

**TECHNICAL BULLETIN**  
**Bell Helicopter** **TEXTRON**

A Subsidiary of Textron Inc.

No. 407-03-53

Date Dec. 18, 2003

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DATE
REV

**MODEL AFFECTED:** 407

**SUBJECT:** AFT FIREWALL REINFORCEMENT

**HELICOPTERS AFFECTED:** Model 407 helicopters serial number 53001 through 53579 with oil cooler inlet duct assembly.

Model 407 helicopters serial number 53580 and subsequent will have the intent of this bulletin accomplished prior to delivery

Model 407 Helicopters that have been modified in accordance with an approved repair from Bell Helicopter meet the intent of this bulletin.

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

**DESCRIPTION:**

This bulletin provides instructions to modify and reinforce the aft firewall and channels. It changes the inlet duct assembly and engine door attachment by means of adding supports in front of the aft firewall, reinforcement and doubler aft of the firewall, and relocation of fasteners. By complying with this bulletin you will prevent further cracking of the firewall web and /or the attached channels

Part I applies to all aircraft affected by this bulletin.

Part II provides instruction to modify the aft firewall on aircraft 53001 thru 53559.

Part III provides instruction to modify the aft firewall on aircraft 53560 to 53579.

Part IV provides instruction to modify the engine door and oil cooler fairing on aircraft 53001 thru 53518 previously modified in accordance with ASB 407-02-54

Part V provides instruction to modify the engine door and oil cooler fairing on aircraft 53519 thru 53579.

Part VI provides instruction to modify the oil cooler inlet scoop on aircraft 53001 thru 53579.

**APPROVAL:**

The engineering design aspects of this bulletin are Transport Canada approved.

**MANPOWER:**

Approximately 36.0 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

**MATERIALS:**

**Required Material:**

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

Order kit CT-407-03-53-01 that consists of the parts that follow:

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
206-064-902-159	Doubler	1
206-064-902-161	Stiffener	1
206-064-902-162	Stiffener	1
206-064-902-163S	Support	1
206-064-902-165S	Support	1
206-064-902-167	Filler	2
206-064-902-173S	Filler	1
206-064-902-175S	Filler	1
206-064-902-035S	Channel L/H	1 (note 1)
206-064-902-036S	Channel R/H	1 (note 1)
MIL-T-9046, 12 X 12	Titanium 0.025	1
50-008RF2C	Receptacle	4
MS21062-3	Nutplate	2
140-009C16S48	Washer	4
407-064-806-147	Washer	2
50-010-3	Ejector blade	4

50-007W33C	Dzus fastener	2
50-007A21C	Dzus fastener	4
50-007A33C	Dzus fastener	4
50-009C2	Grommet	6
110-151-3	Rivet blind	4
MS20613-3C2	Rivet	18
MS20613-3C2-5	Rivet	40
MS20613-3C3-5	Rivet	20
MS20613-3C4	Rivet	10
MS20613-3C5	Rivet	8
MS20613-3C5-5	Rivet	6
MS20613-3C6	Rivet	6
MS20427M3-3	Rivet	16 (note 2)
MS20426T3-4	Rivet	20 (note 2)
Ms20426T3-5	Rivet	6 (note 2)
MS20426T4-5	Rivet	8 (note 2)
31-097-1	Decal	1

Note 1: Required only if the part already installed on the aircraft is cracked and needs replacement. Not included in kit CT-407-03-53-01

Note 2: As an alternate, it is acceptable to use MS20426T in lieu of MS20427M, or MS20427M in lieu of MS20426T rivet.

**Consumable Material:**

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

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
AMS3276 1 PT	Sealant	1	C-559 (1)
AMS3374/1 6OZ	Firewall sealant	1	C-353 (2)
299-947-107TY2CL4 QT	Rubber adhesive	1	C-311
299-947-110TY2 1IN	Chafe tape	1	C-454
ACETONE GALLON	Acetone (per Q-A-51)	1	C-316 (3)

**NOTE:**

1. As an alternate use PR1750 B2
2. As an alternate use Dapco 2100 or PR700
3. As an alternate use Methyl Ethyl Ketone (C-309)

**SPECIAL TOOLS:**

None required

**WEIGHT AND BALANCE:**

Not affected

**ELECTRICAL LOAD DATA:**

Not affected

**REFERENCES:**

BHT-407-IPC Illustrated Parts Breakdown  
BHT-407-MM Maintenance Manual

**PUBLICATIONS AFFECTED:**

BHT-407-IPC Illustrated Parts Breakdown  
BHT-407-MM Maintenance Manual

**ACCOMPLISHMENT INSTRUCTIONS:**

**Part I: Gain access to working area.**

1. Ref. 407-MM chapter 53, remove engine cowl and oil cooler fairing.
2. Chapter 79, drain oil from engine oil tank and oil cooler. Remove engine/xmn oil cooler.

**-NOTE-**

If equipped with air conditioning, do not disconnect line to avoid depressurizing the system

**-NOTE-**

Do not damage or remove shims under hanger bearing support

3. Ref. 407-MM chapter 65, remove steel shaft, oil cooler blower, oil cooler blower shaft, first hanger bearing support. If air conditioning is installed, remove bolts holding compressor and move it away far enough to have access to forward face of the firewall. Be careful not to damage the hoses.
4. Refer to figure 1. Use a plastic scraper or equivalent to remove all sealant on both sides of aft firewall covering rivets common to web (3), support (16), and channels (6,11,14,and 15).
5. Proceed to Part II or Part III according to the aircraft serial number.

**Part II: Modification of aft firewall - Aircraft S/N 53001 thru 53559.**

**CAUTION**

Use care not to damage adjacent part, protect them while trimming. Drilling and cutting of the firewall while still on the aircraft may constitute a fire hazard. Ensure the deck is completely clean and dry of fuel or oil. Transmission and engine area are to be covered to prevent potential damage from sparks and debris.

**CAUTION**

Use care not to drill into oil cooler panel assy while drilling from the forward side of the firewall

**WARNING**

Use adequate protective equipment to keep from injuring yourself while trimming.

**NOTE**

Do not soak parts to be bonded with cleaner (acetone or MEK). Use of moist rag is recommended.

1. Removing rivets and trimming.
  - a. Refer to figure 1 sheet 1. Use a #40 drill and remove qty 14 rivets horizontally attaching web (3) to support (16).
  - b. Remove qty 5 rivets on each side vertically attaching web (3) to channels (6,11,14, and15).
  - c. Refer to view X-X. Remove rivets securing receptacles (13) to channel (14 and 15). Keep receptacles (13) for reuse. Remove qty (2) remaining rivets attaching existing doubler (17) to channel (14 and 15). Discard both doublers (17).
  - d. Partially unglue gasket and remove 2 rivets at bottom of channel (6 and 11).
  - e. From forward side of firewall, lift web (3) and trim each lower corner to eliminate the joggle area as shown in Detail A.
  - f. Trim top portion of existing striker (19) flush with top of side skin as shown in View X-X.
2. Refer to figure 1, sheet 1. Replacement of channel 206-064-902-035 / -036 (14 and 15). If existing channels (14 and 15) are damaged or cracked, proceed as follows. If channels are serviceable, proceed to step 3.
  - a. Record type, size and location of rivets to be removed. Remove rivets securing channel (14 or 15) to web (3).
  - b. Separate channel (14 or 15) from web (3), clean web and inspect for condition.
  - c. Position new channel (14 or 15) and backdrill rivet holes from web (3).
  - d. Remove, deburr and clean using C-316.
  - e. Apply sealant C-353 to faying surfaces of channel (14, 15, 6 and 11), secure with clecos. Install channels wet with sealant C-353 using same type of rivets. Do not install the last bottom (5) rivets at this time.
3. Locate doubler 206-064-902-159 (1) and stiffeners 206-064-902-161 / -162 (4 and 5) as follows:

### NOTE

Ensure to maintain proper fastener edge distance (2D) and spacing.

- a. Refer to figure 1 sheet 2. Position L/H stiffener (4) on the aft face of the web (3). Ensure it is nesting in existing channel (14) and position top edge of stiffener (4) at 2.45 inch from tail rotor driveshaft centerline.
- b. Use a #40 drill and backdrill any 2 holes in horizontal row from web (3) and support (16). Backdrill all vertical holes common to channels (11 and 14) through stiffener (4). Secure with clecos.

### CAUTION

Do not drill size hole 0.889/0.900 inch (22.58/22.86 mm) through web (3) and stiffener (5). Drill this hole only if the aircraft is modified with the oil cooler support strut and oil line relocation. See figure 1 Note 1.

- c. Position R/H stiffener (5) on the aft face of the web (3). Ensure it is nesting in existing channel (15) and position top edge of stiffener (5) at 2.45 inch (62.2 mm) from tail rotor driveshaft centerline.
  - d. Use a #40 drill and backdrill any 2 holes in horizontal row from web (3) and support (16). Backdrill all vertical holes common to channels (6 and 15) through stiffener (5). Secure with clecos.
  - e. Refer to figure 1, sheet 4. Using #40 drill bit, drill 4 rivet holes for receptacles (13) and 4 existing rivet holes thru channels (14 and 15) and stiffeners (4 and 5). Dimple 8 holes in stiffeners (4 and 5).
  - f. Insert doubler (1) between web (3) and stiffeners (4 and 5). Position top edge of doubler (1) at 2.20 inch (55.9 mm) from tail rotor driveshaft centerline as shown in figure 1 sheet 2.
  - g. Do not drill all the holes at this time.
4. Refer to figure 1 sheet 3. Locate supports 206-064-902-163 / -165 (7 and 10) and fillers 206-064-902-167 / -173 / -175 (12, 9 and 8) as follows:

-NOTE-

Drilling and installation of receptacle (20) will be carried out at a later step.

- a. Trim forward flange of existing channels (6 and 11) as shown in Detail A.
- b. Position filler (12) in channels (6 and 11) flush with bottom edge of channels and temporarily hold in place with masking tape or equivalent.
- c. Place filler (8) on support (7) and filler (9) on support (10). Position supports (7 and 10) and fillers (8, 9) on forward side of firewall and against fillers (12). Ensure to maintain a minimum gap of 0.050 inch (1.3 mm) in relation with top side skin as shown in view B-B.
- d. Using #40 drill, drill the complete horizontal top and middle row of rivets through all parts. If a rivet hole is interfering with radius of supports (7 and 10), locally fabricate a radius block made of CRES 301 0.090 inch (2.29 mm) thick.
- e. Remove all parts and transfer the lower row of rivets from stiffeners (4 and 5) onto supports (7 and 10).
- f. Deburr and clean with acetone C-316.
- g. Reinstall all parts together in wet firewall sealant (C-353) with cleco and allow to cure for 24 hours.
- h. Install all rivets as shown in figure 1.
- i. Bond the unglued portion of existing gasket on channels with adhesive C-311.
- j. Install new decal (23) if original decal is damaged.

5. Proceed to Part IV or Part V according to the aircraft serial number

**Part III: Modification of aft firewall - Aircraft S/N 53560 thru 53579.**

Refer to figure 1. On these aircraft, the fillers 206-064-902-173/-175 (9 and 8) are already installed and will be reused. Two forward doublers 206-064-902-177/-179 (21 and 22) will be removed and replaced by supports 206-064-902-163/-165 (7 and 10). The R/H aft doubler 206-064-902-157 (24) is removed and replaced by stiffener 206-064-902-162 (5).

**CAUTION**

Use care not to damage adjacent part, protect them while trimming. Drilling and cutting of the firewall while still on the aircraft may constitute a fire hazard. Ensure the deck is completely clean and dry of fuel or oil. Transmission and engine area are to be covered to prevent potential damage from sparks and debris.

**CAUTION**

Use care not to drill into oil cooler panel assy while drilling from the forward side of the firewall

**WARNING**

Use adequate protective equipment not to injure your person while trimming.

**NOTE**

Do not soak parts to be bonded with cleaner (acetone or MEK). Use of moist rag is recommended.

1. Removing rivets and trimming.
  - a. Refer to figure 1 sheet 2. Use a # 40 drill and remove qty 18 rivets attaching existing doublers (21 and 22) and fillers (8 and 9) as shown in view D. Discard doublers (21 and 22) and keep fillers (8 and 9) for reuse.
  - b. Use a #40 drill and remove qty 25 remaining rivets attaching web (3) to channels (6,11,14, and15) and doubler (24). Discard doubler 24.
  - c. Refer to View X-X. Remove rivets securing receptacles (13) to channel (14 and 15). Keep receptacles (13) for reuse. Remove qty (2) remaining rivets attaching existing doubler (17) to channel (14 and 15). Discard both doublers (17).
  - d. Partially unglue gasket and remove 2 rivets at bottom of channel (6 and 11).

Refer to figure 1, sheet 1. Replacement of channel 206-064-902-035 / -036 (14 and 15). If existing channels are damaged or cracked, proceed as follows. If they are serviceable, proceed to step 3.

- e. Record type, size and location of rivets to be removed. Remove rivets securing channel (14 or 15) to web (3).
  - f. Separate channel (14 or 15) from web (3), clean web and inspect for condition.
  - g. Position new channel (14 or 15) and backdrill rivet holes from web (3).
  - h. Remove, deburr and clean using C-316.
  - i. Apply sealant C-353 to faying surfaces of channel (14, 15, 6 and 11), secure with clecos. Install channels wet with sealant C-353 using same type of rivets. Do not install the last bottom (5) rivets at this time.
2. Locate doubler 206-064-902-159 (1) and stiffeners 206-064-902-161 / -162 (4 and 5) as follows:

**NOTE**

Ensure to maintain proper fastener edge distance and spacing.

- a. Refer to figure 1 sheet 2. Position L/H stiffener (4) on the aft face of the web (3). Ensure it is nesting in existing channel (14) and position top edge of stiffener (4) at 2.45 inch (62.2 mm) from tail rotor driveshaft centerline.
- b. Use a #40 drill and backdrill any 2 holes in horizontal row from web (3) and support (16). Backdrill all vertical holes common to channels (11 and 14) through stiffener (4). Secure with clecos.
- c. Position R/H stiffener (5) on the aft face of the web (3). Ensure it is nesting in existing channel (15) and position top edge of stiffener (5) at 2.45 inch (62.2 mm) from tail rotor driveshaft centerline.
- d. Use a #40 drill and backdrill any 2 holes in horizontal row from web (3) and support (16). Backdrill all vertical holes common to channels (6 and 15) through stiffener (5). Secure with clecos.
- e. Refer to figure 1 sheet 4. Using #40 bit, drill 4 rivet holes for receptacles (13) and 4 existing holes thru channels (14 and 15) and stiffeners (4 and 5). Dimple 8 holes in stiffeners (4 and 5).

- f. Insert doubler (1) between web (3) and stiffeners (4 and 5). Position top edge of doubler (1) at 2.20 inch (55.9 mm) from tail rotor driveshaft centerline as shown in figure 1 sheet 2.
  - g. Refer figure 1 sheet 2. At WL 74.77 and RBL 7.65 drill hole 0.889 /0.990 thru stiffener (5)
  - h. Do not drill all the rivet at this time.
3. Refer to figure 1 sheet 3. Locate supports 206-064-902-163 / -165 (7 and 10) and filler 206-064-902-167 (12) as follows:

-NOTE-

Drilling and installation of receptacle (20) will be carried out at a later step.

- a. Trim forward flange of existing channels (6 and 11) as shown in Detail A.
- b. Position filler (12) in channels (6 and 11) flush with bottom edge of channels and temporarily hold in place with masking tape or equivalent.
- c. Temporarily reinstall fillers (8 and 9) on forward side of firewall. Position support (7) over filler (8) and support (10) over filler (9) and against fillers (12). Ensure to maintain a minimum gap of 0.050 inch (1.3 mm) in relation with topside skin as shown in view B-B.
- d. Using #40 drill, drill the complete horizontal top and middle row of rivets through all parts, including new parts located on the aft side of the firewall. If a rivet hole is interfering with radius of supports (7 and 10), locally fabricate a radius block made of CRES 301 0.090 inch (2.29 mm) thick.
- e. Remove all parts and transfer the lower row of rivets from stiffeners (4 and 5) onto supports (7 and 10).
- f. Deburr and clean with acetone C-316.
- g. Reinstall all parts together in wet firewall sealant (C-353) with cleco and allow to cure for 24 hours.
- h. Install all rivets as shown in figure 1.
- i. Bond the unglued portion of existing gasket on channels with adhesive C-311.

- j. Install new decal (23) if original decal is damaged.
4. Proceed to Part IV or Part V in accordance with the aircraft serial number

**Part IV: Modification of engine door and oil cooler fairing - Aircraft 53001 thru 53518 already modified per ASB 407-02-54**

**CAUTION**

Do not overheat the composites during drilling operation. Pneumatic high-speed drill capable of 2000 RPM maximum is recommended. Use carbide drill bits or reamers.

**NOTE**

Do not soak parts to be bonded with cleaner (acetone or MEK). Use of moist rag is recommended.

1. Figure 2 sheet 1. Modify engine doors as follows:
- a. Use a #30 drill and remove 4 rivets (7) attaching doubler (3) to engine door (1). If installed, remove nutplate (5) and discard. Using a sharp putty knife or equivalent, separate existing doubler (3) from door (1) and discard. Clean residual sealant from door (1).
  - b. Fabricate a new doubler (4) to dimension as shown in detail B using 0.025 inch (0.64 mm) thick material MIL-T-9046, 12 X 12. Edge of doubler to match with the door contour.

**-NOTE-**

Do not drill hole for the wing stud at this time.  
It will be done at step g.

**-NOTE-**

If no nutplate (5) were installed, installation of nutplate (5) is optional.  
See figure 2, Note 3.

- c. Transfer 3 holes from door to doubler (4). Drill hole size 0.203 / 0.208 inch (5.16/5.28 mm). If a standard nutplate was installed, drill holes to install a one way nutplate (5) with rivet pattern facing forward.

- d. Remove primer and paint only by sanding. Deburr and clean all parts with acetone C-316.
  - e. Install new doubler (4) in sealant C-559 with rivets (7) and nutplate rivets (5) while wet. Clamp between a piece of wood or masonite and let cure for 24 hours allowing for proper bonding.
  - f. Refer to figure 2, detail A. Temporarily install engine cowling and doors on aircraft and close door. Use a # 40 drill thru engine door (1) and match with support (figure 1 View B-B, 7 and 10) to locate center of receptacle (20).
  - g. Figure 2, open hole in engine door (1) to .218/.226 inch (5.54/5.74 mm). Deburr and clean with acetone C-316. Apply sealant C-559 on edge of hole. Bond washer 407-064-806-147 on outboard face of door (1) with adhesive C-559, and let cure. Install wing stud, and grommet (6).
  - h. Figure1, open hole 0.458/0.478 inch (11.63/12.14 mm) support (7 and 10) for receptacles (20). Use a #40 drill and open 2 rivet holes for receptacles. Countersink, deburr and clean with acetone C-316 and install receptacles (20). Bond anti-chafing tape C-454 (18) on supports (7 and 10) as shown in View B-B.
  - i. Refinish door as required.
2. Figure 2 detail D, modify aft cooler fairing as follows:
- a. Use a #40 drill and open existing hole in fairing to match lower ejector blade (9) rivet hole pattern. Install rivets (8) thru ejector and fairing in wet sealant C-559.
  - b. The prefer position is to locate upper ejector blade with rivets pointing down for esthetic reason, however if rivets pattern of the ejector does not match with existing rivet on fairing, it is permissible to rotate the ejector blade so that rivets are pointing up. If existing rivets still do not match, it is permissible to rotate the ejector blade to a maximum of 15° as shown in Detail D.
  - c. Use a #40 drill and open hole in fairing to match upper ejector blade (9) rivet hole pattern. Install rivets (8) thru ejector and fairing in wet sealant C-559.

- d. Install stud (10) in ejector blade (9), slide washer (12) and lock in place with grommet (11) as shown in View C-C at upper and lower ejector blades.
- e. Refinish as required.
- f. Proceed to Part VI.

**Part V: Modification of engine door and oil cooler fairing - Aircraft 53519 thru 53579**

**CAUTION**

Do not overheat the composites during drilling operation. Pneumatic high-speed drill capable of 2000 RPM maximum is recommended. Use carbide drill bits or reamers.

**NOTE**

Do not soak parts to be bonded with cleaner (acetone or MEK). Use of moist rag is recommended.

1. Figure 2 detail E, modify engine doors as follows:
  - a. Remove existing nutplate (5) and drill holes to install a one way nutplate (5) with rivet pattern facing forward.
  - b. Temporarily, install engine cowling and doors on aircraft and close door. Figure 2 Detail A. Use a #40 drill thru engine door (1) and match with support (figure 1 View B-B, 7 and 10) to locate center of receptacle (20).
  - c. Figure 2, open hole in engine door (1) to .218/.226 inch (5.54/5.74 mm). Deburr and clean with acetone C-316. Apply sealant C-559 on edge of hole. Bond washer 407-064-806-147 on outboard face of door (1) with adhesive C-559, and let cure. Install wing stud, and grommet (6).
  - d. Figure1, open hole 0.458/0.478 inch (11.63/12.14 mm) in support (7 and 10) for receptacles (20). Use a #40 drill and open 2 rivet holes for receptacles. Countersink, deburr and clean with acetone C-316 and install receptacles (20). Bond anti-chafing tape C-454 (18) on supports (7 and 10) as shown in View B-B.

- e. Refinish door as required.
2. Refer to Figure 2 Detail F. Modify oil cooler fairing as follows:
    - a. Locate lower ejector blade (9) with rivet pattern pointing up. Use a #40 drill and open 2 holes in fairing to match lower ejector blade (9). Install rivets (13) thru ejector and fairing in wet sealant C-559.
    - b. Locate upper ejector blade (9) with rivet pattern pointing down. Use a #40 drill and open 2 holes in fairing to match upper ejector blade (9). Install rivets (13) thru ejector and fairing in wet sealant C-559.
    - c. Install stud (14) in ejector blade (9), slide washer (12) and lock in place with grommet (11) as shown in View C-C at upper and lower ejector blades.
    - d. Refinish as required.
    - e. Proceed to Part VI.

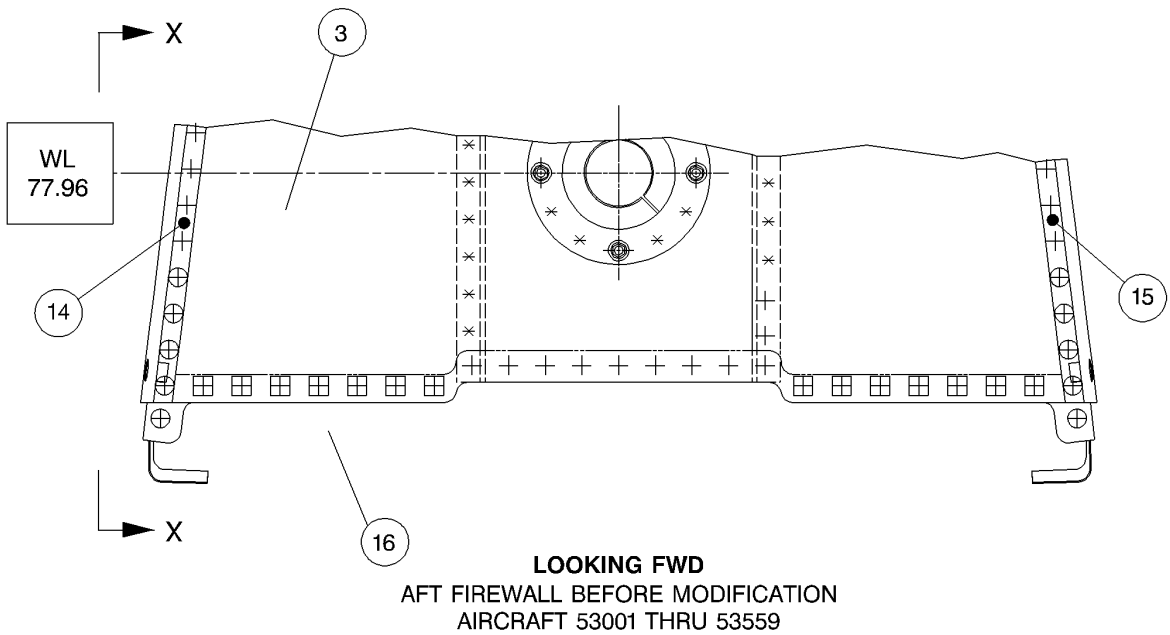
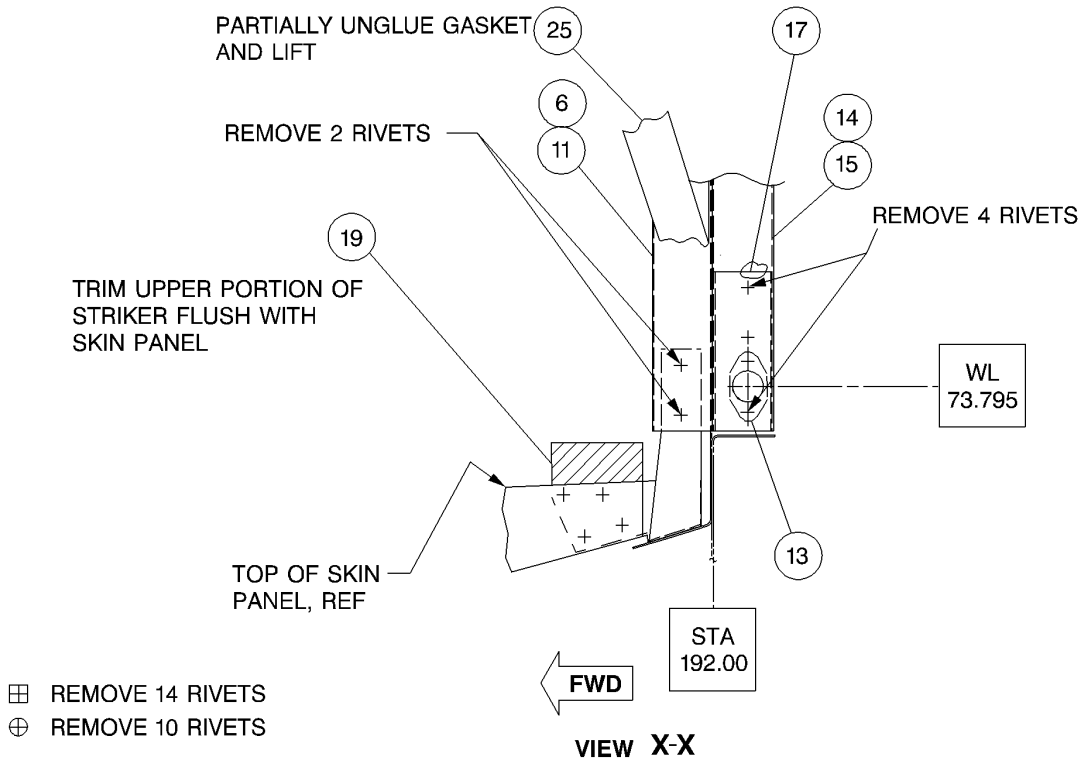
**Part VI: Modification of oil cooler inlet duct assy - Aircraft 53001 thru 53579**

1. Refer to Figure 3. Modify oil cooler inlet duct assy as follows:
  - a. Remove 2 existing ejector blades (3) on each inlet duct assy by drilling rivets (4).
  - b. Enlarge hole to 0.406 inch (10.3 mm) thru duct (1) and seal (2) to clear stud (figure 2, item 10 or 14) head. Seal edge with sealant C-392. See Note 2.
  - c. Fill open rivet holes in duct (1) with sealant C-392. See note 2.
  - d. Let cure for 24 hours.
  - e. Refinish as required.

Return aircraft to service as follows:

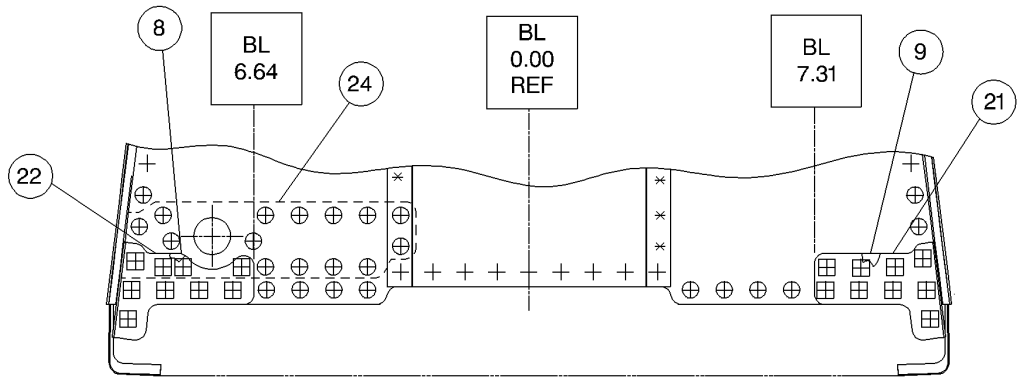
1. Refer to BHT-407-MM, Chapter 65, Reinstall first hanger bearing support, oil cooler blower and shaft, and steel shaft.

2. Refer to BHT-407-MM, Chapter 79, Reinstall oil cooler and engine oil tank. Reconnect lines.
3. Refer to BHT-407-MM, chapter 12. Service helicopter.
4. If equipped, reinstall the air conditioning compressor.
5. Reinstall all cowlings.
6. Annotate the aircraft technical records to indicate that this bulletin is complete.
7. Ground run helicopter and verify for leak and verify tail rotor driveshaft balancing.



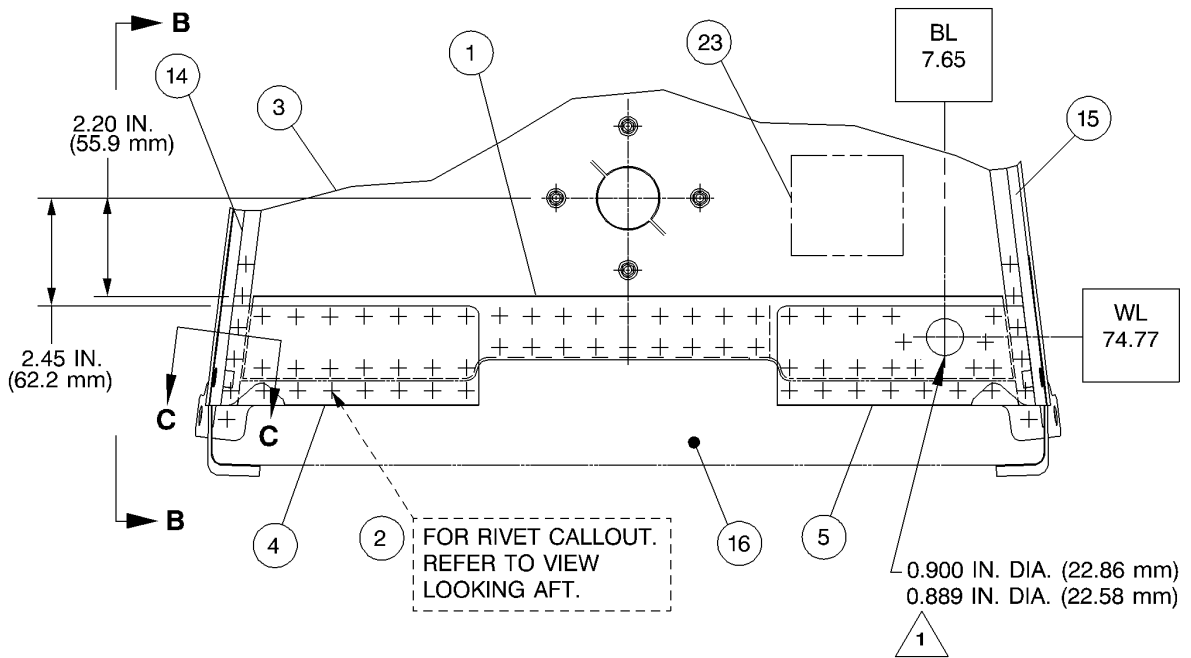
T03511001

Figure 1. Aft firewall modification (sheet 1 of 5)



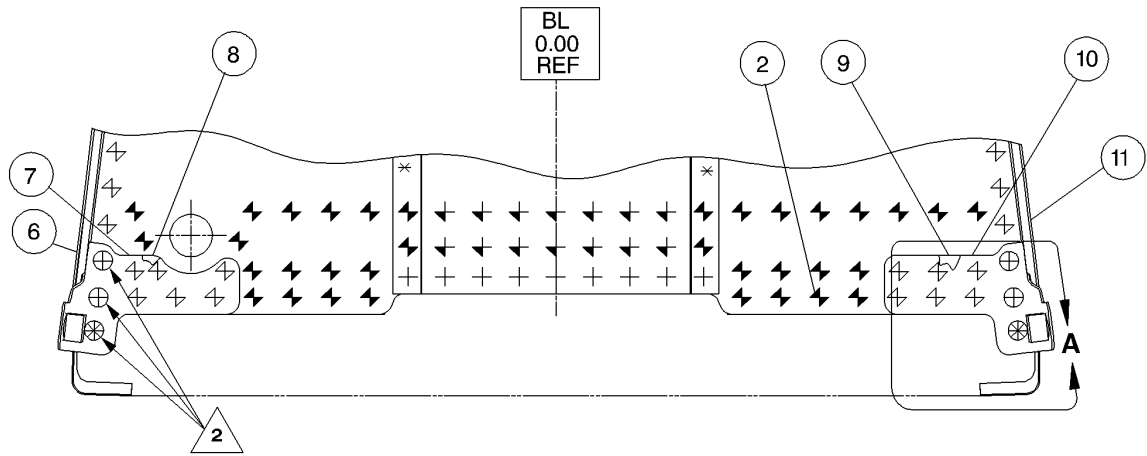
- ⊕ REMOVE 25 RIVETS
- ⊞ REMOVE 18 RIVETS

**VIEW D**  
DETAIL OF 53560 THRU 53579  
BEFORE MODIFICATION  
LOOKING AFT



**LOOKING FWD**  
AIRCRAFT 53001 THRU 53579,  
AFTER MODIFICATION

**Figure 1. Aft firewall modification (sheet 2)**



**LOOKING AFT**  
AIRCRAFT 53001 THRU 53579,  
AFTER MODIFICATION

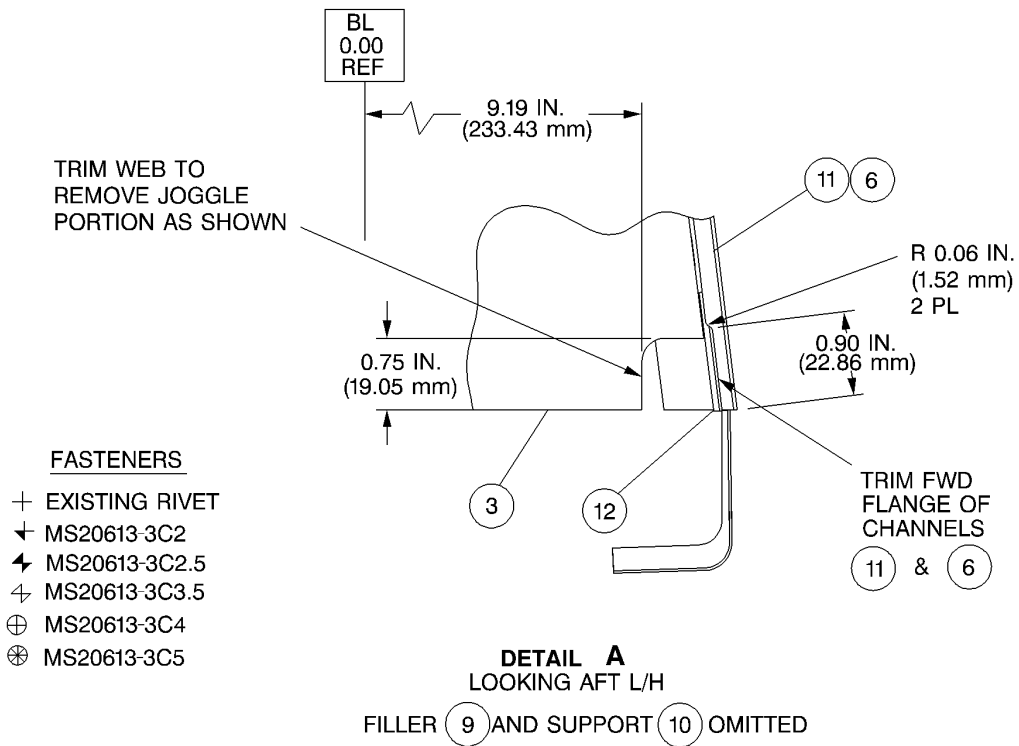


Figure 1. Aft firewall modification (sheet 3)

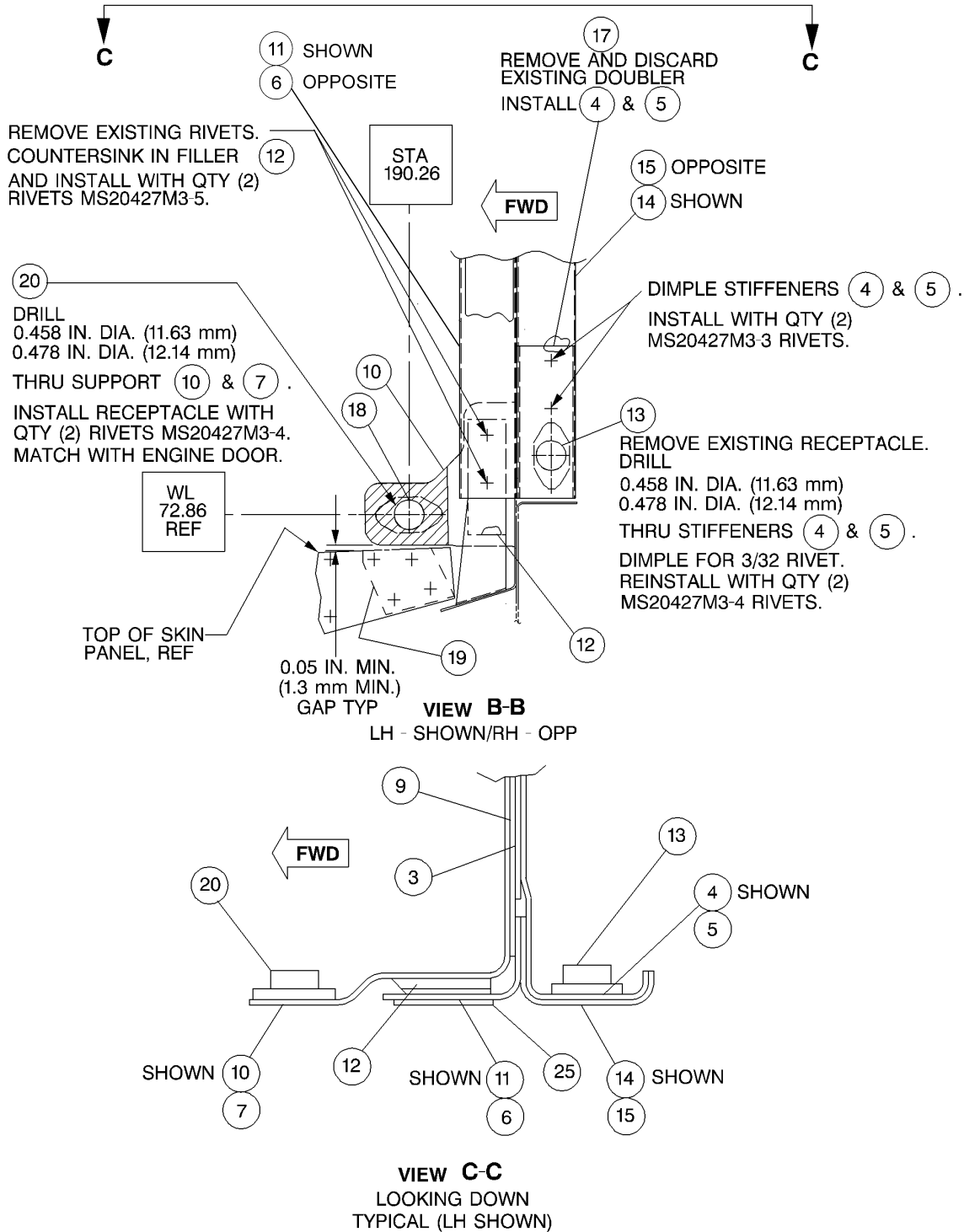




Figure 1. Aft firewall modification (sheet 4)

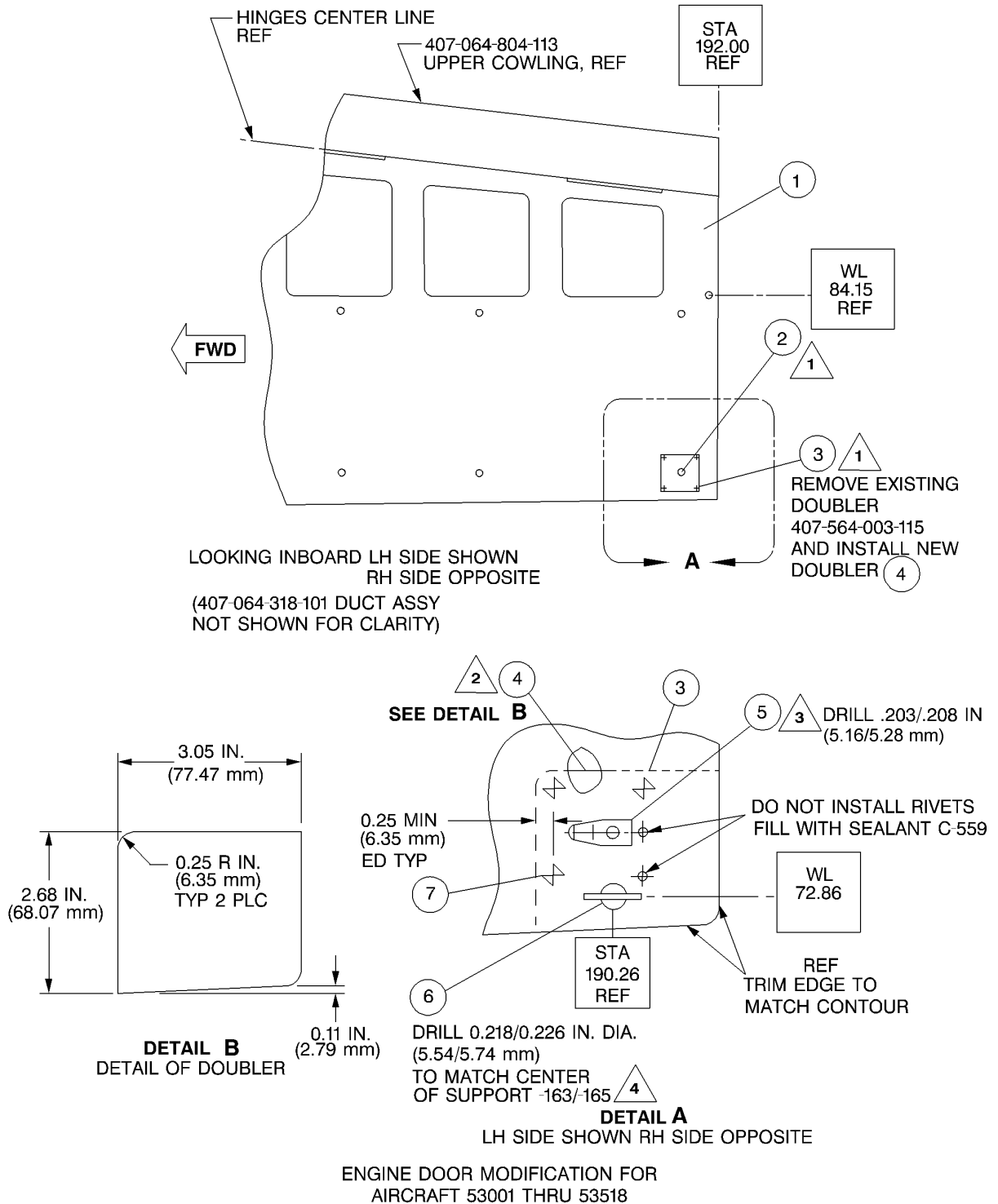
1. Doubler 206-064-902-159
2. Existing rivets
3. Firewall web (Ref)
4. Stiffener 206-064-902-161 L/H
5. Stiffener 206-064-902-162 R/H
6. Channel 206-064-902-170 (Ref)
7. Support 206-064-902-165
8. Filler 206-064-902-175 R/H
9. Filler 206-064-902-173 L/H
10. Support 206-064-902-163
11. Channel 206-064-902-169 (Ref)
12. Filler 206-064-902-167
13. Receptacle 50-008RF2C (Ref)
14. Channel 206-064-902-035 L/H
15. Channel 206-064-902-036 R/H
16. Support 206-032-305-131 (Ref)
17. Existing doubler 206-064-902-043 (Ref)
18. Chafe tape 299-947-110 Type 2
19. Existing striker (Ref)
20. Receptacle 50-008RF2C
21. Doubler 206-064-902-177
22. Doubler 206-064-902-179
23. Decal 31-097-1
24. Existing doubler 206-064-902-157
25. Existing gasket (Ref)

NOTES:

 Do not drill if aircraft is not modified with the oil cooler support strut and oil cooler line relocation. Rivet pattern to be followed in prevision of further modification. If aircraft has been modified with oil cooler strut (same configuration as aircraft 53560 and Sub), transfer this hole from web (3) to doubler (1) and stiffener (5).

 If rivets holes are in radius of supports (7 and 10), it is permissible to install a radius block made of CRES 0.090 inch thick. Install in wet sealant C-353.

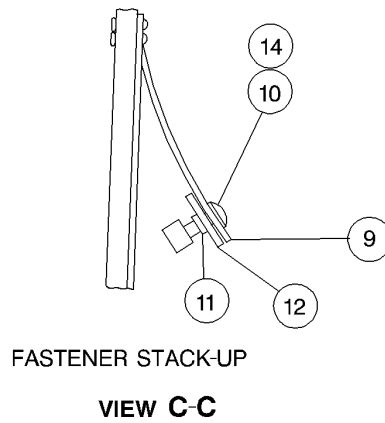
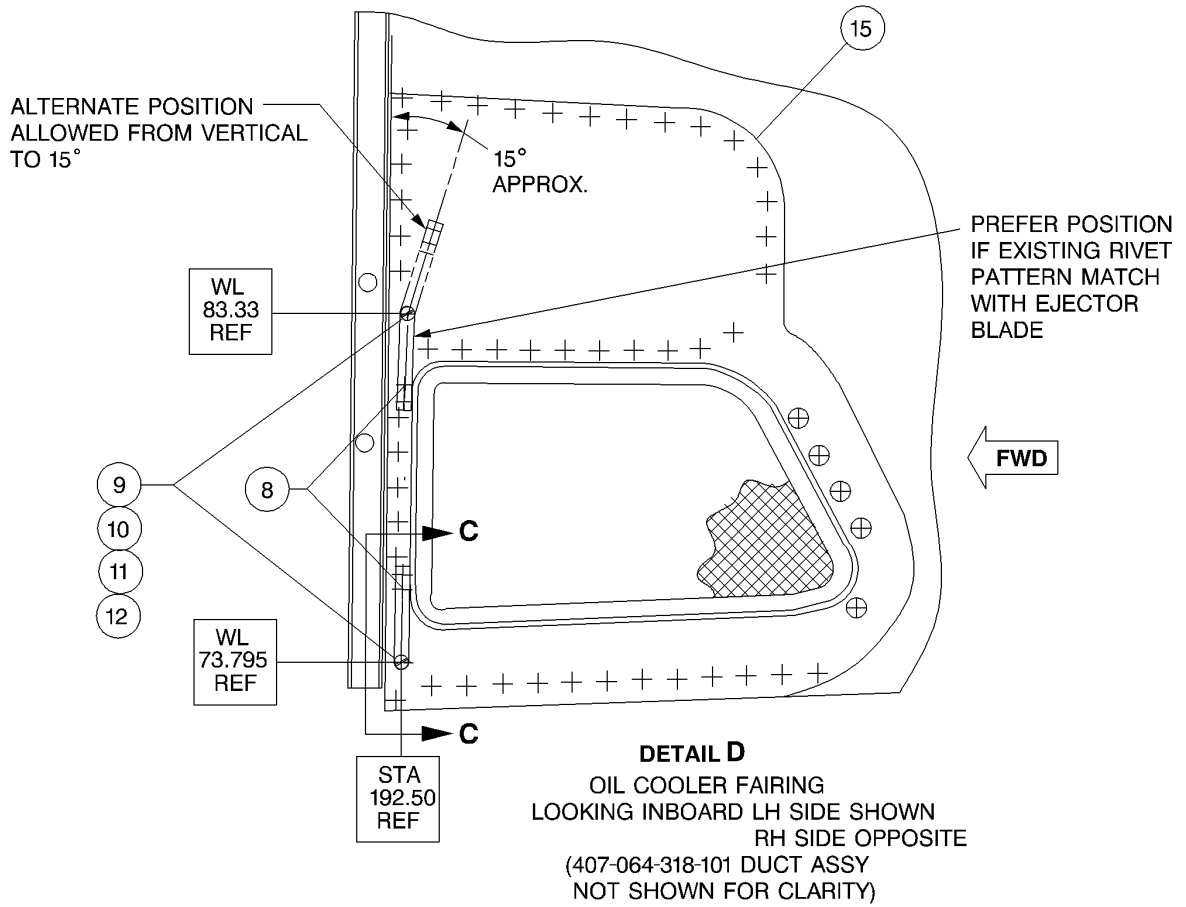
**Figure 1. Aft firewall modification (sheet 5)**



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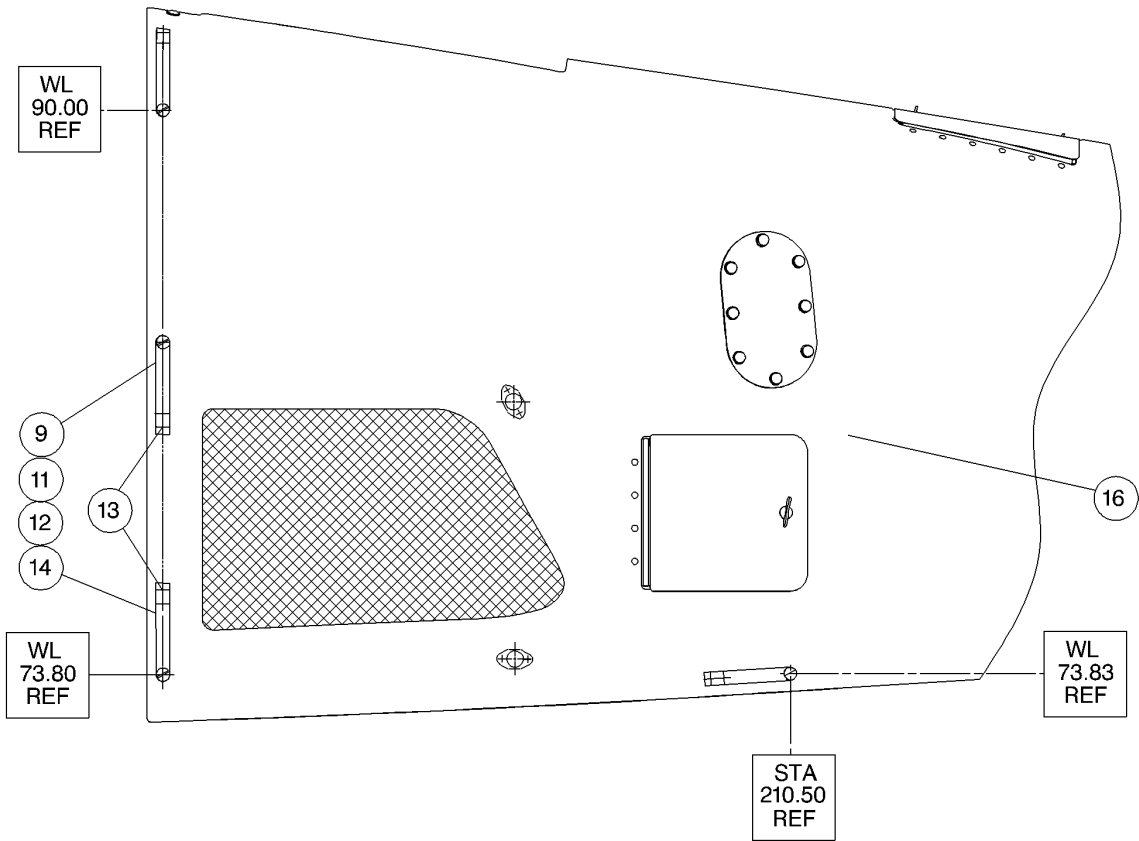
Figure 2. Engine door and aft fairing modification (sheet 1 of 5)





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Figure 2. Engine door and aft fairing modification (sheet 3)







**DETAIL F**  
OIL COOLER FAIRING - AIRCRAFT 53519 THRU 53579

T03511009

**Figure 2. Engine door and aft fairing modification (sheet 4)**

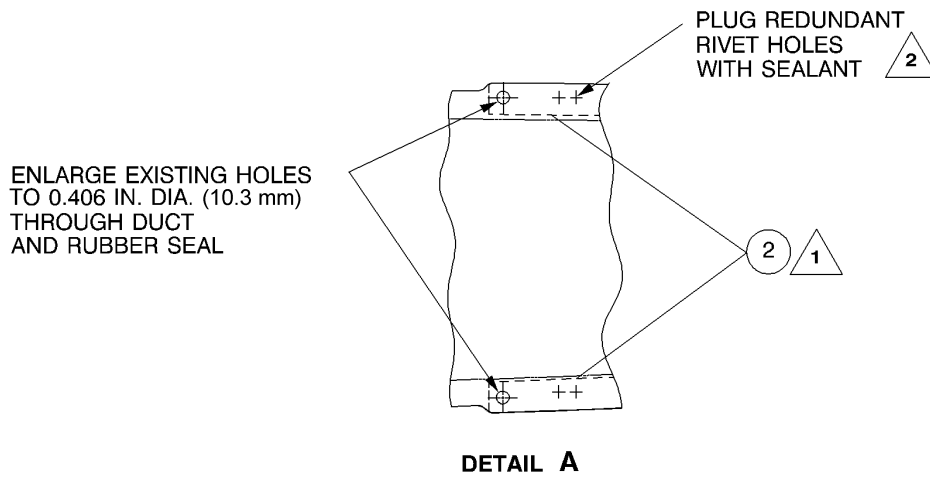
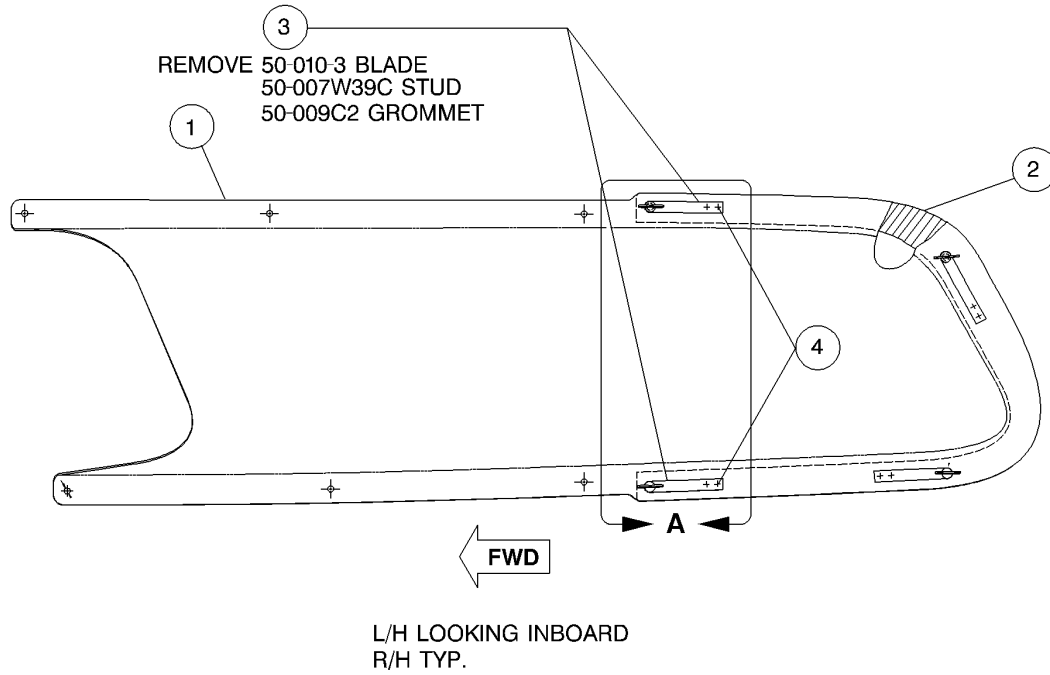
1. Engine door 407-064-806-101 L/H (Ref)  
Engine door 407-064-806-102 R/H (Ref)
2. Screw MS27039C1-08 (existing)  
Washer NAS1149E0332R (existing)  
Nut MS21043-3 (existing)
3. Doubler 407-564-003-115 (existing)
4. New doubler (locally fabricated) 
5. Nutplate (MS21060-3)   
Rivets 110-151-3
6. Wing stud 50-007W33C  
Washer 407-064-806-147   
Grommet 50-009C2
7. Rivets MS20426T4-5
8. Rivets MS20426T3-4
9. Ejector blade 50-010-3
10. Stud 50-007A33C
11. Grommet 50-009C2
12. Washer 140-009C16S48
13. Rivet MS20426T3-3
14. Stud 50-007A21C
15. Aft fairing modified per ASB 407-02-54 (Ref)
16. Aft fairing 407-064-315-101 (Ref)

NOTES:

-  Previously installed per ASB 407-02-54 on aircraft 53001 thru 53518.
-  Fabricate doubler from MIL-T-9046, 12 X 12 (titanium 0.025 IN. thick) sheet to dimension as shown in figure 2 detail B and install in sealant C-559.
-  If a standard nutplate has been installed, remove it and reinstall nutplate MS21062-3 to avoid interference with support 206-064-902-163/-165. As an alternate it is permissible to eliminate the nutplate and install screw MS27039C1-08, washer NAS1149E0332R and nut MS21043-3. Remaining hole to be filled with sealant C-559.
-  Bond washer 407-064-806-147 with adhesive C-559 on outboard side of door.

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**Figure 2. Engine door and aft fairing modification (sheet 5)**



MODIFICATION OF INLET DUCT - AIRCRAFT 53001 THRU 53579

T03511011

Figure 3. Modification of oil cooler inlet duct (sheet 1 of 2)

1. Existing duct assy 407-064-318-101 L/H  
407-064-318-103 R/H
2. Seal 407-064-318-115 (Ref)
3. Ejector blade (Ref)
4. Rivet (Ref)

NOTES:



Bond seal on duct using adhesive C-311.



Use sealant C-392. As an alternate use C-559.