

PRIMARY AND SECONDARY EXHAUST DUCT - MAINTENANCE PRACTICES

1. General

A. This section gives procedures for the removal, installation and inspection of the primary and secondary exhaust ducts.

2. Description and Operation

- A. The engine exhaust system has a primary exhaust duct and a secondary exhaust duct. These ducts let the hot exhaust gases flow from the gas generator section of the engine overboard and away from the airplane.
- (1) The primary duct attaches to the lower right front of the engine and lets the exhaust flow into the secondary exhaust duct. The fit between the primary exhaust duct and the secondary duct has a small clearance, but the two units are not physically attached together.
 - (a) The primary exhaust duct has a welded corrosion-resistant stainless steel assembly which is attached with the primary exhaust flange to the forward right side of the engine.
 - (2) For Airplane 208B2197 and Airplanes 208B5000 and On with the PT6A-140 engine installed, there is an upper panel attached to the engine flange and the oil cooler bracket. There are also oil cooler outer and forward/aft panel assemblies installed around the primary exhaust duct.
 - (3) The secondary exhaust duct goes through the lower right section of the cowling. It is attached to the cowling and lets the exhaust flow away from the airframe. An enclosure around the primary exhaust duct lets the cool air that went through the right nose cap and oil cooler flow into the secondary exhaust duct.
 - (a) On airplanes without a cargo pod, the secondary exhaust duct is a welded corrosion-resistant stainless steel assembly. A two hanger and bracket assembly attaches the aft portion of duct to the lower right cowling panel. The design of the duct lets the engine exhaust gases flow under the airplane.
 - (b) On airplanes with a cargo pod, with a partial TKS system or fairing TKS system installed, the secondary exhaust duct is a welded corrosion-resistant stainless steel assembly or an inconel assembly. Three hanger and bracket assemblies attach the aft portion of the duct to the lower right cowling panel. On Airplanes 208B0001 thru 208B00249 and Airplanes 20800106 thru 20800199 and Airplanes 20800001 thru 20800105 that include SK208-23 but do not include CAB90-27, two additional hanger and bracket assemblies attach the midportion of the duct to the lower right cowling panel. On Airplanes 20800001 thru 20800197 and Airplanes 208B0001 thru 208B0235 that include CAB90-27, the additional hanger and bracket assemblies are removed. On Airplanes 20800316 and On and Airplanes 208B0800 and On and Airplanes 20800001 thru 20800260 and Airplanes 208B0001 thru 208B0597 that include CAB00-8 and Airplanes 20800261 thru 20800315 and Airplanes 208B0598 thru 208B0799 that include CAB00-9, and airplanes with a partial TKS or fairing TKS system installed, there are three hanger assemblies with rod ends. The design of the duct lets the engine exhaust gases flow around the cargo pod.
 - (c) For Airplane 208B2197 and Airplanes 208B5000 and On with the PT6A-140 engine installed, an optional diffuser may be installed on the end of the secondary exhaust duct. It is designed to increase the exhaust exit area for increased airflow through the oil cooler. Refer to Chapter 79, Oil Cooler - Maintenance Practices.

3. Primary Exhaust Duct Removal/Installation

- A. Remove the Primary Exhaust Duct (Refer to Figure 201 and Figure 202).
- (1) Remove the lower right cowling panel. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.
 - (2) For Airplane 208B2197 and Airplanes 208B5000 and On do the steps that follow:
 - (a) Remove the oil cooler panels. Refer to Forward/Aft and Outer Panel Assemblies Removal/Installation.
 - (b) Remove the bolts that attach the upper panel to the engine flange.
 - (c) Remove the bolts that attach the upper panel to the top section of the oil cooler bracket.
 - 1 Remove the upper panel from the airplane.
 - (3) For Airplanes 20800001 and On and Airplanes 208B0001 thru 208B2196 and 208B2198 thru 208B4999 do the steps that follow:
 - (a) Disengage the quarter-turn fasteners that attach the oil cooler shroud to the engine.
 - 1 Remove the oil cooler shroud from the engine.
 - (4) Remove the bolts, washers, and nuts that attach the primary exhaust duct and primary exhaust flange to the engine.
 - (a) Remove the primary exhaust duct and primary exhaust flange from the engine.

- B. Install the Primary Exhaust Duct (Refer to Figure 201 and Figure 202).
- (1) Put the primary exhaust duct in position to the primary exhaust flange.
 - (2) Install the nuts, washers, and bolts that attach the primary exhaust duct and primary exhaust flange to the engine.
 - (3) For Airplane 208B2197 and Airplanes 208B5000 and On do the steps that follow:
 - (a) Put the upper panel in its correct position on the exhaust flange and oil cooler bracket.
 - 1 Install the bolts that attach the upper panel to the oil cooler bracket.
 - 2 Install the bolts that attach the upper panel to the engine flange.
 - (b) Install the oil cooler panels. Refer to Forward/Aft and Outer Panel Assemblies Removal/Installation.
 - (4) For Airplanes 20800001 and On and Airplanes 208B0001 thru 208B2196 and 208B2198 thru 208B4999 do the steps that follow:
 - (a) Put the oil cooler shroud in position to the engine.
 - (b) Engage the quarter-turn fasteners that attach the oil cooler shroud to the engine.
 - (5) Do a Primary and Secondary Exhaust Duct General Visual Inspection (Alignment Check). Refer to Primary and Secondary Exhaust Duct - Inspection/Check.
 - (6) Install the lower right cowling panel. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

4. Secondary Exhaust Duct Removal/Installation (Without Cargo Pod)

- A. Remove the Secondary Exhaust Duct (Refer to Figure 201).
- (1) Remove the lower right cowling panel. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

NOTE: The secondary exhaust duct is attached with bolts to the lower right cowling panel. These assemblies are removed as a single unit.

NOTE: Some airplanes without a cargo pod have a cargo pod type of secondary exhaust duct. This information is found in Secondary Exhaust Duct Removal and Installation (with Cargo Pod).
 - (2) Remove the three bolts, washers, and nuts that attach the oil breather hose attach neck to the secondary exhaust duct.
 - (3) Remove the bolts, washers, and nuts (if applicable) that attach the secondary exhaust duct bellmouth to the lower right cowling panel.
 - (4) Move the secondary exhaust duct forward until the hanger brackets are off of the aft hangers.
- B. Install the Secondary Exhaust Duct (Refer to Figure 201).
- (1) Attach the secondary exhaust duct bellmouth to the lower right cowling panel.
 - (a) Move the secondary exhaust duct aft through the lower right cowling panel.
 - (b) Align the hanger brackets with the aft hangers.
 - (c) Move the secondary exhaust duct aft until the hanger brackets are on the aft hangers.
 - (d) Install the nuts (if applicable), washers, and bolts that attach the secondary exhaust duct bellmouth to the lower right cowling panel.
 - (2) Install the three nuts, washers, and bolts that attach the oil breather hose attach neck to the secondary exhaust duct.
 - (3) Do a Primary and Secondary Exhaust Duct General Visual Inspection (Alignment Check). Refer to Primary and Secondary Exhaust Duct - Inspection/Check.
 - (4) Install the lower right cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

NOTE: When installing the hanger brackets, there must be at least 0.75 inch (19.05 mm) clearance between the rear edge of the hanger brackets and the bend radius of the aft hangers. The short leg of the hanger brackets needs to be facing aft towards the aft hangers.

5. Secondary Exhaust Duct Removal/Installation (With Twisted Exhaust Duct)

- A. Remove the Secondary Exhaust Duct (Refer to Figure 202).
- (1) Remove the lower right cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

NOTE: The secondary exhaust duct is attached with bolts to the lower right cowling panel. These assemblies are removed as a single unit.

NOTE: Some airplanes without a cargo pod have a cargo pod type of secondary exhaust duct.

NOTE: Some airplanes have a diffuser installed on the end of the secondary exhaust. It is not always necessary to remove the diffuser when removing the secondary exhaust.

- (2) If installed and/or necessary, remove the nine bolts, washers, and nuts that attach diffuser to the end of the secondary exhaust duct.
- (3) Remove the three bolts, washers, and nuts that attach the oil breather hose attach neck to the secondary exhaust duct.
- (4) Remove the bolts, washers, and nuts (if applicable) that attach the secondary exhaust duct bellmouth to the lower right cowling panel.
- (5) On Airplanes 20800006 thru 20800105 that do not include SK208-23, move the secondary exhaust duct forward out of the lower right cowling panel and off the aft hangers.
- (6) On Airplanes 20800106 thru 20800199 and Airplanes 208B0001 thru 208B0249 and Airplanes 20800001 thru 20800105 that include SK208-23 and do not include CAB90-27, move the secondary exhaust duct forward out of lower right cowling panel and off the mid support hangers and the aft hangers.
- (7) On Airplanes 20800316 and On and Airplanes 208B0800 and On and Airplanes 20800001 thru 20800260 and Airplanes 208B0001 thru 208B0597 that include CAB00-8 and Airplanes 20800261 thru 20800315 and Airplanes 208B0598 thru 208B0799 that include CAB00-9, and airplanes with a partial TKS or fairing TKS system installed, remove the secondary exhaust duct from the lower right cowling panel.
 - (a) Remove the bolt, washers, and nut that attach the inboard hanger assembly to the ejector duct bracket (inboard).
 - (b) Remove the bolt, washers, and nut that attach the outboard hanger assembly to the ejector duct bracket assembly (outboard).
 - (c) Remove the bolt, washers, and nut that attach the center hanger assembly to the ejector duct bracket assembly (outboard).
 - (d) Remove the bolts, washers, and nuts that attach the ejector duct bracket assembly (outboard) and ejector duct bracket (inboard) to the secondary exhaust duct.
 - (e) Move the secondary exhaust duct forward until it is away from the lower right cowling panel.

B. Install the Secondary Exhaust Duct (Refer to Figure 202).

- (1) On Airplanes 20800006 thru 20800105 that do not include SK208-23, attach the secondary exhaust duct bellmouth to the lower right cowling panel.
 - (a) Move the secondary exhaust duct aft through the lower right cowling panel.
 - (b) Align the hanger brackets with the aft hangers.
 - (c) Move the secondary exhaust duct aft until the hanger brackets are on the aft hangers.
 - (d) Install the nuts, washers, and bolts that attach the secondary exhaust duct bellmouth to the lower right cowling panel.
- (2) On Airplanes 20800106 thru 20800199 and Airplanes 208B0001 thru 208B0249 and Airplanes 20800001 thru 20800105 that include SK208-23 and do not include CAB90-27, attach the secondary exhaust duct bellmouth to the lower right cowling panel.
 - (a) Move the secondary exhaust duct aft through the lower right cowling panel.
 - (b) Align the hanger brackets with the mid support hangers and the aft hangers.
 - (c) Move the secondary exhaust duct aft until the hanger brackets are on the mid support hangers and the aft hangers.
 - (d) Install the nuts, washers, and bolts that attach the secondary exhaust duct bellmouth to the lower right cowling panel.
- (3) On Airplanes 20800316 and On and Airplanes 208B0800 and On and Airplanes 20800001 thru 20800260 and Airplanes 208B0001 thru 208B0597 that include CAB00-8 and Airplanes 20800261 thru 20800315 and Airplanes 208B0598 thru 208B0799 that include CAB00-9, and airplanes with a partial or fairing TKS system installed, attach the secondary exhaust duct bellmouth to the lower right cowling panel.
 - (a) Move the secondary exhaust duct aft through the lower right cowling panel.
 - (b) Install the nuts, washers, and bolts that attach the ejector duct bracket assembly (outboard) and ejector duct

bracket (inboard) to the secondary exhaust duct.

CAUTION: Make sure that the hanger assemblies are installed in the correct order. This will help prevent damage to the equipment.

- (c) Install the nut, washers, and bolt that attach the center hanger assembly to the ejector duct bracket assembly (outboard).
 - 1 Put the thin washer adjacent to the bolt head and the thick washer between the rod end and the bracket.
- (d) Install the nuts (if applicable), washers, and bolts that attach the bellmouth of the secondary exhaust duct to the lower right cowling panel.
- (e) Install the nut, washers, and bolt that attach the outboard hanger assembly to the ejector duct bracket assembly (outboard).
 - 1 Put the thin washer adjacent to the bolt head and the thick washer between the rod end and the bracket.
- (f) Install the nut, washers, and bolt that attach the inboard hanger assembly to the ejector duct bracket (inboard).
 - 1 Put the thin washer adjacent to the bolt head and the thick washer between the rod end and the bracket.
- (g) Make sure that the secondary exhaust duct is correctly adjusted to the lower right cowling panel.
 - 1 Make sure there is a clearance between the secondary exhaust duct and the skin and bulge area of the lower right cowling panel.
 - a If necessary, adjust the hanger assemblies.
 - 2 Make sure that the rod ends of the hanger assemblies do not rub or touch the brackets.
 - a If necessary, add a washer between the rod end and the bracket.
 - b If necessary, adjust the hanger assemblies.
 - 3 Make sure that you can move the hanger assemblies on the ball joints with your hand.

NOTE: This will make sure that the hanger assemblies are not loaded before the airplane is operated.

- a If necessary, adjust the hanger assemblies.
- (h) If it is necessary to adjust the hanger assemblies, do the steps that follow.

NOTE: The hanger assemblies come assembled at the correct initial lengths. The initial length for the center hanger is 1.86 inches, +0.11 or -0.11 inch. The initial length for the inboard hanger is 7.00 inches, +0.25 or -0.25 inch. The initial length for the outboard hanger is 3.11 inches, +0.25 or -0.25 inch.

CAUTION: Make sure that the center hanger assembly is adjusted first. Then adjust the inboard and outboard hanger assemblies. This will help prevent damage to the equipment.

- 1 If necessary, adjust the center hanger assembly.
 - a Loosen the jam nuts on the hanger assembly.
 - b Adjust the rod ends of the hanger assembly.
 - c Tighten the jam nuts on the hanger assembly.
- 2 If necessary, adjust the inboard hanger assembly.
 - a Loosen the jam nuts on the hanger assembly.
 - b Adjust the rod ends of the hanger assembly.
 - c Tighten the jam nuts on the hanger assembly.
- 3 If necessary, adjust the outboard hanger assemblies.
 - a Loosen the jam nuts on the hanger assembly.
 - b Adjust the rod ends of the hanger assembly.
 - c Tighten the jam nuts on the hanger assembly.

CAUTION: After the hanger assembly adjustments, make sure that a wire will not go through the rod end depth inspection holes of the hanger assemblies. This will make sure that the rod end has a sufficient number of threads in the hanger assembly.

- 4 Make sure that a wire will not go through the rod end depth inspection hole in the hanger assembly.

- a If a wire will go through the rod end depth inspection hole, adjust the hanger assemblies again.
- (4) Install the three nuts, washers, and bolts that attach the oil breather hose attach neck to the secondary exhaust duct.
- (5) If applicable, install the diffuser with the nine bolts, washers, and nuts to the end of secondary exhaust duct.
- (6) Install the lower right cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.
- (7) Close the upper right cowling door.
- (8) On Airplanes 20800316 and On and Airplanes 208B0800 and On and Airplanes 20800001 thru 20800260 and Airplanes 208B0001 thru 208B0597 that include CAB00-8 and Airplanes 20800261 thru 20800315 and Airplanes 208B0598 thru 208B0799 that include CAB00-9, and airplanes with a partial TKS or fairing TKS system installed, make sure that the secondary exhaust duct is correctly adjusted to the lower right cowling panel.

- (a) Make sure there is a clearance between the secondary exhaust duct and the skin and bulge area of the lower right cowling panel.

- 1 If necessary, adjust the hanger assemblies.

- (b) Make sure that the rod ends of the hanger assemblies do not rub or touch the brackets.

- 1 If necessary, add a washer between the rod end and the bracket.

- 2 If necessary, adjust the hanger assemblies.

- (c) Make sure that you can move the hanger assemblies on the ball joints with your hand.

NOTE: This will make sure that the hanger assemblies are not loaded before the airplane is operated.

- 1 If necessary, adjust the hanger assemblies.

- (d) If it is necessary to adjust the hanger assemblies, do the steps that follow.

CAUTION: Make sure that the center hanger assembly is adjusted first. Then adjust the inboard and outboard hanger assemblies. This will help prevent damage to the equipment.

- 1 If necessary, adjust the center hanger assembly.

- a Loosen the jam nuts on the hanger assembly.

- b Adjust the rod ends of the hanger assembly.

- c Tighten the jam nuts on the hanger assembly.

- 2 If necessary, adjust the inboard hanger assembly.

- a Loosen the jam nuts on the hanger assembly.

- b Adjust the rod ends of the hanger assembly.

- c Tighten the jam nuts on the hanger assembly.

- 3 If necessary, adjust the outboard hanger assemblies.

- a Loosen the jam nuts on the hanger assembly.

- b Adjust the rod ends of the hanger assembly.

- c Tighten the jam nuts on the hanger assembly.

CAUTION: After the hanger assembly adjustments, make sure that a wire will not go through the rod end depth inspection holes of the hanger assemblies. This will make sure that the rod end has a sufficient number of threads in the hanger assembly.

- 4 Make sure that a wire will not go through the rod end depth inspection hole in the hanger assembly.

- a If a wire will go through the rod end depth inspection hole, adjust the hanger assemblies again.

6. Primary Exhaust Duct Inspection

- A. Inspection of Primary Exhaust Duct.

NOTE: Since exhaust systems are subject to high thermal stresses and vibration, inspection is very important for early detection of damaged components.

- (1) Remove primary exhaust duct.

WARNING: Never use highly flammable solvents on engine exhaust system. Never use wire brushes to clean exhaust system components or mark on them with lead pencils.

- (2) Check areas adjacent to welds and seams for evidence of cracks. Discoloration or deposits are evidence of leaks.
- (3) Weld discontinuities or crack immediately adjacent to welds or seams may be rewelded if they do not exceed four inches in length. Cracks in areas not adjacent to welds or seams are not repairable and part is to be replaced.

7. Secondary Exhaust Duct Inspection

A. Inspection of Secondary Exhaust Duct.

- (1) Remove secondary exhaust duct.

WARNING: Never use highly flammable solvents on engine exhaust system. Never use wire brushes to clean exhaust system components or mark on them with lead pencils.

- (2) Check areas adjacent to welds and seams for evidence of cracks. Discoloration or deposits are evidence of leaks.
- (3) Weld discontinuities or cracks immediately adjacent to welds, seams, or areas not adjacent to any welds or seams may be welded or rewelded if they do not exceed four inches in length. Cracks longer than four inches in length are not repairable and part is to be replaced.

8. Field Installation of New Secondary Exhaust Duct

A. Installation of the Secondary Exhaust Duct (Refer to Figure 202).

- (1) Move the new secondary exhaust duct aft through the lower right cowling panel.
- (2) Make sure that the bellmouth area of the secondary exhaust duct is flush with the forward edge of the lower right cowling panel skin.
- (3) Align the oil breather hose attach neck holes.
- (4) Attach the top part of the secondary exhaust duct bellmouth to the top part of the cowling shroud with clamps.

NOTE: The clamps are used to keep the secondary exhaust duct aligned with the lower right cowling panel.

- (5) Install the nuts, washers, and bolts that attach the ejector duct bracket assembly (outboard) and ejector duct bracket (inboard) to the secondary exhaust duct.
- (6) Adjust the hanger assemblies.

NOTE: The hanger assemblies come assembled at the correct initial lengths. The initial length for the center hanger is 1.86 inches, +0.11 or -0.11 inch. The initial length for the inboard hanger is 7.00 inches, +0.25 or -0.25 inch. The initial length for the outboard hanger is 3.11 inches, +0.25 or -0.25 inch.

- (a) If necessary, adjust the center hanger assembly to 1.86 inches, +0.11 or -0.11 inch.
 - 1 Loosen the jam nuts on the hanger assembly.
 - 2 Adjust the rod ends of the hanger assembly.
 - 3 Tighten the jam nuts on the hanger assembly.
- (b) If necessary, adjust the inboard hanger assembly to 7.00 inches, +0.25 or -0.25 inch.
 - 1 Loosen the jam nuts on the hanger assembly.
 - 2 Adjust the rod ends of the hanger assembly.
 - 3 Tighten the jam nuts on the hanger assembly.
- (c) If necessary, adjust the outboard hanger assemblies to 3.11 inches, +0.25 or -0.25 inch.
 - 1 Loosen the jam nuts on the hanger assembly.
 - 2 Adjust the rod ends of the hanger assembly.
 - 3 Tighten the jam nuts on the hanger assembly.

- (7) Install the hanger assemblies.

CAUTION: Make sure that the hanger assemblies are installed in the correct order. This will help prevent damage to the equipment.

- (a) Install the nut, washers, and bolt that attach the center hanger assembly to the ejector duct bracket assembly (outboard).
 - 1 Put the thin washer adjacent to the bolt head and the thick washer between the rod end and the bracket.
- (b) Install the nut, washers, and bolt that attach the outboard hanger assembly to the ejector duct bracket assembly

(outboard).

1 Put the thin washer adjacent to the bolt head and the thick washer between the rod end and the bracket.

(c) Install nut, washers, and bolt that attach the inboard hanger assembly to the ejector duct bracket (inboard).

1 Put the thin washer adjacent to the bolt head and the thick washer between the rod end and the bracket.

(8) Temporarily install the lower right cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

(9) Close the upper right cowling door.

CAUTION: Make sure that there is a clearance and correct fit between the secondary exhaust duct and the skin and bulge area of the lower right cowling panel. This will help prevent damage to the equipment.

(10) Make sure that the secondary exhaust duct is correctly adjusted to the lower right cowling.

(a) Make sure there is a clearance between the secondary exhaust duct and the skin and bulge area of the lower right cowling panel.

1 If necessary, adjust the hanger assemblies.

(b) Make sure that the rod ends of the hanger assemblies do not rub or touch the brackets.

1 If necessary, add a washer between the rod end and the bracket.

2 If necessary, adjust the hanger assemblies.

(c) Make sure that you can move the hanger assemblies on the ball joints with your hand.

NOTE: This will make sure that the hanger assemblies are not loaded before the airplane is operated.

1 If necessary, adjust the hanger assemblies.

(d) If it is necessary to adjust the hanger assemblies, do the steps that follow.

CAUTION: Make sure that the center hanger assembly is adjusted first. Then adjust the inboard and outboard hanger assemblies. This will help prevent damage to the equipment.

1 If necessary, adjust the center hanger assembly.

a Loosen the jam nuts on the hanger assembly.

b Adjust the rod ends of the hanger assembly.

c Tighten the jam nuts on the hanger assembly.

2 If necessary, adjust the inboard hanger assembly.

a Loosen the jam nuts on the hanger assembly.

b Adjust the rod ends of the hanger assembly.

c Tighten the jam nuts on the hanger assembly.

3 If necessary, adjust the outboard hanger assemblies.

a Loosen the jam nuts on the hanger assembly.

b Adjust the rod ends of the hanger assembly.

c Tighten the jam nuts on the hanger assembly.

CAUTION: After the hanger assembly adjustments, make sure that a wire will not go through the rod end depth inspection holes of the hanger assemblies. This will make sure that the rod end has a sufficient number of threads in the hanger assembly.

4 Make sure that a wire will not go through the rod end depth inspection hole in the hanger assembly.

a If a wire will go through the rod end depth inspection hole, adjust the hanger assemblies again.

(e) If you can not get a clearance between the secondary exhaust duct and the skin and bulge area of the lower right cowling panel, refer to SK208-141 for modification procedures.

(11) Remove the lower right cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

(12) Match drill the holes at the top of the cowling shroud to the bellmouth of the secondary exhaust duct.

(13) Install the nuts, washers, and bolts that attach the top part of the secondary exhaust duct bellmouth to the cowling

shroud.

- (14) Remove the clamps from the top part of the secondary exhaust duct bellmouth.
- (15) Make sure that the secondary exhaust duct is aligned with the lower right cowling panel.
- (16) Match drill the holes at the bottom of the cowling shroud to the bellmouth of the secondary exhaust duct.
- (17) Install the nuts, washers, and bolts that attach the bottom part of the secondary exhaust duct bellmouth to the cowling shroud.
- (18) Install the three nuts, washers, and bolts that attach the oil breather hose attach neck to the secondary exhaust duct.
- (19) Install the lower right cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.
- (20) Close the upper right cowling door.
- (21) Make sure that the secondary exhaust duct is correctly adjusted to the lower right cowling panel.

- (a) Make sure there is a clearance between the secondary exhaust duct and the skin and bulge area of the lower right cowling panel.

- 1 If necessary, adjust the hanger assemblies.

- (b) Make sure that the rod ends of the hanger assemblies do not rub or touch the brackets.

- 1 If necessary, add a washer between the rod end and the bracket.

- 2 If necessary, adjust the hanger assemblies.

- (c) Make sure that you can move the hanger assemblies on the ball joints with your hand.

NOTE: This will make sure that the hanger assemblies are not loaded before the airplane is operated.

- 1 If necessary, adjust the hanger assemblies.

- (d) If it is necessary to adjust the hanger assemblies, do the steps that follow.

CAUTION: Make sure that the center hanger assembly is adjusted first. Then adjust the inboard and outboard hanger assemblies. This will help prevent damage to the equipment.

- 1 If necessary, adjust the center hanger assembly.

- a Loosen the jam nuts on the hanger assembly.

- b Adjust the rod ends of the hanger assembly.

- c Tighten the jam nuts on the hanger assembly.

- 2 If necessary, adjust the inboard hanger assembly.

- a Loosen the jam nuts on the hanger assembly.

- b Adjust the rod ends of the hanger assembly.

- c Tighten the jam nuts on the hanger assembly.

- 3 If necessary, adjust the outboard hanger assemblies.

- a Loosen the jam nuts on the hanger assembly.

- b Adjust the rod ends of the hanger assembly.

- c Tighten the jam nuts on the hanger assembly.

CAUTION: After the hanger assembly adjustments, make sure that a wire will not go through the rod end depth inspection holes of the hanger assemblies. This will make sure that the rod end has a sufficient number of threads in the hanger assembly.

- 4 Make sure that a wire will not go through the rod end depth inspection hole in the hanger assembly.

- a If a wire will go through the rod end depth inspection hole, adjust the hanger assemblies again.

Figure 201 : Sheet 1 : Engine Exhaust System Installation (Without Cargo Pod)

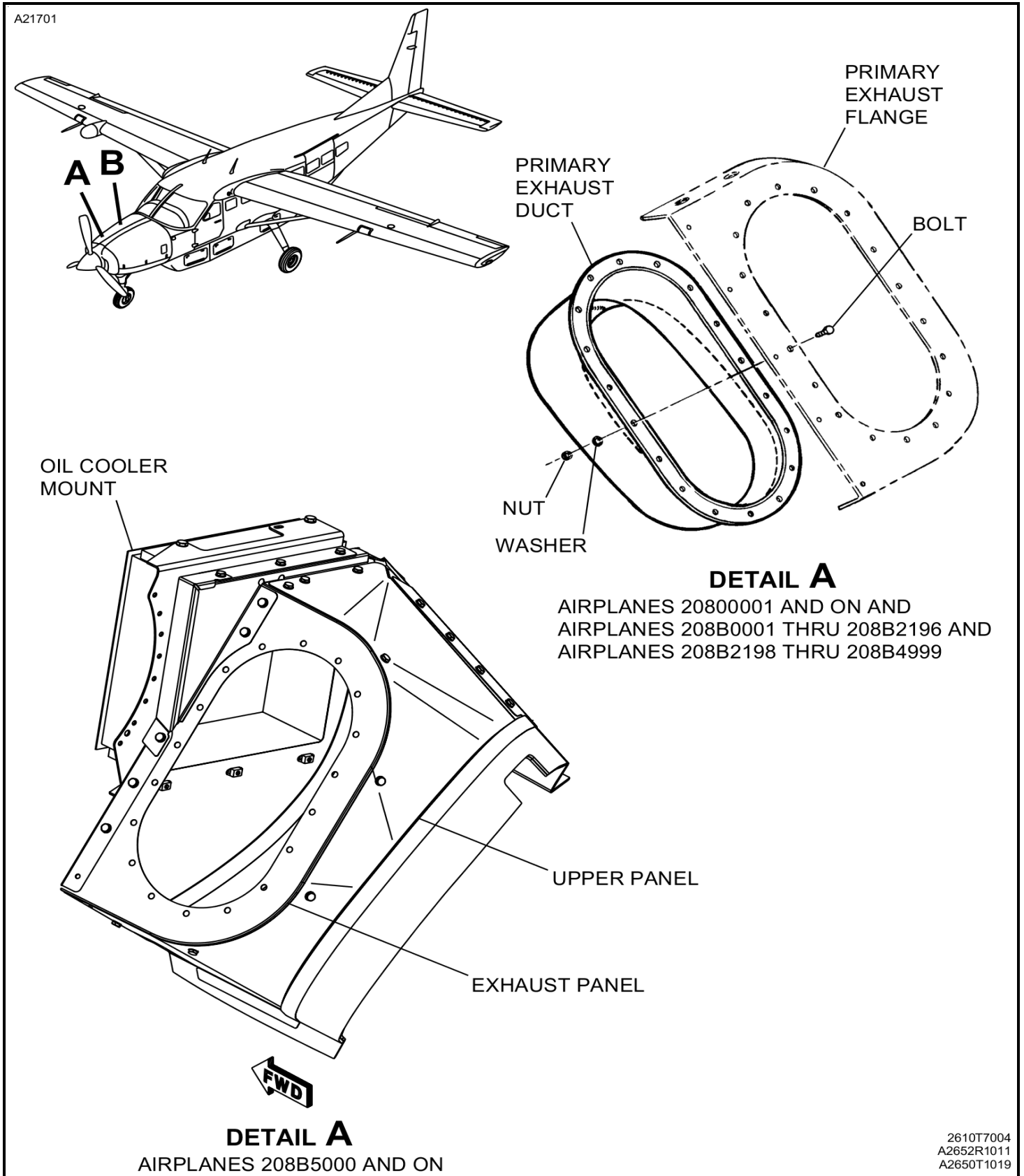


Figure 201 : Sheet 2 : Engine Exhaust System Installation (Without Cargo Pod)

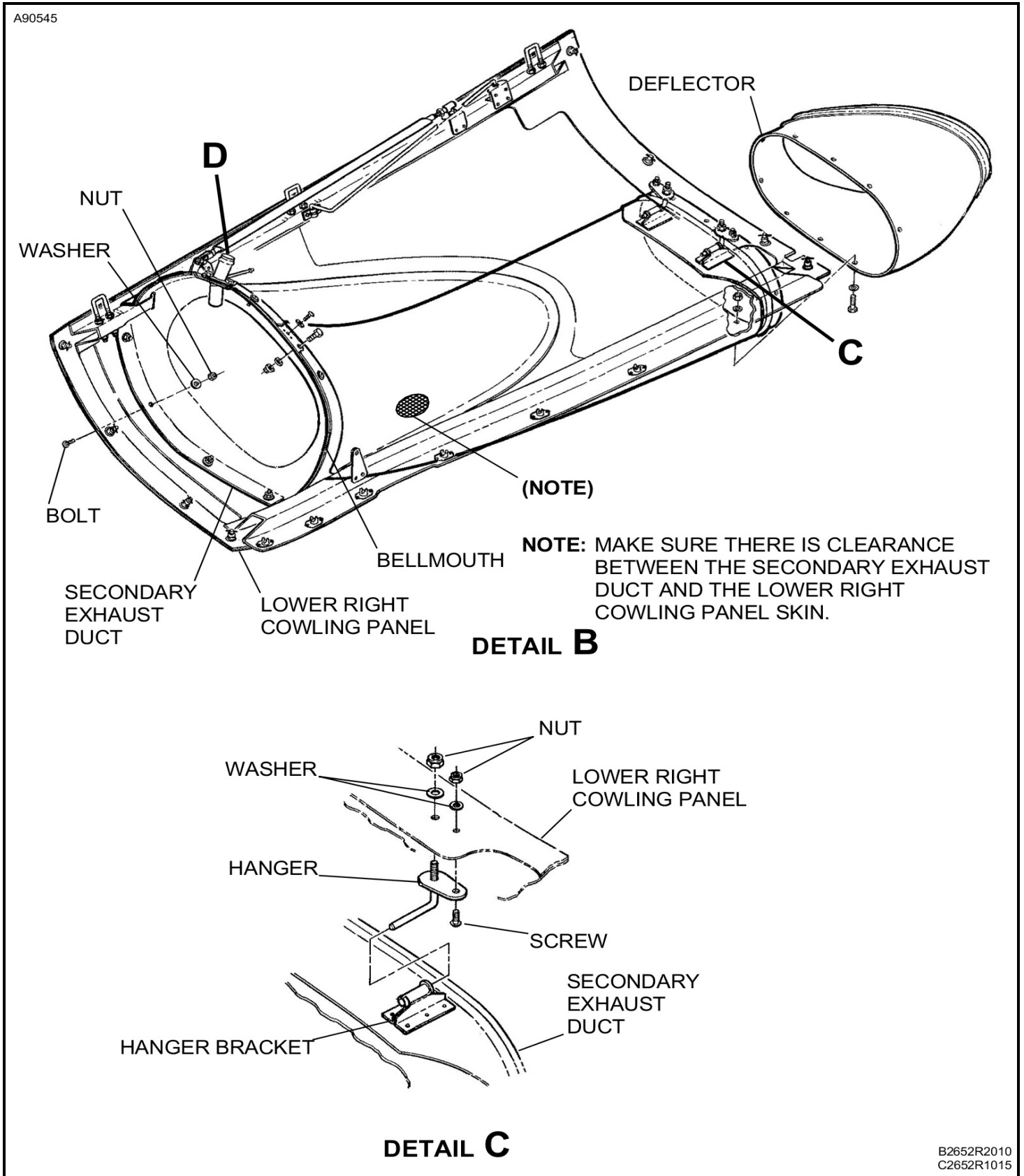
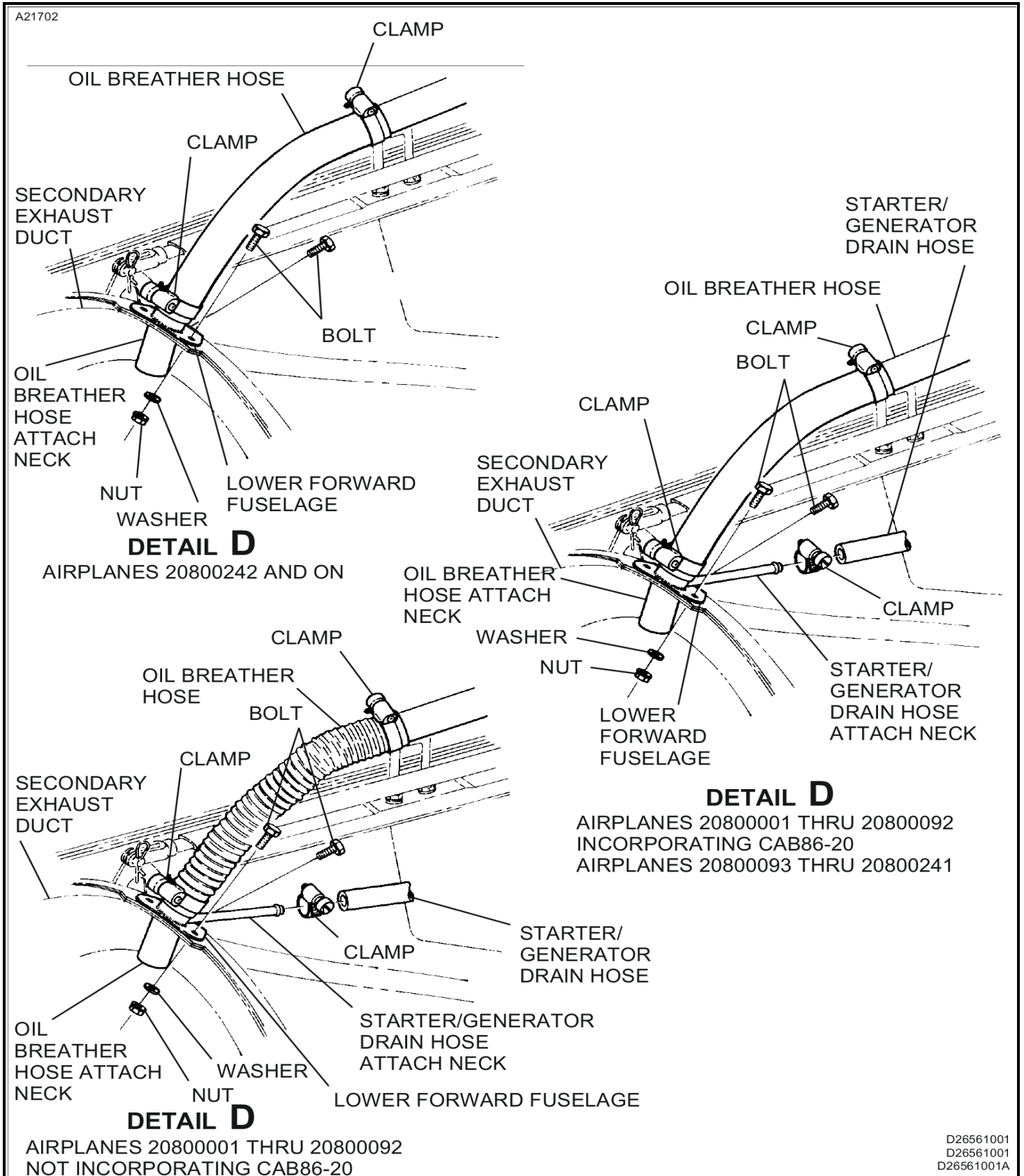
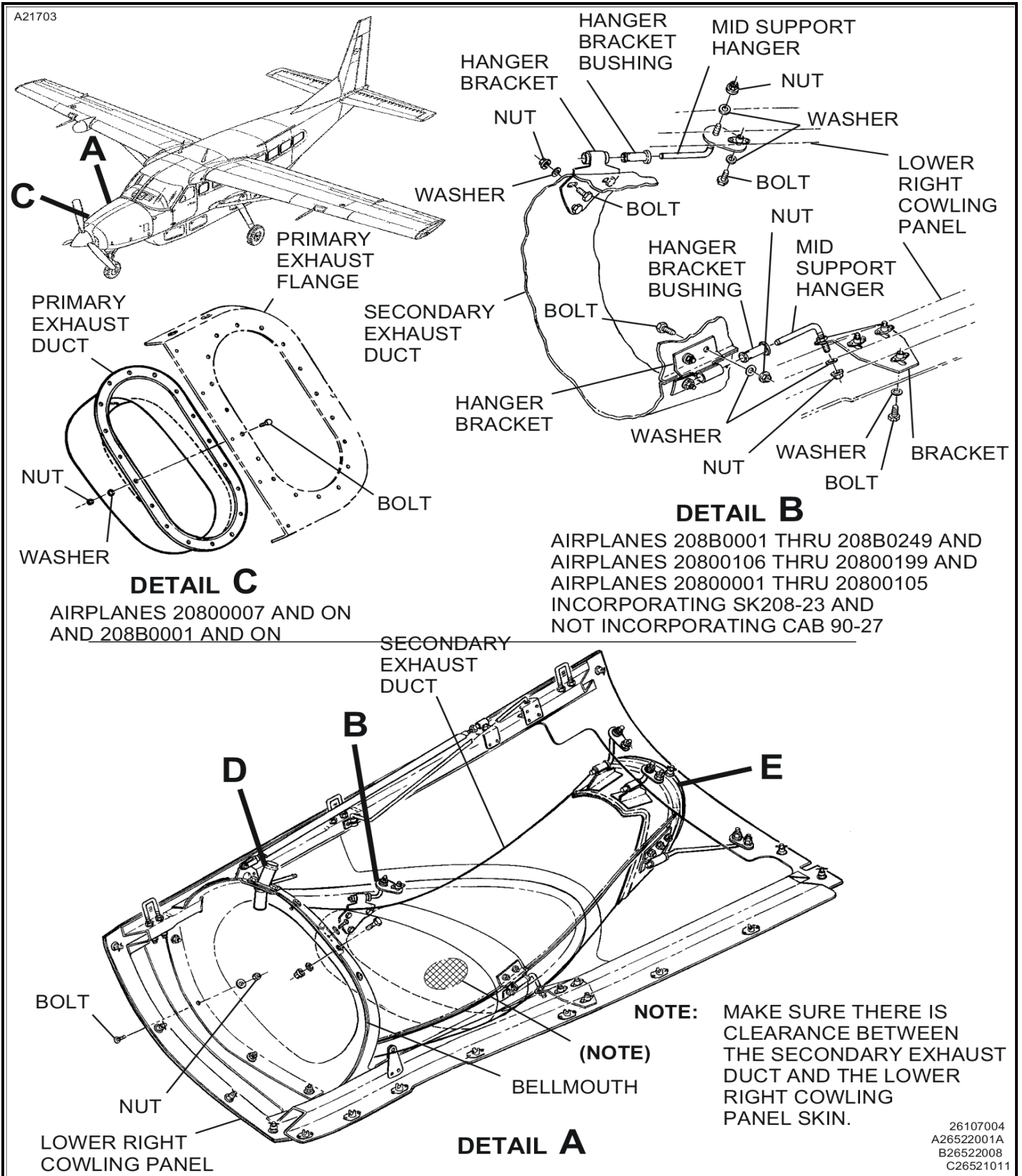


Figure 201 : Sheet 3 : Engine Exhaust System Installation (Without Cargo Pod)



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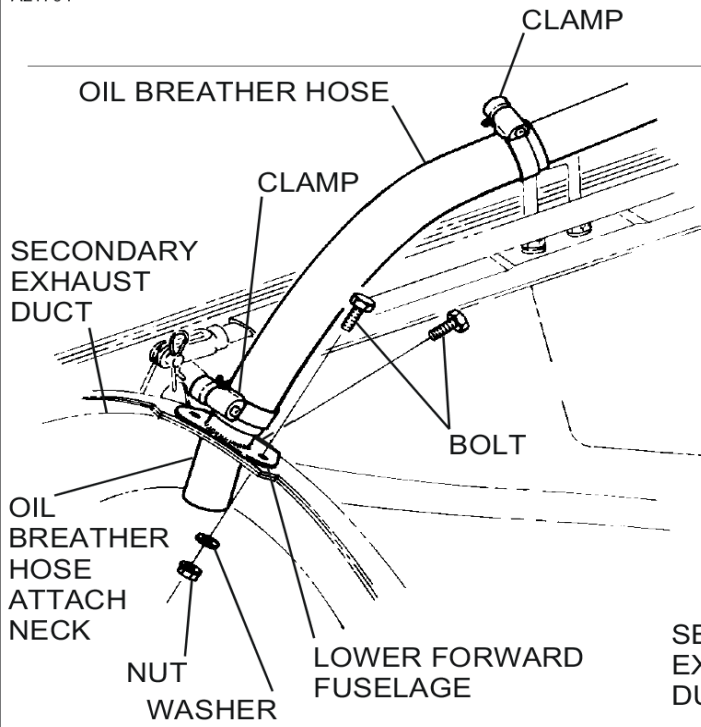
Figure 202 : Sheet 1 : Engine Exhaust System Installation (With Twisted Exhaust Duct)



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B26522008
C26521011

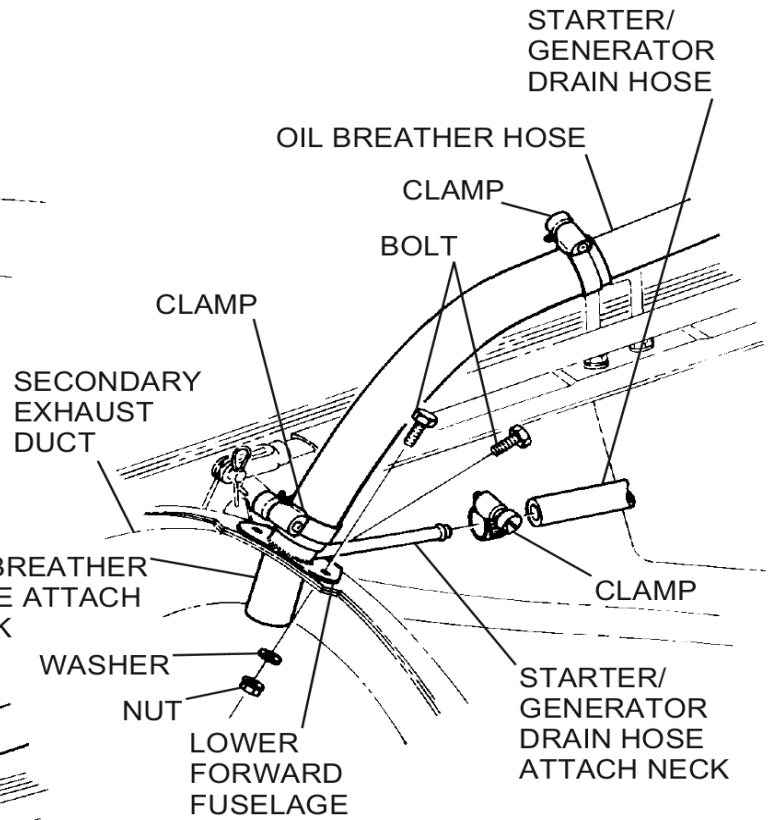
Figure 202 : Sheet 2 : Engine Exhaust System Installation (With Twisted Exhaust Duct)

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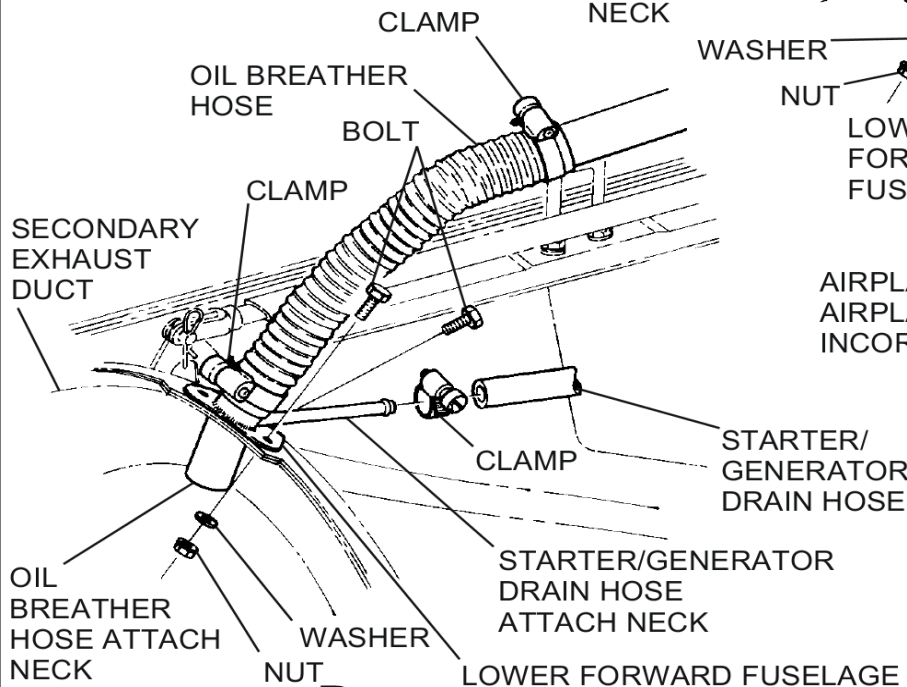
DETAIL D

AIRPLANES 20800242 AND ON



DETAIL D

AIRPLANES 20800093 THRU 20800241 AND
AIRPLANES 20800001 THRU 20800092
INCORPORATING CAB86-20



DETAIL D

AIRPLANES 20800001 THRU 20800092
NOT INCORPORATING CAB86-20

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Figure 202 : Sheet 3 : Engine Exhaust System Installation (With Twisted Exhaust Duct)

