

# TECHNICAL BULLETIN

NO 206L-00-203



DATE 08-25-00

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REV. "A"

PAGE NO. 1 of 23

**MODELS AFFECTED:** 206L Series

**SUBJECT:** **Horizontal Stabilizer Supports 206-023-131  
- ALL, Installation of.**

**HELICOPTERS AFFECTED:** 206L Serial Number 45004 through 45153 and 46601 through 46617;  
206L-1 Serial Number 45154 through 45790;  
206L-3 Serial Number 51001 through 51612, and  
206L-4 Serial Number 52001 through 52165, 52167 through 52225.

[Model 206L-4 Serial Number 52166, 52226 and subsequent will have the intent of this bulletin completed prior to delivery.]

**COMPLIANCE:** At the option of the operator.

**DESCRIPTION:**

This bulletin introduces new replacement horizontal stabilizer supports and the procedure to replace the supports now installed on your helicopter. The new parts, which are direct replacements to the supports 206-023-100-ALL, are delivered without any screw attachment holes.

Parts I through III of this bulletin explain how to install the new supports. Once you have completed this bulletin the supports, the horizontal stabilizer, and the tailboom are a matched fit. If you change any of the components in this matched fit, then it will be necessary to do Part III of this bulletin again.

If this is the first time that you complete this bulletin then Bell Helicopter recommends that you replace all the supports at one time. Once you have completed this bulletin you can change individual supports.

No special tools are necessary if you replace the supports on a tailboom that is currently installed on a helicopter. If you complete this bulletin on a tailboom that is not currently in service on a helicopter, it will be necessary to determine a starting position for the horizontal stabilizer in the tailboom before you install the supports.

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**DESCRIPTION:** (cont'd)

Bell Helicopter has developed a workaid to assist with this task. Refer to the SPECIAL TOOLS section of this bulletin for more information about this tool.

**APPROVAL:**

The engineering design aspects of this Technical Bulletin are Transport Canada approved.

**MANPOWER:**

Approximately 16.0 man-hours are necessary to do the complete replacement of all the supports. Man-hours are based on hands-on time and can vary with personnel and facilities available.

**MATERIAL:**

**Required Material:**

The following material is necessary to do this modification and can be obtained through your Bell Helicopter Textron Supply Center.

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>	<u>QUANTITY</u>
206-023-131-107	SUPPORT, Upper L/H	1
206-023-131-109	SUPPORT, Upper R/H	1
206-023-131-103	SUPPORT ANGLE, L/H	1
206-023-131-104	SUPPORT ANGLE, R/H	1
206-023-131-111	SUPPORT, Lower L/H	1
206-023-131-112	SUPPORT, Lower R/H	1
MS20615-5MP5R	RIVET	40
NAS1200M5-5P	RIVET	2
NAS1791A3-3	NUTPLATE	6
MS20426AD3-3-5	RIVET	12

**Consumable Material:**

The following material is necessary to do this modification, however this material is considered consumable (bench stock) material and may not require ordering depending on the operators consumable material stock levels. This material can be obtained through your Bell Helicopter Textron Supply Center.

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>	<u>REFERENCE NO.</u>
EC2216 B/A TAN N/S	ADHESIVE	C-322
MIL-P-85582, TY1, CL2	PRIMER	C-204 (NOTE 1)
MIL-S-81733, TY2-2 4OZ	SEALANT	C-392 (NOTE 3)
MIL-C-81706 1 GAL	CHEM FILM	C-100
ACETONE	ACETONE (per Q-A-51)	C-316 (NOTE 2)
P-P-101	Aluminium Oxide sandpaper	C-423
299-947-110TY3CL1 2I	Teflon Tape (2 inch wide)	C-460
Petrolatum 16 OZ	Petrolatum (Petrolatum Jelly)	C-008

**NOTES:**

1. As an alternative, use MIL-P-23377.
2. As an alternative, use Methyl Ethyl Ketone - MEK (C-309).
3. Replaced by MIL-PRF-81733 Specification.

- NOTE -

The "C" REFERENCE NO. above is a cross-reference found in the Standard Practices Manual.

**SPECIAL TOOLS:**

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>	
206-023-100-117AIT81	Workaid	(NOTE 1)
SCOTCHWELD EPX	Applicator (optional)	(NOTE 2)

**NOTES:**

1. This workaid is only necessary if you install supports on a tailboom that is not currently in service on a helicopter; i.e., spare tailboom assembly, a rental or repaired tailboom that you install on a helicopter. The workaid is available only by prior arrangement with BHT Customer Service Facilities (CSF) that are approved to do airframe repair work. You must confirm the availability of the workaid before you do this bulletin (Refer to the BHT Customer and Product Support Directory, for a list of CSFs that are approved for airframe repair work).
2. You can get the applicator from BHT approved Supply Centers or from "3M" Distributors.

**WEIGHT AND BALANCE:**

Replacement of all the old supports 206-023-100 with new supports 206-023-131 will have the effect on weight and balance that follows:

**A) Helicopters 206L, all S/N's, 206L-1, all S/N's, 206L-3, all S/N's, and 206L-4, S/N 52001 through 52187, which have been delivered with a quantity of four (4) stabilizer supports arrangement.**

<u>Weight change</u>	<u>Arm</u>	<u>Moment</u>
+ 0.4 lbs. (0.18 Kg)	287.0 in. (7290 mm)	114.8 in•lbs (1322 mm Kg)

**B) Helicopters S/N 52188 through 52225, which have been delivered with the quantity of six (6) stabilizer supports arrangement, using supports 206-023-100 (NOTE 1).**

<u>Weight change</u>	<u>Arm</u>	<u>Moment</u>
+ 0.18 lbs. (0.081 Kg)	287.0 in. (7290 mm)	51.66 in•lbs (595 mm Kg)

NOTE 1:

This weight change also applies to helicopters 206L, 206L-1, 206L-3 and 206L-4 prior to S/N 52188, which had the six (6) stabilizer supports arrangement purchased and installed as spares, using supports 206-023-100.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

BHT-206L MM-1 Rev. 21, 22 August 1995.

Chapter 53-00-00.

BHT-206L-1 MM-1 Rev. 16, 22 August 1995.

Chapter 53-00-00.

BHT-206L-3 MM-1 Rev. 0, 27 August 1992.

Chapter 53-00-00.

BHT-206L-4 MM-1 Rev. 0, 02 December 1994.

Chapter 53-00-00.

CSSD-PSE-87-001 Corrosion Control Guide.

BHT-206L-SERIES-IPB Rev. 1, 01 December 1996.

BHT-206-SRM-1, Rev. 1, 04 April 1995.

**PUBLICATIONS AFFECTED:**

BHT-206L MM-1 Rev. 21, 22 August 1995.

Chapter 53-00-00.

BHT-206L-1 MM-1 Rev. 16, 22 August 1995.

Chapter 53-00-00.

BHT-206L-3 MM-1 Rev. 0, 27 August 1992,

Chapter 53-00-00.

BHT-206L-4 MM-1 Rev. 0, 02 December 1994,

Chapter 53-00-00.

BHT-206L-SERIES-IPB Rev. 0, 01 December 1996.

**ACCOMPLISHMENT INSTRUCTIONS:**

**CAUTION**

DO NOT TOW OR GROUND HANDLE THE AIRCRAFT WITH THE HORIZONTAL STABILIZER LOWER SUPPORTS REMOVED. THE SUPPORTS MUST BE INSTALLED TO AVOID DAMAGE TO THE TAILBOOM.

**CAUTION**

MAKE SURE TO SUPPORT THE WEIGHT OF THE HORIZONTAL STABILIZER WHEN YOU REMOVE THE SUPPORTS 206-023-100-ALL OR 206-023-131-ALL FROM THE TAILBOOM AND HORIZONTAL STABILIZER ASSEMBLIES. IF YOU DO NOT SUPPORT THE WEIGHT OF THE STABILIZER YOU CAN DAMAGE THE SUPPORTS OR THE STABILIZER.

**GENERAL:**

1. You will eliminate the risk of changing the relative position of the horizontal stabilizer (5, Figure 1) the supports (1, 2, 3, and 4) and the tailboom (6), if you replace one support at a time.

- NOTE -

If possible, Bell Helicopter recommends that you install the new supports as part of doing ASB 206L-99-115.

2. Once you have completed PARTs I through III of this bulletin, the supports (1, 2, 3, and 4), the horizontal stabilizer (5), and the tailboom are a matched fit. If you change any of the parts in this matched fit, then it will be necessary to do PART III of this bulletin again.
3. The instructions are given for the left hand side. The right hand side is the same except where noted.
4. Do the change of supports in the order specified in the bulletin.

**Part I: Installation of Upper Supports 206-023-131-107/109 – Refer to Figure 2**

1. Remove the existing L/H upper support (1, Figure 1) and discard. Keep the screws and washers for later installation (refer to Chapter 53).


- NOTE -

Make sure the support (1, Figure 2) is not under any stress when you complete the step that follows.


2. Put the new support (1, Figure 2) on the upper surface of the horizontal stabilizer (5). Find the best fit to match the stabilizer (5) and tailboom contour and keep this position.
3. Refer to Figure 2, NOTES 1, 2, 4 and 6. Find and mark the center location of the following holes on the blank support:
  - a) 17 holes (7) and 1 hole (8) from the tailboom skin nutplates. (refer to notes 1 and 6).
  - b) 3 holes (8) from the existing lower support (refer to note 2).
  - c) 7 holes (9) from the stabilizer inserts (refer to note 4).
4. Remove the upper support:
  - a) Use a 15/64" drill to drill the 17 holes (7), which will be common to the tailboom skin. Final hole size to be 0.233/0.238" dia. (5.92/6.04 mm) (refer to note 1).
  - b) Use a #4 drill to drill the 4 holes (8), which will be common to the lower support. Final hole size to be 0.208/0.214" dia. (5.28/5.43 mm) (refer to notes 2 and 6).
  - c) Use a #6 drill to drill the 7 holes (9), which will be common to the stabilizer inserts. Final hole size to be 0.203/0.208" dia. (5.16/5.28 mm) (refer to note 4).
  - d) Examine each of the holes to make sure that you have a minimum edge distance of 0.35 (8.89 mm) inch and they do not touch the flange radius (except as shown in Figure 2).
  - e) Deburr all the holes.
  - f) Install 3 nutplates (16, Figure 4) NAS1791A3-3 on the inboard face of the upper support. Use rivets (17) MS20426AD3.
  - g) Treat with Chem Film (C-100) and prime (C-204) all bare metal surfaces.

- NOTE -


Do not shim the support at this time. This will be done in Part III of this bulletin.

5. Use the screws and the washers removed in Step 1. Attach the upper support (1) to the tailboom skin (11) and the horizontal stabilizer (5). Tighten screws (7, Figure 2) . Do not tighten screws (9) at this time.
6. Repeat Steps 1 through 5 for the upper support (2) on the right side of the tailboom.
7. Go to PART II.

**Part II: Installation of Lower (Two-piece) Supports 206-023-131-103/111 (Left side) and 206-023-131-104/112 (Right side) – Refer to Figure 3, Sheet 1**

1. Remove existing L/H lower support (3, Figure 1) and discard. Keep the screws and washers for later installation.
2. Use aluminum sheet stock 0.012 inch (0.30 mm) to fabricate two shims approximately 1.0 inch wide (25.4 mm) by 3.0 inches long (76.2 mm). Break all the sharp edges of the shims.
  - a) Place the shims (10) between the upper support (1, and 2, Figure 2) and the stabilizer (5) as shown on Figure 2.
  - b) Tighten screws (9, Figure 2) at positions 2 and 3, 6 and 7 .
3. Put the new lower support (3, Figure 3) on the tailboom skin.
  - a) Find the best fit to match the tailboom contour and to get equal edge distance at all future hole locations.
  - b) (Refer to Figure 3, Detail A). If necessary, trim the upper edge of lower support (3) to make sure you have a constant gap between the upper edge of the support (3) and the lower surface of the stabilizer (5) skin.
  - c) Keep the position of the lower support on the tailboom.
4. (Refer to Figure 3, Notes 2 and 6). On the blank support, locate and mark the center location of the holes that follow:
  - a) The 3 holes (8, Figure 2) from the upper support nutplates.
  - b) The 18 holes (7) from the tailboom skin nutplates.


5. Remove the lower support:

- a) Use a #4 drill to drill the 18 holes (7), which are common to the tailboom skin (11). Final hole size to be 0.208/0.214" dia. (5.28/5.43 mm).
  - b) Use a #10 drill to drill the 3 holes (8) which are common to the upper support. Final hole size to be 0.193/0.198" dia. (4.90/5.03 mm). "A"
  - c) Examine each of the marked locations to make sure there is an edge distance of 0.35 inch (8.89 mm) minimum at all screw locations.
  - d) Deburr all the holes.
  - e) Treat with Chem Film (C-100) and prime (C-204) all bare metal surfaces.
6. Use the screws and washers removed in Step 1 to attach the lower support (3, Figure 3) to the tailboom skin. Tighten the screws .

- NOTE -

Make sure the support angle (13, Figure 3) is not under any stress when you complete the step that follows.

7. (Refer to Figure 3, Detail A). Put the mating support angle (13) on the lower surface of the horizontal stabilizer (5). Find the best fit to match the stabilizer (5) and tailboom skin (11) contour. Keep this position.
8. Find and mark the center of the 7 holes (9, Figure 2) from the stabilizer inserts on the horizontal flange of the support angle (13, Figure 3).
9. Remove the support angle (13) from the tailboom skin (11) and do the steps that follow:
  - a) Use a #6 drill to drill the 7 holes (9), which will be common to the stabilizer attachment inserts. Final hole size to be 0.203/0.208" dia. (5.16/5.28 mm).
  - b) Examine each of the screw hole locations to make sure there is an edge distance of 0.35" (8.89 mm) minimum and that the holes do not cut into the bend radius of the flange.

- c) Mark the positions of the 21 rivets (Figure 3, Sheet 1) on the vertical flange of the support angle (13). Use a #40 drill to make the 0.098" (2.49 mm) dia. drill holes in the support angle (13) only.
  - d) Deburr all the holes.
10. Use the screws and the washers removed in Step 1 to attach the support angle (13) to the lower surface of the stabilizer (5). Tighten the screws (18) .

### CAUTION

DO NOT DRILL THE TWO MOST FORWARD RIVET HOLES COMPLETELY THROUGH THE LOWER SUPPORT (3) BECAUSE YOU CAN CAUSE DAMAGE TO THE TAILBOOM DOUBLER 206-023-134-103 (REF. ASB 206L-99-115).

11. Work from the center of the support angle (13) outboard to transfer the #40 pilot holes (Qty. 19) to the lower support (3). As you progress outboard, install sheet metal holders (Clecocos) in the # 40 holes to make sure that the angle keeps the contour of the lower support. Do not transfer the holes at the two most forward locations, but mark the two holes on lower support (3).
12. Remove the support angle (13) and the lower support (3) as an assembly (with the "Clecocos") from the tailboom and the stabilizer (5):
- a) Use a #40 drill to transfer the two forward holes that remain from the support angle (13) to the lower support (3).
  - b) Use a #20 drill to increase the size of the 21 holes in the lower support (3) and the support angle (13). Final hole size to be 0.160 in. (4.06 mm).
  - c) Examine each of the new rivet hole locations to make sure there is an edge distance of 0.35" (8.89 mm) minimum.
  - d) Deburr all the holes.
  - e) Treat all bare metal surfaces with Chem Film (C-100) and prime (C-204).
  - f) Apply sealant (C-392) between the faying surfaces of the support angle (13) and the lower support (3).

- For the LH side: Use 19 rivets MS20615-5MP5R and 2 rivets NAS1200M5-5P, wet with sealant.

- For the RH side: Use 21 rivets MS20615-5MP5R, wet with sealant.

13. Allow sealant to cure.

14. Do Step 1 through 13 again for the lower support (4) and the support angle (14) on the right side.

15. Remove the shims (10) you prepared in Step 2 and discard.

16. Do PART III of this bulletin.

**Part III: New Installation of the Stabilizer and Attachment Supports – Refer to Figure 4**


1. If not already done, install the stabilizer (5) through the tailboom from the right side.

**- NOTE -**


Install each support so that the screws are centered within the holes in the supports as near as possible.

**CAUTION**

IT IS CRITICAL THAT THE HOLES IN THE SUPPORTS MATCH THE HOLES IN THE TAILBOOM SKIN AND THE DOUBLER TO PREVENT A PRELOAD CONDITION. IF THE HOLES DO NOT ALIGN, YOU REQUIRE NEW SUPPORTS AT THE AFFECTED LOCATION.

2. Use the screws (18, Figure 4) and the washers (19) on the left side and the screws (18) and the washers (19) on the right side to install the top left and right supports (1 and 2) onto the tailboom top section. Tighten each screws .

3. Use two screws (18) and two washers (19) per side, at the second and seventh hole location from the leading edge, on the stabilizer (5) to attach the stabilizer (5) to the top supports (1 and 2).

4. Use a 0.003 inch (0.08 mm) feeler gage. Slowly tighten each of the screws (18) on each side of the tailboom until you can just put the feeler gage between the stabilizer (5) upper surface and the top supports (1 and 2) horizontal flanges. The 0.003 inch (0.08 mm) clearance will make sure that there is no pre-load condition.
5. Use the screws (18) and the washers (19) on the left side and the screws (18) and the washers (19) on the right side to install the bottom support assemblies on the tailboom. Tighten screws (18) .

- NOTE -

Install each support assembly so that the screws are centered in the holes in the supports as near as possible.

6. Use a feeler gage to make sure that there is a clearance between 0.003 and 0.050 inch (0.08 mm and 1.27 mm) along the horizontal flange of the bottom supports.

- NOTE -

If there is not a correct clearance, use the tolerance of the hole to adjust the lower support assemblies as necessary. If you can not have the correct clearance, new supports will be necessary before you continue.

7. Use a fine tip felt pen to draw a mark across the front and aft edge of each top and bottom supports (1 and 3), (2 and 4).
  - a) Extend each mark approximately 0.50 inch (12.70 mm) on the tailboom skins (11 and 12). These lines will be used to subsequently align the supports (1 and 3), (2 and 4) in the same position on the tailboom skins (11 and 12).
8. Remove the stabilizer (5) and all the supports from the tailboom.

**CAUTION**

MAKE SURE YOU DO NOT REMOVE THE PRIMER OR SAND INTO THE ALUMINIUM MATERIAL OF THE SUPPORTS.

9. Gently abrade the paint and/or primer from the horizontal flange of the top and the bottom supports.

10. Clean reworked surfaces with ACETONE (C-316) and let to dry.
11. Mask the stabilizer surfaces that align with the top and bottom supports with a 2.0 inch (50.8 mm) wide tape (C-460).

- NOTE -

Keep the tape centered with the stabilizer inserts.  
Do not make a hole in the tape at any insert location  
at this time.

12. Carefully slide the stabilizer (5) into position through the tailboom, from the right side.
13. Apply a layer of shimming compound (C-322) on each horizontal flange of the top supports (1 and 2). Make sure there is sufficient compound on each of the support flange bend radius.
14. Use the screws (18) and the washer (19) to attach each top support (1 and 2) to the tailboom skins (11).
15. Use the fine marks you made in Step 7 to align each support (1 and 2) on the tailboom skins (11 and 12). Tighten each screw (18) that attaches the top supports (1 and 2) to the tailboom skin (11 and 12).

**CAUTION**

DO NOT PUT EXCESSIVE PETROLATUM ON  
THE SCREWS BECAUSE THIS CAN  
CONTAMINATE THE SHIMMING COMPOUND  
(C-322).

16. Apply a light layer of Petrolatum (C-008) on shank and head of the four screws.

**CAUTION**

DO NOT ALLOW THE STABILIZER TO TOUCH  
THE SHIMMING COMPOUND (C-322) AT THIS  
TIME.

17. Carefully lift the stabilizer close to the upper left and right supports (1 and 2) and install the screws (18) and the washers (19), two on each side, at the second and seventh hole location.
18. Use the screws (18) to make a hole in the tape (C-460). Engage each screw (18) between two to three threads into the stabilizer insert and leave to be tightened subsequently.
19. Apply a layer of shimming compound (C-322) to each flange of the bottom support assemblies that align with the bottom surface of the stabilizer (5). Make sure there is sufficient compound (C-322) on each of the support flange bend radius.

- NOTE -

When you install the lower supports in position, the stabilizer will come in contact with the upper supports shimming compound, which is correct.

20. Apply a layer of Petrolatum (C-008) on the shank and head of the four screws (18).
21. Install the two screws (18) and two washers (19) on each side, at the second and seventh hole locations, on each flange of the bottom support assemblies that align with the stabilizer.
22. Use the screws (18) to make a hole in the tape (C-460). Engage each screw (18) two to three threads into the stabilizer insert and leave to be tightened subsequently.
23. Align each bottom support (3 and 4) with each mark that was made in Step 7. Install the screws (18) common to the tailboom skin (11 and 12). Tighten the screws.
24. Remove unwanted shimming compound wherever possible and allow to cure for 16 hours minimum at room temperature, not less than 68°F (20°C) without clamp-up loads on the stabilizer.
25. After shimming compound (C-322) has cured, remove the supports and examine the compound for condition as follows:
  - a) Examine the shimming compound (C-322) for pinholes, porosity, and voids. Pinholes, porosity, and voids less than 0.15" diameter (3.81 mm) and at least 1.0 inch (25.4 mm) apart are permitted. Do the shimming procedure again for incorrect conditions.

- b) Measure the thickness of the shimming compound on the supports to make sure that it is no more than 0.050 inch (1.27 mm) thick. If the thickness of the shimming compound is more than 0.050 inch (1.27 mm) thick, it is necessary to redo Part II of this bulletin using new supports.

**CAUTION**

IF A POWER DEVICE (EXAMPLE: ROTARY OR BELT SANDER) IS USED TO TRIM SHIMMING COMPOUND (C-322), MAKE SURE YOU DO NOT DAMAGE THE BEND RADIUS OF THE SUPPORTS.

- c) Remove the excess shimming compound (C-322) from each of the support bend radius. Make sure the bend radius area of each support is fully seated in the shimming compound (C-322). If compound is missing in an area of the bend radius, do the shimming procedure again.
26. Apply a layer of primer (C-204) on the shimming compound (C-322) on each of the supports.
27. Remove the tape (C-460) from the stabilizer (5).


**CAUTION**

WHEN THE SHIMMING PROCEDURE IS COMPLETED, THE STABILIZER ASSEMBLY, THE TAILBOOM ASSEMBLY, AND THE SUPPORTS ARE CONSIDERED A MATCHED SET. THE TAILBOOM ASSEMBLY, THE STABILIZER ASSEMBLY AND/OR THE SUPPORTS 206-023-131-ALL ARE NOT INTERCHANGEABLE BETWEEN AIRCRAFT, UNLESS THIS SHIMMING PROCEDURE IS DONE AGAIN.

28. Refer to Figure 4, Note 1. Use an indelible ink stamp or permanent felt pen method to identify the inner face of each support with the applicable tailboom and the horizontal stabilizer part numbers and serial numbers as follows:

"This support is matched to Tailboom P/N...., S/N..... and Horizontal Stabilizer P/N..... and S/N..... ."

29. Install the stabilizer and the supports as follows:

- a) Apply a layer of sealant per MIL-S-81733 (C-392) on the shank of each fastener that attaches the stabilizer to the supports, before the installation.
- b) Install the fasteners in the applicable location as specified in Figure 4. Tighten screws (18) .

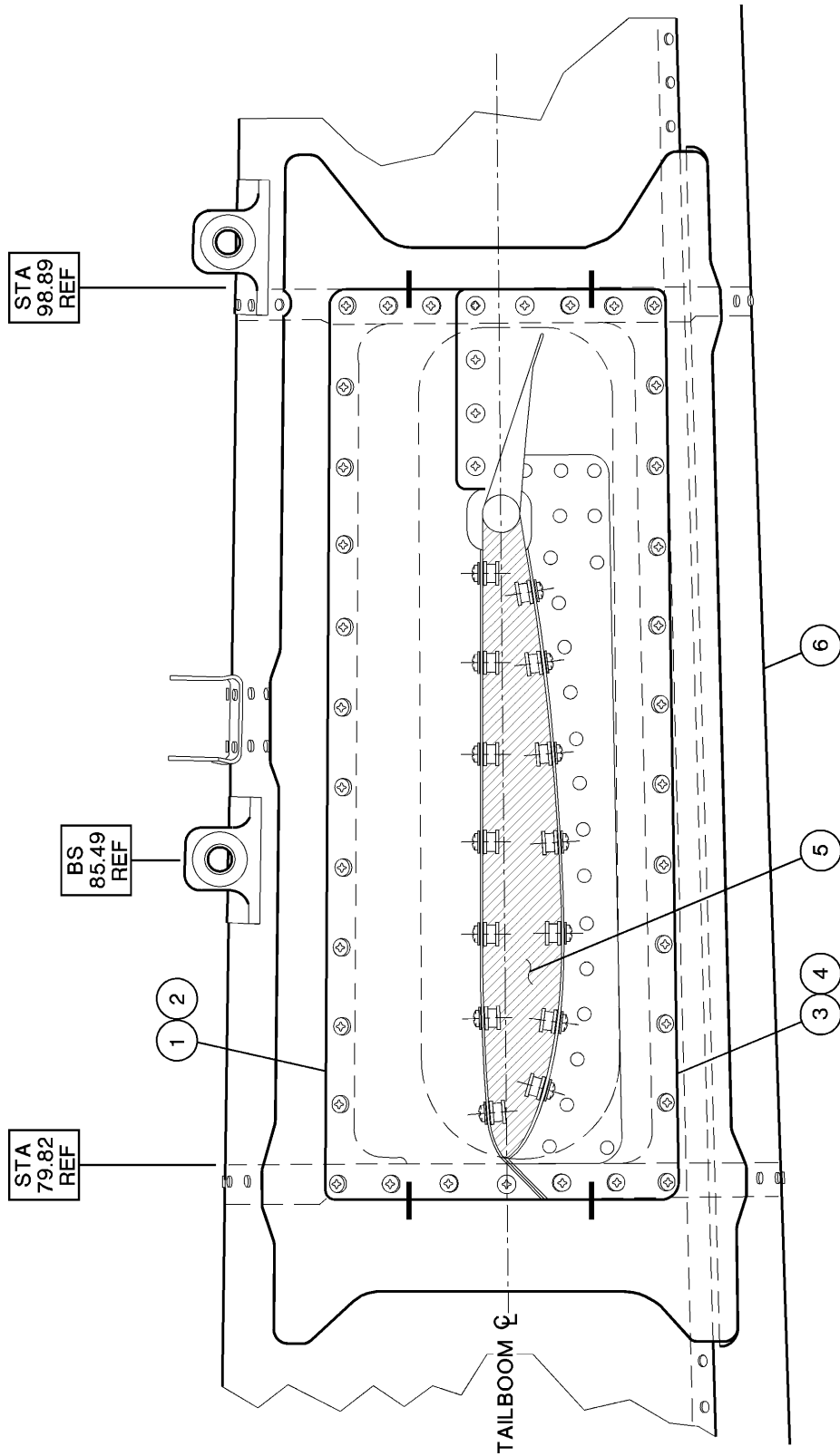
30. Examine each of the support horizontal flanges for interference of the screw heads and/or washers with the bend radius of the support. If there is interference, do the following:

- a) Remove the affected screw.
- b) Drill a hole 0.203 to 0.208 inch (5.16 to 5.28 mm) diameter into a radius block 20-042-11-5 to align with the stabilizer insert location.
- c) Install a longer screw NAS1123-3, the washer, and the radius block. Apply a coat of sealant (C-392) and install wet to the faying surfaces of the radius block and the support.

31. Re-finish the aircraft paint to the initial condition as required.

32. Revise the aircraft Weight and Balance record sheet as required.

33. Make an entry on the helicopter Technical Records (HR) to show that this bulletin is completed.



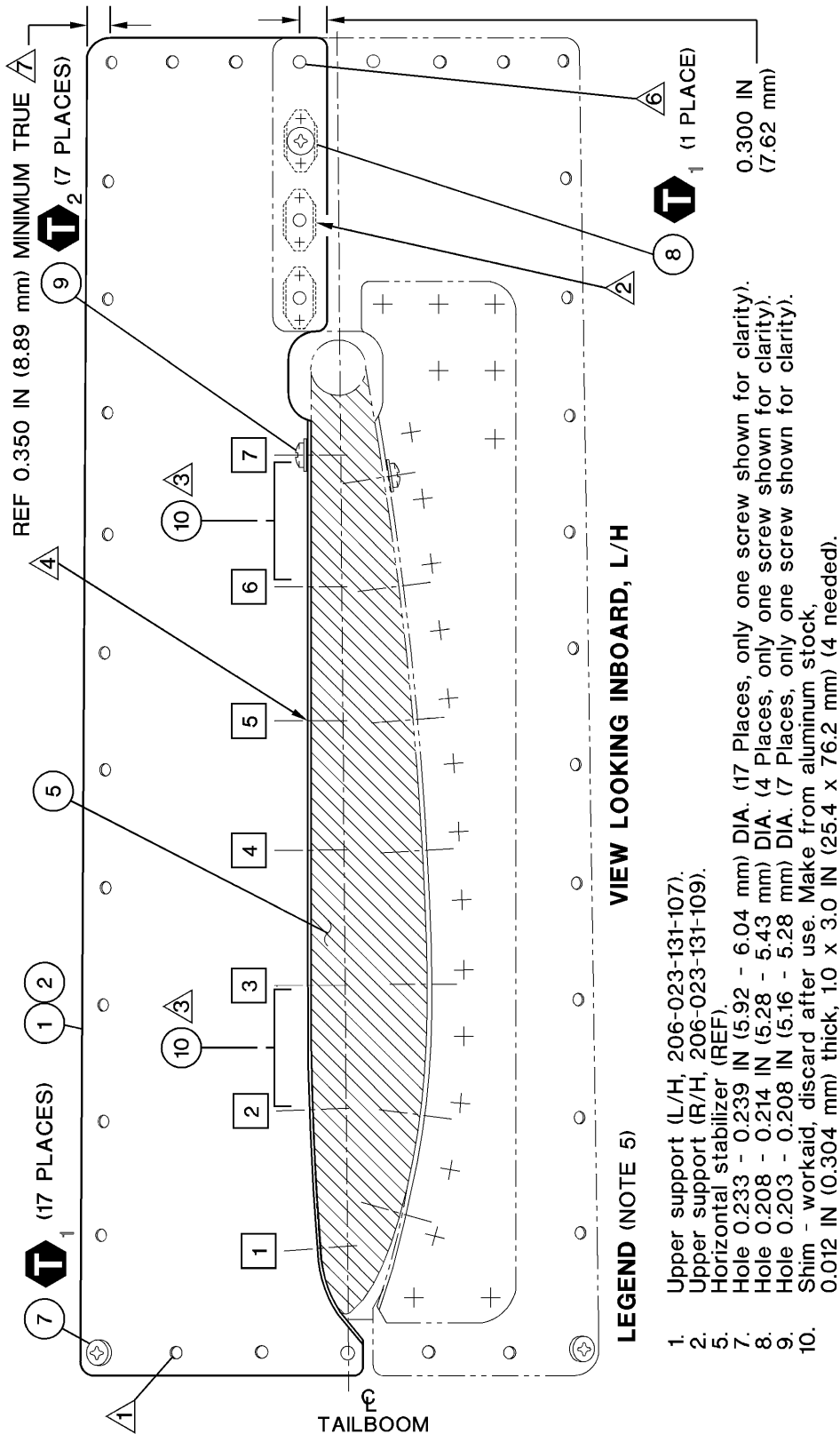
VIEW LOOKING INBOARD, L/H

**LEGEND**

- 1. Upper support (L/H) (REF).
- 2. Upper support (R/H) (REF).
- 3. Lower support (L/H) (REF).
- 4. Lower support (R/H) (REF).
- 5. Horizontal stabilizer (REF).
- 6. Tailboom (REF).

0061001

Figure 1. Tailboom – Horizontal Stabilized Support – Removal



**VIEW LOOKING INBOARD, L/H**

**LEGEND (NOTE 5)**

- 1. Upper support (L/H, 206-023-131-107).
- 2. Upper support (R/H, 206-023-131-109).
- 5. Horizontal stabilizer (REF).
- 7. Hole 0.233 - 0.239 IN (5.92 - 6.04 mm) DIA. (17 Places, only one screw shown for clarity).
- 8. Hole 0.208 - 0.214 IN (5.28 - 5.43 mm) DIA. (4 Places, only one screw shown for clarity).
- 9. Hole 0.203 - 0.208 IN (5.16 - 5.28 mm) DIA. (7 Places, only one screw shown for clarity).
- 10. Shim - workaid, discard after use. Make from aluminum stock, 0.012 IN (0.304 mm) thick, 1.0 x 3.0 IN (25.4 x 76.2 mm) (4 needed).

**T<sub>1</sub>** 20 TO 25 IN-LBS PLUS TARE  
(2.26 TO 2.82 Nm)

**T<sub>2</sub>** 12 TO 15 IN-LBS PLUS TARE  
(1.36 TO 1.69 Nm)

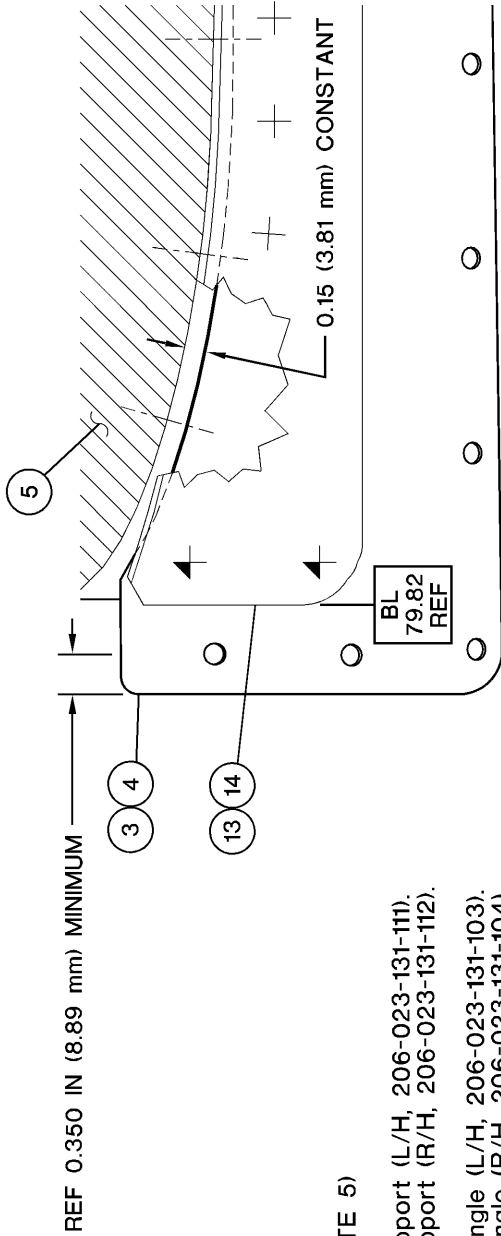
**NOTES**

- 1. Locate holes 0.233 - 0.239 IN (5.92 - 6.04 mm) DIA from tailboom skin (17 places).
- 2. Locate holes 0.208 - 0.214 IN (5.28 - 5.43 mm) DIA in upper support from lower support and install nutplates using 3/32 IN (2.36 mm) flush rivets (3 places).

- 3. Place shim (10) between the upper support (1, 2) and stabilizer (5). Refer to Part II, Step 2.
- 4. Locate holes 0.203 - 0.208 IN (5.16 - 5.28 mm) DIA from stabilizer (7 places).
- 5. Only necessary items are shown and listed for clarity.
- 6. Hole 0.208 - 0.214 IN (5.28 - 5.43 mm) locate from tailboom skin.
- 7. Except as shown, all edge distances in upper support to be 0.350 IN (8.89 mm) minimum.

**Figure 2. Tailboom – Horizontal Stabilizer Upper Support - Installation**





**LEGEND (NOTE 5)**

- 3. Lower support (L/H, 206-023-131-111).
- 4. Lower support (R/H, 206-023-131-112).
- 5. Stabilizer.
- 13. Support angle (L/H, 206-023-131-103).
- 14. Support angle (R/H, 206-023-131-104).

**LOWER SUPPORT GAP WITH HORIZONTAL STABILIZER  
DETAIL A**

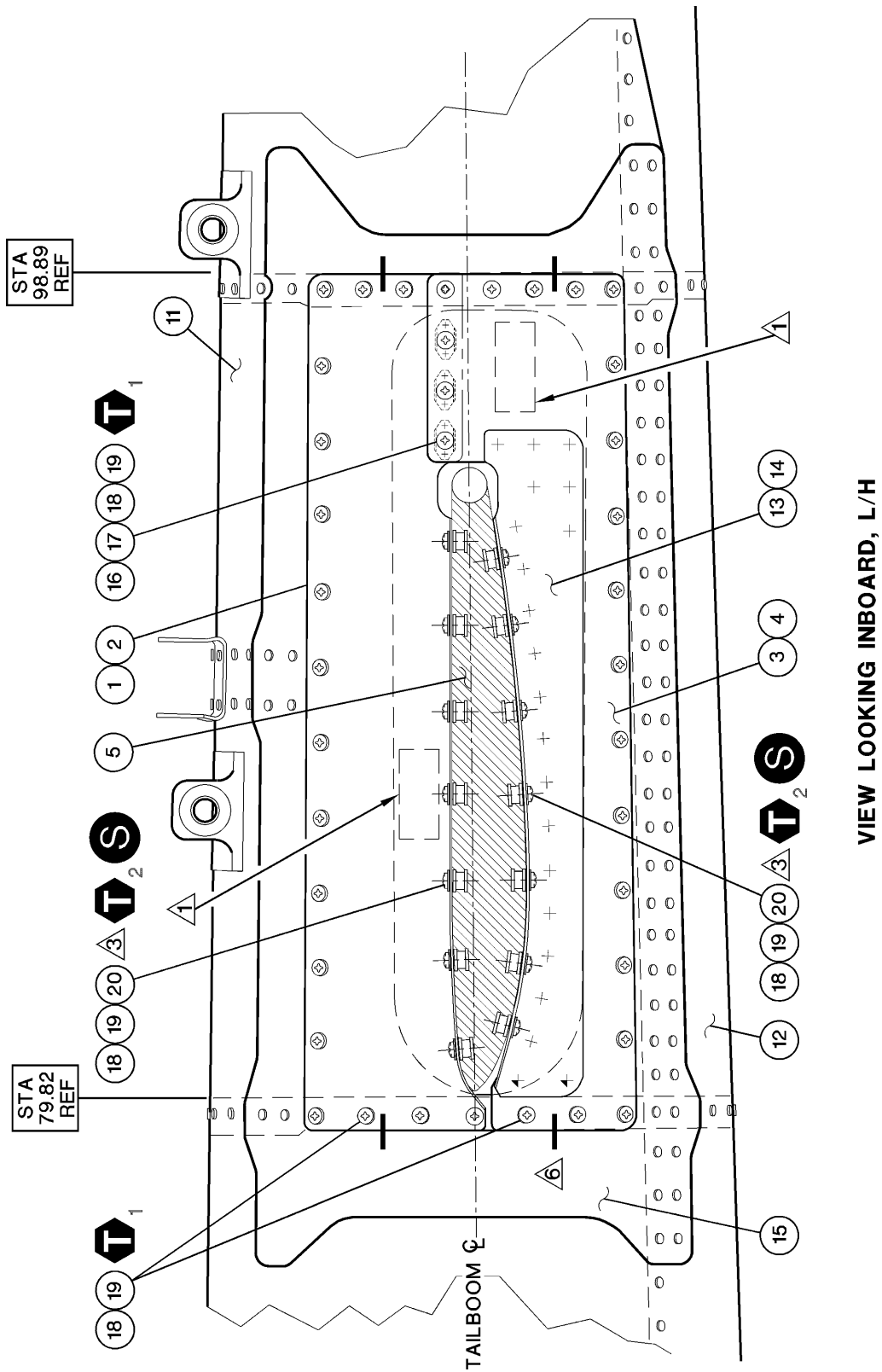
**NOTES**

- ① Assemble support angle to lower support. Use sealant MIL-S-81733 (C-392) between faying surfaces.
- ② Locate holes 0.193 - 0.198 IN (4.90 - 5.03 mm) DIA in lower support from upper support (3 places).
- ③ Do not drill these holes when supports are installed on L/H side to prevent damage to the tailboom skin and the doubler.
- ④ Install flush rivets at this location, L/H side only.
- 5. Only necessary items are shown and listed for clarity.
- ⑥ Locate holes 0.208 - 0.214 IN (5.28 - 5.43 mm) DIA from tailboom skin (11) (Figure 4) (18 places).
- ⑦ Locate holes 0.203 - 0.208 IN (5.16 - 5.28 mm) DIA from stabilizer (7 places).
- ⑧ Edge distance at all screw location in lower support to be 0.350 IN (8.89 mm) minimum.

**CAUTION**

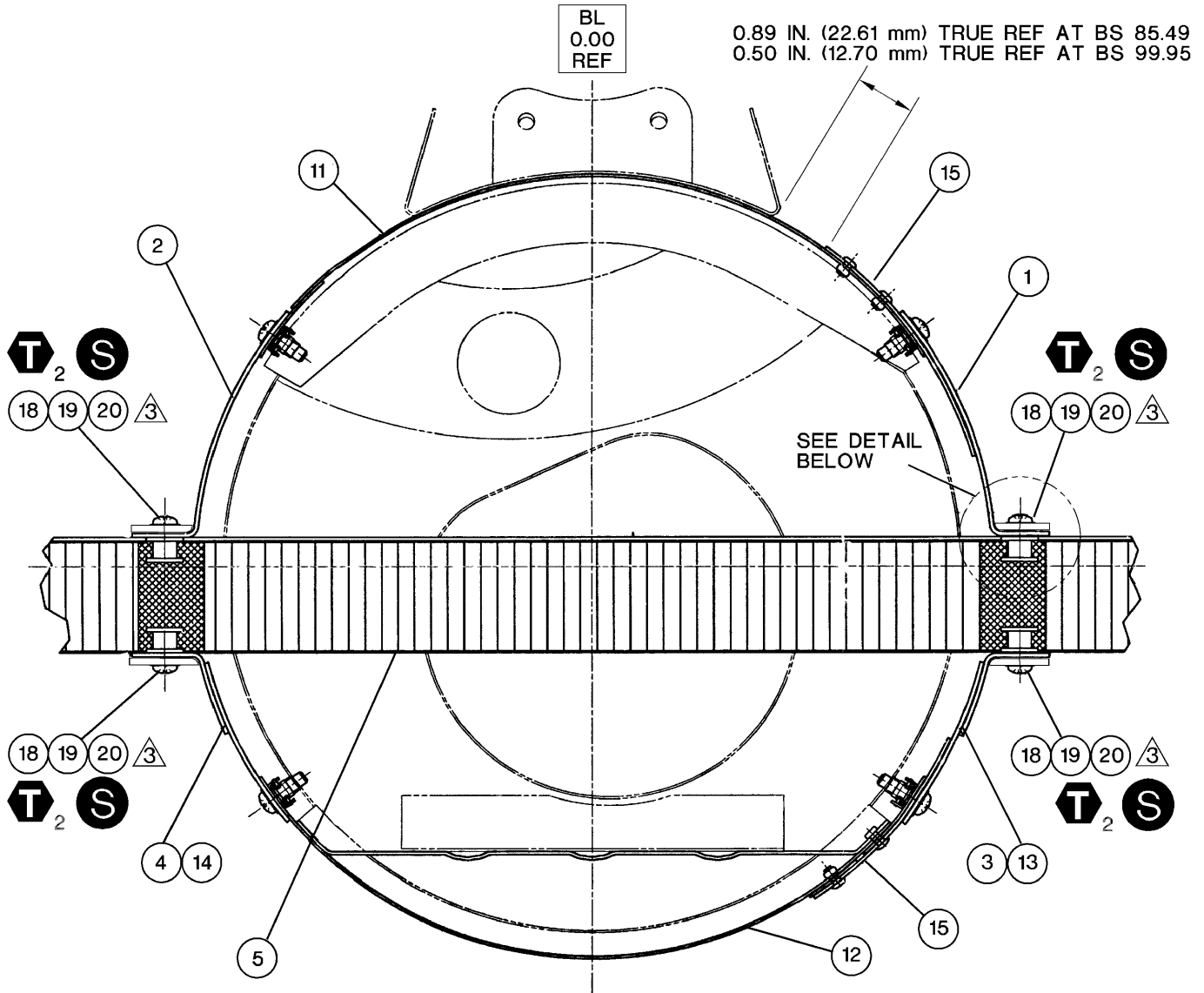
DO NOT DRILL RIVETS HOLES <sup>↑</sup> WHEN SUPPORTS ARE INSTALLED ON L/H SIDE TO PREVENT DAMAGE TO THE TAILBOOM SKIN AND THE DOUBLER.

Figure 3. Tailboom – Horizontal Stabilizer Lower Support – Installation (Sheet 2)

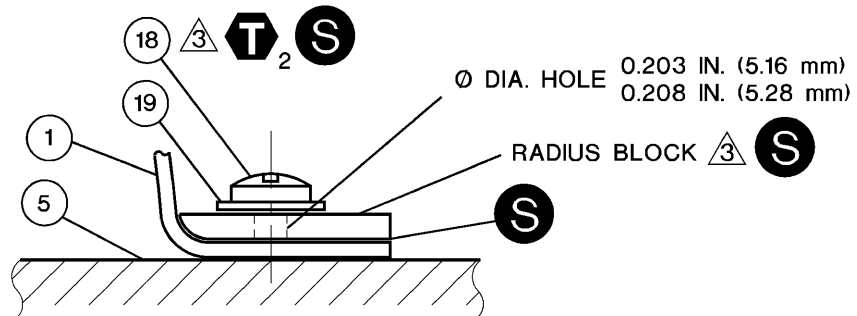


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Figure 4. Tailboom – Horizontal Stabilizer – Installation (Sheet 1)



VIEW LOOKING AFT AT B.S. 85.49




INSTALLATION OF RADIUS BLOCK  
 (TYPICAL)


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Figure 4. Tailboom – Horizontal Stabilizer – Installation (Sheet 2)

**LEGEND (NOTE 4)**



1. Upper support 206-023-131-107 (L/H).
2. Upper support 206-023-131-109 (R/H).
3. Lower support 206-023-131-111 (L/H, see Note 2).
4. Lower support 206-023-131-112 (R/H, see Note 2).
5. Stabilizer (REF).
11. Tailboom upper skin (REF).
12. Tailboom lower skin (REF).
13. Support angle 206-023-131-103 (L/H, see Note 2).
14. Support angle 206-023-131-104 (R/H, see Note 2).
15. Doubler 206-023-134 (REF).
16. Nutplate NAS 1791A3-3.
17. Rivet MS20426AD3.
18. Screw (REF).
19. Washer (REF).
20. Radius block (REF).

 20 TO 25 IN-LBS PLUS TARE  
(2.26 TO 2.82 Nm)

 12 TO 15 IN-LBS PLUS TARE  
(1.36 TO 1.69 Nm)

 SEALANT (C-392)

**NOTES**

-  Identify the tailboom supports P/N and S/N, the stabilizer P/N and S/N in shown area.
2. Lower support assembly (L/H) made up of lower support 206-023-131-111 and support angle /-103.  
Lower support assembly (R/H) made up of lower support 206-023-131-112 and support angle /-104.
-  Install longer screw and radius block where required only.
4. Only necessary items listed and shown for clarity.