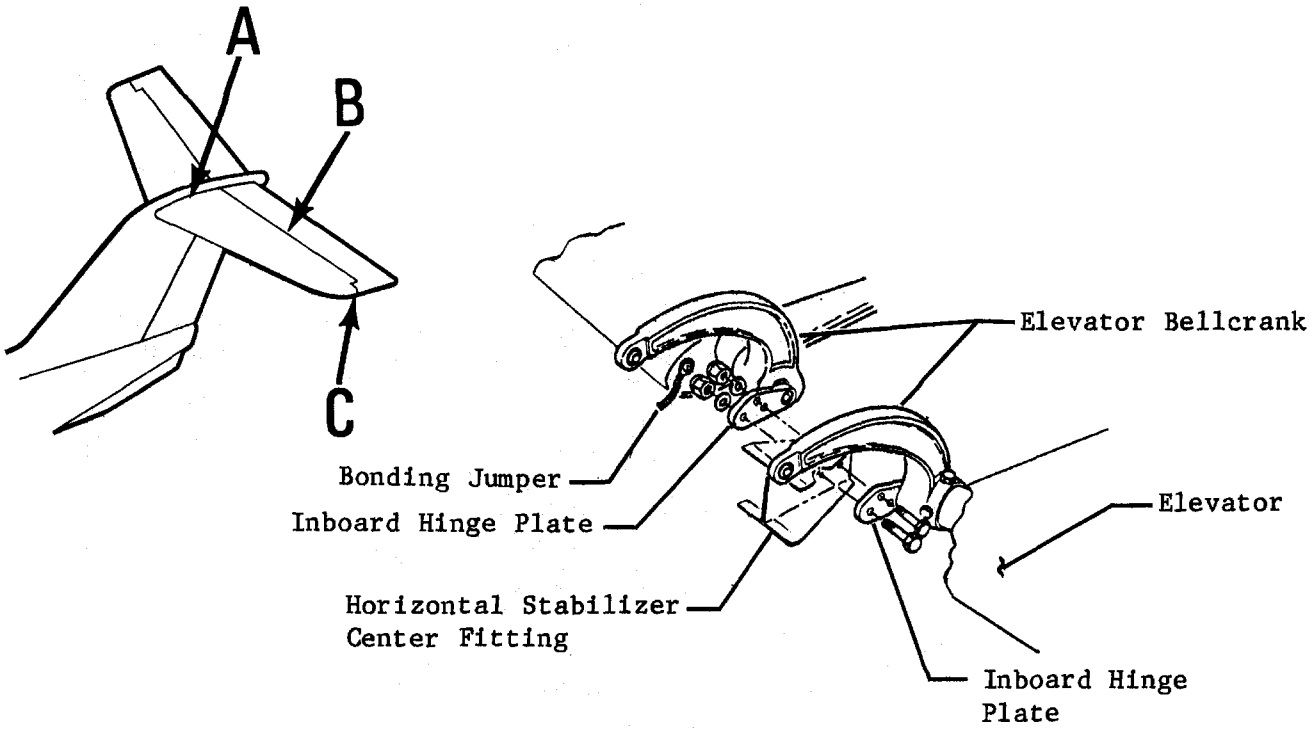
Horizontal Stabilizer Attach Fittings
Figure 1 (Sheet 1 of 2)

* Effective on aircraft 35-303 and Subsequent, 36-045 and Subsequent.



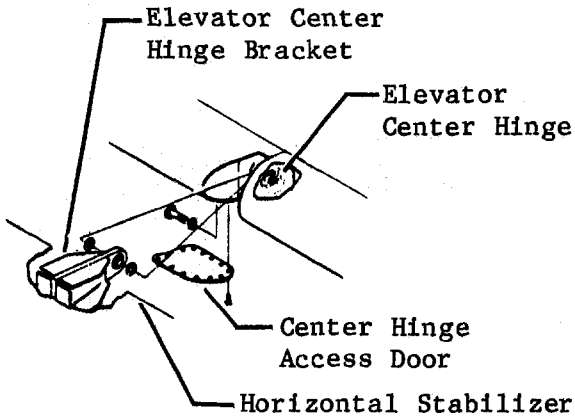
Detail B

Horizontal Stabilizer Attach Fittings
Figure 1 (Sheet 2 of 2)



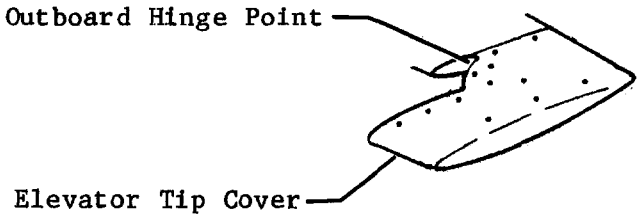
INBOARD ELEVATOR HINGE POINT

Detail A



CENTER ELEVATOR HINGE POINT

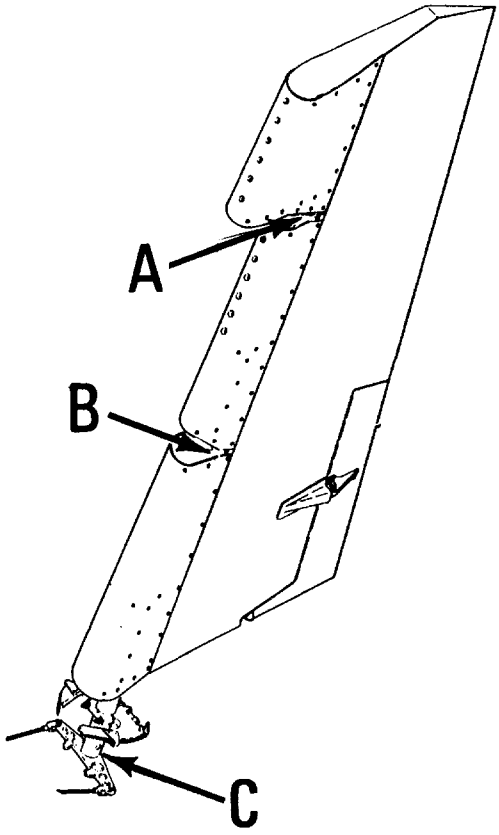
Detail B

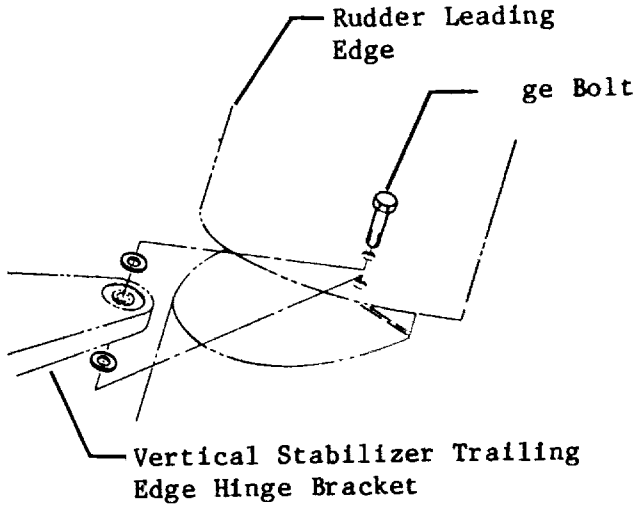


ELEVATOR TIP AND OUTBOARD
HINGE POINT

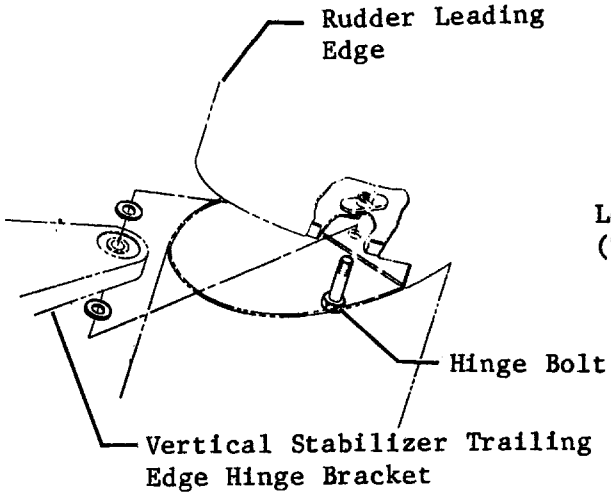
Detail C

Elevator Attach Fittings
Figure 2

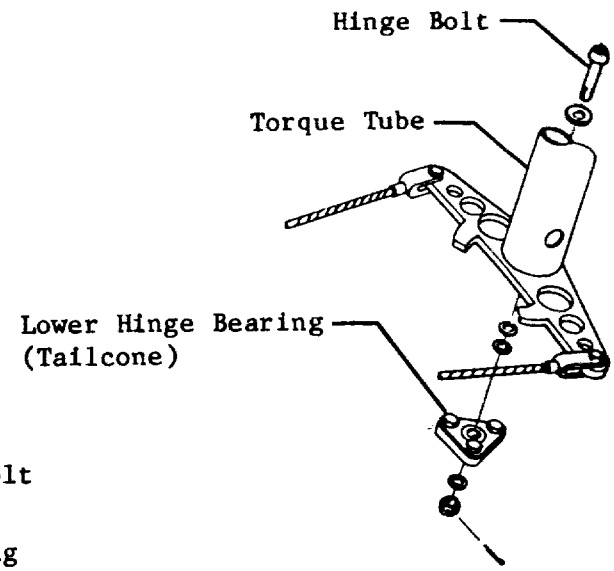




Detail A



Detail B



Detail C

Rudder Attach Fittings
Figure 3

HORIZONTAL STABILIZER ATTACH FITTING BUSHINGS - MAINTENANCE PRACTICES

1. Removal/Installation

NOTE: Maintenance personnel should read this complete set of instructions and become thoroughly familiar with tool part numbers and their functions prior to beginning procedures.

A. Removal of Horizontal Stabilizer Attach Fitting Bushings (See Figure 201.)
(1) Aquire necessary tools and equipment.

NOTE: Equivalent substitutes may be used in lieu of the following:

NAME	PART NUMBER	MANUFACTURER	USE
Bushing Reamer Tool Set	FCT 34379	Learjet Inc. Wichita, Ks.	Remove bushings.
Rivet Gun, 5X		Commercially Available	Remove bushings.
Bucking Bar		Procure locally	Fitting backup.

(2) Remove horizontal stabilizer. (Refer to Chapter 27.)
(3) Remove LH and RH bushings from horizontal stabilizer attach fittings using removal tools P/N FCT 34379-7 (LH) and FCT 34379-8 (RH) and a rivet gun with driving tool FCT 34379-13. Back up fittings with an acceptable bucking bar while driving out bushings.
(4) Inspect hole diameter in attach fittings. (See Figures 201 and 203.) Tolerance for LH fitting hole diameter is 1.2500 (+0.0005; -0.0000) inches [0.3175 (+0.0001; -0.0000) mm]. Tolerance for RH fitting hole diameter is 1.1875 (+0.0005; -0.0000) inches [0.3016 (+0.0001; -0.0000) mm]. If either hole is out of tolerance, contact Learjet Field Service Department for instructions.

B. Installation of Horizontal Stabilizer Attach Fitting Bushings (See Figure 201.)
(1) Aquire necessary tools and equipment.

NOTE: Equivalent substitutes may be used in lieu of the following:

NAME	PART NUMBER	MANUFACTURER	USE
Bushing Reamer Tool Set	FCT 34379	Learjet Inc. Wichita, Ks.	Install bushings.
Rivet Gun, 5X		Commercially Available	Install bushings.
Bucking Bar		Procure locally	Fitting backup.
Dry Ice		Procure locally	Cold soak bushings.
Methyl Alcohol (Methanol)		Procure locally	Cold soak bushings.
Epoxy Primer		Procure locally	Prime fitting holes.

(2) Install LH horizontal stabilizer attach fitting bushing as follows:

WARNING: SKIN CONTACT WITH ALCOHOL/DRY ICE MIXTURE OR COLD BUSHINGS CAN RESULT IN PERSONAL INJURY. UTILIZE SUITABLE TOOLS FOR HANDLING COLD BUSHINGS.

(a) Place new bushings in an alcohol/dry ice mixture for a minimum of 20 minutes.
(b) Prime hole in LH fitting with epoxy primer just prior to installing new bushing.
(c) Position FCT 34379-9 guide pin in RH fitting with threaded end toward LH fitting.
(d) Slide cold-soaked LH bushing onto FCT 34379-7 driving plug and thread -9 pin into -7 plug to properly align bushing in LH fitting.
(e) Drive LH bushing into fitting (within 14 seconds after removing bushing from alcohol/dry ice mixture) using a 5X rivet gun with FCT 34379-13 driving tool.

NOTE: The bushing is to be flush with the outboard surface of the elevator attach fitting within ±0.002 inch [±0.0005 mm]. (See Figure 202.)

(3) Ream LH horizontal stabilizer attach fitting bushing as follows: (See Figure 202.)
(a) Install FCT 34379-2 tool guide into RH fitting with shank of FCT 34379-11 reamer in tool guide.
(b) Ream LH bushing through with -11 reamer using FCT 34379-5 handle for turning reamer. Apply adequate lubricant while reaming.
(c) Remove -11 reamer from tool guide.
(d) Ream LH bushing through again using FCT 34379-1 reamer in -2 tool guide. Apply adequate lubricant while reaming.
(e) Remove -1 reamer and -2 tool guide from RH fitting.
(f) Inspect reamed LH bushing inside diameter. Tolerance for reamed LH bushing ID is 1.0937 (+0.0005; -0.0000) inches [0.2778 (+0.0001; -0.0000) mm]. If bushing ID is out of tolerance, contact Learjet Field Service Department for instructions.

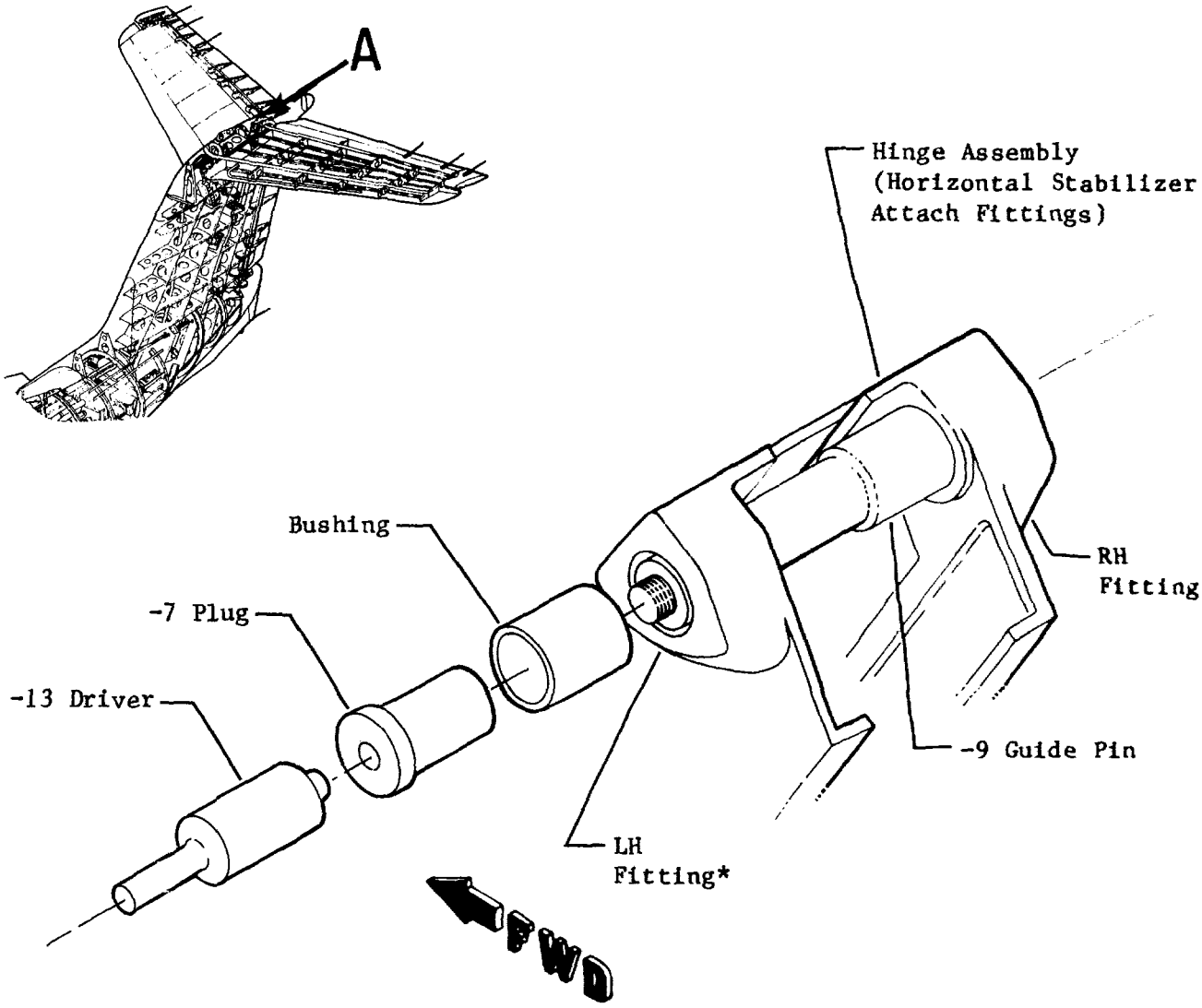
(4) Install RH horizontal stabilizer attach fitting bushing as follows: (See Figure 203.)

WARNING: SKIN CONTACT WITH ALCOHOL/DRY ICE MIXTURE OR COLD BUSHINGS CAN RESULT IN PERSONAL INJURY. UTILIZE SUITABLE TOOLS FOR HANDLING COLD BUSHINGS.

(a) Place new bushings in an alcohol/dry ice mixture for a minimum of 20 minutes.
(b) Prime hole in RH fitting with epoxy primer just prior to installing new bushing.
(c) Position FCT 34379-10 guide pin in LH bushing with threaded end toward RH fitting.
(d) Slide cold-soaked RH bushing onto FCT 34379-8 driving plug and thread -10 pin into -8 plug to properly align bushing in RH fitting.
(e) Drive RH bushing into fitting (within 14 seconds after removing bushing from alcohol/dry ice mixture) using a 5X rivet gun with FCT 34379-13 driving tool.

NOTE: The bushing is to be flush with the outboard surface of the elevator attach fitting within ±0.002 inch [±0.0005 mm]. (See Figure 204.)

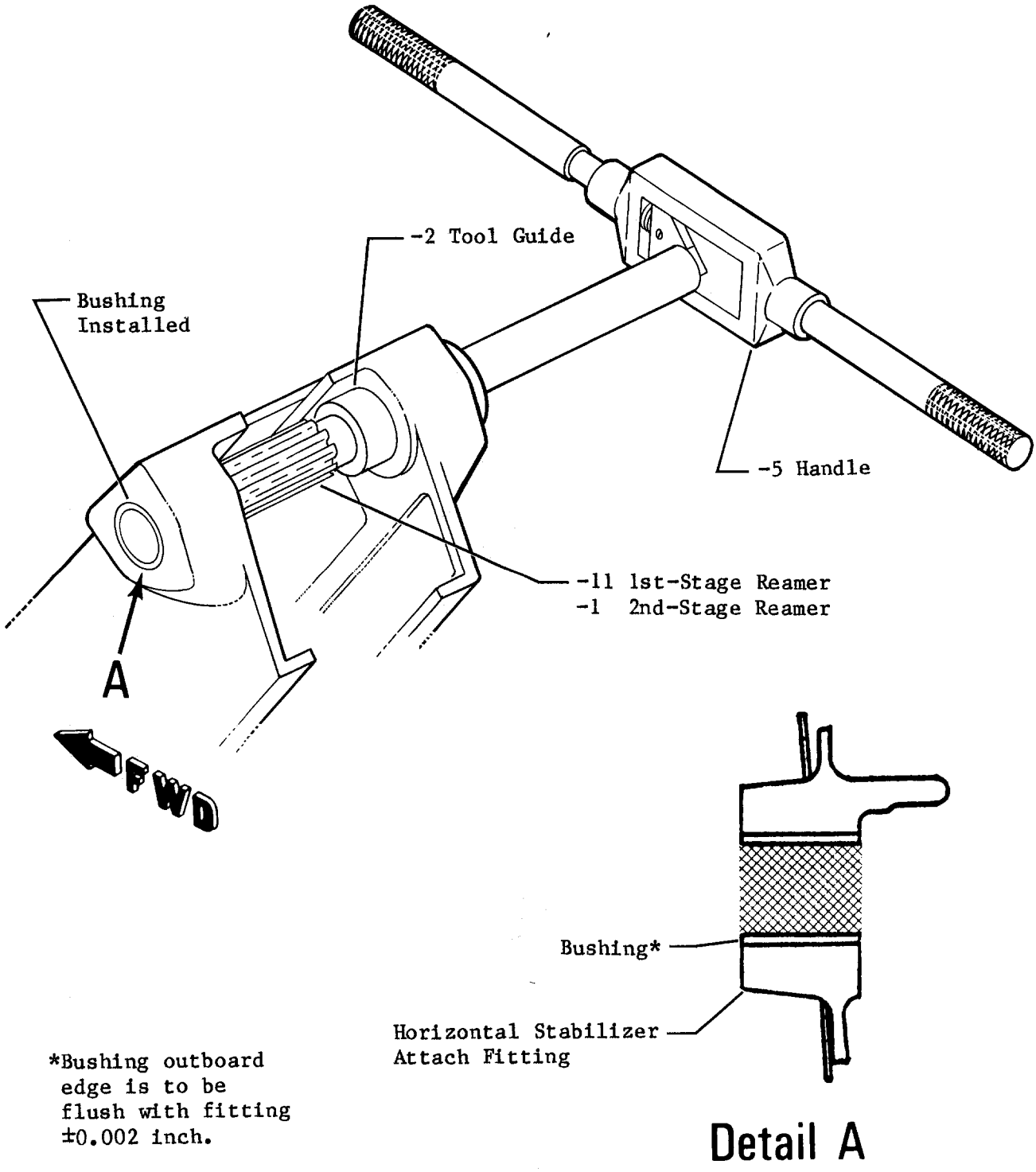
(5) Ream RH horizontal stabilizer attach fitting bushing as follows: (See Figure 204.)
(a) Install FCT 34379-4 tool guide into LH bushing with shank of FCT 34379-12 reamer in tool guide.
(b) Ream RH bushing through with -12 reamer using FCT 34379-5 handle for turning reamer. Apply adequate lubricant while reaming.
(c) Remove -12 reamer from tool guide.
(d) Ream RH bushing through again using FCT 34379-3 reamer in -4 tool guide. Apply adequate lubricant while reaming.



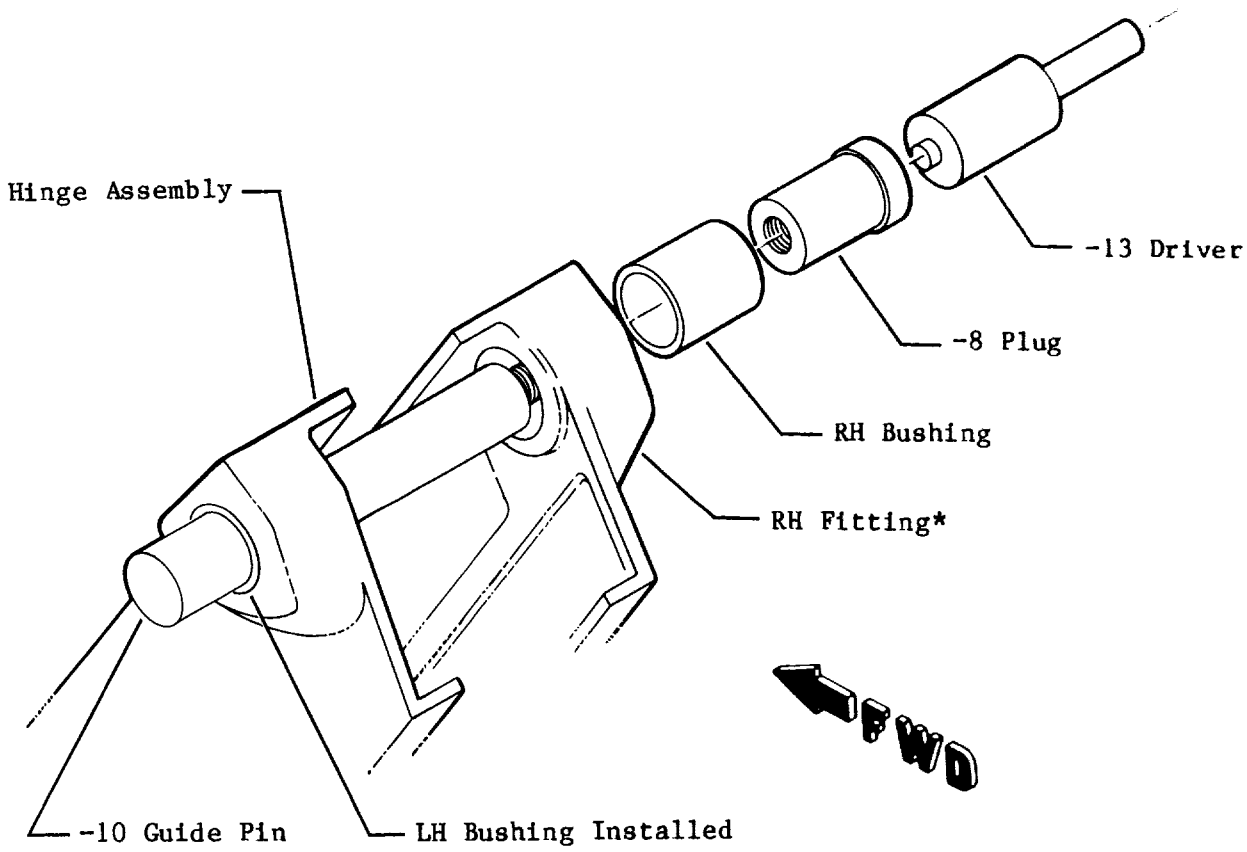
* Tolerance for LH fitting hole diameter is 1.2500 (+ 0.0005, - 0.0000) inch. Apply epoxy primer to fitting immediatly prior to installing cold-soaked bushing.

Detail A

Horizontal Stabilizer Attach Fitting LH Bushing Installation
Figure 201

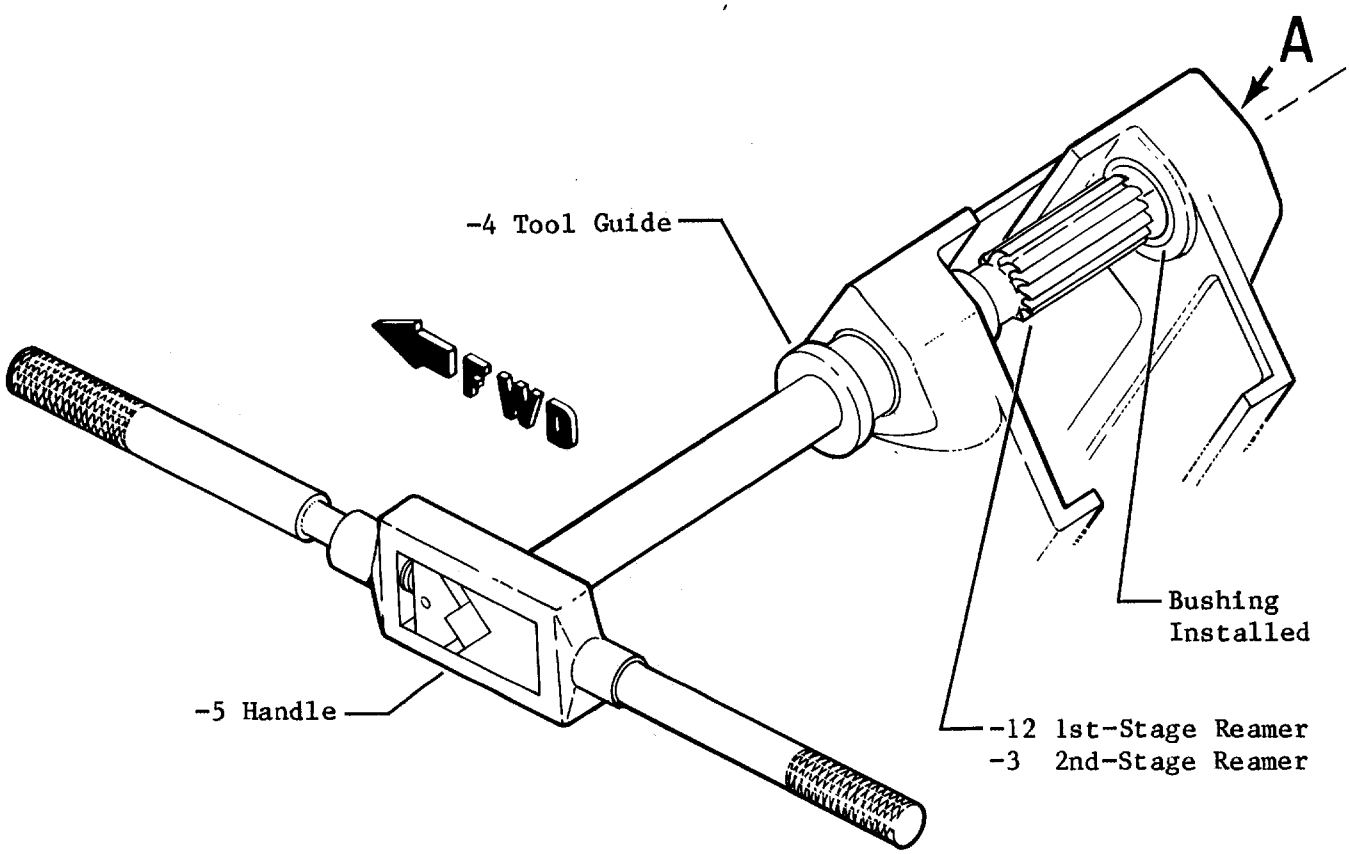


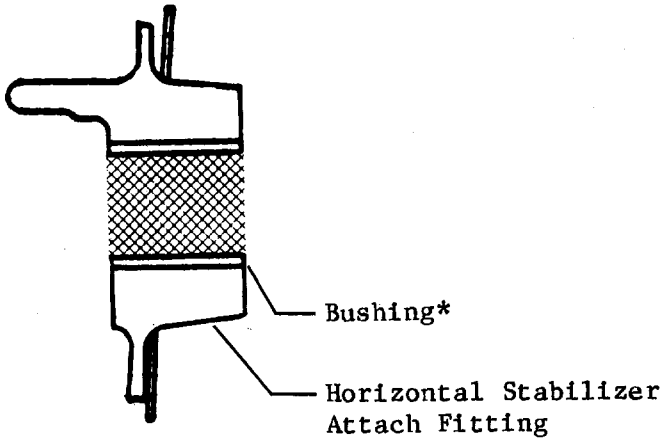
Horizontal Stabilizer Attach Fitting Reaming LH Bushing
Figure 202



* Tolerance for RH fitting hole diameter is 1.1875 (+ 0.0005, - 0.0000) inch. Apply epoxy primer to fitting immediatly prior to installing cold-soaked bushing.

Horizontal Stabilizer Attach Fitting RH Bushing Installation
Figure 203





*Bushing outboard edge is to be flush with fitting ±0.002 inch.

Detail A

Horizontal Stabilizer Attach Fitting Reaming RH Bushing
Figure 204

(e) Remove -3 reamer and -4 tool guide from LH bushing.

(f) Inspect reamed RH bushing inside diameter. Tolerance for reamed RH bushing ID is 1.0312 (+0.0005; -0.0000) inches [0.2619 (+0.0001; -0.0000) mm]. If bushing ID is out of tolerance, contact Learjet Field Service Department for instructions.

(6) Install Horizontal Stabilizer (Refer to Chapter 27.)

HORIZONTAL STABILIZER HINGE BUSHINGS - MAINTENANCE PRACTICES

1. Removal/Installation

NOTE: Maintenance personnel shall read this complete set of instructions and become thoroughly familiar with tools and their functions prior to beginning rework procedures.

Whenever the hinge pin is removed, the horizontal stabilizer hinge bushings shall be replaced. The phenolic coating on the bushing is scored and removed during hinge pin removal.

A. Removal of Horizontal Stabilizer Hinge Bushings (See Figure 201.)
(1) Acquire necessary tools and equipment.

NOTE: Equivalent substitutes may be used in lieu of the following:

NAME	PART NUMBER	MANUFACTURER	USE
Bushing Reamer Tool Set	FCT 34379	Learjet Inc. Wichita, KS	Remove bushing.
Rivet Gun (5X)		Commercially Available	Remove bushings.
Bucking Bar		Procure Locally	Fitting backup.

(2) Remove horizontal stabilizer. (Refer to Chapter 27.)
(3) Remove LH and RH bushings from horizontal stabilizer using removal tools found in FCT 34379 tool set and a rivet gun. Back up hinge fittings with an acceptable bucking bar while driving out bushings.
(4) Inspect hole diameter in hinge fittings. Tolerance for LH hinge fitting hole diameter is 1.3760 (+0.0000; -0.0005) inches [34.9504 (+0.0000; -0.0127) mm]. Tolerance for RH hinge fitting hole diameter is 1.2510 (+0.0000; -0.0005) inches [31.7754 (+0.0000; -0.0127) mm]. If either hole is out of tolerance, contact Learjet Field Service Department for instructions.

B. Installation of Horizontal Stabilizer Hinge Bushings (See Figure 201.)
(1) Acquire necessary tools and equipment.

NOTE: Equivalent substitutes may be used in lieu of the following:

NAME	PART NUMBER	MANUFACTURER	USE
Bushing Reamer Tool Set	FCT 34379	Learjet Inc. Wichita, KS	Install bushing.
Rivet Gun (5X)		Commercially Available	Install bushing.
Bucking Bar		Procure Locally	Fitting backup.
Dry Ice		Commercially Available	Cold soak bushing.
Methyl Alcohol (Methanol)		Commercially Available	Cold soak bushing.
Epoxy Primer	Refer to Chapter 20.		Prime hinge fitting hole.

(2) Install LH bushing as follows:

WARNING: SKIN CONTACT WITH ALCOHOL/DRY ICE MIXTURE OR COLD BUSHING CAN RESULT IN PERSONAL INJURY. USE SUITABLE TOOLS FOR HANDLING COLD BUSHING.

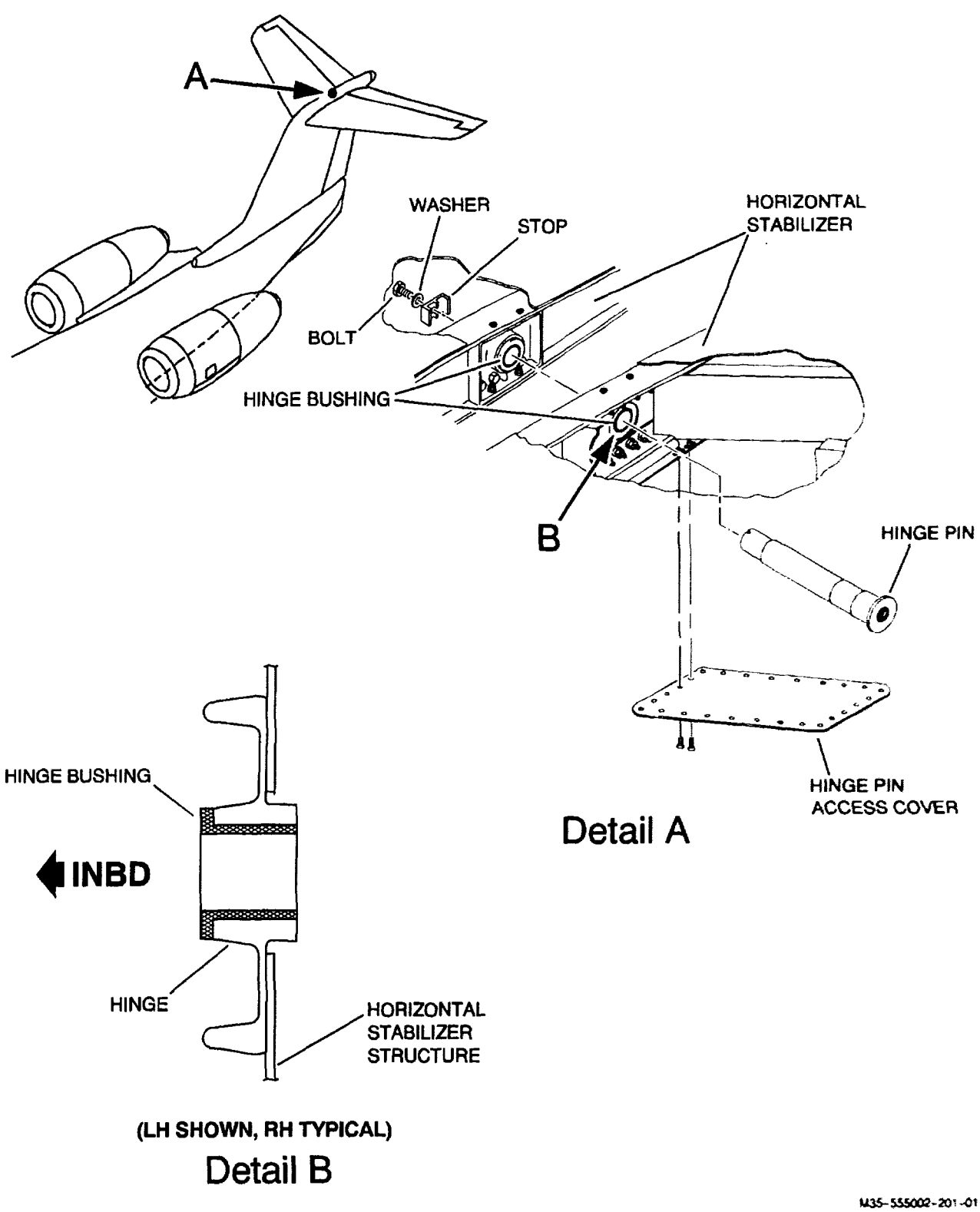
(a) Place new bushing in an alcohol/dry ice mixture for a minimum of 20 minutes.
(b) Prime hole in LH hinge fitting with epoxy primer just prior to installing new bushing.
(c) Slide cold-soaked LH bushing onto appropriate FCT 34379 driving tool.
(d) Drive LH bushing into hinge fitting (within 14 seconds after removing bushing from alcohol/dry ice mixture) using a 5X rivet gun with appropriate FCT 34379 driving tool.

(3) Installation of RH bushing as follows:

WARNING: SKIN CONTACT WITH ALCOHOL/DRY ICE MIXTURE OR COLD BUSHING CAN RESULT IN PERSONAL INJURY. USE SUITABLE TOOLS FOR HANDLING COLD BUSHING.

(a) Place new bushing in an alcohol/dry ice mixture for a minimum of 20 minutes.
(b) Prime hole in RH hinge fitting with epoxy primer just prior to installing new bushing.
(c) Slide cold-soaked RH bushing onto appropriate FCT 34379 driving tool.
(d) Drive RH bushing into hinge fitting (within 14 seconds after removing bushing from alcohol/dry ice mixture) using a 5X rivet gun with appropriate FCT 34379 driving tool.

(4) Check tolerance of horizontal stabilizer attach fitting bushings in vertical stabilizer. (Refer to Structural Repair Manual for tolerances.) If out of tolerance, replace horizontal stabilizer attach fitting bushings. (Refer to 55-50-01, Horizontal Stabilizer Attach Fittings.)
(5) Install horizontal stabilizer. (Refer to Chapter 27.)



Horizontal Stabilizer Hinge Bushing Installation
Figure 201